

WebSphere Data
Interchange



Installation Guide

Note!

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

Eleventh Edition (03December2004)

This major revision obsoletes and replaces SC34-6269.

This edition applies to Version 3 Release 2, Modification Level 1, of the WebSphere Data Interchange licensed program number 5655-I40 and to all subsequent releases and modifications until otherwise indicated in new editions. Use this publication only for the purposes stated in "About This Book."

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About This Book

This book describes how to install Version 3 Release 2 Modification 1 of WebSphere Data Interchange.

Purpose of This Book

This book, in conjunction with the *WebSphere Data Interchange Program Directory* gives instructions on installing WebSphere Data Interchange in a DB2 environment.

Changes after Publication

The *WebSphere Data Interchange Program Directory* document that is shipped with the WebSphere Data Interchange distribution tapes may contain descriptions of the product and current installation information that might have been unavailable when this book was published.

Also check the WebSphere Data Interchange product website for updates to the *WebSphere Data Interchange for z/OS Installation Guide* at the following URL:

<http://www.ibm.com/software/integration/appconn/wdi/library/pubs/>

Audience for This Book

This book is written for the person who installs or maintains WebSphere Data Interchange. You should read one of the following publications before you begin the installation:

- *WebSphere Data Interchange Program Directory*

You should understand the process of installing and maintaining products on your system using System Modification Program Extended (SMP/E), 5668-949.

You should understand how to use DATABASE 2* (DB2*) for OS/390 or z/OS, to install the product when WebSphere Data Interchange runs in a DB2 environment.

How This Book Is Organized

Chapter 1, “Installation Configuration Requirements,” describes the hardware, software, and storage requirements needed to install and invoke WebSphere Data Interchange.

Chapter 2, “Installing WebSphere Data Interchange,” describes the steps required to install WebSphere Data Interchange for all customers using MVS systems and verify that WebSphere Data Interchange is installed properly.

Chapter 3, “Installing WebSphere Data Interchange for CICS Transaction Server for z/OS,” describes the steps required to install WebSphere Data Interchange for a CICS Transaction Server for z/OS environment and to verify that WebSphere Data Interchange is installed properly.

Appendix A, “Reorganization of WebSphere Data Interchange Repository Data,” describes how to reorganize your WebSphere Data Interchange DB2 tables.

Other Publications

Other software references related to this installation guide include the following:

- *WebSphere Data Interchange for z/OS V3.2 Program Directory* (GI10-2561-01)
- *WebSphere Data Interchange for z/OS V3.2 License Information* (GC34-6270)
- *WebSphere Data Interchange for z/OS V3.2 Administration Guide* (SC34-6214)
- *WebSphere Data Interchange for Multiplatforms V3.2 User's Guide* (SC34-6215)
- *WebSphere Data Interchange for Multiplatforms V3.2 Messages and Codes* (SC34-6216)
- *WebSphere Data Interchange for Multiplatforms V3.2 Programmer's Reference* (SC34-6217)
- *CICS Transaction Server for OS/390 1.3 Resource Definition Guide* (SC33-1684)
- *CICS Transaction Server for OS/390 Version 1.3 System Programmer's Reference* (SC33-1689)
- *CICS Transaction Server for OS/390 Version 1.3 Messages and Codes* (GC33-0790)
- *CICS Transaction Server for z/OS Version 2.2 Resource Definition Guide* (SC34-5990)
- *CICS Transaction Server for z/OS Version 2.2 System Programmer's Reference* (SC34-5995)
- *CICS Transaction Server for z/OS Version 2.2 Messages and Codes* (SC34-6003)
- *CICS Transaction Server for z/OS Version 2.2 Diagnosis Reference* (LY33-6099)
- *MVS z/OS Command Reference* (SA22-7627)
- *MVS z/OS System Codes* (SA22-7626)
- *MVS z/OS Messages Library: System Messages, Volume 1* (SA22-7631)
- *MVS z/OS Messages Library: System Messages, Volume 2* (SA22-7632)

- *MVS z/OS Messages Library: System Messages, Volume 3* (SA22-7633)
- *MVS z/OS Messages Library: System Messages, Volume 4* (SA22-7634)
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- *MVS z/OS Messages Library: System Messages, Volume 8* (SA22-7638)
- *MVS z/OS Messages Library: System Messages, Volume 9* (SA22-7639)
- *MVS z/OS Messages Library: System Messages, Volume 10* (SA22-7640)
- *MVS z/OS JCL Reference* (SA22-7597)
- *MVS z/OS JCL User's Guide* (SA22-7598)
- *UNIX System Services for z/OS Command Reference* (SA22-7802)
- *UNIX System Services for z/OS Messages and Codes* (SA22-7807)
- *IBM SMP/E for z/OS and OS/390 User's Guide* (SA22-7773)
- *IBM SMP/E for z/OS and OS/390 Commands* (SA22-7771)
- *IBM SMP/E for z/OS and OS/390 Reference* (SA22-7772)
- *IBM SMP/E for z/OS and OS/390 Messages, Codes, and Diagnosis* (GA22-7770)
- *DB2 UDB for OS/390 and z/OS V7 Administrator's Guide* (SC26-9931)
- *DB2 Command and Utility Reference* (SC26-4375)
- *DB2 UDB for OS/390 and z/OS V7 Messages and Codes* (SC26-9940)
- *DB2 UDB SQL Reference V7 Vol 1* (SC09-2974)
- *DB2 UDB SQL Reference V7 Vol 2* (SC09-2975)
- *VSAM Administration Guide* (GC26-4015)
- *VSAM Administration Macro Instruction Reference* (GC26-4016)
- *VSAM Catalog Administration Access Method Services Reference* (GC26-4075)
- *GDDM Base Programming Reference: Volume 1 and 2* (SC33-0332)
- *GDDM Installation and System Management for MVS* (SC33-0321)
- *GDDM Messages* (SC33-0325)
- *GDDM Diagnosis and Problem Determination Guide* (SC33-0326)

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Chapter 1. Installation Configuration Requirements

The WebSphere Data Interchange programs are distributed either on standard labeled, nine-track magnetic tapes (written at 6250 bpi) or a 3480 tape cartridge. The *WebSphere Data Interchange Program Directory* documents the contents of the WebSphere Data Interchange distribution tapes.

1.1 Installation Environment

Before you install WebSphere Data Interchange, ensure that you have the proper hardware, software, and storage environments.

1.1.1 Hardware Requirements

The host operating system and the objectives of the installation determine the hardware requirements for WebSphere Data Interchange. The following list describes the minimum system configuration for WebSphere Data Interchange:

- Any Year-2000-ready hardware explicitly compatible and fully capable of running the z/OS (ESA mode) operating system, the corresponding supporting software and associated applications unmodified.
- A tape drive for installing distributed material.
- A monochrome terminal with 24-character by 80-character display.
- Between 350 and 400 MB of direct access storage for programs and data
- The hardware required for the network or communication connection.
- A personal computer running the Windows(R) 2000 or Windows(R) XP operating system for running the WebSphere Data Interchange for Multiplatforms Client.

1.1.2 Optional Hardware Products

The following list describes the optional hardware.

- LAN network connectivity to support client/server mode for DataInterchange Client
- The IBM Integrated Cryptographic Feature to support the WebSphere Data Interchange encryption enabling routines running under the IBM Integrated Cryptographic Service Facility/MVS
- The IBM 4753 Network Security Processor to support WebSphere Data Interchange encryption routines running under the IBM 4753 Security Processor MVS Support program

1.1.3 Software Requirements

Data Interchange components requires the following operating system:

- z/OS V1R3 or later (5694-A01)

The following list describes the minimum software requirements under the previously listed operating systems:

- DATABASE 2 (DB2) for OS/390 or z/OS V7 (5645-DB2 or 5675-DB2)
- Windows(R) 2000 or Windows(R) XP for the WebSphere Data Interchange Client
- The software required for the network or communications connection
- IBM System Modification Program Extended (SMP/E) for z/OS and OS390 V3.02.0 or later (5655-G44)
- XML C++ Parser for the OS/390 V2.10 C++ Compiler for z/OS (XML C++ Parser V1.4 for z/OS - 5655-J51, FMID HXML14A). You must install this specific version, release of the parser. Please make sure you read the Note: below. A specific download of FMID HXML14A is available on the web at: <http://www.ibm.com/servers/eserver/zseries/software/xml>

Note: The IBM XML Toolkit for z/OS and OS/390 V1.4 also satisfies this requirement. The XML C++ Parser V1.4 for z/OS (FMID HXML14A) is a repackaging of the C++ parser originally shipped within the IBM XML Toolkit for z/OS and OS/390 V1.4. If you already have installed the original XML Toolkit for z/OS and OS/390 V1.4, you DO NOT need to install the repackaged V1.4 version, release.

1.1.4 Online response to electronic data interchange requests

This mode requires the CICS(R) environment, which is provided by CICS Transaction Server. You must purchase and install these products separately. The following levels of CICS are supported:

- CICS Transaction Server for OS/390 Version 1.3 or later (5655-147)
- CICS Transaction Server for z/OS Version 2.2 (5697-E93) or later
- To perform translation to/from XML formats, the XML Toolkit is required. CICS Transaction Server for OS/390 V1.3 requires the Java XML parser that is part of the XML Toolkit for z/OS and OS/390 V1R2. CICS Transaction Server for z/OS V2.2 or later requires the XML Toolkit for z/OS and OS/390 V1R4. If you require either of these please contact WDI Support for the download instructions or check the WDI web site for additional information (www.ibm.com/software/integration/wdi/downloads/).

1.1.5 Optional Software Products

The following list describes the optional software products:

- WebSphere MQ for z/OS and OS/390 V5.3 (5655-F10)
- EDI Communication software such as Expedite Base/MVS (5695-EDI) and Expedite/CICS (5655-092)
- Resource Access Control Facility (RACF*) Version 1
- Software products that support the System Authorization Facility interface, for WebSphere Data Interchange security.

1.1.6 Storage Requirements for the Link Pack Area

All WebSphere Data Interchange load modules are reentrant. This means that individual modules can be used simultaneously by two or more tasks. Load modules can also reside in the pageable link pack area (LPA). The modules occupy approximately 23,000 bytes of the pageable LPA, and 6,400,000 bytes of the *extended* pageable LPA. To make the modules LPA-resident, you must copy them into the SYS1.LPALIB data set. You can only load modules from this data set into the LPA.

If you choose to make only a portion of the product LPA-resident, see Table 1 for a list of recommended modules. The approximate sizes of the recommended modules are listed in kilobytes (KB). One KB equals 1024 bytes.

Table 1. Modules for LPA Residence Ordered by Performance Benefit

Module Name	Approximate Size (KB)	XA Residence
FXXZCSD	19	Below
FXXZIN	13	Above
EDIRPML	590	Above
EDIPSMN	30	Above
EDIPSMD	375	Above
EDIQSS	5	Below
EDITPT	278	Above
EDISlxx	172	Above
EDIRSML	590	Above

Notes:

1. Modules FXXZCSD, EDIQSS, EDIGBDFM, EDIGBINT, EDIGBTPR, and EDIGBTRM are linked using AMODE(ANY) (addressing mode) and RMODE(24) (residence mode). Module EDIGLBL is linked using AMODE(24) and RMODE(24). All other WebSphere Data Interchange modules are linked using AMODE(31) and RMODE(ANY).
2. Modules EDIXyyy and EDIICVS should be excluded from LPA because they are used only during installation of WebSphere Data Interchange.

If you do not copy modules into the LPALIB data set, you should copy them into a system link library, such as SYS1.LINKLIB. Ensure that the target library has a block size of 6144 or larger.

Each WebSphere Data Interchange user must have at least a 4096 KB region. When you do large amounts of work on the system, you might encounter insufficient storage (TSO region size) errors. The following conditions indicate a memory shortage.

- Error displaying panel EDlxxx
- Insufficient storage available to list all data

- Request for main storage failed, program terminated

The actual error messages depend on your system. If one of these conditions occur, you need additional storage. The system logs error messages in the Event log file. The Event log file provides details about using the WebSphere Data Interchange event logging option.

1.2 Installation Considerations

Before you install WebSphere Data Interchange, you must be familiar with:

- Repository data
- Program Directory
- National language support
- Graphical Data Display Manager
- Security
- Job Control Language
- Data set allocation

1.2.1 Repository Data

WebSphere Data Interchange repository data contains data definitions, formats, and rules that WebSphere Data Interchange uses when processing your data. The installation process loads repository data that WebSphere Data Interchange provides. You can also create repository DB2 data using WebSphere Data Interchange online customization tools.

WebSphere Data Interchange Version 3 Release 2 Modification 1 allows you to choose only a DB2 WebSphere Data Interchange environment.

WebSphere Data Interchange Version 3 Release 2 Modification 1 also provides migration utilities for Version 3 Release 1 and Version 4 Release 1 customers to transfer their existing repository data. You can transfer repository data from DataInterchange Version 3 Release 1 and Version 4 Release 1 DB2 tables to WebSphere Data Interchange Version 3 Release 2 DB2 tables or from DataInterchange Version 3 Release 1 VSAM files to WebSphere Data Interchange Version 3 Release 2 DB2 tables. All installation steps are only for DB2 WebSphere Data Interchange environments.

DataInterchange Version 3 Release 1, Version 4 Release 1, and WebSphere Data Interchange Version 3 Release 2 Modification 1 also provide export/import utilities for customers to transfer all but transaction store and management reporting repository data from Version 3 Release 1 and Version 4 Release 1 DB2 tables to Version 3 Release 2 Modification 1 DB2 tables or from Version 3 Release 1 VSAM files to Version 3 Release 2 Modification 1 DB2 tables. For more information about export/import utilities, see *WebSphere Data Interchange V3.2 for Multiplatforms User's Guide*.

If you need further assistance, please call the IBM Support Center. See 1.3, "Targeting Installation Problems" on page 12.

1.2.2 Program Directory

Use the *WebSphere Data Interchange Program Directory* with this installation guide. The program directories contain a full description of the WebSphere Data Interchange product, updates to this installation guide, and additional information necessary for installation.

1.2.3 National Language Support

The only language available in this release is English.

Table 2 shows the language identifier, language code, and values for the language that WebSphere Data Interchange currently supports.

Table 2. NLS Language Identifiers and Codes

Language name	ID	Code
US English	ENU	E

1.2.4 Graphical Data Display Manager

WebSphere Data Interchange uses Graphical Data Display Manager (GDDM) to display panels. The operating characteristics of GDDM have a direct effect on the way WebSphere Data Interchange operates. GDDM lets you customize these characteristics, which are known as user default specifications (UDS). If you already use GDDM and have customized it by using an ADMDEFS defaults file, you can change or add defaults to that file. Otherwise, you can choose the defaults file shipped with WebSphere Data Interchange. For more information about UDS, see *GDDM Base Programming Reference: Volume 2*.

By default, WebSphere Data Interchange allocates an ADMDEFS file, EDI.V3R2M0.SEDISAM1 (EDIGDDM), that is shipped with the product. The user default specifications that might apply are:

Keyword	Description
PCLK	Prevents the PCLK message that might otherwise display when you initialize GDDM if NO is specified. GDDM-PCLK is a GDDM feature that allows a personal computer (PC) to show host graphics.
CTLMODE	Disables the GDDM User Control panel that currently displays when you press PA3 if NO is specified.
TSOINTRP	Disables the PA1 interrupt and allows WebSphere Data Interchange, rather than GDDM, to handle the CLEAR key if NONE is specified. For example, if you do not set this option, the CLEAR key might leave the screen blank.
CECPINP	Restricts user input to a subset of characters available on a country's CECP code page if NO is specified. By default, GDDM lets you enter all CECP characters.

- IOBFSZ** Specifies the outbound buffer size that GDDM uses. Depending on your installation, you might want to explicitly set this value. It is also related to terminal capacity and terminal connection types.
- NATLANG** Sets the language GDDM uses for its messages. You normally establish this at installation. However, different users can operate in different languages. See 1.2.3, “National Language Support” on page 7 for more information.
- TRCESTR** Specifies trace options. You must use this with the TSOTRCE statement to point to the trace file. If you encounter difficulty viewing a WebSphere Data Interchange panel, use the GDDM trace facilities.
- DEVCPG** Specifies different code pages that represent electronically stored information. Data created in one code page might not be displayed the same when shown in another country. Data might also be displayed differently when using a terminal that operates under a different code page. WebSphere Data Interchange uses the code page conversion capabilities of GDDM to help ensure that the information is displayed as it was intended.

