



**Program Directory for
DB2 9 for z/OS Value Unit Edition**

V09.01.00

Program Number 5697-P12

FMIDs HDB9910, HIZ9910, HIR2220, JDB991Z

for Use with
z/OS on zNALC

Service Updated PDO 1238

Document Date: November 2012

GI10-8779-06

Note

Before using this information and the product it supports, be sure to read the general information under Appendix B, "Notices" on page 71.

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1.0 Introduction

This Program Directory is intended for the system programmer responsible for program installation and maintenance. It contains information concerning the material and procedures associated with the installation of IBM DB2 9 for z/OS Value Unit Edition. This publication refers to IBM DB2 9 for z/OS Value Unit Edition as DB2 9 for z/OS VUE.

The Program Directory contains the following sections:

- 2.0, “Program Materials” on page 3 identifies the basic and optional program materials and documentation for DB2 9 for z/OS VUE.
- 3.0, “Program Support” on page 10 describes the IBM support available for DB2 9 for z/OS VUE.
- 4.0, “Program and Service Level Information” on page 14 lists the APARs (program level) and PTFs (service level) incorporated into DB2 9 for z/OS VUE.
- 5.0, “Installation Requirements and Considerations” on page 15 identifies the resources and considerations required for installing and using DB2 9 for z/OS VUE.
- 6.0, “Installation Instructions” on page 36 provides detailed installation instructions for DB2 9 for z/OS VUE. It also describes the procedures for activating the functions of DB2 9 for z/OS VUE, or refers to appropriate publications.

Before installing DB2 9 for z/OS VUE, read the *CBPDO Memo To Users* and the *CBPDO Memo To Users Extension* that were supplied with this program in softcopy form as well as this Program Directory and then keep them for future reference. Section 3.2, “Preventive Service Planning” on page 10 tells you how to find any updates to the information and procedures in this Program Directory.

DB2 9 for z/OS VUE is supplied in a Custom-Built Product Delivery Offering (CBPDO, 5751-CS3). The Program Directory is provided in softcopy form on the CBPDO tape which is identical to the hardcopy form provided with your order. All service and HOLDDATA for DB2 9 for z/OS VUE are included on the CBPDO tape.

Do not use this Program Directory if you are installing DB2 9 for z/OS VUE with a SystemPac or ServerPac. When using these offerings, use the jobs and documentation supplied with the offering. This documentation may point you to specific sections of the Program Directory as required.

1.1 DB2 9 for z/OS VUE Description

- DB2 Base

DB2 is a relational database management system for z/OS. In a relational database, data is perceived to exist in one or more tables, each containing a specific number of columns and a number of unordered rows. Each column in a row is related in some way to the other columns. Thinking of the data as a collection of tables gives you an easy way to visualize the stored data and enables you to explain your needs in easy-to-understand terms.

DB2 operates as a formal subsystem of z/OS. DB2 utilities run in the batch environment, and applications that access DB2 resources can run in the batch, TSO, IMS, WebSphere or CICS environments. Utilities can also run via stored procedure. IBM provides attachment facilities to connect DB2 to each of these environments and for distributed connections.

- IRLM V2R2

The Internal Resource Lock Manager (IRLM) is distributed with and is required by DB2 9 for z/OS VUE. IRLM is responsible for managing all requests for locks and for controlling access to both DB2 and IMS databases. IRLM V2R2 was introduced with DB2 for z/OS V8, and has only been tested and approved for use on DB2 for z/OS V8 and DB2 9 for z/OS VUE. We recommend levels of DB2 for z/OS prior to V8, and IMS levels without a note of IRLM V2R2 support in their program directory, continue to run with IRLM V2R1.

1.2 DB2 9 for z/OS VUE FMIDs

DB2 9 for z/OS VUE consists of the following FMIDs:

1. Required FMIDs:

- HDB9910 (contains DB2 Base, msys plug-in, REXX, MQSeries, MQListener)
- HIY9910 (IMS Attach - must be installed even if you do not have IMS)
- HIZ9910 (Subsystem Initialization)
- HIR2220 (IRLM V2R2)
- HDRE910 (DB2 RACF Authorization Exit)
- JDB9914 (DB2 English Panels)
- JDB991Z (DB2 Value Unit Edition, exclusive to 5697-P12, DB2 9 for z/OS VUE)

2. Optional FMIDs:

- JDB9912 (DB2 JDBC/SQLJ)
- JDB9917 (DB2 ODBC)
- JDB991X (DB2 XML Extender)
- JDB9911 (DB2 Kanji Panels)

2.0 Program Materials

An IBM program is identified by a program number. The program number for DB2 9 for z/OS VUE is 5697-P12.

Basic Machine-Readable Materials are materials that are supplied under the base license and feature numbers, and are required for the use of the product. Optional Machine-Readable Materials are orderable under separate feature numbers, and are not required for the product to function.

The program announcement material describes the features supported by DB2 9 for z/OS VUE. Ask your IBM representative for this information if you have not already received a copy.

2.1 Basic Machine-Readable Material

The distribution medium for this program is magnetic tape or downloadable files. It is installed using SMP/E, and is in SMP/E RELFILE format. See 6.0, "Installation Instructions" on page 36 for more information about how to install the program.

Information about the physical tapes for the Basic Machine-Readable Materials for DB2 9 for z/OS VUE can be found in the *CBPDO Memo To Users Extension*.

NOTE

If DB2 9 for z/OS VUE was shipped to you in a CBPDO, you will need to reference the CBPDO Memo To Users Extension for the physical tapes layout of the Basic Machine-Readable Materials.

Figure 1 describes the physical tapes.

Figure 1. Basic Material: Program Tapes - DB2 9 for z/OS VUE

Medium	Feature Number	Physical Volume	External Label	VOLSER
3480 cart.	5802	1 of 8	DB2 Vol1	DB9910
		2 of 8	DB2 Vol2	DB991A
		3 of 8	DB2 Vol2	DB991B
		4 of 8	IRLM V2R2	IR2220
		5 of 8	DB2 VUE	DB991Z
		6 of 8	ODBC JDBC/SQLJ	DB9917
		7 of 8	XML Extender	DB991X
		8 of 8	DB2 Kanji	DB9911

The following figures detail the program file contents for the various components of DB2 9 for z/OS VUE.

Notes:

1. The data set attributes in the following tables should be used in the JCL of jobs reading the data sets, but since the data sets are in IEBCOPY unloaded format, their actual attributes may be different.
2. If any RELFILEs are identified as PDSEs, ensure that SMPTLIB data sets are allocated as PDSEs.

Figure 2. Program File Content: DB2 Base

Name	O R G	R E C F M	L R E C L	BLK SIZE
SMPMCS	SEQ	FB	80	6400
IBM.HDB9910.F1	PDS	FB	80	8800
IBM.HDB9910.F2	PDSE	U	0	6144
IBM.HDB9910.F3	PDS	FB	80	8800
IBM.HDB9910.F4	PDS	FB	80	8800
IBM.HDB9910.F5	PDS	VB	8188	8192
IBM.HDB9910.F6	PDS	VB	255	23476
IBM.HDB9910.F7	PDS	VB	255	27998
IBM.HIY9910.F1	PDS	FB	80	8800
IBM.HIY9910.F2	PDS	FB	80	8800
IBM.HIY9910.F3	PDSE	U	0	6144
IBM.HIZ9910.F1	PDS	FB	80	8800
IBM.HIZ9910.F2	PDSE	U	0	6144
IBM.JDB9914.F1	PDS	FB	80	8800
IBM.HDRE910.F1	PDS	FB	80	8800

Figure 3 (Page 1 of 2). Program File Content: IRLM Version 2 Release 2

Name	O R G	R E C F M	L R E C L	BLK SIZE
SMPMCS	SEQ	FB	80	6400
IBM.HIR2220.F1	PDS	FB	80	8800
IBM.HIR2220.F2	PDS	U	0	6144

Figure 3 (Page 2 of 2). Program File Content: IRLM Version 2 Release 2

Name	O R G	R E C F M	L R E C L	BLK SIZE
IBM.HIR2220.F3	PDS	FB	80	27920

Figure 4. Program File Content: DB2 Value Unit Edition

Name	O R G	R E C F M	L R E C L	BLK SIZE
SMPMCS	SEQ	FB	80	8800
IBM.JDB991Z.F1	PDS	FB	80	8800
IBM.JDB991Z.F2	PDS	FB	80	6144

Figure 5. Program File Content: DB2 ODBC/JDBC/SQLJ

Name	O R G	R E C F M	L R E C L	BLK SIZE
SMPMCS	SEQ	FB	80	6400
IBM.JDB9917.F1	PDS	FB	80	8800
IBM.JDB9917.F2	PDS	U	0	6144
IBM.JDB9917.F3	PDS	FB	80	8800
IBM.JDB9912.F1	PDS	FB	80	8800
IBM.JDB9912.F2	PDSE	U	0	6144
IBM.JDB9912.F3	PDS	FB	80	27998
IBM.JDB9912.F4	PDSE	VB	255	6144

Figure 6. Program File Content: DB2 XML Extender

Name	O R G	R E C F M	L R E C L	BLK SIZE
SMPMCS	SEQ	FB	80	6400
IBM.JDB991X.F1	PDS	FB	80	8800
IBM.JDB991X.F2	PDS	VB	255	23476
IBM.JDB991X.F3	PDS	VB	255	23476
IBM.JDB991X.F4	PDS	VB	255	27998
IBM.JDB991X.F5	PDS	FB	80	8800
IBM.JDB991X.F6	PDS	FB	80	8800
IBM.JDB991X.F7	PDS	FB	80	8800
IBM.JDB991X.F8	PDS	VB	255	23476
IBM.JDB991X.F9	PDSE	U	0	6144
IBM.JDB991X.F10	PDS	VB	255	23476
IBM.JDB991X.F11	PDS	VB	255	23476
IBM.JDB991X.F12	PDS	VB	255	23476
IBM.JDB991X.F13	PDS	FB	80	8800
IBM.JDB991X.F14	PDS	VB	255	27998
IBM.JDB991X.F15	PDS	FB	80	8800

Figure 7. Program File Content: DB2 Kanji

Name	O R G	R E C F M	L R E C L	BLK SIZE
SMPMCS	SEQ	FB	80	6400
IBM.JDB9911.F1	PDS	FB	80	8800

2.2 Optional Machine-Readable Material

No optional machine-readable materials are provided for DB2 9 for z/OS VUE.

2.3 Program Publications

The following sections identify the basic and optional publications for DB2 9 for z/OS VUE.

2.3.1 Basic Program Publications

Figure 8 identifies the basic unlicensed program publications for DB2 9 for z/OS VUE. One copy of each of these publications is included when you order the basic materials for DB2 9 for z/OS VUE. For additional copies, contact your IBM representative.

<i>Figure 8. Basic Material: Unlicensed Publications</i>	
Publication Title	Form Number
DB2 Version 9.1 for z/OS Installation Guide	GC18-9846
DB2 9 for z/OS VUE License Information	GC19-2414

Figure 9 identifies the basic unlicensed or licensed publications that are not available in hardcopy form, but are available through the internet or other media for DB2 9 for z/OS VUE.

<i>Figure 9. Basic Material: Other Unlicensed or Licensed Publications</i>		
Publication Title	Form Number	How Available
Internationalization Guide (Unicode)	SC19-1161	See Note below
z/OS Managed System Infrastructure for Setup DB2 Customization Center User's Guide	n/a	See Note below
RACF Access Control Module Guide and Reference	SC18-9852	See Note below
Reference for Remote DRDA Requesters and Servers	SC18-9853	See Note below

Note: Unlicensed Publications can be found at either of the following Web addresses:

<http://publib.boulder.ibm.com/infocenter/imzic>

or

<http://www.ibm.com/software/db2zos/v9books.html>

2.3.2 Optional Program Publications

Figure 10 identifies the optional unlicensed program publications for DB2 9 for z/OS VUE. Each of these publications is included in the Library Collection Kit CD-ROM when you order DB2 9 for z/OS VUE.

Figure 10 identifies the optional unlicensed program publications for DB2 9 for z/OS VUE.

<i>Figure 10. Optional Material: Unlicensed Publications</i>	
Publication Title	Form Number
DB2 Version 9.1 for z/OS Administration Guide	SC18-9840
DB2 Version 9.1 for z/OS Application Programming and SQL Guide	SC18-9841
DB2 Version 9.1 for z/OS Application Programming Guide and Reference for Java	SC18-9842
DB2 Version 9.1 for z/OS Codes	GC18-9843
DB2 Version 9.1 for z/OS Command Reference	SC18-9844
DB2 Version 9.1 for z/OS Data Sharing: Planning and Administration	SC18-9845
DB2 Version 9.1 for z/OS Introduction to DB2	SC18-9847
DB2 Version 9.1 for z/OS Messages	GC18-9849
DB2 Version 9.1 for z/OS ODBC Guide and Reference	SC18-9850
DB2 Version 9.1 for z/OS Performance Monitoring and Tuning Guide	SC18-9851
DB2 Version 9.1 for z/OS Reference Summary (available hardcopy only)	SX26-3854
DB2 Version 9.1 for z/OS SQL Reference	SC18-9854
DB2 Version 9.1 for z/OS Utility Guide and Reference	SC18-9855
DB2 Version 9.1 for z/OS What's New? (not on CD-ROM, please visit Info Center)	GC18-9856
DB2 Version 9.1 for z/OS XML Extender Administration and Programming	SC18-9857
DB2 Version 9.1 for z/OS XML Guide for DB2	SC18-9858

Figure 11 identifies the optional licensed publications that are not available in hardcopy form with the base product but are available through the internet or other media for DB2 9 for z/OS VUE.

<i>Figure 11. Optional Material: Licensed Publications</i>		
Publication Title	Form Number	How Available
DB2 Version 9.1 for z/OS Diagnosis Guide and Reference	LY37-3218 *	IBM Publications Center
DB2 Version 9.1 for z/OS Diagnostic Quick Reference (hardcopy only)	LY37-3219 *	IBM Publications Center

Note: The IBM Publications Center can be found at the following Web address:

<http://www.elink.ibmink.ibm.com/publications/servlet/pbi.wss>

2.4 Program Source Materials

Customers with access to View Program Listings (VPL), such as through S/390 SoftwareXcel, can use the VPL facility for online viewing of available program listings. Those customers without access to VPL can contact their IBM representative. Listings are stored in VPL under Program Number 5635-DB2.

2.5 Publications Useful During Installation

The publications listed in Figure 12 may be useful during the installation of DB2 9 for z/OS VUE. To order copies, contact your IBM representative or visit the IBM Publications Center on the World Wide Web at:

<http://www.ibm.com/shop/publications/order>

Publication Title	Form Number
<i>IBM SMP/E for z/OS and OS/390 User's Guide</i>	SA22-7773
<i>IBM SMP/E for z/OS and OS/390 Commands</i>	SA22-7771
<i>IBM SMP/E for z/OS and OS/390 Reference</i>	SA22-7772
<i>IBM SMP/E for z/OS and OS/390 Messages, Codes, and Diagnosis</i>	GA22-7770

3.0 Program Support

This section describes the IBM support available for DB2 9 for z/OS VUE.

3.1 Program Services

Contact your IBM representative for specific information about available program services.

3.2 Preventive Service Planning

Before installing DB2 9 for z/OS VUE, it is VERY IMPORTANT that you review the current Preventive Service Planning (PSP) information. The PSP bucket buckets maintain current lists (which have been identified since the package was created) of any recommended or required service for this package's installation. This includes software PSP information that contains HIPER, and/or required PTF's against the base release.

While there can be overlap between SW, HW and functional PSP buckets, reviewing all that apply to this package will ensure that you identify any known service required for your installation of this package.

The product levels documented in both the Program Directory and the Preventive Service Planning bucket are the levels with which DB2 9 for z/OS VUE was tested. Products at lower levels of maintenance may function, but we are unable to guarantee this. If you are using a downlevel release or version of a product and experience problems, it is likely IBM will require that **maintenance be brought up** to the recommended levels before problem resolution will continue.

