

Program Directory for

IBM IMS Database Utility Solution for z/OS

V02.01.00

Program Number 5698-DUL

FMIDs HDFA210 and HIHC110

for Use with z/OS

Document Date: February 2021

GI13-4194-02

- Note -

Before using this information and the product it supports, be sure to read the general information under 7.0, "Notices" on page 30.

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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 IBM IMS Database Utility Solution for z/OS. This publication refers to IBM IMS Database Utility Solution for z/OS as IMS Database Utility Solution.

Additionally, this publication refers to:

- IBM IMS High Performance Unload for z/OS as IMS HP Unload
- IBM IMS High Performance Image Copy for z/OS as IMS HP Image Copy
- IBM IMS Index Builder for z/OS as IMS Index Builder
- IBM IMS High Performance Load for z/OS as IMS HP Load
- IBM IMS Database Reorganization Expert for z/OS as IMS DB Reorg Expert
- IBM IMS Library Integrity Utilities for z/OS as IMS Library Integrity Utilities
- IBM IMS High Performance Pointer Checker for z/OS as IMS HP Pointer Checker
- IMS High Availability Large database Toolkit as IMS HALDB Toolkit

The Program Directory contains the following sections:

- 2.0, "Program Materials" on page 4 identifies the basic program materials and documentation for IMS Database Utility Solution.
- 3.0, "Program Support" on page 8 describes the IBM support available for IMS Database Utility Solution.
- 4.0, "Program and Service Level Information" on page 10 lists the APARs (program level) and PTFs (service level) that have been incorporated into IMS Database Utility Solution.
- 5.0, "Installation Requirements and Considerations" on page 11 identifies the resources and considerations that are required for installing and using IMS Database Utility Solution.
- 6.0, "Installation Instructions" on page 21 provides detailed installation instructions for IMS Database Utility Solution. It also describes the procedures for activating the functions of IMS Database Utility Solution, or refers to appropriate publications.

Before installing IMS Database Utility Solution, 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; after which, keep the documents for your reference. Section 3.2, "Preventive Service Planning" on page 8 tells you how to find any updates to the information and procedures in this program directory.

IMS Database Utility Solution 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 IMS Database Utility Solution are included on the CBPDO tape.

Do not use this program directory if you install IMS Database Utility Solution 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 IMS Database Utility Solution Description

IBM IMS Database Utility Solution for z/OS, V2.1 integrates several IMS tools into a single solution, providing the utilities you need to help you manage your full function databases in an environment where databases can be taken offline when maintenance is needed. (IBM IMS Database Solution Pack for z/OS supports environments where 24x7 availability is required.) It also:

- Works with Autonomics Director (a component of the separately licensed IBM Tools Base for z/OS, V1.6 (5655-V93)) to assist DBAs in identifying and performing the normal functions associated with maintaining the health, performance, and recoverability of IMS databases.
- Extends the capabilities of IBM Management Console for IMS and Db2 for z/OS V1.1 (5655-TAC) by providing detailed insight into the health and availability of full function and HALDB databases through its more easily accessible web interface.
- Provides features for the "smart" reorganization of databases that can help improve system availability.

In addition to the six utilities included in prior releases, V2.1 of IMS Database Utility Solution includes:

- IMS High Performance Pointer Checker for z/OS
 - Helps you ensure IMS databases are operational, well tuned, and free of pointer errors. It monitors space utilization and detects and reports physical or logical direct pointer problems. IMS High Performance Pointer Checker includes IMS Database Repair Facility, a powerful tool to help you repair VSAM and OSAM organized IMS databases that contain pointer or data errors.
- IMS Library Integrity Utilities for z/OS
 - helps you validate, compare, map, recover, report, and regenerate many IMS libraries needed for operations. It ensures the ACB (Application Control Block), DBD (Database Description), PSB (Program Specification Block), and MFS (Message Format Service) libraries are consistent and have full integrity.

The previous utilities are listed below.

