



IBM Software Group

IBM WebSphere® Data Interchange V3.3

Installing z/OS Server



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This is the WDI version 3.3 z/OS Installation presentation.

Agenda

- New aspects of the 3.3 install
- Install steps
- Operational changes
- Migration considerations
- Error Notification install step, Java
- Summary



The idea here is to go over those aspects of the z/OS base install that are new or different in 3.3. The CICS install, which goes on top of this, is covered in a separate presentation. We will cover the z/OS install steps, operational changes, and migration considerations. I will also talk about the new Error Notification install step, which involves UNIX commands entered on the ISPF command screen.

Install Guide – Chapter 2

- **WDI Version 3.3 Installation Guide for z/OS**
 - ▶ Chapter 2 - Installing WebSphere Data Interchange
- **Migration from versions 3.1 and 3.2**
- **Dataset naming convention**
 - ▶ EDI.V3R3M0.*
- **DB2 plan name and high-level qualifier**
 - ▶ EDIENU33
- **Administrator's Menu removed**
 - ▶ No more VSAM, GDDM, and CLIST considerations



The install steps are in Chapter 2 of the WDI Installation Guide. Existing WDI z/OS systems may be upgraded from versions 3.1 and 3.2. The usual naming conventions were kept. For example, EDI.V3R3M0 are the high-level qualifiers for dataset names, and EDIENU33 is the high-level qualifier for DB2 tables. The WDI Facility went away, meaning there are no more VSAM, GDDM, and CLIST considerations.

z/OS Install Steps

- 1 Copying sample installation JCL library EDIJCOPY
- 2 SMP/E Considerations for Installing
- 3 Allocating SMP/E control data sets EDIJASMP (Optional Job)
- 4 Initializing the SMP/E CSI data set EDIJINIT (Optional Job)
- 5 Allocating target and distribution libraries EDIALLOC
- 6 WebSphere Data Interchange SMP/E EDIDDDEF
- 7 WebSphere Data Interchange SMP/E EDIRECEV
- 8 WebSphere Data Interchange SMP/E EDIAPPLY
- 9 WebSphere Data Interchange SMP/E EDIACCEP 26 ACCEPT
- 10 Processing Cumulative Service Tape, if Applicable
- 11 Creating Version 3.3 repository DB2
- 12 Loading repository DB2 tables EDIJRDLD
- 13 Running RUNSTATS on the loaded DB2 EDIJRNST



This slide and the next list the z/OS install steps. These are similar to what you may have seen in previous versions. In the Install Guide there are actually two paths listed: one for a new customer installation and one for a customer migrating from 3.1 or 3.2. Sequentially, these paths are the same. In the migration path, however, a couple SMP/E-related steps were omitted and a couple migration-related steps were added. We'll see the added steps on the next slide.

z/OS Install Steps

- 14 Binding the DB2 plan EDIJBIND
- 15 Granting authorization on the DB2 objects EDISGRNT
- 16 Importing sample default data EDIJDAT1
- 17a (**If migrating from 3.1 or 3.2 DB2**) Build EDIJXPAD
- 17b (**If migrating from 3.1 VSAM**) Build EDIJXPAV
- 18a (**If Migrating from 3.1 or 3.2 DB2**) Migrate EDIJEXPD
- 18b (**If Migrating from 3.1 VSAM**) Migrate EDIJEXVD
- 19 Verifying the installation
- 20 Reviewing operational enhancements
- 21 Migrate operational data (Transaction store, See APPENDIX B)
- 22 Common Event Handler (optional)



Steps 17, 18, and 21 are for customers who want to migrate operational data from a previous release of WDI. Migration considerations will be covered on upcoming slides.

z/OS Operational Changes

- The Administrator's Menu has been removed from the z/OS interface
 - ▶ These functions now performed using the WDI Client
- Error Notification Java API Support
- DT Functional Acknowledgment and Service Segment Validation maps shipped with WDI
 - ▶ First character in names changed from '\$' to '&'
- WDI 3.3 Database is UNICODE
- DT (Data Transformation) Document Store
 - ▶ Captures information & images for XML and ADF



These are some of the major operational changes in version 3.3. As mentioned the Administrator's Menu (also called the Facility) has been removed. These functions are now performed using the WDI Client. In 3.3 we enhanced Utility print file capabilities. This is referred to as "Error Notification", or "Common Event Handler", or "Email Alert". Details of this enhancement are covered in separate presentations. For installation purposes however, we will discuss in upcoming slides the UNIX commands necessary for the setup.

DT (or Data Transformation) Functional Acknowledgment maps and Service Segment Validation maps that are shipped with WDI have been updated for version 3.3. The map names and associated object names have changed. Names beginning with the dollar sign were changed to begin with an ampersand. During migration, Data Transformation Rules specifying the WDI shipped maps will use the ampersand names.

The WDI 3.3 database is a Unicode database. We'll talk a little more about this on the next slide. Also added in 3.3 is a Document Store for Data Transformation XML and ADF data. Details of this enhancement are covered in separate presentations.

