

IBM DB2 Information Integrator



# Release Notes for Classic Federation for z/OS

*Version 8.2*



IBM DB2 Information Integrator



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*Version 8.2*

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# Contents

<b>About the release notes</b> . . . . .	<b>v</b>	Data Mapper . . . . .	6
DB2 Information Integrator support on the web . . . . .	v	Metadata utility . . . . .	6
<b>Troubleshooting</b> . . . . .	<b>1</b>	ODBC, JDBC, CLI clients . . . . .	6
<b>Known limitations, problems, and workarounds</b> . . . . .	<b>3</b>	WebSphere MQ . . . . .	7
SAF exit. . . . .	3	Code pages . . . . .	7
Data type support . . . . .	3	Data type support . . . . .	7
ODBC and CLI driver support . . . . .	3	Subpool storage . . . . .	8
SQL data type and parameter support. . . . .	3	Query processor . . . . .	8
Data Mapper character support . . . . .	4	<b>Documentation updates</b> . . . . .	<b>9</b>
Metadata utility . . . . .	4	Corrections to documentation . . . . .	9
<b>Product fixes and enhancements</b> . . . . .	<b>5</b>	<b>Notices</b> . . . . .	<b>11</b>
Long object name support. . . . .	5	Trademarks . . . . .	13
Adabas . . . . .	5	<b>Contacting IBM</b> . . . . .	<b>15</b>
CA-IDMS . . . . .	6	Product information . . . . .	15
		Comments on the documentation . . . . .	15



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## About the release notes

The release notes contain the latest information about IBM® DB2® Information Integrator Classic Federation for z/OS®, Version 8.2.

The release notes are in four parts:

- The first part details the diagnostic information that you can give to support if you encounter a problem with Classic Federation.
- The second part contains the details of the problems, limitations, and workarounds that were known at the time of publication and apply to the latest version of the product. Read these notes to become familiar with any known outstanding issues with this release of DB2 Information Integrator Classic Federation for z/OS.
- The third part describes the product fixes and enhancements included in the Version 8.2 PTFs.
- The fourth part contains corrections and updates to previously released PDF and printed documentation.

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### DB2 Information Integrator support on the web

For more information about DB2 Information Integrator and the latest support issues, see the DB2 Information Integrator support Web page at [www.ibm.com/software/data/integration/db2ii/support.html](http://www.ibm.com/software/data/integration/db2ii/support.html).





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## Troubleshooting

When you encounter a problem, be prepared to provide some or all of the following diagnostic information:

### All applicable configuration files captured within the server log

For example:

- The data server
- The correlation server
- The query processor
- The user override

You can use the MTO DISPLAY commands to capture the server log. See *IBM DB2 Information Integrator Administration Guide and Reference for Classic Federation and Classic Event Publishing* for the MTO commands to use.

You can also send the configuration files in SCACCONF data set that is referenced in the data server JCL.

### Other information that you might need to send

- The entire data server output
- All applicable DBDs, copybooks, queries, and USE grammar
- A trace file.

Tracing can be done only at the correlation server.

For additional diagnostics, you might need to provide the IMS<sup>™</sup> transaction logs and CICS<sup>®</sup> logs.

For information about tracing, see the section about server logging in the *IBM DB2 Information Integrator Administration Guide and Reference for Classic Federation and Classic Event Publishing*.

- A system dump.

In the event of an abend, the full system dump is not automatically generated. If the abend is reproducible, you can add the appropriate SYSMDUMP DD to generate the dump. If a SYSMDUMP is requested, the dump is routed to the data set that is defined in the SYSMDUMP DD.

### Abend problems on z/OS

Include the PSW and REGS at the time of the error and the SAS/C function call trace stack. You can find the PSW and REGS in the data server output, under JESMSG LG and JESYSMSG. You can find the

SAS/C function call trace stack in the data server output in SYSTEMM or in the system generated DDs, for example: SYSnnnnn.