• IMS Database Reorganization Expert

- Delivers an integrated database reorganization infrastructure for operating the process in a fast and efficient manner. It runs tasks such as unload, load, index-building, and image copy concurrently.
- Enables advanced function for reorganizing databases on an as-needed basis. It includes the following new features for the conditional reorganization of databases:
 - Definition and configuration of reorganization policy for a database
 - Policy-based detection and notification of database exceptions
 - Policy-based conditional reorganization
 - Database exception tracking
- IMS High Performance Unload
- 2 IMS Database Utility Solution Program Directory

- Enables high-speed database unloading while providing additional capabilities not found in IMS base utilities.
- Includes an API that enables certain customer applications to take advantage of the high-speed read engine.
- IMS High Performance Load
 - Enables high-speed database loading while providing additional capabilities not found in IMS base utilities.
 - Includes an API that enables certain customer applications to take advantage of the high-speed initial load capability.
- IMS Index Builder
 - Offers an easier-to-use, one-step procedure for building all IMS indexes, avoiding the need to image copy.
- IMS High Performance Image Copy
 - Enables fast backup and recovery of database data sets using advanced copy technology.

1.2 IMS Database Utility Solution FMIDs

IMS Database Utility Solution consists of the following FMIDs:

- IBM IMS Database Utility Solution for z/OS: HDFA210 HIHC110
- IBM IMS High Performance Unload for z/OS: H1IN120
- IBM IMS High Performance Image Copy for z/OS: H1J0420
- IBM IMS Index Builder for z/OS: H22O310
- IBM IMS High Performance Load for z/OS: H1IM210
- IBM IMS Database Reorganization Expert for z/OS: H25N410
- IBM IMS Library Integrity Utilities for z/OS: H27P220
- IBM IMS High Performance Pointer Checker for z/OS: HPC2310 H22K310

2.0 Program Materials

An IBM program is identified by a program number. The program number for IMS Database Utility Solution is 5698-DUL.

Basic Machine-Readable Materials are materials that are supplied under the base license and are required for the use of the product.

The program announcement material describes the features supported by IMS Database Utility Solution. 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 21 for more information about how to install the program.

You can find information about the physical media for the basic machine-readable materials for IMS Database Utility Solution in the *CBPDO Memo To Users Extension*.

Figure 1 and Figure 2 on page 5 describe the program file content for IMS Database Utility Solution (HDFA210 and HIHC110). 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, ensure that SMPTLIB data sets are allocated as PDSEs.

Figure 1. Program File Content - IMS Database Utility Solution - HDFA210				
		R F	L R	
	Ο	c	E	
Namo	R	F	С	BLK
Name	9	IAI	L	SIZE
SMPMCS	SEQ	FB	80	6400
IBM.HDFA210.F1	PDS	FB	80	8800
IBM.HDFA210.F2	PDS	FB	80	8800
IBM.HDFA210.F3	PDS	U	0	6144
IBM.HDFA210.F4	PDS	FB	80	8800

Figure 2. Program File Content - IMS Database Utility Solution - HIHC110				
Name	O R G	R E C F M	L R E C L	BLK SIZE
SMPMCS	SEQ	FB	80	6400
IBM.HIHC110.F1	PDS	FB	80	8800
IBM.HIHC110.F2	PDS	FB	80	8800
IBM.HIHC110.F3	PDS	U	0	6144
IBM.HIHC110.F4	PDS	FB	80	8800
IBM.HIHC110.F5	PDS	FB	80	8800
IBM.HIHC110.F6	PDS	FB	80	8800
IBM.HIHC110.F7	PDS	FB	80	8800
IBM.HIHC110.F8	PDS	FB	80	8800

To view the Program File Content of the products that constitute IMS Database Utility Solution, refer to the following Program Directories that are supplied with the product.

- Publication number GI10-8270 for IMS HP Unload
- Publication number GI10-8671 for IMS HP Image Copy
- Publication number GI10-8571 for IMS Index Builder
- Publication number GI10-8589 for IMS HP Load
- Publication number GI10-8756 for IMS DB Reorg Expert
- Publication number GI10-8798 for IMS Library Integrity Utilities
- Publication number GI10-8783 for IMS HP Pointer Checker
- Publication number GI13-5920 for IMS HALDB Toolkit

2.2 Optional Machine-Readable Material

No optional machine-readable materials are provided for IMS Database Utility Solution.

2.3 Program Publications

The following sections identify the basic publications for IMS Database Utility Solution.

Figure 3 identifies the basic unlicensed publications for IMS Database Utility Solution. Those that are in softcopy format publications can be obtained from the IBM Publications Center website at: http://www.ibm.com/shop/publications/order/.