WebSphere Data Interchange sets the application code page to the value it finds in the code page field of the LANGPROF profile member in use. GDDM then queries the terminal to see if it is the same. If the two values are different, it automatically performs code page conversion on all data. You can use the DEVCPG=n statement to override the value GDDM receives on the device query.

If you perform WebSphere Data Interchange customization in the CICS environment, verify that GDDM is correctly installed for running in the CICS environment. See your GDDM installation guide for information about installing GDDM in a CICS region.

1.2.5 Security

Security for WebSphere Data Interchange is provided by Resource Access Control Facility (RACF) or an equivalent product that is consistent with System Authorization Facility (SAF) interfaces.

1.2.6 Job Control Language

You might need to change the names of WebSphere Data Interchange data sets, members, files, DB2 tables, or their high-level qualifiers names. Comments in the control streams and job control language (JCL) direct you when making these changes. Although you can make other changes to these names, it is not recommended. The JCL, control statements, and instructions in this guide presume that you change the names only as directed.

1.2.7 Data Set Allocation

You must allocate data sets required for the WebSphere Data Interchange distribution and target libraries during the installation. We recommend that you use separate SMP/E data sets for WebSphere Data Interchange. Comments and instructions presented in this book and the sample JCL assume that you use separate SMP/E data sets. If you use common SMP/E data sets for WebSphere Data Interchange, edit the sample installation JCL in the appropriate steps. The installation requirements section in the *WebSphere Data Interchange Program Directory* provides the information you need to determine the required disk space.

For an example of space allocation for WebSphere Data Interchange VSAM files and DB2 tables, see the *WebSphere Data Interchange Programmer's Reference*. If a reorganization of the WebSphere Data Interchange Version 3 Release 2 Modification 1 DB2 tables is required, see Appendix A, "Reorganization of WebSphere Data Interchange Repository Data" on page 67 for more information.

Table 3 shows the data sets that you might need to allocate.

Table 3 (Page 1 of 3). Installation Data Sets

Data Set Name	Function
EDI.SMPCSI.CSI	Consolidated Software Inventory
EDI.SMPLOG	History Log Data Set
EDI.SMPLTS	Load Module Temporary Store
EDI.SMPMTS	Macro Temporary Store
EDI.SMPPTS	PTF Temporary Store
EDI.SMPSCDS	Save Control Data Set
EDI.SMPSTS	Source Temporary Store
EDI.V3R2M0.SMPLIB1	WebSphere Data Interchange SMP/E Install JCL Library
EDI.V3R2M0.AEDIASM1	WebSphere Data Interchange Assembler Samples Distribution Library
EDI.V3R2M0.AEDICBL1	WebSphere Data Interchange COBOL Samples Distribution Library
EDI.V3R2M0.AEDICCC1	WebSphere Data Interchange C Samples Distribution Library
EDI.V3R2M0.AEDIDAT1	WebSphere Data Interchange Sample Import Data Distribution Library
EDI.V3R2M0.AEDICLS1	WebSphere Data Interchange CLIST Distribution Library
EDI.V3R2M0.AEDIDBR1	WebSphere Data Interchange DB2 DBRM Distribution Library
EDI.V3R2M0.AEDIDB21	WebSphere Data Interchange DB2 Data Distribution Library
EDI.V3R2M0.AEDIINS1	WebSphere Data Interchange Install JCL Distribution Library
EDI.V3R2M0.AEDILMD1	WebSphere Data Interchange Module Distribution Library
EDI.V3R2M0.AEDIPLI1	WebSphere Data Interchange PL/I Samples Distribution Library
EDI.V3R2M0.AEDISAM1	WebSphere Data Interchange Sample JCL Distribution Library

Table 3 (Page 2 of 3). Installation Data Sets

Data Set Name	Function
EDI.V3R2M0.AEDISQL1	WebSphere Data Interchange DB2 SQL Distribution Library
EDI.V3R2M0.AEDISTD1	WebSphere Data Interchange DataInterchange Standards Distribution Library
EDI.V3R2M0.AEDIUPD1	WebSphere Data Interchange Future Updates Distribution Library
EDI.V3R2M0.AEDIVSM1	WebSphere Data Interchange VSAM Data Distribution Library
EDI.V3R2M0.AEDIV3R1	WebSphere Data Interchange Version 3 Migration Aid Library
EDI.V3R2M0.AEDIV4R1	WebSphere Data Interchange Version 4 Migration Aid Library
EDI.V3R2M0.AEDISTUB	WebSphere Data Interchange Version 3.2 Installation Aid Library
EDI.V3R2M0.SEDIASM1	WebSphere Data Interchange Assembler Samples Target Library
EDI.V3R2M0.SEDICBL1	WebSphere Data Interchange COBOL Samples Target Library
EDI.V3R2M0.SEDICCC1	WebSphere Data Interchange C Samples Target Library
EDI.V3R2M0.SEDICLS1	WebSphere Data Interchange CLIST Target Library
EDI.V3R2M0.SEDIDAT1	WebSphere Data Interchange Sample Import Data Target Library
EDI.V3R2M0.SEDIDBR1	WebSphere Data Interchange DB2 DBRM Target Library
EDI.V3R2M0.SEDIDB21	WebSphere Data Interchange DB2 Data Target Library
EDI.V3R2M0.SEDIINS1	WebSphere Data Interchange Install JCL Target Library
EDI.V3R2M0.SEDILMD1	WebSphere Data Interchange Load Module Target Library
EDI.V3R2M0.SEDILMP1	WebSphere Data Interchange Load Map Target Library
EDI.V3R2M0.SEDIPLI1	WebSphere Data Interchange PL/I Samples Target Library
EDI.V3R2M0.SEDISAM1	WebSphere Data Interchange Sample JCL Target Library
EDI.V3R2M0.SEDISQL1	WebSphere Data Interchange DB2 SQL Target Library
EDI.V3R2M0.SEDISTD1	WebSphere Data Interchange DataInterchange Standards Distribution Library
EDI.V3R2M0.SEDIUPD1	WebSphere Data Interchange Future Updates Target Library
EDI.V3R2M0.SEDIVSM1	WebSphere Data Interchange VSAM Data Target Library
EDI.V3R2M0.SEDIV3R1	WebSphere Data Interchange Version 3 Migration Aid Library
EDI.V3R2M0.SEDIV4R1	WebSphere Data Interchange Version 4 Migration Aid Library
EDI.V3R2M0.SEDISTUB	WebSphere Data Interchange Version 4 Installation Aid Library
EDI.V3R2M0.AEDIASM2	WebSphere Data Interchange Assembler Samples Distribution Library
EDI.V3R2M0.AEDICBL2	WebSphere Data Interchange COBOL Samples Distribution Library
EDI.V3R2M0.AEDICCC2	WebSphere Data Interchange C Samples Distribution Library
EDI.V3R2M0.AEDIDBR2	WebSphere Data Interchange DB2 DBRM Distribution Library
EDI.V3R2M0.AEDIINS2	WebSphere Data Interchange Install JCL Distribution Library

Table 3 (Page 3 of 3). Installation Data Sets

Data Set Name	Function
EDI.V3R2M0.AEDIHFS2	WebSphere Data Interchange XML Java Distribution Library
EDI.V3R2M0.AEDILMD2	WebSphere Data Interchange Module Distribution Library
EDI.V3R2M0.AEDIPLI2	WebSphere Data Interchange PL/I Samples Distribution Library
EDI.V3R2M0.AEDISAM2	WebSphere Data Interchange Sample JCL Distribution Library
EDI.V3R2M0.AEDISQL2	WebSphere Data Interchange DB2 SQL Distribution Library
EDI.V3R2M0.AEDIUPD2	WebSphere Data Interchange Future Updates Distribution Library
EDI.V3R2M0.SEDIASM2	WebSphere Data Interchange Assembler Samples Target Library
EDI.V3R2M0.SEDICBL2	WebSphere Data Interchange COBOL Samples Target Library
EDI.V3R2M0.SEDICCC2	WebSphere Data Interchange C Samples Target Library
EDI.V3R2M0.SEDIIDBR2	WebSphere Data Interchange DB2 DBRM Target Library
EDI.V3R2M0.SEDIINS2	WebSphere Data Interchange Install JCL Target Library
EDI.V3R2M0.SEDIHFS2	WebSphere Data Interchange XML Java Target Library
EDI.V3R2M0.SEDILMD2	WebSphere Data Interchange Load Module Target Library
EDI.V3R2M0.SEDILMP2	WebSphere Data Interchange Load Map Target Library
EDI.V3R2M0.SEDIPLI2	WebSphere Data Interchange PL/I Samples Target Library
EDI.V3R2M0.SEDISAM2	WebSphere Data Interchange Sample JCL Target Library
EDI.V3R2M0.SEDISQL2	WebSphere Data Interchange DB2 SQL Target Library
EDI.V3R2M0.SEDIUPD2	WebSphere Data Interchange Future Updates Target Library

1.3 Targeting Installation Problems

If an error occurs, use the error message number to refer to the appropriate book for further information.

If you cannot resolve your problem:

- Call the IBM Support Center toll free at 1-800-IBM-SERV (1-800-426-7378) if you are in the continental United States, Alaska, Puerto Rico, Hawaii, or Guam.

- Go to the following web site:

<http://techsupport.services.ibm.com/guides/contacts.html>

From the **Support Contacts** list, select your country for your support contact information.

Submit any required APARs to the location responsible for the failing component.

This table identifies the component ID (COMP ID) and the field engineering service number (FESN) for WebSphere Data Interchange.

Table 4. Component ID and Field Engineering Service Number

COMP ID	Component name	FESN
5655I4000	WebSphere Data Interchange for z/OS	0510012

1.4 WebSphere Data Interchange Installation Paths

The following tables define the path requirements, in step order, for each installation procedure. You must clearly define installation considerations (on page 6) before you begin the installation procedure.

Table 5 on page 13 describes which table in this section applies to your installation.

Table 5. WebSphere Data Interchange Installation Paths

Installing WebSphere Data Interchange as new customer See Table 6 on page 14

Upgrading DataInterchange/MVS (DB2) from Version 3 Release 1 to Version 3 Release 2 Modification 1 or from Version 4 Release 1 to Version 3 Release 2 Modification 1 See Table 7 on page 15

Migrating DataInterchange (non-DB2) from Version 3 Release 1 to Version 3 Release 2 Modification 1 See Table 8 on page 17

Installing WebSphere Data Interchange for CICS portion as new customer See Table 9 on page 19

Upgrading DataInterchange CICS portion from Version 3 Release 1 or from Version 4 Release 1 to Version 3 Release 2 Modification 1 See Table 10 on page 20

1.4.1 Installing WebSphere Data Interchange for z/OS

Follow these steps only if you are a new WebSphere Data Interchange for z/OS customer using a DB2 environment.

Table 6. Installing WebSphere Data Interchange for z/OS (DB2)

Step	Description	Member Name	Page
1	Copying sample installation JCL library	EDIJCOPY	26
2	SMP/E Considerations for Installing WebSphere Data Interchange	see step	27
3	Allocating WebSphere Data Interchange target and distribution libraries	EDIALLOC	28
4	Allocating SMP/E control data sets	EDIJASMP	28
5	Initializing the SMP/E CSI data set	EDIJINIT	29
7	Processing SMP/E RECEIVE	EDIRECEV	30
8	Processing SMP/E APPLY	EDIAPPLY	30
9	Processing SMP/E ACCEPT	EDIACCEP	31
10	Processing Cumulative Service Tape, if Applicable	see step	31
11	Defining VSAM files	EDIJVSDD	32
12	Loading VSAM files	EDIJVSLD	32
13	Creating Version 3 Release 2 Modification 1 repository DB2 objects	see list in step	33
14	Loading repository DB2 tables	EDIJRDLD	34
18	Running RUNSTATS on the loaded DB2 tables	EDIJRNST	38
19	Binding the DB2 plan	EDIJBIND	39
20	Granting authorization on the DB2 objects	EDISGRNT	39
21	Importing sample default data	EDIJDAT1	43
24	Customizing DB2 CLISTs	EDIDB2	45
25	Verifying the installation	N/A	47

1.4.2 Upgrading DataInterchange/MVS (DB2) from Version 3 Release 1 or from Version 4 Release 1 to Version 3 Release 2 Modification 1

Follow these steps only if you are upgrading DataInterchange/MVS Version 3 Release 1 to Version 3 Release 2 Modification 1 or DataInterchange/MVS Version 4 Release 1 to Version 3 Release 2 Modification 1 in a DB2 environment.

Table 7 (Page 1 of 2). Upgrading DataInterchange/MVS from Version 3 Release 1 or Version 4 Release 1 to Version 3 Release 2 Modification 1 (DB2)

Step	Description	Member Name	Page
1	Copying sample installation JCL library	EDIJCOPY	26
2	SMP/E Considerations for Installing WebSphere Data Interchange	see step	27
3	Allocating WebSphere Data Interchange target and distribution libraries	EDIALLOC	28
6	Updating the SMP/E CSI data set	EDIJDDEF	29
7	Processing SMP/E RECEIVE	EDIRECEV	30
8	Processing SMP/E APPLY	EDIAPPLY	30
9	Processing SMP/E ACCEPT	EDIACCEP	31
10	Processing Cumulative Service Tape, if Applicable	see step	31
11	Defining VSAM files	EDIJVSDD	32
12	Loading VSAM files	EDIJVSLD	32
15	Creating Version 3 Release 2 Modification 1 repository DB2 objects	see list in step	36
16	Unloading select DB2 tables from previous version (Version 3 Release 1 uses EDIJRDUL, Version 4 Release 1 uses EDIJRDU1)	EDIJRDUL or EDIJRDU1	36
17	Loading Version 3 Release 2 Modification 1 DB2 tables from default data and previous version data. All customers run EDIJRDL and EDIJCMRD. Version 3 Release 1 uses EDIJRDL5, Version 4 Release 1 uses EDIJRDL1.	EDIJRDL EDIJCMRD EDIJRDL5 or EDIJRDL1	37
18	Running RUNSTATS on the loaded DB2 tables	EDIJRNST	38

Table 7 (Page 2 of 2). Upgrading DataInterchange/MVS from Version 3 Release 1 or Version 4 Release 1 to Version 3 Release 2 Modification 1 (DB2)

Step	Description	Member Name	Page
19	Binding the DB2 plan	EDIJBIND	39
20	Granting authorization on the DB2 objects	EDISGRNT	39
21	Importing sample default data	EDIJDAT1	43
22	Build control file for exporting Version 3 Release 1 DB2 data	EDIJXPAD	43
23	Migrate Version 3 Release 1 or Version 4 Release 1 DB2 data to Version 3 Release 2 Modification 1	EDIJEXPD EDIJRNST	44
24	Customizing DB2 CLISTS	EDIDB2	45
25	Verifying the installation	N/A	47
26	Reviewing operational enhancements	N/A	48

1.4.3 Migrating DataInterchange/MVS (non-DB2) from Version 3 Release 1 to Version 3 Release 2 Modification 1

Follow these steps only if you are migrating a DataInterchange Version 3 Release 1 non-DB2 environment to a WebSphere Data Interchange Version 3 Release 2 Modification 1 DB2 environment. The non-DB2 to DB2 migration does *NOT* preserve transaction store, management reporting, and SAP status VSAM data.

