Program Directory for

Information Management System

(IMS)

Transaction and Database Servers

V11.01.00

Program Number 5635-A02

FMID HMK1100

for Use with
z/OS V01.10.00 or later

Service Updated 25 February 2011

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GI10-8788-02

Note

Before using this information and the product it supports, be sure to read the general information under 7.0, “Notices” on page 41.

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Figures

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 IMS Transaction and Database Servers. This publication refers to IMS Transaction and Database Servers as IMS V11.01.00.

The Program Directory contains the following sections:

- 2.0, “Program Materials” on page 4 identifies the basic and optional program materials and documentation for IMS V11.01.00.
- 3.0, “Program Support” on page 12 describes the IBM support available for IMS V11.01.00.
- 4.0, “Program and Service Level Information” on page 14 lists the APARs (program level) and PTFs (service level) that have been incorporated into IMS V11.01.00.
- 5.0, “Installation Requirements and Considerations” on page 15 identifies the resources and considerations that are required for installing and using IMS V11.01.00.
- 6.0, “Installation Instructions” on page 29 provides detailed installation instructions for IMS V11.01.00. It also describes the procedures for activating the functions of IMS V11.01.00, or refers to appropriate publications.

Before installing IMS V11.01.00, 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 12 tells you how to find any updates to the information and procedures in this Program Directory.

IMS V11.01.00 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 that is provided with your order. All service and HOLDDATA for IMS V11.01.00 are included on the CBPDO tape.

Do not use this program directory if you install IMS V11.01.00 with a SystemPac or ServerPac. When you use these offerings, use the jobs and documentation supplied with the offering. This program directory can point you to specific sections of it as required.

1.1 IMS V11.01.00 Description

IBM's Information Management System (IMS) helps you with on-demand business enablement, growth, availability, and systems management that the newer environments and cost measures require. The enhancements in IMS Database Manager (IMS DB) and IMS Transaction Manager (IMS TM) with V11 help you:

- Transform the way you do business with integrated information

- Build on demand business applications that tolerate the rigors of doing business on the Internet
- Run a scalable, available, safe, and easily-managed environment
- Leverage your information to make more informed decisions

IMS V11.01.00 helps in addressing your on demand business needs through integration, openness, autonomic computing, and virtualization, providing:

- **INTEGRATION** with other products and platforms across the Internet, supporting open standards that benefit you, and taking best advantage of the latest industry tooling for application development and connectivity.
- **MANAGEABILITY** in staging users to autonomic computing, easing installation and use, eliminating/reducing outages, and minimizing the education curve for users of IMS.
- **SCALABILITY** with virtualization in assuring flexibility for growth and expansion in a heterogeneous environment while utilizing the latest hardware and software facilities to optimize performance, capacity, availability, and recovery.

To learn more about IMS products, visit the Web at: www.ibm.com/ims

1.2 IMS V11.01.00 FMIDs

IMS V11.01.00 consists of the following FMIDs:

HMK1100 (System Services)
JMK1101 (Database Manager)
JMK1102 (Transaction Manager)
JMK1103 (Extended Terminal Option)
JMK1104 (Recovery Level Tracking)
JMK1105 (DB Level Tracking)
JMK1106 (IMS Java On Demand features)
HIR2220 (IRLM V2 R2)

Figure 1 (Page 1 of 2). FMIDs for IMS V11.01.00

FMID and Description	DB Batch	DBCTL	DB/DC	DB/DC w/ XRF [1]	DCCTL
HMK1100[2] (System Services)	R	R	R	R	R
JMK1101 (Database Manager)	R	R	R	R	N
JMK1102 (Transaction Manager)	N	N	R	R	R

Figure 1 (Page 2 of 2). FMIDs for IMS V11.01.00

FMID and Description	DB Batch	DBCTL	DB/DC	DB/DC w/ XRF [1]	DCCTL
JMK1103 (Extended Terminal Option)	N	N	O	O	O
JMK1104 (RSR Recovery-Level Tracking)	O	O	O	O	O
JMK1105 (RSR Database-Level Tracking)	O	O	O	O	O
JMK1106 (IMS V11.01.00 Java On Demand features)	N	O	O	O	O
HIR2220 (IRLM V2 R2) with APAR PK05044 or later	O	O	O	O	N

Where:

R FMID installation is required.

O FMID installation is optional.

N The FMID is not applicable to this environment.

Notes:

1. The DB/DC w/XRF column refers to DB/DC with XRF. Although DCCTL w/XRF is a supported combination, it is not included as an IVP option.
2. FMID installation is required even if the primary function provided by this FMID is not used.

NOTE!

IMS TM Resource Adapter (formally known as the IMS Connector for Java) is a component of IMS Java On Demand features, FMID JMK1106.

IMS Connect is in system services component HMK1100.

2.0 Program Materials

An IBM program is identified by a program number. The program number for IMS V11.01.00 is 5635-A02.

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 IMS V11.01.00. 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. This program is in SMP/E RELFILE format and is installed by using SMP/E. See 6.0, “Installation Instructions” on page 29 for more information about how to install the program.

You can find information about the physical tape for the basic machine-readable materials for IMS V11.01.00 in the *CBPDO Memo To Users Extension*.

The following figures describe the file contents for IMS V11.01.00:

- Figure 2 on page 4
- Figure 3 on page 5
- Figure 4 on page 6
- Figure 5 on page 6
- Figure 6 on page 6
- Figure 7 on page 7
- Figure 8 on page 7
- Figure 9 on page 7

You can refer to the *CBPDO Memo To Users Extension* to see where the files reside on the tape.

Notes:

1. The data set attributes in this table must be used in the JCL of jobs that read the data sets. However, because the data sets are in IEBCOPY unloaded format, their actual attributes might be different.
2. If any RELFILEs are identified as PDSEs (such as IBM.JMK1106.F4 that is listed in Figure 8 on page 7), ensure that SMPTLIB data sets are allocated as PDSEs.

Figure 2. Program File Content for HMK1100 - IMS V11 System Services

Name	ORG	RECFM	LRECL	BLK SIZE
SMPMCS	SEQ	FB	80	6400
IBM.HMK1100.F1	PDS	FB	80	8800
IBM.HMK1100.F2	PDS	FB	80	8800
IBM.HMK1100.F3	PDS	FB	80	8800
IBM.HMK1100.F4	PDS	FB	80	8800
IBM.HMK1100.F5	PDS	FB	80	8800
IBM.HMK1100.F6	PDS	FB	80	8800
IBM.HMK1100.F7	PDS	FB	80	8800
IBM.HMK1100.F8	PDS	FB	80	8800
IBM.HMK1100.F9	PDS	FB	80	8800
IBM.HMK1100.F10	PDS	U	0	6144
IBM.HMK1100.F11	PDS	FB	80	8800
IBM.HMK1100.F12	PDS	FB	80	8800
IBM.HMK1100.F13	PDS	FB	80	8800
IBM.HMK1100.F14	PDS	FB	80	8800
IBM.HMK1100.F15	PDS	FB	80	8800