Figure 3. Basic Material: Unlicensed Publications				
Publication Title	Form Number	Media Format		
IBM IMS Database Utility Solution for z/OS License Information	LC27-8777	http://www.ibm.com/shop/publications/order/		
IBM IMS High Performance Unload for z/OS Program Directory	GI10-8270	http://www.ibm.com/shop/publications/order/		
IBM IMS High Performance Image Copy for z/OS Program Directory	GI10-8671	http://www.ibm.com/shop/publications/order/		
IBM IMS Index Builder for z/OS Program Directory	GI10-8571	http://www.ibm.com/shop/publications/order/		
IBM IMS High Performance Load for z/OS Program Directory	GI10-8589	http://www.ibm.com/shop/publications/order/		
IBM IMS Database Reorganization Expert for z/OS Program Directory	GI10-8756	http://www.ibm.com/shop/publications/order/		
IBM IMS Library Integrity Utilities for z/OS Program Directory	GI10-8798	http://www.ibm.com/shop/publications/order/		
IBM IMS High Performance Pointer Checker for z/OS Program Directory	GI10-8783	http://www.ibm.com/shop/publications/order/		
IBM IMS Database Utility Solution for z/OS Overview and Customization	SC27-8778	http://www.ibm.com/shop/publications/order/		
IBM IMS Database Utility Solution for z/OS IBM IMS High Availability Large Database Toolkit User's Guide	SC27-8779	http://www.ibm.com/shop/publications/order/		
IBM IMS Solution Packs: Database Sensor User's Guide	SC19-3283	http://www.ibm.com/shop/publications/order/		

To view the unlicensed publications of the products that constitute IMS Database Utility Solution, refer to the following Program Directories that are supplied with the product.

- Publication number GI10-8270 for IMS HP Unload
- Publication number GI10-8671 for IMS HP Image Copy
- Publication number GI10-8571 for IMS Index Builder
- Publication number GI10-8589 for IMS HP Load
- Publication number GI10-8756 for IMS DB Reorg Expert
- Publication number GI10-8798 for IMS Library Integrity Utilities
- Publication number GI10-8783 for IMS HP Pointer Checker

2.4 Program Source Materials

No program source materials or viewable program listings are provided for IMS Database Utility Solution.

2.5 Publications Useful During Installation

You might want to use the publications listed in Figure 4 on page 7 during the installation of IMS Database Utility Solution.

Figure 4. Publications Useful During Installation			
Publication Title	Form Number	Media Format	
IBM SMP/E for z/OS User's Guide	SA23-2277	http://www.ibm.com/shop/publications/order/	
IBM SMP/E for z/OS Commands	SA23-2275	http://www.ibm.com/shop/publications/order/	
IBM SMP/E for z/OS Reference	SA23-2276	http://www.ibm.com/shop/publications/order/	
IBM SMP/E for z/OS Messages, Codes, and Diagnosis	GA32-0883	http://www.ibm.com/shop/publications/order/	

3.0 Program Support

This section describes the IBM support available for IMS Database Utility Solution.

3.1 Program Services

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

3.2 Preventive Service Planning

The Preventive Service Planning (PSP) information for IMS Database Utility Solution (HDFA210 and HIHC110) is listed below.

To review the Preventive Service Planning (PSP) information for the products that constitute IMS Database Utility Solution, refer to the following Program Directories that are supplied with the product.

- Publication number GI10-8270 for IMS HP Unload
- Publication number GI10-8671 for IMS HP Image Copy
- Publication number GI10-8571 for IMS Index Builder
- Publication number GI10-8589 for IMS HP Load
- Publication number GI10-8756 for IMS DB Reorg Expert
- Publication number GI10-8798 for IMS Library Integrity Utilities
- Publication number GI10-8783 for IMS HP Pointer Checker

Before you install IMS Database Utility Solution, 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 6.1.10, "Perform SMP/E APPLY" on page 26 for a sample APPLY command.

If you obtained IMS Database Utility Solution as part of a CBPDO, HOLDDATA is included.

If the CBPDO for IMS Database Utility Solution 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://wwww.ibm.com/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 Database Utility Solution are included in Figure 5.

Figure 5. PSP	Figure 5. PSP Upgrade and Subset ID for IMS Database Utility Solution				
UPGRADE	SUBSET	Description			
5698DUL	HDFA210	IMS Database Utility Solution			
5655DBU	HIHC110	IMS HALDB Tool Kit			

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.

To identify the component IDs (COMPID) for the products that constitute IMS Database Utility Solution, refer to the following Program Directories that are supplied with the product.

