



**Program Directory for
Download for z/OS
Feature of PSF for z/OS**

V04.07.00

Program Number 5655-M32

FMID JPRF472

for Use with
z/OS

Document Date: December 2019

GI13-3007-02

Note

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

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1.0 Introduction

This program directory is intended for system programmers who are responsible for program installation and maintenance. It contains information about the material and procedures associated with the installation of Download for z/OS. This publication refers to Download for z/OS as Download.

The Program Directory contains the following sections:

2.0, "Program Materials" on page 3 identifies the basic program materials and documentation for Download.

3.0, "Program Support" on page 5 describes the IBM support available for Download.

4.0, "Program and Service Level Information" on page 7 lists the APARs (program level) and PTFs (service level) that have been incorporated into Download.

5.0, "Installation Requirements and Considerations" on page 9 identifies the resources and considerations that are required for installing and using Download.

6.0, "Installation Instructions" on page 17 provides detailed installation instructions for Download. It also describes the procedures for activating the functions of Download, or refers to appropriate publications.

Before installing Download, 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 5 tells you how to find any updates to the information and procedures in this program directory.

Download 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 Download are included on the CBPDO.

Do not use this program directory if you install Download 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 Download Description

Download for z/OS automatically transmits line data, mixed mode, XML data, MO:DCA-P data (including MO:DCA IS/3, MO:DCA AFP/A, MO:DCA AFP/A, IS/3, and MO:DCA GA), and many other data streams from the JES spool to receiving systems through TCP/IP connections. This process eliminates the need for manual print file transfer with File Transfer Protocol (FTP). A cooperating print server or archive server that is running on a receiving system receives the data sets for printing with PSF for z/OS or AIX, Linux, or Windows programs, or for archiving with Content Manager OnDemand. Download for z/OS provides highspeed data transfer, JES scheduling, job management, data integrity, and job accounting for distributed production print management.

1.2 Download FMID

Download consists of the following FMID:

JPRF472

2.0 Program Materials

An IBM program is identified by a program number. The program number for Download is 5655-M32.

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 Download. 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 17 for more information about how to install the program.

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

2.2 Program Publications

The following sections identify the basic publications for Download.

Figure 1 identifies the basic unlicensed publications for Download. Those that are in softcopy format publications can be obtained from the IBM Publications Center website at <https://www.ibm.com/support/knowledgecenter>.

<i>Figure 1. Basic Material: Unlicensed Publications</i>		
Publication Title	Form Number	Media Format
<i>PSF for z/OS: Download for z/OS</i>	S550-0429	https://www.ibm.com/support/knowledgecenter

2.3 Program Source Materials

No program source materials or viewable program listings are provided for Download.

2.4 Publications Useful During Installation

You might want to use the publications listed in Figure 2 on page 4 during the installation of Download.

<i>Figure 2. Publications Useful During Installation</i>		
Publication Title	Form Number	Media Format
<i>IBM SMP/E for z/OS User's Guide</i>	SA23-2277	https://www.ibm.com/support/knowledgecenter
<i>IBM SMP/E for z/OS Commands</i>	SA23-2275	https://www.ibm.com/support/knowledgecenter
<i>IBM SMP/E for z/OS Reference</i>	SA23-2276	https://www.ibm.com/support/knowledgecenter
<i>IBM SMP/E for z/OS Messages, Codes, and Diagnosis</i>	GA32-0883	https://www.ibm.com/support/knowledgecenter
<i>Print Services Facility for z/OS: Introduction</i>	G550-0430	https://www.ibm.com/support/knowledgecenter
<i>Print Services Facility for z/OS: User's Guide</i>	S550-0435	https://www.ibm.com/support/knowledgecenter
<i>Print Services Facility for z/OS: Customization</i>	S550-0427	https://www.ibm.com/support/knowledgecenter
<i>Print Services Facility for z/OS: Messages and Codes</i>	G550-0432	https://www.ibm.com/support/knowledgecenter
<i>Print Services Facility for z/OS: Diagnosis</i>	G550-0428	https://www.ibm.com/support/knowledgecenter
<i>Print Services Facility for z/OS: Security Guide</i>	S550-0434	https://www.ibm.com/support/knowledgecenter
<i>Print Services Facility for z/OS: Licensed Programming Specifications</i>	G550-0431	https://www.ibm.com/support/knowledgecenter
<i>PSF for z/OS: AFP Download Plus</i>	S550-0433	https://www.ibm.com/support/knowledgecenter
<i>IBM Content Manager OnDemand for Multiplatforms: Installation and Configuration Guide.</i>	GC19-3342	https://www.ibm.com/support/knowledgecenter

3.0 Program Support

This section describes the IBM support available for Download.

