



**Program Directory for
z/VM
System Delivery Offering**

Version 5

Program Number 5741-A06

for Use with
z/VM SDO Version 5 Release 2.0

Document Date: October 2006

GI10-0770-05

Note!

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

This program directory, dated October 2006, applies to System Delivery Offering Version 5 (z/VM SDO) , Program Number 5741-A06.

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Summary of Changes

p. The products that have been added, serviced, deleted, or upgraded in 2006 are identified below.

z/VM SDO February, 2006

Product Number	Product Abbreviation	VRM	Change
5654-010	ACF/VTAM ESA	V4R2.0	Serviced
5684-043	ISPF	V3R2.0	Serviced
5684-123	ISPF/PDF	V3R2.0	Documentation
5695-014	REXX/370 Library	V1R4.0	Serviced
5697-J06	Backup and Restore Manager	V1R1.0	Serviced
5697-J08	Tape Manager for z/VM	V1R2.0	Upgrade
5697-J10	Operations Manager for z/VM	V1R2.0	Upgrade

z/VM SDO April, 2006

Product Number	Product Abbreviation	VRM	Change
5654-A22	IBM C/C++ for z/VM	V1R1.0	Serviced
5654-029	DITTO	V1R3.0	Serviced
5684-042	ICKDSF	V1R17.0	Serviced
5688-035	NPSI X.25	V3R9.0	Serviced
5696-234	HLASM	V1R5.0	Serviced
Feature of 5696-234	HLASM Toolkit	V1R5.0	Serviced
5697-F42	DB2 Server for VM	V7R4.0	Serviced
Feature of 5697-F42	DB2 Data Restore	V7R3.0	Serviced
Feature of 5697-F42	DB2 Control Center	V7R3.0	Serviced
Feature of 5741-A05	DFSMS/VM	V2R2.1	Serviced
Feature of 5741-A05	DFSMS/VM KANJI	V2R2.1	Serviced

z/VM SDO June, 2006

Product Number	Product Abbreviation	VRM	Change
5668-767	VS PASCAL	V1R2.0	Serviced
5684-042	ICKDSF	V1R17.0	Serviced
5684-137	VMBATCH	V2R2.0	Serviced
5688-235	IBM PL/I	V1R1.1	Serviced
5697-J06	Backup and Restore Manager	V1R1.0	Serviced
5697-J08	Tape Manager for z/VM	V1R2.0	Serviced

z/VM SDO August, 2006

Product Number	Product Abbreviation	VRM	Change
5648-063	ACF/NCP	V7R8.1	Serviced
5654-A22	IBM C/C++ for z/VM	V1R1.0	Serviced
5654-260	EREP	V3R5.0	Serviced
5695-013	REXX/370 Compiler	V1R4.0	Serviced
5696-234	HLASM	V1R5.0	Serviced
Feature of 5696-234	HLASM Toolkit	V1R5.0	Serviced
5697-J06	Backup and Restore Manager	V1R2.0	Upgrade
5697-J08	Tape Manager for z/VM	V1R2.0	Serviced
Feature of 5748-XX9	DCF ODF	V1R4.0	Serviced

z/VM SDO October, 2006

Product Number	Product Abbreviation	VRM	Change
5698-A36	IBM Tivoli Omegamon XE on z/VM	V4R1.0	Upgrade

Preface

This document is intended for the system programmer responsible for installation of IBM Licensed Program Products (Licensed Products). This document contains the following sections:

- 1.0, “Introduction”

This contains a brief description of the System Delivery Offering (SDO), what is included in the package and an explanation of the different install formats for the Licensed Products.

- 2.0, “z/VM SDO Installation Instructions”

This section explains how to get started with your SDO order. It explains verifying your order, publications to have available, and provides a checklist for the initial installation steps. It describes how to install the z/VM System, the RSU and SDO Enabling Feature.

- 3.0, “VMSES/E Licensed Product Installation Instructions”

This section contains general installation instructions for the VMSES/E Licensed Products.

- 4.0, “Semi-VMSES/E Licensed Product Installation Instructions”

This section identifies the considerations for the installation of Semi-VMSES/E Licensed Products

- 5.0, “VMSES/E Licensed Product Technical Notes”

This section provides technical installation and verification instructions for each VMSES/E Licensed Product.

- 6.0, “Semi-VMSES/E Licensed Product Technical Notes”

This section provides technical installation and verification instructions for each Semi-VMSES/E Licensed Product.

- Appendix A, “z/VM SDO IBM Licensed Program Products”

This appendix lists the z/VM SDO Licensed Products by product abbreviation and provides the product description and install format.

- Appendix B, “IBM Licensed Program Products Interdependencies”

This appendix lists the Prerequisites, Co-requisites and If-requisites of the Licensed Products in z/VM SDO.

- Appendix C, “DASD Requirements”

This appendix provides recommended sizes of the minidisks associated with each of the Licensed Products in z/VM SDO.

- Appendix D, “Saved Segments”

This appendix provides recommended sizes, locations and names of the saved segments associated with each of the Licensed Products in z/VM SDO.

- Appendix E, “Licensed Products Tapemaps”

This appendix provides tapemaps of stacked VMSES/E and Semi-VMSES/E tapes.

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DFSMS/VM®	VisualAge®
DirMaint	VisualLift®
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1.0 Introduction

Thank you for ordering the z/VM System Delivery Offering (z/VM SDO, 5741-A06) package.

The person receiving this order should make sure everything on the Packing List was received. The *Read This First* letter (GI10-4731), Packing List, and the Media Report contain important information about the SDO installation and will be required by the system programmer.

The Packing List contains information about the tapes and the documentation sent. The Media Report describes the contents of the stacked tapes. If the Media Report is not available, the system programmer must load the Licensed Product tape and use VMFPLC2 to determine the contents of the tape.

If there are any discrepancies between the package contents and the Packing List or if you have not received any part of your order, please call **IBM Software Manufacturing and Delivery** at the number indicated on the cover letter of the Packing List.

1.1 z/VM System Delivery Offering

The z/VM SDO Version 5 Release 2.0, program number 5741-A06, is the IBM program offering for z/VM that includes a single deliverable containing z/VM and a group of fully serviced IBM licensed program products.

The z/VM SDO Licensed Product package contains:

- The z/VM System which is the VM operating system
- z/VM SDO Optional Products Enabling Aid
- z/VM SDO Licensed Products

1.1.1 The z/VM System

The z/VM System serves as an installation platform for other Licensed Products in the z/VM SDO package. The z/VM System consists of a prebuilt VM operating system packaged in DDR image format on tape or CD-ROM. There is a separate prebuilt system for each installation-supported Direct Access Storage Device (DASD) type.

1.1.2 Enabling Aid

The Enabling Aid is a z/VM SDO Product and it is recommended that it be installed prior to installing z/VM SDO Licensed Products. The Enabling Aid consists of files that contain information about the SDO Licensed Products such as Saved Segments, PUT/RSU/ESO levels for the products and sample directory entries.

1.1.3 z/VM SDO IBM Licensed Program Products

The following subsections describe the characteristics of the Licensed Products that are part of z/VM SDO. Installation of the z/VM SDO Licensed Products is supported on the following DASD types:

- 3390

Licensed Products may be in one of these install formats:

1. **VMSES/E** are those products packaged in the IBM Standard VMSES/E Enabled format. One or more Licensed Products may be delivered on a stacked tape so it is important to refer to the Media Report for a product's location.
2. **Semi-VMSES/E** are products that are not originally in VMSES/E format but have been installed by IBM using the installation procedure for each Licensed Product. New files generated will be on the z/VM SDO Licensed Product tape along with the files from the original installation tape. After this process, the files are in VMSES/E enabled format and can be installed using the VMFINS command (the installation tool for VMSES/E.) One or more Licensed Products may be delivered on a stacked tape so it is important to refer to the Media Report for the product's location.

Note!

A **Semi-VMSES/E** product was previously called '**Pre-Install**' format; however, this term was misleading in that it may have indicated that the product was already installed. The name has been changed to better describe the install format type.

The term 'Pre-Install' may still appear on the Packing List or the Media Report, the Configurator, or Marketing Literature, but should be interpreted to mean Semi-VMSES/E.

1.1.4 z/VM SDO Web Site

There is additional information about the z/VM SDO on the web site www.vm.ibm.com/sdo/. This site is maintained with the current z/VM SDO Program Directory (in PDF format), the list of SDO products, and information on applied service. This site also provides links to other useful VM sites.

1.1.5 Basic Publications

The following basic publications are shipped in printed format when you order the z/VM base product and will be useful during installation:

z/VM Guide for Automated Installation and Service

z/VM License Information

Program directories for z/VM, its features, and many of the SDO optional products are supplied with the order.

1.1.6 Publications for Licensed Products

If you have ordered IBM Licensed Program Products in addition to z/VM, you will receive a program directory and/or installation instructions for each product. Many of the basic publications for these licensed products can be found on CD-ROM, SK2T-2067, *IBM eServer zSeries Online Library: z/VM Collection* (supplied with z/VM at no additional charge). This collection contains libraries for approximately 60 products in both PDF and BookManager format. If the basic publication is not on the CD, hardcopy versions of these publications are included in the order. If you need a publication in hardcopy format, the PDF files can be printed from the CD or you can receive a copy by placing an order for the product using the delivery option of 'ship publications only.'

1.1.7 Optional Documentation

Optional unlicensed documentation is supplied only in PDF or BookManager format with z/VM. Publications available in these formats are provided on CD-ROM, SK2T-2067, *IBM eServer zSeries Online Library: z/VM Collection* .

Additional copies of this CD-ROM or printed versions of some publications can be ordered, for a fee, from the IBM Publications Center Web site at:

<http://www.ibm.com/shop/publications/order>

Publications available in PDF and BookManager format can also be found via the IBM z/VM Internet Library at:

<http://www.ibm.com/eserver/zseries/zvm/library>

2.0 z/VM SDO Installation Instructions

2.1 Checklist of z/VM SDO Installation Steps

Notes:

- *Perform the steps in order.*
- *Mandatory steps are preceded by squares (■).*
- *Optional steps are preceded by circles (○).*
- *Page references appear in parentheses.*

- ■ **2.2, Before You Begin** (5)
 - ■ Verify Order with Packing List (6)
 - ■ Gather Publications Useful During Installation (2)
- ■ **2.3, Program Support** (7)
 - ■ Obtain latest z/VM SDO and Licensed Product Install Bucket Information (7)
 - ■ Obtain the latest PSP information (7)
- ■ **2.4, Installation of the z/VM System and Stacked RSU** (8)
 - ■ Review the z/VM Content (8)
 - ■ DASD Storage Requirements (11)
 - ■ Install the z/VM System and the RSU, referring to the z/VM Program Directory. (11)

If the SDO order includes Licensed Program Products in addition to the z/VM System,

continue the installation with the following instructions. If there are no additional products, the installation of the z/VM System is complete.

- ○ **2.5, Install the SDO Optional Products Enabling Aid (Optional)** (11)
- ■ **2.6, Plan for Licensed Product Interdependencies** (14)
- ■ **2.7, Determine the Install Format of the Licensed Products** (15)
 - ■ **For each VMSES/E Licensed Product repeat the following:**
 - ■ 3.0, VMSES/E Licensed Product Installation Instructions (17)
 - ■ 5.0, VMSES/E Licensed Product Technical Notes (37)
 - ■ **For each Semi-VMSES/E Licensed Product repeat the following:**
 - ■ 4.0, Semi-VMSES/E Licensed Product Installation Instructions (21)
 - ■ 6.0, Semi-VMSES/E Licensed Product Technical Notes (107)
- ○ **2.8, The IBM Virtualization Engine Common Components (Optional)** (15)

2.2 Before You Begin

Before you begin installing the z/VM SDO, verify that all program materials ordered have been received. Additionally, there are several publications and reference material that may be useful to have available during the installation.

2.2.1 Verify Your Order

Verify the physical tapes with the Packing List and Media Report to ensure that all tapes and materials have been received. The Packing List includes information about the tapes and the documentation. If for some reason you do not have all the tapes and the documentation specified in the Packing List, or if they are damaged, call the number specified on the cover letter of the Packing List. It may not be possible to install the Licensed Product if you are missing any of the material.

Tapes can be sorted first by using the information on the tape label. Under the IBM logo, in bold letters, you will see headings similar to the following:

z/VM 3390 System DDR

z/VM SDO (with the words 'Stacked RSU' on the fourth line)

z/VM Licensed Program Products

Specific Product Name (ie., AFP Fonts, C++)

The DDR and RSU tapes may be delivered on multiple tapes so verify you have all the tapes in the sequence. On the tape label, across from the IBM logo, will indicate Seq 001 of 003, etc.

Under the barcode at the bottom of the tape label, will appear the reference number of the tape, like *WM6578354*. Using only the numeric digits, 6578354, use this number to match the information on the Media Report and Packing List under the column Ref. No. to the tapes.

The Media Report describes the contents of the software ordered and tells which products are on the stacked tapes. If the Media Report is not available, the system programmer must load the Licensed Product tape and use VMFPLC2 to determine the contents.