Table 8 (Page 1 of 2). Migrating DataInterchange Version 3 Release 1 non-DB2 data to a WebSphere Data Interchange Version 3 Release 2 Modification 1 DB2 environment

Step	Description	Member Name	Page
1	Copying sample installation JCL library	EDIJCOPY	26
2	SMP/E Considerations for Installing WebSphere Data Interchange	see step	27
3	Allocating WebSphere Data Interchange target and distribution libraries	EDIALLOC	28
4	Allocating SMP/E control data sets	EDIJASMP	28
5	Initializing the SMP/E CSI data set	EDIJINIT	29
7	Processing SMP/E RECEIVE	EDIRECEV	30
8	Processing SMP/E APPLY	EDIAPPLY	30
9	Processing SMP/E ACCEPT	EDIACCEP	31
10	Processing Cumulative Service Tape, if Applicable	see step	31
11	Defining VSAM files	EDIJVSDD	32
12	Loading VSAM files	EDIJVSLD	32
13	Creating Version 3 Release 2 Modification 1 repository DB2 objects	see list in step	33
14	Loading repository DB2 tables	EDIJRDLT	34
18	Running RUNSTATS on the loaded DB2 tables	EDIJRNST	38
19	Binding the DB2 plan	EDIJBIND	39
20	Granting authorization on the DB2 objects	EDISGRNT	39
21	Importing sample default data	EDIJDAT1	43
22a	Build control file for exporting Version 3 Release 1 non-DB2 data	EDIJXPV	44

Table 8 (Page 2 of 2). Migrating DataInterchange Version 3 Release 1 non-DB2 data to a WebSphere Data Interchange Version 3 Release 2 Modification 1 DB2 environment

Step	Description	Member Name	Page
23a	Migrate Version 3 Release 1 non-DB2 data to Version 3 Release 2 Modification 1 DB2 environment	EDIJEXVD EDIJRNST	45
24	Customizing DB2 CLISTs	EDIDB2	45
25	Verifying the installation	N/A	47
26	Reviewing operational enhancements	N/A	48

1.4.4 Installing WebSphere Data Interchange for CICS as a New Customer

Note: You must complete the installation steps in Table 6 on page 14 before installing the WebSphere Data Interchange CICS portion. The WebSphere Data Interchange customization feature can be run in either TSO or CICS.

Follow these steps only if you are a new customer installing WebSphere Data Interchange for CICS in a DB2 environment.

Table 9. Installing WebSphere Data Interchange for CICS (DB2)

Step	Description	Member Name	Page
27	Creating COBOL user exit enabling module for CICS	FXXJLCBL FXXJLCB2	54
28	Creating the EDIW transaction module for CICS	FXXJEDIW	55
29	Creating DB2 synonyms for CICS	FXXSSYNO	55
30	Binding the DB2 plan	FXXJBIND	56
31	Granting authorization on the DB2 objects	N/A	56
32	Setting up DCT for WebSphere Data Interchange	FXXDCT	56
33	Setting up PCT for WebSphere Data Interchange	FXXOPCT	57
34	Setting up PPT for WebSphere Data Interchange	FXXOPPT	57
35	Setting up XLT for WebSphere Data Interchange and Expedite/CICS	FXXXLT	58
36	Setting up FCT for DB2 installation	FXXOFCT1	58
37	Setting up RCT	FXXRCT	59
38	Customizing the CICS startup JCL for DB2 WebSphere Data Interchange	FXXDDND	59
39	Setup for Global Lookaside Buffer (GLB)	FXXJVSGB FXXJGLBL	60
40	PLT considerations	N/A	61
41	XML setup considerations	N/A	61
42	Verifying the CICS installation	EDIA EDIV	63

1.4.5 Upgrading DataInterchange CICS Portion from Version 3 Release 1 or from Version 4 Release 1 to Version 3 Release 2 Modification 1

Note: You must complete the installation steps in Table 7 on page 15 or Table 8 on page 17 before installing the WebSphere Data Interchange CICS portion. The WebSphere Data Interchange customization feature can be run in either TSO or CICS.

Follow these steps only if you are upgrading DataInterchange/CICS Version 3 Release 1 DB2 or DataInterchange/CICS Version 4 Release 1 DB2 to Version 3 Release 2 Modification 1.

Table 10 (Page 1 of 2). Upgrading DataInterchange/CICS Version 3 Release 1 or Version 4 Release 1 to Version 3 Release 2 Modification 1 (DB2)

Step	Description	Member Name	Page
27	Creating COBOL user exit enabling module for CICS	FXXJLCBL FXXJLCB2	54
28	Creating the EDIW transaction module for CICS	FXXJEDIW	55
28	Creating DB2 synonyms for CICS	FXXSSYNO	55
30	Binding the DB2 plan	FXXJBIND	56
31	Granting authorization on the DB2 objects	N/A	56
32	Setting up DCT for WebSphere Data Interchange	FXXDCT	56
33	Setting up PCT for WebSphere Data Interchange	FXXOPCT	57
34	Setting up PPT for WebSphere Data Interchange	FXXOPPT	57
35	Setting up XLT for WebSphere Data Interchange and Expedite/CICS	FXXXLT	58
36	Setting up FCT for DB2 installation	FXXOFCT1	58
37	Setting up RCT	FXXRCT	59
38	Customizing the CICS startup JCL for DB2 WebSphere Data Interchange	FXXDDND	59
39	Setup for Global Lookaside Buffer (GLB)	FXXJVSGB FXXJGLBL	60
40	PLT considerations	N/A	61
41	XML setup considerations	N/A	61

Table 10 (Page 2 of 2). Upgrading DataInterchange/CICS Version 3 Release 1 or Version 4 Release 1 to Version 3 Release 2 Modification 1 (DB2)

Step	Description	Member Name	Page
42	Verifying the CICS installation	EDIA EDIV	63

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Chapter 2. Installing WebSphere Data Interchange

This chapter describes the steps required to install WebSphere Data Interchange for z/OS and verify that the installation was successful. **CICS Transaction Server for z/OS** customers must complete the installation steps in this chapter before installing the CICS portion.

This chapter also provides information about:

- Setting up System Modification Program/Extended (SMP/E) libraries for new and existing customers on MVS systems. Version 3 Release 2 Modification 1 is installed for new systems and existing systems are upgraded from Version 3 Release 1 and Version 4 Release 1 to Version 3 Release 2 Modification 1
- Installing DB2 environments.
- Verifying the completed MVS installation.

2.1 Installing WebSphere Data Interchange for All Customers

This process installs WebSphere Data Interchange using the following naming conventions:

- EDI is the high-level qualifier of each SMP/E data set. The sample JCL supplied on the distribution tape follows this convention.
- EDI.V3R2M0 is the first-level and second-level qualifiers of each WebSphere Data Interchange partitioned data set (PDS).
- EDIENU is the high-level qualifier of each WebSphere Data Interchange VSAM file.
- ENU is the default three-character language identifier.
- EDIENU32 is the high-level qualifier of each WebSphere Data Interchange DB2 table.

2.1.1 Step 1. Copying Sample Installation JCL Library

EDIJCOPY is included on the WebSphere Data Interchange tape or tape cartridge and provides a set of sample job streams for product installation. EDIJCOPY uses the IBM IEBCOPY utility program to copy the sample job streams to a new data set called EDI.V3R2M0.SMPLIB1. After applying maintenance (step 10) you should use sample job streams in EDI.V3R2M0.SEDIINS1.

You may also access the sample installation jobs by performing an SMP/E RECEIVE for the FMID H28N320 for Data Interchange and then copying the jobs from dataset **EDI.TLIB.H28N320.F2**.

The following steps describe how to copy the JCL library sample installation files.

1. Create the following job stream. Use your system editor to create the JCL.

```
//EDIJCOPY JOB (INSTALLATION DEPENDENCIES)
//*
//*****
//* COPY DATA INTERCHANGE SAMPLE SMP INSTALL JCL MEMBERS *
//*****
//* 1. CHANGE THE JOB STATEMENT AS NECESSARY *
//* 2. IF NECESSARY CHANGE: *
//* "TAPUNIT" PARAMETER VALUE *
//* "EDIQUAL" PARAMETER VALUE *
//* "RELS" PARAMETER VALUE *
//* "UNIT" PARAMETER VALUE *
//* "OUTC" PARAMETER VALUE *
//*****
//*
//EDIJCOPY PROC EDIFMID='H28N320',
// TAPVOL='28N320',
// TAPUNIT='3480',
// EDIQUAL='EDI',
// RELS='V3R2M0',
// UNIT='SYSALLDA',
// OUTC='*'
//*
//STEP1 EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=&OUTC
//SYSUT3 DD UNIT=&UNIT,SPACE=(80,(15,1))
//TAPEIN DD DSN=IBM.&EDIFMID..F2,UNIT=&TAPUNIT,
// VOL=SER=&TAPVOL,LABEL=(3,SL),DISP=OLD
//DISKOUT DD DSN=&EDIQUAL..&RELS..SMPLIB1,
// SPACE=(0,(224,56,10)),DISP=(NEW,CATLG,DELETE),
// UNIT=&UNIT,DCB=(RECFM=FB,LRECL=80,BLKSIZE=0)
// PEND
//*
// EXEC EDIJCOPY
//STEP1.SYSIN DD *
COPY INDD=TAPEIN,OUTDD=DISKOUT
/*
//
```

2. Modify the parameters for your installation.
3. Run the job.
4. Verify that all return codes are zero. If you receive a nonzero return code, see the appropriate product's message manual for further information.

- 5. If all return codes are zero, go to 2.1.2, “Step 2. SMP/E Considerations for Installing WebSphere Data Interchange” on page 27.

2.1.2 Step 2. SMP/E Considerations for Installing WebSphere Data Interchange

This release of WebSphere Data Interchange is installed using the SMP/E RECEIVE, APPLY, and ACCEPT commands. The SMP/E dialogs may be used to accomplish the SMP/E installation steps.

All SMP/E installation jobs provided assume that all necessary DD statements for the execution of SMP/E are defined using DDDEFs. Sample jobs are provided to assist you in installing WebSphere Data Interchange.

The recommended values for some SMP/E CSI subentries are shown in the following table. Use of values lower than these may result in failures in the installation process. DSSPACE is a subentry in the GLOBAL options entry. PEMAX is a subentry of the GENERAL entry in the GLOBAL options entry. Refer to the *SMP/E Reference* for instructions on updating the global zone.

Table 11. SMP/E Options Subentry Values

SUB-ENTRY	Value	Comment
DSSPACE	(2000,300,200)	
PEMAX	SMP/E Default	IBM recommends using the SMP/E default for PEMAX

WebSphere Data Interchange uses the CALLLIBS function provided in SMP/E to resolve the Encryption/Decryption/Authentication routines, TSO Service routine, and C run-time environment subroutines during installation. When WebSphere Data Interchange is installed:

- Step 4, “Allocating the SMP/E Control Data Sets,” provides a sample job, EDIJASMP, which allocates the required SMPLTS data set.

Note: For WebSphere Data Interchange, 200 tracks of 3380/3390 DASD space is adequate for the SMPLTS. Refer to *SMP/E Reference* for additional information on the SMPLTS data set.

- Step 5, “Initializing the SMP/E CSI Data Set,” provides a sample job, EDIJINIT, which adds DDDEFs for the following libraries:
 - LPALIB
 - SCEELKED
 - SDFHLOAD
 - SDSNLOAD
 - SCSQLOAD
 - TCSULIB
 - TCSUOBJ

See 2.1.5, “Step 5. Initializing the SMP/E CSI Data Set” on page 29 for a sample job to define these DDDEFs for you.

Note: The DDDEFs above are used only to resolve the link-edit for WebSphere Data Interchange using CALLLIBS. These datasets are not updated during the installation of WebSphere Data Interchange.

Go to 2.1.3, “Step 3. Allocating WebSphere Data Interchange Target and Distribution Libraries.”

2.1.3 Step 3. Allocating WebSphere Data Interchange Target and Distribution Libraries

EDIALLOC runs the IBM IEFBR14 utility program to allocate space for all WebSphere Data Interchange distribution and target libraries.

The following steps describe how to allocate WebSphere Data Interchange target and distribution libraries.

- ___ 1. Edit the EDIALLOC member in EDI.V3R2M0.SMPLIB1.
 Modify the member for your environment as shown in the comment at the beginning of the JCL.
- ___ 2. Run the job.
- ___ 3. Verify that all return codes are zero, and that you correctly allocated all data sets. If you receive a nonzero return code, see the appropriate product’s message manual for further information.
- ___ 4. If all return codes are zero, do one of the following:
 - If you are installing WebSphere Data Interchange for the first time, go to 2.1.4, “Step 4. Allocating SMP/E Control Data Sets.”
 - If you plan to maintain multiple releases of WebSphere Data Interchange, go to 2.1.4, “Step 4. Allocating SMP/E Control Data Sets.”
 - If you are upgrading from a previous release and wish to replace your previous release CSI data, go to 2.1.6, “Step 6. Updating the SMP/E CSI Data Set” on page 29.

2.1.4 Step 4. Allocating SMP/E Control Data Sets

EDIJASMP runs the IBM IEFBR14 utility program to allocate space for all SMP/E control data sets. EDIJASMP also uses the IBM Access Method Services program (IDCAMS) to initialize CSI areas. The installation uses separate SMP/E data sets for WebSphere Data Interchange installation.

Note: If you do not use separate SMP/E data sets for WebSphere Data Interchange, go to 2.1.5, “Step 5. Initializing the SMP/E CSI Data Set” on page 29.

The following steps describe how to allocate SMP/E control data sets.

- ___ 1. Edit the EDIJASMP member in EDI.V3R2M0.SMPLIB1.
 Modify the member for your environment as shown in the comment at the beginning of the JCL.

- ___ 2. Run the job.
- ___ 3. Verify that all return codes are zero, and that all data sets were allocated correctly. If you receive a nonzero return code, see the appropriate product's message manual for further information.
- ___ 4. If all return codes are zero, go to 2.1.5, "Step 5. Initializing the SMP/E CSI Data Set."

2.1.5 Step 5. Initializing the SMP/E CSI Data Set

EDIJINIT places global, target, and distribution zone information in the System Modification Program/Extended Consolidated Software Inventory (SMP/E CSI) data set.

The following steps describe how to initialize the SMP/E CSI data sets.

- ___ 1. Edit the EDIJINIT member in EDI.V3R2M0.SMPLIB1.
Modify the member for your environment as shown in the comment at the beginning of the JCL.
- ___ 2. Run the job.
- ___ 3. Verify that all return codes are zero. If you receive a nonzero return code, see the appropriate product's message manual for further information.
- ___ 4. If all return codes are zero, go to 2.1.7, "Step 7. Processing SMP/E RECEIVE" on page 30.

2.1.6 Step 6. Updating the SMP/E CSI Data Set

EDIDDDDEF updates the global, target, and distribution zone information in the SMP/E CSI data set.

Note: If you plan to maintain both WebSphere Data Interchange Version 3 Release 1 and Version 3 Release 2 Modification 1 systems, use separate SMP/E data sets for WebSphere Data Interchange Version 3 Release 2 Modification 1. For SMP/E data set allocation and initialization, see 2.1.4, "Step 4. Allocating SMP/E Control Data Sets" on page 28 and 2.1.5, "Step 5. Initializing the SMP/E CSI Data Set."

The following steps describe how to update the SMP/E data sets.

- ___ 1. Edit the EDIDDDDEF member in EDI.V3R2M0.SMPLIB1.
Modify the member for your environment as shown in the comment at the beginning of the JCL.
- ___ 2. Run the job.
- ___ 3. Verify that all return codes are not greater than 0004, and that data set allocations were updated correctly. If you receive a return code greater than 0004, see the appropriate product's message manual for further information.
- ___ 4. If all return codes are not greater than 0004, go to 2.1.7, "Step 7. Processing SMP/E RECEIVE" on page 30.

2.1.7 Step 7. Processing SMP/E RECEIVE

EDIRECEV issues the SMP/E RECEIVE command to store WebSphere Data Interchange system modifications (SYSMODs) in the PTS control data set. EDIRECEV also records SYSMOD and exception data in the consolidated software inventory (CSI) global zone.

The following steps describe how to process the SMP/E RECEIVE.

- ___ 1. Edit the EDIRECEV member in EDI.V3R2M0.SMPLIB1.
 Modify the member for your environment as shown in the comment at the beginning of the JCL.
- ___ 2. Run the job.
- ___ 3. Verify that all return codes are zero. If you receive a nonzero return code, see the appropriate product's message manual for further information.
- ___ 4. If all return codes are zero, go to 2.1.8, "Step 8. Processing SMP/E APPLY."

