DB2 Universal Database

Tietoja versiosta

Versio 8

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Versio 8

Sisältö

Tietoja tästä julkaisusta

Sisältö:

Tässä julkaisussa on seuraavia DB2-ohjelmiston version 8 tuotteita koskevat uusimmat tiedot:

```
DB2 Universal Database Personal Edition
DB2 Universal Database Workgroup Server Edition
DB2 Universal Database Workgroup Server Unlimited Edition
DB2 Universal Database Enterprise Server Edition
DB2 Personal Developer's Edition
DB2 Universal Developer's Edition
DB2 Warehouse Manager
DB2 Warehouse Manager Sourcing Agent for z/OS™
DB2 Data Links Manager
DB2 Net Search Extender
DB2 Spatial Extender
DB2 Intelligent Miner Scoring
DB2 Intelligent Miner Modeling
DB2 Intelligent Miner Visualization
DB2 Connect Application Server Edition
DB2 Connect Enterprise Edition
DB2 Connect Personal Edition
DB2 Connect Unlimited Edition.
```

Julkaisun rakenne:

Julkaisu on jaettu kahteen osaan.

Ensimmäinen osa sisältää tietoja edellä lueteltujen tuotteiden uusimpaan versioon liittyvistä ongelmista, rajoituksista ja ratkaisuista, jotka ovat olleet tiedossa julkaisuajankohtana. Tämän osan avulla voit tutustua tunnettuihin ongelmiin ja niiden ratkaisuihin. Toinen osa sisältää ohjelman graafisen käyttöliittymän työkaluohjeisiin tehtyjä korjauksia ja päivityksiä.

Tuoreimmat julkaisut ovat saatavissa selaimella DB2 Opastuksesta, kun julkaisujen uusimmat korjauspaketit on asennettu. Muutosmerkki osoittaa, että tekstiä on lisätty tai sitä on muutettu version 8.1 alkuperäisten PDF-muotoisten tietojen julkaisun jälkeen. Pystysuora palkki (|) ilmaisee, että version 8.1 ensimmäisen laitoksen julkaisun yhteydessä on lisätty tietoja. Numero, esimerkiksi 1 tai 2, osoittaa, että tämännumeroiseen korjauspakettiin on lisätty tietoja.

Näiden tietojen julkaisun aikoihin PDF-muotoinen *Data Links Manager Administration Guide and Reference* -julkaisu (julkaisun numero SC27-1221-01) on päivitetty, ja se on noudettavissa DB2-tukisivustosta.

UNIX-perustaisissa järjestelmissä toimiviin Enterprise Server Edition (ESE) -ohjelmistoihin useita korjauspaketteja:

UNIX-perustaisissa järjestelmissä toimiva DB2 Enterprise Server Edition (ESE) -ohjelmiston versio 8 tukee nyt useita samanaikaisia korjauspakettitasoja Alternate FixPaks -toiminnon avulla.

DB2-ohjelmiston versiota 8 aiemmissa versioissa korjauspaketit olivat vain asennetun ohjelmistopaketin tai tiedostojoukon päivityksiä. Tämä tarkoitti, että käyttöjärjestelmän asennusohjelma korvasi aiemmat tiedostot päivitetyillä korjauspaketeille. DB2 ESE -ohjelmiston version 8.1 koodi ja DB2 ESE -ohjelmiston version 8.1 FixPak 1 -korjauspaketin koodi voidaan nyt asentaa yhtäaikaa. Tämä johtuu siitä, että UNIX-perustaisissa käyttöjärjestelmissä on nyt kaksi korjauspakettia DB2 ESE -ohjelmistoa varten. Ensimmäinen on *Regular FixPak* -korjauspaketti, joka asennetaan suoraan joko hakemistossa `/usr/opt/db2_08_01` tai `/opt/IBM/db2/V8.1` olevan aiemman asennuksen päälle. Toinen on *Alternate FixPak* -korjauspaketti, joka asentaa toiseen hakemistoon täysin uuden DB2-ohjelmiston kopion, jossa korjauspaketit on jo otettu käyttöön. Alternate FixPaks -korjauspaketit on tarkoitettu käytettäväksi korjauspakettien testaukseen tuotantojärjestelmän rinnalla, ei käytettäväksi itse tuotantojärjestelmässä.

Huomautuksia:

1. Tässä julkaisussa käytetään asennuspolkuna oletuspolkua, vaikka ohjelma on saatettu asentaa toiseen hakemistoon.
2. Useiden rinnakkaisten korjauspakettien asennus *ei* ole pakollista, jos et pidä sitä tarpeellisena ympäristössäsi.
3. Tällä hetkellä ei ole suunnitteilla tukea Regular FixPak- ja Alternate FixPak -vaihtoehtojen samanaikaiselle käytölle. Sen vuoksi Alternate FixPak -vaihtoehto on tarkoitettu käytettäväksi vain tuotantoympäristön rinnalla, ei ensisijaisessa tuotantoympäristössä.

Lisätietoja Alternate FixPak -korjauspakettien noudosta saat osoitteesta http://www.ibm.com/software/data/db2/udb/winos2unix/support.

Muut tietolähteet:

DB2 Life Sciences Data Connect -tuotteen julkaisut ovat noudettavissa WWW-osoitteesta http://www.ibm.com/software/data/db2/lifesciencesdataconnect/library.html.

Uusimmat tiedot DB2-tuoteperheestä on saatavissa ilmaisesta *DB2 Magazine* -lehdestä. Lehden verkkoversio on osoitteessa http://www.db2mag.com. Tässä sivustossa on myös tilausohjeet.

Known limitations, problems, and workarounds

The following are the currently known limitations problems and workarounds for DB2® Universal Database Version 8.1 FixPak 1. The information in this section applies only to the version 8.1 FixPak 1 release of DB2 Universal Database, and its supporting products. Any limitations and restrictions might or might not not apply to other releases of the product.

Product and product-level support

Alternate FixPaks

There is currently no plan to support the application of a regular FixPak on top of an Alternate FixPak. Therefore, the Alternate FixPak is only intended for use as a test system.

Back-level DB2 server support

If you migrate your DB2 client systems to version 8 before you have migrated all of your DB2 servers to version 8, several restrictions and limitations apply.

For version 8 clients to work with version 7 servers, you need to configure and enable the use of DRDA® application server capability on the version 7 server. For information on how to do this, refer to the version 7 *Installation and Configuration Supplement*. You cannot access a DB2 Connect™ Version 7 server from a DB2 Version 8 client.

When accessing version 7 servers from version 8 clients, there is no support available for the following:

- The following data types:
  - Large object (LOB) data types
  - User-defined distinct types
  - DATALINK data types

    The DATALINK data type allows for the management of external data found in nonrelational storage. The DATALINK data type references files that physically reside on file systems external to DB2 Universal Database.

- The following security capabilities:
  - Authentication type SERVER_ENCRYPT

    SERVER_ENCRYPT is a method to encrypt a password. The encrypted password is used with the user ID to authenticate the user.