If you ordered Optional Licensed Program Products, most will be stacked on one of the tapes labelled 'z/VM Licensed Program Products'. If you received more than one Licensed Program Product tape, you will need to refer to the Media Report and reference number from the tape to determine the contents on each tape.

The actual number of physical tapes you receive depends on the tape density and the install format of the Licensed Program Products ordered. All VMSES/E and Semi-VMSES/E Licensed Program Products can be 'stacked' on the same tape(s), with the exception of C++ and AFP Fonts which require multiple tapes. If you ordered C++ or AFP Fonts, these tapes will show the product name on the tape label.

With your z/VM SDO order, you will receive a Program Directory for most of the Licensed Products ordered. There are a few products that do not have Program Directories or may have Installation Guides instead. Many products can be installed using only the directions in the *z/VM SDO Program Directory*. However, it is also possible that while installing a Licensed Product, you will be asked to refer to the product's Program Directory.

2.3 Program Support

For z/VM and the z/VM SDO Licensed Products, refer to the individual Licensed Product Program Directories for programming service details.

2.3.1 Preventive Service Planning

Before installing the z/VM SDO Package (the z/VM System, and the z/VM SDO Licensed Products), you should contact the IBM Support Center or use the Preventive Service Planning (PSP) facility in ServiceLink to obtain the latest PSP information. The latest PSP Install buckets contain pertinent installation information, corrections to documentation and also may recommend additional service.

2.3.1.1 z/VM SDO PSP Install Bucket Information

To obtain the PSP Install Buckets specific to z/VM SDO specify the following UPGRADE and SUBSET values pertaining to the level of the z/VM SDO being installed.

Figure 1. PSP Upgrade and Subset ID

Retain		Upgrade	Subset	Description
COMPID	Release			
N/A	N/A	SDO2006	SDO520	SDO 2006 with z/VM SDO Version 5 Release 2.0

2.3.1.2 z/VM PSP Install Bucket Information

Refer to the *z/VM Program Directory* for PSP Install Bucket information.

2.3.1.3 Licensed Products PSP Install Bucket Information

For PSP Install Bucket information for the Licensed Products, refer to the Program Support section of the individual Licensed Product's Program Directory. Refer to the SDOZVM52 ADDSERV file delivered with the SDO Optional Products Enabling Aid for Licensed Product service levels.

2.3.2 Statement of Support Procedures

Report any difficulties you have using this program to your IBM Support Center. If an Authorized Program Analysis Report (APAR) is required, the Support Center will provide the address to which any needed documentation can be sent.

2.4 Installation of the z/VM System and Stacked RSU

2.4.1 z/VM 5.2.0 Content

The z/VM System serves as an installation platform for other Licensed Products in the z/VM SDO package. The z/VM System is a pre-build system package in DDR image format on tape or DVD for installation-supported DASD type 3390.

The z/VM Installation Guide is followed to load the system to your DASD. This will provide you with a system which can now be tailored to your individual needs.

The z/VM System contains z/VM Version 5 Release 2.0 and includes the following components and facilities:

- Control Program (CP)
- Conversational Monitoring System (CMS)
- Transmission Control Protocol/Internet Protocol (TCP/IP) for z/VM and Network File System (NFS)
- Advanced Program-to-Program Communication/Virtual Machine (APPC/VM) Virtual Telecommunications Access Method (VTAM) Support (AVS)
- Dump Viewing Facility (DVF)
- Group Control System (GCS)
- Hardware Configuration Definition and Hardware Configuration Manager (HCD/HCM)
- Language Environment (LE)
- Open Systems Adapter/Support Facility (OSA/SF)
- REstructured eXtended eXecutor (REXX)
- Transparent Services Access Facility (TSAF)
- VM Serviceability Enhancements Staged/Extended (VMSES)

2.4.1.1 Preinstalled products and features

Starting with z/VM V4.1, several products were automatically preinstalled on the base product DDRs. Since then, subsequent releases have integrated additional products in the base of z/VM.

EREP and ICKDSF The prerequisite no-charge products EREP (5654-260) and ICKDSF (5684-042) are preinstalled on the base product system DDRs. If you intend to use EREP or ICKDSF now or at a later date, you must establish a license for billing and shipment of publications by placing an order for each of these products. Because the product code is already preinstalled, your order should indicate that shipment of media should be suppressed for these products. This can be accomplished by including the Delivery Option feature number 3471 (Ship Documentation Only) which designates the shipment of publications only.

Language Environment Language Environment is integrated into the base of z/VM V5.

HCD and HCM HCD and HCM provides a comprehensive I/O configuration management environment, similar to that available with the z/OS operating system. HCD and HCM is delivered preinstalled into the base of z/VM V5, enabled for use, and is available at no additional charge.

OpenExtensions Shell and Utilities OpenExtensions Shell and Utilities , previously a priced, optional feature of VM/ESA, is included in z/VM V5, or later, with no licensing or billing requirements.

CMS Utilities, previously a priced, optional feature of VM/ESA and z/VM V3.1, is included in z/VM V5, or later, at no additional charge.

Open Systems Adapter Support Facility (OSA/SF 4.4.0) is a host-based tool supporting OSA-2 and OSA-Express features and is included in z/VM V5, or later, with no licensing or billing requirements.

The TCP/IP base and the Network File System (NFS) feature of TCP/IP are delivered preinstalled, enabled for use, and are available at no additional charge.

RSCS V3.2.0 (5684-096) is preinstalled with z/VM V5, in a disabled state. If you intend to use RSCS for more than operating network-attached printers now or at a later date, you must establish a license for billing and shipment of publications. If you already have a license for the product, you may follow the enablement instructions in the program directory for the product to enable the product for use on your system. A license is established for RSCS V3.2.0 by placing an order for the product. Because the product code is already preinstalled, your order should indicate that shipment of media should be suppressed for this product. This can be accomplished by including the Delivery Option feature number 3471 (Ship Documentation Only), which designates the shipment of publications only.

DirMaint , RACF for z/VM , and the Performance Toolkit for VM optional features for z/VM V5 are preinstalled in a disabled state. If you intend to use any one of these features, now or at a later date, you must establish a license for billing and shipment of publications. Enablement instructions are provided in the program directory for each feature to enable the feature for use on your system. A license is established by placing an order for the feature.

2.4.1.2 Product Packaging Modifications for z/VM V5

- z/VM V5.2 will not be available on the CD-ROM distribution medium. z/VM continues to be distributed on 3480 and 3590 tape as well as DVD.
- DFSMS/VM previously provided automatically with z/VM V4, will no longer be shipped automatically. It will be orderable as a no-charge feature with the z/VM V5 SDO.
- The restricted source feature, available as a no-charge orderable feature with z/VM V4, and the PL/X source, provided with the installation media in z/VM V4, are not orderable or shipped with z/VM V5. Both will be available as no-charge downloads from IBM Resource Link at

<http://www.ibm.com/servers/resourceLink>

-
- The 3270 PC File Transfer product (5664-281), which previously could be ordered with the z/VM V4 System Delivery Offering (SDO), is available as part of the z/VM V5 product. It is shipped as a sample program on the system disk, with no support available.
 - Performance Toolkit for VM provides enhanced capabilities for a z/VM systems programmer, operator, or performance analyst to monitor and report performance data and included functional equivalence to the RealTime Monitor (RTM). Performance Toolkit has been enhanced in z/VM V5 by providing functional equivalence to the Performance Reporting Facility (PRF) priced optional feature, thereby, eliminating the need for separate products (PRF and RTM) to help manage your performance more efficiently.
 - The Tivoli Storage Manager (TSM) was removed from the z/VM V5 system DDRs and has not been orderable with the z/VM SDO since September 24, 2004. With the announcement of the Tivoli Storage Manager V5.3 family of products in Software Announcement 204-310, dated December 14, 2004, support for z/VM was not migrated to Tivoli Storage Manager V5.3 nor is it supported.

When running in a Linux guest environment, IBM recommends Tivoli Storage Manager V5.3 (5608-ISM) or Tivoli Storage Manager Extended Edition, V5.3 (5608-ISX) for key data protection activities of backup, archive, recovery, space management, and disaster planning.

Except for EREP, ICKDSF/VM, and the NLS HELP files, the products/components/features are serviced on the stacked RSU. The stacked RSU will be updated and refreshed in the product install package. The naming convention for the stacked RSU is 52nn (ie. VRnn, where nn is incremented by one for each level built).

Note!

z/VM is the successor to IBM's VM/ESA operating system. Some products and functions supported on z/VM and some publications might continue to use VM/ESA in their names.

2.4.2 Tape Formats for Machine Readable Material

The actual number of physical tapes you receive depends on the tape density and the install format of the Licensed Program Products ordered.

The layout of the z/VM System is specified in the *z/VM Guide for Automated Installation and Service*.

For more information on the format of a stacked VMSES/E tape for Licensed Products, please refer to Appendix E, "Licensed Products Tapemaps" on page 215.

2.4.3 DASD Storage Requirements

Refer to *z/VM Guide for Automated Installation and Service* for the DASD storage requirements.

It is important to have page, spool, and temp space defined. Paging space, spooling space, and temporary minidisk space (PAGE, TEMP, and TDSK, respectively) are installation dependent. The amount of page space required depends on the number and size of logged-on virtual machines, processor size and workload. The amount of space needed for spooling and temporary minidisk requests will be dependent upon user demand and application requirements.

For more information on virtual machine DASD requirements and allocation for PAGE, TEMP, and TDSK, please refer to *z/VM CP Planning and Administration*.

2.4.4 Install the z/VM System

Install the z/VM System prior to installing the Licensed Products.

1. Refer to the appropriate *z/VM Installation and Service Summary* which comes with the *z/VM Guide for Automated Installation and Service*. This provides a summary of the steps required to install the z/VM system and will serve as your guide.
2. Install the z/VM System using the appropriate *z/VM Installation and Service Summary* and the *z/VM Guide for Automated Installation and Service*. The stacked RSU will be installed as part of the z/VM installation.
3. Install additional service, if noted in the Preventive Service Planning stage. This service is specified either in the z/VM Program Directory or the z/VM PSP Bucket.
4. After the installation of the z/VM System and RSU, and other necessary configurations as stated in *z/VM Guide for Automated Installation and Service*, return back to this point in the SDO Program Directory when you are ready to install the Licensed Products.
5. If the SDO order includes licensed program products, continue the installation with the following instructions. If there are no additional products, the installation of the z/VM System and z/VM SDO is complete.

2.5 Install the SDO Optional Products Enabling Aid (Optional)

Please review this section before installing the Enabling Aid to determine if this would be helpful. Although, these files are very useful to system programmers, they are not required in order to install the other products. The Enabling Aid consists of information files with sample directories, saved segment definitions, and information about service and PUT/RSU/ESO levels.

If installed, the Enabling Aid (5741-A06), should be installed before installing the Licensed Products. Even though this is not a pre-requisite for any other product, these files may be useful when installing the other products.

2.5.1 Installation Steps for the Enabling Aid

The Enabling Aid is in Semi-VMSES/E format. For detailed instructions on how to install a Semi-VMSES/E product, refer to Chapter 4.0, “Semi-VMSES/E Licensed Product Installation Instructions” on page 21.

In brief these are the steps to install the Enabling Aid.

1. Plan for the installation. These files can be installed directly into production.
2. Log on to your installation userid and mount the tape. (Refer to the Packing List and Media Report to select the correct tape). If you are using a product envelope delivered from the Internet, follow the instructions in section 4.3.2, “Prepare the VMSES/E Order for Installation” on page 23.
3. Load the Installation-Related Files from Tape. Refer to section 4.3.3, “Load Installation-Related Files from Tape” on page 24 for instructions to set up the VMSES/E Disk and Software Inventory Disk and load these files.
4. Allocate resources for the Enabling Aid to install into production. In Appendix C, “DASD Requirements” on page 197 shows you will need the following resources for mini-disk installation. Refer to 4.3.4.3, “Shared File System (SFS) Considerations” on page 29 for Shared File System installation.

For installation to mini-disk: MAINT 2C2 70 CMS 4K blocks
 MAINT 319 250 CMS 4K blocks

For installation to SFS: VMSYS:MAINT.ENA.LCL02
 VMSYS:MAINT.ENA.BLD01

5. Remember to ensure that minidisks required to install the Enabling Aid are not linked R/W by any user ID. This also includes the user ID being used to actually install the Enabling Aid. For production, this would include the following minidisks:

MAINT 2C2 (Samples & Install Tools Disk)

MAINT 319 (SDO Disk)

6. Install the Enabling Aid. Refer to 4.4, “Install the Semi-VMSES/E Licensed Product” on page 31 for detailed description.

