IBM

Program Directory for

IBM IMS Library Integrity Utilities for z/OS

V02.02.00

Program Number 5655-U08

FMID H27P220

for Use with
z/OS

Document Date: November 2014

GI10-8798-03

> **Note**
>
> Before using this information and the product it supports, be sure to read the general information under 7.0, "Notices" on page 33.

Contents

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 IBM IMS Library Integrity Utilities for z/OS. This publication refers to IBM IMS Library Integrity Utilities for z/OS as IMS Library Integrity Utilities.

The Program Directory contains the following sections:

- 2.0, "Program Materials" on page 4 identifies the basic program materials and documentation for IMS Library Integrity Utilities.

- 3.0, "Program Support" on page 7 describes the IBM support available for IMS Library Integrity Utilities.

- 4.0, "Program and Service Level Information" on page 9 lists the APARs (program level) and PTFs (service level) that have been incorporated into IMS Library Integrity Utilities.

- 5.0, "Installation Requirements and Considerations" on page 11 identifies the resources and considerations that are required for installing and using IMS Library Integrity Utilities.

- 6.0, "Installation Instructions" on page 19 provides detailed installation instructions for IMS Library Integrity Utilities. It also describes the procedures for activating the functions of IMS Library Integrity Utilities, or refers to appropriate publications.

Before installing IMS Library Integrity Utilities, 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 7 tells you how to find any updates to the information and procedures in this Program Directory.

IMS Library Integrity Utilities 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 Library Integrity Utilities are included on the CBPDO tape.

Do not use this program directory if you install IMS Library Integrity Utilities 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 Library Integrity Utilities Description

IBM IMS Library Integrity Utilities for z/OS, V2.2 (5655-U08) is an administration management tool that provides a set of utilities designed to validate, compare, map, recover, report, and regenerate a number of IMS libraries used for operations. Supported libraries include the ACB (application control block), DBD (database description), PSB (program specification block), MFS (message format services) libraries, and RECON data sets. The utilities can be used in conjunction with database maintenance tasks and migration operations to help prevent accidental misuse in production.

The new release contains all of the features and functions of the previous release and offers:

- New features provided by the new utility Multiple Resource Checker.

- Enhancements to the LICON utility in Integrity Checker to create registered DMB entries (RDEs) for HALDB partitions and to verify HALDB partitions.

- Enhancements to the DBD/PSB/ACB compare utility, which compares ACB members across IMS releases.

- An add-on feature for IBM Management Console for IMS and DB2 for z/OS, V1.1 (5655-TAC) or Administration Console of IBM Tools Base for z/OS, V1.4 (5655-V93) that displays a graphical visualization of DBDs regenerated from a DBD library.

Utilities provided:

- Integrity Checker can help prevent database corruption caused by using an incorrect DBD.

- Consistency Checker helps verify that the definitions in an IMS subsystem necessary for database operations are in place.

- DBD/PSB/ACB Compare compares members of the applicable libraries and reports the differences.

- DBD/PSB/ACB Mapper provides a pictorial representation of library members.

- DBD/PSB/ACB Reversal provides the capability to regenerate source control statements for library members.

- Advanced ACBGEN Utility functionally replaces the standard IMS-provided ACB generation utility (DFSUACB0) with a high-speed generation facility.

- MFS Utilities provide compare and reversal capabilities for MFS libraries similar to the capabilities provided for DBD, PSB, and ACB libraries.

IMS Library Integrity Utilities for z/OS, V2.2 enhancements:

- **New utility "Multiple Resource Checker":**

  This new utility provides the ability to check the consistency of DBD and PSB definitions in the RECON, DBDLIB, PSBLIB, and ACBLIB libraries. A single JCL file can specify for processing a maximum of 10 RECONS and 10 of each of the following libraries: DBDLIB, PSBLIB, and ACBLIB. Included in this new utility is a matrix format summary report that provides the capability to view what DBDs and PSBs exist or do not exist in the RECON data sets and libraries, and if they exist, to show if they are identical.

This is helpful information, which can be used when verifying whether DBD and PSB definitions in the RECON data sets and the DBD/PSB/ACB libraries have been created correctly and when identifying any inconsistencies among these multiple resources. Additionally, the Multiple Resource Checker Utility has an option that can be used to report differences between the multiple sets of RECON data sets.

- **RDE creation and DB verification for the HALDB using the LICON utility in Integrity Checker:**

  RDEs can now be created for HALDB partitions using the INIT.DB command. The VERIFY.DB command allows for verification of HALDB partitions.