2.1.8 Step 8. Processing SMP/E APPLY

To receive the full benefit of the SMP/E Causer SYSMOD Summary Report, do *not* bypass the following on the APPLY CHECK: PRE, ID, REQ, and IFREQ. This is because the SMP/E root cause analysis identifies the cause only of **ERRORS** and not of **WARNINGS** (SYSMODs that are bypassed are treated as warnings, not errors, by SMP/E).

The following steps describe how to process SMP/E APPLY.

- ___ 1. Edit the EDIAPPLY member in EDI.V3R2M0.SMPLIB1.
 Modify the member for your environment as shown in the comment at the beginning of the JCL.
- ___ 2. Run the job.
- ___ 3. If you receive a return code greater than 0000, see the appropriate product's message manual for further information.
- ___ 4. Once you have taken any actions indicated by the APPLY CHECK, edit the EDIAPPLY member in EDI.V3R2M0.SMPLIB1, remove the CHECK operand and run the job again to perform the APPLY.
Note: The GROUPEXTEND operand indicates that SMP/E apply all requisite SYSMODs. The requisite SYSMODS might be applicable to other functions.
- ___ 5. Verify that the return code is 0004. If you receive a return code greater than 0004, see the appropriate product's message manual for further information.
Note: If you rerun the job, you must insert the REDO operand in the APPLY command.
- ___ 6. If the return code is 0004, go to 2.1.9, "Step 9. Processing SMP/E ACCEPT" on page 31.

2.1.9 Step 9. Processing SMP/E ACCEPT

To receive the full benefit of the SMP/E Causer SYSMOD Summary Report, do *not* bypass the following on the ACCEPT CHECK: PRE, ID, REQ, and IFREQ. This is because the SMP/E root cause analysis identifies the cause only of **ERRORS** and not of **WARNINGS** (SYSMODs that are bypassed are treated as warnings, not errors, by SMP/E).

Before using SMP/E to load new distribution libraries, it is recommended that you set the ACCJCLIN indicator in the distribution zone. This will cause entries produced from JCLIN to be saved in the distribution zone whenever a SYSMOD containing inline JCLIN is ACCEPTed. For more information on the ACCJCLIN indicator, see the description of inline JCLIN in the SMP/E manuals.

The following steps describe how to process SMP/E ACCEPT.

- ___ 1. Edit the EDIACCEP member in EDI.V3R2M0.SMPLIB1.

Modify the member for your environment as shown in the comment at the beginning of the JCL.

- ___ 2. Run the job.

- ___ 3. Verify that all return codes are 0000. If you receive a return code greater than 0000, see the appropriate product's message manual for further information.

Once you have taken any actions indicated by the ACCEPT CHECK, remove the CHECK operand and run the job again to perform the ACCEPT.

Note: The GROUPEXTEND operand indicates that SMP/E accept all requisite SYSMODs. The requisite SYSMODS might be applicable to other functions.

- ___ 4. Verify that all return codes are not greater than 0004. If you receive a return code greater than 0004, see the appropriate product's message manual for further information.

Note: If you rerun the job, you must insert the REDO operand in the ACCEPT command.

- ___ 5. If the return code is not greater than 0004, go to 2.1.10, "Step 10. Processing Cumulative Service Tape, if Applicable."

2.1.10 Step 10. Processing Cumulative Service Tape, if Applicable

A cumulative service tape may be shipped with the product package. If no cumulative service tape is shipped or if the product is received by CBPDO, skip this section.

If a cumulative service tape was received with the product package, RECEIVE the PTFs and HOLDDATA from the cumulative service tape. APPLY the service after RECEIVE processing has completed. It is not necessary to execute PTF HOLD ACTIONS because the remaining install process will automatically incorporate any changes.

After RECEIVE / APPLY processing for the cumulative service tape has been completed, go to 2.1.11, "Step 11. Defining VSAM Files" on page 32.

2.1.11 Step 11. Defining VSAM Files

This step runs the IBM Access Method Services program (IDCAMS) to define WebSphere Data Interchange VSAM read-only files that are required by the DB2 environment.

Install JCL	Description
EDIJVSDD	Define VSAM files for DB2 environment

The following steps describe how to define VSAM files.

- ___ 1. Edit as appropriate JCL member in EDI.V3R2M0.SEDIINS1.
 Modify the member for your environment as shown in the comment at the beginning of the JCL.
- ___ 2. Run the job.
- ___ 3. Verify that all return codes are zero. If you receive a nonzero return code, see the appropriate product's message manual for further information.
- ___ 4. If all return codes are zero, go to 2.1.12, "Step 12. Loading VSAM Files."

2.1.12 Step 12. Loading VSAM Files

EDIJVSLD runs the WebSphere Data Interchange program EDIICVS to load default data into the WebSphere Data Interchange VSAM files that are needed for the DB2 environment. The distribution tape provides the default data. The SMP/E installation process loads the data into the target library, EDI.V3R2M0.SEDIVSM1.

Install JCL	Description
EDIJVSLD	Load VSAM files for DB2 environment

The following steps describe how to load the VSAM files

- ___ 1. Choose the appropriate JCL member for loading VSAM files in EDI.V3R2M0.SEDIINS1.
 Modify the member for your environment as shown in the comment at the beginning of the JCL.
- ___ 2. Run the job.
- ___ 3. Verify that all return codes are zero, and that no errors are recorded in the SYSOUT file. If you receive a nonzero return code, see the appropriate product's message manual for further information.
- ___ 4. If all return codes are zero, do one of the following:
 - If you are installing WebSphere Data Interchange for the first time, go to 2.2, "Installing WebSphere Data Interchange for the New Customer" on page 33.
 - If you are a DataInterchange Version 3 Release 1 or Version 4 Release 1 customer upgrading to Version 3 Release 2 Modification 1, go to 2.4, "Installing WebSphere Data Interchange for the Existing Version 3 Release 1 and Version 4 Release 1 Customer" on page 35.

2.2 Installing WebSphere Data Interchange for the New Customer

The steps described in this section apply only if you are a new WebSphere Data Interchange customer.

If you are a DataInterchange Version 3 Release 1 or Version 4 Release 1 customer upgrading to Version 3 Release 2 Modification 1, go to 2.4, “Installing WebSphere Data Interchange for the Existing Version 3 Release 1 and Version 4 Release 1 Customer” on page 35.

Warning: ENU is the default three-character language identifier, and E is the default one-character language code. If necessary, you may change the default language identifier ENU for your installation.

2.3 Installing a New WebSphere Data Interchange DB2 Environment

When you install WebSphere Data Interchange you should:

- All SQL statements supplied on the distribution tape create each WebSphere Data Interchange table, view, index, etc. with 'EDIENU32' as the high-level qualifier. In which case, you must define a TSO ID 'EDIENU32' and give it DB2 SYSADM authority, then use this id to create all objects. Use 'SET CURRENT SQLID=EDIENU32' to switch to this ID before creating all of the objects.
- You can use a high-level-qualifier value other than the provided 'EDIENU32'. In which case, this other value must match the name of the ID creating all objects. Use 'SET CURRENT SQLID=xxxxxxx' to switch to the ID.
- If the SQLID creating the objects does not match the high-level qualifier, then you will receive various DSNX200I messages during the EDIJBIND job.

2.3.1 Step 13. Creating Version 3 Release 2 Modification 1 Repository DB2 Objects

Use the DB2 Structured Query Language (SQL) Processor Using File Input (SPUFI) facility under Interactive System Productivity Facility/Program Development Facility (ISPF/PDF) to create WebSphere Data Interchange Version 3 Release 2 Modification 1 repository DB2 objects. Members in the distributed data set, EDI.V3R2M0.SEDISQL1, contain the SQL statements.

The following steps describe how to access SQL statements and submit them to DB2 for processing using the DB2 SPUFI option under ISPF/PDF.

- ___ 1. On the DB2I Primary Option Menu, select the SPUFI option (normally option 1).
- ___ 2. On the SPUFI panel, Enter the name **EDI.V3R2M0.SEDISQL1(EDISDB2)** to update the SQL statements.
 - For heavily updated tables, it is recommended that you edit and modify all LOCKSIZE values within **EDISDB2** from PAGE to ROW as indicated below. LOCKSIZE is specified on the CREATE TABLESPACE command.

Heavily updated tables might include

- Transaction store tables (EDITSxx)
 - Management reporting tables (EDIMRxx)
 - Event logging table (EDIELOG)
 - Trading partner profile control numbers table (EDIPROF)
- If necessary, edit and modify the storage group name and the database name to comply with your site naming conventions.

- ___ 3. Run, via SPUFI, **EDISDB2** and verify that all return codes are zero. If you receive a nonzero return code, see the appropriate product's message manual for further information. If necessary, use the scroll forward key to page through the return codes.
- ___ 4. If all return codes are zero, go to 2.3.2, "Step 14. Loading Repository DB2 Tables."

2.3.2 Step 14. Loading Repository DB2 Tables

EDIJRDL runs the IBM DB2 utility procedure, DSNUPROC, to load default data into the following WebSphere Data Interchange DB2 tables:

- Control String
- Application Data Format
- Trading Partner Transaction
- Profiles

The distribution tape provides the default data. The SMP/E installation process loads the data into the target library EDI.V3R2M0.SEDIDB21.

The following steps describe how to load repository DB2 tables.

- ___ 1. Edit the EDIJRDL member in EDI.V3R2M0.SEDIINS1.
 Modify the member for your environment as shown in the comment at the beginning of the JCL.
- ___ 2. Run the job.
- ___ 3. Verify that all return codes are zero. If you receive a nonzero return code, see the appropriate product's message manual for further information.
- ___ 4. If all return codes are zero, go to 2.5.4, "Step 18. Running RUNSTATS on the Loaded DB2 Tables" on page 38.

2.4 Installing WebSphere Data Interchange for the Existing Version 3 Release 1 and Version 4 Release 1 Customer

The installation procedures in this section preserve data that exists in your current environment. This section describes jobs that migrate existing Version 3 Release 1 or Version 4 Release 1 repository data into the new Version 3 Release 2 Modification 1 tables. The migration process copies the Version 3 Release 1 or Version 4 Release 1 data into temporary files. When you finish the installation, delete the temporary files.

Note: If you plan to maintain your previous version of DataInterchange separately from your WebSphere Data Interchange Version 3 Release 2 Modification 1 system, use separate SMP/E data sets for WebSphere Data Interchange Version 3 Release 2 Modification 1. For SMP/E data set allocation and initialization, see 2.1.4, “Step 4. Allocating SMP/E Control Data Sets” on page 28 and 2.1.5, “Step 5. Initializing the SMP/E CSI Data Set” on page 29.

2.5 Migrating to a Version 3 Release 2 Modification 1 DB2 Environment

The installation procedures preserve data that exists in your current environment. This section describes jobs that migrate existing Version 3 Release 1 or Version 4 Release 1 repository data into the new Version 3 Release 2 Modification 1 tables.

Your previous release must be executable for the duration of this migration. When you install WebSphere Data Interchange in a DB2 environment, you should:

- All SQL statements supplied on the distribution tape create each WebSphere Data Interchange table, view, index, etc. with 'EDIENU32' as the high-level qualifier. In which case, you must define a TSO ID 'EDIENU32' and give it DB2 SYSADM authority, then use this id to create all objects. Use 'SET CURRENT SQLID=EDIENU32' to switch to this ID before creating all of the objects.
- You can use a high-level-qualifier value other than the provided 'EDIENU32'. In which case, this other value must match the name of the ID creating all objects. Use 'SET CURRENT SQLID=xxxxxxx' to switch to the ID.
- If the SQLID creating the objects does not match the high-level qualifier, then you will receive various DSNX200I messages during the EDIJBIND job.
- If you are installing WebSphere Data Interchange Version 3 Release 2 Modification 1 on the same DB2 subsystem as your previous Version 3 Release 1 or Version 4 Release 1 system, you must use a different SQLID. Additionally, the plan names must be unique.

Note: If you are switching from a non-DB2 repository to DB2 using Table 8 on page 17, this migration does **NOT** preserve transaction store, management reporting, SAP status, and event log VSAM data.

2.5.1 Step 15. Creating Version 3 Release 2 Modification 1 Repository DB2 Objects

Use the DB2 structured query language (SQL) SQL Processor Using File Input (SPUFI) facility under Interactive System Productivity Facility/Program Development Facility (ISPF/PDF) to create WebSphere Data Interchange Version 3 Release 2 Modification 1 repository DB2 objects. Members in the distributed partition data set, EDI.V3R2M0.SEDISQL1, contain the SQL statements.

The following steps describe how to access SQL statements and submit them to DB2 using the SPUFI panel for DB2 under ISPF/PDF.

- ___ 1. On the DB2I Primary Option Menu, select the SPUFI option (normally option 1).
- ___ 2. On the SPUFI panel, Enter the name **EDI.V3R2M0.SEDISQL1(EDISDB2)** to update the SQL statements.
 - For heavily updated tables, it is recommended that you edit and modify all LOCKSIZE values within **EDISDB2** from PAGE to ROW as indicated below. LOCKSIZE is specified on the CREATE TABLESPACE command.

Heavily updated tables might include

 - Transaction store tables (EDITSxx)
 - Manangement reporting tables (EDIMRxx)
 - Event logging table (EDIELOG)
 - Trading partner profile control numbers table (EDIPROF)
 - If necessary, edit and modify the storage group name and the database name to comply with your site naming conventions.
- ___ 3. Run, via SPUFI, **EDISDB2** and verify that all return codes are zero. If you receive a nonzero return code, see the appropriate product's message manual for further information. If necessary, use the scroll forward key to page through the return codes.
- ___ 4. If all return codes are zero, go to 2.5.2, "Step 16. Unloading Select DB2 Tables From Previous Version."

2.5.2 Step 16. Unloading Select DB2 Tables From Previous Version

The jobs EDIJRDUL and EDIJRDU1 run the background TSO program IJKEFT01 and DB2 sample unload program DSNTIAUL to unload DataInterchange Version 3 Release 1 and Version 4 Release 1 DB2 tables respectively. Run EDIJRDUL if you are migrating from Version 3 Release 1. Run EDIJRDU1 if you are migrating from Version 4 Release 1. **Do not run both jobs**, only the job that corresponds to the release you are migrating from.

Note: Make sure the DB2 sample unload program has been generated for your DB2 subsystem.

The following steps describe how to unload the Version 3 Release 1 and Version 4 Release 1 DB2 tables.

- ___ 1. Edit the EDIJRDUL (if migrating from Version 3 Release 1) or EDIJRDU1 (if migrating from Version 4 Release 1) member found in EDI.V3R2M0.SEDIINS1.
Modify the member for your environment as shown in the comment at the beginning of the JCL.
- ___ 2. Run the job.
- ___ 3. Verify that all return codes are zero. If you receive a nonzero return code, see the appropriate product's message manual for further information.
- ___ 4. If all return codes are zero, go to 2.5.3, "Step 17. Loading Version 3 Release 2 Modification 1 DB2 Tables From Default Data and Previous Version Data."

2.5.3 Step 17. Loading Version 3 Release 2 Modification 1 DB2 Tables From Default Data and Previous Version Data

The job EDIJRDLD runs the IBM DB2 utility procedure, DSNUPROC, to load Version 3 Release 2 Modification 1 default data into the following WebSphere Data Interchange DB2 tables:

- Control String
- Application Data Format
- Trading Partner Transaction
- Profiles

The distribution tape provides the default data. The SMP/E installation process loads the data into the target library EDI.V3R2M0.SEDIDB21.

The job EDIJCMRD runs the background TSO program IKJEFT01 and DB2 sample unload program DSNTIAUL to unload WebSphere Data Interchange Version 3 Release 1 DB2 Management Reporting tables and then loads the Version 3 Release 2 Modification 1 DB2 tables, using the IBM DB2 utility procedure, DSNUPROC.

Note: Make sure the DB2 sample unload program has been generated for your DB2 subsystem.