  - Changing passwords

You are not able to change passwords on the version 7 server from a version 8 client.

- The following connections and communication protocols:
  - Instance requests that require an ATTACH instead of a connection

    ATTACH is not supported from a version 8 client to a version 7 server.
  - Network protocols other than TCP/IP.

    (SNA, NetBIOS, IPX/SPX, and others)
- The following application features and tasks:
  - The DESCRIBE INPUT statement for all applications except ODBC/JDBC

    In order to support version 8 clients running ODBC/JDBC applications that access version 7 servers, a fix for DESCRIBE INPUT support must be applied to all version 7 servers where this type of access is required. This fix is associated with APAR IY30655. Use the "Contacting IBM®" information in any DB2 documentation set (PDF or HTML) to find out how to get the fix associated with APAR IY30655.

    The DESCRIBE INPUT statement is a performance and usability enhancement that allows an application requestor to obtain a description of input parameter markers in a prepared statement. For a CALL statement, this includes the parameter markers associated with the IN and INOUT parameters for the stored procedure.
  - Two-phase commit

    The version 7 server cannot be used as a transaction manager database when using coordinated transactions that involve version 8 clients, nor can a version 7 server participate in a coordinated transaction where a version 8 server may be the transaction manager database.
  - XA-compliant transaction managers

    An application using a version 8 client cannot use a version 7 server as an XA resource. This includes WebSphere, Microsoft® COM+/MTS, BEA WebLogic, and others that are part of a transaction management arrangement.
  - Monitoring
  - Utilities that can be initiated by a client to a server
  - SQL statements greater than 32 KB in size

There are similar limitations and restrictions for version 8 tools working with version 7 servers.

The following version 8 GUI tools, products, and Centers support only version 8 servers:

- Control Center
1 - Development Center

- Health Center (including the Web version of this center)
- Indoubt Transaction Manager
- Information Catalog Center (including the Web version of this center)
- Journal
- License Center
- Satellite Administration Center
- Spatial Extender
- Task Center
- Tools Settings

The following version 8 tools support version 7 servers (with some restrictions):

- Command Center (including the Web version of this center)

  Saving, importing, and scheduling of scripts are not supported by the Command Center.
- Data Warehouse Center
- Replication Center
- The import/export configuration file function of the Configuration Assistant
- SQL Assist
- Visual Explain

In general, any version 8 tool that is only launched from within the navigation tree of the Control Center, or any details view based on such a tool, will not be available or accessible to version 7 and earlier servers. You should consider using the version 7 tools when working with version 7 or earlier servers.

DB2 Universal Database version 7 server access

To access a DB2 Universal Database™ Version 7 server on a Linux, UNIX, or Windows® operating system from a version 8 client, you must have version 7 FixPak 8 or later installed on your server and have run the **db2updv7** command. For instructions on installing the version 7 FixPaks, refer to the version 7 FixPak Readme and Release Notes.

You cannot access a DB2 Connect Version 7 server from a DB2 Version 8 client

Classic Connect unavailable

The Classic Connect product is *not* available. Although you may find references to the Classic Connect product in the Data Warehouse documentation and elsewhere, these should be ignored, as they are no longer applicable.

Data Warehouse Center not available in Simplified Chinese

The Data Warehouse Center is not available in Simplified Chinese.

Data Warehouse Center down-level server support restrictions

The following limitations exist for down-level server support for DB2 Enterprise Server Edition Version 8 Data Warehouse Center:

Large Object (LOB) support

- If you are using a warehouse control database on a server that is older than DB2 Enterprise Server Edition Version 8 you will not be able to work with LOBs. You must upgrade the warehouse control database to the correct level, or move the control database to the system where the DB2 Enterprise Server Edition Version 8 warehouse server is installed and use it locally from that system.

- If you want to move LOBs back and forth between the Data Warehouse Center and DB2, you must upgrade to DB2 Enterprise Server Edition Version 8.

SNA support

If you use SNA to connect to your warehouse sources and targets, you must change the configuration to be TCP/IP over SNA, or use the Windows NT® warehouse agent.

Support for EXPORT and LOAD utilities

When you upgrade your warehouse agent, you must also upgrade your source target databases, or replace the EXPORT and LOAD utilities in your warehouse processes with SQL Select and Insert steps. SQL Select and Insert steps use a DELETE* command followed by SELECT and INSERT commands. SQL Select and Insert steps require the database to log all transactions. As a result, the performance for SQL Select and Insert steps is not as efficient as it is for EXPORT and LOAD utilities.

DB2 administration server (DAS)

On AIX® 5L, HP-UX and the Solaris Operating Environment, if the tools catalog database is created in a 64-bit instance, DAS migration (dasmigr) and back-level Script Center and Journal are not supported.

DB2 license policy for DB2 Workgroup Server Edition

Although the *DB2 Quick Beginnings for Servers* book and the online tools help for the License Center indicate otherwise, the Internet license policy is *not* valid for DB2 Universal Database Workgroup Server Edition. If you need a license for Internet users, you must purchase DB2 Universal Database Unlimited Workgroup Server Edition.

DB2 Web Tools

The application servers supported by DB2 Web Tools for the following languages are required to be compliant with the Servlet 2.3 specification:

- Japanese
- Korean

- Simplified Chinese
- Traditional Chinese
- Russian
- Polish

DB2 Warehouse Manager not available in Simplified Chinese

The DB2 Warehouse Manager is unavailable in Simplified Chinese. Therefore, the following dependent DB2 components are also unavailable in this environment:

- The Information Catalog Center, which is dependent on the Manage Information Catalog wizard component of DB2 Warehouse Manager.
- The DB2 Warehouse Manager Connector for the Web and the DB2 Warehouse Manager Connector for SAP, which are dependent on the installation of the DB2 Warehouse Manager.

Development Center limitations for 64–bit operating systems

The Development Center does not run if it is installed on a 64–bit operating system. In addition, you cannot connect to or deploy routines on a 64–bit operating system.

Development Center on the Intel 32–bit Linux operating system

You cannot use the Development Center to debug Java™ stored procedures running on the Intel 32–bit Linux operating system.

Development Center large object (LOB) support (z/OS, OS/390)

The Development Center does not support large object data types (LOBs) on DB2 Version 6 for the z/OS™ or OS/390® operating systems. However, the Development Center does support LOBs on these systems for DB2 version 7 with APAR PQ46957 applied.

Development Center supports the Windows 98 operating system

The Development Center is supported on the Windows 98 operating system.