Note

The service level in which the PTF/APAR fixes were incorporated into the product tape is PDO 1238. There are several HOLD items associated with the incorporated DB2 and IRLM 2.2 fixes that you must be aware of and take necessary action as part of the installation of DB2 and IRLM 2.2.. These HOLDS are provided in the below technote:

<http://www-01.ibm.com/support/docview.wss?uid=swg21470318>

If you obtained DB2 9 for z/OS VUE as part of a CBPDO, there is HOLDDATA included on the PDO.

If the CBPDO for DB2 9 for z/OS VUE is more than two weeks old when you install it, you should contact the IBM Support Center, use S/390 SoftwareXcel to obtain the current "PSP Bucket" or obtain the current PSP from the Web at <https://techsupport.services.ibm.com/server/390.psp390>

For program support, access the Software Support Web site at <http://www-03.ibm.com/software/support/>

PSP Buckets are identified by UPGRADEs, which specify product levels, and SUBSETs, which specify the FMIDs for a product level. The UPGRADE and SUBSET values for DB2 9 for z/OS VUE are:

Figure 13. PSP Upgrade and Subset ID

UPGRADE	SUBSET	Description
DB2910	HDB9910/1238	DB2 BASE/TSO
	HIY9910/1238	IMS ATTACH
	HIZ9910/1238	DB2 SUBSYSTEM INIT
	HIR2220/1238	IRLM V2R2
	HDRE910/1238	RACF AUTHORIZATION EXIT
	JDB9912	DB2 JDBC/SQLJ
	JDB9914/1238	DB2 ENGLISH PANELS
	JDB9917	DB2 ODBC
	JDB991X	DB2 XML EXTENDER
	JDB991Z	DB2 VALUE UNIT EDITION
	JDB9911	DB2 KANJI PANELS

The PSP **SUBSET** name reflects the Function Module Identifier (FMID) that was updated and the corresponding CBPDO weekly service offering used to supply the integrated PTFs.

Example: FMID/YYWW where 'YY' is the year and 'WW' is the week number the CBPDO was created.

The CBPDO weekly Service tape is the Service Level Indicator for any products updated by the Software Delivery Center (SDC) processes. If you wish to determine the latest level of PDO (Product Delivery Offering) maintenance installed in this product, please refer to the 4.0, "Program and Service Level Information" on page 14 section of this program directory.

Additionally, these upgrades contain HIPER (High Impact PERvasive) APARs and should be reviewed on a monthly basis.

Note: When pulling PTFs from IBMLink, you need to include your Service Type/Level:

```
Example: Service Type      PDO
          Service Level    0801
```

Authorized Program Analysis Report (APAR) fixes will be distributed as PTFs containing either object module or macro replacements with control statements used by the System Modification Program/Extended (SMP/E).

The normal process for applying maintenance to DB2 9 for z/OS VUE includes the following steps:

1. Check for prerequisites and corequisites as well as additional steps that may be needed as noted in the following sections

2. Use SMP/E to receive and apply the fix.
3. Perform any needed special procedures.
4. Stop and start DB2 to make the fix active, as required.
5. Test the fix.
6. Accept the fix (after testing is complete).

Fixes to some parts of the subsystem or subsystem data may involve special procedures. For example, a BIND may be required for some changes. CLISTs and jobs that are customized during the installation process often require some additional work. When applicable, the install CLIST can be used for customizing. If the DSN6xxxx macros are changed, the DSNZPxxx subsystem parameters load module must be reassembled and link edited. For information on assembling and link editing DSNZPxxx, refer to the description of job DSNTIJUZ in the DB2 Installation Guide.

Notification of these required special procedures will be via the SMP/E EXCLUDE list, PTF prologues, and RETAIN information. The SMP/E control statement ++HOLD will be used when there is additional work necessary to incorporate the fix into the DB2 system.

3.3 Statement of Support Procedures

Report any difficulties you have using this program to your IBM Support Center. If an APAR is required, the Support Center will advise how you should submit any needed information or documentation.

Figure 14 identifies the component IDs (COMPID) for DB2 9 for z/OS VUE.

<i>Figure 14. Component IDs</i>			
FMID	COMPID	Component Name	RETAIN Release
HDB9910	5740XYR00	BASE/TSO	910
HIY9910	5740IY100	IMS ATTACH	910
HIZ9910	5740XYR01	SUBSYSTEM INIT	910
HIR2220	569516401	IRLM V2R2	220
HDRE910	5740DRE00	RACF AUTHORIZATION EXIT	910
JDB9912	5740XYR02	DB2 JDBC/SQLJ	912
JDB9914	5740XYR00	DB2 ENGLISH PANELS	914
JDB9917	5740XYR02	DB2 ODBC	917
JDB991X	5740XYR06	DB2 XML EXTENDER	91X
JDB991Z	5740XYR00	DB2 VALUE UNIT EDITION	91Z
JDB9911	5740XYR00	DB2 KANJI PANELS	911

Note: Due to the size of the DB2 SVC dumps in the cross-memory environment, it is recommended that the SYS1.DUMPxx data set be transferred to a tape or a similar device. IPCS can be used to transfer the

SYS1.DUMPxx data set contents to another data set for archiving until the problem is resolved. Depending on the nature of the problem, the IBM Support Center may ask you to send in the entire dump on tape. This allows the Support Center to extract any additional data needed for problem resolution (for example, CSA, SQA, or the private storage area).

Refer to *z/OS V01.07.00 MVS Diagnosis: Tools and Service Aids* (GA22-7589) for information on transferring the SYS1.DUMPxx data set.

- For information about the product life cycle dates for DB2 for z/OS and related products, see www.ibm.com/software/db2zos/support/plc/index.html
- For information about the operating system availability and withdrawal-of-service dates, see www.ibm.com/servers/eserver/zseries/zos/support/zos_eos_dates.html
- For a variety of support-related information about DB2 for z/OS, see www.ibm.com/software/db2zos/support.html. At this site, you can click **Technotes**, specify V9 migration in the search field, and click **Go**.

4.0 Program and Service Level Information

This section identifies the program and any relevant service levels of DB2 9 for z/OS VUE. The program level refers to the APAR fixes incorporated into the program. The service level refers to the PTFs incorporated into the program.

4.1 Program Level Information

Please refer to the PSP Facility for DB2 9 for z/OS VUE APAR information.

4.2 Service Level Information

PTFs containing APAR fixes against this release of DB2 9 for z/OS VUE have been incorporated into the product tapes. For a list of included PTFs, examine the ++VER statement in the product's SMPMCS.

*

Note

The service level in which the PTF/APAR fixes were incorporated into the product tape is PDO 1238. There are several HOLD items associated with the incorporated DB2 and IRLM 2.2 fixes that you must be aware of and take necessary action as part of the installation of DB2 and IRLM 2.2.. These HOLDS are provided in the below technote:

<http://www-01.ibm.com/support/docview.wss?uid=swg21470318>

Over time it is HIGHLY recommended that you frequently check the DB2 9 for z/OS VUE PSP bucket for HIPER and SPECIAL Attention PTFs against all FMID(s) which should be installed.

5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating DB2 9 for z/OS VUE. The following terminology is used:

- *Driving system*: the system used to install the program.
The program may have specific operating system or product level requirements for utilizing processes such as binder or assembly utilities during the install.
- *Target system*: the system on which the program is intended to run.
The program may have specific product level requirements such as needing access to another product's library for link-edits that may directly affect the elements during the install or for its basic or enhanced operation. These requirements may be mandatory or optional.

In many cases, the same system can be used as both a driving system and a target system. However, you may want to set up a clone of your system to use as a target system by making a separate IPL-able copy of the running system. The clone should include copies of all system libraries that SMP/E updates, copies of the SMP/E CSI data sets that describe the system libraries, and your PARMLIB and PROCLIB.

Some cases where two systems should be used include the following:

- When installing a new level of a product that is already installed, the new product will delete the old one. By installing onto a separate target system, you can test the new product while still keeping the old one in production.
- When installing a product that shares libraries or load modules with other products, the installation can disrupt the other products. Installing onto a test system or clone will allow you to assess these impacts without disrupting your production system.

For example, if you install DB2 9 for z/OS VUE with IRLM V2R2 into the same SMP/e zone as any version of IMS currently running with IRLM V2R1, **IRLM V2R1 will be deleted by the installation of IRLM V2R2.**

Note: IBM recommends that levels of DB2 and IMS without a note of IRLM V2R2 support in their program directory, continue to run with IRLM V2R1.

5.1 Driving System Requirements

This section describes the environment of the driving system required to install DB2 9 for z/OS VUE.

5.1.1 Machine Requirements

The driving system can run in any hardware environment that supports the required software.

5.1.2 Programming Requirements

Figure 15. Driving System Software Requirements

Program Number	Product Name and Minimum VRM/Service Level
Any one of the following:	
5694-A01	z/OS V1.07.0 or later,
5655-G44	IBM SMP/E for z/OS V3.03.0 or later

5.2 Target System Requirements

This section describes the environment of the target system required to install and use DB2 9 for z/OS VUE.

DB2 9 for z/OS VUE installs in the DBS (P115) SREL.

5.2.1 Machine Requirements

DB2 9 for z/OS VUE operates on any processor that supports z/Architecture, including IBM System z9, zSeries z800, z890, z900, z990, or a comparable processor. The processor must have enough real storage to satisfy the combined requirements of:

- DB2 9 for z/OS VUE
- z/OS
- Other customer-required applications

The following restrictions apply:

- For z900 systems, microcode level 3G or later is required. For more information about how to determine or upgrade your microcode level you can search for technotes on this subject in one of the following two places:

At the DB2 for z/OS Support site at:

www.ibm.com/software/db2zos/support.html

On the Web search page (under "Troubleshooting and support") in the Information Management Software for z/OS Solutions Information Center at:

<http://publib.boulder.ibm.com/infocenter/imzic>

- DB2 9 for z/OS VUE may run on other compatible hardware that supports the Long Displacement Facility of the z/Architecture.
- Some workloads might require increased real storage when they run on Version 9 of DB2 for z/OS as compared to Version 8 of DB2 for z/OS. Sufficient disk storage must be available to satisfy the user's

information storage requirements and can consist of any direct-access facility that is supported by the system configuration and the programming system.

In addition to listing auxiliary storage and data communication devices, the following section identifies function-dependent hardware requirements and virtual storage requirements.

Auxiliary Storage

DB2 9 for z/OS VUE is independent of both disk and tape device type. You can use any magnetic, optical or tape device that is supported by the data facilities component of z/OS for the DB2 data sets.

The following data set types are supported by the following device types:

- Active recovery log data sets: disk
- Archive recovery log data sets: disk, tape
- Image copy data sets: disk, tape
- Bootstrap data sets: disk
- User data sets: disk or tape (if migrated by DFSMSHsm(TM))
- DB2 catalog data sets: disk
- Work data sets (for utilities): disk, tape

If these data sets are on disk that is shared with other z/OS systems, you should use global resource serialization to prevent concurrent access by more than one z/OS system. The minimum disk space requirement, based on installing DB2 9 for z/OS VUE using the panel default values, is approximately 1 GB. You need additional disk space for your data. If you use dual logging and tape for the log archiving device, you need at least two tape drives.

Data Communications Devices

DB2 operations can be controlled from

- The system console
- Authorized IMS Transaction Manager terminals
- Authorized CICS terminals
- TSO terminals (by authorized users)

For information about the data communication devices that are supported by IMS Transaction Manager, CICS, and z/OS, refer to the documentation for these products.

DRDA Data Stream Encryption

DRDA Data Stream Encryption can use cryptographic hardware in a Cryptographic Coprocessor, Cryptographic Accelerator, or Cryptographic instructions.

DRDA Data Stream Encryption uses the following ICSF APIs : CSNECKM, CSNERNG, CSNFPKB, CSNFPKE, CSNEENC and CSNEDEC.

Refer to *z/OS ICSF Application Programmer's Guide* for additional information on the usage of these APIs including hardware requirements.

DRDA AES User ID Password Encryption

DRDA AES User ID Password Encryption uses the following ICSF APIs: CSNEOWH, CSNERNG, CSNFPKB, CSNFPKE, CSNESYE and CSNESYD.

Refer to *z/OS ICSF Application Programmer's Guide* for additional information on the usage of these APIs including hardware requirements.

DSNLEUSR

The use of DSNLEUSR stored procedure can optionally require cryptographic hardware in a Cryptographic Coprocessor, Cryptographic Accelerator or Cryptographic instructions..

DSNLEUSR uses the following ICSF APIs : CSNBCKM, CSNBENC, and CSNEDEC.

Refer to *z/OS ICSF Application Programmer's Guide* for additional information on the usage of these APIs including hardware requirements.

Encryption and decryption functions

Built-in functions for encryption and decryption require cryptographic hardware in a Cryptographic Coprocessor, Cryptographic Accelerator or Cryptographic instructions.

Virtual Storage Requirements

The amount of space that is needed for the common service area (CSA) below the 16-MB line is less than 40 KB for each DB2 for z/OS subsystem and 24 KB for each IRLM subsystem. High concurrent activity, parallelism, or high contention can require more CSA. Most of the DB2 common data resides in the extended common service area (ECSA). Most modules, control blocks, and buffers reside in the extended private area above the 16MB line and above the 2-GB bar.

DB2 9 for z/OS VUE requires 128GB of 64-bit shared virtual storage for each DB2 subsystem above the 2-GB bar. This storage is virtual, controlled by the z/OS HVSHARE parameter in IEASYSxx. This storage is not backed at allocation, only as it is used.

5.2.2 Programming Requirements

5.2.2.1 Installation Requisites: An installation requisite is defined as a product that is required and **must** be present or one that is not required but **should** be present on the system for the successful installation of this product.

A mandatory installation requisite identifies products that are required, without exception, or this product **will not install** on your system. This includes products specified as PREs or REQs.

Figure 16. Mandatory Installation Requisites

Program Number	Product Name and Minimum VRM/Service Level
5694-A01	z/OS V01.07.00 or later, on zNALC , Base Services, DFSMS, Language Environment and Security Server (RACF), plus APARs OA16303 and OA20314

Note: z/OS Unicode Services APARs OA14231 and OA19072, and appropriate conversion definitions, are required.

Note: Some of the basic operation of a DBMS is provided by utility functions, such as backup, recovery, reorganization, loading and unloading data, gathering statistics and checking data, indexes and large objects. You should ensure that these functions are provided either by ordering DB2 Utilities Suite for z/OS, Version 9, (5655-N97), or by obtaining equivalent function elsewhere.

A conditional installation requisite identifies products that are **not** required for successful install but may resolve such things as certain warning messages at installation time. They include products that are specified as IF REQs.

DB2 9 for z/OS VUE has no conditional installation requisites.

5.2.2.2 Operational Requisites: An operational requisite is defined as a product that is required and **must** be present or a product that is not required but **should** be present on the system in order for this product to operate all or some of its functions.

NOTE

DB2 9 for z/OS VUE requires the "partitioned data set extended" or PDSE format for the SDSNLOAD target library. Prior versions of DB2 have allowed the regular partitioned data set or PDS format.

There are some operational differences between PDS and PDSE data sets. The PDS format may be shared by more than one z/OS system and no special precautions are necessary. However the PDSE format may only be shared by z/OS systems which are part of a sysplex or which are connected using a Global Resource Serialization or GRS ring. If z/OS systems share use of a PDSE data set outside of a sysplex or GRS environment, you may experience severe problems when the data set is updated. This is due to the fact that PDSE directory information is cached in storage, and when the data set is updated from one system the other system(s) have no knowledge of the update, and their cached directory information will be incorrect. In the case of DB2, this could lead to any variety of abends or incorrect operation.

You must take care not to share the SDSNLOAD data set between z/OS systems unless they are in a sysplex or are connected by a GRS ring. If you need to share the content of the SDSNLOAD data set, a separate copy must be created for each z/OS system, or sharing systems must IPL after the update is made. Refer to the PDESARING KWD on IGDSMSxx document in the publication z/OS MVS Initialization and Tuning Reference.

A mandatory operational requisite identifies a product which is required, without exception, or this product **will not operate** its basic function unless the requisite is met. This includes products specified as PREs or REQs.