Figure 3. Program File Content for JMK1101 - IMS V11 Database Manager

Name	ORG	RECFM	LRECL	BLK SIZE
SMPMCS	SEQ	FB	80	6400
IBM.JMK1101.F1	PDS	FB	80	8800
IBM.JMK1101.F2	PDS	U	0	6144
IBM.JMK1101.F3	PDS	FB	80	8800
IBM.JMK1101.F4	PDS	FB	80	8800
IBM.JMK1101.F5	PDS	FB	80	8800

Figure 4. Program File Content for JMK1102 - IMS V11 Transaction Manager

Name	ORG	RECFM	LRECL	BLK SIZE
SMPMCS	SEQ	FB	80	6400
IBM.JMK1102.F1	PDS	FB	80	8800
IBM.JMK1102.F2	PDS	FB	80	8800
IBM.JMK1102.F3	PDS	U	0	6144
IBM.JMK1102.F4	PDS	FB	80	8800
IBM.JMK1102.F5	PDS	FB	80	8800

Figure 5. Program File Content for JMK1103 - IMS V11 Extended Terminal Option

Name	ORG	RECFM	LRECL	BLK SIZE
SMPMCS	SEQ	FB	80	6400
IBM.JMK1103.F1	PDS	FB	80	8800
IBM.JMK1103.F2	PDS	U	0	6144

Figure 6. Program File Content for JMK1104 - IMS V11 Recovery-Level Tracking

Name	ORG	RECFM	LRECL	BLK SIZE
SMPMCS	SEQ	FB	80	6400
IBM.JMK1104.F1	PDS	FB	80	8800
IBM.JMK1104.F2	PDS	U	0	6144

Figure 7. Program File Content for JMK1105 - IMS V11 DB-Level Tracking

Name	ORG	RECFM	LRECL	BLK SIZE
SMPMCS	SEQ	FB	80	6400
IBM.JMK1105.F1	PDS	FB	80	8800
IBM.JMK1105.F2	PDS	U	0	6144

Figure 8. Program File Content for JMK1106 - IMS V11 Java On Demand features

Name	ORG	RECFM	LRECL	BLK SIZE
SMPMCS	SEQ	FB	80	6400
IBM.JMK1106.F1	PDS	FB	80	8800
IBM.JMK1106.F2	PDS	VB	255	6160
IBM.JMK1106.F3	PDS	FB	80	8800
IBM.JMK1106.F4	PDSE	U	0	6144
IBM.JMK1106.F5	PDS	VB	255	6160
IBM.JMK1106.F6	PDS	VB	255	6160
IBM.JMK1106.F7	PDS	VB	255	6160
IBM.JMK1106.F8	PDS	VB	255	6160
IBM.JMK1106.F9	PDS	VB	255	6160

Figure 9. Program File Content for HIR2220 - IRLM 2.2

Name	ORG	RECFM	LRECL	BLK SIZE
SMPMCS	SEQ	FB	80	6400
IBM.HIR2220.F1	PDS	FB	80	8800
IBM.HIR2220.F2	PDS	U	0	6144
IBM.HIR2220.F3	PDS	FB	80	8800

2.2 Optional Machine-Readable Material

The distribution medium for this program is magnetic tape or downloadable files.

Figure 10 on page 8 describes the physical tape. Figure 11 on page 8 describes the file content.

Figure 10. Optional Material

Medium	Feature Number	Physical Volume	External Label	Unload Utility	VOLSER
3590 Cart	5812	1 of 2	OPTSRCS	VIEBCOPY	SVOPT1
3590 Cart	5812	2 of 2	OPTSRCS	VIEBCOPY	SVOPT2

Note: The file name is IBM.HMK1100.ADFSOPSC. It is in IEBCOPY unloaded PDS format and is not processed by SMP/E.

Figure 11. Optional Material File Content

Name	ORG	RECFM	LRECL	BLK SIZE	Number of Statements
IBM.HMK1100.ADFSOPSC	PDS	FB	80	8800	2008747

2.3 Program Publications

The following sections identify the basic and optional publications for IMS V11.01.00.

2.3.1 Basic Program Publications

Figure 12 identifies the basic unlicensed program publications for IMS V11.01.00. One copy of each of these publications is included when you order the basic materials for IMS V11.01.00. For additional copies, contact your IBM representative or go to the IMS Web site at www.ibm.com/ims and click on the “Library” link.

Figure 12 (Page 1 of 2). Basic Material: Unlicensed Publications

Publication Title	Form Number
IMS Version 11 Installation	GC19-2438
IMS Version 11 Licensed Programming Specifications	GC19-2439
Program Directory for Information Management System Transaction and Database Servers	GI10-7880

Figure 12 (Page 2 of 2). Basic Material: Unlicensed Publications	
Publication Title	**Form Number**
IMS Version 11 Release Planning	GC19-2442
IMS Version 11 System Definition	GC19-2444
IMS V11.01.00 Softcopy Library (CDROM)	SK5T-7375

All the publications for IMS V11.01.00 are unlicensed.

There are no the basic unlicensed or licensed publications that are not available in hardcopy format, but are available through the internet or other media for IMS V11.01.00.

2.3.2 Optional Program Publications

Figure 13 identifies the optional unlicensed program publications for IMS V11.01.00. To order copies of these publications, contact your IBM representative or go to the IMS Web site at www.ibm.com/ims and click on the “Library” link.

All of the documentation for IMS V10.01.00 can also be found in the Information Management Software for z/OS Solutions Information Center at: http://publib.boulder.ibm.com/infocenter/imzic

Figure 13 (Page 1 of 2). Optional Material: Unlicensed Publications	
Publication Title	**Form Number**
IMS Version 11 Application Programming	SC19-2428
IMS Version 11 Application Programming APIs	SC19-2429
IMS Version 11 Command Reference, Volume 1: IMS Commands A-M	SC19-2430
IMS Version 11 Command Reference, Volume 2: IMS Commands N-V	SC19-2431
IMS Version 11 Command Reference, Volume 3: IMS Component and z/OS Commands	SC19-2432
IMS Version 11 Communications and Connections	SC19-2433
IMS Version 11 Database Administration	SC19-2434
IMS Version 11 Database Utilities	SC19-2435
IMS Version 11 Diagnosis	GC19-2436
IMS Version 11 Exit Routines	SC19-2437
IMS Version 11 Fact Sheet	GC19-2451
IMS Version 11 Hardcopy and Softcopy Library	SBOF-0004
IMS Version 11 Installation	GC19-2438

Figure 13 (Page 2 of 2). Optional Material: Unlicensed Publications	
Publication Title	**Form Number**
IMS Version 11 Softcopy Library (CD-ROM)	SK5T-7375
IMS Version 11 Licensed Programming Specifications	GC19-2439
IMS Version 11 Master Index and Glossary	SC19-2440
IMS Version 11 Messages and Codes Reference, Volume 1: DFS Messages	GC18-9712
IMS Version 11 Messages and Codes Reference, Volume 2: Non-DFS Messages	GC18-9713
IMS Version 11 Messages and Codes Reference, Volume 3: IMS Abend Codes	GC18-9714
IMS Version 11 Messages and Codes Reference, Volume 4: IMS Component Codes	GC18-9715
IMS Version 11 Operations and Automation	SC19-2441
IMS Version 11 Release Planning	GC19-2442
IMS Version 11 System Administration	SC19-2443
IMS Version 11 System Definition	GC19-2444
IMS Version 11 System Programming APIs	SC19-2445
IMS Version 11 System Utilities	SC19-2446
IRLM Messages and Codes for IMS and DB2 for z/OS	GC19-2666

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. Customers without access to VPL can contact their IBM representative for available program listings.