- **Compare ACB members across IMS versions with DBD/PSB/ACB Compare:**

  The DBD/PSB/ACB Compare is enhanced to allow the comparison of ACB members generated with different IMS version levels.

- **Feature for graphical and simplified web access to DBDs:**

  A new feature is provided for displaying the graphical visualization of a database structure map, a DBD macro source, and a DBD XML document in the separately licensed IBM Management Console for IMS and DB2 for z/OS, V1.1 (5655-TAC) or in the IBM Tools Base Administration Console for z/OS, a component of the separately licensed IBM Tools Base for z/OS, V1.4 (5655-V93). This add-on feature works with:

  - The separately licensed IBM IMS Database Solution Pack for z/OS, V2.1 (5655-DSP) or the separately licensed IBM IMS Fast Path Solution Pack for z/OS, V1.3 (5655-W14)

  - IBM Management Console for IMS and DB2 for z/OS, V1.1 (5655-TAC) or IBM Tools Base Administration Console for z/OS component of IBM Tools Base for z/OS, V1.4 (5655-V93)

  - IBM Tools Base Distributed Access Infrastructure for z/OS component of IBM Tools Base for z/OS, V1.4 or higher (5655-V93)

  - IBM Tools Base Tools Knowledge Base for z/OS component of IBM Tools Base for z/OS, V1.4 or higher (5655-V93)

1.2 IMS Library Integrity Utilities FMID

IMS Library Integrity Utilities consists of the following FMID:

H27P220

2.0 Program Materials

An IBM program is identified by a program number. The program number for IMS Library Integrity Utilities is 5655-U08.

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.

The program announcement material describes the features supported by IMS Library Integrity Utilities. 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 19 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 Library Integrity Utilities in the *CBPDO Memo To Users Extension.*

Figure 1 describes the program file content for IMS Library Integrity Utilities. 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 (Page 1 of 2). Program File Content				
Name	**ORG**	**RECFM**	**LRECL**	**BLK SIZE**
SMPMCS	SEQ	FB	80	6400
IBM.H27P220.F1	PDS	FB	80	8800
IBM.H27P220.F2	PDS	FB	80	8800
IBM.H27P220.F3	PDS	FB	80	8800
IBM.H27P220.F4	PDS	U	0	6144
IBM.H27P220.F5	PDS	FB	80	8800

Figure 1 (Page 2 of 2). Program File Content					
Name	**O R G**	**R E C F M**	**L R E C L**	**BLK SIZE**
IBM.H27P220.F6	PDS	VB	255	27998

2.2 Optional Machine-Readable Material

No optional machine-readable materials are provided for IMS Library Integrity Utilities.

2.3 Program Publications

The following sections identify the basic publications for IMS Library Integrity Utilities.

Figure 2 identifies the basic unlicensed publications for IMS Library Integrity Utilities. 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 2. Basic Material: Unlicensed		
Publication Title	**Form Number**	**Media Format**
IBM IMS Library Integrity Utilities for z/OS License Information	GC19-2478	http://www.ibm.com/software/ sla/sladb.nsf
IBM IMS Library Integrity Utilities for z/OS User's Guide	SC19-3979	http://www.ibm.com/support/ docview.wss?uid=swg27020942

No optional publications are provided for IMS Library Integrity Utilities.

2.4 Program Source Materials

No program source materials or viewable program listings are provided for IMS Library Integrity Utilities.

2.5 Publications Useful During Installation

You might want to use the publications listed in Figure 3 during the installation of IMS Library Integrity Utilities.

Figure 3. Publications Useful During Installation		
Publication Title	**Form Number**	**Media Format**
IBM SMP/E for z/OS User's Guide	SA22-7773	http://www.ibm.com/shop/ publications/order/
IBM SMP/E for z/OS Commands	SA22-7771	http://www.ibm.com/shop/ publications/order/
IBM SMP/E for z/OS Reference	SA22-7772	http://www.ibm.com/shop/ publications/order/
IBM SMP/E for z/OS Messages, Codes, and Diagnosis	GA22-7770	http://www.ibm.com/shop/ publications/order/
IBM Management Console for IMS and DB2 for z/OS, Program Directory	GI10-9007	http://www.ibm.com/support/ docview.wss?uid=swg27020942

3.0 Program Support

This section describes the IBM support available for IMS Library Integrity Utilities.

3.1 Program Services

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

3.2 Preventive Service Planning

Before you install IMS Library Integrity Utilities, 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 6.1.11, "Perform SMP/E APPLY" on page 23 for a sample APPLY command

If you obtained IMS Library Integrity Utilities as part of a CBPDO, HOLDDATA is included.