<i>Figure 17. Mandatory Operational Requisites</i>	
Program Number	Product Name and Minimum VRM/Service Level
Any one of the following:	
5694-A01	z/OS V01.07.00 or later, plus APAR PQ92594 for DFSORT (see additional Notes below)

Note: For **DDF functionality** , please see DB2 9 for z/OS Informational APAR II14203 for DDF/DRDA related maintenance.

Note: For Unicode data storage and manipulation capabilities in a 64 bit environment. DB2 9 for z/OS VUE requires the z/OS Unicode Services and appropriate conversion definitions to perform most Unicode conversions. For additional information on Unicode conversions, please see the *DB2 Installation Guide, GC18-9846* and also *Support for Unicode: Using Conversion Services, SA22-7649*. For additional information on setup, read Information APARs II13048, and II13049, and go to:

<http://www.ibm.com/downloads>

<http://www.s390.ibm.com/os390/bkserv/v2r10books.html>

A conditional operational requisite identifies products that are **not required** for the basic function but are needed at run time for this product to utilize specific functions. They may include products specified as IF REQs.

<i>Figure 18 (Page 1 of 5). Conditional Operational Requisites</i>		
Program Number	Product Name and Minimum VRM/Service Level	Function
5697-P12	DB2 9 for z/OS VUE FMID JDB991Z and APAR PK58953	Enablement to Value Unit Edition
5694-A01	z/OS V01.08.00, DFSMSHsm, DFSMSdss and FlashCopy V02.00.00	System level Utilities: BACKUP SYSTEM, RESTORE SYSTEM, and RECOVER
5694-A01	z/OS V01.07.00, DFSMSHsm, DFSMSdss and FlashCopy V02.00.00	System level utilities: BACKUP SYSTEM and RESTORE SYSTEM (if you cannot currently satisfy one or more of the preceding program requirements you can use the Version 8 of DB2 functions in the BACKUP SYSTEM and RESTORE SYSTEM utilities if you can satisfy these program requirements.

Figure 18 (Page 2 of 5). Conditional Operational Requisites

Program Number	Product Name and Minimum VRM/Service Level	Function
5694-A01	z/OS V01.07.00, DFSMSdss and FlashCopy V02.00.00 is highly recommended (although not technically required) for performance reasons	Utilities: CHECK INDEX, CHECK DATA, and CHECK LOB currently satisfy one or more of the preceding program requirements you can use the Version 8 of DB2 functions in the BACKUP SYSTEM and RESTORE SYSTEM utilities if you can satisfy these program requirements.
5694-A01	z/OS Cryptographic Services Integrated Cryptographics Service Facility (ICSF). To use Encryption you must have SCSFMOD0 in LNKLST	Built-in functions for Encryption and Decryption
5655-I56	IBM SDK for z/OS, Java 2 Technology Edition, Version 1.4 (SDK1.4.2)	Decimal Float conversion
5694-A01	You can optionally use z/OS Cryptographic Services Integrated Cryptographics Service Facility (ICSF). To use Encryption you must have SCSFMOD0 in LNKLST	DRDA Data Stream Encryption
5697-P12	See Section 5.2.2.3 Optional Program Requirements for details.	DRDA Connectivity
5694-A01	z/OS V01.07.00 Coupling Facility (CF) level 12 is required for all group buffer pool batching. -Coupling Facility (CF) level 13 is recommended for castout enhancement or the lock table clean up enhancement -Coupling Facility (CF) level 14 is recommended when using System Managed Duplexing for lock or SCA structures	Group Bufferpool (GBP) Batching
5655-C56	IMS V08.01.00 APARs PQ80039, PQ90404, PQ82033, PK04766, and PK09558.	IMS Attach toleration of SDSNLOAD PDSE allocation
5655-J38	IMS V09.01.00 APARs PQ82493, PQ89871, PQ84553, PK04774, and PK09519.	IMS Attach toleration of SDSNLOAD PDSE allocation
5694-A01	z/OS V01.04.00 DB2 Customization Center plug-in for msys	msys plug-in (you must retain and install the msys for Setup components from z/OS V01.04.00)
5694-A01	z/OS V01.07.00 or later (Language Environment in Base Services)	Application Execution: Applications written in high-level programming languages, such as applications or stored procedures written in the C language and using the ODBC interfaces to DB2

Figure 18 (Page 3 of 5). Conditional Operational Requisites

Program Number	Product Name and Minimum VRM/Service Level	Function
5655-I56	IBM SDK for z/OS, Java 2 Technology Edition, Version 1.4 (SDK1.4.2)	Application Execution: Applications or stored procedures written in Java, such as those using the JDBC or SQLJ interfaces to DB2
5694-A01	z/OS V01.07.00 or later (Language Environment) z/OS V.01.7.00 or later (UNIX System Services), activated IBM XML Parser for z/OS, C++ Edition, which is provided with Release 1.9 for XML Toolkit for z/OS (5655-J51). 5655-J51 requires z/OS Version 1 Release 6 or later.	XML Extender
5694-A01	UNIX System Services element of z/OS	XMLFile type or the 'Getting Started' material
5694-A01	XML System Services (XMLSS). XMLSS requires either z/OS V01.08.00 or z/OS Version V01.07.00 with APAR OA16303. In addition, use of XML schemas requires 31-bit SDK for z/OS, Java 2 Technology Edition, Version 5 (5655-N98) (SDK5)	XML support
5655-N01	If you use WebSphere Application Server for z/OS, requires V06.01.00	Trusted contexts
	RACF SAF User-mapping plug-in Enterprise Identity Mapping (EIM) requires z/OS, V01.08.00	Trusted contexts
	Full RACF support of roles (not limited to ownership checks for roles only), RACF Access Control Module (DSNXRXAC) requires z/OS, V01.08.00	Trusted contexts
	IBM WebSphere Data Integration Suite, which consists of the following products: - IBM WebSphere DataStage for z/OS - IBM WebSphere DataStage MVS Edition - IBM WebSphere DataStage Service Oriented Architecture (SOA Edition) - IBM WebSphere DataStage TX for z/OS Edition - IBM WebSphere QualityStage for z/OS - IBM WebSphere DataStage Changed Data Capture DB2 z/OS - IBM WebSphere DataStage for DB2 Warehouse	Data Warehouse Support
5655-L82	IBM WebSphere MQ V06.00.00, or later	MQListener
5724-B56	DB2 Connect V09.01.00 Fix pack 1 for ODBC Support of MERGE. Note: There is no support for embedded static SQL support.	Web Connectivity using ODBC MERGE and SELECT from MERGE

Figure 18 (Page 4 of 5). Conditional Operational Requisites

Program Number	Product Name and Minimum VRM/Service Level	Function
5724-B56	DB2 Connect at one of the following levels: Version 9.5 (with fix pack 1 or later) or Version 9.1 (with fix pack 1 or later) or Version 8.1 (with fix pack 13 or later, which is equivalent to Version 8.2 with fix pack 6). Note any of the following editions are supported: - DB2 Connect Personal Edition (CPE) (5724-B56) - DB2 Connect Enterprise Edition (CEE) (5765-F30) - DB2 Connect Unlimited Edition for zSeries (CUE) (5724-B62) - DB2 Connect Application Server Edition (CASE) (5724-D54) - DB2 Connect Unlimited Edition for iSeries (5724-M15)	Web Connectivity to DB2 9 for z/OS VUE
5724-B62	DB2 Connect Unlimited Edition for zSeries V08.02.00 (Fix pack 13 or later is required to use with DB2 9 for z/OS VUE)	Web Connectivity to DB2 9 for z/OS VUE
5724-D54	DB2 Connect Application Server Edition V08.02.00 (Fix pack 13 or later is required to use with DB2 9 for z/OS VUE)	Web Connectivity to DB2 9 for z/OS VUE
Any one of the following:		
5755-N01	WebSphere Application Server for z/OS V06.01.00	Web Connectivity to DB2 9 for z/OS VUE
5724-J08	WebSphere Application Server for z/OS V05.01.00	Web Connectivity to DB2 9 for z/OS VUE
5724-J08	WebSphere Application Server	Web Connectivity to DB2 9 for z/OS VUE
5724-H89	WebSphere Application Server for Developers	Web Connectivity to DB2 9 for z/OS VUE
5724-H88	WebSphere Application Server Network Deployment	Web Connectivity to DB2 9 for z/OS VUE
5724-I63	WebSphere Application Server - Express	Web Connectivity to DB2 9 for z/OS VUE
Any one of the following:		
5655-J38	Information Management System (IMS) V09.01.00	Transaction Management
5655-C56	Information Management System (IMS) V08.01.00	Transaction Management
5655-M15	Customer Information Control System (CICS) Transaction Server for z/OS V03.01.00	Transaction Management

Figure 18 (Page 5 of 5). Conditional Operational Requisites

Program Number	Product Name and Minimum VRM/Service Level	Function
5697-E93	Customer Information Control System (CICS) Transaction Server for z/OS V02.03.00	Transaction Management
5655-L82	WebSphere MQ for z/OS V06.00.00	Transaction Management
5655-F10	WebSphere MQ for z/OS V05.03.01	Transaction Management
5724-E84	WebSphere MQ Extended Security Edition V06.00.00	Transaction Management
5655-BPM	WebSphere MQ Workflow for z/OS V03.06.00	Transaction Management
5697-FM3	WebSphere MQ Workflow for Multiplatforms V03.06.00	Transaction Management
	<ul style="list-style-type: none"> - WebSphere Application Server - CICS Transaction Server - IBM TXSeries (CICS and Encina) - WebSphere MQ - Microsoft Transaction Server (MTS) - BEA (Tuxedo and WebLogic) - Java applications that support Java Transaction API (JTA) and Java 2 Platform, Enterprise Edition (J2EE) 	Application environments that use DB2 Connect to access DB2 9 for z/OS VUE remotely can use any of these transaction manager products.

5.2.2.3 Optional Program Requirements: The following functions are enabled in conjunction with the specified optional licensed programs when used together with DB2.

- **DRDA Connectivity:** DB2 9 for z/OS VUE supports any of the following IBM relational database products:
 - In the Linux, UNIX, and Windows environment, either Version 9.1 of IBM DB2 for Linux, UNIX, and Windows (with fix pack 1 or later) or Version 8.1 of DB2 Universal Database (DB2 UDB) for Linux, UNIX, and Windows (with fix pack 13 or later). (Version 8.1 with fix pack 13 is equivalent to Version 8.2 with fix pack 6). Any of the following editions are supported:
 - DB2 Enterprise Server Edition (ESE) (5765-F41)
 - DB2 Workgroup Server Edition (5765-F35)
 - DB2 Workgroup Server Unlimited Edition (5765-F43)
 - DB2 Universal Database Universal Developer's Edition (5765-F34)
 - IBM DB2 Universal Database for iSeries OS/400 Version 5 Release 3 (5722-SS1) (Info APAR I113348), including the following options:
 - DB2 DataPropagator for iSeries Version 8 Release 1 (5722-DP4)
 - DB2 Query Manager and SQL Development Kit for iSeries (5722-ST1)
 - IBM DB2 Server for VSE & VM Version 7 Release 4 (5697-F42)
 - Any other DRDA-compliant client or relational DBMS server

Note: For **DDF functionality**, please see DB2 9 for z/OS VUE, Informational APAR I114203 for DDF/DRDA related maintenance.

Development Tools

The following application development tools can be used to build applications for DB2 9 for z/OS VUE:

- DB2 Development Center, or IBM Developer Workbench, both of which are included in all editions of DB2, DB2 Connect, and DB2 Software Developer's Kit (SDK).
- WebSphere Studio Enterprise Developer V05.01.02 (5724-B67), which has the following program requirement of its own:
 - IBM SDK for z/OS, Java 2 Technology Edition, Version 1.4 (5655-I56) (SDK1.4.2) For more information about Java 2 for z/OS, including a link to software prerequisites, visit:
www.ibm.com/servers/eserver/zseries/software/java/
<http://www.ibm.com/servers/eserver/zseries/software/java/>
- IBM WebSphere Developer for System z(TM) Version 7.0 (5724-L44)
- IBM Rational tools, including those listed here:
 - IBM Rational Application Developer for WebSphere Software Version 6.0 (5724-J19)
 - IBM Rational Web Developer for WebSphere Software Version 6.0 (5724-J18)
 - IBM Rational Data Architect Version 7.0 (5724-L66) or Version 6.1 (5724-L66)
 - IBM Rational Software Architect Version 6.0 (5724-I70)

For more information on IBM Rational products, visit:

www.ibm.com/software/rational

- IBM DB2 Alphablox for Linux, UNIX, and Windows Version 8.4 (5724-L14)

Programming Languages

The following application development programming languages can be used to build applications for DB2 9 for z/OS VUE:

Building applications using the **DB2 precompiler**:

Assembler High Level Assembler, which is part of the System Services element of z/OS. Note that PTF UK14811 is required for DFP support on z/OS Version 1 Release 7 and later

C/C++ C/C++ (with or without Debug Tool), which are optional features of z/OS

COBOL Enterprise COBOL for z/OS Version 3 Release 3 (5655-G53) or later. Please note Enterprise COBOL for z/OS Version 3 Release 3 is going End of Service April 2007

Fortran VS Fortran Version 2 Release 6 (5668-806). Note that data types that are new to DB2 9 for z/OS VUE are not supported

PL/I IBM Enterprise PL/I for z/OS Version 3 Release 4 (5655-H31) or later

Building applications by using the **DB2 coprocessor**:

C/C++ C/C++ (with or without Debug Tool), are optional features of z/OS Version 1 Release 8

Use of the DB2 Coprocessor can use any of the following:

(5694-A01) z/OS V1R7 C/C++ with APAR PK20435 for C

(5694-A01) z/OS V1R7 C/C++ with APAR PK33665 for C++

(5694-A01) z/OS V1R8 C/C++ with APAR PK33170 for C++ (no APAR required for C)

Note: Use of DB2 9 for z/OS VUE new functions requires z/OS Version 1 Release 8 plus APAR PK38679.

COBOL Enterprise COBOL for z/OS Version 3 Release 4 (5655-G53) or later.

Note: Use of DB2 9 for z/OS VUE new functions requires Enterprise COBOL Version 3 Release 4 plus APAR PK09731.

PL/I IBM Enterprise PL/I for z/OS Version 3 Release 4 (5655-H31) or later

Note: Use of DB2 9 for z/OS VUE new functions requires Enterprise COBOL Version 3 Release 4.

Building applications that are **supported with processes other than precompiler or coprocessor:**

Java Applications or stored procedures written in Java, such as those using the JDBC or SQLJ interfaces to DB2 for z/OS, require IBM SDK for z/OS, Java 2 Technology Edition Version 1.4 (SDK1.4.2). Two editions are available: the 31-bit edition (5655-O56) and the 64-bit edition (5655-M30). However, the 64-bit edition does not support persistent reusable function.

Sharing class objects between Java virtual machine (JVM) processes that run in the same address space requires IBM SDK for z/OS, Java 2 Technology Edition Version 1.4 (SDK1.4.2). Two editions are available: 31-bit edition (5655-I56) and the 64-bit edition (5655-M30); these are independent products that can coexist on the same z/OS system.

REXX IBM TSO Extensions for MVS REXX, which is part of z/OS

SQL Procedure Language

- External SQL Procedure Language

A C language compiler is required on z/OS to develop stored procedures using the external SQL procedural language. Specific C compiler to use is C/C++ (with or without Debug Tool), which are optional features of z/OS.

Native SQL Procedure Language does not require a C compiler

APL2

- Mainframe APL2 Version 2 Release 2 (5688-228) (full APL2)
- APL2 Application Environment Version 2 Release 2 (5688-229)

5.2.2.4 Operational Support: The following programs can provide operational support for DB2 9 for z/OS VUE:

- DFSMS features, which are part of the Systems Management optional feature of z/OS, specifically:
 - DFSMSShsm for archiving
 - DFSMSdss for concurrent copy in Utilities
- IBM Softcopy Reader or Library Readers, which are included on the CD-ROMs for BookManager books
- WebSphere Information Integrator Replication for z/OS Version 8 Release 2 (5655-L88), which can be used in DB2 9 for z/OS VUE compatibility mode. IBM WebSphere Replication Server Version 9 (5655-R55) and IBM Data Event Publishes Version 9 work with the following DB2 for z/OS versions:
 - DB2 9 for z/OS and DB2 9 for z/OS VUE
 - DB2 Universal Database for z/OS, Version 8 (5625-DB2)
 - DB2 for z/OS and OS/390, Version 7 (5675-DB2)

To work with a DB2 9 for z/OS VUE source server in new-function mode, you must install IBM WebSphere Replication Server Version 9 and you must migrate your QCapture control tables because of changes in the DB2 log record format for new-function mode.