2.5 Publications Useful During Installation

You might want to use the publications listed in Figure 14 during the installation of IMS V11.01.00. To order copies, contact your IBM representative or visit the IBM Publications Center at http://www.ibm.com/shop/publications/order.

Figure 14 (Page 1 of 2). Publications Useful During Installation	
Publication Title	**Form Number**
IBM SMP/E for z/OS User's Guide	SA22-7773
IBM SMP/E for z/OS Commands	SA22-7771
IBM SMP/E for z/OS Reference	SA22-7772

Figure 14 (Page 2 of 2). Publications Useful During Installation

Publication Title	Form Number
IBM SMP/E for z/OS Messages, Codes, and Diagnosis	GA22-7770

3.0 Program Support

This section describes the IBM support available for IMS V11.01.00.

3.1 Program Services

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

3.2 Preventive Service Planning

Before you install IMS V11.01.00, it is VERY IMPORTANT that you review the current Preventive Service Planning (PSP) information. The PSP Buckets maintain current lists (which have been identified since the package was created) of any recommended or required service for the installation of this package. This service includes software PSP information (see Figure 15) that contains HIPER and required PTFs against the base release.

If you obtained IMS V11.01.00 as part of a CBPDO, HOLDDATA is included.

If the CBPDO for IMS V11.01.00 is older than two weeks old by the time you install the product materials, you should contact the IBM Support Center or use S/390 SoftwareXcel to obtain the latest PSP Bucket information. You can also obtain the latest PSP Bucket information by going to the following Web site: https://techsupport.services.ibm.com/server/390.psp390

For program support, access the Software Support Web site at http://www.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 IMS V11.01.00 are shown as follows:

Figure 15. PSP Upgrade and Subset ID

UPGRADE	SUBSET	Description
IMS1100	HMK1100/1109	IMS V11.01.00 System Services
IMS1100	JMK1101/1109	IMS V11.01.00 Database Manager
IMS1100	JMK1102/1109	IMS V11.01.00 Transaction Manager
IMS1100	JMK1103/1109	IMS V11.01.00 Extended Terminal Option
IMS1100	JMK1104/1109	IMS V11.01.00 Recovery Level Tracking
IMS1100	JMK1105/1109	IMS V11.01.00 DB Level Tracking
IMS1100	JMK1106/1109	IMS V11.01.00 Java On Demand features
IMS1100	HIR2220/1020	Internal Resource Lock Manager (IRLM) V2.2

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 16 on page 13 identifies the component IDs (COMPID) for IMS V11.01.00.

Figure 16. Component IDs

FMID	COMPID	Component Name	RETAIN Release
HMK1100	5635A0200	System Services	100
JMK1101	5635A0200	Database Manager	101
JMK1102	5635A0200	Transaction Manager	102
JMK1103	5635A0200	Extended Terminal Option	103
JMK1104	5635A0200	Recovery Level Tracking	104
JMK1105	5635A0200	DB Level Tracking	105
JMK1106	5635A0200	IMS Java On Demand features	106
HIR2220	569516401	Internal Resource Lock Manager V02.02.00	220

4.0 Program and Service Level Information

This section identifies the program and relevant service levels of IMS V11.01.00. 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

Please refer to the PSP Facility for IMS V11.01.00 APAR information.

4.2 Service Level Information

PTFs containing APAR fixes against this release of IMS V11.01.00 have been incorporated into this product tape. For a list of included PTFs, examine the ++VER statement in the product's SMPMCS.

It is highly recommended that you frequently check the IMS V11.01.00 PSP Bucket for HIPER and SPECIAL Attention PTFs against all FMIDs that you must install.

5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating IMS V11.01.00. The following terminology is used:

- *Driving system*: the system used to install the program; where SMP/E executes.

  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 udpates, 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 access these impacts without disrupting your production system.

5.1 Driving System Requirements

This section describes the environment of the driving system that is required to install IMS V11.01.00.

5.1.1 Machine Requirements

Although the driving system can run in any hardware environment that supports the required software, IMS V11.01.00 must be run on a z/Series machine running in z/Architecture mode.

5.1.2 Programming Requirements

Figure 17. Driving System Software Requirements

Program Number	Product Name	Minimum VRM	Minimum Service Level will satisfy these APARs	Included in this product's shipment?
Any **one** of the following:				
5694-A01	z/OS	V01.10.00 or higher, as long as these versions remain available and supported by IBM	N/A	No
5655-G44	IBM SMP/E for z/OS	V03.05.00 or higher	N/A	No

Note: Installation may 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 that is required to install and use IMS V11.01.00.

IMS V11.01.00 installs in the DBS (P115) SREL.

5.2.1 Machine Requirements

Although the target system can run in any hardware environment that supports the required software, IMS V11.01.00 must be run on a z/Series machine running in z/Architecture mode.

Restriction: IMS does not support VSAM Extended Addressability (EA).

5.2.2 Programming Requirements

5.2.2.1 Installation Requisites

Installation requisites identify products that are required by and *must* be present on the system or products that are not required by 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.

IMS V11.01.00 has no mandatory installation requisites.

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.

IMS provides two generations of Java drivers and resource adapters: the IMS Universal drivers, which is the most recent generation (delivered with IMS V11.01.00), and the drivers and resource adapters provided by the classic Java APIs for IMS (delivered with IMS V10.01.00 and earlier, but are also delivered with and supported in IMS V11.01.00).

Recommendation: Because the IMS Universal drivers are built on industry standards and open specifications, and provide more flexibility and improved support for connectivity, data access methods, and transaction processing options, use these drivers for Java applications that access IMS.

IMS V11.01.00 has no conditional installation requisites.

5.2.2.2 Operational Requisites

Operational requisites are products that are required by and *must* be present on the system or products that are not required by 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 18. Target System Mandatory Operational Requisites

Program Number	Product Name and Minimum VRM/Service Level
5694-A01	z/OS V01.10.00 or higher, as long as these versions remain available and supported by IBM
5696-234	High Level Assembler Toolkit V01.05.00 or higher, a separately orderable feature of z/OS V01.10.00 or higher

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.

