



Program Directory for DB2 Accessories Suite V9

V02.02.00

Program Number 5697-Q02

FMIDs H2AF110, J2AG110

for Use with
z/OS

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GI10-8841-02

Note

Before using this information and the product it supports, be sure to read the general information under 7.0, "Notices" on page 23.

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1.0 Introduction

This program directory is intended for system programmers who are responsible for program installation and maintenance. It contains information about the material and procedures associated with the installation of DB2 Accessories Suite V9. This publication refers to DB2 Accessories Suite V9 as DB2 Accessories Suite.

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 Accessories Suite.
- 3.0, “Program Support” on page 6 describes the IBM support available for DB2 Accessories Suite.
- 4.0, “Program and Service Level Information” on page 8 lists the APARs (program level) and PTFs (service level) that have been incorporated into DB2 Accessories Suite.
- 5.0, “Installation Requirements and Considerations” on page 9 identifies the resources and considerations that are required for installing and using DB2 Accessories Suite.
- 6.0, “Installation Instructions” on page 16 provides detailed installation instructions for DB2 Accessories Suite. It also describes the procedures for activating the functions of DB2 Accessories Suite, or refers to appropriate publications.

Before installing DB2 Accessories Suite, read the *CBPDO Memo To Users* and the *CBPDO Memo To Users Extension* that are supplied with this program in softcopy format and this Program Directory; then keep them for future reference. Section 3.2, “Preventive Service Planning” on page 6 tells you how to find any updates to the information and procedures in this Program Directory.

DB2 Accessories Suite is supplied in a Custom-Built Product Delivery Offering (CBPDO, 5751-CS3). The Program Directory that is provided in softcopy format on the CBPDO tape is identical to the hardcopy format if one was included with your order. All service and HOLDDATA for DB2 Accessories Suite are included on the CBPDO tape.

Do not use this program directory if you install DB2 Accessories Suite with a SystemPac or ServerPac. When you use one of those offerings, use the jobs and documentation supplied with the offering. The offering will point you to specific sections of this program directory as needed.

1.1 DB2 Accessories Suite Description

DB2 Accessories Suite V9 consists of several independent components designed to enhance your use of the DB2 for z/OS data server. In this release of the suite, four components deliver innovative new capabilities for your DB2 for z/OS environment. It includes the support for spatial data, as well as the Unicode and internationalization support for IBM Text Search on DB2 for z/OS.

1. Spatial Support for DB2 for z/OS (hereafter referred to as 'Spatial Support') provides a set of spatial data types that you can use to model real-world entities, such as the locations of customers, the

boundaries of parks, and the path of cable lines. You can manipulate spatial data by using spatial functions, which you can invoke from within an SQL statement. Also, you can create indexes on spatial data, which can be used by DB2 to optimize spatial query performance.

2. The International Components for Unicode for DB/2 for z/OS (hereafter referred to as 'ICU for DB2 for z/OS' or 'ICU'), is a set of C/C++ and Java libraries for Unicode support and software internationalization. ICU is an open source project sponsored by IBM and provides full-fledged Unicode services on a wide variety of platforms and is called by selected features of DB2 for z/OS and the Accessories Suite, such as Spatial Support, that requires these Unicode and internationalization functions.
3. The text search feature for DB2 for z/OS introduces the availability of the text search server on two new operating systems, Windows 64-bit and Linux 64-bit, delivering a complete System z solution for your text search needs. The text search feature for DB2 for z/OS enables users to issue SQL statements to satisfy familiar text search queries on data that is stored in a DB2 for z/OS database. This text search functionality is powered by the new text search server IBM Text Search for DB2 for z/OS.
4. IBM Data Studio Version 3.1.1

Data Studio V3.1.1 provides health monitoring, single query tuning, and application development tools for DB2 for z/OS. The Data Studio development capabilities include:

- Java and native stored procedure development, deployment, and debugging.

- Enhanced Java development to reinforce good SQL coding performance practices during development.

- Functionality to make it easier to use static SQL for existing Java, CLI, or, NET applications, thereby providing potentially better performance and better security.