3.1 Program Services

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

3.2 Preventive Service Planning

Before you install Download, 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-REQUIRESERVICE fix category in SMP/E to ensure you have all the recommended service installed. Use the **FIXCAT(IBM.PRODUCTINSTALL-REQUIRESERVICE)** operand on the **APPLY CHECK** command. See 6.2.7, "Perform SMP/E APPLY" on page 18 for a sample APPLY command

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

If the CBPDO for Download 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.ibm.com/support/>.

PSP Buckets are identified by UPGRADEs, which specify product levels; and SUBSETs, which specify the FMIDs for a product level. The UPGRADE and SUBSET values for Download are included in Figure 3.

<i>Figure 3. PSP Upgrade and Subset ID</i>		
UPGRADE	SUBSET	Description
PSFMVS470	JPRF472	DOWNLOAD FOR z/OS

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 4 on page 6 identifies the component IDs (COMPID) for Download.

<i>Figure 4. Component IDs</i>			
FMID	COMPID	Component Name	RETAIN Release
JPRF472	5655M3201	PSF V4R7 Download	472

4.0 Program and Service Level Information

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

FMID JPRF462

OA54593

4.2 Service Level Information

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

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

5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating Download. 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 Download.

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 5. Driving System Software Requirements

Program Number	Product Name	Minimum VRM	Minimum Service Level will satisfy these APARs	Included in the shipped product?
5650-ZOS	z/OS	V02.02.00 or higher	N/A	No

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

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

5.2 Target System Requirements

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

Download installs in the z/OS (Z038) SREL.

5.2.1 Machine Requirements

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

5.2.2 Programming Requirements

5.2.2.1 Installation Requisites

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

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

Figure 6. Target System Mandatory Installation Requisites

Program Number	Product Name	Minimum VRM	Minimum Service Level will satisfy these APARs	Included in the shipped product?
5655-M32	PSF for z/OS	V04.07.00	N/A	No
5650-ZOS	z/OS	V02.02.00 or higher	N/A	No

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

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

Download 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.

Download has no mandatory operational requisites.

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. These products can be on z/OS, AIX, Linux, or Windows.

The following table lists the z/OS possibilities.

<i>Figure 7. Target System Conditional Operational Requisites</i>		
Program Number	Product Name and Minimum VRM/Service Level	Function
5655-M32	AFP Download Plus feature of PSF 4.7.0 for z/OS	For a remote system to receive output from Download
5724-J33	Content Manager OnDemand for Multiplatforms, Version 9.0 or later	For a remote system to receive output from Download

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.

Download 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.

Download has no negative requisites.

5.2.3 DASD Storage Requirements

Download libraries can reside on all supported DASD types.

Figure 8 lists the total space that is required for each type of library.

<i>Figure 8. Total DASD Space Required by Download</i>		
Library Type	Total Space Required in 3390 Trks	Description
Target	5 Tracks	
Distribution	8 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 6.2.5, "Allocate SMP/E Target and Distribution Libraries" on page 18.

3. All target and distribution libraries listed have the following attributes:

- The default name of the data set can be changed.
- The default block size of the data set can be changed.
- The data set can be merged with another data set that has equivalent characteristics.
- The data set can be either a PDS or a PDSE, with some exceptions. If the value in the "ORG" column specifies "PDS", the data set must be a PDS. If the value in "DIR Blks" column specifies "N/A", the data set must be a PDSE.

4. All target libraries listed have the following attributes:

- These data sets can be SMS-managed, but they are not required to be SMS-managed.
- These data sets are not required to reside on the IPL volume.
- The values in the "Member Type" column are not necessarily the actual SMP/E element types that are identified in the SMPMCS.

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

- These data sets can 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 LNKLIST.
- These data sets are not required to be APF-authorized, with some exceptions. If the value in the "Member Type" column specifies "APF", the data set must be APF-authorized.

The following figures describe the target and distribution libraries and file system paths required to install Download. The storage requirements of Download 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 9. Storage Requirements for Download 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
LINKLIB	LMOD	TVOL1	E	PDS	U	0	3	1
PROCLIB	Proc	TVOL1	E	PDS	FB	80	1	1
SAMPLIB	Sample	TVOL2	E	PDS	FB	80	1	1

Figure 10. Storage Requirements for Download 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
AAPSMOD0	E	PDS	U	0	6	3
APROCLIB	E	PDS	FB	80	1	1
ASAMPLIB	E	PDS	FB	80	1	1

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

Figure 11. Storage Requirements for Download Non-SMP/E Data Sets

Data Set Name	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
MVSDLOAD.ROUT.FILE	U	PS	FB	80	1	0

5.3 FMIDs Deleted

Installing Download 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 Download 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

5.4.1 Migration

If you would like to keep the Download installation exit from your currently installed release of Download, then copy the installation exit APSUX15M or APSUX15X from the SAMPLIB data set to a temporary data set so that it is not overwritten when Download is installed.