Figure 19 (Page 1 of 7). Target System Conditional Operational Requisites

Program Number	Product Name and Minimum VRM/Service Level	Function
5635-A02	Internal Resource Locking Manager (IRLM) V2.2	To take advantage of IMS's data sharing function.
5694-A01	RACF or equivalent, if security is used. RACF is available with the IBM SecureWay Security Server for z/OS (a separately orderable feature of z/OS).	Security

Figure 19 (Page 2 of 7). Target System Conditional Operational Requisites

Program Number	Product Name and Minimum VRM/Service Level	Function
5724-T07	Rational Developer for System z V7.5	To take advantage of IMS Connect's XML Adapter support. For web services use with IMS SOAP Gateway, two limited usage licenses of Rational Developer for System z are provided for each license of IMS Version 11. For more information, see the *IMS Version 11 Release Planning*, GC19-2442.
5694-A01	DFSMS Transactional VSAM	To take advantage of parallel access to the DBRC RECON data set.
5694-A01	TCP/IC Version 1.4 or later	To use the Integrated IMS Connect function. For more information, see the *IMS Version 11 Release Planning*, GC19-2442.
The following are for IMS Universal driver support:		
5655-I56	IBM 31-bit SDK for z/OS, Java 2 Technology Edition, Version 5, or later, or Sun Java SE Development Kit (JDK) Version 5 or later	Support for Java application programs that run in a standalone Java Standard Edtion (SE) runtime using the IMS Universal JDBC driver or the IMS Universal DL/I driver.
5625-DB2 or 5697-N29	DB2 UDB for z/OS, V08.01.00 or V8 Value Unit Edition with APAR PQ74629 and the DB2 SQLJ/JDBC driver	Access to IMS DB using the IMS Universal JDBC driver or the IMS Universal DL/I driver for DB2 UDB for z/OS stored procedures.
5635-DB2 or 5635-P12	DB2 for z/OS, V09.01.00 or V9 Value Unit Edition	Access to IMS DB using the IMS Universal JDBC driver or the IMS Universal DL/I driver for DB2 for z/OS stored procedures.
5605-DB2 or 5635-P31	DB2 for z/OS, V10.01.00 or V10 Value Unit Edition	Access to IMS DB using the IMS Universal JDBC driver or the IMS Universal DL/I driver for DB2 for z/OS stored procedures.
5697-E93	CICS Transaction Server for z/OS V3.1 or later	Access to IMS DB using the IMS Universal JDBC driver or the IMS Universal DL/I driver for CICS V3.1 or later.
5655-S97	CICS Transaction Server for z/OS V4.1 or later	Access to IMS DB using the IMS Universal JDBC driver or the IMS Universal DL/I driver for CICS V4.1 or later.
5655-S71	IBM Enterprise COBOL for z/OS V04.01.00 or later	Java-COBOL interoperation.
5655-I35	IBM WebShpere Application Server for z/OS V6.1.04 or later	IMS Universal DB resource adapter runtime for access to IMS databases from WebSphere-hosted application programs running on z/OS.

Figure 19 (Page 3 of 7). Target System Conditional Operational Requisites

Program Number	Product Name and Minimum VRM/Service Level	Function
5655-I35	IBM WebSphere Application Server for Distributed Platforms, V6.1 or later	IMS Universal JDBC driver runtime for access to IMS databases from WebSphere-hosted application programs running on distributed (non-z/OS) platforms.
5694-A01	z/OS UNIX System Services (USS) available at runtime	UNIX System Services is needed to access the USS file system on z/OS.
5694-A01	USS file system on z/OS	The Java class libraries, database metadata classes, and XML schemas that are used by IMS Universal drivers at runtime are stored in the USS file system.
The following are for IMS classic driver support:		
5625-DB2 or 5697-N29	DB2 UDB for z/OS, V08.01.00 or V8 Value Unit Edition with APAR PQ74629 and the DB2 SQLJ/JDBC driver	JDBC access to IMS DB for DB2 UDB for z/OS stored procedures.
5635-DB2 or 5635-P12	DB2 for z/OS, V09.01.00 or V9 Value Unit Edition	JDBC access to IMS DB for DB2 for z/OS.
5605-DB2 or 5635-P31	DB2 for z/OS, V10.01.00 or V10 Value Unit Edition	JDBC access to IMS DB for DB2 for z/OS stored procedures.
5655-M15	CICS Transaction Server for z/OS V3.1 or later	JDBC access to IMS DB for CICS V3.1 or later.
5655-S71	IBM Enterprise COBOL for z/OS V04.01.00	Java-COBOL interoperation.
5655-I35	IBM WebShpere Application Server for z/OS V6.1.04 or later	IMS DB Resource Adapter runtime WebSphere Application Server for z/OS.
5694-A01	z/OS UNIX System Services (USS) available at runtime	UNIX System Services is needed to access the USS file system on z/OS. row.
5694-A01	USS file system on z/OS	The classic Java APIs for IMS, database metadata classes, and XML schemas that are used by the IMS classic drivers at run time are stored in the USS file system.
The following are for IMS classic driver Java Remote Database Services:		
5655-I35	IBM WebSphere Application Server for Distributed Platforms, V6.1 or later	IMS DB Distributed Resource Adapter for remote database services.

Figure 19 (Page 4 of 7). Target System Conditional Operational Requisites

Program Number	Product Name and Minimum VRM/Service Level	Function
5694-A01	z/OS Resource Recovery Services (RRS)	RRS is used to coordinate 2-phase commit when applications are operating in the WebSphere, DB2 Stored Procedure, and CICS environments. RRS is used in Java dependent regions when applications are accessing a DB2 database.
The following is for Java dependent region support:		
5655-I98	IBM 31-bit SDK for z/OS, Java 2 Technology Edition, Version 6, or later, or Sun Java SE Development Kit (JDK) Version 6 or later	Support for Java application programs that run in JMP and JBP regions using the JDR resource adapter.
5655-T60	IMS Enterprise Suite JMS API	To issue a synchronous callout request from JBP or JMP address spaces. For information about the IMS Enterprise Suite, see the IMS SOA Integration Suite Web site at www.ibm.com/software/data/ims/toolkit/
The following is for IMS TM Resource Adapter support:		
5655-I35	IBM WebShpere Application Server for z/OS V6.1.04 or later	IMS TM Resource Adapter runtime support for WebSphere Application Server for z/OS.
Any of the following is for CICS subsystems support:		
5655-M15	CICS Transaction Server for z/OS V3.1 or later	IMS DB connection to CICS Transaction Server V3.1 or later using the IMS Database Resource Adapter (DRA). If you are going to use the DRA enhancement, introduced in IMS Version 10, that allows IMS to allocate the PCB list that the DRA passes to applications in 31-bit addressable storage, you must apply APAR PK54100/UK30299/UK30300.
5655-S97	CICS Transaction Server for z/OS V4.1 or later	IMS DB connection to CICS Transaction Server V4.1 or later using the IMS Database Resource Adapter (DRA).
Any of the following is for DB2 Subsystem support:		
5625-DB2 or 5697-N29	DB2 UDB for z/OS, V08.01.00 or V8 Value Unit Edition	IMS V11.01.00 TM connection to DB2 using subsystem routine communication.
5635-DB2 or 5635-P12	DB2 for z/OS, V09.01.00 or V9 Value Unit Edition	IMS V11.01.00 TM connection to DB2 using subsystem routine communication.

