IBM

Program Directory for

IBM File Manager for z/OS

14.01.00

Program Number 5655-Q42

for Use with
z/OS

Document Date: May 2022

> **Note**
>
> Before using this information and the product it supports, be sure to read the general information under 7.0, "Notices" on page 38.

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 File Manager for z/OS. This publication refers to IBM File Manager for z/OS as File Manager.

The Program Directory contains the following sections:

- 2.0, "Program Materials" on page 4 identifies the basic program materials and documentation for File Manager.

- 3.0, "Program Support" on page 10 describes the IBM support available for File Manager.

- 4.0, "Program and Service Level Information" on page 12 lists the APARs (program level) and PTFs (service level) that have been incorporated into File Manager.

- 5.0, "Installation Requirements and Considerations" on page 15 identifies the resources and considerations that are required for installing and using File Manager.

- 6.0, "Installation Instructions" on page 28 provides detailed installation instructions for File Manager. It also describes the procedures for activating the functions of File Manager, or refers to appropriate publications.

Before installing File Manager, 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 10 tells you how to find any updates to the information and procedures in this program directory.

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

Do not use this program directory if you install File Manager with a 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 File Manager Description

IBM File Manager for z/OS 14.1   provides the following:

- Improved productivity of ISPF users

  - The Enhanced Search and Referenced List Facility provides ISPF users with the following abilities:

    - An easy method to set up personal or global reference lists for data set and resource names that are commonly used with ISPF or File Manager utilities.

- Easy searching of z/OS resources. The tool supports scanning any combination of PDS, PDSE, VSAM, non-VSAM, HFS, or CICS resources and WebSphere MQ queues. Procedure libraries and PARMLIB data sets are automatically detected. The user can navigate from the search report directly to an edit or view session with the touch of key to the hit location. Recursive scanning can then be performed with the touch of a key.
- Searches can be run in batch or foreground and batch reports can be converted to navigational reports via a function key.
- The function rich edit macro provided can improve the user s experience with JCL. Data set selection, or nested viewing or editing of data can be performed by pressing a function key. Variable substitution will be performed. File Manager utilities can be invoked directly. Load module browse can be invoked directly from an EXEC PGM= statement.

- Enhanced load module analysis while optimizing z/OS applications

  – File Manager load module browse function has been enhanced to support compiler options, and disassembly and text views. The reporting has been improved and now supports XML reports.

  – File Manager load module compare has been enhanced to support compiler options.

- Compare - Key synchronization

  – File Manager Compare has been enhanced to support read-ahead with key synchronization. Read-ahead can now detect changed records. Keyed synchronization fields now support ascending and descending order as well as the ability to compare different types, for example, zoned and packed keys.

- New Edit and View commands

  – New primary commands to modify the current formatted view have been added:

    - HIDE/SHOW: Hide a field or column/Show a field or column.
    - HOLD/FREE: Hold a field or column/Free (reverse the hold).
    - Width: Change a field or column width.
    - LHEX: Turn long hexadecimal display on or off for alphanumeric fields.
    - ORDER: Set column display order.

- DB2 row selection criteria

  – The File Manager DB2 component template editor, row selection criteria panel has been enhanced to add two new operators (LKL and LKU) and to enter a column function or expression in place of a column name.

- IMS changes for RACF PADS security

  – File Manager for IMS (FM/IMS) has been modified to provide a new installation option. When that option is selected, the dynamic PSBs that FM/IMS builds are stored in libraries that the FM/IMS administrator specifies. This will allow the dynamic PSBs to be defined in the PROGRAM class which, in turn, allows PADS to be used in the environment.

- Technical Preview: Unleashing File Manager capabilities as RESTful APIs

  – IBM Application Delivery Foundation for z Systems is built upon the Explorer for z/OS 3.1.1 platform. Thus, File Manager capability can be accessed via a set of RESTful APIs. They are

documented using the standard Swagger format, which allows easier discovery and clarity of their usage. The release includes functions to perform searching of strings across resource types: data sets, HFS files, CICS resources, and WebSphere MQ queues (see Atlas Microservices APIs for more information).

Note: For IBM File Manager for z/OS 14.1, the File Manager RESTful APIs capabilities is a technical preview that can be optionally installed. It is not supported, and is provided for use as-is.

- Support of the latest z/OS subsystem environments

  – In addition to the supported z/OS software listed for all Application Delivery Foundation for z Systems products, File Manager also supports WebSphere MQ 9.0.

1.2 File Manager FMIDs

File Manager consists of the following FMIDs:

HADLE10 File Manager
JADLE12 File Manager/DB2
JADLE14 File Manager/IMS
JADLE16 File Manager/CICS

Japanese components:
JADLE11 IBM File Manager for z/OS
JADLE13 File Manager/DB2
JADLE15 File Manager/IMS
JADLE17 File Manager/CICS

Korean components:
JADLE1A IBM File Manager for z/OS
JADLE1B File Manager/DB2
JADLE1C File Manager/IMS
JADLE1D File Manager/CICS

2.0 Program Materials

An IBM program is identified by a program number. The program number for File Manager is 5655-Q42.

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 File Manager. 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 28 for more information about how to install the program.

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

Figure 1 describes the program file content for File Manager English components.
Figure 2 on page 6 describes the program file content for File Manager Japanese components.
Figure 3 on page 7 describes the program file content for File Manager Korean components.

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

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 3). Program File Content for File Manager				
Name	ORG	RECFM	LRECL	BLK SIZE
SMPMCS	SEQ	FB	80	3120
IBM.HADLE10.F1	PDS	FB	80	8800
IBM.HADLE10.F2	PDS	FB	80	8800
IBM.HADLE10.F3	PDS	U	0	6144
IBM.HADLE10.F4	PDS	FB	80	8800