3.3 Install DB2 Considerations

- Define TSO ID 'EDIENU33'
 - ▶ Give it DB2 SYSADM authority
 - ▶ Use this ID to create all WDI DB2 objects
 - ▶ 'EDIENU33' is the high-level qualifier
 - ▶ Use 'SET CURRENT SQLID=EDIENU33' when creating objects
- WDI 3.3 database is Unicode
 - ▶ The EDIDB33E database is created with: CCSID UNICODE
 - ▶ Be sure Unicode Support is active and supports the needed code page conversions for your environment
 - ▶ DB2 Installation Guide, section "Customizing support for Unicode"



These are a couple DB2 considerations. The important point here is that you define the WDI DB2 objects with a TSO ID that has DB2 SYSADM authority and is consistent with the high-level qualifier. You may use a different high-level qualifier, but, if you do, keep the TSO ID and the SQLID consistent. As mentioned, the WDI 3.3 database is a Unicode database. Unicode conversion must be activated in the z/OS DB2 environment. For information on this refer to the DB2 Installation Guide.

3.1 to 3.3 Migration Considerations

- **Network Operation profiles (NETOP)**
 - ▶ No migration should occur
 - ▶ The installation process will load the 3.3 “canned” version of these profiles
- **Operational objects converted**
 - ▶ Objects such as Maps, EDI Standards, and Application Data Formats that existed under the z/OS interface were converted for compatibility with the Windows 3.3 Client
 - ▶ Occurs automatically during Import into 3.3
 - ▶ 3.3 EDI maps dependent on current standard definition
- **See EDI31DOC in EDI.V3R3M0.SEDIINS1**
 - ▶ Information on 3.1 to 3.3 conversion of maps and other objects



These are some 3.1 migration issues. The Network Operation profiles (NETOP) from version 3.1 and earlier are not compatible with version 3.3. They will not be migrated. The base 3.3 installation will load the “canned” 3.3 version of these profiles.

Operational objects created in the old z/OS interface (that is to say, the old Administrator’s Menu) are converted during import to be compatible with the Windows 3.3 Client interface. As a result of this conversion, particular attention should be made to the relationship between a map and its EDI standard. When a map was created via the z/OS interface in 3.1, the EDI standard object at that time became part of the actual map definition. Hence, subsequent changes to the standard were not reflected immediately within the map. In 3.3 this is no longer the case. An existing map is dependent on the current standard definition. Any change to the standard is immediately reflected in the map. However, the control string remains unchanged until recompiled.

For the latest information regarding conversion of 3.1 Maps, EDI Standards, and Application Data Formats, refer to member EDI31DOC in SEDIINS1.

3.1 to 3.3 Migration Considerations

- **Control block changes**
 - ▶ Only a concern for API users
 - ▶ Field LOGLOCK changed from 1 to 17 characters
 - Effected profile data blocks
 - ▶ Network profile
 - ▶ Mailbox profile
 - ▶ Network Security profile
 - ▶ Trading Partner profile
 - ▶ The Utility Control Information block (the FFUS block)
 - Size changed from 248 to 300
 - More information in the CICS Install presentation



There were a few control block changes that might effect 3.1 API users. Field LOGLOCK changed from 1 to 17 characters in version 3.2. The effected data blocks are: the Network, Mailbox, Network Security, and Trading Partner profiles. Also, the size of the Utility Control Information block changed from 248 characters to 300 characters in 3.3. More detail about this change is covered in the CICS Install presentation.

3.2 to 3.3 Migration Considerations

- **Export/Import**
 - ▶ Migration of maps, profiles, control strings, and other objects automatically occurs via export/import during the installation process
- **Special Migration Programs**
 - ▶ Transaction Store
 - ▶ Management Reporting
 - ▶ SAP
 - ▶ Appendix B in the Installation Guide
- **Control block changes**
 - ▶ Size of the Utility Control Information block changed from 248 to 300
 - ▶ More information in the CICS Install presentation



These are some 3.2 migration issues. Migration of maps, profiles, control strings, and other objects automatically occurs via export/import during the installation process. Special migration programs are included that will migrate 3.2 Transaction Store, Management Reporting, and SAP data to 3.3. Appendix B in the Install Guide contains steps for unloading this data from 3.2 and loading it into 3.3. Also, the Utility Control Information block 3.3 change may be of interest to API users.

Error Notification Install Step

- **New step for Error Notification setup**
 - ▶ Also called “Common Event Handler” or “Email Alert”
 - ▶ Involves entering USS (Unix System Services) commands from the ISPF Command screen
- **Error Notification files**
 - ▶ edicevh.jar - Common Event Handling Java API
 - ▶ edicevhsample.jar - Sample email notification event handler with java source
 - ▶ env.profile - Java runtime environment variables for Java in batch JCL
 - ▶ wdi.properties - default Common Event Handling properties



Error Notification is an enhancement added in 3.3. There is an install step for the Java components of this function. This step is required only if the customer will be using the new function. Unix System Services is used to create HFS directories and files. These commands are initiated on the ISPF Command screen. The install step describes in detail the instructions that will verify the version of Java, create a home directory, copy files to the home directory, and modify some of those files. There are even brief descriptions for other Unix commands that you can execute.