Development Center now supports Actual Cost information for SQL statements run on OS/390 or z/OS servers

The DB2 Development Center now provides Actual Cost information for SQL statements run on DB2 Version 6 and Version 7 OS/390 and z/OS servers. The following Actual Cost information is provided:

- CPU time
- CPU time in external format
- CPU time as an integer in hundredths of a second
- Latch/lock contention wait time in external format
- Number of getpages in integer format
- Number of read i/o in integer format

1	• Number of write i/o in integer format
1	This functionality also allows you to view multiple sets of Actual Cost results
1	for a single SQL statement with different host variable values.
1	Actual Cost information is available in the Development Center from the
1	Create SQL Stored Procedure and Create Java Stored Procedure wizards, wit-
1	hin the SQL Statement window for OS/390 and z/OS connections. To use the
1	Actual Cost functionality , click the **Actual Cost** button in the OS/390 and
1	z/OS connection window in either of the Stored Procedure wizards. You must
1	have the Stored Procedure Monitor Program (DSNWSPM) installed on your
1	DB2 OS/390 server to use Actual Cost functionality.

Federated systems restrictions

Migrating federated systems from DB2 for UNIX and Windows Version 7 and DataJoiner:

IBM is restructuring and enhancing its offerings to focus on information integration. These activities will include introducing new functionality that replaces and extends federated functionality previously available with DB2 Relational Connect and DB2 Life Sciences Data Connect. Details will be announced later.

- Customers using DataJoiner® Version 2.1.1 will not be able to upgrade to DB2 Universal Database Version 8.1 until this new functionality is available.

1   • Customers using DB2 Universal Database Version 7 to access *only* the DB2 family of products and Informix® can upgrade from Version 7 to Version 8.1. If you are using DB2 Universal Database Version 7 to access any other data sources, it is recommended that you upgrade when the new information integration functionality is available. If you decide to upgrade to DB2 Universal Database Version 8.1, you will be able to access only DB2 family of products and Informix data sources. The wrappers to any other data sources will not work. See the list of unsupported data sources.

The most current information about migrating your version 7 federated system to DB2 for UNIX® and Windows Version 8.1 is available on the DB2 Relational Connect web site:
http://www.ibm.com/software/data/db2/relconnect/

For users of DB2 for UNIX and Windows Version 7.2 federated databases:

To successfully create nicknames for DB2 for UNIX and Windows Version 8 tables and views, you must apply the DB2 for UNIX and Windows Version 7.2 Fixpak 8 on your DB2 for UNIX and Windows Version 7.2 federated database. If you do not apply Fixpak 8 on your DB2 for UNIX and Windows Version 7.2 federated database, an error will occur when you access the nicknames.

LONG VARCHAR and LONG VARGRAPHIC support:

The federated documentation indicates that the LONG VARCHAR and LONG VARGRAPHIC data types used by the DB2 family of products are unsupported. This is not entirely accurate. You can create nicknames for DB2 for UNIX and Windows data source objects that contain LONG VARCHAR and LONG VARGRAPHIC data type columns. These remote columns will be mapped to DB2 for UNIX and Windows LOB data types. For the other DB2 family of products, you can create a view that omits or recasts these data types and then create a nickname for the view.

WITH HOLD cursors:

1
1
1
1

You can use the WITH HOLD semantics on a cursor that is defined on a nickname or in a PASSTHRU session. However, you will receive an error if you try to use the semantics (with a COMMIT) and the data source does not support the WITH HOLD semantics.

Unsupported data sources:

The following data sources are not supported in version 8.1:
- Microsoft SQL Server
- ODBC
- Oracle
- Sybase
- BLAST
- Documentum
- Microsoft Excel
- table-structured files
- XML-tagged files

Although these data sources are described in the federated systems documentation, they are not supported at this time.

Support for DB2 Server for VM and VSE:

Federated support for DB2 Server for VM and VSE has been added in this Fixpak.

Unsupported products:

The following products are not supported in version 8.1:
- DB2 Relational Connect
1
- DB2 Life Sciences Data Connect

Although these products are described in the federated systems documentation, they are not supported at this time.

Unsupported operating systems:

Federated systems are not supported on the Windows ME operating system.

Setting up the federated server to access data sources:

The COMPACT installation option does not install the necessary access to the DB2 family or Informix data sources. You must use the TYPICAL or CUSTOM installation to access the DB2 family data sources. The CUSTOM installation option is the only option you can use to install access to both the DB2 family and the Informix data sources.

64-bit federated servers:

64-bit federated servers are not supported in version 8.1.

Cataloging DB2 family data sources in the federated system database directory:

When the name of the remote database is more than 8 characters, it is necessary to create a database connection services (DCS) directory entry.

An example of cataloging an entry in the DCS directory for the database using the CATALOG DCS DATABASE command is:

```
CATALOG DCS DATABASE SALES400 AS SALES_DB2DB400
```

where:

SALES400
>   Is the name of the remote database you entered in the CATALOG DATABASE command.

AS *SALES_DB2DB400*
>   Is the name of the target host database that you want to catalog.

High availability function is included in DB2 Universal Database Workgroup Server Edition

Though it is not mentioned explicitly in the topic DB2 Workgroup Server Edition, the high availability function of the DB2 Universal Database Enterprise Server Edition that is referred to in the topic DB2 Enterprise Server Edition is included in the DB2 Universal Database Workgroup Server Edition.

License Center back-level versions not supported

If a version 7 License Center attempts a connection to a version 8 server, the License Center receives an "SQL1650 - Function not supported" error message indicating that the connection is not supported.

Microsoft Visual Studio, Visual C++

Despite being mentioned in the DB2 Development Center online help as a possible solution for the `Build not successful: -1` error. Microsoft Visual Studio, Visual C++, Version 5.0, is not supported for the development of SQL stored procedures. However, Microsoft Visual Studio, Visual C++, Version 6.0 is supported. Additional configuration information is available in the *IBM DB2 UDB Application Development Guide: Building and Running Applications*. Additional configuration information is available in the topic Setting Up the Application Development Environment

Microsoft XP fix needed on 64-bit operating systems

If you are using the Microsoft XP operating system (2600) configured to use the NETBIOS protocol with the DB2 family of products, you need to obtain a hotfix from Microsoft. Contact Microsoft with the Knowledge Base article number Q317437.

MVS operating system not supported

Despite being mentioned in the documentation, the MVS™ operating system is no longer supported by DB2 Universal Database.

SQL Assist not supported on 64–bit operating systems

SQL Assist cannot run on 64–bit operating systems even though some DB2 Centers that launch SQL Assist support a 64–bit architecture.

XML Extender only supported on Solaris Operating Environment

XML Extender is currenty supported only on version 8 and version 9 of the Solaris Operating Environment. XML Extender will also be supported on Windows .NET Server 2003 in a future release.

Windows XP operating systems

The Windows XP Professional and Home Edition operating systems are only supported by Personal Edition products.

Configuration Assistant

Unsupported bind options

The Configuration Assistant does not support the following bind options:
- CALL RESOLUTION
- CLIPKG
- CNULREQD
- DBPROTOCOL

- ENCODING
- MESSAGES
- OPTHINT
- OS400NAMING
- GENERIC
- IMMEDIATE
- KEEP DYNAMIC
- PATH
- SORTSEQ
- TRANSFORM_GROUP
- VALIDATE
- VARS

DB2 Backup and Restore

Backup and restore on Linux 390 operating systems

Backup and restore using multiple tape devices may not work if you are using the Linux 390 operating system.