- When combined with InfoSphere Optim pureQuery Runtime for z/OS, V3.1.1 and IBM Tivoli OMEGAMON XE for DB2 Performance Expert on z/OS, V5.1, trace problematic queries from monitoring to line of code.

Data Studio query tuning features include:

- Ability to access plan graphs for visual diagnosis of problematic queries

- Single query stats advisor

- Export of diagnostic information to IBM service

- Ability to capture SQL for tuning from sources such as dynamic statement cache, DB2 catalog, IBM Tivoli Omegamon XE for DB2 Performance Expert on z/OS, V5.1; DB2 Path Check for z/OS, V4.1; and the DB2 Query Monitor V3.1.

1.2 DB2 Accessories Suite FMIDs

DB2 Accessories Suite consists of the following FMIDs:

- H2AF110 (ICU)

- J2AG110 (Spatial Support)

2.0 Program Materials

An IBM program is identified by a program number. The program number for DB2 Accessories Suite is 5697-Q02.

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 Accessories Suite. 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 physical media or downloadable files. This program is in SMP/E RELFILE format and is installed by using SMP/E. See 6.0, "Installation Instructions" on page 16 for more information about how to install the program.

You can find information about the physical media for the basic machine-readable materials for DB2 Accessories Suite in the *CBPDO Memo To Users Extension*.

Figure 1. Program File Content

Name	O R G	R E C M	L R E C L	BLK SIZE
SMPMCS	SEQ	FB	80	6400
IBM.H2AF110.F1	PDS	FB	80	8800
IBM.H2AF110.F2	PDSE	U	0	6144
IBM.H2AF110.F3	PDS	VB	8188	27998

Figure 2 (Page 1 of 2). Program File Content

Name	O R G	R E C M	L R E C L	BLK SIZE
SMPMCS	SEQ	FB	80	6400
IBM.J2AG110.F1	PDS	FB	80	8800

Figure 2 (Page 2 of 2). Program File Content

Name	O R G	R E C F M	L R E C L	BLK SIZE
IBM.J2AG110.F2	PDSE	U	0	6144
IBM.J2AG110.F3	PDS	FB	80	88008

2.2 Optional Machine-Readable Material

No optional machine-readable materials are provided for DB2 Accessories Suite.

2.3 Program Publications

The following sections identify the basic and optional publications for DB2 Accessories Suite.

2.3.1 Basic Program Publications

Figure 3 identifies the basic unlicensed program publications for DB2 Accessories Suite. One copy of each of these publications is included when you order the basic materials for DB2 Accessories Suite. Additional copies can be obtained from the following IBM Publications Website:
<http://www.ibm.com/shop/publications/order/> Contact your IBM representative for further assistance.

Figure 3. Basic Material: Unlicensed Publications

Publication Title	Form Number
DB2 Accessories Suite V9 License Information	GC19-3029

Figure 4 identifies the basic unlicensed or licensed publications that are not available in hardcopy format, but are available through the internet or other media for DB2 Accessories Suite.

Figure 4 (Page 1 of 2). Basic Material: Other Unlicensed or Licensed Publications

Publication Title	Form Number	How Available
IBM Globalization - ICU	N/A	http://www-01.ibm.com/software/globalization/icu/index.jsp
IBM Spatial Offerings	N/A	http://www-01.ibm.com/software/data/spatial

Figure 4 (Page 2 of 2). Basic Material: Other Unlicensed or Licensed Publications

Publication Title	Form Number	How Available
Spatial Support for DB2 V9 for z/OS User's Guide and Reference	GC19-1145	IBM Publication Center
IBM Text Search for DB2 for z/OS Installation, Administration, and Reference	GC19-2987	IBM Publications Center

- *z/OS and Software Products DVD Collection, SK3T-4271**
*requires a DVD drive in DVD-9 (single-sided, dual-layer) format

2.3.2 Optional Program Publications

No optional publications are provided for DB2 Accessories Suite.

2.4 Program Source Materials

No program source materials or viewable program listings are provided for DB2 Accessories Suite.