Figure 19 (Page 5 of 7). Target System Conditional Operational Requisites

Program Number	Product Name and Minimum VRM/Service Level	Function
5605-DB2 or 5635-P31	DB2 for z/OS, V10.01.00 or V10 Value Unit Edition	IMS V11.01.00 TM connection to DB2 using subsystem routine communication.
Any of the following is for Intersystem support:		
5635-A02	IMS V11.01.00	IMS V11.01.00 TM connected to another IMS V11.01.00 using ISC.
5635-A01	IMS V10.01.00	IMS V11.01.00 TM connected to IMS V10.01.00 using ISC.
5655-J38	IMS V09.01.00	IMS V11.01.00 TM connected to an IMS V09.01.00 using ISC.
5655-M15	CICS Transaction Server for z/OS V3.1 or later	IMS V11.01.00 TM connected to CICS using ISC.
5655-S97	CICS Transaction Server for z/OS V4.1 or later	IMS V11.01.00 TM connected to CICS using ISC.
Any of the following is for Multiple System Coupling support:		
5635-A02	IMS V11.01.00	IMS V11.01.00 TM connected to another IMS V11.01.00 using MSC.
5635-A01	IMS V10.01.00	IMS V11.01.00 TM connected to IMS V10.01.00 using MSC.
5655-J38	IMS V09.01.00	IMS V11.01.00 TM connected to an IMS V09.01.00 using MSC.
The following is for IMS Control Center		
5635-A02	IMS V11.01.00	IMS Control Center with IMS V11.01.00.
Any of the following is for Administration Client, needed for IMS Control Center:		
5724-B55	DB2 Universal Database Personal Edition V08.01.00 or higher	IMS Control Center with IMS V11.01.00.
5724-B56	DB2 Connect Personal Edition V08.01.00 or higher	IMS Control Center with IMS V11.01.00.
5724-B62	DB2 Connect Unlimited Edition V08.01.00 or higher	IMS Control Center with IMS V11.01.00.
5724-D54	DB2 Connect Application Server Edition V08.01.00 or higher	IMS Control Center with IMS V11.01.00.
5724-B58	DB2 Personal Developer's Edition V08.01.00 or higher	IMS Control Center with IMS V11.01.00.
5765-F35	DB2 Universal Database Workgroup Server Edition V08.01.00 or higher	IMS Control Center with IMS V11.01.00.
5765-F43	DB2 Universal Database Workgroup Server - Unlimited Edition V08.01.00 or higher	IMS Control Center with IMS V11.01.00.

Figure 19 (Page 6 of 7). Target System Conditional Operational Requisites

Program Number	Product Name and Minimum VRM/Service Level	Function
5765-F41	DB2 Universal Database Enterprise Server Edition V08.01.00 or higher	IMS Control Center with IMS V11.01.00.
5765-F30	DB2 Connect Enterprise Edition V08.01.00 or higher	IMS Control Center with IMS V11.01.00.
5765-F34	DB2 Universal Developer's Edition V08.01.00 or higher	IMS Control Center with IMS V11.01.00.
Any of the following is for SPEs used for DBRC Migration/Coexistence:		
5635-A01	IMS V10.01.00 with SPE PK61583	DBRC coexistence SPE.
5855-J38	IMS V09.01.00 with SPE PK61582	DBRC coexistence SPE.
Any of the following is for Coexistence		
5655-J38	IMS V09.01.00 with SPE PK66020	For ODBA CIMS CONNECT capability and Open Database compatibility.
5635-A01	IMS V10.01.00 with SPE PK66022	For ODBA CIMS CONNECT capability and Open Database compatibility.
5655-J38	IMS V09.01.00 with SPEs PK23402 and PK32970	For global online change processing where multiple versions of IMS are in the same IMSplex.
5655-J38	IMS V09.01.00 with SPEs PK23402, PK27280, PK30189, and PK32970	For multiple versions of IMS in the same IMSplex.
5655-J38	IMS V09.01.00 with SPE PK30189	For systems management enhancements.
5655-J38	IMS V09.01.00 with SPE PK47172	For OTMA coexistence if all of the following conditions are true: • OTMA Shared Queues solution for CM1 or CM0 is being used • The Shared Queues front-end IMS is IMS V11.01.00 and the back-end IMS is IMS 09.01.00 • The back-end IMS is using ALT-PCB to generate asynchronous output for OTMA clients • OTMA clients, such as WebSphere MQ or IMS Connect, connect to the back-end IMS to retrieve the asynchronous output
One of the following is for IMS-DB2 Interoperability from a Java Dependent Region:		

Figure 19 (Page 7 of 7). Target System Conditional Operational Requisites

Program Number	Product Name and Minimum VRM/Service Level	Function
5625-DB2 or 5697-N29	DB2 UDB for z/OS, V08.01.00 or V8 Value Unit Edition with APAR PQ74629	IMS-DB2 Interoperability
5635-DB2 or 5635-P12	DB2 for z/OS, V09.01.00 or V9 Value Unit Edition	IMS-DB2 Interoperability
5605-DB2 or 5635-P31	DB2 for z/OS, V10.01.00 or V10 Value Unit Edition	IMS-DB2 Interoperability

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.

IMS V11.01.00 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.

IMS V11.01.00 has no negative requisites.

5.2.3 DASD Storage Requirements

IMS V11.01.00 libraries can reside on all supported DASD types.

Figure 20 lists the total space that is required for each type of library.

Figure 20. Total DASD Space Required by IMS V11.01.00

Library Type	Total Space Required in 3390 Trks
Target	7554 3390 tracks
Distribution	8784 3390 tracks
USS file system	85960 512-byte blocks

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 6.1.8, “Allocate SMP/E Target and Distribution Libraries” on page 33.
3. Abbreviations used for the file system path type are as follows.

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

   - These data sets must **NOT** be in the LPA.
   - These data sets can be in the LNKLST.
   - SDFSRESL, SDFSJLIB, and SDXRRESL require APF authorization.

7. **Restriction:** IMS does not support VSAM Extended Addressability (EA).