DB2 Data Links Manager

Data Links server backup fails using Tivoli Storage Manager archive server (AIX, Solaris Operating Environment)

Problem: During the installation of or migration to DB2 Data Links Manager Version 8.1, a Data Links File Manager (DLFM)-initiated backup of Data Links server data to a Tivoli® Storage Manager archive server fails. One of the following sets of error messages are shown, either on-screen or on the installation status report:

```
DLFM129I: Automatic backup of DLFM_DB database has been triggered.
          Please wait for the backup to complete.
```

```
DLFM901E: A system error occurred. Return code = "-2062".
          The current command cannot be processed.
          Refer to the db2diag.log file for additional information.
```

— or —

```
DLFM811E: The current DLFM database could not be backed up.
          SQL code = "-2062", Return code = "-2062"
```

```
DLFM901E: A system error occurred. Return code = "-2062".
          The current command cannot be processed.
          Refer to the db2diag.log file for additional information.
```

Cause: The DB2 Data Links Manager Installer program failed to set the variables required to use Tivoli Storage Manager as an archive (backup) server for a Data Links server machine.

Tip: If you want to use Tivoli Storage Manager as an archive server, and you have not yet installed or migrated to DB2 Data Links Manager Version 8.1, you can prevent this problem from occurring. First, do not use the "Tivoli Storage Manager" backup option from the Installer program. Then, manually configure the Data Links Manager Administrator's profile to include the appropriate Tivoli Storage Manager variables, as described in step 2), below. After you have done both of these tasks, you can proceed with the installation or migration.

Workaround: Perform the following tasks in the order listed.

1. Back up the DLFM database using this command: db2 backup <dlfm_db><path>.
   - <dlfm_db>is the name of the DLFM database. By default, the database is called DLFM_DB.
   - <path> is the directory path to the backup storage location of your choice.
2. Manually configure the Data Links Manager Administrator's profile to include the appropriate Tivoli Storage Manager variables. The manual configuration procedure and the required variables are described in the following documentation topics:
   - Using Tivoli Storage Manager as an archive server (AIX)
   - Using Tivoli Storage Manager as an archive server (Solaris Operating Environment)

   You can find these topics either online in the DB2 Information Center, or in the "System Management Options" chapter of the *DB2 Data Links Manager Administration Guide and Reference*.
   - If you are completing a new installation of DB2 Data Links Manager Version 8.1, you are done.
   - If you are migrating to DB2 Data Links Manager Version 8.1, re-run the Migration Utility program, **db2dlmmg**.

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1 ## Migrating DB2

1 If you want to migrate an instance of DataJoiner or DB2 for UNIX and Win-
1 dows on which you are running the Capture or Apply programs for DB2 rep-
1 lication, you must prepare to migrate your replication environment before you
1 migrate the DB2 or DataJoiner instance. Detailed instructions for carrying out
1 the required preparation are included in the migration documentation for DB2
1 DataPropagator™ Version 8. Migration documentation for DB2 DataPropagator

DB2 Replication

Java Administrative API documentation for DB2 Data Replication

If you are developing applications using the administrative functions available in DB2 DataPropagator, you can obtain documentation for the relevant administrative Java APIs by contacting IBM support.

Column mapping restrictions and the Replication Center

You cannot map an expression in a source table to a key column in a target table if the TARGET_KEY_CHG column of the IBMSNAP_SUBS_MEMBR table is "Y" for that target table. This means that when using the Replication Center to create a subscription-set member, you should not select the option **Let the Apply program use before-image values to update target-key columns** if a key column in the target table is mapped to an expression in the source table.

Replication Center restrictions on iSeries systems

When using the Replication Center, you cannot perform administrative tasks in IASPs on iSeries™ systems.

Workaround for the replication asnscrt command (Windows only)

You will receive an error if you run the **asnscrt** command according to the syntax diagram in the main documentation. To use the **asnscrt** command, specify the Windows service name for the DB2 instance instead of the DB2 instance name:

Syntax:

```
►►──asnscrt──┬──-C──┬──db2_service──account──password──┬──asncap_command──────┬──────►◄
             ├──-A──┤                                   ├──asnapply_command────┤
             └──-M──┘                                   └──asnmon_command──────┘
```
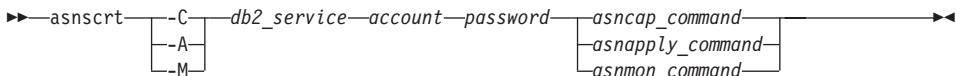
Where *db2_service* is the Windows service name for the DB2 instance.

For example, to create a Windows service that invokes a Capture program for the Windows service called **db2–0**:

```
asnscrt -C db2-0 .\joesmith password asncap capture_server=sampledb
  capture_schema=ASN capture_path=X:\logfiles
```

Data Warehouse Center

Japanese names of remote objects

Schema, table, and column names of remote sources in Japanese cannot contain certain characters. Unicode mapping differences may cause the names to be null. See http://www.ingrid.org/java/i18n/encoding/ja-conv.html for more information.

Restrictions for the Clean Data transformer

Linking restrictions:

You cannot link any OS/390 data resources such as tables or views with a new Clean Data step. You can still link OS/390 data resources with the deprecated programs Clean Data step.

Parameter restrictions:

For the Find and Replace parameter: If your new Clean Data transformer rules table contains different data types for the Find and Replace columns, you must change the Target column data type in both the Target Table properties page and the Column Mapping page before you promote the transformer to test mode.

For the Discretize parameter: If your new Clean Data rules table contains different data types for the Bounds and Replace columns, you must change the Target column data type in both the Target Table properties page and the Column Mapping page before you promote the transformer to test mode.

iSeries platform restrictions:

On the iSeries platform, the new Clean Data transformer does not perform error processing. You can generate the All Matches match type only on the iSeries platform.

Using the warehouse agent for replication and accessing Client Connect warehouse sources

Using the warehouse agent for replication

If the warehouse control database is remote to the client system, you must catalog the control database with the same name, user ID, and password on both the client and the warehouse agent systems. After you catalog the source on both systems, verify that you can connect to the control database. If you cannot connect to the control database, verify that the environment variable

DB2COMM on the remote system is set to TCP/IP, and that the port number matches the port number of the node that is cataloged on the client system.

To verify the port number on the remote system, type the following command at a DB2 command prompt:

```
get dbm cfg | grep SVCENAME
```

You specify the port number of the client system when you catalog the node.

Accessing Client Connect warehouse sources using the warehouse agent

When you access a warehouse source that was defined using Client Connect with a warehouse agent, the source must be cataloged with the same name, user ID, and password on both the client and warehouse agent systems. If you are using the ODBC version of the warehouse agent, you must also catalog the source as an ODBC source on both the warehouse agent and client sites. Otherwise, actions that require the warehouse agent to access the warehouse source will fail.

Scheduling a warehouse process to run at intervals

When scheduling a warehouse process to run at intervals, you must determine the longest time it takes to run all the production steps in the process and schedule the intervals accordingly. If a process exceeds the scheduled time interval, all subsequently scheduled occurrences of that process will not run and will not be rescheduled.