To install this product onto the **PRODUCTION** disk from a tape issue:

vmfins install ppf \$5741A06 enaprd (nomemo

To install this product onto the **PRODUCTION** disk from a product envelope issue:

vmfins install ppf \$5741A06 enaprd (nomemo env envelope_filename

Or to install this product onto the **SFS** production directory issue:

vmfins install ppf \$5741A06 enasfsprd (nomemo

Or to install this product onto the **SFS** production directory issue using a product envelope issue:

vmfins install ppf \$5741A06 enasfsprd (nomemo env envelope_filename

-
7. The installation is now complete. The SDO Optional Products Enabling Aid consists of three files SDOZVM52 SAMPDIR and SDOZVM52 PRODPART and SDOZVM52 ADDSERV. Information follows on each file.

2.5.2 SDOZVM52 SAMPDIR

This file is loaded to the **MAINT 2C2** (Samples & Install Tools Disk). It contains a prologue describing its contents. The description includes such information as:

- The organization of the directory (directory entries are broken down by products in VM for the SDO option).
- Sample user directory, with a brief description of each directory entry.
- Minidisks required to install the products.
- Minidisk sizes
- How to edit the file for your own use.
- How to use XEDIT to determine total minidisk size required, based on individual product minidisk size information.

2.5.3 SDOZVM52 PRODPART

The use of this file is optional. It is loaded to the Samples & Install Tools Disk (MAINT 2C2) and contains all the saved segment definitions for the z/VM SDO Licensed Products. If you wish to place all of your DCSS definitions on-line at once follow Appendix D.1, "Using VMSES/E Format Licensed Product Saved Segment Definitions" on page 211. Otherwise, segments may be saved as part of the installation customization for each product. The Appendix shows how this file is used in the process described for defining saved segments.

2.5.4 SDOZVM52 ADDSERV

This file is loaded to the SDO Disk (MAINT 319). It contains information on all PTF/APAR(s) that have been applied above the PUT/RSU/ESO level for Licensed Products. The Licensed Products that have been serviced via a PUT/RSU/ESO have their associated PUT/RSU/ESO level listed in the SDOZVM52 ADDSERV file. If the service is listed as N/A then the product doesn't conform to a structured service stream (i.e. the Licensed Product is not serviced via PUT/RSU/ESO). If there is any excluded service, it will be noted in the Technical Notes. The SDOZVM52 ADDSERV file contains information in the following format:

* Product number Product Name
Product Name or Feature

PUT/RSU/ESO Level - PUT9402
or RSU9405
or ES09410

PTF APAR Brief Description
xxxxxxx xxxxxxx

Note: The SDOZVM52 ADDSERV file contains a list of PTFs/APARs that have been applied (to products) in addition to the PUT/RSU/ESO. For those z/VM SDO Licensed Products not serviced by a PUT/RSU/ESO, the SDOZVM52 ADDSERV file contains all PTFs/APARs applied to the product.

The SDOZVM52 ADDSERV files are also available on the z/VM SDO website. This website is also a convenient way to research what service has been applied to a product. The web site is www.vm.ibm.com/sdo/ then select **z/VM SDO Optional Licensed Product Service** for the month which matches your SDO Program Directory.

2.6 Plan for Licensed Product Interdependencies

Many Licensed Products are dependant upon other Licensed Products for successful installation or in order for the product to execute correctly. Based on the Licensed Products to be installed, you should now plan for installation of any pre-requisite, co-requisite and if-requisites products. A pre-requisite product is one that is required to be installed before you install the Licensed Product, so you should also plan for the order the products should be installed.

See Appendix B, "IBM Licensed Program Products Interdependencies" on page 193 to verify the Pre-requisites, Co-requisites, and If-Requisites for the Licensed Products and plan for the order of installation.

When installing a Licensed Product that is a prerequisite to another previously installed Licensed Product(s), it is recommended that the other Licensed Product(s) be re-installed. Also, you may need to increase the space available on the minidisk, especially if the install process loads files to a common minidisk, such as the Product Code Disk (MAINT 19E)

Warning

There is a possibility of losing customized files if a Licensed Product is reinstalled over an existing version.

Also, you may need to increase the space available on the minidisk.

2.7 Determine the Install Format of the Licensed Products

The instructions for installing Licensed Products depends on the install format of the product. To determine the install format of the product, refer to Appendix A, “z/VM SDO IBM Licensed Program Products” on page 189.

To install each Licensed Product, begin by following the general installation instructions for that Licensed Product's format. Then complete the installation by following the specific installation instructions for that Licensed Product in the Technical Notes.

- **VMSES/E**

Chapter 3.0, “VMSES/E Licensed Product Installation Instructions” on page 17.

Chapter 5.0, “VMSES/E Licensed Product Technical Notes” on page 37.

- **Semi-VMSES/E**

Chapter 4.0, “Semi-VMSES/E Licensed Product Installation Instructions” on page 21.

Chapter 6.0, “Semi-VMSES/E Licensed Product Technical Notes” on page 107.

2.8 The IBM Virtualization Engine Common Components (Optional)

2.8.1 IBM Director, 5648-F08

Virtualization Engine and Infrastructure Services for Linux on System z9 and zSeries, V2.1 is a integrated, easy-to-use suite of tools that provide customers with flexible systems management capabilities to help realize maximum systems availability and lower IT costs.

IBM Director and the other features available with the Virtualization Engine Product are installed from a CD or DVD and is not in the standard VMSES/E format. With your IBM Director order, you will also receive the z/VM SDO Enabling Aid on tape. The IBM Director is not available on tape.

When installing, refer to the *IBM Director, Installation and Configuration Guide* available on the website http://www-03.ibm.com/servers/eserver/xseries/systems_management/ibm_director

3.0 VMSES/E Licensed Product Installation Instructions

The following is a brief description of the main steps for installing an z/VM SDO VMSES/E Licensed Product using VMSES/E. If you have any questions about using VMSES/E, refer to *z/VM VMSES/E Introduction and Reference*.

The z/VM System serves as an installation platform for other Licensed Products in the SDO package. After the installation of a base z/VM system, the Licensed Products can be installed.

3.1 Checklist of the VMSES/E Licensed Products Installation Process

Notes:

- *Perform the steps in order.*
- *Mandatory steps are preceded by squares (■).*
- *Optional steps are preceded by circles (○).*
- *Page references appear in parentheses.*

For each VMSES/E Licensed Product, perform the following installation steps

- ■ **3.2, Allocate DASD and Userids (17)**
- ■ **3.3, Prepare the VMSES/E Order for Installation (18)**
- ■ **3.4, Install the z/VM SDO VMSES/E Licensed Product (19) by following the instructions in the Technical Notes (37)**

- ■ Install using the VMFINS command
- ■ Technical Notes may refer to additional instructions in the Licensed Product Program Directory
- ■ Re-save Saved Segments for some Licensed Products
- ■ Verify successful installation

If the SDO order includes additional VMSES/E Licensed Products, repeat the installation steps in this checklist beginning at 3.2, Allocate DASD and Userids (17)

3.2 Allocate DASD and Userids

Appendix C, "DASD Requirements" on page 197 identifies the user IDs and minidisks necessary to install each of the Licensed Product. This information is provided to help plan for DASD storage and other requirements for the installation of these Licensed Products.

Create any required user IDs and minidisks before beginning the installation. Also, any newly created minidisks must be formatted.

3.3 Prepare the VMSES/E Order for Installation

The IBM Licensed Program Product order can be fulfilled either by physical tape or downloaded from the internet. In the next step, you will either mount the physical tape or prepare the Product Envelope delivered via the internet for the installation.

3.3.1 Mount the VMSES/E Tape

A VMSES/E product will be found on a tape labeled *z/VM Licensed Program Products*. VMSES/E and Semi-VMSES/E Licensed Program Products can be 'stacked' on the same tape(s). The actual number of physical tapes depends on the tape density and the install format of the Licensed Products.

To determine the contents of each tape, refer to the tape labels and the Media Report or Packing List. Match the reference number on the tape to the Media Report to locate the appropriate tape. If the Media Report or Packing List are not available, then use the VMFPLC2 command to determine what is on the tape.

After the correct tape has been identified, mount the tape.

For more information about the format of a stacked VMSES/E tape, please refer to Appendix Appendix E, "Licensed Products Tapemaps" on page 215.

3.3.2 Prepare the Product Envelope Delivered from Internet

To install a product using a Product Envelope delivered from the Internet, follow the Installation Instructions provided with ShopzSeries to upload the Product Envelope to the host VM system and de-compact it.

To identify the contents of your order, refer to the packing list provided by ShopzSeries. Match the file names of the downloaded files, to the names listed under the heading 'Ref. No.'. The description will tell you the contents of your file. It may be helpful to rename this file to a descriptive name so that it is easily recognized for future reference. The file type must be renamed to SERVLINK.

Example

V6608454 TERS0028	* File name on Workstation
V6608454 BIN	* File received to VM as Binary Fixed 1024
FORTTRAN SERVLINK	* De-compacted file and renamed to SERVLINK

After you have uploaded the Product Envelope to the VM host system in BINARY FIXED 1024 and de-compacted the file, you may install the product. When installing using a Product Envelope, the ENV option must be used with the VMFINS commands.

3.4 Install the z/VM SDO VMSES/E Licensed Product

To complete the installation process for a VMSES/E Licensed Product:

1. Review the Technical Notes for the product in the Chapter 5.0, “VMSES/E Licensed Product Technical Notes” on page 37. The Technical Notes will refer to the appropriate sections in the Licensed Product Program Directory and give additional important information about the product.
2. Follow the Installation Instructions in the Program directory of each Licensed Product.

Note!

The information in the Technical Notes section will override information in the Licensed Product Program Directory.

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

EXAMPLE: VMFINS INSTALL INFO (NOMEMO ENV FORTRAN

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

EXAMPLE: VMFINS INSTALL PPF \$5668806 VSFORT (PLAN NOMEMO ENV FORTRAN

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

EXAMPLE: VMFINS INSTALL PPF \$5668806 VSFORT (NOMEMO NOLINK ENV FORTRAN

4.0 Semi-VMSES/E Licensed Product Installation Instructions

The following chapter describes the system environment required and explains how to install a Semi-VMSES/E Licensed Product.

The z/VM System serves as an installation platform for other Licensed Products in the SDO package. Licensed Products can be installed after the installation of base z/VM system.

4.1 Checklist for the Semi-VMSES/E Licensed Products Installation Process

Notes:

- *Perform the steps in order.*
- *Mandatory steps are preceded by squares (■).*
- *Optional steps are preceded by circles (○).*
- *Page references appear in parentheses.*

For each Semi-VMSES/E Licensed Products, perform the following installation steps

— ■ **4.3, Semi-VMSES/E Installation Overview and Planning (22)**

— ■ 4.3.1, Plan for the Installation of the Semi-VMSES/E Licensed Product (23)

— ■ 4.3.2, Prepare the VMSES/E Order for Installation (23)

— ○ 4.3.3, Load Installation-Related Files from Tape (24)

— ■ 4.3.4, Allocate Resources for the Semi-VMSES/E Licensed Product (27) Choose from the following:

— ○ Install Directly to Default Production Minidisks (27)

— ○ Install to Test Minidisks, then to Production Minidisks (27)

— ○ Installing to Shared File System (29)

— ■ **4.4, Install the Semi-VMSES/E Licensed Product using the VMFINS command (31) in conjunction with the instructions in the Technical Notes for the Licensed Product.(107)**

— ■ Install using the VMFINS command

— ■ Technical Notes may refer to additional instructions in the Licensed Product Program Directory

— ■ Re-save Saved Segments for some Licensed Products

— ■ Verify successful installation

— ○ **If installed to PRETEST place Licensed Product files into production after testing (34)**

If the SDO order includes additional SEMI-VMSES/E Licensed Products, repeat the installation steps in this checklist beginning at 4.3, Semi-VMSES/E Installation Overview and Planning (22)

4.2 Semi-VMSES/E Licensed Product Definition

z/VM SDO Semi-VMSES/E Licensed Products are products that are not originally in VMSES/E format but have been installed using the IBM recommended defaults. Because installation files are created and many installation steps are already taken, this will reduce the time it will take to install this Licensed Product. The installation procedure (the Innnnnnn EXEC, where nnnnnnn is the Licensed Product number and the INSTFPP exec) are used to generate new files. All these files are delivered on the Semi-VMSES/E Licensed Product tape.

After this process, the files are in VMSES/E enabled format which is supported by VMFINS (the installation tool for VMSES/E). To install from a Semi-VMSES/E Licensed Product tape, the system must be at z/VM SDO Version 5 Release 2.0. The Innnnnnn EXEC has been used for each Licensed Product and will not be used again.

4.3 Semi-VMSES/E Installation Overview and Planning

The VMFINS EXEC will be used to install all Semi-VMSES/E Licensed Products. This exec is supplied as part of the VMSES/E component of z/VM and provides a consistent process for installing z/VM and Licensed Products. The VMFINS command syntax is given in Chapter 6.0, "Semi-VMSES/E Licensed Product Technical Notes" on page 107 for each Licensed Product. Installations may be done from any user ID which has the authority to obtain write access to installation minidisks, write access to Software Inventory Disk (MAINT 51D), and read access to VMSES/E Build Disk (MAINT 5E5).