The following figures describe the target and distribution libraries and file system paths required to install IMS V11.01.00. The storage requirements of IMS V11.01.00 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. Storage Requirements for IMS V11.01.00 Target Libraries

Library DDNAME	Member Type	Target Volume	TYPE	ORG	RECFM	LRECL	No. of 3390 Trks	No. of DIR Blks
SDFSRESL	LMOD	Any	U	PDS	U	0	946	470
SDFSBASE	Sample	Any	U	PDS	FB	80	8	3
SDFSMAC	Macro	Any	U	PDS	FB	80	1750	140
SDFSCLST	Clist	Any	U	PDS	FB	80	21	3
SDFSEXEC	EXEC	Any	U	PDS	FB	80	125	10
SDFSRTRM	Text	Any	U	PDS	FB	80	147	63
SDFSMLIB	MSG	Any	U	PDS	FB	80	9	5
SDFSPLIB	Panel	Any	U	PDS	FB	80	354	110
SDFSSLIB	SKEL	Any	U	PDS	FB	80	139	32
SDFSTLIB	Table	Any	U	PDS	FB	80	12	4
SDFSSMPL	Sample	Any	U	PDS	FB	80	82	7
SDFSDATA	Data	Any	U	PDS	FB	80	21	3
SDFSSRC	Source	Any	U	PDS	FB	80	3788	149
SDFSISRC	Sample	Any	U	PDS	FB	80	83	13
SDFSJLIB	LMOD	Any	U	PDSE	U	0	18	-
SDFSJSID	Sample	Any	U	PDS	FB	80	3	3
SDXRRESL	LMOD	Any	U	PDS	U	0	42	4
SDXRSAMP	Sample	Any	U	PDS	FB	80	6	3

Figure 22. IMS V11.01.00 USS File System Paths

DDNAME	TYPE	Path Name
SDFSIC4J	N	/usr/lpp/ims/ims11/ico/IBM/
SDFSJHFS	N	/usr/lpp/ims/ims11/imsjava/IBM/
SDFSJRAR	N	/usr/lpp/ims/ims11/imsjava/rar/IBM/
SDFSJCIC	N	/usr/lpp/ims/ims11/imsjava/classic/cics/IBM/
SDFSJCPI	N	/usr/lpp/ims/ims11/imsjava/classic/IBM/
SDFSJTOL	N	/usr/lpp/ims/ims11/imsjava/classic/dlimodel/IBM/
SDFSJSAM	N	/usr/lpp/ims/ims11/imsjava/ivp/IBM/
SDFSJCPS	N	/usr/lpp/ims/ims11/imsjava/classic/ivp/IBM/
SDFSJHWS	N	/usr/lpp/ims/ims11/hws/IBM/
SDFSJIOG	N	/usr/lpp/ims/ims11/iog/IBM/

Figure 23 (Page 1 of 2). Storage Requirements for IMS V11.01.00 Distribution Libraries

Library DDNAME	TYPE	ORG	RECFM	LRECL	No. of 3390 Trks	No. of DIR Blks
ADFSLOAD	U	PDS	U	0	1285	973
ADFSBASE	U	PDS	FB	80	8	3
ADFSMAC	U	PDS	FB	80	1750	140
ADFSCLST	U	PDS	FB	80	21	3
ADFSEXEC	U	PDS	FB	80	125	10
ADFSIC4J	U	PDS	VB	255	395	3
ADFSRTRM	U	PDS	FB	80	147	63
ADFSMLIB	U	PDS	FB	80	9	5
ADFSPLIB	U	PDS	FB	80	354	110
ADFSSLIB	U	PDS	FB	80	139	32
ADFSTLIB	U	PDS	FB	80	12	4
ADFSSMPL	U	PDS	FB	80	82	7
ADFSDATA	U	PDS	FB	80	21	3
ADFSSRC	U	PDS	FB	80	3788	149

Figure 23 (Page 2 of 2). Storage Requirements for IMS V11.01.00 Distribution Libraries

Library DDNAME	TYPE	ORG	RECFM	LRECL	No. of 3390 Trks	No. of DIR Blks
ADFSISRC	U	PDS	FB	80	83	13
ADFSJCIC	U	PDS	VB	255	6	3
ADFSJHWS	U	PDS	VB	255	88	6
ADFSJHFS	U	PDS	VB	255	23	3
ADFSJJCL	U	PDS	FB	80	3	3
ADFSJLIB	U	PDSE	U	0	15	-
ADFSJRAR	U	PDS	VB	255	126	3
ADFSJTOL	U	PDS	VB	255	78	3
ADXRLOAD	U	PDS	U	0	76	65
ADXRSAMP	U	PDS	FB	80	6	3
ADFSJCPI	U	PDS	VB	255	68	3
ADFSJIOG	U	PDS	VB	255	64	6
ADFSJSAM	U	PDS	VB	255	6	3
ADFSJCPS	U	PDS	VB	255	6	3

The following figure lists data sets that are not used by SMP/E, but are required for IMS V11.01.00 to run.

Figure 24. Storage Requirements for IMS V11.01.00 Non-SMP/E Data Sets

Data Set Name	TYPE	ORG	RECFM	LRECL	No. of 3390 Trks	No. of DIR Blks
MODBLKS	U	PDS	U	0	407	280
OPTIONS	U	PDS	FB	80	3	2
INSTALIB	U	PDS	FB	80	121	190
INSTATBL	U	PDS	FB	80	119	60

5.3 FMIDs Deleted

Installing IMS V11.01.00 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 IMS V11.01.00 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, see the SMP/E manuals for instructions.

5.4 Special Considerations

IMS Connect and IMS TM Resource Adapter

Program numbers for previous releases of IMS Connect and IMS TM Resource Adapter (formally known as IMS Connector for Java) are 5655-K52 and 5655-E51.

When installing IMS V11.01.00, if IMS Connect and/or IMS Connector for Java (5655-K52 or 5655-E51) were already installed in the same CSI zone, they will be deleted.

After IMS V11.01.00 is installed, IMS Connect and/or IMS Connector for Java (5655-K52 or 5655-E51) will not be able to be installed in the same CSI zone where IMS V11.01.00 is installed.

The IMS TM Resource Adapter function has both a runtime component and a development component. The development component ships with WebSphere Studio Application Developer Integration Edition and with other IBM development environments that encapsulate WSADIE. The runtime component for z/OS is a component of the IMS Java On Demand features FMID and its installation is described in this program directory. The runtime component for the other supported environments (AIX, HP-UX, Linux, Linux for z/OS, Solaris, and Windows, which are all referred to as the distributed platforms) is shipped on the IMS TM Resource Adapter Web site as a downloadable installation archive file. To download the IMS TM Resource Adapter runtime component for distributed platforms, go to the IMS Web site at www.ibm.com/ims and link to the IMS TM Resource Adapter Web page for more information.

Before you install the IMS Java On Demand features FMID, you must prepare your USS file system environment. See the *IMS Version 11 Communications and Connections* for information about installing the IMS Java On Demand features.

To use IMS JDBC Connector remote database services to access IMS databases from applications that run on WebSphere Application Server on a non-z/OS platform, you must download IMS JDBC Connector files from the IMS JDBC Connector Web site. These files are required in addition to the files that are installed as part of the SMP/E installation of the IMS Java On Demand features FMID. To download the required IMS JDBC Connector files, go to the IMS Web site at www.ibm.com/ims and link to the IMS JDBC Connector Web page for more information.

6.0 Installation Instructions

This chapter describes the installation method and the step-by-step procedures to install and to activate the functions of IMS V11.01.00.