- Publication number GI10-8270 for IMS HP Unload
- Publication number GI10-8671 for IMS HP Image Copy
- Publication number GI10-8571 for IMS Index Builder
- Publication number GI10-8589 for IMS HP Load
- Publication number GI10-8756 for IMS DB Reorg Expert
- Publication number GI10-8798 for IMS Library Integrity Utilities
- Publication number GI10-8783 for IMS HP Pointer Checker

Figure 6 identifies the component IDs (COMPID) for IMS Database Utility Solution (HDFA210 and HIHC110).

Figure 6. Component IDs for IMS Database Utility Solution				
FMID	COMPID	Component Name	RETAIN Release	
HDFA210	5655DBU00	IMS Database Utility Solution	210	
HIHC110	5655DBU01	IMS HALDB Tool Kit	110	

4.0 Program and Service Level Information

This section identifies the program and relevant service levels of IMS Database Utility Solution. 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

To view the list of APAR fixes against the previous releases of the products that constitute IMS Database Utility Solution, refer to the following Program Directories that are supplied with the product.

- Publication number GI10-8270 for IMS HP Unload
- Publication number GI10-8671 for IMS HP Image Copy
- Publication number GI10-8571 for IMS Index Builder
- Publication number GI10-8589 for IMS HP Load
- Publication number GI10-8756 for IMS DB Reorg Expert
- Publication number GI10-8798 for IMS Library Integrity Utilities
- Publication number GI10-8783 for IMS HP Pointer Checker

No APARs have been incorporated into IMS Database Utility Solution (HDFA210 and HIHC110).

4.2 Service Level Information

To view the list of PTFs against the previous releases of the products that constitute IMS Database Utility Solution, refer to the following Program Directories that are supplied with the product.

- Publication number GI10-8270 for IMS HP Unload
- Publication number GI10-8671 for IMS HP Image Copy
- Publication number GI10-8571 for IMS Index Builder
- Publication number GI10-8589 for IMS HP Load
- Publication number GI10-8756 for IMS DB Reorg Expert
- Publication number GI10-8798 for IMS Library Integrity Utilities
- Publication number GI10-8783 for IMS HP Pointer Checker

No PTFs against this release of IMS Database Utility Solution (HDFA210 and HIHC110) have been incorporated into the product package.

Frequently check the IMS Database Utility Solution 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-REQUIREDSERVICE)** 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 IMS Database Utility Solution. 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 IMS Database Utility Solution.

5.1.1 Machine Requirements

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

5.1.2 Programming Requirements

Figure 7. Drivir	Figure 7. Driving System Software Requirements				
Program Number	Product Name	Minimum VRM	Minimum Service Level will satisfy these APARs	Included in the shipped product?	
5650-ZOS	z/OS	V02.01.00	N/A	No	

Note: SMP/E is a requirement for installation and is an element of z/OS but can also be ordered as a separate product, 5655-G44, minimally V03.06.00.

Note: Installation might require migration to new z/OS releases to be service supported. See https://www-01.ibm.com/software/support/lifecycle/index_z.html.

5.2 Target System Requirements

This section describes the environment of the target system required to install and use IMS Database Utility Solution.

All of the products that constitute IMS Database Utility Solution, install 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.

IMS Database Utility Solution (HIHC110) has no mandatory installation requisites.

Figure 8. Targ	Figure 8. Target System Mandatory Installation Requisites for IMS Database Utility Solution (HDFA210)				
Program Number	Product Name	Minimum VRM	Minimum Service Level will satisfy these APARs	Included in the shipped product?	
5655-V93	IBM Tools Base for z/OS V01.06.00 or higher	01.06.00	N/A	No	
5655-S35	IBM IMS Database Reorganization Expert for z/OS	04.01.00	PI94832	Yes	

Note:

- 1. A subset of the FMIDs from 5655-S35 have been included in this shipment for your convenience. You may already have these FMIDs from the listed Product Number or from another product which ships these FMIDs.
- 2. 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.

IMS Database Utility Solution (HDFA210 and HIHC110) has no conditional installation requisites.

To review the Installation Requisites of the products that constitute IMS Database Utility Solution, refer to the following Program Directories that are supplied with the product.