2.5 Publications Useful During Installation

You might want to use the publications listed in Figure 5 during the installation of DB2 Accessories Suite. To order copies, contact your IBM representative or visit the IBM Publications Center at:
<http://www.ibm.com/shop/publications/order/>

Figure 5. Publications Useful During Installation

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

3.0 Program Support

This section describes the IBM support available for DB2 Accessories Suite.

3.1 Program Services

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

3.2 Preventive Service Planning

Before you install DB2 Accessories Suite, make sure that you have reviewed the current Preventive Service Planning (PSP) information. Review the PSP Bucket for General Information, Installation Documentation, and the Cross Product Dependencies sections. For the Recommended Service section, instead of reviewing the PSP Bucket, it is recommended you use the IBM.ProductInstall-RequiredService fix category in SMP/E to ensure you have all the recommended service installed. Use the **FIXCAT(IBM.ProductInstall-RequiredService)** operand on the **APPLY CHECK command**. See 6.1.8, “Perform SMP/E APPLY” on page 19 for a sample APPLY command

If you obtained DB2 Accessories Suite as part of a CBPDO, HOLDDATA is included.

If the CBPDO for DB2 Accessories Suite is older than two weeks by the time you install the product materials, you can obtain the latest PSP Bucket information by going to the following Website:

<http://www14.software.ibm.com/webapp/set2/psearch/search?domain=psp>

You can also use S/390 SoftwareXcel or contact the IBM Support Center to obtain the latest PSP Bucket information.

For program support, access the Software Support Website at <http://www-01.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 Accessories Suite are included in Figure 6

Figure 6. PSP Upgrade and Subset ID

UPGRADE	SUBSET	Description
5697Q02	H2AF110	ICU
	J2AG110	Spatial Support

3.3 Statement of Support Procedures

Report any problems which you feel might be an error in the product materials to your IBM Support Center. You may be asked to gather and submit additional diagnostics to assist the IBM Support Center in their analysis.

Figure 7 on page 7 identifies the component IDs (COMPID) for DB2 Accessories Suite.

<i>Figure 7. Component IDs</i>			
FMID	COMPID	Component Name	RETAIN Release
H2AF110	5655R1403	ICU	110
J2AG110	5655R1402	Spatial Support	110
N/A	IM0004COS	IBM Text Search for DB2 for z/OS	150
N/A	5724DST06	Data Studio Full Client	311
N/A	5724DST07	Data Studio Web Console	311
N/A	5724DST08	Data Studio Administration Client	311

4.0 Program and Service Level Information

This section identifies the program and relevant service levels of DB2 Accessories Suite. The program level refers to the APAR fixes that have been incorporated into the program. The service level refers to the PTFs that have been incorporated into the program.

4.1 Program Level Information

No APARs have been incorporated into DB2 Accessories Suite.

4.2 Service Level Information

No PTFs against this release of DB2 Accessories Suite have been incorporated into the product package.

Frequently check the DB2 Accessories Suite PSP Bucket for HIPER and SPECIAL attention PTFs against all FMIDs that you must install. You can also receive the latest HOLDDATA, then add the **FIXCAT(IBM.PRODUCTINSTALL-REQUIRESERVICE)** operand on your APPLY CHECK command. This will allow you to review the recommended and critical service that should be installed with your FMIDs.

5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating DB2 Accessories Suite. The following terminology is used:

- *Driving system*: the system on which SMP/E is executed to install the program.
The program might have specific operating system or product level requirements for using processes, such as binder or assembly utilities during the installation.
- *Target system*: the system on which the program is configured and run.
The program might have specific product level requirements, such as needing access to the library of another product for link-edits. These requirements, either mandatory or optional, might directly affect the element during the installation or in its basic or enhanced operation.

In many cases, you can use a system as both a driving system and a target system. However, you can make a separate IPL-able clone of the running system to use as a target system. The clone must 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.

Use separate driving and target systems in the following situations:

- When you install a new level of a product that is already installed, the new level of the product will replace the old one. By installing the new level onto a separate target system, you can test the new level and keep the old one in production at the same time.
- When you install a product that shares libraries or load modules with other products, the installation can disrupt the other products. By installing the product onto a separate target system, you can assess these impacts without disrupting your production system.

5.1 Driving System Requirements

This section describes the environment of the driving system required to install DB2 Accessories Suite.