The jobs EDIJRDL5 and EDIJRDL1 run the IBM DB2 utility procedure DSNUPROC, to load the non-management reporting WebSphere Data Interchange Version 3 Release 2 Modification 1 DB2 tables from Version 3 Release 1 and Version 4 Release 1 respectively. The previous steps that unload Version 3 Release 1 and Version 4 Release 1 records provide the load data. If you are migrating from Version 3 Release 1, run the job EDIJRDL5. If you are migrating from Version 4 Release 1, run the job EDIJRDL1. **Do not run both jobs.**

The following steps describe how to load Version 3 Release 2 Modification 1 repository DB2 tables with Version 3 Release 2 Modification 1 default data and Version 3 Release 1 and Version 4 Release 1 existing data.

- ___ 1. Edit the EDIJRDLD member in EDI.V3R2M0.SEDIINS1.
Modify the member for your environment as shown in the comment at the beginning of the JCL.
- ___ 2. Run the job.

___ 3. Verify that all return codes are zero. If you receive a nonzero return code, see the appropriate product's message manual for further information.

___ 4. Edit the EDIJCMRD member in EDI.V3R2M0.SEDIINS1.

If you have not previously installed PTF UW82684 or UW82685 on your system, you must **NOT** run this job.

PTF UW82684 or UW82685 requires the DB2 Management Reporting data stores to be reconfigured. Prior to UW82684 or UW82685, Management Reporting failed to record and report statistics correctly; Therefore, there is no migration from existing data stores to Version 3 Release 2 Modification 1 unless PTF UW82684 or UW82685 has been previously applied to your Version 3 Release 1 system.

Modify the member for your environment as shown in the comment at the beginning of the JCL.

___ 5. Run the job.

___ 6. Verify that all return codes are zero. If you receive a nonzero return code, see the appropriate product's message manual for further information.

___ 7. Edit the EDIJRDL5 (if migrating from Version 3 Release 1) or EDIJRDL1 (if migrating from Version 4 Release 1) member in EDI.V3R2M0.SEDIINS1.

Modify the member for your environment as shown in the comment at the beginning of the JCL.

___ 8. Run the job.

___ 9. Verify that all return codes are not greater than 0004. If you receive a return code greater than 0004, see the appropriate product's message manual for further information.

___ 10. If all return codes are not greater than 0004, go to 2.5.4, "Step 18. Running RUNSTATS on the Loaded DB2 Tables."

2.5.4 Step 18. Running RUNSTATS on the Loaded DB2 Tables

EDIJRNST uses the RUNSTATS command to run the DB2 DSNUPROC procedure.

EDIJRNST gathers information about the previously loaded WebSphere Data Interchange tables. The DB2 catalog contains the information.

The SQL optimizer uses the DB2 catalog to select access paths to the data during the BIND process.

The following steps describe how to run RUNSTATS on the loaded DB2 tables.

___ 1. Edit the EDIJRNST member in EDI.V3R2M0.SEDIINS1.

Modify the member for your environment as shown in the comment at the beginning of the JCL.

___ 2. Run the job.

___ 3. Verify that the return code is not greater than 0004. If you receive a return code greater than 0004, see the appropriate product's message manual for further information.

- ___ 4. If the return code is not greater than 004, go to 2.5.5, “Step 19. Binding the DB2 Plan” on page 39.

2.5.5 Step 19. Binding the DB2 Plan

This step uses the IKJEFT01 utility to bind the WebSphere Data Interchange EDIENU32 DB2 application plan for use in TSO and batch.

The following steps describe how to bind the DB2 plan:

- ___ 1. Edit the EDIJBIND member in EDI.V3R2M0.SEDIINS1. Modify the member for your environment as shown in the comment at the beginning of the JCL.
- ___ 2. Run the job.
- ___ 3. Verify that the return code is zero. If you receive a return code greater than zero, see the appropriate product's message manual for further information.
- ___ 4. If the return code is zero, go to 2.5.6, “Step 20. Granting Authorization on the DB2 Objects.”

2.5.6 Step 20. Granting Authorization on the DB2 Objects

After binding the WebSphere Data Interchange DB2 application plan, you must make it available to those using WebSphere Data Interchange by granting authorization on DB2 objects.

Note: SQL member EDISGRNT of the PDS EDI.V3R2M0.SEDISQL1 provides sample SQL statements for granting authorization on the DB2 objects.

The following steps describe how to grant authorization on the DB2 objects. At a minimum, you **must** authorize GRANT EXECUTE authority to WebSphere Data Interchange users on the plan.

- ___ 1. You can use SPUFI to run an SQL statement similar to the following example that makes plan EDIENU32 available to user ID USER01:

```
GRANT EXECUTE ON PLAN EDIENU32 TO USER01;
```

Optionally, you can use SPUFI to run SQL statements, similar to the following example, that make views referenced by the dynamic SQL execution available to user ID USER01:

```
GRANT SELECT ON TABLE EDIENU32.EDIVMRNA1,  
EDIENU32.EDIVMRTA1,  
EDIENU32.EDIVMRTA2,  
EDIENU32.EDIVMRTA3,  
EDIENU32.EDIVMRTA4,  
EDIENU32.EDIVMRTC1,  
EDIENU32.EDIVMRTC2,  
EDIENU32.EDIVMRTC3,  
EDIENU32.EDIVMRTC4,  
EDIENU32.EDIVMRTI1,  
EDIENU32.EDIVMRTI2,  
EDIENU32.EDIVMRTI3 TO USER01;
```

- ___ 2. If you want to give *all* DB2 users access to the plan EDIENU32 and views referenced by the dynamic SQL execution plan, enter the following SQL statement:

```
GRANT EXECUTE ON PLAN EDIENU32 TO PUBLIC;
GRANT SELECT ON TABLE EDIENU32.EDIVMRNA1,
EDIENU32.EDIVMRTA1,
EDIENU32.EDIVMRTA2,
EDIENU32.EDIVMRTA3,
EDIENU32.EDIVMRTA4,
EDIENU32.EDIVMRTC1,
EDIENU32.EDIVMRTC2,
EDIENU32.EDIVMRTC3,
EDIENU32.EDIVMRTC4,
EDIENU32.EDIVMRTI1,
EDIENU32.EDIVMRTI2,
EDIENU32.EDIVMRTI3 TO PUBLIC;
```

Note: Dynamic SQL is used only when DYNSQL(Y) is specified during WebSphere Data Interchange utility execution for Management reporting data extracts.

- ___ 3. WDI Client users require SELECT, INSERT, DELETE, UPDATE authority to all tables, or you might want to grant table privileges for DB2 utility (QMF*, SPUFI, or DBEDIT) usage on the WebSphere Data Interchange tables similar to the following example:

```
GRANT SELECT, INSERT, DELETE, UPDATE ON TABLE EDIENU32.EDIADFCSTDET,
EDIENU32.EDIADFDICT,
EDIENU32.EDIADFFIELD,
EDIENU32.EDIADFHDRMEM,
EDIENU32.EDIADFHEADER,
EDIENU32.EDIADFLOOP,
EDIENU32.EDIADFLOOPMEM,
EDIENU32.EDIADFRECIDINFO,
EDIENU32.EDIADFRECMEM,
EDIENU32.EDIADFRECORD,
EDIENU32.EDIADFSTRUCT,
EDIENU32.EDIADFSTRUCTMEM,
EDIENU32.EDIENVCSTDET,
EDIENU32.EDIENVCSTHDR,
EDIENU32.EDIMAPAPPLCNTL,
EDIENU32.EDIMAPCMDS,
EDIENU32.EDIMAPCSTDET,
EDIENU32.EDIMAPCSTHDR,
EDIENU32.EDIMAPELE,
EDIENU32.EDIMAPGBLVAR,
EDIENU32.EDIMAPHEAD,
EDIENU32.EDIMAPLCLVAR,
EDIENU32.EDIMAPNODES,
EDIENU32.EDIMAPREF,
EDIENU32.EDIMAPSEG,
EDIENU32.EDIMAPSYNTAX,
```

EDIENU32.EDISTDCDN,
EDIENU32.EDISTDDED,
EDIENU32.EDISTDDEDDEHQ,
EDIENU32.EDISTDDEH,
EDIENU32.EDISTDENV,
EDIENU32.EDISTDFULLSEGDET,
EDIENU32.EDISTDSGD,
EDIENU32.EDISTDSGDDEHQ,
EDIENU32.EDISTDSGH,
EDIENU32.EDISTDSGN,
EDIENU32.EDISTDSTH,
EDIENU32.EDISTDSTHTXHQ,
EDIENU32.EDISTDTXD,
EDIENU32.EDISTDTXDSGHQ,
EDIENU32.EDISTDTXH,
EDIENU32.EDISTDTXN,
EDIENU32 EDIVCSTX,
EDIENU32.EDIVDTD,
EDIENU32.EDIVDTDHDR,
EDIENU32.EDIVXMLDICT,
EDIENU32.EDIVELOG,
EDIENU32.EDIVMRCM,
EDIENU32.EDIVMRPC,
EDIENU32.EDIVMRPR,
EDIENU32.EDIVMRPS,
EDIENU32.EDIVMRRT,
EDIENU32.EDIVMRST,
EDIENU32.EDIVMSGs,
EDIENU32.EDIVOWNR,
EDIENU32.EDIVPROF,
EDIENU32.EDIVPSAC,
EDIENU32.EDIVPSAD,
EDIENU32.EDIVPSAP,
EDIENU32.EDIVPSCR,
EDIENU32.EDIVPSDI,
EDIENU32.EDIVPSEE,
EDIENU32.EDIVPSIE,
EDIENU32.EDIVPSLP,
EDIENU32.EDIVPSMQ,
EDIENU32.EDIVPSNO,
EDIENU32.EDIVPSNP,
EDIENU32.EDIVPSPD,
EDIENU32.EDIVPSRQ,
EDIENU32.EDIVPSSP,
EDIENU32.EDIVPSSY,
EDIENU32.EDIVPSTD,
EDIENU32.EDIVPSTE,
EDIENU32.EDIVPSTP,
EDIENU32.EDIVPSTT,

```
EDIENU32.EDIVPSTV,  
EDIENU32.EDIVPSUE,  
EDIENU32.EDIVPSXE,  
EDIENU32.EDIVSSTK,  
EDIENU32.EDIVTPCM,  
EDIENU32.EDIVTPCN,  
EDIENU32.EDIVTPCT,  
EDIENU32.EDIVTPRT,  
EDIENU32.EDIVTPST,  
EDIENU32.EDIVTSAU,  
EDIENU32.EDIVTSEV,  
EDIENU32.EDIVTSGP,  
EDIENU32.EDIVTSLT,  
EDIENU32.EDIVTSTH,  
EDIENU32.EDIVTSTI,  
EDIENU32.EDIVTSTO,  
EDIENU32.EDIVTSTU,  
EDIENU32.EDIADFCSTDET,  
EDIENU32.EDIENVCSTHDR,  
EDIENU32.EDIENVCSTDET,  
EDIENU32.EDIMAPCSTHDR,  
EDIENU32.EDIMAPCSTDET,  
EDIENU32.EDIVMRNA1,  
EDIENU32.EDIVMRTA1,  
EDIENU32.EDIVMRTA2,  
EDIENU32.EDIVMRTA3,  
EDIENU32.EDIVMRTA4,  
EDIENU32.EDIVMRTC1,  
EDIENU32.EDIVMRTC2,  
EDIENU32.EDIVMRTC3,  
EDIENU32.EDIVMRTC4,  
EDIENU32.EDIVMRTI1,  
EDIENU32.EDIVMRTI2,  
EDIENU32.EDIVMRTI3,  
EDIENU32.EDIVTSIS TO USER01;
```

- ___ 4. If all return codes are zero, go to 2.5.7, “Step 21. Importing Default Data Into Version 3 Release 2 Modification 1” on page 43.

2.5.7 Step 21. Importing Default Data Into Version 3 Release 2 Modification 1

This step will import default data into the WebSphere Data Interchange Version 3 Release 2 Modification 1 database.

The following steps describe how to import the default data.

- ___ 1. Edit the EDIJDAT1 member in EDI.V3R2M0.SEDIINS1.

Modify the member for your environment as shown in the comment at the beginning of the JCL. For a new customer install, always substitute "MEMBER=EDIDATA" in the JCL.

- ___ 2. Run the job.
- ___ 3. Verify that all return codes are zero. If you receive a nonzero return code, see messages in the JCL Job's PRTFILE.
- ___ 4. If all return codes are zero and you are migrating from Version 3 Release 1 (DB2) or from Version 4 Release 1, go to 2.5.8, "Step 22. Build Control File for Exporting Version 3 Release 1 or Version 4 Release 1 DB2 Data."
- ___ 5. If all return codes are zero and you are migrating from Version 3 Release 1 (VSAM), go to 2.5.9, "Step 22a. Build Control File for Exporting Version 3 Release 1 VSAM Data" on page 44.
- ___ 6. If all return codes are zero and you are installing for the new customer, go to 2.5.12, "Step 24. Customizing DB2 CLIST" on page 45.

2.5.8 Step 22. Build Control File for Exporting Version 3 Release 1 or Version 4 Release 1 DB2 Data

EDIJXPAD executes the WebSphere Data Interchange program EDIXPEA to build the control file for exporting data. The following steps describe how to build the control file for exporting data for existing DB2 customers. A control file entry will be made for each of the following data type members:

- Standards
- ADFs
- Maps, with associated Usages and Control strings
- Profiles
- Tables

- ___ 1. Edit the EDIJXPAD member in EDI.V3R2M0.SEDIINS1.
Modify the member for your environment as shown in the comment at the beginning of the JCL.
- ___ 2. Run the job.
- ___ 3. Verify that all return codes are zero. If you receive a nonzero return code, see the appropriate product's message manual for further information.
- ___ 4. If all return codes are zero, go to 2.5.10, "Step 23. Migrate Version 3 Release 1 or Version 4 Release 1 DB2 Data to Version 3 Release 2 Modification 1" on page 44

2.5.9 Step 22a. Build Control File for Exporting Version 3 Release 1 VSAM Data

EDIJXPAV executes the WebSphere Data Interchange program EDIXPEA to build the control file for exporting data. The following steps describe how to build the control file for exporting data for existing VSAM customers. A control file entry will be made for each of the following data type members:

- Standards

- ADFs
- Maps, with associated Usages and Control strings
- Profiles
- Tables

1. Edit the EDIJXPAV member in EDI.V3R2M0.SEDIINS1.
 Modify the member for your environment as shown in the comment at the beginning of the JCL.
2. Run the job.
3. Verify that all return codes are zero. If you receive a nonzero return code, see the appropriate product's message manual for further information.
4. If all return codes are zero go to 2.5.11, "Step 23a. Migrate Version 3 Release 1 non-DB2 Data to Version 3 Release 2 Modification 1 DB2 Environment" on page 45

2.5.10 Step 23. Migrate Version 3 Release 1 or Version 4 Release 1 DB2 Data to Version 3 Release 2 Modification 1

This step is for Version 3 Release 1 or Version 4 Release 1 customers. EDIJEXPD will read the control file created previously, and migrate each of the existing data type members identified:

- Standards
- ADFs
- Maps, with associated Usages and Control strings
- Profiles
- Tables

The following steps describe how to migrate Version 3 Release 1 or Version 4 Release 1 customer data records using EDIJEXPD. The job EDIJRNST will need to be re-run after you run the job EDIJEXPD.

1. Edit the EDIJEXPD member in EDI.V3R2M0.SEDIINS1.
 Modify the member for your environment as shown in the comment at the beginning of the JCL.
2. Run the job.
3. Verify that all return codes are zero. If you receive a nonzero return code, see the appropriate product's message manual for further information.
4. Run the job EDIJRNST. This job was previously set-up and run in 2.5.4, "Step 18. Running RUNSTATS on the Loaded DB2 Tables" on page 38. Run this job again.
5. If all return codes are not greater than 0004, go to 2.5.12, "Step 24. Customizing DB2 CLIST" on page 45.