Name	ORG	RECFM	LRECL	BLK SIZE
IBM.HADLE10.F5	PDS	FB	80	8800
IBM.HADLE10.F6	PDS	FB	80	8800
IBM.HADLE10.F7	PDS	FB	80	8800
IBM.HADLE10.F8	PDS	FB	80	8800
IBM.HADLE10.F9	PDS	FB	80	8800
IBM.HADLE10.F10	PDS	FB	80	8800
IBM.HADLE10.F11	PDSE	U	0	6144
IBM.HADLE10.F12	PDSE	U	0	6144
IBM.JADLE12.F1	PDS	FB	80	8800
IBM.JADLE12.F2	PDS	FB	80	8800
IBM.JADLE12.F3	PDS	U	0	6144
IBM.JADLE12.F4	PDS	FB	80	8800
IBM.JADLE12.F5	PDS	FB	80	8800
IBM.JADLE12.F6	PDS	FB	80	8800
IBM.JADLE12.F7	PDS	FB	80	8800
IBM.JADLE12.F8	PDS	FB	80	8800
IBM.JADLE12.F9	PDS	FB	80	8800
IBM.JADLE12.F10	PDS	FB	80	8800
IBM.JADLE12.F11	PDS	FB	80	8800
IBM.JADLE12.F12	PDSE	U	0	6144
IBM.JADLE14.F1	PDS	FB	80	8800
IBM.JADLE14.F2	PDS	FB	80	8800
IBM.JADLE14.F3	PDS	U	0	6144
IBM.JADLE14.F4	PDS	FB	80	8800
IBM.JADLE14.F5	PDS	FB	80	8800
IBM.JADLE14.F6	PDS	FB	80	8800
IBM.JADLE14.F7	PDS	FB	80	8800
IBM.JADLE14.F8	PDS	FB	80	8800
IBM.JADLE14.F9	PDSE	U	0	6144

Figure 1 (Page 2 of 3). Program File Content for File Manager

Figure 1 (Page 3 of 3). Program File Content for File Manager				
Name	**O R G**	**R E C F M**	**L R E C L**	**BLK SIZE**
IBM.JADLE16.F1	PDS	FB	80	8800
IBM.JADLE16.F2	PDS	FB	80	8800
IBM.JADLE16.F3	PDS	U	0	6144
IBM.JADLE16.F4	PDS	FB	80	8800
IBM.JADLE16.F5	PDS	FB	80	8800
IBM.JADLE16.F6	PDS	FB	80	8800
IBM.JADLE16.F7	PDS	FB	80	8800
IBM.JADLE16.F8	PDSE	U	0	6144

Figure 2 (Page 1 of 2). Program File Content for File Manager - Japanese				
Name	**O R G**	**R E C F M**	**L R E C L**	**BLK SIZE**
SMPMCS	SEQ	FB	80	3120
IBM.JADLE11.F1	PDS	FB	80	8800
IBM.JADLE11.F2	PDS	U	0	6144
IBM.JADLE11.F3	PDS	FB	80	8800
IBM.JADLE11.F4	PDS	FB	80	8800
IBM.JADLE11.F5	PDS	FB	80	8800
IBM.JADLE13.F1	PDS	FB	80	8800
IBM.JADLE13.F2	PDSE	U	0	6144
IBM.JADLE13.F3	PDS	U	0	6144
IBM.JADLE13.F4	PDS	FB	80	8800
IBM.JADLE13.F5	PDS	FB	80	8800
IBM.JADLE13.F6	PDS	FB	80	8800
IBM.JADLE15.F1	PDS	FB	80	8800
IBM.JADLE15.F2	PDS	U	0	6144
IBM.JADLE15.F3	PDS	FB	80	8800
IBM.JADLE15.F4	PDS	FB	80	8800

Figure 2 (Page 2 of 2). Program File Content for File Manager - Japanese				
Name	**O R G**	**R E C F M**	**L R E C L**	**BLK SIZE**
IBM.JADLE15.F5	PDS	FB	80	8800
IBM.JADLE17.F1	PDS	FB	80	8800
IBM.JADLE17.F2	PDSE	U	0	6144
IBM.JADLE17.F3	PDS	U	0	6144
IBM.JADLE17.F4	PDS	FB	80	8800

Figure 3 (Page 1 of 2). Program File Content for File Manager - Korean				
Name	**O R G**	**R E C F M**	**L R E C L**	**BLK SIZE**
SMPMCS	SEQ	FB	80	3120
IBM.JADLE1A.F1	PDS	FB	80	8800
IBM.JADLE1A.F2	PDS	U	0	6144
IBM.JADLE1A.F3	PDS	FB	80	8800
IBM.JADLE1A.F4	PDS	FB	80	8800
IBM.JADLE1A.F5	PDS	FB	80	8800
IBM.JADLE1B.F1	PDS	FB	80	8800
IBM.JADLE1B.F2	PDSE	U	0	6144
IBM.JADLE1B.F3	PDS	U	0	6144
IBM.JADLE1B.F4	PDS	FB	80	8800
IBM.JADLE1B.F5	PDS	FB	80	8800
IBM.JADLE1B.F6	PDS	FB	80	8800
IBM.JADLE1C.F1	PDS	FB	80	8800
IBM.JADLE1C.F2	PDS	U	0	6144
IBM.JADLE1C.F3	PDS	FB	80	8800
IBM.JADLE1C.F4	PDS	FB	80	8800
IBM.JADLE1C.F5	PDS	FB	80	8800
IBM.JADLE1D.F1	PDS	FB	80	8800
IBM.JADLE1D.F2	PDSE	U	0	6144

Figure 3 (Page 2 of 2). Program File Content for File Manager - Korean				
Name	**O R G**	**R E C F M**	**L R E C L**	**BLK SIZE**
IBM.JADLE1D.F3	PDS	U	0	6144
IBM.JADLE1D.F4	PDS	FB	80	8800

2.2 Program Publications

The following sections identify the basic publications for File Manager.

Figure 4 identifies the basic unlicensed publications for File Manager.

Figure 4. Basic Material: Unlicensed Publications		
Publication Title	**Form Number**	**Media Format**
IBM File Manager for z/OS License Information	LC27-8513	https://www.ibm.com/software/sla/sladb.nsf
IBM File Manager for z/OS Customization Guide	SC27-9041	https://help.blueproddoc.com/filemanager/welcome/index.html
IBM File Manager for z/OS User's Guide and Reference	SC27-9042	https://help.blueproddoc.com/filemanager/welcome/index.html
IBM File Manager for z/OS User's Guide and Reference for DB2 Data	SC27-9043	https://help.blueproddoc.com/filemanager/welcome/index.html
IBM File Manager for z/OS User's Guide and Reference for IMS Data	SC27-9044	https://help.blueproddoc.com/filemanager/welcome/index.html
IBM File Manager for z/OS User's Guide and Reference for CICS	SC27-9045	https://help.blueproddoc.com/filemanager/welcome/index.html

Note: Requisite information can be obtained by creating a report for File Manager on
https://www.ibm.com/software/reports/compatibility/clarity/index.html

2.2.1 Optional Program Publications

No optional publications are provided for File Manager.

2.3 Program Source Materials

No program source materials or viewable program listings are provided for File Manager.

2.4 Publications Useful During Installation

You might want to use the publications listed in Figure 5 during the installation of File Manager.