If the CBPDO for IMS Library Integrity Utilities is older than two weeks by the time you install the product materials, you can obtain the latest PSP Bucket information by going to the following website:

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

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

For program support, access the Software Support Website at http://www-01.ibm.com/software/support/.

PSP Buckets are identified by UPGRADEs, which specify product levels; and SUBSETs, which specify the FMIDs for a product level. The UPGRADE and SUBSET values for IMS Library Integrity Utilities are included in Figure 4

Figure 4. PSP Upgrade and Subset ID		
UPGRADE	**SUBSET**	**Description**
5655U08	H27P220	IMS Library Integrity Utilities

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 5 on page 8 identifies the component IDs (COMPID) for IMS Library Integrity Utilities.

Figure 5. Component IDs			
FMID	**COMPID**	**Component Name**	**RETAIN Release**
H27P220	5655I4200	IMS Library Integrity Utilities	220

4.0 Program and Service Level Information

This section identifies the program and relevant service levels of IMS Library Integrity Utilities. 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

The following APAR fixes against previous releases of IMS Library Integrity Utilities have been incorporated into this release. They are listed by FMID.

- FMID H27P210

PK72952	PM22634	PM61228
PK74275	PM28084	PM64743
PK78067	PM30256	PM64916
PK78962	PM30910	PM67105
PK82286	PM35070	PM67816
PK84633	PM35071	PM68396
PK85040	PM37113	PM69050
PK86986	PM37150	PM69550
PK87420	PM41075	PM70576
PK89606	PM46494	PM71083
PK91313	PM46539	PM71502
PK92830	PM46613	PM72387
PK93253	PM47964	PM75259
PK94160	PM50776	PM76894
PK95252	PM52711	PM79750
PK99258	PM53105	PM80933
PM00241	PM53369	PM83105
PM02369	PM53932	PM83106
PM03227	PM55052	PM86805
PM10930	PM55827	PM88667
PM14955	PM56804	PM89597
PM17661	PM57519	PM89697
PM21355	PM60149	PM96421
PM21961		

4.2 Service Level Information

No PTFs against this release of IMS Library Integrity Utilities have been incorporated into the product package.

Frequently check the IMS Library Integrity Utilities 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 Library Integrity Utilities. 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 Library Integrity Utilities.

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 6. Driving System Software Requirements				
Program Number	Product Name	Minimum VRM	Minimum Service Level will satisfy these APARs	Included in the shipped product?
Any **one** of the following:				
5694-A01	z/OS	V01.12.00	N/A	No
5650-ZOS	z/OS	V02.01.00	N/A	No

Notes:

- 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.
- 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.

IMS Library Integrity Utilities is installed into a file system, either HFS or zFS. Before installing IMS Library Integrity Utilities, you must ensure that the target system file system data sets are available for processing on the driving system. OMVS must be active on the driving system and the target system file system data sets must be mounted on the driving system.

If you plan to install IMS Library Integrity Utilities in a zFS file system, this requires that zFS be active on the driving system. Information on activating and using zFS can be found in z/OS Distributed File Service zSeries File System Administration, SC24-5989.

5.2 Target System Requirements

This section describes the environment of the target system required to install and use IMS Library Integrity Utilities.

IMS Library Integrity Utilities installs in the DBS (P115) SREL.

5.2.1 Machine Requirements

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

5.2.2 Programming Requirements

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

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

			Minimum Service Level will satisfy these	Included in the shipped
Program Number	Product Name	Minimum VRM	APARs	product?
5655-V93	IBM Tools Base for z/OS	V01.04.00 or higher	N/A	No

Figure 7. Target System Mandatory Installation Requisites

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

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

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.

			Minimum Svc Lvl to satisfy these	Function for which this is	Included in the shipped
Program Number	Product Name	Minimum VRM	APARs	a Req't	product?
5655-V93	IBM Tools Base for z/OS	01.04.00	PM94292, PM69587, and PM96450	Feature for graphical and simplified web access to DBDs	No
5655-TAC	IBM Management Console for IMS and DB2 for z/OS	01.01.00	N/A	Feature for graphical and simplified web access to DBDs that is used with IBM Tools Base for z/OS V01.05.00	No

Figure 8 (Page 1 of 2). Target System Conditional Installation Requisites

Program Number	Product Name	Minimum VRM	Minimum Svc Lvl to satisfy these APARs	Function for which this is a Req't	Included in the shipped product?
Figure 8 (Page 2 of 2). Target System Conditional Installation Requisites					
5655-IMZ	IBM Installation Manager for z/OS	01.07.03	PI19104	Feature for graphical and simplified web access to DBDs that is used with IBM Tools Base for z/OS V01.05.00	No