Development Center

Development Center server connections (AIX)

If you are using the Development Center and connecting to an AIX server, you will get an error because the default configuration does not allow for concurrent access. See the administrative API reference documentation for information regarding threaded applications with concurrent access.

Enabling the EXTSHM environment variable to resolve JDBC connection problems in the Development Center (SQL1224N / SQLSTATE=55032)

The development center requires multiple JDBC connections. You may experience system connection exceptions and have trouble viewing objects in the Server View if the EXTSHM environment variable is not configured for multiple JDBC connections. For example, the following message:

```
COM.ibm.db2.jdbc.DB2Exception: [IBM][CLI Driver] SQL1224N
        A database agent could not be started to service a request,
        or was terminated as a result of a database system shutdown or a force command.
        SQLSTATE=55032
```

can occur because the number of connections is limited by the number of shard memory segments to which a single process can be attached. By default,

AIX does not permit 32-bit applications to attach to more than 11 shared memory segments per process, of which a maximum of 10 can be used for local DB2 connections.

To resolve this issue, set the environment variable EXTSHM to ON to increase the number of shared memory segments to which a single process can be attached. EXTSHM must be exported both in the shell where the client application is started and also in the shell where db2start is run. To configure the EXTSHM environment variable for multiple JDBC connections:

1. In client sessions, before starting the client application, type the following command:

   ```
   export EXTSHM=ON
   ```

2. Before starting the DB2 server, type the following commands:

   ```
   export EXTSHM=ON
   db2set DB2ENVLIST=EXTSHM
   db2set -all
   ```

3. Add the following lines to the sql/db2profile:

   ```
   EXTSHM=ON
   export EXTSHM
   ```

Development Center online help incorrectly refers to the IBM DB2 application driver as the IBM DB2 Java Combined Client

The Development Center online help incorrectly refers to the IBM DB2 application driver as the IBM DB2 Java Combined Client.

You can use the IBM DB2 application driver for distributed and local cross-platform DB2 access. It is architected to remove dependency on CLI (ODBC).

Configuring the DB2 Development Center

To use the Development Center to develop Java stored procedures on clients running the Linux or AIX operating systems, or on the Solaris Operating Environment, you must manually point the Development Center to the location of an installed JDK. To identify the location of a JDK to the development center, add a jdk subdirectory under ~/sqllib/java and create links to the subdirectory where a JDK is installed. The following example shows how to create the links to the JDK on a Linux client:

```
Replace db2admin below if your instance owner is named differently

# Setup the jdk directory
mkdir /home/db2admin/sqllib/java/jdk
chown bin /home/db2admin/sqllib/java/jdk
chgrp bin /home/db2admin/sqllib/java/jdk

# Setup the links for jdk
cd /home/db2admin/sqllib/java/jdk
ln -s /opt/IBMJava2-131/bin
ln -s /opt/IBMJava2-131/demo
```

```
ln -s /opt/IBMJava2-131/docs
ln -s /opt/IBMJava2-131/include
ln -s /opt/IBMJava2-131/jre
ln -s /opt/IBMJava2-131/lib
ln -s /opt/IBMJava2-131/src.jar

# Setup the links to the .so files
cd /usr/lib
ln -s /opt/IBMJava2-131/jre/bin/libhpi.so
ln -s /opt/IBMJava2-131/jre/bin/libjava.so
ln -s /opt/IBMJava2-131/jre/bin/libjitc.so
ln -s /opt/IBMJava2-131/jre/bin/libxhpi.so
ln -s /opt/IBMJava2-131/jre/bin/libzip.so
ln -s /opt/IBMJava2-131/jre/bin/classic/libjvm.so
```

Huomautus: This workaround may lead to problems if you are using diffe-
rent levels of Java on different instances, or if you are using both
a 32-bit and 64-bit version of DB2 simultaneously.

The SQL compiler path must be specified to compile SQL stored procedures
with the Visual C++ compiler. To specify the path to the SQL compiler:

1. Open the Database Connection Properties notebook.

2. Select the Build Settings page.

3. In the **Compiler environment** field, type the full path to the VCVARS32.BAT
   file using the DOS 8.3 file name format.

4. Click **OK**.

To manually set the SQL compiler path, open a DB2 Command Window and
enter the following command (where *C:\VisualStudio* is your Visual Studio
installation 8.3 DOS file path):

```
db2set
DB2_SQLROUTINE_COMPILER_PATH=C:\VisualStudio\VC98\bin\vccars32.bat
```

Older settings files associated with previous beta versions of DB2 Version 8
may cause problems with version 8.1 of DB2. If you have any of the following
directories on your system, you must delete them before running the latest
version of the Development Center for the first time:

- c:\Documents and Settings\your id\IBM\DB2DC

- c:\Documents and Settings\your id\IBM\Editor

If you encounter a problem compiling Java stored procedures, where the Java
compilation fails due to the inability to find the **javac** command, check your
DB2DC.settngs file to verify that the directory for the javac command is cor-
rect. Also ensure that the value for JAVA_HOME_1_3 points to the directory
where the IBM SDKs for Java have been installed, under the DB2 install direc-
tory. The default location for the settings file is c:\documents and

        settings*your id*\Application Data\IBM\DB2\DC\DB2DC.settings or
/home/*your id*/.ibm/db2/dc/DB2DC.settings.

Documentation

Delay in DB2 documentation FixPak availability

Documentation FixPaks let you update your locally installed DB2 HTML
documentation. The documentation FixPak for DB2 Version 8.1 FixPak 1 will
be available for download from the DB2 technical support site in all sup-
ported national languages at a future date.

Until that time, you can access an English version of the updated documenta-
tion for DB2 Version 8.1 FixPak 1 from the DB2 Information Center on the
DB2 technical support site at
http://www.ibm.com/software/data/db2/udb/winos2unix/support.

Huomautus: Only the *Data Links Manager Administration Guide and Reference*
has been updated in PDF form for FixPak 1.

DB2 Replication Guide and Reference documentation

The solutions information at
http://www.ibm.com/software/data/dbtools/datarepl.htm, referred to in the
preface to the *Replication Guide and Reference*, is no longer available.

DB2 Version 8 HTML documentation installation restriction (Windows)

On Windows, do not install the DB2 Version 8 HTML documentation on a
workstation or server where a DB2 Version 7 (or earlier) product is already
installed. The installer detects the earlier version and removes the earlier pro-
duct.

A workaround does exist. If you need to install the DB2 Version 8 HTML
documentation on a machine where an older version of DB2 is installed, you
can manually copy the files and directories from the DB2 Version 8 HTML
Documentation CD, rather than using the installer. The DB2 Information Cen-
ter and full text search will work, but you will not be able to apply any
HTML documentation FixPaks.

Documentation search may fail on AIX unless all documentation catego-ries are installed

If you do not to install all of the categories of documentation on the DB2
HTML Documentation CD-ROM, an attempt to search against "All topics"
may fail with an `InvalidParameterException` reported in the Java console of
your browser and no search results.