- The following IBM tools:
 - IBM DB2 Tools for Recovery Management
 - IBM DB2 Tools for Application Management
 - IBM DB2 Tools for Database Administration
 - IBM DB2 Tools for Utilities Management
 - IBM DB2 Tools for Business Analysis
 - IBM WebSphere Information Integration Tools
 - IBM DB2 Tools for Performance Management

The minimum levels of two key database performance-management tools are IBM Tivoli® OMEGAMON® XE for DB2 Performance Expert on z/OS, Version 4 (5655-Q07) and IBM Tivoli OMEGAMON XE for DB2 Performance Monitor on z/OS, Version 4 (5655-Q08). These tools require APAR PK36297 for support of new functions that are available in DB2 Version 9.1 for z/OS. Details about other performance-management products can be found on the Web sites listed below.

For a current list of products, visit the IBM DB2 and IMS Tools Web page at www.ibm.com/software/data/db2imstools

For recent news about DB2 Tools compatibility with DB2 Version 9.1 for z/OS, visit the IBM DB2 and IMS Tools Support Web page at www.ibm.com/software/data/db2imstools/support.html

- IBM Tivoli Decision Support for z/OS (5698-A07), Version 1.7.2 with APAR PK30134, or Version 1.7.1
- Database Administration and Systems Management Support is provided by the DB2 Management Clients Package, an optional feature of DB2 Version 9.1 for z/OS, and DB2 9 for z/OS VUE which includes:
 - DB2 Administration Server (DAS) (z/OS installable component)

- z/OS Enablement (z/OS installable component)
- DB2 Connect Personal Edition Kit (workstation CD), which includes the following tools and a limited-use license for these tools to access DB2 Version 9.1 for z/OS:
 - Control Center
 - Replication Center
 - Development Center
 - Command Center
 - IBM Developer Workbench

The DB2 Connect limited-use license is also authorized for use with IBM DB2 for z/OS Optimization Service Center (workstation CD included in 5655-R14, IBM DB2 Accessories Suite for z/OS).

If you have any questions about information in these sections which identified the requirements that are associated with specific DB2 capabilities, as well as optional programs that you can use with DB2 Version 9.1 for z/OS, refer to the following Web sites for the most current information, including support for subsequent versions or versions of products listed here:

5.2.2.5 Query Support: The following query programs work with DB2 9.1 for z/OS VUE:

- Query Management Facility (QMF) Version 10 Value Unit Edition (VUE)
- DataQuant for z/OS V1R2 (5697-N64)

5.2.2.6 Toleration/Coexistence Requisites: A toleration/coexistence requisite is defined as a product that must be present on a sharing system. These systems can be other systems in a multisystem environment (not necessarily sysplex), a shared DASD environment (such as test and production), or systems that reuse the same DASD at different time intervals.

DB2 9 for z/OS VUE has no toleration/coexistence requisites.

5.2.2.7 Incompatibility (Negative) Requisites: A negative requisite identifies products that must *not* be installed on the same system as this product.

The requirement for 64-bit virtual addressing means that z/OS Bimodal Migration Accommodation software cannot be used with DB2 9 for z/OS VUE.

5.2.3 DASD Storage Requirements

DB2 9 for z/OS VUE libraries can reside on all supported DASD types.

Figure 19 lists the total space required for each type of library.

Figure 19. Total DASD Space Required by DB2 9 for z/OS VUE

Library Type	Total Space Required in 3390 Trks
Target	10690 (3390 tracks)
Distribution	10348 (3390 tracks)
HFS	usr/lpp/db2910_base (16576 512 byte blocks)
	usr/lpp/db2910_jdbc (7640 512 byte blocks)
	usr/lpp/db2910_mql (3144 512 byte blocks)
	usr/lpp/db2910_worf (2456 512 byte blocks)

Notes:

1. IBM recommends use of system determined block sizes for efficient DASD utilization for all non-RECFM U data sets. For RECFM U data sets, IBM recommends a block size of 32760, which is the most efficient from a performance and DASD utilization perspective.
2. Abbreviations used for the data set type are:

- U** Unique data set, allocated by this product and used only by this product. To determine the correct storage needed for this data set, this table provides all required information; no other tables (or Program Directories) need to be referenced for the data set size.
- S** Shared data set, allocated by this product and used by this product and others. To determine the correct storage needed for this data set, the storage size given in this table needs to be added to other tables (perhaps in other Program Directories). If the data set already exists, it must have enough free space to accommodate the storage size given in this table.
- E** Existing shared data set, used by this product and others. This data set is NOT allocated by this product. To determine the correct storage needed for this data set, the storage size given in this table needs to be added to other tables (perhaps in other program directories). This existing data set must have enough free space to accommodate the storage size given in this table.

If you currently have a previous release of this product installed in these libraries, the installation of this release will delete the old one and reclaim the space used by the old release and any service that had been installed. You can determine whether these libraries have enough space by deleting the old release with a dummy function, compressing the libraries, and comparing the space requirements with the free space in the libraries.

For more information on the names and sizes of the required data sets, please refer to 6.1.7, "Allocate SMP/E Target and Distribution Libraries" on page 40.

3. Abbreviations used for the HFS Path type are:

- N** New path, created by this product.
- X** Path created by this product, but may already exist from a previous release.
- P** Previously existing path, created by another product.

4. All target and distribution libraries listed have the following attributes:

- The default name of the data set may be changed.
- The default block size of the data set may be changed.
- The data set may be merged with another data set that has equivalent characteristics.
- The data sets SDSNLOAD and SDSNLOD2 **must** be **PDSE**.

5. All target libraries listed have the following attributes:

- The data set may be SMS-managed.
- It is not required for the data set to be SMS-managed.
- It is not required for the data set to reside on the IPL volume.
- The values in the "Member Type" column are not necessarily the actual SMP/E element types identified in the SMPMCS.

6. All target libraries listed which contain load modules have the following attributes:

- The data set may be in the LPA.
- It is not required for the data set to be in the LPA.
- The data set may be in the LNKLIST.
- It is not required for the data set to be APF-authorized.

The following table provides an estimate of the storage needed in the SMP/E data sets for DB2 9 for z/OS VUE. The estimates must be added to those of any other programs and service being installed to determine the total additional storage requirements.

If the table indicates that the SMPLTS data set must be a PDSE, but, your existing SMPLTS is a PDS, you will need to allocate a new PDSE and copy your existing SMPLTS into it and then change the SMPLTS DDDEF entry to indicate the new PDSE data set.

Figure 20. Storage Requirements for SMP/E Data Sets

Library DDNAME	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
SMPLTS	U	PDSE	U	0	1560	N/A
SMPMTS	E	PDS	FB	80	15	60
SMPPTS	E	PDS	FB	80	3765	300
SMPSCDS	E	PDS	FB	80	975	300
SMPSTS	E	PDS	FB	80	75	150

The following figures describe the target and distribution libraries and HFS paths required to install DB2 9 for z/OS VUE. The storage requirements of DB2 9 for z/OS VUE must be added to the storage required by other programs having data in the same library or path.

Note: The data in these tables should be used when determining which libraries can be merged into common data sets. In addition, since some ALIAS names may not be unique, ensure that no naming conflicts will be introduced before merging libraries.

Figure 21 (Page 1 of 2). Storage Requirements for DB2 9 for z/OS VUE Target Libraries

Library DDNAME	Member Type	Target Volume	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
SDSNBASE	Sample	Any	S	PDS	FB	80	41	25
SDSNCHDR	Data	Any	S	PDS	FB	80	21	4
SDSNCLST	CLIST	Any	S	PDS	FB	80	159	20
SDSNDBRM	Macro	Any	S	PDS	FB	80	93	25
SDSNEXIT	Data	Any	S	PDS	U	0	6	30
SDSNIVPD	Data	Any	S	PDS	VB	8188	461	3
SDSNLINK	LMOD	Any	S	PDS	U	0	7	5
SDSNLOAD	LMOD	Any	S	PDSE	U	0	5688	N/A
SDSNLOD2	LMOD	Any	S	PDSE	U	0	338	N/A
SDSNMACS	Macro	Any	S	PDS	FB	80	713	50
SDSNPFPE	Panel	Any	S	PDS	FB	80	40	100
SDSNPFPK	Panel	Any	S	PDS	FB	80	78	100
SDSNSAMP	Sample	Any	S	PDS	FB	80	2386	100
SDSNSPFM	Message	Any	S	PDS	FB	80	7	10
SDSNSPFP	Panel	Any	S	PDS	FB	80	81	15
SDSNSPFS	SKEL	Any	S	PDS	FB	80	6	5
SDSNSPFT	Table	Any	S	PDS	FB	80	3	5
SDSNXML	Sample	Any	U	PDS	VB	255	4	5
SDXRRESL	LMOD	Any	S	PDS	U	0	126	10
SDXRSAMP	Sample	Any	S	PDS	FB	80	6	3
SDXXADM	Data	Any	U	PDS	VB	255	26	5
SDXXC	Data	Any	U	PDS	FB	80	7	5
SDXXCLI	Data	Any	U	PDS	VB	255	4	5
SDXXCLP	Data	Any	U	PDS	VB	255	2	5
SDXXCMD	Data	Any	U	PDS	VB	255	4	5
SDXXDAD	Data	Any	U	PDS	VB	255	2	5

Figure 21 (Page 2 of 2). Storage Requirements for DB2 9 for z/OS VUE Target Libraries

Library DDNAME	Member Type	Target Volume	T Y P E	O R G	R E C O R D M	L R E C L	No. of 3390 Trks	No. of DIR Blks
SDXXDBRM	Macro	Any	U	PDS	FB	80	7	5
SDXXDTD	Data	Any	U	PDS	VB	255	2	5
SDXXH	Data	Any	U	PDS	FB	80	3	5
SDXXJCL	Sample	Any	U	PDS	FB	80	11	5
SDXXJDBC	Sample	Any	U	PDS	VB	255	4	5
SDXXLOAD	LMOD	Any	U	PDSE	U	0	301	N/A
SDXXSDDF	Text	Any	U	PDS	FB	80	51	20
SDXXXML	Sample	Any	U	PDS	VB	255	2	5

The following types of data sets are created during the DB2 9 for z/OS VUE installation process. The sizes are based upon user preferences:

- CATALOG
- DIRECTORY
- LOG

Figure 22 (Page 1 of 2). DB2 9 for z/OS VUE HFS Paths

DDNAME	TYPE	Path Name
SDSNABIN	N	/usr/lpp/db2910_base/bin/IBM/
SDSNACLS	N	/usr/lpp/db2910_base/classes/IBM/
SDSNAHFS	N	/usr/lpp/db2910_base/IBM/
SDSNALIB	N	/usr/lpp/db2910_base/lib/IBM/
SDSNASMP	N	/usr/lpp/db2910_base/samples/IBM/
SDSNJBIN	N	/usr/lpp/db2910_jdbc/bin/IBM/
SDSNJCLS	N	/usr/lpp/db2910_jdbc/classes/IBM/
SDSNJCC	N	/usr/lpp/db2910_jdbc/IBM/
SDSNJLIB	N	/usr/lpp/db2910_jdbc/lib/IBM/
SDSNJSMP	N	/usr/lpp/db2910_jdbc/samples/IBM/
SDSNMQLS	N	/usr/lpp/db2910_mql/IBM/
SDSNWORF	N	/usr/lpp/db2910_worf/IBM/
SDSNWLIB	N	/usr/lpp/db2910_worf/lib/IBM/

Figure 22 (Page 2 of 2). DB2 9 for z/OS VUE HFS Paths

DDNAME	TYPE	Path Name
SDSNWSCH	N	/usr/lpp/db2910_worf/schemas/IBM/
SDSNWTLB	N	/usr/lpp/db2910_worf/tools/lib/IBM/

Figure 23 (Page 1 of 2). Storage Requirements for DB2 9 for z/OS VUE Distribution Libraries

Library DDNAME	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
ADSNBASE	U	PDS	FB	80	41	30
ADSNDKF	S	PDS	FB	80	78	100
ADSNENU	S	PDS	FB	80	23	100
ADSNHFS	U	PDS	VB	255	376	10
ADSNIVPD	S	PDS	VB	8188	461	3
ADSNLOAD	S	PDSE	U	0	5001	N/A
ADSNLOD2	S	PDSE	U	0	801	N/A
ADSNMACS	S	PDS	FB	80	2886	100
ADSNXML	U	PDS	VB	255	4	5
ADXRLOAD	S	PDS	U	0	140	70
ADXRSAMP	S	PDS	FB	80	6	3
ADXXADM	U	PDS	VB	255	26	5
ADXXC	U	PDS	FB	80	13	5
ADXXCLI	U	PDS	VB	255	4	5
ADXXCLP	U	PDS	VB	255	2	5
ADXXCMD	U	PDS	VB	255	4	5
ADXXDAD	U	PDS	VB	255	2	5
ADXXDBRM	U	PDS	FB	80	6	5
ADXXDTD	U	PDS	VB	255	2	5
ADXXH	U	PDS	FB	80	3	5
ADXXJCL	U	PDS	FB	80	11	5
ADXXJDBC	U	PDS	VB	255	4	5
ADXXLOAD	U	PDSE	U	0	401	N/A
ADXXSDDF	U	PDS	FB	80	51	20

Figure 23 (Page 2 of 2). Storage Requirements for DB2 9 for z/OS VUE Distribution Libraries

Library DDNAME	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
ADXXXML	U	PDS	VB	255	2	5

5.3 FMIDs Deleted

Installing DB2 9 for z/OS VUE may result in the deletion of other FMIDs. To see what FMIDs will be deleted, examine the ++VER statement in the product's SMPMCS.

If you do not wish to delete these FMIDs at this time, you must install DB2 9 for z/OS VUE into separate SMP/E target and distribution zones.

Note: These FMIDs will not automatically be deleted from the Global Zone. Consult the SMP/E manuals for instructions on how to do this.

5.4 Special Considerations

DB2 9 for z/OS VUE has special considerations for the target system.

Note

The service level in which the PTF/APAR fixes were incorporated into the product tape is PDO 1238. There are several HOLD items associated with the incorporated DB2 and IRLM 2.2 fixes that you must be aware of and take necessary action as part of the installation of DB2 and IRLM 2.2.. These HOLDS are provided in the below technote:

<http://www-01.ibm.com/support/docview.wss?uid=swg21470318>

See 6.2, "Activating DB2 9 for z/OS VUE" on page 52

5.5 Migration, Fallback, and Remigration

Migration to DB2 9 for z/OS VUE is permitted only from DB2 for z/OS Version 8 and DB2 for z/OS Version 8 must be running in New Function Mode (NFM).

To prepare for migration to DB2 9 for z/OS VUE, you must apply APAR PK11129 and start DB2 prior to migrating. Please read the HOLD data for PK11129, and note that, due to the possibility of prerequisite APARs, it may be necessary to acquire additional APARs not related to fallback. See APAR II12423 for

additional APAR information, and see *DB2 Installation Guide, GC18-9846* for details on Migration, Fallback, and Remigration steps. Please download the latest version of the *DB2 Installation Guide, GC18-9846* from the following Web address before proceeding:

<http://www.ibm.com/software/data/db2/zos/v9books.html>

For additional information about migrating to DB2 9 for z/OS VUE, please read Information APAR II14244.

6.0 Installation Instructions

This chapter describes the installation method and the step-by-step procedures to install and to activate the functions of DB2 9 for z/OS VUE.