Figure 5. Publications Useful During Installation	
Publication Title	**Form Number**
IBM SMP/E for z/OS User's Guide	SA23-2277
IBM SMP/E for z/OS Commands	SA23-2275
IBM SMP/E for z/OS Reference	SA23-2276
IBM SMP/E for z/OS Messages, Codes, and Diagnosis	GA32-0883

Note: These publications can be found in IBM Documentation. Use a web browser with internet access to refer to: https://www.ibm.com/docs/en/zos/2.5.0?topic=zos-smpe

3.0 Program Support

This section describes the IBM support available for File Manager.

3.1 Program Services

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

3.2 Preventive Service Planning

Before you install File Manager, 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 6.1.9, "Perform SMP/E APPLY" on page 33 for a sample APPLY command.

If you obtained File Manager as part of a CBPDO, HOLDDATA is included.

If the CBPDO for File Manager 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:

https://esupport.ibm.com/customercare/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 https://www.ibm.com/mysupport/.

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 File Manager are included in Figure 6.

Figure 6 (Page 1 of 2). PSP Upgrade and Subset ID		
UPGRADE	**SUBSET**	**Description**
FILEMANAGER	HADLE10	FILE MANAGER 14.01.00 BASE
FILEMANAGER	JADLE11	FILE MANAGER 14.01.00 JPN
FILEMANAGER	JADLE12	FILE MANAGER 14.01.00 DB2
FILEMANAGER	JADLE13	FILE MANAGER 14.01.00 DB2 JPN

Figure 6 (Page 2 of 2). PSP Upgrade and Subset ID			
UPGRADE	**SUBSET**	**Description**	
FILEMANAGER	JADLE14	FILE MANAGER 14.01.00 IMS	
FILEMANAGER	JADLE15	FILE MANAGER 14.01.00 IMS JPN	
FILEMANAGER	JADLE16	FILE MANAGER 14.01.00 CICS	
FILEMANAGER	JADLE17	FILE MANAGER 14.01.00 CICS JPN	
FILEMANAGER	JADLE1A	FILE MANAGER 14.01.00 KOR	
FILEMANAGER	JADLE1B	FILE MANAGER 14.01.00 DB2 KOR	
FILEMANAGER	JADLE1C	FILE MANAGER 14.01.00 IMS KOR	
FILEMANAGER	JADLE1D	FILE MANAGER 14.01.00 CICS KOR	

3.3 Statement of Support Procedures

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

Figure 7 identifies the component IDs (COMPID) for File Manager.

Figure 7. Component IDs			
FMID	**COMPID**	**Component Name**	**RETAIN Release**
HADLE10	5655Q4200	IBM File Manager Base	E10
JADLE11	5655Q4200	IBM File Manager Base - JPN	E11
JADLE12	5655Q4200	IBM File Manager DB2	E12
JADLE13	5655Q4200	IBM File Manager DB2 - JPN	E13
JADLE14	5655Q4200	IBM File Manager IMS	E14
JADLE15	5655Q4200	IBM File Manager IMS - JPN	E15
JADLE16	5655Q4200	IBM File Manager CICS	E16
JADLE17	5655Q4200	IBM File Manager CICS - JPN	E17
JADLE1A	5655Q4200	IBM File Manager Base - KOR	E1A
JADLE1B	5655Q4200	IBM File Manager DB2 - KOR	E1B
JADLE1C	5655Q4200	IBM File Manager IMS - KOR	E1C
JADLE1D	5655Q4200	IBM File Manager CICS - KOR	E1D

4.0 Program and Service Level Information

This section identifies the program and relevant service levels of File Manager. 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 File Manager have been incorporated into this release. They are listed by FMID.

- FMID HADLE10

PI04887	PI11065	PI21028	PI30844	PI39287
PI05396	PI12254	PI21111	PI30987	PI39569
PI05862	PI12255	PI21196	PI31055	PI39676
PI05982	PI13489	PI21593	PI31082	PI40342
PI06267	PI13639	PI21805	PI31103	PI40608
PI07105	PI14011	PI21830	PI31736	PI40779
PI08347	PI14444	PI21850	PI32751	PI40937
PI08938	PI14700	PI22137	PI33241	PI41010
PI09612	PI15345	PI22448	PI33599	PI41699
PI09811	PI15347	PI22962	PI34492	PI42140
PI09813	PI15348	PI23151	PI34538	PI42196
PI09816	PI15349	PI23205	PI34603	PI42583
PI09817	PI15351	PI23294	PI34844	PI42697
PI09818	PI15352	PI23755	PI34975	PI42708
PI09823	PI15354	PI23961	PI35320	PI42931
PI09824	PI15355	PI24057	PI36252	PI43499
PI09825	PI15424	PI24790	PI36325	PI43659
PI09827	PI15486	PI25239	PI36802	PI43762
PI09829	PI17187	PI25247	PI36848	PI44017
PI09831	PI17337	PI25587	PI36849	PI44448
PI09832	PI17501	PI26217	PI36850	PI44661
PI09833	PI17604	PI26244	PI36851	PI44805
PI09834	PI17709	PI28153	PI36853	PI45327
PI09835	PI17710	PI28286	PI36854	PI45328
PI09836	PI18376	PI28361	PI36855	PI45331
PI09837	PI19300	PI28955	PI36856	PI45490
PI09838	PI19306	PI28956	PI36857	PI45636
PI09839	PI19364	PI28957	PI36858	PI45904
PI09840	PI19618	PI29297	PI36859	PI45961
PI10236	PI20389	PI29332	PI38919	PI46048
PI10781	PI20933	PI29398	PI38922	PI46527

PI46736	PI52096	PI59209	PI66168	PI74742
PI46738	PI52104	PI59696	PI66297	PI74788
PI46992	PI52729	PI60175	PI67096	PI75173
PI47017	PI52908	PI62010	PI68177	PI75191
PI47780	PI53019	PI62514	PI69292	PI76128
PI47926	PI53769	PI62570	PI69351	PI76203
PI48553	PI54100	PI62768	PI69523	PI76995
PI48847	PI54101	PI62804	PI69980	PI77838
PI49370	PI54867	PI63374	PI70050	PI78083
PI49899	PI55124	PI63535	PI70738	PI78213
PI50486	PI55210	PI63637	PI71562	PI78217
PI50796	PI55303	PI64274	PI72269	PI78654
PI51464	PI55515	PI64484	PI72543	PI80174
PI51957	PI56299	PI64642	PI73369	PI84002
PI51958	PI56591	PI65043	PI74241	PM98712
				PM99799