5.1.1 Machine Requirements

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

The ICU and Spatial Support hardware prerequisites are a z/Architecture based processor (any System z model) which is running in a 64-bit addressing mode.

The IBM Text Search for DB2 for z/OS prerequisites (for 32-bit and 64-bit) are:

- For Enterprise Linux or Windows Servers:
 - 2 dual-core 2.66 GHz processors
 - 4 GB RAM

- Enough disk space to hold 4 times the original text size for each collection
- For z/Linux Servers (64-bit only):
 - 2 CPU's
 - 8 GB RAM
 - Enough disk space to hold 4 times the original text size multiplied by the number of text search indexes. Each text column in a DB2 table has a corresponding text search index on the IBM Text Search for DB2 for z/OS. For example, if a text search server supports 5 indexes, each with 1 million rows of 1 KB text size, the required disk space needed is approximately 20 GB. This hardware is used exclusively by the IBM Text Search for DB2 for z/OS.

5.1.2 Programming Requirements

Figure 8. Driving System Software Requirements

Program Number	Product Name	Minimum VRM	Minimum Service Level will satisfy these APARs	Included in the shipped product?
Any one of the following:				
5694-A01	z/OS	V01.11.00	N/A	No
5655-G44	IBM SMP/E for z/OS	V03.05.00	N/A	No

Note: Installation might require migration to new z/OS releases to be service supported. See http://www-03.ibm.com/systems/z/os/zos/support/zos_eos_dates.html.

5.2 Target System Requirements

This section describes the environment of the target system required to install and use DB2 Accessories Suite.

DB2 Accessories Suite installs in the DBS (P115) SREL.

5.2.1 Machine Requirements

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

5.2.2 Programming Requirements

5.2.2.1 Installation Requisites: Installation requisites identify products that are required and *must* be present on the system or products that are not required but *should* be present on the system for the successful installation of this product.

Mandatory installation requisites identify products that are required on the system for the successful installation of this product. These products are specified as PREs or REQs.

Figure 9. Target System Mandatory Installation Requisites

Program Number	Product Name	Minimum VRM	Minimum Service Level will satisfy these APARs	Included in this product's shipment?
5694-A01	z/OS	01.10.00, or higher	N/A	No
Any one of the following:				
5635-DB2	DB2 for z/OS	09.01.00	N/A	No
5697-P12	DB2 for z/OS Value Unit Edition	09.01.00	N/A	No

Note: Installation might require migration to new z/OS releases to be service supported. See http://www-03.ibm.com/systems/z/os/zos/support/zos_eos_dates.html.

Conditional installation requisites identify products that are *not* required for successful installation of this product but can resolve such things as certain warning messages at installation time. These products are specified as IF REQs.

DB2 Accessories Suite has no conditional installation requisites.

5.2.2.2 Operational Requisites: Operational requisites are products that are required and *must* be present on the system or products that are not required but *should* be present on the system for this product to operate all or part of its functions.

Mandatory operational requisites identify products that are required for this product to operate its basic functions. These products are specified as PREs or REQs.

Figure 10 (Page 1 of 2). Target System Mandatory Operational Requisites

Program Number	Product Name and Minimum VRM/Service Level
5697-Q02	DB2 Accessories Suite V9, plus APARs PM19841 and PM65485, to use the new header in version 2 for all Spatial objects.
Any one of the following:	

Figure 10 (Page 2 of 2). Target System Mandatory Operational Requisites

Program Number	Product Name and Minimum VRM/Service Level
5635-DB2	DB2 for z/OS V9, Plus APAR PM19844 and ODBC FMID JDB9917, plus APAR PM55239 for this new release of the IBM Text Search for DB2 for z/OS
5697-P12	DB2 for z/OS V9 Value Unit Edition, Plus APAR PM19844 and ODBC FMID JDB9917 plus APAR PM55239 for this new release of the IBM Text Search for DB2 for z/OS

Note: Additional Mandatory Operational Requisite for the IBM Text Search for DB2 for z/OS (for Linux, Windows, and Linux on Systemz) requires any of the following:

- 32-bit or 64-bit Red Hat Enterprise Linux 5 (with the latest updates)
- 32-bit or 64-bit SUSE Linux Enterprise 10
- 64-bit SUSE zLinux SLES10x
- 64-bit Red Hat zLinux, Version 5 (with the latest update)
- 32-bit or 64-bit Windows

Conditional operational requisites identify products that are *not* required for this product to operate its basic functions but are required at run time for this product to operate specific functions. These products are specified as IF REQS.