Please note the following:

- If you want to install DB2 9 for z/OS VUE into its own SMP/E environment, consult the SMP/E manuals for instructions on creating and initializing the SMPCSI and the SMP/E control data sets.
- Sample jobs have been provided to help perform some or all of the installation tasks. The SMP/E jobs assume that all DDDEF entries required for SMP/E execution have been defined in the appropriate zones.
- The SMP/E dialogs may be used instead of the sample jobs to accomplish the SMP/E installation steps.

6.1 Installing DB2 9 for z/OS VUE

6.1.1 SMP/E Considerations for Installing DB2 9 for z/OS VUE

This release of DB2 9 for z/OS VUE 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.

6.1.2 SMP/E Options Subentry Values

The recommended values for some SMP/E CSI subentries are shown in Figure 24. 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 manuals for instructions on updating the global zone.

SUB-ENTRY	Value	Comment
DSSPACE	400,400,400	3390 DASD Tracks
PEMAX	SMP/E Default	IBM recommends using the SMP/E default for PEMAX.
UTILITY	IEWBLINK	Program Binder must be used for installation of DB2 V9, JDBC/SQLJ

6.1.3 SMP/E CALLLIBS Processing

DB2 9 for z/OS VUE uses the CALLLIBS function provided in SMP/E to resolve external references during installation. When DB2 9 for z/OS VUE is installed, ensure that DDDEFs exist for the following libraries:

- CSSLIB
- SCEEBIND
- SCEEBND2
- SCEELIB
- SCEELKED
- SCEELKEX
- SCSFMOD0

Note: The DDDEFs above are used only to resolve the link-edit for DB2 9 for z/OS VUE using CALLLIBS. These data sets are not updated during the installation of DB2 9 for z/OS VUE.

6.1.4 Sample Jobs

The following sample installation jobs are provided as part of the product to help you install DB2 9 for z/OS VUE:

<i>Figure 25 (Page 1 of 2). Sample Installation Jobs</i>			
Job Name	Job Type	Description	RELFIL
DSNTIJAA	SMP/E	Sample job to create the CSI and allocate the SMP/E control data sets (Optional)	IBM.HDB9910.F3
DSNRECV1	RECEIVE	Sample RECEIVE job for DB2	IBM.HDB9910.F3
DSNRECV2	RECEIVE	Sample RECEIVE job for IRLM	IBM.HDB9910.F3
DSNRECV3	RECEIVE	Sample RECEIVE job for ODBC/JDBC/SQLJ	IBM.HDB9910.F3
DSNRECV4	RECEIVE	Sample RECEIVE job for DB2 Kanji Panels	IBM.HDB9910.F3
DXXRECEV	RECEIVE	Sample RECEIVE job for XML Extender	IBM.HDB9910.F3
DSN3RECV	RECEIVE	Sample RECEIVE job for DB2 Value Unit Edition	IBM.JDB991Z.F1
DSNALLOC	ALLOCATE	Sample job to allocate target and distribution libraries and define SMP/E DDDEFs	IBM.HDB9910.F3
DSNASMKD	MKDIR	Sample job to invoke the supplied DSNAMKDR EXEC to allocate HFS paths for DB2 base	IBM.HDB9910.F3
DSNL SMKD	MKDIR	Sample job to invoke the supplied DSNLMKDR EXEC to allocate HFS paths for MQListener	IBM.HDB9910.F3
DSNWSMKD	MKDIR	Sample job to invoke the supplied DSNWMKDR EXEC to allocate HFS paths for WORF	IBM.HDB9910.F3
DSNISMKD	MKDIR	Sample job to invoke the supplied DSNMKDIR EXEC to allocate HFS paths for JDBC/SQLJ	IBM.HDB9910.F3
DSNDDEF1	DDDEF	Sample job to define SMP/E DDDEFs	IBM.HDB9910.F3

Figure 25 (Page 2 of 2). Sample Installation Jobs

Job Name	Job Type	Description	RELFILE
DSNTIJUD	OPTIONAL	Clean up job	IBM.HDB9910.F3
DSNAPPL1	APPLY	Sample APPLY CHECK and APPLY job	IBM.HDB9910.F3
DSN3APLY	APPLY	Sample APPLY CHECK and APPLY job for DB2 Value Unit Edition	IBM.JDB991Z.F1
DSNACEP1	ACCEPT	Sample ACCEPT CHECK and ACCEPT job	IBM.HDB9910.F3
DSN3ACEP	ACCEPT	Sample ACCEPT CHECK and ACCEPT job for DB2 Value Unit Edition	IBM.JDB991Z.F1.

You may also choose to copy the jobs from the tape or product files by submitting the job below. Use either the //TAPEIN or the //FILEIN DD statement, depending on your distribution medium, and comment out or delete the other statement. Add a job card and change the lowercase parameters to uppercase values to meet your site's requirements before submitting.

```
//STEP1 EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=*
//TAPEIN DD DSN=IBM.HDB9910.F3,UNIT=tunit,
// VOL=SER=volser,LABEL=(x,SL),
// DISP=(OLD,KEEP)
//FILEIN DD DSN=IBM.HDB9910.F3,UNIT=SYSALLDA,DISP=SHR,
// VOL=SER=filevol
//OUT DD DSNAME=jcl-library-name,
// DISP=(NEW,CATLG,DELETE),
// VOL=SER=dasdvol,UNIT=SYSALLDA,
// SPACE=(TRK,(20,10,10))
//SYSUT3 DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
//SYSIN DD *
COPY INDD=xxxIN,OUTDD=OUT
/*
//STEP2 EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=*
//TAPEIN DD DSN=IBM.JDB991Z.F1,UNIT=tunit,
// VOL=SER=volser2,LABEL=(y,SL),
// DISP=(OLD,KEEP)
//FILEIN DD DSN=IBM.JDB991Z.F1,UNIT=SYSALLDA,DISP=SHR,
// VOL=SER=filevol
//OUT DD DSNAME=jcl-library-name,
// DISP=OLD
//SYSUT3 DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
//SYSIN DD *
COPY INDD=xxxIN,OUTDD=OUT
/*
```

In the sample above, update the statements as noted below:

If using TAPEIN:

tunit is the unit value matching the product tape.

volser is the volume serial matching the product tape.

volser2 is the volume serial matching the product tape.

x is the tape file number where the data set name is on the tape.

Refer to the documentation provided by CBPDO to see where IBM.HDB9910.F3 is on the tape.

y is the tape file number where the data set name is on the tape.

Refer to the documentation provided by CBPDO to see where IBM.JDB991Z.F1 is on the tape.

If using FILEIN

filevol is the volume serial of the DASD device where the downloaded files reside.

OUT

jcl-library-name is the name of the output data set where the sample jobs will be stored.

dasdvol is the volume serial of the DASD device where the output data set will reside.

SYSIN

xxxxIN is either TAPEIN or FILEIN depending on your input DD statement.

You can access the sample installation jobs by performing an SMP/E RECEIVE and then copying the jobs from the relfiles to a work data set for editing and submission. See Figure 25 on page 37 to find the appropriate relfile data set.

Special Considerations:

- It is assumed that DB2 9 for z/OS VUE and IRLM V2R2 are installed into the same zones. If this is not the case, you will need to modify jobs DSNALLOC, DSNDDDEF1, DSNAPPL1 and DSN3APPLY.
- Recompile your existing Validation Exit Routines to pick up the updated version of the macro DSNDRVAL. No logic change is required. Although it is optional to recompile your Validation Exit Routine, it is recommended.

6.1.5 Allocate CSI and SMP/E Control data sets

Edit and submit **optional** sample job DSNTIJAA to create the desired CSI for DB2 9 for z/OS VUE.

Please note this job allocates some data sets in **PDSE** format, as appropriate. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: You will get a condition code of 0 if the job runs correctly.

6.1.6 Perform SMP/E RECEIVE

Having obtained DB2 9 for z/OS VUE as part of a CBPDO, use the RCVPDO job found in the CBPDO RIMLIB data set to RECEIVE the DB2 9 for z/OS VUE FMIDs as well as any service or HOLDDATA included on the CBPDO tape. For more information, refer to the documentation included with the CBPDO.

You can also choose to edit and submit the following sample jobs to perform the SMP/E RECEIVE for DB2 9 for z/OS VUE. Consult the instructions in the sample jobs for more information.

- Edit and submit sample job DSNRECV1 to perform the SMP/E RECEIVE for DB2 9 for z/OS VUE. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: This job should complete with a condition code of 0 if the job runs correctly.

- Edit and submit sample job DSNRECV2 to perform the SMP/E RECEIVE for IRLM V2R2. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: This job should complete with a condition code of 0 if the job runs correctly.

- Edit and submit sample job DSNRECV3 to perform the SMP/E RECEIVE for ODBC/JDBC/SQLJ. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: This job should complete with a condition code of 0 if the job runs correctly.

- Edit and submit sample job DSNRECV4 to perform the SMP/E RECEIVE for DB2 Kanji Panels. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: This job should complete with a condition code of 0 if the job runs correctly.

- Edit and submit sample job DXXRECEV to perform the SMP/E RECEIVE for XML Extender. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: This job should complete with a condition code of 0 if the job runs correctly.

- Edit and submit sample job DSN3RECV to perform the SMP/E RECEIVE for DB2 Value Unit Edition. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: This job should complete with a condition code of 0 if the job runs correctly.

6.1.7 Allocate SMP/E Target and Distribution Libraries

- Edit and submit sample job DSNALLOC to allocate the SMP/E target and distribution libraries for DB2 9 for z/OS VUE. Consult the instructions in the sample job for more information.

Refer back to the Operational Requisites section of this document for information about allocations of PDSE data sets.

Expected Return Codes and Messages: You will get a condition code of 0 if the job runs correctly.

6.1.8 Allocate HFS or zFS Paths

6.1.8.1 Allocating HFS or zFS Data Sets: If you plan to install the HFS or zFS components of DB2 9 for z/OS VUE, you must ensure that the target system HFS or zFS data sets are available for processing on the driving system. OMVS must be active on the driving system and the target system HFS or zFS data sets must be mounted on the driving system.

If you plan to install the HFS or zFS components of DB2 9 for z/OS VUE in a zFS files system, this requires that zFS be active on the driving system. Information on activating and using zFS can be found in z/OS Distributed File Service zSeries File System Administration, SC24-5989.

If you plan to install into a separate HFS or zFS data set instead of installing in to the root file system you can use the following sample JCL to allocate an HFS or zFS data set. Add a job card and modify the parameters in boldface to uppercase values to meet your site's requirements before submitting.

```
//ALLOCHFS EXEC PGM=IEFBR14
//SYSPRINT DD SYSOUT=*
//*
//SDSNAHFS DD DSN=db2hlq.SDSNAHFS,
//          DISP=(NEW,CATLG,DELETE),
//          VOL=SER=dasdvol,UNIT=dunit,
//          SPACE=(CYL,(5,1,1)),
//          DSNTYPE=HFS,STORCLAS=storclas
//*
```

Where **db2hlq** is the high level data set qualifier used for this DB2, **dasdvol** is the volume serial of the DASD device where the data set will reside, **dunit** is the DASD unit type of the volume, and **storclas** is an appropriate SMS storage class defined on your system.

Optional

If you plan to install the HFS or zFS components of DB2 9 for z/OS VUE into a separate HFS or zFS data set instead of installing into the root file system, mount the new HFS or zFS data set created in step 6.1.8.1, "Allocating HFS or zFS Data Sets," on the DB2 base HFS or zFS install mountpoint. (The following command must be on one line.)

```
TSO MOUNT FILESYSTEM('db2hlq.SDSNAHFS')
MOUNTPOINT('/user-defined-prefix/usr/lpp/db2910_base') TYPE(HFS)
```

Where db2hlq is the high level data set qualifier used in step 6.1.8.1, "Allocating HFS or zFS Data Sets."

where 'user-defined-prefix' is the value you have chosen for your alternate installation directory. If you have chosen the default installation directory, do not specify a value for 'user-defined-prefix'.

After mounting the new HFS or zFS data set, it is necessary to re-apply the directory permission bits. This may be accomplished using the following TSO command:

```
TSO OSHELL chmod 755 /usr/lpp/db2910_base
```

Please read the additional instructions for DSNASMKD:

```
//* IF YOU ARE APPLYING THIS FUNCTION FOR THE FIRST TIME, */
//* THE MKDIR EXEC WILL RESIDE IN AN SMP/E TEMPORARY */
//* LIBRARY SO UPDATE //SYSEXEC STATEMENT AS BELOW. */
//* //SYSEXEC DD DSN=dsprefix.HDB9910.F3, */
//* CHANGE dsprefix TO THE QUALIFIER SPECIFIED FOR DSPREFIX */
//* OPTIONS ENTRY OF THE GLOBAL ZONE THAT WAS USED TO */
//* SMP/E RECEIVE THIS FUNCTION. */
//* */
//* IF YOU ARE RUNNING THIS JOB TO INSTALL SERVICE ON A */
//* FUNCTION THAT HAS ALREADY BEEN APPLIED, THE MKDIR EXEC */
//* WILL RESIDE IN A TARGET LIBRARY, SO USE THE EXISTING */
//* STATEMENT BELOW */
//* //SYSEXEC DD DSN=h1qual.SDSNBASE, */
//* CHANGE h1qual TO THE APPROPRIATE HIGH-LEVEL QUALIFIER */
//* THAT COMPLIES WITH YOUR SITE'S NAMING STANDARDS. */
//* 'DSN910' IS SUGGESTED AS YOUR HIGH-LEVEL QUALIFIER. */
//* */
```

- Edit and submit sample job DSNASMKD to allocate the HFS or zFS paths for DB2 base, which includes msys. You must run this job as part of the DB2 installation. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: You will get a condition code of 0 if these jobs run correctly.

If you plan to install DB2 9 for z/OS VUE MQListener into a separate HFS or zFS data set instead of installing into the root file system, you can use the following sample JCL to allocate an HFS or zFS data set. Add a job card and modify the parameters in boldface to uppercase values to meet your site's requirements before submitting.

```
//ALLOCHFS1 EXEC PGM=IEFBR14
//SYSPRINT DD SYSOUT=*
//*
//SDSNMQLS DD DSN=db2h1q.SDSNMQLS,
// DISP=(NEW,CATLG,DELETE),
// VOL=SER=dasdvol,UNIT=dunit,
// SPACE=(CYL,(5,1,1)),
// DSNTYPE=HFS,STORCLAS=storclas
//*
```

Where **db2h1q** is the high level data set qualifier used for this DB2, **dasdvol** is the volume serial of the DASD device where the data set will reside, **dunit** is the DASD unit type of the volume, and **storclas** is an appropriate SMS storage class defined on your system.

Optional

If you have decided to install MQListener into a separate HFS or zFS data set instead of installing into the root file system, mount the new HFS or zFS data set created in step 6.1.8.1, “Allocating HFS or zFS Data Sets” on page 41, on the MQListener HFS or zFS install mountpoint. (The following command must be on one line.)

```
TSO MOUNT FILESYSTEM('db2hlq.SDSNMQLS')  
MOUNTPOINT('/user-defined-prefix/usr/lpp/db2910_mql') TYPE(HFS)
```

Where db2hlq is the high level data set qualifier used in step 6.1.8.1, “Allocating HFS or zFS Data Sets” on page 41.

Where 'user-defined-prefix' is the value you have chosen for your alternate installation directory. If you have chosen the default installation directory, do not specify a value for 'user-defined-prefix'.