After the installation is completed, copy the APSUX15M or APSUX15X member back to the SAMPLIB data set.

If you want to use your exit from your currently installed release of Download, it must be reassembled prior to use.

5.4.2 SYS1.PARMLIB member IFAPRD00

The SYS1.PARMLIB member, IFAPRD00, may have been customized by IBM to enable the IBM products and optional integrated features specifically ordered by you.

Please verify that the SYS1.PARMLIB member IFAPRD00 contains the following information for Download and add if necessary.

```
PRODUCT OWNER('IBM CORP')
      NAME('PSF for z/OS')
      ID(5655-M32)
      VERSION(*)
      RELEASE(*)
      MOD(*)
      FEATURENAME('Download')
      STATE(ENABLED)
```

6.0 Installation Instructions

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

Please note the following points:

If you want to install Download 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.

6.1.1 Remote System Requirements

To use Download, the programming requirements on the remote system can be one of these:

AFP Download Plus feature of PSF V4.7.0 for z/OS
Content Manager OnDemand for Multiplatforms, Version 9.0 or later
AIX, Linux, or Windows print server

6.2 Installing Download

6.2.1 SMP/E Considerations for Installing Download

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

6.2.2 SMP/E Options Subentry Values

The recommended values for certain SMP/E CSI subentries are shown in Figure 12. 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.

<i>Figure 12. SMP/E Options Subentry Values</i>		
Subentry	Value	Comment
DSSPACE	(10,5,4)TRK	Recommended value for Download
PEMAX	SMP/E Default	IBM recommends using the SMP/E default for PEMAX.

6.2.3 SMP/E CALLLIBS Processing

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

CSSLIB

Note: CALLLIBS uses the previous DDDEFs only to resolve the link-edit for Download. These data sets are not updated during the installation of Download.

6.2.4 Perform SMP/E RECEIVE

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

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

6.2.5 Allocate SMP/E Target and Distribution Libraries

All data sets used by Download are allocated by the base product PSF V4.7.0, so no new allocations are required.

6.2.6 Create DDDEF Entries

All DDDEFs used by Download are created by the base product PSF V4.7.0, so no new DDDEFs are required.

6.2.7 Perform SMP/E APPLY

Perform an SMP/E APPLY CHECK for Download.

The latest HOLDDATA is available through several different portals, including <http://service.software.ibm.com/holddata/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 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-REQUIRREDSERVICE 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.

1. 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.

6.2.8 Installation Verification Procedure

To verify that Download has been installed correctly, IVP procedures are provided.

6.2.8.1 Installation Test Page

To verify that Download has been installed correctly, an IVP procedure has been provided. The IVP consists of an IEBGENER job that submits a single test page called *APSIVPDL*.

The logical-page size needed for any printer to print this page is 8.5 inches wide by 11 inches long.

6.2.8.2 Submit APSIVPDJ

Set up and start the Download printer. Refer to the Download manual for instructions. Submit the APSIVPDJ job in the data set *SYS1.SAMPLIB(APSIVPDJ)*. The job submits a single AFP page to the spool for transmission to a receiving system. The output class in the SYSUT2 DD statement is class A.

You can also choose to print this page. The expected result from printing the test page is a frame with the letters *IBM*, the words *Download for z/OS*, and the words *Advanced Function Printing* rotated 90 degrees. Refer to the publication: *PSF for z/OS: Download for z/OS* for an example of the printed page.

6.2.9 Perform SMP/E ACCEPT

Perform an SMP/E ACCEPT CHECK for Download.

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 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.

6.2.10 Run REPORT CROSSZONE

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

After you install Download, 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.

6.2.11 Dynamic Enablement - Update PARMLIB

To enable Download, to run with z/OS, the following entry must be in the IFAPRDxx PARMLIB member:

```
PRODUCT OWNER('IBM CORP')
NAME('PSF for z/OS')
FEATURENAME('Download')
ID('5655-M32')
VERSION(*) RELEASE(*) MOD(*)
STATE(ENABLED)
```

6.3 Activating Download

6.3.1 Configuration

The tasks required to configure the Download feature after installation are described in *PSF for z/OS: Download for z/OS*. You must complete these tasks before you can verify that the Download installation was successful. An Appendix in *PSF for z/OS: Download for z/OS* contains a checklist that can be used to configure Download.

To actually transmit a dataset to your remote system, you need to start the Download receiver on the remote system. Refer to the appropriate publication for information on configuring the receiver on the remote system:

PSF for z/OS: AFP Download Plus

IBM Content Manager OnDemand for Multiplatforms: Installation and Configuration Guide.

AIX, LINUX, Windows print server guides.

Note: Download must be defined in the OMVS RACF SEGMENT and contain a proper HOME directory.

7.0 Notices

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