DB2 Accessories Suite has no conditional operational requisites.

5.2.2.3 Toleration/Coexistence Requisites: Toleration/coexistence requisites identify products that must be present on sharing systems. 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 environment at different time intervals.

DB2 Accessories Suite has no toleration/coexistence requisites.

5.2.2.4 Incompatibility (Negative) Requisites: Negative requisites identify products that must *not* be installed on the same system as this product.

DB2 Accessories Suite has no negative requisites.

5.2.3 DASD Storage Requirements

DB2 Accessories Suite libraries can reside on all supported DASD types.

Figure 11 lists the total space that is required for each type of library.

Figure 11. Total DASD Space Required by DB2 Accessories Suite

Library Type	Total Space Required in 3390 Trks
Target	13097 tracks
Distribution	10025 tracks

Notes:

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

- U** Unique data set, allocated by this product and used by only this product. This table provides all the required information to determine the correct storage for this data set. You do not need to refer to other tables or program directories for the data set size.
- S** Shared data set, allocated by this product and used by this product and other products. To determine the correct storage needed for this data set, add the storage size given in this table to those given in 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 other products. This data set is *not* allocated by this product. To determine the correct storage for this data set, add the storage size given in this table to those given in 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.

If you currently have a previous release of this product installed in these libraries, the installation of this release will delete the old release and reclaim the space that was 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 about the names and sizes of the required data sets, see 6.1.6, "Allocate SMP/E Target and Distribution Libraries" on page 19.

3. All target and distribution libraries listed have the following attributes:
 - The default name of the data set can be changed.
 - The default block size of the data set can be changed.
 - The data set can be merged with another data set that has equivalent characteristics.
 - The data set can be either a PDS or a PDSE.
4. All target libraries listed have the following attributes:
 - These data sets can be SMS-managed, but they are not required to be SMS-managed.
 - These data sets are not required to reside on the IPL volume.
 - The values in the "Member Type" column are not necessarily the actual SMP/E element types that are identified in the SMPMCS.

5. All target libraries that are listed and contain load modules have the following attributes:

- These data sets can be in the LPA, but they are not required to be in the LPA.
- These data sets can be in the LNKLST.
- These data sets are not required to be APF-authorized.

The following figures describe the target and distribution libraries and file system paths required to install DB2 Accessories Suite. The storage requirements of DB2 Accessories Suite must be added to the storage required by other programs that have data in the same library or path.

Note: Use the data in these tables to determine 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 12. Storage Requirements for DB2 Accessories Suite 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	E	PDS	FB	80	51	5
SDSNDBRM	Macro	Any	E	PDS	FB	80	143	30
SDSNLOAD	LMOD	Any	E	PDSE	U	0	8532	N/A
SDSNMACS	Macro	Any	E	PDS	FB	80	951	16
SDSNNOTC	Data	Any	N	PDS	VB	8188	4	2
SDSNSAMP	Sample	Any	E	PDS	FB	80	3416	65

Figure 13. Storage Requirements for DB2 Accessories Suite 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	E	PDS	FB	80	59	8
ADSNLOAD	E	PDSE	U	0	6126	N/A
ADSNMACS	E	PDS	FB	80	3836	115
ADSNNOTC	N	PDS	VB	8188	4	2

5.3 FMIDs Deleted

Installing DB2 Accessories Suite might result in the deletion of other FMIDs. To see which FMIDs will be deleted, examine the ++VER statement in the SMPMCS of the product.

If you do not want to delete these FMIDs at this time, install DB2 Accessories Suite into separate SMP/E target and distribution zones.

Note: These FMIDs are not automatically deleted from the Global Zone. If you want to delete these FMIDs from the Global Zone, use the SMP/E REJECT NOFMID DELETEFMID command. See the SMP/E Commands book for details.