5.2.2.2 Operational Requisites:

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

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

Program Number	Product Name and Minimum VRM/Service Level
Figure 9. Target System Mandatory Operational Requisites	
Any **one** of the following:	
5635-A02	IMS V11.01.00
5655-A03	IMS V12.01.00
5655-DSQ	IMS Database Value Unit Edition V12.01.00 with IMS Value Unit Edition PTF UK93908
5635-A04	IMS V13.01.00
5655-DSM	IMS Database Value Unit Edition V13.01.00

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		
Program Number	**Product Name and Minimum VRM/Service Level**	**Function**
5694-A01	z/OS V01.12.00 or higher includes DFSORT or a functionally equivalent sort program	ACBLIB Analyzer Utility and function Integrity 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 Library Integrity Utilities 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 Library Integrity Utilities has no negative requisites.

5.2.3 DASD Storage Requirements

IMS Library Integrity Utilities libraries can reside on all supported DASD types.

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

Figure 11. Total DASD Space Required by IMS Library Integrity Utilities		
Library Type	**Total Space Required in 3390 Trks**	**File System Description**
Target	690	
Distribution	750	
File System	150	/usr/lpp/ InstallationManagerRepository/ H27P220

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 6.1.7, "Allocate SMP/E Target and Distribution Libraries" on page 22.

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 might 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.
- The data set can be either a PDS or a PDSE.

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 can be in the LPA, but they are not required to be in the LPA.
- These data sets can be in the LNKLST.
- Target library SHPSLMD0 can be APF-authorized.

The following figures describe the target and distribution libraries and file system paths required to install IMS Library Integrity Utilities. The storage requirements of IMS Library Integrity Utilities 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 Library Integrity Utilities Target Libraries

Library DDNAME	Member Type	Target Volume	TYPE	ORG	RECFM	LRECL	No. of 3390 Trks	No. of DIR Blks
SHPSBASE	SAMPLE	Any	S	PDS	FB	80	45	30
SHPSJCL0	SAMPLE	Any	S	PDS	FB	80	45	30
SHPSMAC0	MACRO	Any	S	PDS	FB	80	75	60
SHPSLMD0	LMOD	Any	S	PDS	U	0	450	200
SHPSSAMP	SAMPLE	Any	S	PDS	FB	80	45	60

Figure 13. IMS Library Integrity Utilities File System Paths

DDNAME	TYPE	Path Name
SHPSIHFS	N	/usr/lpp/InstallationManagerRepository/H27P220/IBM/

Figure 14. Storage Requirements for IMS Library Integrity Utilities Distribution Libraries

Library DDNAME	TYPE	ORG	RECFM	LRECL	No. of 3390 Trks	No. of DIR Blks
AHPSJCL0	S	PDS	FB	80	75	60
AHPSMAC0	S	PDS	FB	80	75	60
AHPSMOD0	S	PDS	U	0	450	200
AHPSSAMP	S	PDS	FB	80	75	60
AHPSIHFS	U	PDS	VB	255	75	5

The following figures list data sets that are not used by SMP/E, but are required for IMS Library Integrity Utilities to run.

5.3 FMIDs Deleted

Installing IMS Library Integrity Utilities 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 Library Integrity Utilities 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

Considerations for IBM Installation Manager for z/OS:

IBM Installation Manager is a z/OS Unix System Services application. Before using IBM Installation Manager to perform product installation and maintenance, you should customize your z/OS system as described in the z/OS Unix System Services Planning manual (GA22-7800) for your version of z/OS, paying particular attention to Chapter 3, "Customizing z/OS Unix", and Chapter 4, "Establishing Unix Security."

Considerations for IBM Tools Base Administration Console for z/OS Component:

The Administration Console component was delivered with Tools Base for z/OS, V1.4, but is no longer included in and delivered with IBM Tools Base for z/OS V1.5. It is replaced by a new software offering, IBM Management Console for IMS and DB2 for z/OS, V1.1 (5655-TAC). It is no-charge and separately licensed.

Users of the Administration Console are asked to order Management Console. Contact your IBM Representative for more detailed 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 Library Integrity Utilities.

Please note the following points:

- If you want to install IMS Library Integrity Utilities into its own SMP/E environment, consult the SMP/E manuals for instructions on creating and initializing the SMPCSI and the SMP/E control data sets.