- Publication number GI10-8270 for IMS HP Unload
- Publication number GI10-8671 for IMS HP Image Copy
- Publication number GI10-8571 for IMS Index Builder
- Publication number GI10-8589 for IMS HP Load
- Publication number GI10-8756 for IMS DB Reorg Expert
- Publication number GI10-8798 for IMS Library Integrity Utilities
- Publication number GI10-8783 for IMS HP Pointer Checker

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.

Mandatory operational requisites identify products that are required for this product to operate its basic functions.

Figure 9. Target S	Figure 9. Target System Mandatory Operational Requisites			
Program Number	Product Name and Minimum VRM/Service Level			
Any one of the follo	owing:			
5653-A04	IMS V13.01.00			
5655-DSM	IBM IMS Database Value Unit Edition V13.01.00			
5655-TM2	IBM IMS Transation Manager Value Unit Edition V13.01.00			
5653-A05	IMS V14.01.00			
5655-DSE	IBM IMS Database Value Unit Edition V14.01.00			
5655-TM3	IBM IMS Transation Manager Value Unit Edition V14.01.00			
5653-A06	IMS V15.01.00			
5655-DS5	IBM IMS Database Value Unit Edition V15.01.00			
5655-TM4	IBM IMS Transation Manager Value Unit Edition V15.01.00			

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 10. Target System Conditional Operational Requisites - IMS Database Utility Solution (HDFA210 and HIHC110)				
Program Number	Product Name and Minimum VRM/Service Level	Function		
5650-ZOS	z/OS V02.01.00 or higher	ISPF panel interface required for IMS HALDB ToolKit		
5650-ZOS	z/OS V02.01.00 or higher	DFSORT for use with MAINTAIN or CONVERT processing		

To review the Operational Requisites of the products that constitute IMS Database Utility Solution, refer to the following Program Directories that are supplied with the product.

- Publication number GI10-8270 for IMS HP Unload
- Publication number GI10-8671 for IMS HP Image Copy
- Publication number GI10-8571 for IMS Index Builder
- Publication number GI10-8589 for IMS HP Load
- Publication number GI10-8756 for IMS DB Reorg Expert
- Publication number GI10-8798 for IMS Library Integrity Utilities
- Publication number GI10-8783 for IMS HP Pointer Checker

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 Database Utility Solution 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 Database Utility Solution has no negative requisites.

5.2.3 DASD Storage Requirements

IMS Database Utility Solution libraries can reside on all supported DASD types.

To review the individual DASD Storage Requirements of each of the products that constitute IMS Database Utility Solution, refer to the Program Directories that are supplied with the product.

Note: -

See 5.4, "Special Considerations" on page 19 for more information on shared data set space allocations.

- Publication number GI10-8270 for IMS HP Unload
- Publication number GI10-8671 for IMS HP Image Copy
- Publication number GI10-8571 for IMS Index Builder
- Publication number GI10-8589 for IMS HP Load
- Publication number GI10-8756 for IMS DB Reorg Expert
- Publication number GI10-8798 for IMS Library Integrity Utilities
- Publication number GI10-8783 for IMS HP Pointer Checker

Figure 11 lists the total space that is required for each type of library, for IMS Database Utility Solution (HDFA210 and HIHC110).

Figure 11 (Page 1 of 2). Total DASD Space Required by IMS Database Utility Solution (HDFA210 and HIHC110)					
Total Space Required Library Type in 3390 Trks					
Target	907	HDFA210			

Figure 11 (Page 2 of 2). Total DASD Spac HIHC110)	ce Required by IMS Datab	ase Utility Solution (HDFA210 and
Library Type	Total Space Required in 3390 Trks	
	605	HIHC110
Distribution	907	HDFA210
	605	HIHC110

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 25.

- 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, with some exceptions. If the value in the "ORG" column specifies "PDS", the data set must be a PDS. If the value in "DIR Blks" column specifies "N/A", the data set must be 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.
- SHPSLMD0 and SIHCLOAD are required to be APF-authorized.

The following figures describe the target and distribution libraries and file system paths required to install IMS Database Utility Solution (HDFA210 and HIHC110). The storage requirements of IMS Database Utility Solution 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 IMS Database Utility Solution (HDFA210) 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
SDFABASE	SAMP	any	U	PDS	FB	80	5	5
SHPSLMD0 *	MOD	any	S	PDS	U	0	900	200
SHPSSAMP *	SAMP	any	S	PDS	FB	80	5	5

Note: * - these datasets may already have been allocated by another product, they are included but commented out in case you need to allocate them.