To workaround the problem do one of the following:

- narrow the scope of your search by selecting from the **Search scope** list box in the Search window,
- install all the documentation categories from the DB2 HTML Documentation CD-ROM.

Documentation search problem with Java 2 JRE1.4.0

If your browser uses Java 2 JRE v1.4.0 and your documentation is installed in a path that contains spaces (e.g., `C:\Program Files\SQLLIB\doc\`), the documentation search applet may fail with an InvalidParameterException reported in the Java console of your browser and no search results. This problems is fixed with JRE v1.4.1.

To workaround the problem, do one of the following:
- upgrade your browser's JRE version to 1.4.1, available at http://java.sun.com/j2se/1.4.1/download.html
- downgrade your browser's JRE version to 1.3.x, available at http://www-3.ibm.com/software/data/db2/udb/ad/v8/java/

Installation of the DB2 Information Center for languages that are not options during installation

The DB2 Setup wizard does not support the installation of the DB2 HTML documentation in languages that the wizard itself does not support (the languages supported by your product). To install the Information Center in a language other than one supported by the product you are installing:

1. Insert the *DB2 HTML Documentation CD* in your CD-ROM drive.
2. Copy the following directory to your computer:
   - For Windows operating systems:

     `d:\lang\`

     where *d:* is your CD-ROM drive and *lang* is the code for the language you want to use.
   - For UNIX operating systems

     `/cdrom/language/`

     where *cdrom* is where you have mounted the CD and *language* is the code for the language you want to use.

It does not matter where you place the folder. You can also view the DB2 HTML documentation directly from the CD. For instructions on how to do so, see the "Viewing technical information online directly from the DB2 HTML Documentation CD" topic in your Quick Beginnings manual.

Huomautuksia:

1. To view the documentation, you must use Microsoft Internet Explorer 5.0 or later, or Netscape 6.1 browsers or later.

2. If you install the documentation in this way, you will not be able to use the documentation updater. As well, if you launch the documentation from your product, it will go to the documentation installed as part of your product install, and not the documentation that you copied over manually.

Official naming convention for DB2 for Linux when used on host systems

The official naming convention for DB2 for Linux on host systems is *DB2 on Linux for S/390® and zSeries™*. *S/390* refers to 32-bit and *zSeries* to 64-bit. In addition, it is important to note that the following terms are also obsolete:

- 64-bit Linux/390
- Linux/SGI

GUI tools

Displaying Indic characters in the DB2 GUI tools

If you have problems displaying Indic characters when using the DB2 GUI tools, you might not have the required fonts installed on your system.

DB2 Universal Database has packaged the following IBM TrueType and Open-Type proportional Indic language fonts for your use. They are located in the `fonts` directory of the *IBM Developer Kit, Java Technology Edition, Version 1.3.1 for AIX operating systems on 64-bit systems* CD. These fonts are to be used only in conjunction with DB2. You cannot engage in the general or unrestricted sale or distribution of these fonts:

Taulukko 1. Indic fonts packaged with DB2 Universal Database

Typeface	Weight	Font File Name
Devanagari MT for IBM	Medium	devamt.ttf
Devanagari MT for IBM	Bold	devamtb.ttf
Tamil	Medium	TamilMT.ttf
Tamil	Bold	TamilMTB.ttf
Telugu	Medium	TeluguMT.ttf
Telugu	Bold	TeleguMTB.ttf

Detailed instructions on how to install the fonts and modify the `font.properties` file can be found in the Internationalization section of the IBM development kit for Java documentation.

In addition, the following Microsoft products also come with Indic fonts that can be used with our GUI tools:

- Microsoft Windows 2000 operating system
- Microsoft Windows XP operating system
- Microsoft Publisher

- Microsoft Office

GUI tools not supported for zSeries servers running Linux operating systems

With the exception of the DB2 Setup wizard, GUI tools will not work on zSeries servers running the Linux operating system. This limitation includes any items normally launched form the Install launchpad, such as the Quick Tour.

If you want to use the GUI tools with one of these systems, install the administrative tools on a client system with a different system configuration, and use this client to connect to your zSeries server.

Load and Import Columns page does not support DBCS characters in IXF files

If you use the Load wizard or Import notebook to set up a load or import from an IXF input file containing DBCS characters, the Columns page will not correctly display the column names contained in the file.

Incorrect indicators given when a load operation fails

If a load fails, but only warnings were returned (not errors), then the task icon will still appear with a green checkmark in the Task Center. Be sure to double-check the success of any loads you carry out.

Minimum display settings for GUI tools

For the GUI tools such as the Control Center to work properly, you must have a screen resolution of at least 800 by 600 dpi, and be using a display palette of at least 32 colors.

SQL1224N error when using the GUI tools on AIX

If you are using the GUI tools on an AIX operating system, you may receive an SQL1224N error. This error is caused by a memory handling problem in DB2. The following workaround will help eliminate the error:

Procedure:

To stop the SQL1224N error on AIX operating systems:

1. As the instance owner, run the following commands:
   ```
   export EXTSHM=ON
   db2set DB2ENVLIST=EXTSHM
   ```
2. Restart the instance with the following commands:
   ```
   db2stop
   db2start
   ```

Once the instance restarts with the new environment variable settings, the SQL1224N errors should stop.

Health Monitor

1
1
The default value for the database manager switch for the health monitor (HEALTH_MON) is OFF.

The Indoubt Transactions Existence health indicator (db.indoubt_trans_exist) is not available at this time.

dasdrop limitation in multiple FixPak environments

Alternate FixPaks install their own version of the **dasdrop** command. On AIX, it is installed in the /usr/opt/db2_08_FP*n*/ path. On other UNIX systems, it is installed in the /opt/IBM/db2/V8.FP*n*/ path. In both cases, *n* is the number of the number of the FixPak.

In a multiple FixPak Environment, you can only have one DAS set up at any one time. You can create the DAS against version 8.1 of the product, or against any of the Alternate FixPaks. To drop a DAS that was created against version 8.1 of the product, you can use any version of **dasdrop** to drop it. However, to drop a DAS that was created against an Alternate FixPak, you must use an Alternate FixPak version of **dasdrop**.

For example, consider the following scenario on the AIX operating system:
- You install DB2 Version 8.1.
- You install Alternate FixPak 1 installed.
- You create a DAS using the version 8.1 code, with the following command:
  /usr/opt/db2_08_01/instance/dascrt dasusr1
- You want to drop the DAS.

You can drop this DAS by using either of the following commands:
/usr/opt/db2_08_01/instance/dasdrop
/usr/opt/db2_08_FP1/instance/dasdrop

Both will work properly.

However, in this example:
- You install DB2 Version 8.1.
- You install the Alternate FixPak 1.
- You create a DAS using the Alternate FixPak 1 code, with the following command:
  /usr/opt/db2_08_FP1/instance/dascrt dasusr1
- You want to drop this DAS

You must use the Alternate FixPak 1 **dasdrop** command:

```
/usr/opt/db2_08_FP1/instance/dasdrop
```

Trying to use the version 8.1 **dasdrop** command will cause an error.