The Error Notification files are listed here. Instructions for copying these from the install dataset to the WDI home directory are given, as well as instructions for modifying some of them. The Java environment profile is env.profile. This file is used by the JVM in JCL batch z/OS to determine the PATH, CLASSPATH and JAVA_HOME environment variables.

Error Notification Install Step

- **Sample Email Notification**
 - ▶ If the WDI-supplied email notification sample is to be used, then two files need to be downloaded from Sun Microsystems
 - activation.jar and mail.jar are required
 - <http://www.sun.com>
- **WebSphere MQ**
 - ▶ com.ibm.mq.jar, com.ibm.mqjms.jar, and connector.jar are required
 - ▶ The CLASSPATH in env.profile needs to include the MQ directory where these files are located, or these files need to be copied to the WDI home directory
- **wdi.properties**
 - ▶ The control file for Email Notification



If the WDI-supplied Email Notification sample is to be used, a couple jar files need to be downloaded from Sun Microsystems. These jars are part of the Sun JavaMail API and Sun JavaBeans Activation Framework. If MQ is to be used, then access to the three jar files shown here is required. Both the Sun and the MQ requirements are outlined in the install step.

The file that contains control information for the Email Notification capability is called wdi.properties. Instructions exist that describe how this file might be modified to suit specific needs. For example: the internet address of support personnel designated to receive emails when a WDI translation error occurs might be specified. Again, Error Notification is discussed in separate presentations.

ISPF Command Screen - omvs

- From the ISPF Primary Option Menu select Command
 - ▶ Often option 6
- On the command line enter: omvs
- Then any UNIX command can be entered. For example:
 - ▶ mkdir /u/edi/java
 - ▶ cd /u/edi/java
 - ▶ ls -la
- When finished with UNIX commands, enter exit to go back to ISPF



For those of you who may not be familiar with this, UNIX commands can be entered from the ISPF Command screen by entering omvs. Here are some examples. The mkdir command creates a new directory. The cd command does a change directory. And the ls command lists files and directories within the current directory. These commands and more are described in the install step. To go back to ISPF, just enter 'exit'.

ISPF Command Screen – oedit and obrowse

- From the ISPF Primary Option Menu select Command
 - ▶ Often option 6
- On the command line enter: oedit
 - ▶ Directory ==> /u/edi/java
 - ▶ Filename ==> env.profile
- On the command line enter: obrowse
 - ▶ Directory ==> /u/edi/java
 - ▶ Filename ==> env.profile



In addition to omvs, oedit and obrowse may be entered from the ISPF Command screen. Here you enter the directory and file name you want to edit or browse.

ISPF Command Screen - oput

- ISPF datasets can be copied to the Unix System Services HFS (Hierarchical File System) using the oput command
- From the ISPF Primary Option Menu select Command
 - ▶ Often option 6
- On the command line enter:
`oput 'edi.v3r3m0.sedihfs2(fxxprof)' '/u/edi/java/env.profile' text`
- This command copies FXXPROF to the home directory renaming it to env.profile



Once the home directory has been created, you can copy dataset members from ISPF to the directory using the oput command from the ISPF Command screen. The example here shows how to copy member fxxprof from library EDI.V3R3M0.SEDIHFS2 to the home directory renaming it to env.profile.

Verifying the Error Notification Install

- JCL job EDIJCEH
 - ▶ EDI.V3R3M0.SEDISAM1(EDIJCEH)
 - ▶ Will send a hard-coded test text string to the “to” address in wdi.properties
 - MSG from: WDI Common Event Handler Java API verification job EDIJCEH.
 - ▶ Instructions for email error determination and debug



Sample JCL EDIJCEH will verify the Error Notification Java API installation. The job card must be changed for your particular environment. Execution of this JCL sends a hard-coded test text string to the “to” address specified in the wdi.properties file. If no message seems to have been sent or there is some other type of error during execution, there are instructions for error determination and debug in the install step.

z/OS Installation Verification

- **Administrator's Menu (WDI Facility) removed**
 - ▶ No more VSAM, GDDM, and CLIST considerations
 - ▶ These functions now performed using the WDI Client

- **Install verification done with WDI 3.3 Client**
 - ▶ Install WDI 3.3 Client
 - ▶ Establish client/server access to the z/OS database
 - ▶ View profiles, maps, standards, data formats, etc.



As mentioned, the WDI Facility (or the Administrator's Menu) has been removed from 3.3. There are no more VSAM, GDDM, and CLIST considerations. Verification of the z/OS install is done by viewing various WDI objects using the Client.

Summary

- z/OS install steps
- Operational changes
- Migration considerations
- Error Notification install implications
 - ▶ Unix commands from ISPF Command screen
- DB2 Considerations
 - ▶ WDI 3.3 Database is UNICODE



In summary, we talked about the z/OS install steps and operational changes (emphasizing the removal of the Administrator's Menu, the addition of the Error Notification function, and the Unicode DB2 database). And we talked about migration considerations from 3.1 and 3.2.

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