If the problem is an abend, traceback information from the call stack is sent to Standard Output at the time of error. Traceback information is sent to the job log, if you are running in batch mode.

### **Abend problems on UNIX CLI clients**

Provide the core dump or the memory dump. Typically, the file that is created begins with the name 'core'.

### **Meta utility problems**

Provide the SYSOUTs from the problem run.

### **Connectivity problems**

Provide SYSOUTs from the client and data server. Include screen captures of the error message, or copy and paste the content of the error messages that you receive.

For ODBC trace information, you can generate an ODBC trace from the ODBC Data Source Administrator.

### **JDBC tracing**

For JDBC trace information, use the following steps to create a JDBC trace:

1. Add the parameter TRACELEVEL to the connection string. The TRACELEVEL parameter name must be in uppercase. If you are using a URL, update the string.

For example:

```
jdbc:cac:<DSNAME:tcp/<host name>/port:TRACELEVEL=10
```

2. If you are using JNDI objects (data source configuration), update the properties for the connection object and change the value for the port number property. The TRACELEVEL parameter name must be in uppercase.

For example:

```
portnumber:TRACELEVEL=10
```

3. Capture the output from Standard Output and send this trace information.

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## Known limitations, problems, and workarounds

The following information describes the currently known limitations, problems, and workarounds for DB2 Information Integrator Classic Federation for z/OS, Version 8.2. Any limitations and restrictions might or might not apply to other releases of the product.

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### SAF exit

On the z/OS operating system, the test client program CACSAMP does support the SAF security exit.

---

### Data type support

The JDBC driver does not support:

- Queries that use the LONG VARCHAR or LONG VARGRAPHIC data type in the WHERE clause of SQL SELECT and DELETE statements
- Parameter markers with GRAPHIC data types in the WHERE clause of SQL SELECT, UPDATE, and DELETE statements

The ODBC driver does not support SQL statements that contain parameter markers for the LONG VARGRAPHIC data type.

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### ODBC and CLI driver support

The ODBC and CLI drivers do not support the SQLProcedureColumns API.

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### SQL data type and parameter support

#### SQL\_VARCHAR

Use of an input/output parameter (SQL\_PARAM\_INPUT\_OUTPUT) with the SQL\_VARCHAR parameter is not supported.

Workaround: Use one parameters for input and another parameter for output.

#### LONG VARCHAR

- An input/output parameter (SQL\_PARAM\_INPUT\_OUTPUT) with LONG VARCHAR type parameter can not be used.

Workaround: Use two parameters, one for input and another one for output, or use VARCHAR data type parameters.

- The GRAPHIC/SUBSTR function is not supported for the LONG VARGRAPHIC data type.

## **CHAR**

Do not specify SQL\_NULL\_DATA for the SQLBindParameter API if the parameter is the SQL CHAR type output parameter (SQL\_PARAM\_OUTPUT).

Workaround: Specify a valid StrLen or IndPtr value.

## **GRAPHIC, VARGRAPHIC, LONG VARGRAPHIC**

- The value returned from the LENGTH function on the GRAPHIC, VARGRAPHIC, and LONG VARGRAPHIC columns is incorrect. The length is reported in bytes rather than in DBCS characters.
- Do not specify undefined characters for the server code page with GRAPHIC data types. Undefined characters not converted as substitute characters when the target column type is GRAPHIC and results in a graphic data decode error.

---

## **Data Mapper character support**

Values specified in Data Mapper input fields must be in SBCS characters. The valid characters that you can enter in the Data Mapper tool are A-Z, 0-9, \_, #, \$, and @. The Data Mapper does not restrict the use of invalid characters.

---

## **Metadata utility**

Ensure that you are using the correct USEGRAMMAR with the metadata utility. The metadata utility does not validate the LENGTH and DATATYPE of USEGRAMMAR. For a remote IMS data source, the metadata utility does not validate BYTES of DBD and LENGTH of USEGRAMMAR.