- You can use the sample jobs that are provided to perform part or all of the installation tasks. The SMP/E jobs assume that all DDDEF entries that are required for SMP/E execution have been defined in appropriate zones.

- You can use the SMP/E dialogs instead of the sample jobs to accomplish the SMP/E installation steps.

6.1 Installing IMS Library Integrity Utilities

6.1.1 SMP/E Considerations for Installing IMS Library Integrity Utilities

Use the SMP/E RECEIVE, APPLY, and ACCEPT commands to install this release of IMS Library Integrity Utilities.

6.1.2 SMP/E Options Subentry Values

The recommended values for certain SMP/E CSI subentries are shown in Figure 15. 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 15. SMP/E Options Subentry Values		
Subentry	**Value**	**Comment**
DSSPACE	(200,200,500)	3390 DASD tracks
PEMAX	SMP/E Default	IBM recommends using the SMP/E default for PEMAX.

6.1.3 Sample Jobs

The following sample installation jobs are provided as part of the product to help you install IMS Library Integrity Utilities:

Figure 16. Sample Installation Jobs

Job Name	Job Type	Description	RELFILE
FABLCSIA	SMP/E	Sample job to allocate and initialize a new SMP/E CSI data set **(Optional)**	IBM.H27P220.F2
FABLCSID	SMP/E	Sample job to allocate SMP/E CSI data set **(Optional)**	IBM.H27P220.F2
FABLRECV	RECEIVE	Sample RECEIVE job	IBM.H27P220.F2
FABLALLC	ALLOCATE	Sample job to allocate target and distribution libraries	IBM.H27P220.F2
FABLIZFS	ALLOMZFS	Sample job to allocate, create mountpoint, & mount zFS data sets **(Optional)**	IBM.H27P220.F2
FABLISMD	MKDIR	Sample job to invoke the supplied FABLMDIR EXEC to allocate file system paths	IBM.H27P220.F2
FABLDDEF	DDDEF	Sample job to define SMP/E DDDEFs	IBM.H27P220.F2
FABLAPPL	APPLY	Sample APPLY job	IBM.H27P220.F2
FABLACCP	ACCEPT	Sample ACCEPT job	IBM.H27P220.F2
FABLIINS	INSTALL	Sample IM Installation job for installing Library Integrity Utilities extension **(Optional)**	IBM.H27P220.F2

You can access the sample installation jobs by performing an SMP/E RECEIVE (refer to 6.1.6, "Perform SMP/E RECEIVE" on page 22) then copy the jobs from the RELFILES to a work data set for editing and submission. See Figure 16 on page 19 to find the appropriate relfile data set.

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

```
//STEP1    EXEC PGM=IEBCOPY
//SYSPRINT   DD SYSOUT=*
//***********************************************************
//* Make the //TAPEIN DD statement below active if you install*
//* from a CBPDO tape by uncommenting the DD statement below. *
//***********************************************************
//*TAPEIN   DD DSN=IBM.H27P220.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.H27P220.F2,UNIT=tunit,
```

```
//*              VOL=SER=27P220,LABEL=(3,SL),
//*              DISP=(OLD,KEEP)
//****************************************************************
//* Make the //FILEIN DD statement below active for           *
//* downloaded DASD files.                                    *
//****************************************************************
//*FILEIN   DD DSN=IBM.H27P220.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,(primary,secondary,dir))
//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.H27P220.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.

6.1.4 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 the sample job FABLCSIA to allocate the SMP/E data set. 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.

6.1.5 Initialize CSI zones (Optional)

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

Edit and submit the sample jobs FABLCSID, to initialize SMP/E zones. 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 Perform SMP/E RECEIVE

If you have obtained IMS Library Integrity Utilities as part of a CBPDO, use the RCVPDO job in the CBPDO RIMLIB data set to receive the IMS Library Integrity Utilities FMID, 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 FABLRECV to perform the SMP/E RECEIVE for IMS Library Integrity Utilities. 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 Allocate SMP/E Target and Distribution Libraries

All data sets used by IMS Library Integrity Utilities are allocated by other products, so no new allocations are required.

Edit and submit sample job FABLALLC to allocate the SMP/E target and distribution libraries for IMS Library Integrity Utilities. Consult the instructions in the sample job for more information.

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

6.1.8 Allocate, create and mount ZFS Files (Optional)

This job allocates, creates a mountpoint, and mounts zFS data set for to contain the Installation Manager repository for the Library Integrity Utilities.

Edit and submit sample job FABLIZFS to allocate and create a mountpoint, and mount the zFS data set.

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

If you try and create a directory that already exists, you may receive the following message: *BPXF134E RETURN CODE 00000075, REASON CODE 05520038. AN ERROR OCCURRED DURING THE CREATION OF DIRECTORY pathname.*

This can be ignored, if the pathname has previously been created.

6.1.9 Allocate File system Paths

The target system HFS or zFS data set must be mounted on the driving system when running the sample FABLISMD job since the job will create paths in the HFS or zFS.

Before running the sample job to create the paths in the file system, you must ensure that OMVS is active on the driving system and that the target system's HFS or zFS file system is mounted to the driving system. zFS must be active on the driving system if you are installing IMS Library Integrity Utilities into a file system that is zFS.

If you plan to install the Installation Manager repository for IMS Library Integrity Utilities into a new HFS or zFS file system, you must create the mountpoint and mount the new file system to the driving system for IMS Library Integrity Utilities.

The recommended mountpoint is */usr/lpp/InstallationManagerRepository/H27P220*.

Edit and submit sample job FABLISMD to allocate the HFS or zFS paths for IMS Library Integrity Utilities. 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

All DDDEFs used by IMS Library Integrity Utilities are created by other products, so no new DDDEFs are required.

Edit and submit sample job FABLDDEF to create DDDEF entries for the SMP/E target and distribution libraries for IMS Library Integrity Utilities. 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 Perform SMP/E APPLY

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

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

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

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

Here are sample APPLY commands:

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

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

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

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

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

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

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

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

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 0 if this job runs correctly.

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

6.1.12 Executing Installation Verification Test for IMS Library Integrity Utilities

Edit and submit sample job **FABLIVP1** in the **SHPSJCL0** to run the Installation Verification test for IMS Library Integrity Utilities. Consult the instructions in the job for more information.

Expected Return Codes and Messages from Installation Verification Test: You will receive a return code of 0 except for the following step, if this job runs correctly:

```
STEP9  : RC=04 with MSG FABL0007W
STEP10 : RC=04 with MSG FABL0005W and FABL0007W
STEP11 : RC=04 with MSG FABM0043W
```

6.1.13 Perform SMP/E ACCEPT

Edit and submit sample job FABLACCP to perform an SMP/E ACCEPT CHECK for IMS Library Integrity Utilities. Consult the instructions in the sample job for more information.

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

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

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

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

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

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

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

6.1.14 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 Library Integrity Utilities, 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 Library Integrity Utilities

6.2.1 Activating IMS Library Integrity Utilities

For customization and use of IMS Library Integrity Utilities refer to the *IBM IMS Library Integrity Utilities for z/OS User's Guide, SC19-3979.*

For customization and use a feature for graphical and simplified web access to DBDs of IMS Library Integrity Utilities refer to one of the following publications:

* *IBM IMS Database Solution Pack for z/OS Overview and Customization, SC19-4007*
* *IBM IMS Fast Path Solution Pack for z/OS Overview and Customization, SC19-4009*

Additionally, refer to the following publications, if you use feature for graphical and simplified web access to DBDs of IMS Library Integrity Utilities:

- IBM Tools Base Distributed Access Infrastructure User's Guide delivered with Tools Base for z/OS, V1.4: *Distributed Access Infrastructure User's Guide, SC19-3771*

- IBM Tools Base Distributed Access Infrastructure for z/OS User's Guide delivered with Tools Base for z/OS, V1.5: *Distributed Access Infrastructure User's Guide, SC19-4375*

- IBM Tools Base IMS Tools Knowledge Base User's Guide delivered with Tools Base for z/OS, V1.4: *IBM Tools Base IMS Tools Knowledge Base User's Guide, SC19-3768*

- IBM Tools Base IMS Tools Knowledge Base z/OS User's Guide delivered with Tools Base for z/OS, V1.5: *IBM Tools Base IMS Tools Knowledge Base User's Guide, SC19-4372*

- *IBM Management Console for IMS and DB2 for z/OS User's Guide, SC27-6714*

6.3 Installing IMS Library Integrity Utilities extension

Note

The following tasks can be omitted if you do not intend to use the feature for graphical and simplified web access DBDs of IMS Library Integrity Utilities.

If you use the feature for graphical and simplified web access to DBDs of IMS Library Integrity Utilities, you must install Library Integrity Utilities extension by using IBM Installation Manager for z/OS. IMS Library Integrity extension is an add-on feature to the Administration Console component of IBM Tools Base for z/OS V1.4 or IBM Management Console for IMS and DB2 for z/OS V1.1.

Before installing IMS Library Integrity Utilities extension, you must first install one of the following products:

- IBM Tools Base for z/OS, V1.4 (5655-V93), which includes the IBM Tools Base Administration Console component
- IBM Management Console for IMS and DB2 for z/OS, V1.1 (5655-TAC)

Notes:

- The Administration Console component delivered with IBM Tools Base for z/OS V1.4 is no longer included in and delivered with IBM Tools Base for z/OS V1.5. It is replaced by a new software offering, IBM Management Console for IMS and DB2 for z/OS, V1.1 (5655-TAC). It is no-charge and separately licensed.

- The PTF for **APAR PI28076** is required if the IBM IMS Library Integrity Utility extension is used with IBM Management Console for IMS and DB2 for z/OS, V1.1 (5655-TAC).

If you install the IMS Library Integrity Utilities extension to be used with the Administration Console component of IBM Tools Base for z/OS V1.4, refer to:

If you install the IMS Library Integrity Utilities extension to be used with IBM Management Console for IMS and DB2 for z/OS V1.1, refer to:

> 6.3.2, "Installing IMS Library Integrity Utilities extension to be used with Management Console" on page 29

You can find more detailed information of the installation process of IMS Library Integrity Utilities extension in one of the following manuals:

- *IBM IMS Database Solution Pack for z/OS Overview and Customization, SC19-4007*

- *IBM IMS Fast Path Solution Pack for z/OS Overview and Customization, SC19-4009*

6.3.1 Installing IMS Library Integrity Utilities extension to be used with Administration Console component

6.3.1.1 Considerations before installing IMS Library Integrity Utilities extension to be used with the Administration Console component