- FMID JADLE11

  PI23538
  PI52214

- FMID JADLE12

PI05860	PI11469	PI25849	PI48956	PI62088
PI11053	PI11470	PI26696	PI50134	PI66429
PI11459	PI14399	PI29475	PI52213	PI67735
PI11461	PI19147	PI31081	PI54338	PI67924
PI11462	PI19148	PI31524	PI57371	PI69594
PI11463	PI19149	PI33608	PI57693	PI70579
PI11464	PI21704	PI35259	PI57695	PI70838
PI11465	PI23273	PI42696	PI58356	PI74056
PI11466	PI25319	PI42698	PI59027	PI81813
PI11468	PI25848			

- FMID JADLE13

  PI52211
  PI56184
  PI79161

- FMID JADLE14

PI04776	PI10558	PI21714	PI29428	PI32485
PI06047	PI10559	PI23328	PI29936	PI32529
PI09504	PI15097	PI24012	PI32336	PI33645

PI34139	PI34973	PI55080	PI59455	PI70756
PI34140	PI36852	PI59105	PI64366	PI72281
				PI79413

- FMID JADLE15

    PI29273

- FMID JADLE16

    PI19473
    PI41899

- FMID JADLE1A

- FMID JADLE1B

    PI52212

- FMID JADLE1C

- FMID JADLE1D

    PI16056
    PI57222

4.2 Service Level Information

No PTFs against this release of File Manager have been incorporated into the product package.

Frequently check the File Manager 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 File Manager. 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 File Manager.

5.1.1 Machine Requirements

File Manager 14.01.00 will run on the following IBM System z servers:

- z14
- z13 or z13s
- zEnterprise EC12 or BC12
- zEnterprise 196 or 114
- z10 Enterprise or Business Class

5.1.2 Programming Requirements

Figure 8. Driving System Software Requirements				
Program Number	Product Name	Minimum VRM	Minimum Service Level will satisfy these APARs	Included in the shipped product?
5650-ZOS	z/OS	02.01.00 or higher	N/A	No
Note: The minimum z/OS level is either what is listed in the table, or the currently minimum supported OS level, whichever is the most recent.				

Note: SMP/E is a requirement for Installation and is an element of z/OS.

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

5.2 Target System Requirements

This section describes the environment of the target system required to install and use File Manager.

File Manager installs in the z/OS (Z038) SREL.

5.2.1 Machine Requirements

File Manager 14.01.00 will run on the following IBM System z servers:

- z14
- z13 or z13s
- zEnterprise EC12 or BC12
- zEnterprise 196 or 114
- z10 Enterprise or Business Class

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.

File Manager has no mandatory installation requisites.

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

File Manager has no conditional installation requisites.

5.2.2.2 Operational Requisites

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

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

Figure 9, Figure 10, Figure 11, and Figure 12 on page 18 list the mandatory operational requisites for File Manager, File Manager/DB2, File Manager/IMS and File Manager/CICS.

Figure 9. Target System Mandatory Operational Requisites	
Program Number	**Product Name and Minimum VRM/Service Level**
5650-ZOS	z/OS 02.01.00 or higher
Note: The minimum z/OS level is either what is listed in the table, or the currently minimum supported OS level, whichever is the most recent.	

Note: Installation might require migration to new releases to obtain support. See https://www.ibm.com/support/lifecycle/

Figure 10. Target System Mandatory Operational Requisites for File Manager/DB2	
Program Number	**Product Name and Minimum VRM/Service Level**
Any **one** of the following:	
5605-DB2	DB2 for z/OS 10.01.00
5697-P31	DB2 Value Unit Edition for z/OS 10.01.00
5615-DB2	DB2 for z/OS 11.01.00
5697-P43	DB2 Value Unit Edition for z/OS 11.01.00
5650-DB2	DB2 for z/OS 12.01.00
5697-P43	DB2 Value Unit Edition for z/OS 12.01.00

Note: Installation might require migration to new releases to obtain support. See https://www.ibm.com/support/lifecycle/

Figure 11. Target System Mandatory Operational Requisites for File Manager/IMS	
Program Number	**Product Name and Minimum VRM/Service Level**
Any **one** of the following:	
5635-A03	IBM IMS for z/OS 12.01.00
5655-DSQ	IBM IMS Value Unit Edition for z/OS 12.01.00
5635-A04	IBM IMS for z/OS 13.01.00
5655-DSM	IBM IMS Value Unit Edition for z/OS 13.01.00
5635-A05	IBM IMS for z/OS 14.01.00
5655-YM3	IBM IMS Transaction Manager Value Unit Edition for z/OS 14.01.00
5655-DSE	IBM IMS Database Manager Value Unit Edition for z/OS 14.01.00

Figure 12. Target System Mandatory Operational Requisites for File Manager/CICS	
Program Number	**Product Name and Minimum VRM/Service Level**
5650-ZOS	Communications Server IP Services 02.01.00 or higher
5650-ZOS	Language Environment for z/OS 02.01.00 or higher
Any **one** of the following:	
5655-S97	CICS Transaction Server for z/OS 04.01.00 or higher
5655-Y04	CICS Transaction Server for z/OS 05.01.00 or higher
5722-DFJ	CICS Transaction Server for z/OS Value Unit Edition 05.01.00 or higher

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

Conditional operational requisites for File Manager base function are listed below. There are no conditional operational requisites for File Manager/DB2, File Manager/IMS, or File Manager/CICS.

Figure 13 (Page 1 of 2). Target System Conditional Operational Requisites		
Program Number	**Product Name and Minimum VRM/Service Level**	**Function**
5695-PMB	Program Management Binder	Load Module Compare functions
5740-SM1	z/OS DFSORT 01.14.00 or higher	Copy functions
5655-R36	WebSphere MQ for z/OS 07.01.00	WebSphere MQ queue support.
56950ZOS	z/OS 02.01.00 or higher	EAV support
Any **one** of the following:		
Any **one** of the following:		

Figure 13 (Page 2 of 2). Target System Conditional Operational Requisites		
Program Number	**Product Name and Minimum VRM/Service Level**	**Function**
5605-DB2	DB2 for z/OS 10.01.00	OAM functions
5697-P31	DB2 Value Unit Edition for z/OS 10.01.00	OAM functions
5615-DB2	DB2 for z/OS 11.01.00	OAM functions
5697-P43	DB2 Value Unit Edition for z/OS 11.01.00	OAM functions
Any **one** of the following:		
5655-S71	IBM Enterprise COBOL for z/OS 04.02.00 or higher	COBOL Copybook functions
5655-W32	IBM Enterprise COBOL for z/OS 05.01.00 or higher	COBOL Copybook functions
5655-EC6	IBM Enterprise COBOL for z/OS 06.01.00 or higher	COBOL Copybook functions
5697-V61	IBM Enterprise COBOL VUE for z/OS 06.01.00 or higher	COBOL Copybook functions

Note: Installation might require migration to new releases to obtain support. See https://www.ibm.com/support/lifecycle/

Note:

For template functions using High Level Assembler, ensure that the HLASM library, SASMMOD1, is available to File Manager.