After mounting the new HFS or zFS data set, it is necessary to re-apply the directory permission bits. This may be accomplished using the following TSO command:

```
TSO OSHELL chmod 755 /usr/lpp/db2910_mql
```

Please read the additional instructions for DSNLSMKD:

```
/** IF YOU ARE APPLYING THIS FUNCTION FOR THE FIRST TIME, */  
/** THE MKDIR EXEC WILL RESIDE IN AN SMP/E TEMPORARY */  
/** LIBRARY SO UPDATE //SYSEXEC STATEMENT AS BELOW. */  
/** //SYSEXEC DD DSN=dsprefix.HDB9910.F3, */  
/** CHANGE dsprefix TO THE QUALIFIER SPECIFIED FOR DSPREFIX */  
/** OPTIONS ENTRY OF THE GLOBAL ZONE THAT WAS USED TO */  
/** SMP/E RECEIVE THIS FUNCTION. */  
/** */  
/** IF YOU ARE RUNNING THIS JOB TO INSTALL SERVICE ON A */  
/** FUNCTION THAT HAS ALREADY BEEN APPLIED, THE MKDIR EXEC */  
/** WILL RESIDE IN A TARGET LIBRARY, SO USE THE EXISTING */  
/** STATEMENT BELOW */  
/** //SYSEXEC DD DSN=hlqual.SDSNBASE, */  
/** CHANGE hlqual TO THE APPROPRIATE HIGH-LEVEL QUALIFIER */  
/** THAT COMPLIES WITH YOUR SITE'S NAMING STANDARDS. */  
/** 'DSN910' IS SUGGESTED AS YOUR HIGH-LEVEL QUALIFIER. */  
/** */
```

- Edit and submit sample job DSNLSMKD to allocate the HFS or zFS paths for MQListener. You must run this job as part of the DB2 installation. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: You will get a condition code of 0 if these jobs run correctly.

If you plan to install DB2 9 for z/OS VUE WORF into a separate HFS or zFS data set instead of installing into the root file system, you can use the following sample JCL to allocate an HFS or zFS data set. Add a

job card and modify the parameters in boldface to uppercase values to meet your site's requirements before submitting.

```
//ALLOCHFS2 EXEC PGM=IEFBRI4
//SYSPRINT DD SYSOUT=*
//*
//SDSNAHFS DD DSN=db2hlq.SDSNWORF,
//          DISP=(NEW,CATLG,DELETE),
//          VOL=SER=dasdvol,UNIT=dunit,
//          SPACE=(CYL,(5,1,1)),
//          DSNTYPE=HFS,STORCLAS=storclas
//*
```

Where **db2hlq** is the high level data set qualifier used for this DB2, **dasdvol** is the volume serial of the DASD device where the data set will reside, **dunit** is the DASD unit type of the volume, and **storclas** is an appropriate SMS storage class defined on your system.

Optional

If you have decided to install the WORF components of DB2 9 for z/OS VUE into a separate HFS or zFS data set instead of installing into the root file system, mount the new HFS or zFS data set created in step 6.1.8.1, "Allocating HFS or zFS Data Sets" on page 41, on the DB2 9 for z/OS VUE WORF HFS or zFS install mountpoint. (The following command must be on one line.)

```
TSO MOUNT FILESYSTEM('db2hlq.SDSNWORF')
MOUNTPOINT('/user-defined-prefix/usr/lpp/db2910_worf') TYPE(HFS)
```

Where db2hlq is the high level data set qualifier used in step 6.1.8.1, "Allocating HFS or zFS Data Sets" on page 41.

Where 'user-defined-prefix' is the value you have chosen for your alternate installation directory. If you have chosen the default installation directory, do not specify a value for 'user-defined-prefix'.

After mounting the new HFS or zFS data set, it is necessary to re-apply the directory permission bits. This may be accomplished using the following TSO command:

```
TSO OSHELL chmod 755 /usr/lpp/db2910_worf
```

Please read the additional instructions for DSNWSMKD:

```

/** IF YOU ARE APPLYING THIS FUNCTION FOR THE FIRST TIME, */
/** THE MKDIR EXEC WILL RESIDE IN AN SMP/E TEMPORARY */
/** LIBRARY SO UPDATE //SYSEXEC STATEMENT AS BELOW. */
/** //SYSEXEC DD DSN=dsprefix.HDB9910.F3, */
/** CHANGE dsprefix TO THE QUALIFIER SPECIFIED FOR DSPREFIX */
/** OPTIONS ENTRY OF THE GLOBAL ZONE THAT WAS USED TO */
/** SMP/E RECEIVE THIS FUNCTION. */
/** */
/** IF YOU ARE RUNNING THIS JOB TO INSTALL SERVICE ON A */
/** FUNCTION THAT HAS ALREADY BEEN APPLIED, THE MKDIR EXEC */
/** WILL RESIDE IN A TARGET LIBRARY, SO USE THE EXISTING */
/** STATEMENT BELOW */
/** //SYSEXEC DD DSN=h1qua1.SDSNBASE, */
/** CHANGE h1qua1 TO THE APPROPRIATE HIGH-LEVEL QUALIFIER */
/** THAT COMPLIES WITH YOUR SITE'S NAMING STANDARDS. */
/** 'DSN910' IS SUGGESTED AS YOUR HIGH-LEVEL QUALIFIER. */
/** */

```

- Edit and submit sample job DSNWSMKD to allocate the HFS or zFS paths for DB2 9 for z/OS VUE WORF which includes msys. You must run this job as part of the DB2 installation. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: You will get a condition code of 0 if these jobs run correctly.

If you plan to install DB2 9 for z/OS VUE JDBC/SQLJ into a separate HFS or zFS data set instead of installing into the root file system, you can use the following sample JCL to allocate an HFS or zFS data set. Add a job card and modify the parameters in boldface to uppercase values to meet your site's requirements before submitting.

```

//ALLOCHFS3 EXEC PGM=IEFBR14
//SYSPRINT DD SYSOUT=*
/**
//SDSNJCC DD DSN=db2h1q.SDSNJCC,
// DISP=(NEW,CATLG,DELETE),
// VOL=SER=dasdvol,UNIT=dunit,
// SPACE=(CYL,(5,1,1)),
// DSNTYPE=HFS,STORCLAS=storclas
/**

```

Where **db2h1q** is the high level data set qualifier used for this DB2, **dasdvol** is the volume serial of the DASD device where the data set will reside, **dunit** is the DASD unit type of the volume, and **storclas** is an appropriate SMS storage class defined on your system.

Optional

If you have decided to install JDBC/SQLJ into a separate HFS or zFS data set instead of installing into the root file system, mount the new HFS or zFS data set created in step 6.1.8.1, “Allocating HFS or zFS Data Sets” on page 41, on the JDBC/SQLJ HFS or zFS install mountpoint. (The following command must be on one line.)

```
TSO MOUNT FILESYSTEM('db2hlq.SDSNJCC')
MOUNTPOINT('/user-defined-prefix/usr/lpp/db2910_jdbc') TYPE(HFS)
```

Where db2hlq is the high level data set qualifier used in step 6.1.8.1, “Allocating HFS or zFS Data Sets” on page 41.

Where 'user-defined-prefix' is the value you have chosen for your alternate installation directory. If you have chosen the default installation directory, do not specify a value for 'user-defined-prefix'.

After mounting the new HFS or zFS data set, it is necessary to re-apply the directory permission bits. This may be accomplished using the following TSO command:

```
TSO OSHELL chmod 755 /usr/lpp/db2910_jdbc
```

Please read the additional instructions for DSNISMKD:

```
/** IF YOU ARE APPLYING THIS FUNCTION FOR THE FIRST TIME, */
/** THE MKDIR EXEC WILL RESIDE IN AN SMP/E TEMPORARY */
/** LIBRARY SO UPDATE //SYSEXEC STATEMENT AS BELOW. */
/** //SYSEXEC DD DSN=dsprefix.HDB9910.F3, */
/** CHANGE dsprefix TO THE QUALIFIER SPECIFIED FOR DSPREFIX */
/** OPTIONS ENTRY OF THE GLOBAL ZONE THAT WAS USED TO */
/** SMP/E RECEIVE THIS FUNCTION. */
/** */
/** IF YOU ARE RUNNING THIS JOB TO INSTALL SERVICE ON A */
/** FUNCTION THAT HAS ALREADY BEEN APPLYed, THE MKDIR EXEC */
/** WILL RESIDE IN A TARGET LIBRARY, SO USE THE EXISTING */
/** STATEMENT BELOW */
/** //SYSEXEC DD DSN=hlqua1.SDSNBASE, */
/** CHANGE hlqua1 TO THE APPROPRIATE HIGH-LEVEL QUALIFIER */
/** THAT COMPLIES WITH YOUR SITE'S NAMING STANDARDS. */
/** 'DSN910' IS SUGGESTED AS YOUR HIGH-LEVEL QUALIFIER. */
/** */
```

- Edit and submit sample job DSNISMKD to allocate the HFS or zFS paths for DB2 9 for z/OS VUE JDBC/SQLJ. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: You will get a condition code of 0 if the job runs correctly.

If you create a new HFS or zFS for this product, you should consider updating the BPXPRMxx PARMLIB member to mount the new file system at IPL time. This may be helpful if an IPL occurs before the installation is complete.

6.1.9 Create DDDEF Entries

- Edit and submit sample job DSNDDDEF1 to create DDDEF entries for the SMP/E target and distribution libraries for DB2 9 for z/OS VUE. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: You will get a condition code of 0 if the job runs correctly.

Note: If you decide to install the JDBC/SQLJ FMID in to an alternate install directory, you will need to modify job DSNDDDEF1 to specify your *'user-defined-prefix'*. Consult the instructions in the sample job for more information, and please be aware that, though all JCL must normally be in uppercase to run, HFS or zFS path names may be mixed case. Be careful when editing DSNDDDEF1 to ensure that the mixed case in the job is preserved.

6.1.10 Optional: Cleanup job for migration: DSNTIJUD

Job DSNTIJUD should be run before the SMP/E APPLY (job DSNAPPL1). Running job DSNTIJUD is not necessary if you are installing DB2 9 for z/OS VUE for the first time. If you accidentally run it, it will have no adverse effect.

Expected Return Codes and Messages: This job should complete with a return code 4 or less.

6.1.11 Perform SMP/E APPLY

- Ensure you have the latest Enhanced HOLDDATA, then edit and submit sample job DSNAPPL1 to perform an SMP/E APPLY CHECK for DB2 9 for z/OS VUE. Consult the instructions in the sample job for more information.

Enhanced HOLDDATA introduces ERROR HOLDS against FMIDs for HIPER APARs. Prior to installing, you should ensure you have the latest Enhanced HOLDDATA (available at url <http://service.software.ibm.com/holddata/390holddata.html>). The FMID(s) should be installed regardless of the status of unresolved HIPERs, however, the software should not be deployed until the unresolved HIPERs have been analyzed to determine applicability.

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).

There are two methods to complete an FMID installation where ++HOLDS for HIPERs exist for the FMID(s) being installed:

1. To ensure that all recommended and critical service is installed with the FMID(s), add the SOURCEIDs of PRP, HIPER, and RSU* to the APPLY command. There may be PE or HIPER APARs that do not have resolving PTFs available yet. You need to analyze the symptom flags to determine if you want to BYPASS the specific ERROR HOLDS and continue the FMID installation.

```
APPLY S(fmid,fmid,...)
FORFMID(fmid,fmid,...)
SOURCEID(PRP,HIPER,RSU*,...)
GROUPEXTEND .
```

This method requires more initial research, but will provide resolution for all HIPERs that have fixes available and are not in a PE chain. There may still be unresolved PEs or HIPERs that will require the use of BYPASS.

2. To install the FMID(s) as it would have been installed prior to Enhanced HOLDDATA, you can add a BYPASS(HOLDCLASS(HIPER)) operand to the APPLY command. This will allow the FMID to be installed even though there are HIPER ERROR HOLDS against it. Note that not all ERROR HOLDS were bypassed, only the HIPER ERROR HOLDS. After the FMID(s) are installed, the SMP/E REPORT ERRSYSMODS command should be run to identify any missing HIPER maintenance.

```
APPLY S(fmid,fmid,...)
FORFMID(fmid,fmid,...)
SOURCEID(RSU*)
GROUPEXTEND
BYPASS(HOLDCLASS(HIPER)) .
..any other parameters documented in the program directory
```

This method is the quicker of the two, but requires subsequent review of the REPORT ERRSYSMODS to investigate any HIPERs.

If you bypass any HOLDS during the installation of the FMID(s) because fixing PTFs were not yet available you can use the APAR Status Tracking (AST) function of ServiceLink or the APAR Tracking function of ResourceLink to be notified when the fixing PTF is available.

- After you have taken any actions indicated by the APPLY CHECK, remove the CHECK operand and run DSNAPPL1 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.

Expected Return Codes and Messages from APPLY CHECK: You will receive a return code of 4 or less, and may see any of the following messages (which do not affect product installation):

- GIM23903W, GIM23913W, GIM43401W, GIM61903W, GIM67301W, GIM69138W
- IEW2480W, IEW2482W, IEW2454W, IEW2609W, IEW2646W

Note: If DSNAPPL1 fails or abends, correct the problem and rerun the job. All messages pertaining to members with prefix name 'DSN' or 'DXR' can be ignored.

Expected Return Codes and Messages from APPLY: You will receive a return code of 4 or less, and the job may issue any of the following messages (which do not affect production installation):

- GIM23903W, GIM23913W, GIM43401W, GIM61903W, GIM67301W, GIM69138W
- IEW2480W, IEW2482W, IEW2454W, IEW2609W, IEW2646W

Note: If DSNAPPL1 fails or abends, correct the problem and rerun the job. All messages pertaining to members with prefix name 'DSN' or 'DXR' can be ignored.

- Upon successful APPLY from job DSNAPPL1, edit and submit sample job DSN3APPLY to perform an SMP/E APPLY CHECK for DB2 Value Unit Edition, FMID JDB991Z. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages from APPLY CHECK: You will receive a return code of 0 if the job runs correctly.

- After you have taken any actions indicated by the APPLY CHECK, remove the CHECK operand and run DSN3APLY again to perform the APPLY.

Expected Return Codes and Messages from APPLY: You will receive a return code of 0 if the job runs correctly.

6.1.12 Perform SMP/E ACCEPT

Perform an SMP/E ACCEPT CHECK for DB2 9 for z/OS VUE.

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.

- Edit and submit sample jobs DSNACEP1 and DSN3ACEP to perform an SMP/E ACCEPT CHECK for DB2 9 for z/OS VUE. Consult the instructions in the sample jobs for more information.

Expected Return Codes and Messages from ACCEPT CHECK: These jobs should complete with a return code 4 or less. You may receive message GIM61903W.

- Once you have taken any actions indicated by the ACCEPT CHECK, remove the CHECK operand and run the DSNACEP1 and DSN3ACEP jobs 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.

Expected Return Codes and Messages from ACCEPT: This job should complete with a return code 4 or less. You may receive message GIM61903W.

If PTFs containing replacement modules are being ACCEPTed, SMP/E ACCEPT processing will linkedit/bind the modules into the distribution libraries. During this processing, the Linkage Editor or Binder may issue messages documenting unresolved external references, resulting in a return code of 4 from the ACCEPT step. These messages can be ignored, because the distribution libraries are not executable and the unresolved external references will not affect the executable system libraries.

6.1.13 Run REPORT CROSSZONE

The SMP/E REPORT CROSSZONE command will identify requisites defined for products that have been installed in separate zones. This command will also create APPLY and ACCEPT commands in the SMPPUNCH data set that you can use to install those cross-zone requisites it identifies.

After you have installed DB2 9 for z/OS VUE, it is recommended that you run REPORT CROSSZONE against the new or updated target and distribution zones. REPORT CROSSZONE requires a global zone with ZONEINDEX entries describing all the target and distribution libraries to be reported on.

For more information on REPORT CROSSZONE, see the SMP/E manuals.

6.1.14 Set Up Controls for English Panel Selection

Each of the display language control techniques described below is a way to set or change the current allocation of the DDNAMES.

6.1.14.1 Logon Procedures: To switch languages, you need only change the data set allocation currently in effect under the standard ISPF panel library DDNAME. A user's logon procedure can allocate DDNAME ISPPLIB to select the current display language. Following is an example from a logon procedure:

```
/**                THIS VERSION DISPLAYS ENGLISH PANELS */
//ISPPLIB DD DSN=DSN910.SDSNSPPF,DISP=SHR      ENGLISH
//        DD DSN=DSN910.SDSNPFPE,DISP=SHR      ENGLISH
```

6.1.14.2 Language-switching CLISTs: An ordinary CLIST can be used (outside of ISPF) to free and reallocate ISPPLIB. Following is an example of a CLIST:

```
PROC 0 LANGUAGE(E)          /* Execute this CLIST outside of ISPF */
FREE DD(ISPPLIB)
WRITE Do you want English or Japanese panels: Enter E or J.
READ &LANGUAGE
IF &LANGUAGE = E +
    THEN ALLOC DD(ISPPLIB) DS('DSN910.SDSNSPPF' 'DSN910.SDSNPFPE') +
        SHR /* English */
    ELSE ALLOC DD(ISPPLIB) DS('DSN910.SDSNSPPF' 'DSN910.SDSNPFPE') +
        SHR /* Japanese */
```

Some users allocate the ISPF panel library from their DEFAULT CLIST. Allocation of DDNAME ISPPLIB controls the current language just as it does for the LOGON procedure.