2.5.11 Step 23a. Migrate Version 3 Release 1 non-DB2 Data to Version 3 Release 2 Modification 1 DB2 Environment

This step is for Version 3 Release 1 (non-DB2) customers who are switching to DB2 while migrating to a Version 3 Release 2 Modification 1 DB2 environment. EDIJEXVD will read the control file created previously, and migrate each of the existing data type members identified:

- Standards
- ADFs
- Maps, with associated Usages and Control strings
- Profiles
- Tables

The following steps describe how to migrate Version 3 Release 1 customer non-DB2 data records to DB2 using EDIJEXVD. The job EDIJRNST will need to be re-run after you run the job EDIJEXPD.

- ___ 1. Edit the EDIJEXVD member in EDI.V3R2M0.SEDIINS1.
Modify the member for your environment as shown in the comment at the beginning of the JCL.
- ___ 2. Run the job.
- ___ 3. Verify that all return codes are zero. If you receive a nonzero return code, see the appropriate product's message manual for further information.
- ___ 4. Run the job EDIJRNST. This job was previously set-up and run in 2.5.4, "Step 18. Running RUNSTATS on the Loaded DB2 Tables" on page 38. Run this job again.
- ___ 5. If all return codes are not greater than 0004, go to 2.5.12, "Step 24. Customizing DB2 CLIST."

2.5.12 Step 24. Customizing DB2 CLIST

This step creates the CLIST that you use to invoke WebSphere Data Interchange in your DB2 environment. The CLIST is a set of TSO commands that do the following:

- Allocate files necessary for the IBM MQ Series interface, if used.
- Allocate files necessary for the Global Network interface, if used.
- Allocate files necessary for the GE Information Services (GEIS) EDI*EXPRESS** system interface, if used.
- Allocate WebSphere Data Interchange data sets.
- Invoke WebSphere Data Interchange through the TSO command DSN.
- Free allocated WebSphere Data Interchange data sets upon exiting WebSphere Data Interchange

To create the CLISTs, copy the following sample CLIST:

- EDIDB2 - Startup CLIST for DB2 environment

It is supplied with the distribution material. Change the new CLIST as necessary and move it to a library where your TSO environment can access them.

The following steps describe how to customize the DB2 CLIST.

- ___ 1. Copy EDIDB2 in the EDI.V3R2M0.SEDICLS1 library, renaming them as necessary for use in your environment (for example, EDI).
- ___ 2. Edit the new CLIST and modify it as necessary for your environment. Normally, this only involves changing any non-standard data set names you used during installation.

In CLIST EDIDB2, enable the XML interface by changing the value of the following CLIST parameter from N to Y:

- XML - IBM XML for C toolkit interface

In CLIST EDIDB2, enable the MQSeries interface by changing the value of the following CLIST parameter from N to Y:

- MQSERIES - IBM MQSeries interface

In CLIST EDIDB2, enable the network connection by changing the value of the following CLIST parameters from N to Y:

- EXPBASE - IBM Global Network interface Expedite Base/MVS
 - COMM-PRESS - if you are using the COMM-PRESS product with Expedite Base/MVS, change the COMPRESS parameter from N to Y
- EXPMVS - IBM Global Network interface Expedite/MVS
- GEIS - GE Information Services network interface

Enable only the network connections you will be using. This will decrease the number of unnecessary file allocations during CLIST invocation.

- ___ 3. Move the new CLIST to your procedure library (SYSPROC) so your local LOGON CLIST can access them.

You should do one of the following to make WebSphere Data Interchange accessible to your users:

- Set up a unique TSO logon procedure for WebSphere Data Interchange users to access. Insert a JCL STEPLIB statement in the procedure. This statement points to a private library that contains the WebSphere Data Interchange load modules copied from the library EDI.V3R2M0.SEDILMD1.
- Copy the WebSphere Data Interchange load modules from EDI.V3R2M0.SEDILMD1 to a system library, such as SYS1.LINKLIB.
- Install the WebSphere Data Interchange modules and files into a private library and insert STEPLIB statements into the WebSphere Data Interchange EDI CLISTs to access the library. To do this, you must have the IBM MVS/TSO Dynamic Steplib Facility (program number 5798-DZW).
- If you are using any network communication interface product, make its load modules accessible by using any of the previous methods used to install WebSphere Data Interchange modules. If necessary, also make DB2 and GDDM load modules accessible by WebSphere Data Interchange.

- If you have ISPF/PDF, you can add the EDI.V3R2M0.SEDILMD1 load library to the ISPLLIB concatenation; in which case, WebSphere Data Interchange users must execute the CLISTS from the “ISPF Command Shell.” Refer to the note below.

Note: If you have ISPF/PDF and wish to execute the WebSphere Data Interchange CLISTS from the ISPF Command Shell, then add the provided ISPF dialogue, EDIISPF in library EDI.V3R2M0.SEDICLS1, to your procedure library (SYSPROC). This enables WebSphere Data Interchange users to return to ISPF by entering “TSO EDIISPF” at the WebSphere Data Interchange Command prompt.

- ___ 4. Increase the number in the DYNAMNBR parameter of the TSO logon procedure by 50. This ensures that all files in the CLIST can be properly allocated. If you are migrating from a previous release of WebSphere Data Interchange, this may have already been done.
- ___ 5. Go to 2.5.13, “Step 25. Verifying the Installation.”

2.5.13 Step 25. Verifying the Installation

The following steps describe how to verify the installation.

- ___ 1. Enter your WebSphere Data Interchange startup CLIST name (EDI) at the TSO/E READY prompt (or ISPF command shell, if appropriate).
- ___ 2. The WebSphere Data Interchange panel is displayed.
- ___ 3. Exit WebSphere Data Interchange and return to the TSO/E READY prompt or ISPF command shell.
- ___ 4. Enter your WebSphere Data Interchange startup CLIST name (EDI).
- ___ 5. The WebSphere Data Interchange Main Menu MP01 is displayed.

```

MP01      WebSphere Data Interchange for z/OS Version 3.2.1 Main Menu
          5655-I40 (c) Copyright IBM Corp. 1989, 2003
          All Rights Reserved. Licensed Materials - Property of IBM

Type the number of your choice and press Enter, or press the Exit
key to exit.

Choice ===>  ___ 1. Event Logging
              ___ 2. Transaction Store Facility
              ___ 3. Utility

Command ===>
Enter Tso F1=Help F3=Exit F9=Retrieve
F13=Keys help

```

- ___ 6. If you are a WebSphere Data Interchange for CICS customer, review the operational changes discussed in 2.5.14, “Step 26. Reviewing Operational Changes” on page 48, and then go to Chapter 3, “Installing WebSphere Data Interchange for CICS Transaction Server for z/OS” on page 53.
- ___ 7. This step completes the WebSphere Data Interchange for z/OS installation. However, if you are migrating from a previous release, review the operational changes discussed in 2.5.14, “Step 26. Reviewing Operational Changes.”

2.5.14 Step 26. Reviewing Operational Changes

If you are migrating from a previous version of WebSphere Data Interchange, note the following operational changes.

2.6 Customers migrating from Version 3, Release 1:

Network Operation profiles (NETOP) from previous releases of DataInterchange are not compatible with Version 3 Release 2 Modification 1. They will not migrate during this install and should never be imported from a prior DataInterchange release. Version 3 Release 2 Modification 1 installs the Network Operation profiles required to support all Network profiles (NETPROF) shipped with the DataInterchange product.

The Interactive Entry Facility (option 1 on the DataInterchange/MVS Administrator's Menu) is no longer available.

Administrator's Menu options 2 (profiles), 4 (mapping), 5 (standards), 6 (application data formats), 7 (translation and validation tables), 8 (envelope standards), 10 (export), 11 (import) have been removed from the z/OS interface. These functions are now performed using WebSphere Data Interchange Client Version 3, Release 2 Modification 1. Although export and import have been removed from the Administrator's menu, these functions are still available in batch or from a CICS task.

Maps, EDI Standards and Application Data Formats that existed under the z/OS interface were converted and imported during this installation of Version 3 Release 2 Modification 1. These objects can only be accessed via the WebSphere Data Interchange Client Version 3 Release 2 Modification 1. (For best results, use DB2 Connect with the Client interface to access the common database.) As a result of this conversion, particular attention should be paid to the relationship between a map and its EDI standard. When a map was created via the z/OS interface back on Version 3, Release 1, the EDI standard object at that time was copied into its definition. Hence, subsequent changes to the standard object were not reflected immediately within the map. On Version 3 Release 2 Modification 1 this is no longer the case. An existing map is dependent on the current standard definition. Any changes to the standard are immediately effective in a WebSphere Data Interchange Client map. However, the control string remains unchanged until recompilation. Thus, mapping migration is no longer a function, but a natural occurrence when the user changes a map's reference to a given standard. For the latest information regarding conversion of Maps, EDI Standards and Application Data Formats, please refer to member EDI31DOC in SMP/E target library EDI.V3R2M0.SEDIINS1.

Any-to-any translation is a new WebSphere Data Interchange feature that allows translation from any supported source document type to any supported target document type. Supported document types include data formats, EDI standards, and XML data. This vastly expands the translation capabilities to a greater number of formats. Any-to-any translation uses a new type of mapping called a data transformation map. This is a set of instructions that describes how to translate data from a source document into a target document. Both the source and target documents can be any one of several supported document types (application data to EDI standard format, EDI standard format to application data, XML data to EDI standard format, and so on). Data transformation maps use the TRANSFORM command to do any-to-any translation. You should use any-to-any translation with new maps that you create. This is now the recommended method for translating documents. For more information about the TRANSFORM command, refer to the WebSphere Data Interchange Programmer's Reference. Data transformation maps are created using WebSphere Data Interchange Client Version 3 Release 2 Modification 1. For more information about the mapping features in the Client, refer to the WebSphere Data Interchange for Multiplatforms User's Guide. PERFORM commands from prior releases are still supported on this release.

JCL changes between Version 3 Release 1 and Version 3 Release 2 Modification 1:

- A sample utility job, EDIUTILD, is included in library EDI.V3R2M0.SEDISAM1. Customers migrating from a VSAM database should use this new member to recreate JCL.
- The PLAN keyword in the SYSTSIN DD (or the EDITSIN DD) has changed from EDIENU31 to EDIENU32.
- All data set names with V3R1M0 have been changed to V3R2M0.

Several WebSphere Data Interchange control blocks were changed for Version 3 Release 2 Modification 1. These changes will require, at a minimum, that all user applications using these WebSphere Data Interchange control blocks be recompiled. Due to a code change within the translator on DataInterchange Version 3 Release 1, made specifically to the Translate file API (ZFCBFUNC=212), it is now necessary to set TRCB-FASPEC to "Y" in the event a translator API program is setting TRCB-FUNACKFLE to a non-blank value. For other control block changes, see Table 12 on page 50 for a list of these other API control block changes:

2.6.1 Field Size Changes between Version 4 Release 1 and Version 3 Release 2 Modification 1

Version 3 Release 2 Modification 1

Table 12. COBOL Field Size Changes between Version 4 Release 1 and

Block	Old Field Size	New Field Size
CMNP-DATA	CMTTP-LOGLOCK PIC X(1).	CMTTP-LOGLOCK PIC X(17).
CMRQ-DATA	CMRQ-LOGLOCK PIC X(1).	CMRQ-LOGLOCK PIC X(17).

Table 12. COBOL Field Size Changes between Version 4 Release 1 and

Block	Old Field Size	New Field Size
CMSP-DATA	CMTTP-LOGLOCK PIC X(1).	CMTTP-LOGLOCK PIC X(17).
CMTTP-DATA	CMTTP-LOGLOCK PIC X(1).	CMTTP-LOGLOCK PIC X(17).

Note: The PLI, C, and Assembler blocks have the same field size changes.

2.7 Customers migrating from Version 4, Release 1:

Network Operation profiles (NETOP) from previous releases of DataInterchange are not compatible with Version 3 Release 2 Modification 1. They will not migrate during this install and should never be imported from a prior DataInterchange release. Version 3 Release 2 Modification 1 installs the Network Operation profiles required to support all Network profiles (NETPROF) shipped with the DataInterchange product.

Administrator's Menu options 2 (profiles), 7 (translation and validation tables), 10 (export) and 11 (import) have been removed from the z/OS interface. These functions are now performed using WebSphere Data Interchange Client Version 3 Release 2 Modification 1. Although export and import have been removed from the Administrator's menu, these functions are still available in batch or from a CICS task.

JCL changes between Version 4, Release 1 and Version 3 Release 2 Modification 1:

- A sample utility job, EDIUTILD, is included in library EDI.V3R2M0.SEDISAM1.
- The PLAN keyword in the SYSTSIN DD (or the EDITSIN DD) has changed from EDIENU41 to EDIENU32.
- All data set names with V4R1M0 have been changed to V3R2M0.

WebSphere Data Interchange control block change for Version 3 Release 2 Modification 1: Due to a code change within the translator on DataInterchange Version 4 Release 1, made specifically to the Translate file API (ZFCBFUNC=212), it is now necessary to set TRCB-FASPEC to "Y" in the event a translator API program is setting TRCB-FUNACKFLE to a non-blank value.

Chapter 3. Installing WebSphere Data Interchange for CICS Transaction Server for z/OS

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Chapter 3. Installing WebSphere Data Interchange for CICS Transaction Server for z/OS

This chapter contains the steps you follow to complete the installation of WebSphere Data Interchange for CICS Transaction Server for z/OS and to verify that installation was successful. Prior to continuing, you must have completed Steps 1 through 26. For more information, see Chapter 2, “Installing WebSphere Data Interchange” on page 25. This chapter also discusses CICS performance considerations and provides some recommendations for running WebSphere Data Interchange in CICS.

3.1.1 WebSphere Data Interchange for CICS Facility versus Utility Functions

The WDI Facility allows users to view the Event Log and the Transaction Store. See WebSphere Data Interchange Administrator's Guide for more information about these functions. In the MVS environment, the Facility functions are invoked via interactive TSO CLISTS. In CICS, users invoke these functions via the CICS terminal transaction, EDIA.

Utility functions are those which are executed in the background and are driven by WebSphere Data Interchange command language. These functions are executed using the WebSphere Data Interchange Utility. Some frequently used commands include, PERFORM TRANSLATE AND ENVELOPE or DEENVELOPE AND TRANSLATE, PERFORM SEND or PERFORM RECEIVE. There are many other utility functions available as described in *WebSphere Data Interchange Programmer's Reference*. In the MVS environment, the WebSphere Data Interchange Utility is executed in batch. In CICS, the WebSphere Data Interchange Utility is invoked via a LINK to EDIFFUT or START EDIB.

3.1.2 Performance of Conversational Transactions

In CICS, *pseudo-conversational* transactions write to the screen and end without waiting for the read to finish. The application supplies the name of the transaction to be started when the read is finished. With this method, resources are not tied up during the waiting time between the write and the read.

Conversational transactions wait for the user's input between each write and read to the screen. EDIA is a conversational transaction. In CICS, you must use conversational transactions carefully. In an environment with a high rate of transaction throughput, conversational transactions can reduce overall region performance.

3.1.3 Security

In MVS/TSO, access to WebSphere Data Interchange menu options and data sets can be controlled by using Resource Access Control Facility (RACF) or an equivalent product. The equivalent product must use Systems Authorization Facility (SAF) interfaces.

In MVS/CICS, the Systems Authorization Facility (SAF) interfaces are not used to implement security.

3.1.4 Special Considerations for LE and C++ With CICS

C/C++ is required for WDI to run in the CICS environment. The message broker (PERFORM TRANSFORM processing) uses the LE environment for C/C++.

Refer to section "Installing CICS Support for Language Environment" in the *CICS Transaction Server for z/OS Installation Guide* for information about enabling LE in a CICS environment.

Refer to section "Language Environment support for C and C++" in the *CICS Transaction Server for z/OS Installation Guide* for information about enabling C++ in a CICS environment.

Refer to section "Preparing CICS for Use with z/OS Language Environment" in the *z/OS C/C++ Programming Guide* for information about CSD, DFHRPL, and I/O Stream Library considerations. The library containing iostream (SCLBDLL or its equivalent) must be added to the DFHRPL concatenation.

3.2 Installation Steps

Each step begins with a description of the action.