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.

File Manager 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.

File Manager has no negative requisites.

5.2.3 DASD Storage Requirements

File Manager libraries can reside on all supported DASD types.

Figure 14 on page 20, Figure 15 on page 20, and Figure 16 on page 20 list the total space that is required for each type of library.

Figure 14. Total DASD Space Required by File Manager		
Library Type	**Total Space Required in 3390 Trks**	**Description**
Target	3345 tracks	
Distribution	3345 tracks	

Figure 15. Total DASD Space Required by File Manager Japanese components	
Library Type	**Total Space Required in 3390 Trks**
Target	1470 tracks
Distribution	1470 tracks

Figure 16. Total DASD Space Required by File Manager Korean components	
Library Type	**Total Space Required in 3390 Trks**
Target	1470 tracks
Distribution	1470 tracks

Notes:

1. For non-RECFM U data sets, IBM recommends using system-determined block sizes for efficient DASD utilization. For RECFM U data sets, IBM recommends using a block size of 32760, which is most efficient from the performance and DASD utilization perspective.

2. Abbreviations used for data set types are shown as follows.

   U   Unique data set, allocated by this product and used by only this product. This table provides all the required information to determine the correct storage for this data set. You do not need to refer to other tables or program directories for the data set size.

   S   Shared data set, allocated by this product and used by this product and other products. To determine the correct storage needed for this data set, add the storage size given in this table to those given in other tables (perhaps in other program directories). If the data set already exists, it must have enough free space to accommodate the storage size given in this table.

E Existing shared data set, used by this product and other products. This data set is *not* allocated by this product. To determine the correct storage for this data set, add the storage size given in this table to those given in other tables (perhaps in other program directories). If the data set already exists, it must have enough free space to accommodate the storage size given in this table.

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

For more information about the names and sizes of the required data sets, see 6.1.7, "Allocate SMP/E Target and Distribution Libraries" on page 32.

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 the exception of SFMNMODA, AFMNMODA, SFMNMOD1, AFMNMOD1, SFMNMOD2, AFMNMOD2, SFMNMODJ, AFMNMODJ, SFMNMODK, AFMNMODK, which must be PDSEs.

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 not be in the LPA, with some exceptions. If the value in the "Member Type" column specifies "LPA", it is advised to place the data set in the LPA.
- These data sets can be in the LNKLST.
- These data sets are not required to be APF-authorized, except for SFMNMODA, which must be APF authorized. Certain functions will not be available to all users if the File Manager load library, SFMNMOD1, is not APF-authorized. For more information see the *File Manager Customization Guide*.
- File Manager requires that the SMPLTS data set must be a PDSE. If your existing SMPLTS is a PDS, you will need to allocate a new PDSE and copy your existing SMPLTS into it and then change the SMPLTS DDDEF entry to indicate the new PDSE data set.

The following figures describe the target and distribution libraries required to install File Manager. The storage requirements of File Manager must be added to the storage required by other programs that have data in the same library.

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 17. Storage Requirements for File Manager Target Libraries

Library DDNAME	Member Type	Target Volume	TYPE	ORG	RECFM	LRECL	No. of 3390 Trks	No. of DIR Blks
SFMNCLIB	Clist	ANY	U	PDS	FB	80	15	5
SFMNDBRM	Data	ANY	U	PDS	FB	80	60	10
SFMNEXEC	Exec	ANY	U	PDS	FB	80	45	10
SFMNMAC1	Macro	ANY	U	PDS	FB	80	60	5
SFMNMENU	Message	ANY	U	PDS	FB	80	60	60
SFMNMODA	LMOD	ANY	U	PDSE	U	0	300	n/a
SFMNMOD1	LMOD	ANY	U	PDSE	U	0	1125	n/a
SFMNMOD2	LMOD	ANY	U	PDSE	U	0	45	n/a
SFMNPENU	Panel	ANY	U	PDS	FB	80	1350	400
SFMNSAM1	Sample	ANY	U	PDS	FB	80	225	25
SFMNSLIB	Skel	ANY	U	PDS	FB	80	30	10
SFMNTENU	Table	ANY	U	PDS	FB	80	30	5

Figure 18. Storage Requirements for File Manager Japanese component Target Libraries

Library DDNAME	Member Type	Target Volume	TYPE	ORG	RECFM	LRECL	No. of 3390 Trks	No. of DIR Blks
SFMNMODJ	LMOD	ANY	U	PDSE	U	0	30	n/a
SFMNPJPN	Panel	ANY	U	PDS	FB	80	1350	400
SFMNMJPN	Message	ANY	U	PDS	FB	80	60	60
SFMNTJPN	Table	ANY	U	PDS	FB	80	30	5

Figure 19 (Page 1 of 2). Storage Requirements for File Manager Korean component Target Libraries

Library DDNAME	Member Type	Target Volume	TYPE	ORG	RECFM	LRECL	No. of 3390 Trks	No. of DIR Blks
SFMNMODK	LMOD	ANY	U	PDSE	U	0	30	n/a
SFMNPKOR	Panel	ANY	U	PDS	FB	80	1350	400

Figure 19 (Page 2 of 2). Storage Requirements for File Manager Korean component 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
SFMNMKOR	Message	ANY	U	PDS	FB	80	60	60
SFMNTKOR	Table	ANY	U	PDS	FB	80	30	5

Figure 20. Storage Requirements for File Manager Distribution Libraries							
Library DDNAME	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
AFMNCLIB	U	PDS	FB	80	15	5
AFMNDBRM	U	PDS	FB	80	60	10
AFMNEXEC	U	PDS	FB	80	45	10
AFMNMAC1	U	PDS	FB	80	60	5
AFMNMENU	U	PDS	FB	80	60	60
AFMNMODA	U	PDSE	U	0	300	n/a
AFMNMOD1	U	PDSE	U	0	1125	n/a
AFMNMOD2	U	PDS	U	0	45	n/a
AFMNPENU	U	PDS	FB	80	1350	400
AFMNSAM1	U	PDS	FB	80	225	25
AFMNSLIB	U	PDS	FB	80	30	10
AFMNTENU	U	PDS	FB	80	30	5