Please note the following:

- Read the PSP information at 3.2, “Preventive Service Planning” on page 12 before attempting to install IMS V11.01.00.
- If you want to install IMS V11.01.00 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. The installation and activation of IMS V11.01.00 consists of the following steps:
  1. The installation is accomplished by running the sample jobs that are shown in Figure 26 on page 30.
  2. 6.2, “Activating IMS V11.01.00” on page 40 refers to the instructions necessary to activate IMS V11.01.00.

6.1 Installing IMS V11.01.00

6.1.1 SMP/E Considerations for Installing IMS V11.01.00

Use the SMP/E RECEIVE, APPLY, and ACCEPT commands to install this release of IMS V11.01.00. The SMP/E dialogs can be used to accomplish the SMP/E installation steps.

6.1.2 SMP/E Options Subentry Values

The recommended values for certain SMP/E CSI subentries are shown in Figure 25. 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 25. SMP/E Options Subentry Values

Subentry	Value	Comment
DSSPACE	240,240,790	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

IMS V11.01.00 uses the CALLLIBS function provided in SMP/E to resolve external references during installation. When IMS V11.01.00 is installed, ensure that DDDEFs exist for the following libraries:

- SCEELKED
- SCEEMAC
- SCEESPC
- SCEECPP
- CSSLIB
- SDFSRESL
- SCEEBND2
- SCEELIB

Note: The preceding DDDEFs are used only to resolve the link-edit for IMS V11.01.00 using CALLLIBS and SIDE DECK processing. These data sets are not updated during the installation of IMS V11.01.00.

6.1.4 Sample Jobs

The following sample installation jobs are provided as part of the product to help you install IMS V11.01.00:

Figure 26. Sample Installation Jobs

Job Name	Job Type	Description	RELFILE
DFSALA	SMP/E	Sample job to allocate a new SMP/E CSI data set **(Optional)**	IBM.HMK1100.F2
DFSALB	SMP/E	Sample job to initialize CSI zones **(Optional)**	IBM.HMK1100.F2
DFSALLOC	ALLOCATE	Sample job to allocate target and distribution libraries	IBM.HMK1100.F2
DFSJSMKD	MKDIR	Sample job to invoke the supplied DFSJMKDR EXEC to allocate the USS file system paths for IMS Java On Demand features	IBM.HMK1100.F2
DFSDDEF1	DDDEF	Sample job to define SMP/E DDDEFs for IMS	IBM.HMK1100.F2
DFSDDEF2	DDDEF	Sample job to define SMP/E DDDEFs for IMS Java On Demand features	IBM.HMK1100.F2
DFSAPPLY	APPLY	Sample APPLY job	IBM.HMK1100.F2
DFSACCEP	ACCEPT	Sample ACCEPT job	IBM.HMK1100.F2

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 26 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.

The job below will not run without customization. Make one of the two commented DD statements (//TAPEIN DD or //FILEIN DD) in the sample job below active by uncommenting one DD statement and filling in the parameters as required.

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.HMK1100.F2,UNIT=tunit,
//*         VOL=SER=volser,LABEL=(X,SL),
//*         DISP=(OLD,KEEP)
//************************************************************
//* Make the //FILEIN DD statement below active for          *
//* downloaded DASD files.                                   *
//************************************************************
//*FILEIN   DD DSN=IBM.HMK1100.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,(20,10,10))
//SYSUT3   DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
//SYSIN    DD *
    COPY INDD=xxxxxx,OUTDD=OUT
/*
```

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

TAPEIN:

tunit is the unit value that matches the product tape.

volser is the volume serial that matches the product tape.

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.HMK1100.F2 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

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

6.1.5 Allocate SMP/E CSI (Optional)

If you are using an existing CSI, **do not** execute this job.

If you are allocating new SMP/E data sets for this installation, edit, and submit sample job DFSALA to allocate SMP/E CSI datasets for IMS V11.01.00.

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

6.1.6 Initialize CSI zones (Optional)

If you are using an existing CSI with its SMP/E zones already initialized, **do not** execute this job.

Note: If you do not run the optional jobs to set up your CSI, do the following:

- You must set the PEMAX value to its SMP/E default. If not, you might get error messages of GIM25901E during the/Allocate SMP/E processing for FMID HMK1100.
- You must set the ACCJCLIN indicator in the distribution zone prior to running the SMP/E ACCEPT processing. **GENERATE processing, as documented in the process described in informational APAR II13024, will not run properly without it.** 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.
- If you install the IMS Java On Demand features, your SMPLTS **MUST** be a PDSE.

  Note: If you have an existing SMPLTS which is not a PDSE, you will need to allocate a new PDSE and copy your existing SMPLTS into it. Then change your SMPLTS DDDEF entry to indicate the new PDSE data set.
- We also suggest that you create separate SMP/E UTILITY entries for both the binder (linkage editor) and assembler (ASMA90) because the system default might not be the best selection for maintaining IMS.

  These UTILITY entries should have the following characteristics:

  Binder - The highest acceptable return code from the binder for APPLY processing is 0 and for ACCEPT processing is 4. Separate SMP/E OPTIONS entries are needed to point to these different SMP/E UTILITY entries.

  Assembler - The assembler utility should contain the following entry:

  ```
  PARM(NOOBJECT,DECK,SIZE(MAX,ABOVE),FLAG(NOPUSH),COMPAT(NOCASE))
  ```

  Tip: IMS requires the NODBCS setting for assemblies. If the assembler is installed to use double-byte character set (DBCS) as the default, the NODBCS parameter must be specified in the SMP/E UTILITY entry.

Edit and submit sample job DFSALB to initialize SMP/E zones for IMS V11.01.00. 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 Perform SMP/E RECEIVE

If you have obtained IMS V11.01.00 as part of a CBPDO, use the RCVPDO job in the CBPDO RIMLIB data set to receive the IMS V11.01.00 FMIDs, service, and HOLDDATA that are included on the CBPDO tape. For more information, see the documentation that is included in the CBPDO.

6.1.8 Allocate SMP/E Target and Distribution Libraries

Edit and submit sample job DFSALLOC to allocate the SMP/E target and distribution libraries for IMS V11.01.00. 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.

6.1.9 Allocate File system Paths

Mount the file system data set of the target system on the driving system when you run the sample DFSJSMKD job because the job will create paths in the USS file system for the IMS Java On Demand features.

Before you run the sample job to create the paths in the USS file system, ensure that OMVS is active on the driving system, and that the file system of the target system is mounted to the driving system. If you install the IMS Java On Demand features into a zFS file system, zFS must be active on the driving system.

If you plan to install the IMS Java On Demand features into a new file system, create the mountpoint and mount the new file system to the driving system. For the IMS Java On Demand features, the recommended mountpoint is: /usr/lpp/ims/ims11.

Edit and submit sample job DFSJSMKD to allocate the file system for IMS V11.01.00. Consult the instructions in the sample job for more information.

If you create a new file system for this product, consider updating the BPXPRMxx PARMLIB member to mount the new file system at IPL time. This action can be helpful if an IPL occurs before the installation is completed.

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

6.1.10 Create DDDEF Entries

Edit and submit sample job DFSDDEF1 to create DDDEF entries for the SMP/E target and distribution libraries for IMS V11.01.00. 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.

6.1.11 Create DDDEF Entries for the IMS Java On Demand features

If you are installing the IMS Java On Demand features, edit and submit sample job DFSDDEF2 to create DDDEF entries for the SMP/E target and distribution libraries. 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.

6.1.12 Perform SMP/E APPLY

1. Ensure that you have the latest HOLDDATA; then edit and submit sample job DFSAPPLY to perform an SMP/E APPLY CHECK for IMS V11.01.00. Consult the instructions in the sample job for more information.

   HOLDDATA introduces ERROR HOLDs against FMIDs for HIPER APARs. Before the installation, ensure that you have the latest HOLDDATA, which is available through several different portals, including http://service.software.ibm.com/holdata/390holddata.html. Install the FMIDs regardless of the status of unresolved HIPERs. However, do not deploy the software until the unresolved HIPERs are analyzed to determine applicability.

   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. This is because 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 two methods to install FMIDs when ++HOLDs for HIPERs exist for the FMIDs that you install:

   a. To ensure that all recommended and critical service is installed with the FMIDs, if you have received the latest HOLDDATA, add the FIXCAT operand to the APPLY command as shown below.

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

      Some HIPER APARs might not have PTFs available yet. You have to analyze the symptom flags to determine if you want to bypass the specific ERROR HOLDs and continue the installation of the FMIDs.

This method requires more initial research, but can provide resolution for all HIPERs that have fixes 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 the HIPERs, you can add a BYPASS(HOLDCLASS(HIPER)) operand to the APPLY command. In this way, you can install FMIDs even though HIPER ERROR HOLDs against them still exist. Only the HIPER ERROR HOLDs are bypassed. After the FMIDs are installed, run the SMP/E REPORT ERRSYSMODS command to identify 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 have received the latest HOLDDATA, you can also choose to run REPORT MISSINGFIX for Fix Category IBM.ProductInstall-RequiredService to investigate missing recommended service.

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

2. 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 4 if this job runs correctly. The following messages can be ignored: GIM43401W, GIM44402W, and GIM61903W.

Note: All 'NOT SEL' messages in the ELEMENT SUMMARY REPORT are expected and can be ignored.

Expected Return Codes and Messages from APPLY: You will receive a return code of 4 if this job runs correctly. The following messages can be ignored: GIM43401W, GIM44402W, GIM61903W, and IEW2609W for DFSCLIB. IEW2454W can be ignored if it is in the SMPLTS processing.

Note: All 'NOT SEL' messages in the ELEMENT SUMMARY REPORT are expected and can be ignored.

If PTFs containing SYSTEM HOLDDATA are being applied, SMP/E APPLY processing will indicate the subject HOLDDATA is bypassed, resulting in a return code of 4 from the APPLY step. These messages do not affect the success of the APPLY step and can be ignored, however, you must take any action described by the HOLDDATA.

Note: The processing of applying IMS Java On Demand features, FMID JMK1106, will automatically invoke UNIX shell scripts (SHELLSCRs) that will issue commands as required.

6.1.13 Perform SMP/E ACCEPT

If you ever want to re-build the target environment from the distribution environment, using GENERATE processing, you MUST set the ACCJCLIN indicator in the Distribution Zone before running the ACCEPT (see 6.1.6, “Initialize CSI zones (Optional)” on page 32 for more information).

Edit and submit sample job DFSACCEP to perform an SMP/E ACCEPT CHECK for IMS V11.01.00. 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. This is because 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 manuals.

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:

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.

The following message can be ignored: GIM61903W.

Expected Return Codes and Messages from ACCEPT:

If no PTFs are being accepted and if this job runs correctly, you will receive a **return code of 0**. If PTFs are being accepted and if this job runs correctly, you will receive a **return code of 4**.

The following message can be ignored: GIM61903W.

6.1.14 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 IMS V11.01.00, 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.

6.1.15 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.

- ADFSJDC8
- ADFSJDOC
- ADFSJHF8
- ADFSJIVP
- ADFSJXQY
- AHWSBASE
- AHWSCLST
- AHWSLOAD
- AHWSMAC
- AHWSPLIB
- AHWSSMPL
- AHWSSRC
- AHWSTLIB
- AICOBIN
- AICOCCF
- AICOJ2C
- AICORDME
- AICOTXT
- IVSOURCE

- JCLLIB
- SDFSJDC8
- SDFSJHF8
- SDFSJHF9
- SDFSJJCL
- SDFSJLB9
- SHWSBASE
- SHWSCLST
- SHWSMAC
- SHWSPLIB
- SHWSRESL
- SHWSSMPL
- SHWSSRC
- SHWSTLIB

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

- /usr/lpp/imsico/
- /usr/lpp/IMSICO/
- /usr/lpp/ims/imsjava81/
- /usr/lpp/ims/imsjava91/IBM/
- /usr/lpp/ims/ico91/IBM/
- /usr/lpp/ims/imsjava91/samples/IBM/
- /usr/lpp/ims/imsjava91/cics/IBM/
- /usr/lpp/ims/imsjava91/lib/IBM/
- /usr/lpp/ims/imsjava91/dlimodel/IBM/
- /usr/lpp/ims/imsjava10/IBM/
- /usr/lpp/ims/imsjava10/samples/IBM/
- /usr/lpp/ims/imsjava10/cics/IBM/
- /usr/lpp/ims/imsjava10/dlimodel/IBM/
- /usr/lpp/ims/imsjava10/IBM/
- /usr/lpp/ims/ico101/IBM/

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

- ADFSJDC8
- ADFSJDOC
- ADFSJHF8
- ADFSJHF9
- ADFSJIVP
- ADFSJLB9
- AHWSBASE
- AHWSCLST
- AHWSLOAD
- AHWSMAC
- AHWSPLIB
- AHWSSMPL
- AHWSTLIB
- IVSOURCE
- JCLLIB
- PARMLIB
- SDFSJDC8
- SDFSJDOC
- SDFSJHF9
- SDFSJIVP
- SDFSJJCL
- SDFSJLB9
- SHWSBASE
- SHWSCLST
- SHWSMAC
- SHWSPLIB
- SHWSRESL
- SHWSSMPL
- SHWSTLIB

- SYSAMAC
- SYSAMOD
- SYSPUNCH

6.2 Activating IMS V11.01.00

6.2.1 File System Execution

If you mount the file system in which you have installed IMS V11.01.00 in read-only mode during execution, then you do not have to take further actions to activate IMS V11.01.00.

6.2.2 Running the IMS Installation Verification Program (IVP) Dialog

The IVP Dialog:

- Contains step-by-step procedures to complete the activation, customization, and testing for the sample IMS system.
- Is documented in *IMS Version 11 Installation*, GC19-2438.
- Should be used to complete and verify the implementation and testing of IMS V11.01.00.
- Is an excellent educational tool for learning how to install and customize IMS.

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   1        2        3        4         5            N
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Necessity of all installation tasks	1	2	3	4	5	N
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