



IBM Software Group

IBM WebSphere® Data Interchange V3.3

Database Installation Considerations



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This presentation discusses database installation considerations when installing the DB2 database for WebSphere Data Interchange version 3 release 3.

Topics

- Unicode
- Database definition changes
- Clause restrictions
- DB2 Table changes
- DB2 Stored Procedures



Topics to be discussed are Unicode change to the database, DDL changes, and some known SQL restrictions. A summary of DB2 tables changes and Stored Procedures is also shown.

Unicode Database Changes

- In WDI 3.3, the DB2 database was changed to be Unicode based, instead of using the local codepage.
 - Allows any characters to be stored, even if they are not represented in the local codepage.
 - Examples are Japanese or Cyrillic
 - Characters could be included in maps, translate tables, code lists, etc



In WDI 3.3, the DB2 database was changed to be Unicode based, instead of using the local codepage. This allows any characters to be stored, even if they are not represented in the local codepage. For example, Japanese or Cyrillic characters could be included in maps, translate tables, code lists, etc

Database Definition Changes

- Key database definition changes
 - ▶ Database is defined with CCSID UNICODE.
 - ▶ Columns that were previously defined as CHAR were generally changed to GRAPHIC.
 - ▶ Columns that were previously defined as VARCHAR were generally changed to VARGRAPHIC.
 - ▶ Some fields that were previously defined as CHAR needed to be changed to VARGRAPHIC.
 - DB2 z/OS v7 has a maximum length of 127 characters for GRAPHIC columns.
 - ▶ Columns that were defined as FOR BIT DATA were left as CHAR.
 - ▶ A 32K buffer pool is used for many of the tables.
 - Many of the row lengths are now greater than 4K.
 - ▶ Some keys and indexes needed to be changed
 - DB2 z/OS v7 only allows 256 bytes total length for keys and indexes
 - Each GRAPHIC character is 2 bytes instead of 1, some keys and indexes were too long.



Database definition changes

Some of the key database changes to the database definition, including follow-on implications are described below.

The database is defined with CCSID UNICODE. This is required to store the data as Unicode.

Columns that were previously defined as CHAR were generally changed to GRAPHIC. This stores the data as 16-bit Unicode characters, and still allows fixed-length fields.

Columns that were previously defined as VARCHAR were generally changed to VARGRAPHIC. This stores the data as 16-bit Unicode characters, with strings of varying lengths.

Some fields that were previously defined as CHAR needed to be changed to VARGRAPHIC. This is because DB2 z/OS v7 has a maximum length of 127 characters for GRAPHIC columns.

Columns that were defined as FOR BIT DATA were left as CHAR. This is more appropriate for binary data.

A 32K buffer pool is used for many of the tables. This is required because many of the row lengths are now greater than 4K.

Some keys and indexes needed to be changed, because DB2 z/OS v7 only allows 256 bytes total length for keys and indexes. Because each GRAPHIC character is 2 bytes instead of 1, some keys and indexes were too long.

Other implications

- DB2 z/OS v7 does not allow you to do a SELECT ... WHERE COL = value, if COL is more than 255 bytes
 - ▶ That is, VARCHAR(n) where $n > 127$
 - ▶ ORDER clause has same restriction
- Some of the database lookups (both source and Client) had to change the SELECT statements to use LIKE and then do additional checking to see if COL = value.



Other implications:

DB2 z/OS v7 does not allow you to do a SELECT ... WHERE COL = value, if COL is more than 255 bytes (i.e. VARCHAR(n) where $n > 127$). The ORDER BY clause also has the same restriction.

To get around this issue, some of the database lookups (both source and Client) had to change the SELECT statements to use LIKE and then do additional checking to see if COL = value.

Table changes

- DB2 Tables deleted in WDI v3.3
 - ▶ Profiles
 - EDIPSPD – Profile Definition Table
 - EDIPSAC – Activity Log Profiles



Tables dropped in WDI v3.3 included the Profile Definition Table. The function of this table was made internal and the Activity Log Profile was made extraneous in WDI 3.2 with the DB2 Event Log and is dropped in WDI v3.3.

Table changes

- DB2 Tables added in WDI v3.3
 - ▶ Document Store
 - EDIDSDOC – Document Table
 - EDIDSXTN – Document Extension Table
 - EDIDSATTR – Document Attribute Table
 - EDIDSREL – Document Relation Table
 - EDIDSRAT -
 - EDIDSRELATTR – Document Relation Attribute Table
 - EDIDSACT – Document Activity Table
 - EDIDSAAT -
 - EDIDSACTATTR – Document Activity Attribute Table
 - EDIDSSTATUS – Document Status Table
 - EDIDSDDL – Document Detail Table
 - EDIDSIMG – Document Image Table



The Document Store tables capture non-EDI (flat file and XML) data for translations. Some tables are defined for future use.

Table changes

- DB2 Tables added in WDI v3.3 (continued)

- ▶ Security

- EDISECROLE – Security Role Table
- EDISECROLEDETROLE – Security Roles within a role
- EDISECROLEDETOBJ – Security Objects within a role
- EDISECUID – Security User ID table
- EDISECUIDDETROLE – Security Roles assigned to an userid
- EDISECUIDDETGRP – Security Groups assigned to an userid
- EDISECUIDDETOBJ – Security Objects assigned to an userid
- EDISECGRP – Security Groups



With the implementation of Client security, a number of tables were implemented to house the userids, roles, and groups used to give WDI functioned based security by userid.

Table changes

- DB2 Tables added in WDI v3.3 (continued)
 - ▶ Audit Trail
 - EDIAUDITHDR – Audit trail detail
 - ▶ Remote Job Submission
 - EDIDBREQ – submission requests
 - EDIDBFILE1 – submission results
 - EDIDBFILE2 – future use
 - EDICMDDICT – Command Dictionary
 - EDICMD – Command Table
 - EDICMDREF – Command Reference Table
 - ▶ Profiles
 - EDIPSDP - Destination Properties Table
 - EDIPSED – Event Destination Profile
 - EDIPSMS – Message ID Table
 - EDIPSDR – Data Reference Table
 - EDIPSSL – Service Profile Detail
 - EDIPSBI – Trading Partner Business IDs (carryover from WDI v3.2 maintenance)



New tables were added for new function of WDI 3.3. Audit trails for WDI Client changes, the Remote Job Submission function and the ability to create a Command (PERFORM command) repository, and new profiles for Alert management.

Table changes

- DB2 Stored Procedures added in WDI v3.3
 - ▶ Remote Job Submission
 - EDIADDREQ -
 - EDIEXEC1 – EDIDPROC
 - EDIEXEC2 -



DB2 Stored Procedures are used in WDI v3.3 for the first time. These are used to facilitate Remote Job submission from WDI Client.

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