Figure 21. Storage Requirements for File Manager Japanese component Distribution Libraries							
Library DDNAME	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
AFMNMODJ	U	PDSE	U	0	30	n/a
AFMNPJPN	U	PDS	FB	80	1350	400
AFMNMJPN	U	PDS	FB	80	60	60
AFMNTJPN	U	PDS	FB	80	30	5

	R			L		
Figure 22. Storage Requirements for File Manager Korean component Distribution Libraries						
Library DDNAME	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
AFMNMODK	U	PDSE	U	0	30	n/a
AFMNPKOR	U	PDS	FB	80	1350	400
AFMNMKOR	U	PDS	FB	80	60	60
AFMNTKOR	U	PDS	FB	80	30	5

5.3 FMIDs Deleted

Installing File Manager 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 File Manager 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

PDSE Considerations:

File Manager uses the "partitioned data set extended" or PDSE format for its LMOD
 target libraries. There are some operational differences between PDS and PDSE data sets. The PDS format may be shared by more than one z/OS system and no special precautions are necessary. However the PDSE format may only be shared by z/OS systems which are part of a sysplex or which are connected using Global Resource Serialization (are in a GRS complex). If z/OS systems share use of a PDSE data set outside of a sysplex or GRS environment, you may experience severe problems when the data set is updated. This is due to the fact that PDSE directory information is cached in storage, and when the data set is updated from one system the other system(s) have no knowledge of the update, and their cached directory information will be incorrect.

You must take care not to share these data sets between z/OS systems unless they are in a sysplex or are connected in a GRS complex. If you need to share the content of these libraries, a separate copy must be created for each z/OS system.

5.4.1 Coexistence with Previous Versions of File Manager

File Manager Version 13:

There are no actions required.

File Manager Version 12:

There are no actions required.

File Manager Version 11:

If you do not intend to use File Manager version 11 and File Manager version 14 concurrently, no action is required.
If you intend to use File Manager version 11 and File Manager version 14 concurrently, you should ensure that 11 APAR PM57758 is installed prior to installing File Manager Version 14. The template format used by File Manager version 14 is different to that used in File Manager version 11, and APAR PM57758 is required to allow File Manager version 11 to tolerate templates generated by File Manager version 14.

File Manager Version 10:

If you do not intend to use File Manager version 10 and File Manager version 14 concurrently, no action is required.
If you intend to use File Manager version 10 and File Manager version 14 concurrently, you should ensure that 10 APAR PM57756 is installed prior to installing File Manager Version 14. The template format used by File Manager version 14 is different to that used in File Manager version 10, and APAR PM57758 is required to allow File Manager version 10 to tolerate templates generated by File Manager version 14.

File Manager Version 9 or earlier:

If you do not intend to use the older version of File Manager and File Manager version 14 concurrently, no action is required.
If you intend to use the older version of File Manager and File Manager version 14 concurrently:

- You can continue to use any templates generated using the older version of File Manager with File Manager version 14.

- You should avoid using templates generated with File Manager version 14 with the older version of File Manager.

5.4.2 File Manager and COBOL Compiler

Changes have occurred in the packaging of File Manager. If you previously installed an earlier version of File Manager, you should consider the following information.

LMOD target libraries are now in PDSE format.

A version of the COBOL compiler specifically for File Manager is included. These COBOL compiler modules are installed into SFMNMOD1 by the APPLY step for File Manager base component. If you are upgrading from a version of File Manager earlier than version 7, you should review the space requirements for SFMNMOD1.

The COBOL module names are FMN9xxxx and they are installed as ++PROGRAM in SMP/E.

This is a reduced-function COBOL compiler and cannot be used to generate executable COBOL programs.

File Manager overrides certain COBOL compiler options when it invokes the COBOL compiler. These options are listed below. Therefore these options cannot be marked as 'fixed' in the COBOL default options module IGYCDOPT.

ADATA	LIB
ADEXIT	LINECOUNT
ARITH	OBJECT
COMPILE	OPTIMIZE
DBCS	PRTEXIT
DECK	SQL
FLAG	STGOPT
EXIT	

If you have any of these options fixed at your site, you will need to build a File Manager-specific installation options module that does not have these options fixed, and make this module available to the COBOL compiler when it is invoked by File Manager.

For more information on how to make the module available to File Manager, see the *File Manager Customization Guide*. For information on changing COBOL default options and building an options module for a specific purpose, see the appropriate COBOL Customization book.

Note: If you are using the File Manager-supplied COBOL compiler, then you cannot provide any other default options module. These options, as supplied in the File Manager-supplied compiler are not fixed, and this cannot be changed.

5.4.3 File Manager Base Function

File Manager ships an internal version of a PL/I compiler for use by File Manager.

To make sure you use the correct runtime, concatenate the Language Environment library, SCEERUN, to your link list in front of any other PL/I runtime library.

To process High Level Assembler copybooks, ensure that the HLASM load library, ASM.SASMMOD1, is available to File Manager.

You can optionally enable File Manager to use the DFSORT COPY function to improve the performance of the File Manager Data Set Copy and Data Set Print functions.

For information on how to enable File Manager to use DFSORT, see the *File Manager Customization Guide*.

For function access control and authorization verification, RACF® 01.09.00, Security Server or a functionally equivalent security package is required.

If you plan to use File Manager base function with functions making use of the object access method objects, DB2 UDB for z/OS 10.01.00 or subsequent versions or releases, or DB2 VUE for z/OS 10.01.00 or subsequent versions or releases, are required.

5.4.4 File Manager/DB2

File Manager/DB2 has no special considerations for the target system.

5.4.5 File Manager/IMS

File Manager/IMS has no special considerations for the target system.

5.4.6 File Manager/CICS

File Manager/CICS has no special considerations for the target system.

5.4.7 IBM Application Delivery Foundation for z Systems Common Components (ADFz Common Components)

ADFz Common Components is required if you plan to use the File Manager CICS component and/or the ADFz Common Components Common Server component.

If you have previously received ADFz Common Components (FMID HVWR180) and installed it into the target and distribution zones where you intend to install File Manager, there is no need to install the newly received ADFz Common Components again.

6.0 Installation Instructions

This chapter describes the installation method and the step-by-step procedures to install and to activate the functions of File Manager.

Please note the following points:

- If you want to install File Manager 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 File Manager

6.1.1 SMP/E Considerations for Installing File Manager

Use the SMP/E RECEIVE, APPLY, and ACCEPT commands to install this release of File Manager.

6.1.2 SMP/E Environment

Sample jobs are provided to assist you in installing File Manager. After the RECEIVE steps for File Manager have been completed, the sample jobs can be found in SMPTLIB: **hlq1.HADLE10.F2**, where hlq1 is the high level qualifier as defined in the DSPREFIX in the CSI.