5.4 Special Considerations

DB2 Accessories Suite has no special considerations for the target system.

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 Accessories Suite.

Please note the following points:

- If you want to install DB2 Accessories Suite 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.
- You can use the sample jobs that are provided to perform part or all of the installation tasks. The SMP/E jobs assume that all DDDEF entries that are required for SMP/E execution have been defined in appropriate zones.
- You can use the SMP/E dialogs instead of the sample jobs to accomplish the SMP/E installation steps.

6.1 Installing DB2 Accessories Suite

6.1.1 SMP/E Considerations for Installing DB2 Accessories Suite

Use the SMP/E RECEIVE, APPLY, and ACCEPT commands to install this release of DB2 Accessories Suite.

6.1.2 SMP/E Options Subentry Values

The recommended values for certain SMP/E CSI subentries are shown in Figure 14. Using values lower than the recommended values can result in failures in the installation. DSSPACE is a subentry in the GLOBAL options entry. PEMAX is a subentry of the GENERAL entry in the GLOBAL options entry. See the SMP/E manuals for instructions on updating the global zone.

Figure 14. SMP/E Options Subentry Values

Subentry	Value	Comment
DSSPACE	(200,200,500)	3390 DASD tracks
PEMAX	SMP/E Default	IBM recommends using the SMP/E default for PEMAX.

6.1.3 SMP/E CALLLIBS and SIDE DECK PROCESSING

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

- CSSLIB
- SCEEBND2
- SCEELIB
- SCEELKED

DB2 Accessories Suite also uses Side Deck processing during link-edits. When DB2 Accessories Suite is installed, ensure that the DDDEFs exist for the following library:

- SDSNMACS

Note: The preceding DDDEFs are used only to resolve the link-edit for DB2 Accessories Suite using CALLLIBS and SIDE DECK processing. These data sets are not updated during the installation of DB2 Accessories Suite.

6.1.4 Sample Jobs

The following sample installation jobs are provided as part of the product to help you install DB2 Accessories Suite:

Job Name	Job Type	Description	RELFILE
DSN5RCV1	RECEIVE	Sample RECEIVE job for ICU	IBM.H2AF110.F2
DSN5RCV3	RECEIVE	Sample RECEIVE job for Spatial Support	IBM.H2AF110.F2
DSN5ALOC	ALLOCATE	Sample job to allocate target and distribution libraries	IBM.H2AF110.F2
DSN5DDEF	DDDEF	Sample job to define SMP/E DDDEFs	IBM.H2AF110.F2
DSN5APLY	APPLY	Sample APPLY job	IBM.H2AF110.F2
DSN5ACEP	ACCEPT	Sample ACCEPT job	IBM.H2AF110.F2

You can access the sample installation jobs by performing an SMP/E RECEIVE (refer to 6.1.5, “Perform SMP/E RECEIVE” on page 19) then copy the jobs from the RELFILES to a work data set for editing and submission. See Figure 15 to find the appropriate relfile data set.

You can also copy the sample installation jobs from the tape or product files by submitting the following job. Depending on your distribution medium, use either the //TAPEIN or the //FILEIN DD statement and comment out or delete the other statement. Before you submit the job, add a job card and change the lowercase parameters to uppercase values to meet the requirements of your site.

```

//STEP1 EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=*
//*****
//* Make the //TAPEIN DD statement below active if you install*
//* from a CBPDO tape by uncommenting the DD statement below. *
//*****
//*TAPEIN DD DSN=IBM.H2AF110.F2,UNIT=tunit,
//* VOL=SER=volser,LABEL=(x,SL),
//* DISP=(OLD,KEEP)
//*****
//* Make the //TAPEIN DD statement below active if you install*
//* from a product tape received outside the CBPDO process *
//* (using the optional SMP/E RECEIVE job) by uncommenting *
//* the DD statement below. *
//*****
//*TAPEIN DD DSN=IBM.H2AF110.F2,UNIT=tunit,
//* VOL=SER=2AF110,LABEL=(3,SL),
//* DISP=(OLD,KEEP)
//*****
//* Make the //FILEIN DD statement below active for *
//* downloaded DASD files. *
//*****
//*FILEIN DD DSN=IBM.H2AF110.F2,UNIT=SYSALLDA,DISP=SHR,
//* VOL=SER=filevol
//OUT DD DSNAME=jcl-library-name,
// DISP=(NEW,CATLG,DELETE),
// VOL=SER=dasdvol,UNIT=SYSALLDA,
// SPACE=(TRK,(20,10,5))
//SYSUT3 DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
//SYSIN DD *
COPY INDD=xxxxIN,OUTDD=OUT
/*