Figure 13 (Page 1 of 2). Storage Requirements for IMS Database Utility Solution (HIHC110) Target Libraries								
Library	Member	Target	T Y P	O R	R E C F	L R E C	No. of 3390	No. of DIR
DDNAME	Туре	volume	E	G	IVI	L	Irks	BIKS
SIHCBASE	SAMP	any	U	PDS	FB	80	5	5
SIHCLOAD	MOD	any	U	PDS	U	0	450	100
SIHCMACS	MAC	any	U	PDS	FB	80	15	15
SIHCMESG	MSG	any	U	PDS	FB	80	15	15

Figure 13 (Page 2 of 2). Storage Requirements for IMS Database Utility Solution (HIHC110) Target Libraries								
			T Y	0	R E C	L R F	No.	No.
Library DDNAME	Member Type	Target Volume	P E	R G	F M	C L	3390 Trks	DIR Biks
SIHCPANL	PNL	any	U	PDS	FB	80	75	80
SIHCSAMP	SAMP	any	U	PDS	FB	80	15	15
SIHCSKEL	SKL	any	U	PDS	FB	80	30	30

Figure 14. Storage Requirements for IMS Database Utility Solution (HDFA210) Distribution Libraries						
Library DDNAME	T Y P E	O R G	R E C F	L R E C L	No. of 3390 Trks	No. of DIR BIks
ADFABASE	U	PDS	FB	80	5	5
AHPSMOD0 *	S	PDS	U	0	900	200
AHPSSAMP *	S	PDS	FB	80	5	5
Note: * - these datasets may already have been allocated by another product, they are included but commented						

out in case you need to allocate them.

Figure 15. Storage Requirements for IMS Database Utili	y Solut	ion (HIHC1	10) Distribu	ution Librar	ies	
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
AIHCBASE	U	PDS	FB	80	5	5
AIHCLOAD	U	PDS	U	0	450	100
AIHCMACS	U	PDS	FB	80	15	15
AIHCMESG	U	PDS	FB	80	15	15
AIHCPANL	U	PDS	FB	80	75	80
AIHCSAMP	U	PDS	FB	80	15	15
AIHCSKEL	U	PDS	FB	80	30	30

5.3 FMIDs Deleted

Installing IMS Database Utility Solution 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 Database Utility Solution 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

IMS Database Utility Solution has has an SMP/E installation dependency on 5655-V93 IBM Tools Base for z/OS at a V1.6.0 or higher level. Tools Base for z/OS provides FMID HAHN160 which deletes and superceeds FMID H32A130 that is an SMP/E req specified in FMID H22O310 provided in IMS Database Utility Solution. Since FMID H32A130 is not shipped in IMS Database Utility Solution it is important to order and install 5655-V93 IBM Tools Base for z/OS prior to or concurrent with IMS Database Utility Solution.

DASD Storage Requirements Considerations:

Multiple products, that constitute IMS Database Utility Solution, share the same target and distribution libraries. The individual program directories specify the amount of space required for each individual product.

If you intend to install all of the products that constitute IMS Database Utility Solution, into the same CSI zone, the space allocations for these data sets will not be sufficient, and you will need to increase the sizes of these data sets. The individual documented sizes must be added up, and the data set allocations must be adjusted accordingly.

You are only required to allocate these data sets once.

The following contains the list of affected Target and Distribution data set names:

- SHPSBASE
- SHPSJCL0
- SHPSMAC0
- SHPSLMD0
- SHPSSAMP
- AHPSBASE
- AHPSJCL0
- AHPSMAC0
- AHPSMOD0
- AHPSSAMP

If you already have standalone installations of any of the products that are contained in IMS Database Utility Solution, you do not have to install and customize those products again.

To view the individual Special Considerations of the products that constitute IMS Database Utility Solution, refer to the following Program Directories that are supplied with the product.

- Publication number GI10-8270 for IMS HP Unload
- Publication number GI10-8671 for IMS HP Image Copy
- Publication number GI10-8571 for IMS Index Builder
- Publication number GI10-8589 for IMS HP Load
- Publication number GI10-8756 for IMS DB Reorg Expert
- Publication number GI10-8798 for IMS Library Integrity Utilities
- Publication number GI10-8783 for IMS HP Pointer Checker

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 Database Utility Solution.

Please note the following points:

- 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 IMS Database Utility Solution

6.1.1 SMP/E Considerations for Installing IMS Database Utility Solution

Use the SMP/E RECEIVE, APPLY, and ACCEPT commands to install this release of IMS Database Utility Solution.