If you have received the File Manager Japanese component, sample jobs can be found in **hlq2.HADLE10.F2**, where hlq2 is the high level qualifier as defined in the DSPREFIX in the CSI.

If you have received the File Manager Korean component, sample job can be found in **hlq3.HADLE10.F2**, where hlq3 is the high level qualifier as defined in the DSPREFIX in the CSI.

Make a copy of these jobs in your own library and modify them for use during the installation of File Manager. These sample jobs are described in Figure 24 on page 29, Figure 25 on page 29, and Figure 26 on page 30.

Alternatively, these sample jobs may be directly unloaded from the product tape. See 6.1.4, "Sample Jobs" on page 29.

All SMP/E installation jobs provided assume that all necessary DD statements for the execution of SMP/E are defined using DDDEFs.

In the sample SMP/E jobs provided, the name of the SMP/E CSI is `#globalcsi`. The global zone name in the SMP/E CSI is `GLOBAL`. The distribution zone name is `#dzone`. The target zone name is `#tzone`. The sample jobs should be updated to reflect the CSI and zone names used at your installation.

6.1.3 SMP/E Options Subentry Values

The recommended values for certain SMP/E CSI subentries are shown in Figure 23. 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 23. SMP/E Options Subentry Values		
Subentry	**Value**	**Comment**
DSSPACE	(600,100,1000)	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 File Manager:

Figure 24. Sample Installation Jobs			
Job Name	**Job Type**	**Description**	**SMPTLIB Data Set**
FMNALSMP (optional)	SMP/E	Sample job to define an SMP/E environment.	IBM.HADLE10.F2
FMNRECEV	RECEIVE	Sample RECEIVE job for File Manager	IBM.HADLE10.F2
FMNALLOC	ALLOCATE	Sample job to allocate target and distribution libraries	IBM.HADLE10.F2
FMNDDDEF	DDDEF	Sample job to define SMP/E DDDEFs	IBM.HADLE10.F2
FMNAPPLY	APPLY	Sample APPLY job for File Manager	IBM.HADLE10.F2
FMNVERIF	VERIFY	Sample batch job to verify installation of the base function	IBM.HADLE10.F2
FMNACCEP	ACCEPT	Sample ACCEPT job for File Manager	IBM.HADLE10.F2

Figure 25 (Page 1 of 2). Sample Installation Jobs for File Manager Japanese components			
Job Name	**Job Type**	**Description**	**RELFILE**
FMNRECVJ	RECEIVE	Sample RECEIVE job for File Manager Japanese components	IBM.HADLE10.F2

Figure 25 (Page 2 of 2). Sample Installation Jobs for File Manager Japanese components			
Job Name	**Job Type**	**Description**	**RELFILE**
FMNALLOJ	ALLOCATE	Sample job to allocate target and distribution libraries for File Manager Japanese components	IBM.HADLE10.F2
FMNDDDFJ	DDDEF	Sample job to define SMP/E DDDEFs for File Manager Japanese components	IBM.HADLE10.F2
FMNAPLYJ	APPLY	Sample APPLY job for File Manager Japanese components	IBM.HADLE10.F2
FMNACPTJ	ACCEPT	Sample ACCEPT job for File Manager for Japanese components	IBM.HADLE10.F2

Figure 26. Sample Installation Jobs for File Manager Korean components			
Job Name	**Job Type**	**Description**	**RELFILE**
FMNRECVK	RECEIVE	Sample RECEIVE job for File Manager Korean components	IBM.HADLE10.F2
FMNALLOK	ALLOCATE	Sample job to allocate target and distribution libraries for File Manager Korean components	IBM.HADLE10.F2
FMNDDDFK	DDDEF	Sample job to define SMP/E DDDEFs for File Manager Korean components	IBM.HADLE10.F2
FMNAPLYK	APPLY	Sample APPLY job for File Manager Korean components	IBM.HADLE10.F2
FMNACPTK	ACCEPT	Sample ACCEPT job for File Manager for Korean components	IBM.HADLE10.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 32) then copy the jobs from the SMPTLIB data sets to a work data set for editing and submission. See Figure 24 on page 29 to find the appropriate relfile data set.

You can also copy the sample installation jobs from the product files by submitting the following job. 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=*
//IN       DD DSN=IBM.HADLE10.F2,UNIT=SYSALLDA,DISP=SHR,
//         VOL=SER=filevol
//OUT      DD DSNAME=jcl-library-name,
//         DISP=(NEW,CATLG,DELETE),
//         VOL=SER=dasdvol,UNIT=SYSALLDA,
//         SPACE=(TRK,(20,10,5))
//SYSUT3   DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
//SYSIN    DD *
```

```
    COPY INDD=IN,OUTDD=OUT
    SELECT MEMBER=(FMNALSMP,FMNRECEV,FMNALLOC,FMNDDDEF)
    SELECT MEMBER=(FMNAPPLY,FMNVERIF,FMNACCEP)
/*
```

To copy the sample jobs for the File Manager Japanese components, use this JCL.

```
//STEP1    EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=*
//IN       DD DSN=IBM.HADLE10.F2,UNIT=SYSALLDA,DISP=SHR,
//         VOL=SER=filevol
//OUT      DD DSNAME=jcl-library-name,
//         DISP=(NEW,CATLG,DELETE),
//         VOL=SER=dasdvol,UNIT=SYSALLDA,
//         SPACE=(8800,(5,2,5))
//SYSUT3   DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
//SYSIN    DD *
    COPY INDD=IN,OUTDD=OUT
    SELECT MEMBER=(FMNRECVJ,FMNALLOJ,FMNDDDFJ,FMNAPLYJ,FMNACPTJ)
/*
```

To copy the sample jobs for the File Manager Korean components, use this JCL.