For a complete description of the VMFINS EXEC and its options, refer to:

- *z/VM VMSES/E Introduction and Reference*

The step-by-step procedures that follow are in two column format. The steps to be performed are in bold large numbers. The commands associated with these steps are on the left hand side of the page in bold print; additional information for a command may exist to the right of that command.

Each step of these installation instructions must be followed. Do not skip any step unless directed otherwise.

Throughout these instructions, the use of IBM-supplied default minidisk addresses and user IDs is assumed. If you use different user IDs, minidisk addresses, or SFS directories to install a Licensed Product, adapt these instructions as needed for your environment.

The sample console output presented throughout these instructions was produced on a z/VM SDO Version 5 Release 2.0 system. If installing Semi-VMSES/E product on a different z/VM system, the results obtained for some commands may differ from those depicted here.

4.3.1 Plan for the Installation of the Semi-VMSES/E Licensed Product

Each Semi-VMSES/E Licensed Product can either be placed directly into production on the installation defaulted minidisks, can be installed first to “test” mode then to the production minidisks, or installed to the Shared File System (SFS) directories.

It's recommended that you install each Semi-VMSES/E Licensed Product in “test” mode, so that Licensed Product files are loaded to alternate (or “test”) minidisks, instead of directly into production. This will also help avoid problems if a previous version or level of the Licensed Product is currently in production on your system.

If you want to place a Licensed Product directly into production, you can do so by specifying a production-related component when you issue the VMFINS installation commands. The components that will allow this type of installation contain the string PRD at the end of the component name.

4.3.2 Prepare the VMSES/E Order for Installation

The IBM Licensed Program Product order can be fulfilled either by physical tape or downloaded from the internet. In the next step, you will either mount the physical tape or prepare the internet delivered Product Envelope for the installation.

4.3.2.1 Mount the VMSES/E Tape

A Semi-VMSES/E Licensed Product will be found on a tape labeled *z/VM Licensed Program Products*. VMSES/E and Semi-VMSES/E Licensed Program Products can be 'stacked' on the same tape(s). The actual number of physical tapes depends on the tape density and the install format of the Licensed Products.

To determine the contents of each tape, refer to the tape labels and the Media Report or Packing List. Match the reference number on the tape to the Media Report to locate the appropriate tape. If the Media Report or Packing List are not available, then use the VMFPLC2 command to determine what is on the tape.

After the correct tape has been identified, mount the tape.

For more information about the format of a stacked VMSES/E tape, please refer to Appendix E, “Licensed Products Tapemaps” on page 215.

4.3.2.2 Prepare the Product Envelope Delivered from Internet

To install a product using a Product Envelope delivered from the Internet, follow the Installation Instructions provided with ShopzSeries to upload the Product Envelope to the host VM system and de-compact it.

To identify the contents of your order, refer to the packing list provided by ShopzSeries. Match the file

names of the downloaded files, to the names listed under the heading 'Ref. No.'. The description will tell you the contents of your file. It may be helpful to rename this file to a descriptive name so that it is easily recognized for future reference. The file type must be renamed to SERVLINK.

Example

V6608454 TERS0028	* File name on Workstation
V6608454 BIN	* File received to VM as Binary Fixed 1024
FORTTRAN SERVLINK	* De-compacted file and renamed to SERVLINK

After you have uploaded the Product Envelope to the VM host system in BINARY FIXED 1024 and de-compacted the file, you may install the product. When installing using a Product Envelope, the ENV option must be used with the VMFINS commands.

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

EXAMPLE: VMFINS INSTALL INFO (NOMEMO ENV FORTTRAN

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

EXAMPLE: VMFINS INSTALL PPF \$5668806 VSFORT (PLAN NOMEMO ENV FORTTRAN

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

EXAMPLE: VMFINS INSTALL PPF \$5668806 VSFORT (NOMEMO NOLINK ENV FORTTRAN

4.3.3 Load Installation-Related Files from Tape

This step is optional. However, it is necessary to perform these steps if you are installing to SFS directories in order to get the resources needed for SFS.

The Installation-Related files include all the Memo-to-Users, various Licensed Product control files, including the Product Parameter file (PPF) and the PRODPART files. It will also create the VMFINS PRODLIST file which contains a list of Licensed Products on the installation tape. Although the VMFINS command is being used in this step, the product will **not** be loaded at this time.

To install information on the tape contents, perform the following steps.

- 1 Log on to your Licensed Product installation user ID.

cp link maint 5e5 5e5 rr
read password
access 5e5 b

The 5E5 minidisk is where VMSES/E resides.

Note: The linking of VMSES/E Build Disk (MAINT 5E5) is only required if you are not installing from userid MAINT.

This user ID can be any ID that has read access to the VMSES/E Build Disk (MAINT 5E5) and write access to the Software Inventory Disk (MAINT 51D).

- 2** Ensure the tape is mounted and attached to the installation userid at virtual address 181.
- 3** Establish write access to the Software Inventory minidisk if it's not already linked R/W.

cp link maint 51d 51d mr
multi password
access 51d d

The Software Inventory Disk (MAINT 51D) is where the VMSES/E system-level Software Inventory and other Licensed Product dependent files reside.

Note: If another user already has the Software Inventory Disk (MAINT 51D) linked in write mode (R/W), you will obtain only read access (R/O) to this minidisk. If this occurs, you will need to have that user re-link the Software Inventory Disk (MAINT 51D) in read-only mode (RR), and then re-issue the above LINK and ACCESS commands. Do not continue with these procedures until a R/W link is established to the Software Inventory Disk (MAINT 51D).

- 4** Load Licensed Product-specific files to the Software Inventory Disk (MAINT 51D).

a If installing from a tape:

vmfins install info (nomemo

b If installing from a Product Envelope:

vmfins install info (nomemo env envelope_filename

The NOMEMO option will load memos from the tape but will not issue a prompt to send them to the system printer. Specify the MEMO option if you want to be prompted for printing the memo.

This command will perform the following:

- loads all of the Memo-to-Users
- loads various Licensed Product control files, including the Product Parameter file (PPF) and PRODPART files
- create the VMFINS PRODLIST on your A-disk. The VMFINS PRODLIST contains a list of Licensed Products on the installation tape.

```
VMFINS2767I Reading VMFINS DEFAULTS B for additional options
VMFINS2760I VMFINS processing started
VMFINS1909I VMFINS PRODLIST created on your A-disk
VMFINS2760I VMFINS processing completed successfully
Ready;
```

Notes:

1. Licensed Product files will **not** be loaded by the VMFINS command at this time.
2. If you are installing one or more Licensed Products using SFS directories, you should review the information in Chapter 4.3.4.3, “Shared File System (SFS) Considerations” on page 29 before you continue with this step.
3. If you change the PPF name, a default user ID, or other parameters associated with a given Licensed Product via a PPF override, you will need to use your changed values instead of those indicated (when appropriate), throughout the remainder of the installation process for that Licensed Product. For example, you will need to specify your PPF override file name instead of the name of the PPF file provided on the tape for certain VMSES/E commands.
4. If you are not familiar with creating PPF overrides using VMFINS, you should review the 'Using the Make Override Panel' section in the chapter entitled “Using the VMFINS EXEC” of *z/VM VMSES/E Introduction and Reference* before you continue.

4.3.4 Allocate Resources for the Semi-VMSES/E Licensed Product

Each Semi-VMSES/E Licensed Product can be placed directly into production on the default production minidisks, or can be installed first to “test” mode then to the production minidisks, or to Shared File System (SFS) directories.

If you are going to install directly to production minidisks, continue with Chapter 4.3.4.1, “Default Production Minidisks” on page 27.

If you plan to install first to Test minidisks, continue with Chapter 4.3.4.2, “Semi-VMSES/E Test Resource Requirements.”

If you are installing to SFS, continue with Chapter 4.3.4.3, “Shared File System (SFS) Considerations” on page 29.

4.3.4.1 Default Production Minidisks

The IBM-supplied default minidisk addresses and user IDs can be found in Appendix C, “DASD Requirements” on page 197. This Appendix lists all the z/VM SDO products and their DASD Requirements. If you performed the optional step in 4.3.3, “Load Installation-Related Files from Tape” on page 24, the resource information can be found in the PLANINFO file. Using this information, allocate the resources.

Once the default production minidisks have been allocated, continue the installation in Chapter 4.4, “Install the Semi-VMSES/E Licensed Product” on page 31.

4.3.4.2 Semi-VMSES/E Test Resource Requirements

If you have decided to install Semi-VMSES/E Licensed Products on test minidisks, for each selected Licensed Product:

1. Add to your system directory a user ID called **PRETEST**. This user ID is used as a place holder for the test minidisks and will own all the alternate minidisks used in conjunction with the Semi-VMSES/E Licensed Products.
2. Set up and format the appropriate minidisks listed in Figure 2 on page 28. These minidisks must be set up and formatted before you begin the installation process. Additionally, they must be defined using addresses within the range 400 to 4FF, as indicated in Figure 2 on page 28.
3. The minidisks required for the Licensed Product must be allocated as well because some Licensed Products may have files placed on any one of the Licensed Product's minidisks (i.e. MAINT 319). Refer to Chapter Appendix C, “DASD Requirements” on page 197 for a list of minidisk requirements.
4. For features which have PRETEST addresses which are the same as the base, add the number of blocks needed for both the base and feature(s) to get the total number of blocks required for test installation.

The installation will fail if the resource is not allocated (i.e. defined and formatted). Files which will eventually end up on end user disks, will be loaded to the test disk(s), and all others are loaded to the appropriate disk (memos, etc.). If the product has one or more features, it may use the same test minidisk as the base product.

In Chapter 6.0, “Semi-VMSES/E Licensed Product Technical Notes” on page 107, you will be given the **VMFINS** command to install the Licensed Product on the test minidisk(s). All of the Licensed Products end user files will be placed on the test minidisk(s).

Once you have completed testing, you will copy the files from the test minidisk to the “Related Production Disk” via the **VMFCOPY** command.

Figure 2 (Page 1 of 2). PRETEST minidisk requirements

Licensed Product Number	Description	PRETEST Minidisk	Size -CMS 4K blocks unless otherwise stated	Related Production Minidisk
5648-B33	AFP Fonts	47A	83071	PSFMAINT 194
5654-260	EREP	431	2250	MAINT 201
5668-717	VS Pascal Library	425	570	MAINT 19E
5668-767	VS Pascal	418	1218	MAINT 19E
5668-806	VS Fortran	422	3750	MAINT 19E
5684-043	ISPF	458	150	ISPVM 191
		459	6700	ISPVM 192
5684-062	BookManager READ	415	2850	BOOKMGR 191
		416	9000	BOOKMGR 192
5684-113	DMS/CMS	417	450	MAINT 19E
5684-123	ISPF PDF	457	6000	ISPVM 192
5684-123	ISPF PDF NLS	457	2700	ISPVM 192
5688-190	PPFA	424	300	MAINT 363
5688-228	APL2	47B	7500	APL2PP 191
5697-F42	DB2/VM	476	360	SQLMACH 198
		477	900	SQLMACH 199
		46A	1620	SQLDRR 191
		478	3600	MSTRSRVO 195
		479	6660	5697F42S 193
5748-XX9	DCF	461	2700	MAINT 19E

<i>Figure 2 (Page 2 of 2). PRETEST minidisk requirements</i>				
Licensed Product Number	Description	PRETEST Minidisk	Size -CMS 4K blocks unless otherwise stated	Related Production Minidisk
5748-XX9	DCF ODF Feature	463	450	MAINT 19E
5748-XX9	DCF/SMFF Feature	464	1500	MAINT 19E

Once the test and default minidisks have been allocated, continue the installation in Chapter 4.4, “Install the Semi-VMSES/E Licensed Product” on page 31.

4.3.4.3 Shared File System (SFS) Considerations

This section provides basic information about changes to these instructions you will need to make if you plan to install any Semi-VMSES/E Licensed Product using SFS directories. However, you may need to make additional changes or adjustments, based on the actual Licensed Product(s) you are installing in this manner.

In general, you will need to adapt any minidisk-specific instructions and concepts to account for an SFS environment. And, when issuing a VMFINS command, you will need to specify an SFS-related component name instead of those established for a minidisk environment (SFS-related component names use the string SFS as part of the component name.).

You'll also need to obtain the SFS storage requirements for each Licensed Product using the PLAN option of the VMFINS command; this option will create a \$NNNNNNN PLANINFO file that contains this information.

Note: VMSYS is the filepool name used in the supplied PPF for both test and production SFS installations.

After the appropriate planning information is available (within the \$NNNNNNN PLANINFO file), you will need to do the following:

- 1 Determine the number of 4K blocks that are required for the SFS directories you will use. Refer to the \$NNNNNNN PLANINFO file and add up the 4K blocks required for each SFS directory you plan to use. This will give you the total number of 4K blocks required. You should also keep track of the 4K block requirements for each user ID as well.

You'll need this information if you need to enroll any Licensed Product user IDs in the VMSYS filepool, or if you need to increase the space allocated to an existing user ID.