To review the individual SMP/E installation instructions of each of the products that constitute IMS Database Utility Solution, refer to their Program Directories, which are supplied with the product, and follow the instructions in the corresponding section(s).

- Publication number GI10-8270 for IMS HP Unload
- Publication number GI10-8671 for IMS HP Image Copy
- Publication number GI10-8571 for IMS Index Builder
- Publication number GI10-8589 for IMS HP Load
- Publication number GI10-8756 for IMS DB Reorg Expert
- Publication number GI10-8798 for IMS Library Integrity Utilities
- Publication number GI10-8783 for IMS HP Pointer Checker

6.1.2 SMP/E Environment

The following sections pertains to the SMP/E installation of IMS Database Utility Solution (HDFA210 and HIHC110) only.

6.1.3 SMP/E Options Subentry Values

The recommended values for certain SMP/E CSI subentries are shown in Figure 16 on page 22. 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 16. SMP/E Options Subentry Values					
Subentry	Value	Comment			
DSSPACE	(7500,500,200)	3390 DASD tracks			
PEMAX	SMP/E Default	IBM recommends using the SMP/E default for PEMAX.			

6.1.4 Sample Jobs

The following sample installation jobs are provided as part of the product to help you install IMS Database Utility Solution:

Figure 17. Sample Installation Jobs - IMS Database Utility Solution.						
Job Name	Job Type	Description	RELFILE			
DFAALA	SMP/E	Sample job to allocate and initialize a new SMP/E CSI data set (Optional)	IBM.HDFA210.F2			
DFAALB	SMP/E	Sample job to allocate SMP/E data sets (Optional)	IBM.HDFA210.F2			
DFARECEV	RECEIVE	Sample RECEIVE job for HDFA210	IBM.HDFA210.F2			
IHCRECEV	RECEIVE	Sample RECEIVE job for HIHC110	IBM.HIHC110.F2			
DFAALLOC	ALLOCATE	Sample job to allocate target and distribution libraries for HDFA210	IBM.HDFA210.F2			
IHCALLOC	ALLOCATE	Sample job to allocate target and distribution libraries for HIHC110	IBM.HIHC110.F2			
DFADDDEF	DDDEF	Sample job to define SMP/E DDDEFs for HDFA210	IBM.HDFA210.F2			
IHCDDDEF	DDDEF	Sample job to define SMP/E DDDEFs for HIHC110	IBM.HIHC110.F2			
DFAAPPLY	APPLY	Sample APPLY job for HDFA210	IBM.HDFA210.F2			
IHCAPPLY	APPLY	Sample APPLY job for HIHC110	IBM.HIHC110.F2			
DFAACCEP	ACCEPT	Sample ACCEPT job for HDFA210	IBM.HDFA210.F2			
IHCACCEP	ACCEPT	Sample ACCEPT job for HIHC110	IBM.HIHC110.F2			

You can access the sample installation jobs by performing an SMP/E RECEIVE (refer to 6.1.7, "Perform SMP/E RECEIVE" on page 25) then copy the jobs from the RELFILES to a work data set for editing and submission. See Figure 17 to find the appropriate relifie 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.

Sample job for copying the HDFA210 SMP/E sample jobs.

```
//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.HDFA210.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.HDFA210.F2,UNIT=tunit,
//*
        VOL=SER=DFA210,LABEL=(3,SL),
//*
        DISP=(OLD,KEEP)
//* Make the //FILEIN DD statement below active for
                                            *
//* downloaded DASD files.
                                             *
DD DSN=IBM.HDFA210.F2,UNIT=SYSALLDA,DISP=SHR,
//*FILEIN
//*
        VOL=SER=filevol
//OUT
       DD DSNAME=jcl-library-name,
11
       DISP=(NEW.CATLG.DELETE).
11
       VOL=SER=dasdvol,UNIT=SYSALLDA,
       SPACE=(TRK, (20, 10, 5))
\prod
//SYSUT3
       DD UNIT=SYSALLDA, SPACE=(CYL, (1,1))
//SYSIN
       DD *
  COPY INDD=xxxxIN,OUTDD=OUT
/*
```