```
//STEP1    EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=*
//IN       DD DSN=IBM.HADLE10.F2,UNIT=SYSALLDA,DISP=SHR,
//         VOL=SER=filevol
//OUT      DD DSNAME=jcl-library-name,
//         DISP=(NEW,CATLG,DELETE),
//         VOL=SER=dasdvol,UNIT=SYSALLDA,
//         SPACE=(8800,(5,2,5))
//SYSUT3   DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
//SYSIN    DD *
    COPY INDD=IN,OUTDD=OUT
    SELECT MEMBER=(FMNRECVK,FMNALLOK,FMNDDDFK,FMNAPLYK,FMNACPTK)
/*
```

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

IN:
    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. Uncomment
    the statment if a volume serial must be provided.

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 FMNALSMP to allocate the SMP/E data set for File Manager. 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 File Manager as part of a CBPDO, use the RCVPDO job in the CBPDO RIMLIB data set to receive the File Manager 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 FMNRECEV to perform the SMP/E RECEIVE for File Manager base function, and the DB2, IMS and CICS components. If you do not want to RECEIVE File Manager/DB2, File Manager/IMS or File Manager/CICS at this time, remove the FMID for that component from the sample job. Consult the instructions in the sample job for more information.

If you want to receive the File Manager Japanese components, edit and submit the sample job FMNRECVJ to perform the SMP/E RECEIVE for these components. Consult the instructions in the sample job for more information.

If you want to receive the File Manager Korean components, edit and submit the sample job FMNRECVK to perform the SMP/E RECEIVE for these components. 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 run correctly.

6.1.7 Allocate SMP/E Target and Distribution Libraries

Edit and submit sample job FMNALLOC to allocate the SMP/E target and distribution libraries for File Manager. Consult the instructions in the sample job for more information.

If you have received any File Manager Japanese components, edit and submit the sample job FMNALLOJ to allocate SMP/E target and distribution libraries for these components. Consult the instructions in the sample job for more information.

If you have received any File Manager Korean components, edit and submit the sample job FMNALLOK to allocate SMP/E target and distribution libraries for these components. 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 run correctly.

6.1.8 Create DDDEF Entries

Edit and submit sample job FMNDDDEF to create DDDEF entries for the SMP/E target and distribution libraries for File Manager, and the DB2, IMS, and CICS components.

If you are not installing any component, remove or comment out the step for that component from the sample job.

Consult the instructions in the sample job for more information.

If you have received any File Manager Japanese components, edit and submit the sample job FMNDDDFJ to create DDDEF entries for the SMP/E target and distribution libraries for these components. Consult the instructions in the sample job for more information.

If you have received any File Manager Korean components, edit and submit the sample job FMNDDDFK to create DDDEF entries for the SMP/E target and distribution libraries for these components. 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 run correctly.

6.1.9 Perform SMP/E APPLY

1. Ensure that you have the latest HOLDDATA; then edit and submit sample job FMNAPPLY to perform an SMP/E APPLY CHECK for File Manager and the DB2, IMS and CICS components. If you do not want to APPLY any component, remove the FMID for that component from the sample job. Consult the instructions in the sample job for more information.

   You cannot perform an SMP/E APPLY for File Manager/DB2, File Manager/IMS or File Manager/CICS unless you are also APPLYing, or have already APPLIED, File Manager base function. However, you can apply File Manager/DB2, File Manager/IMS, and File Manager/CICS together.

   If you have received any File Manager Japanese components, edit and submit the sample job FMNAPLYJ to perform an SMP/E APPLY CHECK for these components. Consult the instructions in the sample job for more information.

   If you have received any File Manager Korean components, edit and submit the sample job FMNAPLYK to perform an SMP/E APPLY CHECK for these components. Consult the instructions in the sample job for more information.

   The latest HOLDDATA is available through several different portals, including https://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 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 these jobs run correctly.

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

6.1.10 Define PARMLIB members

File Manager (each component separately and independently) can optionally be set-up to use SAF-rule controlled auditing, based on the values set in certain members in SYS1.PARMLIB (or any other library in the system parmlib concatenation. The determination of whether to use SAF-rule controlled auditing is a customization task, and is described in the *IBM File Manager for z/OS Customization Guide*, SC27-9041. A specific SAF rule (or rules) need to be defined to activate SAF-rule controlled auditing and PARMLIB processing. If these specific SAF rules are not defined, File Manager components will not attempt to access SYS1.PARMLIB.

If you do not intend to use SAF-rule controlled auditing for any File Manager component, you can skip the rest of this section.

When SAF-rule controlled auditing and PARMLIB processing is required for a File Manager component, a specific member needs to be added to SYS1.PARMLIB (or any other library in the system parmlib concatenation). Default parmlib members are provided in hlq.SFMNSAM1.

If you intend to use SAF-rule controlled auditing for File Manager base, copy member FMN0PARM to the appropriate system parmlib library.

If you are installing File Manager/IMS and intend to use SAF-rule controlled auditing for File Manager/IMS, copy member FMN1PARM to the appropriate system parmlib library.

If you are installing File Manager/DB2 and intend to use SAF-rule controlled auditing for File Manager/DB2, copy member FMN2PARM to the appropriate system parmlib library.

If you are installing File Manager/CICS and intend to use SAF-rule controlled auditing for File Manager/CICS, copy member FMN3PARM to the appropriate system parmlib library.

The *IBM File Manager for z/OS Customization Guide*, SC27-9041 contains more information on customizing these members, and methods to include them in the system parmlib concatenation.

Note: File Manager will not start when SAF-rule controlled auditing is active and the required parmlib member does not exist in the system parmlib concatenation.

6.1.11 Verify the Installation of File Manager

To verify the successful installation of File Manager base function, edit and submit the sample batch job FMNVERIF. Consult the instructions in the sample job for more information. This job will produce a listing showing the product level of File Manager, and sample data file outputs. The job uses the DSP function and produces output in both hex and tabular form. There are three steps: using a sample COBOL template and copybook, using a sample HLASM copybook and using a PL/I INCLUDE book. FMNVERIF is distributed in **hlq.**SFMNSAM1.

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

To verify the successful installation and customization of File Manager/DB2, you need to create a small sample database, run a batch job and perform some tasks using File Manager/DB2. This process is described in the *File Manager Customization Guide*.

To verify the successful installation and customization of File Manager/IMS, you need to run a number of batch jobs to set up IMS databases, and then use File Manager/IMS to work with these databases. This process is described in the *File Manager Customization Guide*.

To verify the successful installation and customization of File Manager/CICS, follow the verification process described in the *File Manager Customization Guide*.

6.1.12 Perform SMP/E ACCEPT

Edit and submit sample job FMNACCEP to perform an SMP/E ACCEPT CHECK for File Manager and the DB2, IMS and CICS components. If you do not want to ACCEPT any component, remove the FMID for that component from the sample job. Consult the instructions in the sample job for more information.

If you have applied any File Manager Japanese components, edit and submit the sample job FMNACPTJ to perform an SMP/E ACCEPT CHECK for the these components. Consult the instructions in the sample job for more information.

If you have applied any File Manager Korean components, edit and submit the sample job FMNACPTK to perform an SMP/E ACCEPT CHECK for the these components. 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 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 these jobs run 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 run correctly.

6.1.13 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 File Manager, 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 File Manager

6.2.1 Product Customization

The publications *IBM File Manager for z/OS Customization Guide,* SC27-9041, contains the necessary information to register, customize and use File Manager

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