This limitation only applied to version 8.1 of the product, and not to any of the regular FixPaks. For example:

- You install DB2 Version 8.1.
- You apply regular FixPak 1, which corrects the problem with the version 8.1 **dasdrop**.
- You install the Alternate FixPak 1.
- You create a DAS using the Alternate FixPak 1 code, with the following command:

  ```
  /usr/opt/db2_08_FP1/instance/dascrt dasusr1
  ```

- You want to drop this DAS

You can drop this DAS by using either of the following commands:

```
/usr/opt/db2_08_01/instance/dasdrop
```
```
/usr/opt/db2_08_FP1/instance/dasdrop
```

Both will work properly because the version of dasdrop in the /usr/opt/db2_08_01/ path was corrected when you applied the regular Fix-Pak.

Secure Windows Environments

You may experience file permission problems if you are using DB2 on Windows and are not an administrator on the Windows system. If you receive a SQL1035N, SQL1652N, or SQL5005C error message, possible causes and workarounds are as follows:

User does not have sufficient authority on the sqllib directory:

Problem
> Received an SQL1035N or SQL1652N error when trying to open DB2 CLP or command window. The DB2 code (core files) are installed into a directory structure where write privileges are limited, but some DB2 tools need to write and create files in the DB2INSTPROF directory.

Workaround
> Create a new directory where you can grant users, at minimum, the MODIFY permission and use either **db2set -g db2tempdir** to point to the new directory, or set the db2tempdir variable in the Windows system environment.

User does not have sufficient authority to write to the sqllib\\<instance_dir> directory even though user belongs to SYSADM_GROUP:

1	**Problem**
1	Received an SQL5005C system error when trying to update the data-
1	base manager configuration file (update dbm cfg). The user does not
1	have the required NTFS permissions to write to the sqllib*instance_dir*
1	directory even though you have added this user to the SYSADM_G-
1	ROUP.

<div></div>

1   **First workaround**

1   Grant the users, at minimum, the MODIFY permission on the *instance-*
1   *_dir* directory at the file system level.

1   **Second workaround**
1   Create a new directory where you can grant the user, at minimum, the
1   MODIFY permission. Use the **db2set db2instprof** to point to the new
1   directory. You will either need to recreate the instance so that the
1   information is stored under the new instance directory specified by
1   db2instprof, or you will need to move the old instance directory to the
1   new directory.

SQL Assist

Enabling the main SQL Assist window when it appears disabled on Windows operating systems

On Windows operating systems, the main SQL Assist dialogue window appears to be disabled when a secondary SQL Assist message window is hidden or covered up by another non-SQL Assist window. The main SQL Assist window is disabled because the hidden secondary window requires user input before the main window can become active again. It might not be possible to access and resolve the hidden window using the mouse.

To enable the main SQL Assist window:

1. Press and hold down the Alt key.
2. While still holding the Alt key, press the Tab key. A window appears showing the windows that the user can switch to.
3. Press the Tab key repeatedly until the SQL Assist secondary window is selected, and then release the Alt key.
4. Provide input or close the SQL Assist secondary window. The main SQL Assist window becomes active.

SQL Assist button disabled in the Command Center

In the Command Center, the SQL Assist button only becomes enabled once a connection has been established.

Two versions of SQL Assist are launched from DB2

You can invoke both version 7 and version 8 of SQL Assist from within DB2 Version 8.1. You can launch version 7 from the DB2 Data Warehouse Center. All other centers launch the latest version 8. The product online help has additional information for SQL assist version 7.

Additional Information

Asynchronous execution of CLI

Asynchronous execution with CLI is not available.

Change in Unicode server behavior

In version 7, Unicode servers ignored any graphic codepages by applications at connect time and assumed that UCS2 Unicode (codepage 1200) was being used. Version 8 Unicode servers now respect the codepage sent by the client.

Full message text is not returned when using SQLException.getMessage()

By default, the DB2BaseDataSource.retrieveMessagesFromServerOnGetMessage property is disabled. If you enable this property, all calls to the standard JDBC SQLException.getMessage() invoke a server-side stored procedure, which retrieves the readable message text for the error. By default, the full message text is not returned to the client when a server-side error occurs.

You can use the proprietary method DB2Sqlca.getMessage() to retrieve the fully formatted message text. A call to the SQLException.getMessage() method will start a unit of work only if retrieveMessagesFromServerOnGetMessage is enabled. A call to the DB2Sqlca.getMessage() method results in a stored procedure call, which starts a unit of work. Prior to FixPak 1, the DB2Sqlca.getMessage() method may throw an exception.

IBM DB2 universal JDBC driver

The IBM DB2 Universal JDBC Driver cannot connect to databases that were created using the HP default character set, roman8. All SQLJ and JDBC applications that use the universal JDBC driver, must connect to a database created with a different character set. If your LANG is set to "C" or to a "roman8" locale, you must change it to the corresponding ISO locale. For instance, if your LANG is set to de_DE.roman8, it must be changed to de_DE.iso88591:

```
export LANG=de_DE.iso88591
```

To run the DB2 SQLJ and JDBC sample programs with the universal JDBC driver, you can create the sample database with the following commands (in this case, using the ISO locale for US English):

```
export LANG=en_US.iso88591
db2 terminate
db2sampl
```

Note that if the sample database already exists, you must drop it before executing these commands.

Java functions and routines on UNIX and Windows operating systems

Due to limitations in the JVM, all Java functions and routines will run in FENCED THREADSAFE mode regardless of whether or not the NOT FENCED keyword is used. Java functions defined with the parameter style general, and that use LOB locators in the parameter definition *will not* function until the NOT FENCED keyword is supported. You must modify these functions to use LOB parameters instead of LOB LOCATORS.

English Microsoft Data Access Components (MDAC) files are used for all national language versions of DB2 V8.1 unless translated MDAC files are installed first.

If you do not install the national language version of MDAC 2.7 prior to installing the national language version of DB2, then DB2 installs English MDAC files by default. This causes the Windows ODBC Data Source Administrator panels to appear untranslated if your operating system is non-English. To fix this problem, you can install the "MDAC 2.7 RTM - Refresh" bundle from the Microsoft website at http://www.microsoft.com/data/download_270RTM.htm. Choose the language that you want to install, download the required executable, and run it. This will install the translated ODBC Data Source Administrator files.

Online help corrections and updates

Configuring the C environment for SQL stored procedures in the Development Center

If you are working with DB2® for Windows® on the server and you are using the Visual C++ compiler, you must configure your SQL build settings. You will be not be able to build SQL stored procedures until you configure your SQL Build options.

Use the Database Connection Properties notebook in the Development Center to configure your SQL build settings.