Note: If you have created your own PPF override file, you should use your PPF name instead of \$NNNNNNNN.

- 2 Enroll any required Licensed Product user IDs in the VMSYS filepool by using the ENROLL USER command:

ENROLL USER *userid* VMSYS (BLOCKS *blocks*)

where *userid* is the actual user ID to be enrolled and *blocks* is the number of 4K blocks required for this user ID, that you calculated previously.

Note: The ENROLL USER must be issued from a user ID that is an administrator for the VMSYS filepool.

- 3 Determine if there are enough blocks available in the filepool to install the Licensed Product. This information can be obtained by using the QUERY FILEPOOL STATUS command. Near the end of the output from this command is a list of minidisks in the filepool and the number of blocks free. If the number of available blocks is smaller than the total available 4K blocks needed for this Licensed Product, you will need to add space to the filepool. See the *z/VM CMS File Pool Planning, Administration, and Operation* manual for information on adding space to a filepool.
- 4 Create the subdirectories listed in the \$NNNNNNNN PLANINFO file using the CREATE command with the DIRECTORY option.

set filepool vmsys:
create directory *dirid*

dirid is the name of the SFS directory you are creating, such as:

CREATE DIRECTORY *dirid*

If necessary, see the *z/VM CMS Command and Utility Reference* for more information about the CREATE DIRECTORY command.

Note: Subdirectories, when required, must be created from the respective user IDs.

- 5 Give SFS READ (and in some cases, WRITE) authority for each directory to those user IDs for which it's appropriate, using the GRANT AUTHORITY command.

grant auth *dirid* to *userid* (*authority*)

If necessary, see the *z/VM CMS Command and Utility Reference* for more information about the GRANT AUTHORITY command.

4.4 Install the Semi-VMSES/E Licensed Product

Notes:

Before you continue with the installation process, ensure you have completed the following:

1. Added all of the required user ID directories to the system directory.
2. Changed the passwords for all added user IDs from xxxxx to valid passwords, in accordance with your security guidelines.
3. Placed the new directories on-line using VM/Directory Maintenance (DIRMAINT) or an equivalent CP directory maintenance method.
4. Formatted any newly created minidisks or created SFS directories.

4.4.1 Install Using the VMFINS EXEC

- 1 Log on to the product installation user ID.
- 2 Establish write access to the **MAINT 51d** and **5e5**, if it's not already linked R/W.

```
cp link maint 5e5 5e5 rr
read password
cp link maint 51d 51d mr
multi password
```

The Software Inventory Disk (MAINT 51D) is where the VMSES/E system-level Software Inventory files reside.

- 3 Create a PROFILE EXEC that will contain ACCESS commands for the VMSES/E Build Disk (MAINT 5E5) and Software Inventory Disk (MAINT 51D), or add these commands to the existing PROFILE EXEC.

```
xedit profile exec a
==> input /**/
==> input 'ACCESS 5E5 B'
==> input 'ACCESS 51D D'
==> file
```

- 4 Use the profile to access the VMSES/E Build Disk (MAINT 5E5) and Software Inventory Disk (MAINT 51D).

profile

-
- 5** Ensure the tape is mounted and attached to the installation user ID at virtual address 181. The VMFINS EXEC requires the tape drive to be at virtual address 181.

Note: Please be aware that if you have more than one tape, that they are independent of each other. Therefore you must mount the tape on which the Licensed Product is loaded.

- 6** Install the Licensed Product.

Notes:

- a. If you have already created a PPF override file, you should specify your override file name after the **PPF** keyword for the following VMFINS command.
- b. You may be prompted for additional information during VMFINS INSTALL processing depending on your installation environment. If you are unsure how to respond to a prompt, refer to the “Installing Products with VMFINS” and “Install Scenarios” chapters in the *z/VM VMSES/E Introduction and Reference* to decide how to proceed.

Note!

The specific command for each product can be found in Chapter 6.0, “Semi-VMSES/E Licensed Product Technical Notes” on page 107.

- a** If installing from a tape:

vmfins install ppf \$nnnnnnnn {compid | compidsfs | compidprd | compidsfsprd} (nomemo link

- b** If installing from a Product Envelope:

vmfins install ppf \$nnnnnnnn {compid | compidsfs | compidprd | compidsfsprd} (nomemo link env envelope_filename

Use *compid* if you are installing using test minidisks and **not** placing this Licensed Product directly into production; use *compidsfs* if you are installing using test SFS directories.

Use *compidpr* if you are installing using minidisks and you **are** placing this Licensed Product directly into production.

Use *compidsfspr* if you are installing using SFS directories and you **are** placing this Licensed Product directly into production.

Note: If you have created your own PPF override file, you should use your PPF name instead of \$NNNNNNN.

The LINK option is used so that required minidisks not owned by the installation user ID will be available. VMFINS will attempt to link to these minidisks, and will access them in the appropriate order.

```
VMFINS2767I Reading VMFINS DEFAULTS B for additional options
VMFINS2760I VMFINS processing started
VMFINS2601R Do you want to create an override for :PPF $NNNNNNN COMPID
             $nnnnnnn%COMPID?
             Enter 0 (No), 1 (Yes) or 2 (Exit)
```

0

Enter 0 to bypass creating an override.

Enter 1 to create an override, change the PPF name, and change minidisk definitions.

Enter 2 to exit the VMFINS exec.

```

VMFINS2603I Processing product :PPF $NNNNNNN COMPID :PRODID $nnnnnnnn
VMFREQ2805I Product :PPF $NNNNNNN COMPID :PRODID $nnnnnnn%COMPID
           requisite checking
VMFINT2603I Installing product :PPF $NNNNNNN COMPID :PRODID $nnnnnnnn
VMFSET2760I VMFSETUP processing started for $nnnnnnnn COMPID
VMFUTL2205I Minidisk|Directory Assignments:
           String      Mode  Stat  Vdev  Label/Directory
VMFUTL2205I string    fm     R/W   dev   label
           :
VMFUTL2205I -----  A      R/W   191   INS191
VMFUTL2205I -----  B      R/O   5E5   MNT5E5
VMFUTL2205I -----  D      R/W   51D   MNT51D
VMFUTL2205I -----  S      R/O   190   MNT190
VMFUTL2205I -----  Y/S    R/O   19E   MNT19E
VMFSET2760I VMFSETUP processing completed successfully
VMFREC2760I VMFREC processing started
VMFREC1851I (1 of mm) VMFRCALL processing tapefile
VMFRCA2159I Loading part(s) to string dev (fm)
VMFRCA2159I Loaded nn part(s) to string dev (fm)
           :
VMFREC1851I (mm of mm) VMFRCALL processing tapefile
VMFRCA2159I Loading part(s) to string dev (fm)
VMFRCA2159I Loaded nn part(s) to string dev (fm)
VMFREC2760I VMFREC processing completed successfully
VMFINT2603I Product installed
VMFINS2760I VMFINS processing completed successfully
Ready;

```

- 7** Review the install message log (\$VMFINS \$MSGLOG). If necessary, correct any problems before going on. For information about handling specific installation messages, see the appropriate z/VM manual.

vmfview install

4.4.2 Place IBM Licensed Program Product Into Production

If you did not install this Licensed Product directly into production, you should verify that its components operate satisfactorily within your environment, using the appropriate PRETEST alternate minidisks, and Licensed Product documentation. When you have completed your testing, you should resume with the steps described below.

Notes:

1. The following steps should be done from the MAINT user ID, with links to the required installation minidisks, so that appropriate CMS shared segments can be re-saved, when necessary.
2. You will need to repeat steps 2 and 3 for each pair of test/production minidisks that are associated with this Licensed Product.

1 Log on to the **MAINT** user ID.

2 Link and access the appropriate test build (PRETEST 4xx) and production build minidisks. With regard to the latter minidisk, note the following:

- The production minidisk only needs to be linked if it's not a MAINT-owned minidisk.
- If another user already has the production minidisk linked in write mode (R/W), you will obtain only read access (R/O) to this minidisk. If this occurs, you will need to have that user re-link this minidisk in read-only mode (RR), and then re-issue the appropriate LINK and ACCESS commands. Do not continue with these procedures until a R/W link is established to this minidisk.

cp link PRETEST 4xx addr1 rr
read password

addr1 is an available minidisk address on the MAINT user ID. 4xx is the address of the PRETEST test build minidisk where Licensed Product files were loaded to during installation.

cp link userid prdaddr addr2 mr
multi password

addr2 is an available minidisk address on the MAINT user ID. *prdaddr* is the address of the *userid* production build minidisk where Licensed Product files are to be copied.

Note: If you are already on the MAINT userid and have R/W access to the *prdaddr* minidisk, you do not need to do the **cp link**.

access addr1 e

access addr2 f

If *userid prdaddr* is a MAINT-owned minidisk, use *prdaddr* instead of *addr2*.

3 Copy the Licensed Product files from the test build minidisk (PRETEST 4xx) to the corresponding production build minidisk. (*userid prdaddr*)

vmfcopy * * e = = f2 (prodid \$nnnnnnn%compid olddate replace

The VMFCOPY command will update the VMSES PARTCAT file on the *prdaddr* minidisk.

The time required for the VMFCOPY command will vary depending upon the number of files being copied.

Note:

If you have copied files to the MAINT Product Code Disk (MAINT 19E) (“Y”-disk), you will need to re-save the appropriate CMS shared segment to return this minidisk to “shared” status. If you have copied files to the MAINT AMENG Help Disk (MAINT 19D) (CMS HELP disk) you may need to re-save the CMS HELP saved segment as well. See the 'Placing (Serviced) Components into Production' section of the *z/VM Service Guide* for detailed information about how these saved segments should be saved on your system.

5.0 VMSES/E Licensed Product Technical Notes

This chapter provides technical considerations for the z/VM SDO VMSES/E Licensed Products. After you have followed the general instructions for VMSES/E products, from 3.0, “VMSES/E Licensed Product Installation Instructions” on page 17, locate the specific Licensed Product in this chapter to complete the installation. Products are ordered in this section by product number.

Note!

The Technical Notes in this section override all the documents in case of a conflict.

5.1 VMSES/E Licensed Product Specific Considerations

5.1.1 5648-A25 IBM COBOL FOR OS/390 AND VM V2R2.0

5.1.1.1 PUT/RSU/ESO Applied

The product is at service level ESO0410.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.1.2 Service Excluded

None.

5.1.1.3 Pre-Requisite Service

None.

5.1.1.4 Co-Requisite Service

None.

5.1.1.5 If-Requisite Service

None.

5.1.1.6 Product Manuals

Form Number	Publication Title
GC26-4764	IBM COBOL for OS/390 & VM Compiler and Run-Time Migration Guide
GC26-9044	IBM COBOL for OS/390 & VM V2R2 Licensed Program Specifications
SC26-9049	IBM COBOL for OS/390 & VM Programming Guide (feature 7048)
SC26-9047	IBM COBOL for OS/390 & VM Diagnosis Guide (feature 7048)
SC26-9046	IBM COBOL for OS/390 & VM Language Reference(feature 7048)
GC26-9048	IBM COBOL for OS/390 & VM Fact Sheet (feature 7101)
SC26-9049	IBM COBOL for OS/390 & VM Programming Guide (feature 7049)
SC26-9047	IBM COBOL for OS/390 & VM Diagnosis Guide (feature 7049)
SC26-9046	IBM COBOL for OS/390 & VM Language Reference (feature 7049)

5.1.1.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (PLAN NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (NOMEMO NOLINK ENV envelope_filename

IBM COBOL for OS/390 & VM is in VMSES/E format and cannot be installed using INSTFPP.

Refer to the *Program Directory for IBM COBOL for OS/390 & VM* in the section entitled "Installation Instructions" for the steps to install COBOL for OS/390 & VM using VMSES/E.

- COBOL for OS/390 & VM V2R2.0 has an execution requisite of Language Environment (LE). For z/VM V4R4.0 and V5R1.0, LE V4R4.0 (:PRODID.4VMVMQ40) is provided on the SDO DDR.

COBOL V2R2.0 as packaged requires that this level of LE is present in order to be installed.

This level of COBOL V2R2.0 can be installed on a z/VM system other than z/VM 4.4 or z/VM 5.1 by bypassing the requisite checking (i.e. 'install this product without its requisites') as illustrated in the *Program Directory for IBM COBOL for OS/390 & VM*.

- **Note:** Bypassing the requisite checking will allow COBOL to be installed and executed. However, COBOL may not be able to be serviced (rebuilt) until all requisites are satisfied.

For customization instructions, please refer to the section entitled "Customizing COBOL for OS/390 & VM V2R2" in the *Program Directory for IBM COBOL for OS/390 & VM*.

For instructions on applying service to COBOL for OS/390 & VM, please refer to the *Program Directory for IBM COBOL for OS/390 & VM*, section 7.0, entitled "Service Instructions."

5.1.1.8 DCSS Information

None.