---

## Product fixes and enhancements

The following sections describe the product fixes and enhancements included in the Version 8.2 PTFs.

---

### Long object name support

DB2 Information Integrator Classic Federation for z/OS adds support for DB2 UDB for z/OS Version 8 long object names. In Version 8, DB2 UDB for z/OS expanded table names from 18 to 128 characters. This extension to 128 characters also applies to views, aliases, indexes, collections, schemas, triggers, and distinct types. The length of a column label name is expanded from 18 characters to 30 characters.

DB2 Information Integrator Classic Federation for z/OS supports a maximum table name length of 18 characters and a maximum column name length of 30 characters. With this extension, you can map long object names to short object names in the DB2 Information Integrator Classic Federation for z/OS catalog. The original long object name is maintained in connector structures for subsequent access at runtime.

---

### Adabas

- Incorrect processing of Adabas date fields within an OCCURS clause.
- An Adabas date or time field in the WHERE clause of a query might return incorrect results.
- Error when an Adabas date field contains null values:

When you identify a value as an SQL NULL value by using the NULL IS clause of the USE grammar, the value being interpreted as NULL for the Adabas date field must be specified in one of the following two ways:

- If the value that is treated as NULL corresponds to the zero value (January 1, 0000), the NULL IS clause must be specified as shown in the following example:

```
DATE_COLUMN_WITH_ZERO_NULL
SOURCE_DEFINITION FIELDNAME "DF"
USE AS DATE "YYYY/MM/DD"
NULL IS X'00',
```

- If the value that is treated as NULL corresponds to a date that is not a zero value, the NULL IS clause must identify that date, as shown in the following example:

```
DATE_COLUMN_WITH_DATE_NULL
SOURCE_DEFINITION_FIELDNAME "DF"
USE AS DATE "YYYY/MM/DD"
NULL IS '0000/01/02',
```

---

## CA-IDMS

The metadata utility job failed with a syntax error on a reserved word specified for the area name in the CA-IDMS subschema.

---

## Data Mapper

The Japanese version of the Data Mapper is enabled

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## Metadata utility

When processing logical DBDs that reference multiple physical DBDs and multiple IMS logical table mappings, metadata utility errors occurred.

---

## ODBC, JDBC, CLI clients

- ODBC and CLI
  - The ODBC driver for Windows supports a decimal precision greater than 18.
  - The CLI driver for UNIX does not support a decimal precision greater than 18. When the SQLFetch API returns a decimal column with a precision greater than 18, the error message 'Numeric Value out of range' is issued.
- ODBC
  - The ODBC driver now supports NLS message catalogs.
  - A client application that calls SQLBindParameter and identifies that the parameter contains a null value, by passing SQL\_NULL\_DATA in the last parameter passed to SQLBindParameter, caused abend S0C4 at the server.
- CLI
  - When using CLI on the AIX operating system, an SQLEndTran error occurred.
- JDBC
  - The JDBC driver now supports the JDBC function Statement.cancel.
  - When CODEPAGE=Cp930 was specified when using the JDBC driver, an error occurred.

---

## WebSphere MQ

You can now use WebSphere MQ for local or remote connections to the classic data server without connection errors.

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## Code pages

- SQL statements containing Katakana lowercase characters (code pages 930 and 1390) are now supported.
- When CODEPAGE is set to Cp930, data sent to WebSphere MQ was corrupted.
- Literal values being translated to uppercase when using Cp930 convertors resulted in a conversion error.

---

## Data type support

- GRAPHIC column length  
Graphic columns were returned with an incorrect length when a HEX function was applied to a GRAPHIC data type.
- CHAR and GRAPHIC, LIKE clause support  
The LIKE clause supports the CHAR data type. The LIKE clause does not support the GRAPHIC data type.
- VARGRAPHIC and VARCHAR column lengths  
When a value was not specified for a VARCHAR or VARGRAPHIC field on an INSERT statement, the column length was initialized with an invalid value.
- DECIMAL column scale  
For a DB2 table query that includes a WHERE clause that references a scale-0 DECIMAL column, the value contained extraneous zeros. This error prevented the DB2 optimizer from selecting an available index to process the query.
- DATE column  
When using Microsoft Access 2003 against a DB2 table that has an index that contains a date field, #Deleted was returned for all values.
- When attempting to extract data from a view that is imported as a table, a view that has multiple joins and a table column that contains a date field, abend S0C4 resulted.