```

See the following information to update the statements in the previous sample:

TAPEIN:

- tunit** is the unit value that matches the product package.
- volser** is the volume serial that matches the product package.
- x** is the tape file number that indicates the location of the data set name on the tape.
- See the documentation that is provided by CBPDO for the location of IBM.fmid.Fy on the tape.

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 are stored.
- dasdvol** is the volume serial of the DASD device where the output data set resides.

SYSIN:

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

6.1.5 Perform SMP/E RECEIVE

If you have obtained DB2 Accessories Suite as part of a CBPDO, use the RCVPDO job in the CBPDO RIMLIB data set to receive the DB2 Accessories Suite FMIDs, service, and HOLDDATA that are included on the CBPDO package. For more information, see the documentation that is included in the CBPDO.

You can also choose to edit and submit sample jobs DSN5RCV1 and DSN5RCV3 to perform the SMP/E RECEIVE for DB2 Accessories Suite. Consult the instructions in the sample job for more information.

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

6.1.6 Allocate SMP/E Target and Distribution Libraries

Edit and submit sample job DSN5ALOC to allocate the SMP/E target and distribution libraries for DB2 Accessories Suite. Consult the instructions in the sample job for more information.

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

6.1.7 Create DDDEF Entries

Edit and submit sample job DSN5DDEF to create DDDEF entries for the SMP/E target and distribution libraries for DB2 Accessories Suite. Consult the instructions in the sample job for more information.

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

6.1.8 Perform SMP/E APPLY

1. Ensure that you have the latest HOLDDATA; then edit and submit sample job DSN5APLY to perform an SMP/E APPLY CHECK for DB2 Accessories Suite. Consult the instructions in the sample job for more information.

The latest HOLDDATA is available through several different portals, including <http://service.software.ibm.com/holdata/390holddata.html>. The latest HOLDDATA may identify HIPER and FIXCAT APARs for the FMIDs you will be installing. An APPLY CHECK will help you determine if any HIPER or FIXCAT APARs are applicable to the FMIDs you are installing. If there are any applicable HIPER or FIXCAT APARs, the APPLY CHECK will also identify fixing PTFs that will resolve the APARs, if a fixing PTF is available.

You should install the FMIDs regardless of the status of unresolved HIPER or FIXCAT APARs. However, do not deploy the software until the unresolved HIPER and FIXCAT APARs have been analyzed to determine their applicability. That is, before deploying the software either ensure fixing PTFs are applied to resolve all HIPER or FIXCAT APARs, or ensure the problems reported by all HIPER or FIXCAT APARs are not applicable to your environment.

To receive the full benefit of the SMP/E Causer SYSMOD Summary Report, do *not* bypass the PRE, ID, REQ, and IFREQ on the APPLY CHECK. The SMP/E root cause analysis identifies the cause

only of *errors* and not of *warnings* (SMP/E treats bypassed PRE, ID, REQ, and IFREQ conditions as warnings, instead of errors).

Here are sample APPLY commands:

- a. To ensure that all recommended and critical service is installed with the FMIDs, receive the latest HOLDDATA and use the APPLY CHECK command as follows

```
APPLY S(fmid,fmid,...) CHECK
FORFMID(fmid,fmid,...)
SOURCEID(RSU*)
FIXCAT(IBM.ProductInstall-RequiredService)
GROUPEXTEND .
```

Some HIPER APARs might not have fixing PTFs available yet. You should analyze the symptom flags for the unresolved HIPER APARs to determine if the reported problem is applicable to your environment and if you should bypass the specific ERROR HOLDS in order to continue the installation of the FMIDs.