To configure the C compiler environment for SQL stored procedures:

1. On the SQL Build Settings page of the notebook, specify a compiler environment that you want to use for building SQL objects.
   - Click **Refresh**.
   - In the **Compiler environment** field, type the location of the VC98\BIN\VCVARS32.BAT file on your Windows server.
2. Click **OK** to close the notebook and save your changes. If you click **Apply**, the changes are saved and you can continue changing the properties.

Development Center prerequisites for working with MQSeries

In Version 8, you can use the Create MQSeries® Table Function wizard in the Development Center to create a user-defined function (UDF) that prepares the contents of a queued message to be inserted into a DB2 table with a simple SQL query.

MQSeries is a middleware system that manages the queuing of messages, allowing applications to communicate in a distributed, heterogeneous environment. You can access MQSeries from DB2 through UDFs. Because UDFs form part of an SQL statement, you can blend queuing and database operations together.

Prerequisites for working with MQSeries:
- Install MQSeries 5.2 or later
- Install MQSeries Application Messaging Interface (AMI)
- Enable the DB2 MQSeries Integration Functions

For detailed installation and enabling instructions for the MQSeries Server, MQSeries Application Messaging Interface, and MQSeries Integration Functions, see the Quick Beginnings book specific to your operating system.

Path settings to enable Java routines to compile in the Development Center

The Development Center cannot compile Java™ routines unless it knows where your developer kit versions are installed. Default locations for these will be written to your `$HOME/IBM/DB2DC/DB2DC.settings` file when the Development Center starts for the first time. You may copy these into your `$USER.settings` file and modify them with a Unicode editor, or you may create symbolic links to your developer kit directories in the default locations.

Runstats dialog – updated getting there information

To open the Runstats notebook:

1. From the Control Center, expand the object tree until you find the Tables folder.
2. Click the Tables folder. Any existing tables are displayed in the contents pane.
3. Right-click all the tables that you want to run statistics on, and select Run Statistics from the pop-up menu. The Runstats notebook opens.

Spatial Extender – requirements when using the Index Advisor

The ANALYZE clause requires use of a user temporary table space. If the ANALYZE clause is needed, then you must have the USE privilege for the table space in order to use the index advisor.

Specifying build options for a Java stored procedure in the Development Center

Use the Stored Procedure Properties notebook to specify the compile options that will be used when building a Java stored procedure.

These steps are part of the larger task of changing stored procedure properties.

To specify the build options of a stored procedure:

1. On the Build page of the Stored Procedure Properties notebook, specify the compile options for building the stored procedure. See your compiler documentation for information about available options.
   a. In the Precompile options field, type the DB2 precompiler options that you want to use when building stored procedures. The package name must not exceed 7 characters.

b. In the Compile options field, type the compiler options that you want to use when building stored procedures.

2. Click **OK** to close the notebook and save your changes. If you click **Apply**, the changes are saved and you can continue changing the properties.

Web tools – information displayed during login

The following information is displayed when you log in to the DB2 web tools:

system
The DB2 administration server name, or the TCP/IP host name.

instance
The DB2 instance name.

database
The DB2 database name, or database alias.

Subsystem
On zSeries™ and OS/390® systems, the database alias for the DB2 subsystem.

Liite. Huomioon otettavaa

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Kaikki julkaisun sisältämät suorituskykytiedot on määritetty testiympäristössä. Suorituskyky muissa toimintaympäristöissä saattaa poiketa merkittävästi ilmoitetusta arvosta. Osa mittauksista on saatettu tehdä kehitteillä olevissa järjestelmissä, eikä mikään takaa, että tulokset ovat samanlaiset yleisesti saatavana olevissa järjestelmissä. Lisäksi osa mittaustuloksista on saatettu tehdä ekstrapolaation avulla. Todelliset mittaustulokset voivat poiketa ilmoitetuista arvoista. Julkaisun käyttäjien on syytä tarkistaa tiedot soveltuvilta osin käyttämässään järjestelmässä.

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OIKEUDET TEKIJÄNOIKEUDELLA SUOJATTUUN AINEISTOON

Tämä julkaisu sisältää lähdekielisiä sovellusohjelmaesimerkkejä, jotka havainnollistavat eri käyttöympäristöissä käytettäviä ohjelmointitekniikoita. Asiakkaalla on oikeus ilman erillistä maksua IBM:lle kopioida, muokata ja jakaa näitä esimerkkiohjelmia missä muodossa tahansa sellaisten sovellusohjelmien kehitystä, käyttöä, markkinointia tai jakelua varten, jotka ovat esimerkkiohjelmalle tarkoitetun käyttöyhdistelmän sovellusohjelmaliittymän tai IBM:n sovellusohjelmaliittymien mukaisia. Näitä esimerkkiohjelmia ei ole testattu kaikissa olosuhteissa. Tästä syystä IBM ei vastaa näiden ohjelmien luotettavuudesta, ylläpidettävyydestä tai toimivuudesta.

Jokaisessa näiden esimerkkiohjelmien kopiossa, osassa tai johdannaisessa on oltava seuraava tekijänoikeusmerkintä:

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Tavaramerkkitietoja

Seuraavat nimet ovat IBM:n tavaramerkkejä Yhdysvalloissa ja muissa maissa ja ne esiintyvät vähintään yhdessä DB2 UDB -julkaisukirjaston asiakirjassa:

ACF/VTAM	LAN Distance
AISPO	MVS
AIX	MVS/ESA
AIXwindows	MVS/XA
AnyNet	Net.Data
APPN	NetView
AS/400	OS/390
BookManager	OS/400
C Set++	PowerPC
C/370	pSeries
CICS	QBIC
Database 2	QMF
DataHub	RACF
DataJoiner	RISC System/6000
DataPropagator	RS/6000
DataRefresher	S/370
DB2	SP
DB2 Connect	SQL/400
DB2 Extenders	SQL/DS
DB2 OLAP Server	System/370
DB2 Universal Database	System/390
Distributed Relational	SystemView
Database Architecture	Tivoli
DRDA	VisualAge
eServer	VM/ESA
Extended Services	VSE/ESA
FFST	VTAM
First Failure Support Technology	WebExplorer
IBM	WebSphere
IMS	WIN-OS/2
IMS/ESA	z/OS
iSeries	zSeries

Seuraavat nimet ovat muiden yritysten tavaramerkkejä tai rekisteröityjä tavaramerkkejä ja ne esiintyvät vähintään yhdessä DB2 UDB -julkaisukirjaston asiakirjassa:

Microsoft, Windows, Windows NT ja Windows-logo ovat Microsoft Corporationin tavaramerkkejä Yhdysvalloissa ja muissa maissa.

Intel ja Pentium ovat Intel Corporationin tavaramerkkejä Yhdysvalloissa ja muissa maissa.

Java ja kaikki siihen perustuvat tavaramerkit ovat Sun Microsystems, Inc:n tavaramerkkejä Yhdysvalloissa ja muissa maissa.

UNIX on The Open Groupin rekisteröity tavaramerkki Yhdysvalloissa ja muissa maissa.

Muut yritysten, tuotteiden ja palveluiden nimet voivat olla muiden yritysten tavaramerkkejä.

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