6.1.15 Cleaning Up Obsolete Data Sets, Paths, and DDDEFs

The following data sets, allocated and used by previous releases of this product, are no longer used in this release. You may choose to delete these obsolete data sets after you delete the previous release from your system.

Please refer to job DSNTIJUD in the Sample Installation Jobs table for more information.

The following HFS or zFS paths, created and used by previous releases of this product, are no longer used in this release. You may choose to delete these obsolete HFS or zFS paths after you delete the previous release from your system.

- usr/lpp/db2/db2710/
- usr/lpp/db2810/
- usr/lpp/db2mql810/
- usr/lpp/db2810_msys/

- usr/lpp/db2810_worf/
- usr/lpp/db2ext_07_01_00/
- usr/lpp/db2ext_08_01_00/
- usr/lpp/db2tx/

The following DDDEF entries, created and used by previous releases of this product, are no longer used in this release. You may choose to delete these obsolete DDDEF entries after you delete the previous release from your system.

- ADMBBASE ADMBDBRM ADMBEXP ADMBEXP2 ADMBLOAD ADMBLOA2
- SDMBBASE SDMBDBRM SDMBEXP SDMBEXP2 SDMBLOAD SDMBLOA2
- ADMBMACS ADMBMAC2 ADMBSAMP ADMBSMP ADMBSMPC ADMBSMPH
- SDMBMACS SDMBMAC2 SDMBSAMP SDMBSMP SDMBSMPC SDMBSMPH
- ADSNBKS ADSNIDX ADSNINST ADSNSHLF
- SDSNBKS SDSNIDX SDSNINST SDSNSHLF
- SDSNJDBC SDSNCLAS SDSNOLIB SDSNOBIN SDSNOSP1
- ADESDB2I ADESHFS1 ADESJCL1 ADESMOD1
- SDESDB2I SDESHFS1 SDESJCL1 SDESMOD1 SDESSCR1

6.2 Activating DB2 9 for z/OS VUE

The publication *DB2 Installation Guide, GC18-9846* contains the step-by-step procedures to activate the functions of DB2 9 for z/OS VUE. Please see *Enabling Value Unit Edition (VUE)* in this document for additional information.

6.2.1 Enabling Value Unit Edition (VUE)

Enabling the VUE feature of DB2 9 for z/OS VUE, requires you to install FMID JDB991Z and DB2 APAR PK58953 in the SMP/e libraries used by the DB2 subsystem or data sharing member which will operate under the terms of the DB2 9 for z/OS VUE license.

- FMID JDB991Z adds SMP/e jobs and special ISPF panels for the DB2 installation CLIST which allow you to indicate whether a particular DB2 is to operate under the terms of the DB2 9 for z/OS VUE license.
- APAR PK58953 modifies DB2 to recognize FMID JDB991Z and operate accordingly. It also modifies the DB2 installation CLIST to check for and display the special installation panels if they are present.

Note that the DB2 9 for z/OS VUE feature will only operate on a zNALC z/OS operating system. Any Logical Partition (LPAR) that is designated as a zNALC LPAR must identify itself in one of two ways:

1. By using the naming convention "ZNALxxxx" where xxxx may be any letters or numbers
2. By using the "LICENSE=ZNALC" IPL parameter. This IPL parameter is available on z/OS Version 1 Release 6 or later systems which have APAR OA20314 applied

There are two ways to activate the DB2 9 for z/OS VUE product on your eligible DB2 V9.1 for z/OS subsystem or data sharing member:

1. Use the DB2 installation CLIST and panels
2. Direct update of the job(s) you use to create the DB2 subsystem (DSNZPARM) parameter module

Using the DB2 installation CLIST and panels

Before continuing, ensure that FMID JDB991Z and the PTF for APAR PK58953 are both installed in the SMP/e target libraries that you use to run the DB2 9 for z/OS VUE installation CLIST.

If you installing or migrating a subsystem or data sharing member to DB2 9 for z/OS VUE, follow the usual process for INSTALL or MIGRATE as outlined in the DB2 Installation Guide in topic entitled *'Tailoring DB2 jobs to your environment using the installation CLIST'*

When you run the CLIST from an SMP/e environment with FMID JDB991Z and the PTF for APAR PK58953 installed, it will display the OTC license notice and acceptance panels, DSNTIPO1 and DSNTIPO2, together directly after you proceed from the main panel, DSNTIPA1.

On popup panel DSNTIPO1, indicate whether the OTC license will be used to operate the subsystem or data sharing member you are installing, migrating or updating. If you indicate **no**, processing continues to the next standard installation panel and DB2 will not use the OTC license.

If you indicate on the popup panel DSNTIPO1 that the OTC license will be used for this DB2, then panel DSNTIPO2 (Notice and acceptance of OTC license) is displayed so you can review the terms of the license. You will not be allowed to proceed until you confirm that you will abide by the terms of the license. The entire IPLA license, translated into multiple languages, is included with the product and is available as publication number GC19-2414.

Use the ISPF DOWN and UP keys to scroll the license terms. If you agree to the terms of the license, enter YES in the LICENSE TERMS ACCEPTED field and press the enter key to continue. Otherwise, press the ISPF RETURN key to return to the main ISPF panel, DSNTIPA1.

Continue through the remaining installation panels as usual. When finished, if you have selected this DB2 to use the OTC license and agreed to the terms thereof, job DSNTIJUZ will contain the keyword "OTC_LICENSE=TERMS_ACCEPTED" in the DSN6SYSP system parameter macro expansion. Run the job to regenerate the subsystem parameter module. You must then stop and restart the DB2 subsystem or data sharing member in order for the change to take affect.

If for any reason you want to discontinue using the DB2 9 for z/OS VUE license for this DB2 or if you no longer agree to the terms, you must remove the entry for OTC_LICENSE from each job used to generate a subsystem parameter module for that DB2, and regenerate each such subsystem parameter module. You must then stop and restart the DB2 subsystem or data sharing member in order for the change to take affect.

Using direct update of the job(s) you use to create the subsystem (DSNZPARM) parameter module for DB2

If you do not use the DB2 installation CLIST to install, migrate, or update a DB2 subsystem or data sharing member to operate under the DB2 9 for z/OS VUE license, you must first review the terms of the license by viewing member DSNTIPO2 of the prefix.SDSNSFPF library.

If you accept the terms of the license, you may activate it by adding "OTC_LICENSE=TERMS_ACCEPTED" in the DSN6SYSP macro expansion of your customized copy of job DSNTIJUZ and any other jobs you use to create the subsystem parameter (DSNZPARM) module(s) for the DB2 you intend to operate under the DB2 9 for z/OS VUE license. Then process as usual to reassemble and relink your subsystem parameter module. You must stop and restart DB2 in order for the change to take affect.

If for any reason you want to discontinue use of the DB2 9 for z/OS VUE license for this DB2 or if you no longer agree to the terms, you must remove the entry for OTC_LICENSE from each job used to generate a subsystem parameter module for that DB2, and regenerate each such subsystem parameter module. You must then stop and restart the DB2 subsystem or data sharing member in order for the change to take affect.

6.2.2 HFS Execution

If you choose to have any of the HFS or zFS functions that you have installed, mounted in read-only mode during execution, then no further tasks are required to accomplish this.

- **msys:** Refer to publication: Managed System Infrastructure for Setup Installation (SC33-7997) for additional information and instructions to activate msys.
- **MQListener:** Refer to publication: DB2 9 for z/OS VUE Application Programming and SQL Guide (SC18-9841) which provides information about MQListener. A README file is included with MQListener which documents additional instructions regarding the use of MQListener. The README file is installed to the following HFS or zFS file by running job DSNTIJML:
`/usr/lpp/db2910_mql/listener/README`
- **JDBC Driver:** A README file is included with the JDBC Driver that documents additional instructions regarding the use of JDBC Driver. The README file is installed to the following HFS or zFS file that is created during the SMP/e APPLY step:
`/usr/lpp/db2910_jdbc/README`

Appendix A. Included PTFs for DB2 9 for z/OS VUE

A.1 Included PTFs for FMID HIR2220

- FMID HIR2220

UK02488	UK15076	UK34736	UK50522	UK56996	UK68555
UK02778	UK15841	UK37941	UK50523	UK57680	UK69953
UK04485	UK16057	UK38073	UK50525	UK58815	UK72194
UK04865	UK16124	UK39437	UK51423	UK59338	UK73955
UK06058	UK16503	UK40078	UK51453	UK59947	UK75693
UK07062	UK17556	UK40296	UK52560	UK60306	UK76630
UK07431	UK18216	UK42215	UK53455	UK60439	UK77876
UK10422	UK18241	UK43896	UK53457	UK60950	UK77884
UK10447	UK18652	UK44263	UK54108	UK61477	UK78605
UK10454	UK19131	UK45701	UK54387	UK62065	UK78778
UK12331	UK20151	UK45704	UK54625	UK62155	UK79003
UK13840	UK20342	UK46177	UK54762	UK62170	UK79285
UK13975	UK20563	UK46417	UK54763	UK63650	UK79363
UK13977	UK21089	UK46865	UK54838	UK63937	UK79709
UK14216	UK31968	UK47043	UK55224	UK65149	UK80505
UK14531	UK31970	UK47758	UK55650	UK65702	UK80551
UK14534	UK32699	UK47878	UK55889	UK66173	UQ91678
UK14615	UK34478	UK48386	UK56995	UK66258	

A.2 Included PTFs for FMID HDB9910

- FMID HDB9910

UK15092	UK15146	UK15736	UK16117	UK16968	UK18080
UK15094	UK15147	UK15737	UK16119	UK17378	UK18081
UK15099	UK15148	UK15738	UK16126	UK17379	UK18082
UK15100	UK15668	UK15739	UK16431	UK17388	UK18083
UK15125	UK15725	UK15740	UK16432	UK17389	UK18084
UK15136	UK15726	UK15741	UK16433	UK17390	UK18157
UK15137	UK15727	UK15742	UK16434	UK17772	UK18180
UK15138	UK15728	UK15765	UK16435	UK17773	UK18198
UK15139	UK15729	UK16092	UK16436	UK17774	UK18409
UK15140	UK15730	UK16093	UK16437	UK17775	UK18410
UK15141	UK15731	UK16097	UK16438	UK17784	UK18411
UK15142	UK15732	UK16103	UK16964	UK17785	UK18412
UK15143	UK15733	UK16110	UK16965	UK17830	UK18413
UK15144	UK15734	UK16112	UK16966	UK17890	UK18414
UK15145	UK15735	UK16115	UK16967	UK18079	UK18415

UK18419	UK20421	UK23318	UK24001	UK24755	UK25655
UK18741	UK20423	UK23375	UK24030	UK24778	UK25666
UK18743	UK20424	UK23383	UK24075	UK24815	UK25744
UK18744	UK20425	UK23398	UK24082	UK24817	UK25783
UK18745	UK20426	UK23404	UK24101	UK24844	UK25809
UK18746	UK20430	UK23410	UK24121	UK24850	UK25823
UK18747	UK20431	UK23425	UK24143	UK24857	UK25826
UK18748	UK21239	UK23434	UK24187	UK24885	UK25842
UK18749	UK21240	UK23454	UK24222	UK24887	UK25867
UK18750	UK21241	UK23460	UK24233	UK24909	UK25869
UK18751	UK21242	UK23482	UK24236	UK24930	UK25884
UK18752	UK21243	UK23504	UK24240	UK24934	UK25894
UK18807	UK21244	UK23548	UK24258	UK24954	UK25896
UK19173	UK21245	UK23555	UK24264	UK24970	UK25900
UK19176	UK21246	UK23579	UK24297	UK24981	UK25931
UK19177	UK21247	UK23586	UK24302	UK24983	UK25934
UK19178	UK21269	UK23591	UK24312	UK25009	UK25937
UK19179	UK21404	UK23594	UK24353	UK25010	UK25940
UK19180	UK21473	UK23599	UK24356	UK25026	UK25947
UK19552	UK21810	UK23621	UK24369	UK25028	UK25986
UK19553	UK21817	UK23623	UK24433	UK25036	UK25995
UK19554	UK21818	UK23635	UK24468	UK25045	UK26012
UK19560	UK21819	UK23648	UK24471	UK25071	UK26085
UK19561	UK21820	UK23650	UK24490	UK25093	UK26106
UK19562	UK21821	UK23690	UK24493	UK25137	UK26109
UK19563	UK21822	UK23706	UK24533	UK25141	UK26112
UK19564	UK21847	UK23708	UK24544	UK25177	UK26115
UK19565	UK21878	UK23733	UK24556	UK25204	UK26118
UK19566	UK22174	UK23735	UK24559	UK25213	UK26152
UK19567	UK22175	UK23739	UK24590	UK25270	UK26163
UK19568	UK22176	UK23742	UK24602	UK25291	UK26257
UK19570	UK22177	UK23790	UK24619	UK25292	UK26263
UK19867	UK22178	UK23795	UK24625	UK25313	UK26290
UK19869	UK22179	UK23812	UK24645	UK25328	UK26301
UK19870	UK22182	UK23813	UK24646	UK25349	UK26327
UK19871	UK22183	UK23816	UK24656	UK25357	UK26396
UK19872	UK22629	UK23823	UK24703	UK25390	UK26437
UK19873	UK22630	UK23825	UK24709	UK25461	UK26487
UK19874	UK22631	UK23827	UK24711	UK25468	UK26494
UK19877	UK22632	UK23850	UK24714	UK25522	UK26505
UK19883	UK22633	UK23892	UK24717	UK25525	UK26508
UK20417	UK22635	UK23895	UK24724	UK25587	UK26518
UK20418	UK22636	UK23897	UK24728	UK25597	UK26529
UK20419	UK22901	UK23928	UK24733	UK25598	UK26538
UK20420	UK22985	UK23962	UK24753	UK25622	UK26550
					UK26564

UK26570	UK27559	UK28149	UK28810	UK29380	UK29794
UK26600	UK27567	UK28176	UK28822	UK29386	UK29809
UK26614	UK27576	UK28179	UK28828	UK29391	UK29812
UK26622	UK27580	UK28206	UK28830	UK29418	UK29815
UK26635	UK27591	UK28210	UK28832	UK29419	UK29819
UK26671	UK27618	UK28213	UK28840	UK29433	UK29843
UK26678	UK27620	UK28220	UK28873	UK29449	UK29852
UK26706	UK27624	UK28223	UK28937	UK29451	UK29874
UK26727	UK27631	UK28235	UK28939	UK29453	UK29875
UK26732	UK27646	UK28243	UK28945	UK29456	UK29878
UK26758	UK27659	UK28244	UK28947	UK29515	UK29882
UK26798	UK27664	UK28246	UK28953	UK29517	UK29906
UK26800	UK27668	UK28249	UK28959	UK29552	UK29917
UK26801	UK27670	UK28297	UK28967	UK29557	UK29932
UK26849	UK27697	UK28316	UK28969	UK29572	UK29935
UK26868	UK27701	UK28319	UK28986	UK29586	UK29937
UK26899	UK27721	UK28342	UK28994	UK29587	UK29950
UK26901	UK27724	UK28349	UK29001	UK29634	UK29973
UK26926	UK27733	UK28351	UK29027	UK29638	UK29975
UK26948	UK27781	UK28414	UK29040	UK29645	UK30003
UK26952	UK27794	UK28425	UK29042	UK29659	UK30007
UK26954	UK27800	UK28426	UK29072	UK29665	UK30014
UK26961	UK27829	UK28439	UK29074	UK29679	UK30019
UK26980	UK27876	UK28440	UK29090	UK29681	UK30021
UK27043	UK27884	UK28443	UK29094	UK29682	UK30032
UK27089	UK27885	UK28449	UK29106	UK29687	UK30052
UK27090	UK27889	UK28455	UK29150	UK29689	UK30089
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UK27127	UK27982	UK28526	UK29191	UK29706	UK30186
UK27217	UK27988	UK28529	UK29194	UK29713	UK30191
UK27228	UK27992	UK28544	UK29200	UK29715	UK30229
UK27256	UK27993	UK28557	UK29202	UK29718	UK30236
UK27280	UK27997	UK28565	UK29238	UK29726	UK30240
UK27366	UK28011	UK28571	UK29275	UK29731	UK30243
UK27390	UK28016	UK28579	UK29277	UK29752	UK30279
UK27409	UK28022	UK28615	UK29278	UK29757	UK30283
UK27418	UK28027	UK28656	UK29290	UK29765	UK30309
UK27419	UK28078	UK28665	UK29299	UK29768	UK30319
UK27440	UK28088	UK28684	UK29304	UK29770	UK30333
UK27441	UK28089	UK28696	UK29362	UK29771	UK30407
UK27519	UK28102	UK28740	UK29371	UK29775	UK30410
UK27534	UK28121	UK28767	UK29376	UK29787	UK30464
UK27536	UK28148	UK28776	UK29378	UK29789	UK30501
					UK30559