5.1.1.9 Verification

Verification of IBM COBOL for OS/390 & VM is done automatically during installation, but can also be done manually. Issue the following:

v5648A25

5.1.2 5648-B02 VISUALAGE GENERATOR SERVER V1R2.0

5.1.2.1 PUT/RSU/ESO Applied

The product is at service level ESO0406.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.2.2 Service Excluded

None.

5.1.2.3 Pre-Requisite Service

None.

5.1.2.4 Co-Requisite Service

None.

5.1.2.5 If-Requisite Service

None.

5.1.2.6 Product Manuals

Form Number	Publication Title
GH23-0225-00	Introducing VisualAge Generator
GH23-0243-00	Installing VisualAge Generator Developer

Form Number	Publication Title
GH23-0255-00	VisualAge Generator Server Guide for MVS,VM and VSE
SH23-0226-00	Planning for VisualAge Generator
SH23-0256-00	VisualAge Generator Server Guide for MVS,VM and VSE

5.1.2.7 Installation

Product Notes

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

- VisualAge Generator Server for VM is shipped with Mixed Case English (ENU) at service level ESO0406. If a language other than Mixed Case English is utilized with this level of VisualAge Generator, it must be verified that it is at a service level that is compatible with the VisualAge Generator Server for VM Base code which is at service level ESO0206.
- PTF UQ58493 added TCP/IP support to VisualAge Generator. In order to utilize this support requires the definition of at least one dispatcher virtual machine (DVM) and one or more application server virtual machines (AVM's).

Information on the requirements for these additional virtual machines and how to enable the TCP/IP environment for VisualAge Generator may be found in the file 'TCPIP MEMO' which is delivered on the 5648B02A 51D disk.

Installation Requirements

For installation instructions, please refer to Chapter 6 of the *Program Directory for VisualAge Generator Server*.

The following changes are required to the steps identified in Chapter 6.

- Section 6.4.2 Install VisualAge Generator Server Language Code

Add the following step:

Step 4.A Load the VisualAge Generator Server Language Code control files to the 51D minidisk.

— **vmfins install info (nomemo**

- Section 6.6 Update Build Status Table for VisualAge Generator Server

Add the following steps:

Step 8.A Build the VisualAge Generator Server TCP/IP Modules.

The modules required to provide TCP/IP support for VisualAge Generator are not shipped on the install tape. The modules must be built at this time:

- **vmfins build ppf 5648B02A VISGEN elablmod (all**

Step 8.B Reveiw the Build of the VisualAge Generator Server TCP/IP Modules.

Review the install message log (\$VMFINS \$MSGLOG). If necessary, correct any problems before continuing.

- **vmfview install**

For more information on servicing using VMSES/E refer to *VMSES/E Introduction and Reference or VMSES/E 370 Feature Introduction and reference for Licensed Products*.

Service Requirements

For service instructions, please refer to Chapter 7 of the *Program Directory for VisualAge Generator Server*.

5.1.2.8 DCSS Information

For instructions on building the Saved Segments for VisualAge Generator, please refer to Chapter 6, Section 6.7.2 'Optional Post-Install Step to Define and Build the VisualAge Generator Server Saved Segements Using VMSES/E' of the *Program Directory for VisualAge Generator Server*.

- **NOTE:**

1. The virtual machine size of the Service ID 5648B02A should be set to 999M prior to building the segment (Step 8 'Prepare to Build the Segments).
2. The segment range utilized should be based on the segment layout as defined in the SDO Program Directory. Please see Appendix D, "Saved Segments" on page 211 for additional information.

5.1.2.9 Verification

For verification instructions, please refer to Chapter 6 Step 6.6.1 of the *Program Directory for VisualAge Generator Server*.

5.1.3 5648-063 ACF/NCP V7R8.1

5.1.3.1 PUT/RSU/ESO Applied

The product is at service level ESO0602.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.3.2 Service Excluded

None.

5.1.3.3 Pre-Requisite Service

None.

5.1.3.4 Co-Requisite Service

None.

5.1.3.5 If-Requisite Service

Product Number	PTF	APAR	Product Description
5688-035	UR51486	IR40805	NPSI V3R9
5654-010	UV59344	VM59813	VTAM V4R2
5654-011	UV59941	VM61164	NPM V2R2 (open PTF)

5.1.3.6 Product Manuals

Form Number	Publication Title
GC31-6226	Licensed Program Specifications: NCP Version 7 Release 8
SC30-4024	NCP Version 7 Release 8 Migration Guide
SC31-6223	NCP, SSP, and EP Resource Definition Guide
SC31-6224	NCP, SSP, and EP Program Resource Definition Reference
SC31-8063	Planning for NetView, NCP, and VTAM
SC31-8062	Planning for Integrated Networks
SC30-3470	Network Control Program (NCP) X.25 Planning and Installation
LY43-0030	NCP and EP Reference Summary and Data Areas
LY43-0029	NCP and EP Reference
LY30-5610	NCP X.25 Diagnosis, Customization, and Tuning

Form Number	Publication Title
LY43-0033	NCP, SSP, and EP Diagnosis Guide
SC31-6222	NCP, SSP, and EP Messages and Codes
SC31-6221	NCP, SSP, and EP Generation and Loading Guide
SC30-4025	NCP, SSP, and EP Release 14 Library Directory
LY43-0031	NCP, and SSP Customization Guide
LY43-0032	NCP, and SSP Customization Reference
LY43-0037	NCP, and SSP Emulation Program Trace Analysis Handbook
LK2T-0414	ACF/NCP, ACF/SSP, EP, NPSI, and NTuneMON Softcopy Collection Kit CD-RO

5.1.3.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

For installation instructions, please refer to Chapter 6 of the *Program Directory for Advanced Communication Function (ACF) Network Control Program (NCP)*.

For information on customization and tailoring refer to the *NCP/SSP Customization Guide & NCP/SSP Customization Reference*

For service instructions, please refer to Chapter 7 of the *Program Directory for Advanced Communication Function (ACF) Network Control Program (NCP)*.

For more information on servicing using VMSES/E refer to *VMSES/E Introduction and Reference*.

Notes:

1. The 3746 Model 900 CSS feature is a licensed offering that allows the operation of an IBM 3746 Model 900 attached to a 3745 Communication Controller. Prior to NCP V7R6, you were required to license, order, and install separate software media. Starting with NCP V7R6 the media containing the 3746 Model 900 CSS feature code has been incorporated into the base code of NCP. You are no longer required to install separate 3746 Model 900 CSS software media when attaching the IBM 3746 Model 900 CSS feature. Refer to the NCP V7R6 announcement letter dated September 9, 1997 for additional licensing instructions.

2. The IBM 3745 Communication Controller must have the appropriate features and microcode level installed when the IBM 3745 expansion frame, the IBM 3746 Model 900, is installed. For Machine Requirements, please refer to section 5.1.2.2 of the *Program Directory for Advanced Communication Function (ACF) Network Control Program (NCP)* for further information.

5.1.3.8 DCSS Information

None.

5.1.3.9 Verification

None.

5.1.4 5654-A22 IBM C/C++ FOR Z/VM V1R1.0

5.1.4.1 PUT/RSU/ESO Applied

The product is at service level ESO0606.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.4.2 Service Excluded

None.

5.1.4.3 Pre-Requisite Service

None.

5.1.4.4 Co-Requisite Service

None.

5.1.4.5 If-Requisite Service

None.

5.1.4.6 Product Manuals

Form Number	Publication Title
SC09-7625	C/C++ for z/VM User's Guide
SC09-7624	C/C++ for z/VM Run-Time Library Reference
SC09-4815	C/C++ Language Reference

Form Number	Publication Title
GC09-4819	z/OS C/C++ Messages
SC09-4767	z/OS C/C++ User's Guide
GC09-4913	z/OS C/C++ Compiler and Run-Time Migration Guide
GA22-7560	z/OS Language Environment Debugging Guide
SA22-7566	z/OS Language Environment Run-Time Messages
SC09-4765	z/OS C/C++ Programming Guide
SA22-7820	z/OS C Curses
SA22-7821	z/OS C/C++ Run-Time Library Reference

5.1.4.7 Installation

WARNING:

You **cannot** install both C/C++ Compiler (5654-A22) and IBM C Compiler for VM/ESA (5654-033) on the same system, both targeting the MAINT 19E disk. These two products have identically named files that would overwrite each other yielding unpredictable results. These identical files are:

CC EXEC

CDSECT EXEC

LOCALDEF EXEC

CC HELPCMS

CDSECT HELPCMS

LOCALDEF HELPCMS

CBCDSECT MODULE

Important Note for Product Installation.

Due to the size of the service, the C/C++ Compiler for z/VM V1R1.0 had to be repackaged onto three tape volumes. You have to install all volumes. You will be prompted by the installation exec when to mount the next tape volume or SES envelope, if you are installing using envelopes. The *Program Directory for IBM C/C++ for z/VM* does not mention that the product comes on three tapes since it was delivered from PID on just one tape prior to service being applied.

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

C/C++ for z/VM is in VMSES/E format and cannot be installed using INSTFPP.

Refer to the *Program Directory for IBM C/C++ for z/VM* in the section entitled "Installation Instructions" for the steps to install IBM C/VM using VMSES/E.

For customization instructions, please refer to the section entitled "Customization of Compile-Time Options" in the *Program Directory for IBM C/C++ for z/VM*

For instructions on applying service to IBM C/C++ for z/VM, please refer to the *Program Directory for IBM C/C++ for z/VM*, section 7.0, entitled "Service Instructions."

5.1.4.8 DCSS Information

Please note that the segment range should be based on the segment layout as defined in the SDO Program Directory. See Appendix D, "Saved Segments" on page 211 for more information.

Refer to the *Program Directory for IBM C/VM Compiler* in the section entitled "Define and Build the IBM C/VM Saved Segments" for the steps on Saved Segments.

5.1.4.9 Verification

Verification of C/C++ is done automatically during installation.

You can run the installation verification manually by issuing the following:

v5654A22

5.1.5 5654-A23 IBM DEBUG TOOL FOR Z/VM V4R1.0

5.1.5.1 PUT/RSU/ESO Applied

The product is at service level ESO0505.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.5.2 Service Excluded

None.

5.1.5.3 Pre-Requisite Service

None.

5.1.5.4 Co-Requisite Service

None.

5.1.5.5 If-Requisite Service

None.

5.1.5.6 Product Manuals

Form Number	Publication Title
GC18-9387	Licensed Program Specifications for Debug Tool
GI10-8669	Program Directory for Debug Tool for z/VM
SC18-9388	Debug Tool for z/VM: User's Guide

5.1.5.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

Debug Tool for z/VM is in VMSES/E format and cannot be installed using INSTFPP.

Refer to the *Program Directory for IBM Debug Tool for z/VM* in the section entitled "Installation Instructions" for the steps to install IBM Debug Tool for z/VM in VMSES/E

For instructions on applying service to IBM Debug Tool for z/VM, please refer to the *Program Directory for IBM Debug Tool for z/VM*, section 7.0, entitled "Service Instructions."

5.1.5.8 DCSS Information

Please note that the segment range should be based on the segment layout as defined in the SDO Program Directory. See Appendix D, "Saved Segments" on page 211 for more information.

Refer to the *Program Directory for IBM Debug Tool for z/VM* in the section entitled "Define and Build the IBM Debug Tool for z/VM Saved Segments Using VMSES/E" for the steps on Saved Segments.

5.1.5.9 Verification

Verification of Debug Tool is done automatically during installation.

You can run the installation verification manually by issuing the following:

V5654A23**Important Note for Verifying with C/C++ on z/VM V4R4.0**

You should have a minimum of 128M virtual storage when running the verification exec (V5654A23) on a z/VM V4R4.0 system and choose to include the C/C++ compiler either implicitly or explicitly (with the **ALL** option).

5.1.6 5654-009 ACF/SSP V4R8.1

5.1.6.1 PUT/RSU/ESO Applied

The product is at service level ESO0403.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.6.2 Service Excluded

None.

5.1.6.3 Pre-Requisite Service

None.

5.1.6.4 Co-Requisite Service

5.1.6.5 If-Requisite Service

None.

5.1.6.6 Product Manuals

Form Number	Publication Title
SC31-6221	Network Control Program, System Support Programs, and Emulation Program Generation and Loading Guide
SC31-6222	Network Control Program, System Support Programs, and Emulation Program Messages and Codes
GC31-6227	Licensed Program Specifications: System Support Programs Version 4 Release 8 for VM
SC30-4025	Network Control Program Version 7 Release 8, System Support Programs Version 4 Release 8, and Emulation Program Release 14 Library Directory
LY43-0033	Network Control Program, System Support Programs, and Emulation Program Diagnosis Guide
LY43-0037	Network Control Program, System Support Programs, and Emulation Program Trace Analysis Handbook
LY43-0031	Network Control Program, System Support Programs Customization Guide
LY43-0032	Network Control Program, System Support Programs Customization Reference
LK2T-0414	ACF/NCP, ACF/SSP, EP, NPSI, and NTuneMON Softcopy Collection Kit - CD

5.1.6.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* **(PLAN NOMEMO ENV** *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* **(NOMEMO NOLINK ENV** *envelope_filename*

You must have access to MAINT 193 for the successful build of the ASM3705 MODULE.