Notes:

1. You must complete the installation for WebSphere Data Interchange for z/OS Version 3 Release 2 Modification 1 before installing the WebSphere Data Interchange for CICS portion.
2. The distribution tape provides a set of CICS sample tables and JCL. The SMP/E installation process loads the tables and JCL into the target library, EDI.V3R2M0.SEDISAM2.

3.2.1 Step 27. Creating COBOL User Exit Enabling Module for CICS

FXXJLCBL creates COBOL user exit enabling module for customers who write user exits in COBOL.
FXXJLCB2 creates COBOL II user exit enabling module for customers who write user exits in COBOL II.

Note: If you do not write user exits in COBOL or COBOL II, go to 3.2.2, "Step 28. Creating the EDIW Transaction Module for CICS" on page 55.

The following steps describe how to create the module.

- ___ 1. Edit as appropriate, either the FXXJLCBL or FXXJLCB2 member in EDI.V3R2M0.SEDIINS2.
 Modify the member for your environment as shown in the comment at the beginning of the JCL.
- ___ 2. Run the job.
- ___ 3. Verify that all return codes are not greater than 0004. If you receive a return code greater than 0004, see the appropriate product's message manual for further information.
- ___ 4. If all return codes are not greater than 0004, go to 3.2.2, "Step 28. Creating the EDIW Transaction Module for CICS" on page 55 .

3.2.2 Step 28. Creating the EDIW Transaction Module for CICS

FXXJEDIW creates the EDIW transaction module for CICS.

The following steps describe how to create the module.

- ___ 1. Edit the FXXJEDIW member in EDI.V3R2M0.SEDIINS2.
 Modify the member for your environment as shown in the comment at the beginning of the JCL.
- ___ 2. Run the job.
- ___ 3. Verify that all return codes are not greater than 0004. If you receive a return code greater than 0004, see the appropriate product's message manual for further information.
- ___ 4. If all return codes are not greater than 0004, go to 3.2.3, "Step 29. Creating DB2 Synonyms for CICS."

3.2.3 Step 29. Creating DB2 Synonyms for CICS

FXXSSYNO uses the DB2 Structured Query Language (SQL) Processor Using File Input (SPUFI) facility under Interactive System Productivity Facility/Program Development Facility (ISPF/PDF) to create the DB2 synonyms for CICS. Members in the distributed data set, EDI.V3R2M0.SEDISQL2, contain the SQL statements.

Note: Do not do this step if the user ID that created the DB2 objects is the same as the user ID binding the DB2 plan for CICS.

The following steps describe how to access SQL statements and submit them to DB2 for processing, using the DB2 SPUFI option under ISPF/PDF.

- ___ 1. On the DB2I Primary Option Menu, select the SPUFI option (normally option 1).
- ___ 2. On the SPUFI panel, enter
 EDI.V3R2M0.SEDISQL2(FXXSSYNO)
 This updates the SQL statements on the panel. The SPUFI panel contains comments that indicate any required changes.
- ___ 3. If necessary, change the table names so they match those that are created during WebSphere Data Interchange/MVS installation.
- ___ 4. Run the job.
- ___ 5. Verify that all return codes are zero. If you receive a nonzero return code, see the appropriate product's message manual for further information. If necessary, use the scroll forward key to page through the return codes.
- ___ 6. If all return codes are zero, go to 3.2.4, "Step 30. Binding the DB2 Plan" on page 56.

3.2.4 Step 30. Binding the DB2 Plan

This step uses the IKJEFT01 utility to bind the WebSphere Data Interchange DIENU32C DB2 application plan for use in TSO and batch.

The following list describes the steps to bind the DB2 plan.

- ___ 1. Edit the FXXJBIND member in EDI.V3R2M0.SEDIINS2. Modify the member for your environment as shown in the comment at the beginning of the JCL.
- ___ 2. Run the job.
- ___ 3. Verify that the return code is zero. If you receive a return code greater than zero, see the appropriate product's message manual for further information.
- ___ 4. If the return code is zero, go to 3.2.5, "Step 31. Granting Authorization on the DB2 Objects."

3.2.5 Step 31. Granting Authorization on the DB2 Objects

After binding the WebSphere Data Interchange DB2 application plan, you must make it available to those who will be using WebSphere Data Interchange by granting authorization.

The following list describes the commands used when granting authorization on the DB2 objects used in a CICS region. The command that you use depends on the results you desire.

- ___ 1. You can use SPUFI to run an SQL statement similar to the following example that makes plan DIENU32C available to user ID USER01:

```
GRANT EXECUTE ON PLAN DIENU32C TO USER01;
```
- ___ 2. If you want to give all DB2 users access to the DIENU32C plan, enter the following SQL statement:

```
GRANT EXECUTE ON PLAN DIENU32C TO PUBLIC;
```
- ___ 3. Go to 3.2.6, "Step 32. Setting Up DCT for WebSphere Data Interchange."

3.2.6 Step 32. Setting Up DCT for WebSphere Data Interchange

FXXDCT contains the sample CICS destination control table for DB2 and non-DB2 WebSphere Data Interchange environments.

The following steps describe how to set up DCT for WebSphere Data Interchange.

- ___ 1. Edit the FXXDCT member in EDI.V3R2M0.SEDISAM2.
Modify the member for your environment as shown in the comment at the beginning of the table.
- ___ 2. Add a COPY statement for FXXDCT in your CICS region's DCT.
- ___ 3. Add the data set EDI.V3R2M0.SEDISAM2 to the SYSLIB concatenation. Assemble and link-edit the table.

- ___ 4. Verify that all return codes are zero. If you receive a nonzero return code, see the appropriate product's message manual for further information.
- ___ 5. If all return codes are zero, go to 3.2.7, "Step 33. Setting Up PCT for WebSphere Data Interchange."

3.2.7 Step 33. Setting Up PCT for WebSphere Data Interchange

FXXOPCT contains the sample CICS program control table entries. Complete the following activities to set up the PCT for WebSphere Data Interchange. The default group for the new Resource Definition Online (RDO) WebSphere Data Interchange definitions is EDIGROUP. You can change this as appropriate.

Note: Alternatively, you can update CICS system definitions with WebSphere Data Interchange's PCT macro definitions by using the member FXXPCT in the data set EDI.V3R2M0.SEDISAM2.

The following steps describe how to set up PCT for WebSphere Data Interchange.

- ___ 1. Edit the FXXOPCT member in EDI.V3R2M0.SEDISAM2.
Modify the member for your environment as shown in the comments at the beginning of the JCL.
- ___ 2. Run the job.
- ___ 3. Verify that all return codes are zero. If you receive a nonzero return code, see the appropriate product's message manual for further information.
- ___ 4. If all return codes are zero, go to 3.2.8, "Step 34. Setting Up PPT for WebSphere Data Interchange."

3.2.8 Step 34. Setting Up PPT for WebSphere Data Interchange

FXXOPPT contains the sample CICS processing program table entries. The default group for the new RDO WebSphere Data Interchange definitions is EDIGROUP. You can change this as appropriate.

Note: Alternatively, you can update CICS system definitions with WebSphere Data Interchange's PPT macro definitions by using the member FXXPPT in the data set EDI.V3R2M0.SEDISAM2.

The following steps describe how to set up the PPT for WebSphere Data Interchange.

- ___ 1. Edit the FXXOPPT member in EDI.V3R2M0.SEDISAM2.
Modify the member for your environment as shown in the comments at the beginning of the JCL.
- ___ 2. Run the job.
- ___ 3. Verify that all return codes are zero. If you receive a nonzero return code, see the appropriate product's message manual for further information.
- ___ 4. If all return codes are zero, go to 3.2.9, "Step 35. Setting Up XLT for WebSphere Data Interchange and Expedite/CICS" on page 58.

3.2.9 Step 35. Setting Up XLT for WebSphere Data Interchange and Expedite/CICS

FXXXLT contains the sample CICS transaction list table (XLT) for WebSphere Data Interchange and Expedite/CICS.

Note: Only customers who use Expedite/CICS and wish to use the pre-termination PLT program EDICRSP to shut down all active continuous receives at CICS system termination time should update their XLT to include transaction ISC2.

The following steps describe how to set up XLT for WebSphere Data Interchange:

- ___ 1. Edit the FXXXLT member in EDI.V3R2M0.SEDISAM2.
 Modify the member for your environment as shown in the comment at the beginning of the table.
- ___ 2. Add a COPY statement for FXXXLT in your region's XLT.
- ___ 3. Add the data set EDI.V3R2M0.SEDISAM2 to the SYSLIB concatenation. Assemble and link-edit the table.
- ___ 4. Verify that all return codes are zero. If you receive a nonzero return code, see the appropriate product's message manual for further information.
- ___ 5. If all return codes are zero, go to step 3.2.10, "Step 36. Setting Up FCT for DB2 Installations."

3.2.10 Step 36. Setting Up FCT for DB2 Installations

FXXOFCT1 contains the sample CICS file control table entries. The default group for the new RDO WebSphere Data Interchange definitions is EDIGROUP. You can change this as appropriate.

Note: Alternatively, you can update CICS system definitions with WebSphere Data Interchange's FCT macro definitions by using the member FXXCFCTD in the data set EDI.V3R2M0.SEDISAM2.

The following steps describe how to set up the FCT for WebSphere Data Interchange.

- ___ 1. Edit the FXXOFCT1 member in EDI.V3R2M0.SEDISAM2.
 Modify the member for your environment as shown in the comments at the beginning of the JCL.
- ___ 2. Run the job.
- ___ 3. Verify that all return codes are zero. If you receive a nonzero return code, see the appropriate product's message manual for further information.
- ___ 4. If all return codes are zero, go to 3.2.11, "Step 37. Setting Up RCT" on page 59.

3.2.11 Step 37. Setting Up RCT

FXXRCT contains the sample CICS resource control table for a DB2 WebSphere Data Interchange environment. Complete the following activities to set up RCT for WebSphere Data Interchange.

The following steps describe how to set up RCT for WebSphere Data Interchange.

- ___ 1. Edit the FXXRCT member in EDI.V3R2M0.SEDISAM2.
 Modify the member for your environment as shown in the comment at the beginning of the table.
- ___ 2. Add a COPY statement for FXXRCT in your CICS region's RCT.
- ___ 3. Add the data set EDI.V3R2M0.SEDISAM2 to the SYSLIB concatenation. Assemble and link-edit the table.
- ___ 4. Verify that all return codes are zero. If you receive a nonzero return code, see the appropriate product's message manual for further information.
- ___ 5. If all return codes are zero, go to 3.2.12, "Step 38. Customizing the CICS Startup JCL for DB2 WebSphere Data Interchange."

3.2.12 Step 38. Customizing the CICS Startup JCL for DB2 WebSphere Data Interchange

In this step, you customize the CICS startup JCL used to start the CICS region where DB2 WebSphere Data Interchange transactions can be invoked. Sample, FXXDDND, is provided in the dataset EDI.V3R2M0.SEDISAM2.

The following steps describe how to customize the CICS startup JCL for DB2.

- ___ 1. Modify FXXDDND for your environment as shown in the comment at the beginning of the JCL.
- ___ 2. Copy the JCL into the CICS startup JCL.
- ___ 3. Add the following data sets to the STEPLIB concatenation:
 - Language Environment library:
 - SYS1.SCEERUN
 - If using WebSphere MQ Series, libraries:
 - CSQ.SCSQANLE
 - CSQ.SCSQAUTH
 - CSQ.SCSQMVR1
- ___ 4. Add the following data sets to the DFHRPL concatenation:
 - WebSphere Data Interchange load library EDI.V3R2M0.SEDILMD2
 - Load library where your CICS tables are link-edited into
 - DB2 load library
 - Language Environment libraries:
 - SYS1.SCEECICS

- SYS1.SCEERUN
 - If using WebSphere MQ Series, libraries:
 - CSQ.SCSQANLE
 - CSQ.SCSQAUTH
 - CSQ.SCSQCICS
 - CSQ.SCSQMVR1
 - Network interface load library if any
- ___ 5. If not already enabled, install CICS support for Language Environment. See CICS documentation for details.
- ___ 6. If you choose to use the WebSphere Data Interchange Facility in CICS, add the GDDM load library to the DFHRPL concatenation.
- ___ 7. Go to 3.2.13, “Step 39. Setup for Global Lookaside Buffer (GLB).”

3.2.13 Step 39. Setup for Global Lookaside Buffer (GLB)

This step is required only if you are planning to use the Persistent Environment option for WebSphere Data Interchange for CICS.

FXXJVSGB defines and initializes the Global Lookaside Buffer (GLB) files for WebSphere Data Interchange for CICS.

FXXJGLBL copies the Global Lookaside Buffer modules to an APF authorized library which is concatenated to the STEPLIB in your CICS startup JCL.

The following steps describe how to define and initialize GLB datasets and copy GLB modules to an APF authorized library.

- ___ 1. Edit the FXXJVSGB member in EDI.V3R2M0.SEDIINS2.
 Modify the member for your environment as shown in the comment at the beginning of the JCL.
- ___ 2. Run the job.
- ___ 3. Verify that all return codes are zero, and that no errors are recorded in the SYSOUT. If you receive a nonzero return code, see the appropriate product’s message manual for further information.
- ___ 4. Edit the FXXJGLBL member in EDI.V3R2M0.SEDIINS2.
 Modify the member for your environment as shown in the comment at the beginning of the JCL.
- ___ 5. Run the job.
- ___ 6. Verify that all return codes are zero. If you receive a nonzero return code, see the appropriate product’s message manual for further information.
- ___ 7. If all return codes are zero, add the appropriate APF authorized library used in this job to the STEPLIB concatenation of your CICS startup JCL. Go to 3.2.14, “Step 40. PLT Considerations” on page 61.

3.2.14 Step 40. PLT Considerations

Add program EDIXSOX to your pre-termination PLT. This should be added prior to your DB2 termination program. Go to 3.2.15, “Step 41. XML Support for CICS Setup” on page 61.

3.2.15 Step 41. XML Support for CICS Setup

This step is required only if you are planning to use the XML support provided in WebSphere Data Interchange. New CICS transactions and java programs were added in support of this environment:

- EDI7: Program name EDIJSTRT. This starts the XML parser long-running transaction (EDIJ) and a long-running monitor transaction (EDI9). This transaction must be started in order to do XML processing. The number of parser transactions to be started is controlled by the parser.number property in the EDIParser.properties file.
- EDI8: Program name EDIJSTOP. This stops all active XML parser transactions (EDIJ) and the monitor transaction (EDI9).
- EDI9: Program name EDIJMNTR. This is a monitor program for the long-running XML parser transactions. If a parser ends abnormally, the monitor will restart it. This transaction is normally started by transaction EDI7.
- EDIJ: Program name EDIJPXML. This is the long-running XML parser transaction. It waits for other WebSphere Data Interchange components to put data on a queue, parses the data, and passes the results on another queue. One or more of these transactions are normally started by transaction EDI7.

The remaining installation is slightly different depending on whether you are running CICS Transaction Server 1.3 or CICS Transaction Server 2.2. If you are using CICS Transaction Server 2.2, you must have the java parser from the XML Toolkit for z/OS V1R4 installed. Other differences are noted below.

Ensure java is installed on the host. For CICS Transaction Server 1.3, you should use JDK 1.1.8. For CICS Transaction Server 2.2, JDK 1.3 or later is required.

Configure the CICS/TS region for java. We will not describe this here since the CICS product manuals explain it.

The following steps describe how to define and initialize the WebSphere Data Interchange XML support datasets.

- ___ 1. Set up a HFS home directory for CICS that will contain the WebSphere Data Interchange and XML jar files. You could have the XML jar files in another directory if you wish but these directions will assume a single directory is used.