The Administration Console component of IBM Tools Base for z/OS V1.4 must be installed via IBM Installation Manager before installing IMS Library Integrity Utilities extension to be used with Administration Console of IBM Tools for z/OS.

Refer to the following publications for more information about how to install the Administration Console component of IBM Tools Base for z/OS:

- *Program Directory for IBM Tools Base for z/OS, V1.4, GI10-8819-04*

- *Program Directory for IBM Installation Manager for z/OS, GI13-3016*

The following conditions must be satisfied to run the installation JOB:

- The required privileges of user ID depend on the Installation Manager mode that is being used:

    - If you are using administrator mode, the user ID must be a superuser.

    - If you are using nonadministrator mode, the user ID must be the one that owns the instance of Installation Manager that you are using. The user ID must also have read permission to the Installation Manager package and write permission to the installation directory of Administration Console.

    - If you are using group mode, you must run the FABLIINS job under a user ID that belongs to the UNIX System Services group that is associated with Installation Manager. The user ID must also have read permission to the Installation Manager package and write permission to the installation directory of Administration Console.

- The user ID must have access to the SAF profiles that are specified in the Installation Manager sample job GIN2ADMN.

- The user ID must be capable of running a job that requires more than 600 MB region size.

6.3.1.2 Mount the IMS Library Integrity Utilities extension to be used with the Administration Console component product repository

The /usr/lpp/InstallationManagerRepository/H27P220 file system now contains the Installation Manager repository files for the IMS Library Integrity Utilities extension to be used with the Administration Console of IBM Tools Base for z/OS V1.4.

Unmount the /usr/lpp/InstallationManagerRepository/H27P220 file system and remount it *read-only* at a location of your choice. The recommended location is:

/usr/lpp/InstallationManagerRepository/H27P220

You must also mount the Administration Console component filesystem, which contains the installation directory of IBM Tools Base for z/OS V1.4, read/write, at the mountpoint at which it was originally installed with IBM Installation Manager. Consult the instructions in the installation jobs for more information. The default mount point is:

/usr/lpp/toolsbase/adminconsole140

6.3.1.3 Install the IMS Library Integrity Utilities extension to be used with Administration Console component Product Code

Edit and submit sample job FABLIINS to install the IMS Library Integrity Utilities extension to be used with Administration Console component of IBM Tools Base for z/OS V1.4.

If the Administration Console server is started, you must stop the started task AIIGSRV before running installation JOB.

Consult the instructions in the sample job for more information.

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

When the installation is complete, unmount the product file system and remount it on your target system at the location at which it is to be accessed. Then start Administration Console server by running the started task AIIGRSV.

6.3.2 Installing IMS Library Integrity Utilities extension to be used with Management Console

6.3.2.1 Considerations before installing IMS Library Integrity Utilities extension to be used with Management Console

IBM Management Console for IMS and DB2 for z/OS, V1.1 (5655-TAC) must be installed via IBM Installation Manager before installing IMS Library Integrity Utilities extension to be used with Management Console. While you customize Management Console, make sure that you install the Management Console feature that includes capabilities for managing IMS environments. This feature is installed by the following parameter or option during installation:

- For z/OS: imsbase.feature parameter on the install command
- For Windows: Management Console for IMS Management Base Feature option

IMS Library Integrity Utilities extension to be used with IBM Management Console for IMS and DB2 for z/OS is installed in the custom installation path for Management Console. The default path name is:

/usr/lpp/IBM/mgmtconsole/v110

Refer to the following publications for more information about how to install the IBM Management Console for IMS and DB2 for z/OS:

- *Program Directory for IBM Management Console for IMS and DB2 for z/OS, GI10-9007*
- *IBM Management Console for IMS and DB2 for z/OS User's Guide, SC27-6714*
- *Program Directory for IBM Installation Manager for z/OS, GI13-3016*