This method requires more initial research, but can provide resolution for all HIPERs that have fixing PTFs available and are not in a PE chain. Unresolved PEs or HIPERs might still exist and require the use of BYPASS.

- b. To install the FMIDs without regard for unresolved HIPER APARs, you can add the BYPASS(HOLDCLASS(HIPER)) operand to the APPLY CHECK command. This will allow you to install FMIDs even though one or more unresolved HIPER APARs exist. After the FMIDs are installed, use the SMP/E REPORT ERRSYSMODS command to identify unresolved HIPER APARs and any fixing PTFs.

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

This method is the quicker, but requires subsequent review of the Exception SYSMOD report produced by the REPORT ERRSYSMODS command to investigate any unresolved HIPERs. If you have received the latest HOLDDATA, you can also choose to use the REPORT MISSINGFIX command and specify Fix Category IBM.ProductInstall-RequiredService to investigate missing recommended service.

If you bypass HOLDS during the installation of the FMIDs because fixing PTFs are not yet available, you can be notified when the fixing PTFs are available by using the APAR Status Tracking (AST) function of ServiceLink or the APAR Tracking function of ResourceLink.

After you take actions that are indicated by the APPLY CHECK, remove the CHECK operand and run the job again to perform the APPLY.

Note: The GROUPEXTEND operand indicates that SMP/E applies 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 0 if this job runs correctly.

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

6.1.9 Perform SMP/E ACCEPT

Edit and submit sample job DSN5ACEP to perform an SMP/E ACCEPT CHECK for DB2 Accessories Suite. Consult the instructions in the sample job for more information.

To receive the full benefit of the SMP/E Causer SYSMOD Summary Report, do *not* bypass the PRE, ID, REQ, and IFREQ on the ACCEPT CHECK. The SMP/E root cause analysis identifies the cause of only *errors* but not *warnings* (SMP/E treats bypassed PRE, ID, REQ, and IFREQ conditions as warnings rather than errors).

Before you use SMP/E to load new distribution libraries, it is recommended that you set the ACCJCLIN indicator in the distribution zone. In this way, you can save the entries that are produced from JCLIN in the distribution zone whenever a SYSMOD that contains inline JCLIN is accepted. For more information about the ACCJCLIN indicator, see the description of inline JCLIN in the SMP/E Commands book for details.

After you take actions that are indicated by the ACCEPT CHECK, remove the CHECK operand and run the job again to perform the ACCEPT.

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

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

If PTFs that contain replacement modules are accepted, SMP/E ACCEPT processing will link-edit or bind the modules into the distribution libraries. During this processing, the Linkage Editor or Binder might issue messages that indicate unresolved external references, which will result in a return code of 4 during the ACCEPT phase. You can ignore these messages, because the distribution libraries are not executable and the unresolved external references do not affect the executable system libraries.

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

6.1.10 Run REPORT CROSSZONE

The SMP/E REPORT CROSSZONE command identifies requisites for products that are installed in separate zones. This command also creates APPLY and ACCEPT commands in the SMPPUNCH data set. You can use the APPLY and ACCEPT commands to install those cross-zone requisites that the SMP/E REPORT CROSSZONE command identifies.

After you install DB2 Accessories Suite, 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 that describe all the target and distribution libraries to be reported on.

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

6.1.11 Cleaning Up Obsolete Data Sets, Paths, and DDDEFs

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

- usr/lpp/osc/IBM

6.2 Activating DB2 Accessories Suite

ICU is fully operational after the SMP/E installation is complete. You do not have to do further customizations to activate this function.

Spacial support can be enabled by customizing and executing the following jobs located in target library SDSNSAMP:

- DSNTIJCL
- DSN5SENB
- DSN5SBND

7.0 Notices

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APAR numbers are provided in this document to assist in locating PTFs that may be required. Ongoing problem reporting may result in additional APARs being created. Therefore, the APAR lists in this document may not be complete. To obtain current service recommendations and to identify current product service requirements, always contact the IBM Customer Support Center or use S/390 SoftwareXcel to obtain the current "PSP Bucket".

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Program Directory for DB2 Accessories Suite V9, June 2012

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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
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