From the home directory, use the mkdir command(s) to create the /u/edi/cicshome HFS directory.
- ___ 2. Copy the following XML4J toolkit files into the home directory:
 - a. For CICS Transaction Server 1.3, the two files required are:

- xerces.jar
- xml4j.jar

b. For CICS Transaction Server 2.2, the two files required are:

- xercesImpl.jar
- xmlParserAPIs.jar

3. Copy the WebSphere Data Interchange jar file. The name of this file is edijavaparser.jar.

a. For CICS Transaction Server 1.3, use the version that was built with version 1.2 of the XML Toolkit:

```
oput 'edi.v3r2m0.sedihfs2(fxxjar12)' '/u/edi/cicshome/edijavaparser.jar' binary
```

b. For CICS Transaction Server 2.2, use the version that was built with version 1.4 of the XML Toolkit:

```
oput 'edi.v3r2m0.sedihfs2(fxxjar14)' '/u/edi/cicshome/edijavaparser.jar' binary
```

4. The properties file for the java parser is EDIParser.properties This file is only required if changes are required to the defaults since the default version is stored in edijavaparser.jar.

Note: To customize the EDIParser.properties file, a copy of the default version is located in dataset EDI.V3R2M0.SEDISAM2(FXXPARSE). You may change them if you wish and place it in the home directory to override the defaults. If you do override the directory names for the DTD and trace directories then you will need to adjust the instructions below accordingly. If you do choose to change the properties file, use the following command to copy it to the home directory:

```
oput 'edi.v3r2m0.sedisam2(fxxparse)' '/u/edi/cicshome/EDIParser.properties' text
```

5. Create 2 subdirectories in the home directory.

Suggested directory names are as follows:

Directory for dtds: /u/edi/cicshome/dtds Directory for traces: /u/edi/cicshome/traces

6. Place all DTD's to be used in the dtds directory. You do not need to put anything in the traces directory. The EDI Java parsers will write any trace output here.

7. Ensure that the user id that the CICS region will be running under has the proper permissions to access the directories that have been created. For the jar files and the dtds it needs read permission and it needs rwx (read/write/execute) to all the directories (the home directory along with the dtds and traces directories).

8. Customize the JVM properties file for CICS/TS. You can find the file to be used by looking for the DFHJVM DD in the startup JCL for the CICS region. For example, in our setup it looks like the following:

```
/* THE CICS JVM ENVIRONMENT VARIABLES
//DFHJVM DD DSN=EDI.V3R2M0.SDFHENV(DFHJVMEV),DISP=SHR
```

The DSN can be altered to point to a different dataset if you wish. In the Java properties file we changed the following:

CICS_HOME: Point to the home directory set up above

CLASSPATH: The following will need to be added to your CLASSPATH.

The example below shows the CICS Transaction Server 1.3 installation. The Java path and CICS path (ie., JDK 1.3, CICS 2.2) will need to be modified if you are installing on CICS Transaction Server 2.2. The xmlParserAPI.jar and xercesImpl.jar names will also need to be modified in the example below if you are installing on CICS Transaction Server 2.2.

```
CLASSPATH=/usr/lpp/cicsts/cicsts13/classes/dfjwrap.jar:  
/usr/lpp/cicsts/cicsts13/classes/dfjcics.jar:  
/usr/lpp/cicsts/cicsts13/classes/dfjcorb.jar:  
/usr/lpp/java/current/J1.1/lib/classes.zip:  
/u/edi/cicshome/edijavaparser.jar:  
/u/edi/cicshome/xml4j.jar:/u/edi/cicshome/xerces.jar:.
```

JAVA_COMPILER: Set this to **ON**. The default is **OFF**. This causes the Just In Time Compiler (JIT) to be used which **GREATLY** improves performance.

MAXHEAPSIZE: This setting affects the size of the XML document that can be processed. We recommend 48000000 (48 meg). It could be set smaller (but you shouldn't go below 16 meg). If you start getting out of memory errors in the JVM then you will need to increase this.

___ 9. Go to 3.2.16, "Step 42. Verifying the CICS Installation."

3.2.16 Step 42. Verifying the CICS Installation

If you are migrating from a previous version of WebSphere Data Interchange, please review the operational changes discussed in 2.5.14, "Step 26. Reviewing Operational Changes" on page 48.

See Table 12 on page 50 for a list of control block changes. It may be necessary that user written programs using WebSphere Data Interchange control blocks be recompiled. In addition, if there were any WebSphere Data Interchange control block field name changes, user written programs that reference those fields will have to be updated before recompilation.

The following steps describe how to verify the CICS Installation.

- ___ 1. Start the CICS region using the startup JCL you updated in the previous steps.
- ___ 2. If you are migrating from WebSphere Data Interchange Version 3 Release 1, purge the temporary storage queue (TSQ) EDITV00 prior to activating WebSphere Data Interchange.
- ___ 3. Ensure DB2 has been activated with the appropriate RCT.
- ___ 4. If you are not going to be using the WebSphere Data Interchange Facility in CICS, issue the WebSphere Data Interchange CICS transaction EDIV from a CICS-controlled terminal. A successful completion of the transaction verifies your WebSphere Data Interchange CICS installation.

- ___ 5. If you are going to be using the WebSphere Data Interchange Facility in CICS, issue the WebSphere Data Interchange CICS transaction EDIA from a CICS-controlled terminal. The WebSphere Data Interchange panel is displayed.

This step completes the WebSphere Data Interchange for CICS installation.

Appendix

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A.1 Reorganization of Repository DB2 Tables	67

Appendix A. Reorganization of WebSphere Data Interchange Repository Data

This section describes how to reorganize your WebSphere Data Interchange DB2 tables. The distribution tape provides the sample JCL.

A.1 Reorganization of Repository DB2 Tables

The following steps describe how to reorganize the repository DB2 tables.

- ___ 1. Edit and run the JCL member EDIBKUPD in EDI.V3R2M0.SEDIINS1 to back up the repository DB2 tables.
- ___ 2. Drop all repository DB2 tables and recreate them following the instructions in 2.3.1, "Step 13. Creating Version 3 Release 2 Modification 1 Repository DB2 Objects" on page 33.
- ___ 3. Edit and run the JCL member EDIRSTRD in EDI.V3R2M0.SEDIINS1 to restore the repository DB2 tables.
- ___ 4. Verify that all return codes are zero for each step. If you receive a nonzero return code, see the appropriate product's message manual for further information.

Glossary and Index

Glossary

A

acknowledgment. See *functional acknowledgment*, *network acknowledgment*.

action bar. The area at the top of a panel that contains choices currently available in the application that is running. Compare to the *function key area*, which contains actions common to all programs.

ANSI. American National Standards Institute.

ANSI ASC X12. ANSI Accredited Standards Committee X12, which develops and maintains generic standards for business transactions for EDI.

application. A program that processes business information. An application that requests services from WebSphere Data Interchange is an *enabled application*.

application data. The actual data in a transaction.

application data format. A description of the application data for a particular transaction. An application data format is composed of data structures and fields.

B

base structure. The data structure that contains all the data structures and data fields that define the application data for a single transaction.

binary format (BIN). Representation of a decimal value in which each field must be 2 or 4 bytes long. The sign (+ or -) is in the far left bit of the field, and the number value is in the remaining bits of the field. Positive numbers have a 0 in the sign bit. Negative numbers have a 1 in the sign bit and are in twos complement form.

C

CICS. Customer Information Control System.

CLIST. Command list.

command line. The line at the bottom of the panel that provides an alternate way of requesting services, rather than using the *Action* column of the panel body.

Command list (CLIST). A list of commands and statements designed to perform a specific function for the user.

composite data element. In UN/EDIFACT standards, a group of related subelements, such as the elements that make up a name and address.

control structure. The beginning and ending segments (header and trailer) of standard enveloped transmissions.

Customer Information Control System (CICS). An IBM licensed program that enables transactions entered at remote terminals to be processed concurrently by user-written application programs.

customize. To alter to suit the needs of a company, such as removing from an EDI standard the segments and data elements that the company does not use.

D

DASD. Direct access storage device.

data dictionary. A file containing the definitions of all the data elements of an EDI standard.

data element. A single item of data in a standard, such as a purchase order number. Corresponds to a data field in a data format.

data element delimiter. A character, such as an asterisk (*), that follows the segment identifier and separates each data element in a segment. See also *element separator* and *segment ID separator*.

data field. A single item of data in a data format, such as a purchase order number. Corresponds to a data element in a standard.

data format. See *application data format*.

data structure. A group of related data fields in a data format, such as the fields making up the line item of an invoice. Corresponds to a segment in a standard.

ddname. Data definition name.

decimal notation. The character that represents a decimal point in an envelope standard.

direct access storage device (DASD). A device in which access time is effectively independent of the location of the data.

distribution libraries. Supplied partitioned data sets on tape containing one or more components used to transfer data to a new system.

distribution tape. A magnetic tape that contains the distribution libraries for installing a new system.

domain. The data structure or group of data structures in a data format to and from which you should restrict the mapping of EDI repeating segments and loops.

E

EDI. Electronic data interchange.

EDIA. Electronic Data Interchange Association.

EDI administrator. The person responsible for setting up and maintaining WebSphere Data Interchange.

EDIFACT. See *UN/EDIFACT*.

electronic data interchange (EDI). A method of transmitting business information over a network, between business associates who agree to follow approved national or industry standards in translating and exchanging information.

electronic transmission. The means by which information is transferred between parties, such as over a public network.

element separator. A character that separates the data elements in a segment. See also *data element delimiter*.

encryption. The encoding and scrambling of data. Data is encrypted by the sender and decrypted by the receiver using a predetermined program and unique electronic key.

event. An occurrence that is important to a user's computer task, such as a software error, sending a transaction, or acknowledging a message.

F

functional acknowledgment. An electronic acknowledgment returned to the sender to indicate acceptance or rejection of EDI transactions.

functional group. One or more transaction sets of a similar type transmitted from the same location, enclosed by functional group header and trailer segments.

function key. A key that causes a specified sequence of operations to be performed when it is pressed. Generally used to refer to keys labelled F_n , where n is a number from 1 to 24.

function key area. Two lines at the bottom of the panel that list the active function keys for the panel.

G

GDDM. Graphical data display manager.

graphical data display manager (GDDM). An IBM licensed program that allows pictures to be defined and displayed on your monitor.

H

header. A control structure that indicates the start of an electronic transmission.

I

ICS. International Control Segments

IN. Information Network. In the United States, this is a value-added network provided by IBM. Outside the United States, this is a value-added network provided by IBM using Information Exchange.

Interactive System Productivity Facility (ISPF). An IBM-licensed program that serves as a full-screen editor and dialog manager.

interchange. The exchange of information between trading partners.

ISPF. Interactive System Productivity Facility.

J

JCL. Job Control Language

Job Control Language (JCL).

K

key. In a profile member, the field that identifies the member. For example, the key for members of the trading partner profile is the trading partner nickname.

L

Link Pack Area (LPA). In MVS, an area of main storage containing reenterable routines from system libraries. Their presence in main storage saves loading time.

literal. In transaction mapping, a value that is constant for each occurrence of the transaction. If you provide the literal value during mapping, the translator does not have to refer to an application field to obtain the value.

log file. A file in which events are recorded.

logging. The recording of events in time sequence.

loop. A group of related segments in a transaction set.

loop ID. A unique code identifying a loop and the number of times the loop can be repeated.

loop repeat. A number indicating the maximum number of times a loop can be used in succession.

LPA. Link pack area.

M

maximum use. A number indicating the maximum number of times a segment can be used in a transaction set.

member. A collection of data for one entry in a profile. For example, a member of the trading partner profile contains data about one trading partner.

message. A free-form, usually short, communication to a trading partner. In UN/EDIFACT standards, a transaction set.

multiple-occurrence mapping. A form of mapping in which all occurrences of a loop or repeating segment are mapped to the same repeating structure in the data format.

MVS. Multiple virtual storage.

N

network acknowledgment. A response from the network indicating the status of an interchange envelope, such as sent or received.

O

ODETTE. Organization for Data Exchange through Teletransmission in Europe.

P

panel body. The area in the middle of the panel that contains entry fields, lists of selectable items, menu choices, and scrollable text.

PDF. Program Development Facility.

PDS. Partitioned data set.

PDS members. Groups of related information stored in partitioned data sets.

profile. A collection of descriptive information about similar members, such as networks, trading partners, or applications.

program directory. A document shipped with each release of a product that describes the detailed content of the product.

Q

qualifier. A data element which gives a generic segment or data element a specific meaning. Qualifiers are used in mapping single or multiple occurrences.

quiesce. To end a process by allowing operations to complete normally.

quiescing. The process of bringing a device or a system to a halt by rejection of new requests for work.

R

RACF. Resource access control facility.

release character. The character that indicates that a separator or delimiter is to be used as text data instead of as a separator or delimiter. The release character must immediately precede the delimiter.

repository data. A group of data definitions, formats, and rules, that WebSphere Data Interchange uses to process your data.

Resource Access Control Facility (RACF). An IBM-licensed program that provides for access control by identifying and verifying the users to the system, authorizing access to protected resources, logging the detected unauthorized attempts to enter the system, and logging the detected accesses to protected resources.

S

SAF. System Authorization Facility.

security administrator. The person who controls access to business data and program functions.

segment. A group of related data elements. A segment is a single line in a transaction set, beginning with a function identifier and ending with a segment terminator delimiter. The data elements in the segment are separated by data element delimiters.

segment directory. A file containing the format of all segments in a standard.

segment identifier. A unique identifier at the beginning of each segment consisting of two or three alphanumeric characters.

segment ID separator. The character that separates the segment identifier from the data elements in the segment.

segment terminator. The character that marks the end of a segment.

single-occurrence mapping. A form of mapping in which each occurrence of a loop or repeating segment is mapped to a different part of the data format.

SMP/E. System Modification Program Extended.

SQL. Structured query language.

standards. The industry-supplied, national, or international formats to which information is converted, allowing different computer systems and applications to interchange information.

structure. See *data structure*.

subelement. In EDIFACT standards, a data element that is part of a composite data element. For example, a data element and its qualifier are subelements of a composite data element.

subelement separator. A character that separates the subelements in a composite data element.

System Authorization Facility (SAF).

System Modification Program Extended (SMP/E). An IBM-licensed program used to install software and software changes on OS/VS1 and OS/VS2 systems.

T

tag. In EDIFACT standards, the segment identifier.

TDCC. Transportation Data Coordinating Committee.

TDQ. Transient data queue.

temporary storage queue (TS). Storage locations reserved for immediate results in CICS. They are deleted after the task that created them is complete and they are no longer necessary.

Time Sharing Option (TSO). An operating system option.

Time Sharing Option Extensions (TSO/E). The base for all TSO enhancements. It provides MVS users with additional functions, improved usability, and better performance.

trading partner profile. The profile that defines your trading partners, including information about network account numbers, user IDs, who pays for network charges, etc.

trading partners. Business associates, such as a manufacturer and a supplier, who agree to exchange information using electronic data interchange.

trading partner transaction. A transaction set customized to match the format that two trading partners have agreed to use for exchanging one type of transaction.

trailer. A control structure that indicates the end of an electronic transmission.

transaction. A single business document, such as an invoice.

transaction set. A group of standard data segments, in a predefined sequence, needed to provide all of the data required to define a complete transaction, such as an invoice or purchase order.

transient data queue. A sequential data set used by the Folder Application Facility in MVS/CICS to log system messages.

translation. The process of converting information from a data format to a standard format, or from a standard format to a data format.

translation table. A user-defined table that translates data values that differ between trading partners. For example, if a manufacturer and supplier have different part numbers for the same item, each company can use its own part number and have it converted to the other company's part number during translation.

TSO. Time Sharing Option.

TSO/E. Time Sharing Option/Extended.

U

UCS. Uniform Communication Standard.

unary operator. An operator that changes the sign of a numeric value.

UN/EDIFACT. United Nations Electronic Data Interchange for Administration Commerce and Transport.

Uniform Communication Standard (UCS). The EDI standard used in the grocery industry.

UNTDI. United Nations Trade Data Interchange.

V

validation table. A table, supplied by WebSphere Data Interchange or defined by the user, which contains all acceptable values for a single data field.

Virtual Storage Access Method (VSAM). An access method for direct or sequential processing of fixed and variable-length records on direct access devices. The records in a VSAM data set or file can be organized in logical sequence by a key field (key sequence), in the physical sequence in which they are written on the data set or file (entry-sequence), or by relative-record number.

VSAM. Virtual Storage Access Method.

W

WINS. Warehouse Information Network Standard.

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