The following conditions must be satisfied to run the installation JOB:

- The required privileges of user ID depend on the Installation Manager mode that is being used:
    - If you are using administrator mode, the user ID must be a superuser.
    - If you are using nonadministrator mode, the user ID must be the one that owns the instance of Installation Manager that you are using. The user ID must also have read permission to the Installation Manager package and write permission to the installation directory of Management Console.
    - If you are using group mode, you must run the FABLIINS job under a user ID that belongs to the UNIX System Services group that is associated with Installation Manager. The user ID must also have read permission to the Installation Manager package and write permission to the installation directory of Management Console.
- The user ID must have access to the SAF profiles that are specified in the Installation Manager sample job GIN2ADMN.
- The user ID must be capable of running a job that requires more than 600 MB region size.

6.3.2.2 Mount the IMS Library Integrity Utilities extension to be used with Management Console product repository

The /usr/lpp/InstallationManagerRepository/H27P220 file system now contains the Installation Manager repository files for the IMS Library Integrity Utilities extension for IBM Management Console for IMS and DB2 for z/OS.

Unmount the /usr/lpp/InstallationManagerRepository/H27P220 file system and remount it *read-only* at a location of your choice. The recommended location is:

   /usr/lpp/InstallationManagerRepository/H27P220

You must also mount the Management Console filesystem, which contains the installation directory of IBM Management Console for IMS and DB2 for z/OS read/write, at the mountpoint at which it was originally installed with IBM Installation Manager. Consult the instructions in the installation jobs for more information. The default mount point is:

   /usr/lpp/InstallationManagerRepository/HDYW110

6.3.2.3 Install the IMS Library Integrity Utilities extension to be used with Management Console z/OS product code

Edit and submit sample job FABLIINS in SHPSBASE to install the IMS Library Integrity Utilities extension to be used with IBM Management Console for IMS and DB2 for z/OS .

IBM Installation Manager is used to install the IMS Library Integrity Utilities extension into the same filesystem that contains IBM Management Console for IMS and DB2 for z/OS V1.1. You must use the same IBM Installation Manager that was used to install Management Console.

The installation jobs for IMS Library Integrity Utilities extension use the repository and the default installation directory for Administration Console. Before you submit the installation jobs to install the Library Integrity Utilities extension to be used with Management Console, you must change the repository name and the installation directory in the jobs.

- Change the repository name.
     Locate the following line in the installation jobs:

        /usr/lpp/InstallationManagerRepository/H27P220/liu220.zip

     Replace the line with the following repository name:

        /usr/lpp/InstallationManagerRepository/H27P220/liu220mc.zip

- Change the installation directory.
     Locate the following line in the installation jobs:

        /usr/lpp/toolsbase/adminconsole140

     Replace the line with the following directory:

/usr/lpp/IBM/mgmtconsole/v110

/usr/lpp/IBM/mgmtconsole/v110 is the default installation directory for Management Console. If you installed Management Console in a different directory, replace the installation directory with the directory where Management Console is installed.

You must also mount the Management Console filesystem, which contains the installation directory of IBM Management Console for IMS and DB2 for z/OS, read/write, at the mountpoint at which it was originally installed with IBM Installation Manager.

If the Management Console server is started, you must stop the started task DYWZSRV before running installation JOB.

Consult the instructions in the installation jobs for more information.

The instructions in sample job FABLIINS are written for users of Tools Base Administration Console. Change "Administration Console" to "Management Console" when the sample job is used with IBM Management Console for IMS and DB2 for z/OS.

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

When the installation is complete, unmount the product file system and remount it on your target system at the location at which it is to be accessed. Then start Management Console server by running the started task DYWZSRV.

7.0 Notices

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