UK30597	UK31082	UK31574	UK31999	UK32621	UK33281
UK30603	UK31084	UK31577	UK32001	UK32641	UK33283
UK30615	UK31092	UK31580	UK32006	UK32644	UK33303
UK30617	UK31109	UK31590	UK32010	UK32703	UK33304
UK30619	UK31139	UK31591	UK32020	UK32718	UK33318
UK30620	UK31158	UK31603	UK32049	UK32723	UK33332
UK30624	UK31160	UK31630	UK32058	UK32742	UK33352
UK30651	UK31162	UK31640	UK32060	UK32753	UK33371
UK30659	UK31169	UK31644	UK32082	UK32757	UK33401
UK30674	UK31178	UK31677	UK32088	UK32777	UK33432
UK30684	UK31188	UK31679	UK32094	UK32789	UK33437
UK30693	UK31190	UK31692	UK32101	UK32795	UK33441
UK30713	UK31194	UK31698	UK32105	UK32802	UK33449
UK30743	UK31203	UK31713	UK32110	UK32816	UK33485
UK30746	UK31216	UK31717	UK32119	UK32822	UK33493
UK30753	UK31245	UK31737	UK32134	UK32825	UK33510
UK30755	UK31289	UK31739	UK32138	UK32835	UK33533
UK30775	UK31291	UK31747	UK32140	UK32852	UK33539
UK30792	UK31294	UK31770	UK32146	UK32865	UK33572
UK30794	UK31306	UK31804	UK32151	UK32890	UK33575
UK30811	UK31312	UK31805	UK32154	UK32910	UK33598
UK30813	UK31319	UK31808	UK32173	UK32916	UK33636
UK30823	UK31334	UK31812	UK32182	UK32943	UK33640
UK30830	UK31364	UK31820	UK32184	UK32945	UK33642
UK30847	UK31367	UK31822	UK32242	UK32952	UK33643
UK30848	UK31374	UK31855	UK32261	UK32961	UK33650
UK30850	UK31377	UK31857	UK32263	UK32978	UK33663
UK30871	UK31416	UK31859	UK32264	UK32981	UK33682
UK30896	UK31420	UK31864	UK32268	UK32999	UK33725
UK30901	UK31424	UK31870	UK32290	UK33025	UK33730
UK30904	UK31433	UK31884	UK32296	UK33087	UK33756
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UK30920	UK31459	UK31899	UK32316	UK33125	UK33780
UK30935	UK31489	UK31902	UK32319	UK33128	UK33782
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UK30960	UK31506	UK31914	UK32370	UK33158	UK33795
UK30972	UK31510	UK31919	UK32374	UK33161	UK33816
UK30980	UK31513	UK31921	UK32422	UK33173	UK33817
UK30984	UK31515	UK31929	UK32431	UK33179	UK33834
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UK30999	UK31524	UK31948	UK32472	UK33181	UK33842
UK31004	UK31529	UK31991	UK32505	UK33241	UK33843
UK31053	UK31537	UK31993	UK32553	UK33247	UK33844
UK31060	UK31557	UK31996	UK32616	UK33250	UK33845
UK31079	UK31570	UK31997	UK32619	UK33277	UK33846
					UK33851

UK33856	UK34531	UK35113	UK35632	UK36185	UK36549
UK33862	UK34543	UK35135	UK35647	UK36192	UK36553
UK33863	UK34558	UK35148	UK35669	UK36198	UK36567
UK33868	UK34643	UK35163	UK35670	UK36215	UK36571
UK33883	UK34653	UK35164	UK35674	UK36218	UK36579
UK33888	UK34655	UK35178	UK35675	UK36221	UK36583
UK33890	UK34657	UK35184	UK35679	UK36227	UK36592
UK33891	UK34664	UK35188	UK35733	UK36229	UK36597
UK33917	UK34665	UK35192	UK35737	UK36235	UK36615
UK33919	UK34674	UK35223	UK35741	UK36259	UK36672
UK33922	UK34698	UK35231	UK35753	UK36262	UK36700
UK33928	UK34719	UK35259	UK35756	UK36263	UK36702
UK33955	UK34740	UK35276	UK35757	UK36265	UK36744
UK33985	UK34742	UK35288	UK35775	UK36270	UK36747
UK34035	UK34750	UK35293	UK35832	UK36293	UK36749
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UK34053	UK34761	UK35348	UK35869	UK36308	UK36790
UK34055	UK34796	UK35354	UK35873	UK36311	UK36791
UK34109	UK34804	UK35360	UK35889	UK36317	UK36793
UK34110	UK34822	UK35371	UK35900	UK36319	UK36794
UK34115	UK34827	UK35389	UK35902	UK36329	UK36833
UK34130	UK34828	UK35390	UK35909	UK36332	UK36835
UK34140	UK34837	UK35393	UK35949	UK36346	UK36848
UK34148	UK34845	UK35395	UK35956	UK36347	UK36872
UK34178	UK34848	UK35397	UK35960	UK36352	UK36892
UK34187	UK34850	UK35421	UK35966	UK36355	UK36941
UK34195	UK34854	UK35445	UK35971	UK36356	UK36943
UK34196	UK34879	UK35467	UK35972	UK36365	UK36944
UK34198	UK34880	UK35469	UK35977	UK36366	UK36950
UK34233	UK34884	UK35473	UK35979	UK36391	UK36953
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UK34265	UK34944	UK35493	UK36075	UK36408	UK36992
UK34273	UK34978	UK35494	UK36078	UK36415	UK36995
UK34284	UK34983	UK35498	UK36084	UK36417	UK36997
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UK34342	UK35061	UK35521	UK36093	UK36443	UK37035
UK34375	UK35079	UK35547	UK36116	UK36454	UK37039
UK34385	UK35087	UK35557	UK36119	UK36457	UK37066
UK34435	UK35096	UK35568	UK36129	UK36463	UK37068
UK34498	UK35098	UK35587	UK36131	UK36481	UK37084
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UK34524	UK35108	UK35601	UK36173	UK36544	UK37112
UK34526	UK35111	UK35609	UK36181	UK36547	UK37114
					UK37120

UK37122	UK37528	UK37990	UK38396	UK38868	UK39286
UK37139	UK37578	UK37992	UK38414	UK38873	UK39292
UK37142	UK37580	UK38014	UK38421	UK38896	UK39304
UK37143	UK37582	UK38054	UK38466	UK38899	UK39327
UK37145	UK37584	UK38068	UK38478	UK38906	UK39338
UK37151	UK37587	UK38087	UK38481	UK38920	UK39357
UK37158	UK37601	UK38102	UK38534	UK38921	UK39375
UK37179	UK37602	UK38109	UK38539	UK38928	UK39395
UK37192	UK37604	UK38110	UK38545	UK38929	UK39396
UK37196	UK37618	UK38124	UK38547	UK38934	UK39400
UK37203	UK37636	UK38137	UK38548	UK38946	UK39429
UK37222	UK37637	UK38139	UK38577	UK38947	UK39431
UK37225	UK37640	UK38140	UK38579	UK38950	UK39433
UK37235	UK37642	UK38143	UK38607	UK38955	UK39441
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UK37243	UK37678	UK38158	UK38627	UK38967	UK39443
UK37255	UK37684	UK38163	UK38634	UK38971	UK39482
UK37256	UK37700	UK38169	UK38635	UK38981	UK39483
UK37267	UK37704	UK38171	UK38637	UK38984	UK39485
UK37274	UK37706	UK38192	UK38640	UK38988	UK39496
UK37286	UK37708	UK38231	UK38646	UK38998	UK39497
UK37292	UK37755	UK38235	UK38666	UK39004	UK39499
UK37297	UK37764	UK38239	UK38674	UK39025	UK39502
UK37304	UK37792	UK38241	UK38676	UK39040	UK39506
UK37311	UK37794	UK38260	UK38677	UK39068	UK39508
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UK37326	UK37806	UK38264	UK38707	UK39095	UK39524
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UK37370	UK37854	UK38348	UK38829	UK39209	UK39638
UK37388	UK37856	UK38373	UK38830	UK39231	UK39641
UK37390	UK37860	UK38374	UK38832	UK39243	UK39644
UK37397	UK37866	UK38375	UK38834	UK39250	UK39646
UK37448	UK37868	UK38379	UK38835	UK39252	UK39654
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UK37505	UK37983	UK38386	UK38844	UK39281	UK39671
UK37512	UK37988	UK38391	UK38866	UK39283	UK39673
					UK39677

UK39684	UK40077	UK40962	UK42094	UK42875	UK43741
UK39701	UK40081	UK40997	UK42119	UK42876	UK43742
UK39707	UK40084	UK41007	UK42170	UK42885	UK43748
UK39713	UK40117	UK41062	UK42187	UK42892	UK43756
UK39734	UK40156	UK41065	UK42189	UK42893	UK43790
UK39738	UK40161	UK41101	UK42199	UK42929	UK43792
UK39739	UK40163	UK41137	UK42229	UK42966	UK43794
UK39740	UK40247	UK41212	UK42269	UK42982	UK43823
UK39747	UK40265	UK41218	UK42291	UK42985	UK43893
UK39748	UK40270	UK41282	UK42300	UK42993	UK43895
UK39751	UK40287	UK41329	UK42313	UK43066	UK43903
UK39774	UK40300	UK41355	UK42322	UK43156	UK43929
UK39775	UK40326	UK41370	UK42347	UK43157	UK43948
UK39777	UK40347	UK41397	UK42360	UK43159	UK43962
UK39782	UK40351	UK41456	UK42385	UK43167	UK43992
UK39783	UK40356	UK41478	UK42409	UK43190	UK43998
UK39795	UK40360	UK41502	UK42421	UK43198	UK44014
UK39798	UK40377	UK41538	UK42448	UK43205	UK44023
UK39802	UK40385	UK41559	UK42455	UK43245	UK44051
UK39804	UK40498	UK41583	UK42482	UK43256	UK44067
UK39805	UK40503	UK41602	UK42542	UK43261	UK44076
UK39811	UK40505	UK41604	UK42543	UK43267	UK44081
UK39827	UK40521	UK41609	UK42598	UK43277	UK44086
UK39835	UK40532	UK41681	UK42630	UK43291	UK44120
UK39837	UK40572	UK41717	UK42640	UK43300	UK44195
UK39844	UK40600	UK41746	UK42656	UK43338	UK44255
UK39847	UK40634	UK41748	UK42711	UK43355	UK44300
UK39849	UK40675	UK41758	UK42715	UK43397	UK44440
UK39851	UK40684	UK41817	UK42719	UK43413	UK44441
UK39853	UK40687	UK41838	UK42722	UK43458	UK44458
UK39854	UK40708	UK41870	UK42727	UK43504	UK44464
UK39867	UK40712	UK41879	UK42733	UK43576	UK44487
UK39877	UK40717	UK41931	UK42749	UK43584	UK44488
UK39892	UK40730	UK41932	UK42760	UK43588	UK44489
UK39894	UK40751	UK41933	UK42786	UK43601	UK44495
UK39896	UK40799	UK41934	UK42799	UK43607	UK44496
UK39989	UK40807	UK41941	UK42808	UK43608	UK44517
UK39992	UK40815	UK41942	UK42812	UK43624	UK44603
UK40002	UK40826	UK41994	UK42813	UK43639	UK44661
UK40006	UK40838	UK42046	UK42830	UK43673	UK44703
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UK75780	UK76529	UK77198	UK77858	UK78361	UK79164
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UK79179	UK79603	UK79889	UK80362	UK80839	UK81187
UK79231	UK79620	UK79897	UK80365	UK80859	UK81196
UK79237	UK79636	UK79912	UK80367	UK80869	UK81199
UK79242	UK79645	UK79941	UK80385	UK80883	UK81204
UK79273	UK79653	UK80002	UK80406	UK80898	UK81224
UK79296	UK79666	UK80004	UK80415	UK80901	UK81229
UK79300	UK79682	UK80019	UK80437	UK80912	UK81242
UK79317	UK79684	UK80021	UK80440	UK80925	UK81266
UK79321	UK79708	UK80031	UK80442	UK80927	UK81287
UK79325	UK79720	UK80042	UK80448	UK80930	UK81297
UK79334	UK79730	UK80057	UK80460	UK80984	UK81303
UK79374	UK79771	UK80075	UK80473	UK80992	UK81313
UK79377	UK79775	UK80107	UK80494	UK81002	UK81315
UK79395	UK79787	UK80115	UK80511	UK81024	UK81333
UK79405	UK79795	UK80133	UK80524	UK81027	UK81342
UK79422	UK79816	UK80181	UK80560	UK81028	UK81347
UK79432	UK79826	UK80198	UK80617	UK81066	UK81386
UK79434	UK79830	UK80207	UK80666	UK81072	UK81389
UK79449	UK79833	UK80235	UK80669	UK81121	UK81416
UK79453	UK79836	UK80241	UK80685	UK81136	UK81427
UK79545	UK79841	UK80244	UK80702	UK81140	UK81435
UK79552	UK79843	UK80264	UK80773	UK81148	UK81461
UK79560	UK79845	UK80303	UK80781	UK81150	UK81516
UK79563	UK79872	UK80311	UK80792	UK81165	UK81521
UK79590	UK79877	UK80338	UK80793	UK81179	
UK79600	UK79882	UK80358	UK80822	UK81182	

A.3 Included PTFs for FMID HIY9910

- FMID HIY9910

UK16970
UK76644

A.4 Included PTFs for FMID HIZ9910

- FMID HIZ9910

UK16439	UK21248	UK36866	UK38639	UK58254	UK76399
UK16971	UK21823	UK37838	UK44316	UK59611	UK78784
UK17391	UK30698	UK38237	UK44899	UK62329	UK79292
UK18085	UK32117	UK38238	UK57464	UK63602	UK80304
UK20427					

A.5 Included PTFs for FMID HDRE910

- FMID HDRE910
 - UK21268
 - UK55938
 - UK62634

A.6 Included PTFs for FMID JDB9914

- FMID JDB9914
 - UK17393 UK37399 UK44463
 - UK17776 UK70884

A.7 Included PTFs for FMID JDB9912

- FMID JDB9912

A.8 Included PTFs for FMID JDB9917

- FMID JDB9917

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	Satisfaction					
Ease of product installation	1	2	3	4	5	N
Contents of Program Directory	1	2	3	4	5	N
Installation Verification Programs	1	2	3	4	5	N
Time to install the product	1	2	3	4	5	N
Readability and organization of Program Directory tasks	1	2	3	4	5	N
Necessity of all installation tasks	1	2	3	4	5	N
Accuracy of the definition of the installation tasks	1	2	3	4	5	N
Technical level of the installation tasks	1	2	3	4	5	N
Ease of getting the system into production after installation	1	2	3	4	5	N

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- ServerPac
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G110-8779-06