---

## Subpool storage

A query that consumes too much storage is automatically cancelled to avoid subpool exhaustion. To prevent abend S0C4 in the query processor module (CACQP), subpool storage will be monitored. The monitoring will determine if a query process should be cancelled based on whether the subpool storage area can handle the volume of data being returned.

- If a portion of the query is processed before subpool memory is used, the result set might return only a subset of the requested data.
- If configuration parameter PDQ=1, the result set might be returned before subpool storage use reaches 100%.

WTO messages will be issued when subpool memory reaches 50%, 75%, and 90%.

---

## Query processor

The Query Processor component is enabled to be a direct TCP listener. With this enhancement, clients do not need to be routed through the connection handler.



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## Documentation updates

The following sections describe corrections and additions to previously released PDF and printed documentation.

---

### Corrections to documentation

**Publication title:** *IBM DB2 Information Integrator Client Guide for Classic Federation and Classic Event Publishing*

**Location in publication:** Chapter 3, Configuring the ODBC/CLI driver

**Correction 1 of 2:** Replace these configuration parameters:

```
SERVER CODE PAGE
CLIENT CODEPAGE
CODE PAGE
```

with these parameters:

```
SERVER CODEPAGE
CLIENT CODEPAGE
```

**Correction 2 of 2:** Replace this line in the sample file:

```
NL CAT = \Program Files\IBM\DB2IIClassic82\ODBC\engcat
```

with these lines:

```
NL CAT = c:\Program Files\IBM\DB2IIClassic82\ODBC\lib
SERVER CODEPAGE = IBM-037
CLIENT CODEPAGE = IBM-850
```

**Location in publication:** Chapter 4, Configuring the CLI client

**Correction:** Change the third paragraph to read:

The configuration file cac.ini resides in the installation directory

```
client= /opt/IBM/DB2IIClassic82/cli/lib
```

**Location in publication:** Chapter 4, Configuration steps

**Correction 1 of 3** In Step 1, replace this line in the example:

```
/opt/IBM/DB2IIClassic82/cli/lib/cac.ini
```

with this line:

```
client=/opt/IBM/DB2IIClassic82/cli/lib/cacsqcli
```

Replace the list of clients with:

- AIX: cacsqcli
- HP-UX: libcacsqcli.sl
- Solaris: libcacsqcli.so

**Correction 2 of 3:** In Step 2, replace the installation directory with:

```
/opt/IBM/DB2IIClassic82/cli/lib
```

Replace this line in the sample configuration file:

```
NL CAT = /opt/IBM/DB2IIClassic82/CLI/engcat
```

with these lines:

```
NL CAT = /opt/IBM/DB2IIClassic82/cli/lib  
SERVER CODEPAGE = IBM-037  
CLIENT CODEPAGE = IBM-850
```

**Correction 3 of 3:** In Step 7, replace these lines in the AIX example:

```
:CAC_CONFIG=/opt/IBM/DB2IIClassic82/CLI/cac.ini  
LIBPATH=/lib:/opt/IBM/DB2IIClassic82/CLI
```

with these lines:

```
CAC_CONFIG=/opt/IBM/DB2IIClassic82/cli/lib/cac.ini  
LIBPATH=/lib:/opt/IBM/DB2IIClassic82/cli/lib
```

**Location in publication: Appendix A, NL CAT**

**Correction:**

Replace the example with:

```
NL CAT = /opt/IBM/DB2IIClassic82/cli/lib
```

---

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