For installation instructions, please refer to Chapter 6 of the *Program Directory for Advanced Communication Function (ACF) System Support Programs (SSP)*.

For information on customization and tailoring refer to the *NCP/SSP Customization Guide & NCP/SSP Customization Reference*

For service instructions, please refer to Chapter 7 of the *Program Directory for Advanced Communication Function (ACF) System Support Programs (SSP)*.

For more information on servicing using VMSES/E refer to *VMSES/E Introduction and Reference for Licensed Products*.

5.1.6.8 DCSS Information

None.

5.1.6.9 Verification

None.

5.1.7 5654-010 ACF/VTAM ESA V4R2.0

5.1.7.1 PUT/RSU/ESO Applied

The product is at service level ESO0512.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.7.2 Service Excluded

5.1.7.3 Pre-Requisite Service

None.

5.1.7.4 Co-Requisite Service

Product Number	PTF	APAR	Product Description
5664-280	UV55517	VM52524	VTAM V3R4 VM/SP
5684-095	UV55515	VM52522	VTAM V3R4 VM/ESA
5684-112	UM59196	VM59196	AVS
5684-112	UM26835	VM58989	CP
5684-112	UM26882	VM58859	CP

5.1.7.5 If-Requisite Service

Product Number	PTF	APAR	Product Description
5654-010	UV59166	VM59197	VTAM V4R2 VM/ESA
5654-010	UV59178	VM59198	VTAM V4R2 VM/ESA

5.1.7.6 Product Manuals

Form Number	Publication Title
GC31-8114	Overview of VTAM V4R2 for VM/ESA and VSE/ESA
SC31-7122	Planning for Netview, NCP, and VTAM
SC31-7123	Planning Integrated Networks
SX75-0092	Planning Aids: Pre-installation Planning Checklist
GC31-6558	VTAM Glossary for V4R2 for MVS/ESA, VM/ESA, and VSE/ESA
GC31-6490	VTAM Licensed Program Specifications
SC31-6493	VTAM Messages and Codes
GC31-8071	VTAM Migration Guide
SC31-6494	VTAM Network Implementation Guide
SC31-6495	VTAM Operation
SX75-0205	VTAM Operation Quick Reference
GC31-8089	VTAM Release Guide
SC31-6498	VTAM Resource Definition Reference
SK2T-2007	Estimating Storage for VTAM
SC31-6496	VTAM Programming
SC31-6497	VTAM Programming for LU6.2

Form Number	Publication Title
SC31-6499	VTAM Resource Definition Samples
LY43-0063	VTAM Customization
LY43-0103	VTAM Data Areas for VM/ESA
LY43-0065	VTAM Diagnosis

5.1.7.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

Notes:

After you place your order, you will receive your password, which you need to start VTAM. In most cases, you must update your VM startup EXEC with your IBM customer number and your VTAM password for the package you have ordered. If you start VTAM with the IBM supplied sample startup EXEC (found on the samples disk), VTAM is initialized as Client/Server. If you have ordered MultiDomain or InterEnterprise, before you can start VTAM, you must edit the sample startup EXEC and replace the default customer number and VTAM password (specified on the VTAM START command) with your customer number and VTAM password obtained separately from IBM. For further information and instructions, see "PROFILE for the VTAM Virtual Machine" in the *VTAM Network Implementation Guide*.

For installation instructions, please refer to the Installation Instructions section of the *Advanced Communications Function For Virtual Telecommunications Access Method Program Directory* and Installing VTAM under VM of the *VTAM Network Implementation Guide*.

For customization instructions, please refer to *VTAM Customization*.

For service instructions, please refer to the Service Instructions section of the *Advanced Communications Function For Virtual Telecommunications Access Method Program Directory* and Applying Service of the *VTAM Network Implementation Guide*.

5.1.7.8 DCSS Information

Refer to Define and Build the VTAM V4R2 for VM/ESA Saved Segments Using VMSES/E section of the *Advanced Communications Function For Virtual Telecommunications Access Method Program Directory*. Please note that the segment range is based on the segment layout as defined and distributed as part of the SDO package. See Appendix D, “Saved Segments” on page 211 for more information.

5.1.7.9 Verification

For verification instructions, please refer to the Verifying the Installation section of the *VTAM Network Implementation Guide*.

5.1.8 5654-010 APPC APPL SUITE V1R1.0

5.1.8.1 PUT/RSU/ESO Applied

The product is at service level ESO9807.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.8.2 Service Excluded

None.

5.1.8.3 Pre-Requisite Service

5.1.8.4 Co-Requisite Service

Product Number	PTF	APAR	Product Description
5684-112	UM26648	VM58704	VM/ESA AVS 1.2.2
5684-112	UM26761	VM58705	VM/ESA AVS 1.2.2

5.1.8.5 If-Requisite Service

None.

5.1.8.6 Product Manuals

Form Number	Publication Title
SC31-6532	APPC Application Suite User's Guide
SC31-6533	APPC Application Suite Administration

Form Number	Publication Title
SC31-6534	APPC Application Suite Programming

5.1.8.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

For installation instructions, please refer to the Installation Instructions section of the *APPC Application Suite for VM/ESA Program Directory*.

For customization instructions, please refer to *APPC Application Suite Administration Guide* .

For service instructions, please refer to the Service Instructions section of the *APPC Application Suite for VM/ESA Program Directory* .

Notes:

When setting up your SERVERS (eg. ANAME, A3270) use the Administration Guide for the correct setup. The VTAM PRODPART file has a different setup and should not be used.

5.1.8.8 DCSS Information

None.

5.1.8.9 Verification

None.

5.1.9 5654-029 DITTO V1R3.0

5.1.9.1 PUT/RSU/ESO Applied

The product is at service level ESO0511.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.9.2 Service Excluded

None.

5.1.9.3 Pre-Requisite Service

None.

5.1.9.4 Co-Requisite Service

None.

5.1.9.5 If-Requisite Service

None.

5.1.9.6 Product Manuals

Form Number	Publication Title
GC26-9598	DITTO/ESA Installation and Customization Guide
GH19-8223	DITTO/ESA Release 3 Licensed Program Specifications
GH19-8222	Introducing DITTO/ESA Release 3
SH19-8221	DITTO/ESA Release 3 User's Guide and Reference
SX11-6110	DITTO/ESA Release 3 Reference Summary

5.1.9.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

DITTO/ESA is in VMSES/E format and cannot be installed using INSTFPP.

Refer to the *Program Directory for Data Interfile Transfer, Testing, and Operations Utility / ESA* section entitled "Installation Instructions" for the steps to install DITTO/ESA using VMSES/E.

5.1.9.8 DCSS Information

None.

5.1.9.9 Verification

To verify the installation of DITTO/ESA, perform the following steps:

1. Logon to a CMS user ID that is enabled to access and use DITTO/ESA.
 2. Enter DITTO after Ready; appears on your CMS terminal.
 3. The first time you invoke DITTO/ESA a copyright panel appears. Press the cancel key(F12) to continue.
 4. The DITTO/ESA for VM Release 3 main menu should appear.
 5. Press the menu key(F2) to flip between the task selection menu and the primary function menu. You may decide later on your preference for daily operation.
 6. Enter NEWS in the entry field or in the command line. Please read the information presented and then press the exit key to return to the menu.
 7. Enter LVL in the entry field or in the comand line. The information presented tells you the release and service level of DITTO/ESA.
 8. Press the exit key to end the DITTO/ESA session.
-

5.1.10 5654-033 IBM C COMPILER FOR VM/ESA V3R1.0

5.1.10.1 PUT/RSU/ESO Applied

The product is at service level ESO0402.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.10.2 Service Excluded

None.

5.1.10.3 Pre-Requisite Service

None.

5.1.10.4 Co-Requisite Service

None.

5.1.10.5 If-Requisite Service

None.

5.1.10.6 Product Manuals

Form Number	Publication Title
SC09-2151	IBM C for VM/ESA Programming Guide
SC09-2153	IBM C for VM/ESA Language Reference
SC09-2152	IBM C for VM/ESA User's Guide
SC09-2149	IBM C for VM/ESA Diagnosis Guide
SC09-2147	IBM C for VM/ESA Migration Guide
GC09-2148	IBM C for VM/ESA Licensed Program Specifications
SC24-5741	IBM OpenEdition for VM/ESA Sockets Reference

5.1.10.7 Installation

WARNING:

You **cannot** install both C/C++ Compiler (5654-A22) and IBM C Compiler for VM/ESA (5654-033) on the same system, both targeting the MAINT 19E disk. These two products have identically named files that would overwrite each other yielding unpredictable results. These identical files are:

CC EXEC

CDSECT EXEC

LOCALDEF EXEC

CC HELPCMS

CDSECT HELPCMS

LOCALDEF HELPCMS

CBCDSECT MODULE

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

IBM C/VM is in VMSES/E format and cannot be installed using INSTFPP.

Refer to the *Program Directory for IBM C/VM Compiler* in the section entitled "Installation Instructions" for the steps to install IBM C/VM using VMSES/E.

For customization instructions, please refer to the section entitled "Customization of Compile-Time Options" in the *Program Directory for IBM C/VM Compiler*.

For instructions on applying service to IBM C/VM, please refer to the *Program Directory for IBM C/VM* , section 7.0, entitled "Service Instructions."

5.1.10.8 DCSS Information

Please note that the segment range should be based on the segment layout as defined in the SDO Program Directory. See Appendix D, "Saved Segments" on page 211 for more information.

Refer to the *Program Directory for IBM C/VM Compiler* in the section entitled "Define and Build the IBM C/VM Saved Segments" for the steps on Saved Segments.

5.1.10.9 Verification

Verification of C/VM is done automatically during installation.

You can run the installation verification manually by issuing the following:

v5654033

5.1.11 5668-723 GDDM-IVU V1R1.3

5.1.11.1 PUT/RSU/ESO Applied

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.11.2 Service Excluded

None.

5.1.11.3 Pre-Requisite Service

None.

5.1.11.4 Co-Requisite Service

None.

5.1.11.5 If-Requisite Service

None.

5.1.11.6 Product Manuals

Form Number	Publication Title
GC33-1802	Program Directory for GDDM/VM
SC33-0479	GDDM Image View Utility

5.1.11.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

GDDM-IVU is in VMSES/E format and cannot be installed using INSTFPP.

Refer to the *Program Directory for GDDM/VM* in the section entitled "6.0 Install GDDM/VM using the VMFINS EXEC" for the steps for installing GDDM-IVU using VMSES/E.

Refer to the *Program Directory for GDDM/VM* in the section entitled "7.0 Service Instructions" for information on applying service to GDDM-IVU using VMSES/E.

5.1.11.8 DCSS Information

Refer to “Using GDDM saved segments” section of the *GDDVM/VM Program Directory*

Please note that the segment range should be based on the segment layout as defined in the SDO Program Directory. See Appendix D, “Saved Segments” on page 211 for more information.

5.1.11.9 Verification

GDDM/VM and GDDM/VM NLS (US ENGLISH) feature must be installed prior to verifying the installation of GDDM-IVU. Consult **Testing GDDM-IVU Installation, Chapter 9** in the *Program Directory for GDDM/VM* for instructions to run the verification.

5.1.12 5668-801 GDDM-IMD V2R1.3

5.1.12.1 PUT/RSU/ESO Applied

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.12.2 Service Excluded

None.

5.1.12.3 Pre-Requisite Service

None.

5.1.12.4 Co-Requisite Service

None.

5.1.12.5 If-Requisite Service

None.

5.1.12.6 Product Manuals

Form Number	Publication Title
GC33-1802	Program Directory for GDDM/VM
SC33-0338	GDDM Interactive Map Definition

5.1.12.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid (PLAN NOMEMO ENV* *envelope_filename*

VMFINS INSTALL PPF *ppfname compid (NOMEMO NOLINK ENV* *envelope_filename*

GDDM-IMD is in VMSES/E format and cannot be installed using INSTFPP.

Refer to the *Program Directory for GDDM/VM* in the section entitled "6.0 Install GDDM/VM using the VMFINS EXEC" for the steps for installing GDDM-IMD using VMSES/E.

Refer to the *Program Directory for GDDM/VM* in the section entitled "7.0 Service Instructions" for information on applying service to GDDM-IMD using VMSES/E.

5.1.12.8 DCSS Information

Refer to "Using GDDM saved segments" section of the *Program Directory for GDDVM/VM*

Please note that the segment range should be based on the segment layout as defined in the SDO Program Directory. See Appendix D, "Saved Segments" on page 211 for more information.

5.1.12.9 Verification

GDDM/VM and GDDM/VM NLS (US ENGLISH) feature must be installed prior to verifying the installation of GDDM-IMD. Consult **Testing GDDM-IMD Installation, Chapter 9** in the *Program Directory for GDDM/VM* for instructions to run the verification.

5.1.13 5668-812 GDDM-PGF V2R1.3

5.1.13.1 PUT/RSU/ESO Applied

The product is at service level ESO0003.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.13.2 Service Excluded

None.