Sample job for copying the HIHC110 SMP/E sample jobs.

```
//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.HIHC110.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.HIHC110.F2,UNIT=tunit,
//*
        VOL=SER=IHC210,LABEL=(3,SL),
//*
        DISP=(OLD,KEEP)
//* Make the //FILEIN DD statement below active for
//* downloaded DASD files.
//*FILEIN DD DSN=IBM.HIHC110.F2,UNIT=SYSALLDA,DISP=SHR,
//*
        VOL=SER=filevol
//OUT
       DD DSNAME=jcl-library-name,
       DISP=(NEW,CATLG,DELETE),
11
||
       VOL=SER=dasdvol,UNIT=SYSALLDA,
11
       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.HDFA210.F2, and IBM.HIHC110.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:

xxxxIN 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 a new SMP/E data set for this install, edit and submit sample job DFAALA to allocate the SMP/E data set for IMS Database Utility Solution. 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 Initialize CSI zones (Optional)

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

Edit and submit sample job DFAALB to initialize SMP/E zones for IMS Database Utility Solution. 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 Database Utility Solution as part of a CBPDO, use the RCVPDO job in the CBPDO RIMLIB data set to receive the IMS Database Utility Solution 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 job DFARECEV to perform the SMP/E RECEIVE for IMS Database Utility Solution(HDFA210). Consult the instructions in the sample job for more information.

You can also choose to edit and submit sample job IHCRECEV to perform the SMP/E RECEIVE for IMS Database Utility Solution(HIHC110). Consult the instructions in the sample job for more information.

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

6.1.8 Allocate SMP/E Target and Distribution Libraries

Edit and submit sample job DFAALLOC to allocate the SMP/E target and distribution libraries for IMS Database Utility Solution(HDFA210). Consult the instructions in the sample job for more information.

Edit and submit sample job IHCALLOC to allocate the SMP/E target and distribution libraries for IMS Database Utility Solution(HIHC110). Consult the instructions in the sample job for more information.

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

6.1.9 Create DDDEF Entries

Edit and submit sample job DFADDDEF to create DDDEF entries for the SMP/E target and distribution libraries for IMS Database Utility Solution(HDFA210). Consult the instructions in the sample job for more information.

Edit and submit sample job IHCDDDEF to create DDDEF entries for the SMP/E target and distribution libraries for IMS Database Utility Solution(HIHC110). Consult the instructions in the sample job for more information.

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

6.1.10 Perform SMP/E APPLY

1. Ensure that you have the latest HOLDDATA; then edit and submit sample job DFAAPPLY for HDFA210, and IHCAPPLY, to perform an SMP/E APPLY CHECK for IMS Database Utility Solution. Consult the instructions in the sample jobs 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),HOLDFIXCAT) . ..any other parameters documented in the program directory

This method is 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.

2. After you take actions that are indicated by the APPLY CHECK, remove the CHECK operand and run the jobs 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 these jobs runs correctly.

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

6.1.11 Perform SMP/E ACCEPT

Edit and submit sample job DFAACCEP to perform an SMP/E ACCEPT CHECK for IMS Database Utility Solution (HDFA210). Consult the instructions in the sample job for more information.

Edit and submit sample job IHCACCEP to perform an SMP/E ACCEPT CHECK for IMS Database Utility Solution (HIHC110). 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 *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 jobs 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 these jobs 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 these jobs runs correctly.

6.1.12 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 HP Load, 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.

6.2 Activating IMS Database Utility Solution

6.2.1 Product Customization

For customization of IMS Database Utility Solution use the IMS Tools SETUP utility, which is distributed with IBM Tools Base for z/OS. The SETUP utility is a Rexx utility that provides an ISPF interface to guide you through the customization of all required tools, including the components of both IBM Tools Base and IMS Database Utility Solution. SETUP will generate JCL/Tasks in the order in which they must be executed by you and consolidates like tasks to avoid repetitive requests for each product within your organization. Help is provided at the panel and field level, so no customization guides are needed.

IBM strongly recommends you use the IMS Tools SETUP utility to consolidate the customization of each of the components of IMS Database Utility Solution versus going through the steps in each Overview and Customization Guide. It also provides an easy and quick way to verify the installation and customization.

To begin the customization process, execute the following Rexx EXEC in ISPF: EXEC 'yourSMPEhlq.SHKTCEXE(HKTQSETU)' 'yourSMPEhlq'

For more information about customization and use of the various components of IMS Database Utility Solution refer to the following publication: SC27-8788 IMS Database Utility Solution for z/OS Overview and Customization.

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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