5.1.13.3 Pre-Requisite Service

None.

5.1.13.4 Co-Requisite Service

None.

5.1.13.5 If-Requisite Service

None.

5.1.13.6 Product Manuals

Form Number	Publication Title
GC33-1802	Program Directory for GDDM/VM
SC33-0328	GDDM-PGF Interactive Chart Utility
SC33-0913	GDDM-PGF Application Programming Guide
SC33-0333	GDDM-PGF Application Programming Reference
SC33-0330	GDDM-PGF Vector Symbol Editor
SC33-1776	GDDM-PGF OPS User's Guide

5.1.13.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

GDDM-PGF is in VMSES/E format and cannot be installed using INSTFPP. Refer to the *Program Directory for GDDM/VM*, Chapter 6.0, "Installation Instructions" and Chapter 7.0, "Service Instructions", for the steps to install and apply service to GDDM-PGF using VMSES/E.

5.1.13.8 DCSS Information

Refer to “Using GDDM saved segments” section of the *Program Directory for GDDVM/VM*

Please note that the segment range should be based on the segment layout as defined in the SDO Program Directory. See Appendix D, “Saved Segments” on page 211 for more information.

5.1.13.9 Verification

GDDM/VM and GDDM/VM NLS (US ENGLISH) feature must be installed prior to verifying the installation of GDDM-PGF. Consult **Testing GDDM-PGF Installation, Chapter 9** in the *Program Directory for GDDM/VM* for instructions to run the verification.

5.1.14 5684-042 ICKDSF V1R17.0

5.1.14.1 PUT/RSU/ESO Applied

The product is at service level ESO0604.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.14.2 Service Excluded

None.

5.1.14.3 Pre-Requisite Service

None.

5.1.14.4 Co-Requisite Service

None.

5.1.14.5 If-Requisite Service

None.

5.1.14.6 Product Manuals

Form Number	Publication Title
GC26-3946-21	Device Support Facilities Release 17 System Control Program Specifications
GC35-0033-24	Device Support Facilities User's Guide and Reference Release 17

5.1.14.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* **(PLAN NOMEMO ENV** *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* **(NOMEMO NOLINK ENV** *envelope_filename*

ICKDSF is in VMSES/E format and cannot be installed using INSTFPP.

Refer to the *Program Directory for Device Support Facilities (ICKDSF)* in chapter 6.0 entitled "Installation Instructions" for the steps to install ICKDSF using VMSES/E.

Refer to the *Program Directory for Device Support Facilities (ICKDSF)* in chapter 8.0 entitled "The Stand-Alone Program" to see how to create the stand-alone ICKDSF IPL tape.

5.1.14.8 DCSS Information

None.

5.1.14.9 Verification

To run the verification program issue:

v5684042

5.1.15 5684-100 PVM V2R1.1

5.1.15.1 PUT/RSU/ESO Applied

The product is at service level RSU9901.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.15.2 Service Excluded

None.

5.1.15.3 Pre-Requisite Service

None.

5.1.15.4 Co-Requisite Service

None.

5.1.15.5 If-Requisite Service

None.

5.1.15.6 Product Manuals

Form Number	Publication Title
GX24-5266	Introducing VM/Pass-Through Facility Version 2
SC24-5557	VM/Pass-Through Facility V2 Administration and Operations
SC24-5555	VM/Pass-Through Facility V2 User's Guide
SC24-5556	VM/Pass-Through Facility V2 Programming Reference
GC24-5591	VM/Pass-Through Facility V2 Licensed Program Specifications
SC24-5648	VM/Pass-Through Facility Messages
SC24-5656	VM/Pass-Through Facility Auto-Signon Reference
SC24-5710	VM/Pass-Through Facility TCP/IP Line Driver Support

5.1.15.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (PLAN NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (NOMEMO NOLINK ENV envelope_filename

Pass-Through 2.1.1 is VMSES/E enabled and includes CVIEW 2.1.3 (5664-296) as a component. SVM (Service Virtual Machine Runtime Library) is removed from Pass-Through 2.1.1 product and included in the VM/ESA product at the VM/ESA Release 1.5 level and later.

VMFINS will be used to install VM Pass-Through Facility. VMFINS is an installation aid supplied as part of VMSES/E to make installation of VM and Licensed Program Product (LPs) consistent.

The installation and tailoring of Pass-Through 2.1.1 is extensive. Please have a copy of the program directory available, *Program Directory for VM/Pass-Through Facility Version 2 Release 1 Modification 1 Program Number 5684-100 for Use with VM/ESA*.

Notes:

1. These notes are not meant to replace the installation steps stated in Pass-Through's Program Directory. These notes clarify certain steps and add information that was overlooked by the program directory. You cannot and should not use these notes in isolation for installing, tailoring and verifying Pass-Through.
2. You must make sure that the MAINT and Pass-Through user ID's are never logged on at the same time so all required read/write links are present when executing verification tasks.
3. Make sure the GCS recovery machine (usually named GCS) is logged on before issuing tasks requiring the GCS environment.

Warning

The PVM and CVIEW virtual machines are restricted to using the System/370 architecture. The 370 Accommodation Facility available in VM/ESA 1.2.x and later allows these applications written for the 370 virtual machine to run in a ESA-family virtual machine. The 370 Accommodation Facility is activated by adding the following command 'CP SET 370ACCOM ON' to the PROFILE EXEC prior to starting the 370 application.

In the section entitled Tailor the CVIEW Virtual Machine substitute the commands listed in Step 1 with SET 370ACCOM ON which activates the 370 Accommodation Facility.

For installation of the Optional Source Files please refer to Install Optional Source Files of the *VM/Pass-Through Facility Program Directory*.

For customization and tailoring information please refer to *VM/Pass-Through Facility Administration and Operation*.

For service instructions, please refer to Chapter 7 of the *VM/Pass-Through Facility Program Directory*.

For more information on servicing using VMSES/E refer to *VMSES/E Introduction and Reference*.

5.1.15.8 DCSS Information

Refer to Define and Build the MPVM Saved Segment Using VMSES/E section of the *VM/Pass-Through Facility Program Directory*. Please note that the segment range is based on the segment layout as defined and distributed as part of the SDO package. See Appendix D, "Saved Segments" on page 211 for more information.

5.1.15.9 Verification

For verification instructions, please refer to Test the Installation/Service for PVM in Appendix A of the *VM/Pass-Through Facility Program Directory*.

5.1.16 5684-137 VMBATCH V2R2.0

5.1.16.1 PUT/RSU/ESO Applied

The product is at service level ESO0508.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.16.2 Service Excluded

None.

5.1.16.3 Pre-Requisite Service

None.

5.1.16.4 Co-Requisite Service

None.

5.1.16.5 If-Requisite Service

None.

5.1.16.6 Product Manuals

Form Number	Publication Title
GC24-5571	VM Batch Facility Licensed Program Specification
GC24-5572	VM Batch Facility General Information Manual
SC24-5573	VM Batch Facility Installation, Customization and Administration
SC24-5574	VM Batch Facility User's Guide

5.1.16.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

VM/BATCH is in VMSES/E format and cannot be installed using INSTFPP.

Refer to *Program Directory for use with VM Batch Facility Version 2* in the section entitled "Installation Instructions" for the steps to install VM/BATCH using VMSES/E.

Refer to *VM Batch Facility Installation, Customization, and Administration* in the appendix entitled "Migrating from a Previous Release of the Product" for migration considerations.

5.1.16.8 DCSS Information

None.

5.1.16.9 Verification

Refer to *VM Batch Facility Installation, Customization, and Administration* in the section entitled "Verifying the VM Batch Facility Installation" for verification procedure.

5.1.17 5684-157 HMF V1R1.1

5.1.17.1 PUT/RSU/ESO Applied

The product is at service level ESO0111.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.17.2 Service Excluded

None.

5.1.17.3 Pre-Requisite Service

None.

5.1.17.4 Co-Requisite Service

None.

5.1.17.5 If-Requisite Service

None.

5.1.17.6 Product Manuals

Form Number	Publication Title
GC24-5611	SystemView Host Management Facilities/VM Licensed Program Specifications
GC24-5612	SystemView Host Management Facilities/VM General Information
SC24-5614	SystemView Host Management Facilities/VM Planning and Tailoring Guide
SC24-5615	SystemView Host Management Facilities/VM User's Guide and Reference
SC24-5616	SystemView Host Management Facilities/VM Messages and Codes

5.1.17.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

For installation instructions, please refer to the Installation Instructions section of the *IBM SystemView Host Management Facilities/VM Program Directory*.

For customization instructions, please refer to the Post Installation Instructions section of the *IBM SystemView Host Management Facilities/VM Program Directory* and the *IBM SystemView Host Management Facilities/VM Planning and Tailoring Guide*.

For service instructions, please refer to the Service Instructions section of the *IBM SystemView Host Management Facilities/VM Program Directory*.

5.1.17.8 DCSS Information

None.

5.1.17.9 Verification

For verification instructions, please refer to the Installation and Service Verification Instructions section of the *IBM SystemView Host Management Facilities/VM Program Directory*.

5.1.18 5684-168 GDDM/VM V3R2.0

5.1.18.1 PUT/RSU/ESO Applied

The product is at service level ESO0411.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.18.2 Service Excluded

5.1.18.3 Pre-Requisite Service

None.

5.1.18.4 Co-Requisite Service

None.

5.1.18.5 If-Requisite Service

None.

5.1.18.6 Product Manuals

Form Number	Publication Title
GC33-0866	GDDM General Information
SC33-0875	GDDM User's Guide
SC33-0867	GDDM Base Application Programming Guide
SC33-0868	GDDM Base Application Programming Reference
SC33-0870	GDDM Diagnosis
SC33-0869	GDDM Messages
SC33-0871	GDDM System Customization and Administration
SC33-0920	GDDM Using the Image Symbol Editor
GC33-0876	GDDM Series Licensed Program Specifications
GC33-1802	Program Directory for GDDM/VM
LY33-6080	How to activate GDDM-REXX

5.1.18.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (PLAN NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (NOMEMO NOLINK ENV envelope_filename

GDDM is in VMSES/E format and cannot be installed using INSTFPP. Refer to the *Program Directory for GDDM/VM*, Chapter 6.0, "Installation Instructions", for the steps to install GDDM using VMSES/E.

GDDM-PCLK and GDDM-OS/2 Link are shipped as part of GDDM/VM. If you want to make them available to your systems, refer to *GDDM System Customization and Administration (SC33-0871)*.

GDDM-REXX is also shipped as part of GDDM/VM. To activate GDDM-REXX refer to *How to activate GDDM-REXX (LY33-6080)*. To save the DCSS for GDDM-REXX see instructions in the "DCSS Information" section of this document.

Refer to *GDDM System Customization and Administration* to customize GDDM/VM.

Refer to the *Program Directory for GDDM/VM*, Chapter 7.0 "Service Instructions", for information on applying service to GDDM using VMSES/E.

5.1.18.8 DCSS Information

Refer to "Using GDDM saved segments" section of the *GDDVM/VM Version 3 Program Directory*

Please note that the segment range should be based on the segment layout as defined in the SDO Program Directory. See Appendix D, "Saved Segments" on page 211 for more information.

5.1.18.9 Verification

The verification will be run automatically at the end of the **vmfins build** step if you have GDDM/VM US English National Language Support installed or have a GDDM user default specification for NATLANG telling GDDM to use a different language. Consult the *Program Directory for GDDM/VM*, **Chapter 9.0 "Testing GDDM Installation"**, for instructions to run the verification separately. Note that step 4 of the **Testing GDDM/VM Base** section documents a process for setting the User Control Key to something other than the default of PA3. This may be necessary if the keyboard does not have a PA3 key, or if the PA3 key is already used by another application. If it is necessary to follow this step, you can facilitate this by creating a **PROFILE ADMDEFS** file, if one does not already exist. Then insert the following line into that file as indicated, making sure that there is a space in col 1. This line is an example of how to define the PF1 key to function as the User Control Key:

```
ADMMNICK FAM=1,PROCOPT=((CTLKEY,1,1))
```

5.1.19 5688-035 NPSI X.25 V3R9.0

5.1.19.1 PUT/RSU/ESO Applied

The product is at service level ESO0507.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.19.2 Service Excluded

None.

5.1.19.3 Pre-Requisite Service

None.

5.1.19.4 Co-Requisite Service

None.

5.1.19.5 If-Requisite Service

None.

5.1.19.6 Product Manuals

Form Number	Publication Title
SC30-3470	X.25 NPSI Version 3 Planning and Installation
SC30-3502	X.25 NPSI Version 3 Host Programming
SC30-9605	X.25 NPSI Version 3 Licensed Programming Specifications
SC30-3469	X.25 NPSI Version 3 General Information
LY30-5610	X.25 NPSI Version 3 Diagnosis, Customization and Tuning
LY30-5627	X.25 NPSI Version 3 Release 9 Data Area

5.1.19.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

For installation instructions, please refer to Chapter 6 of the *Program Directory for X.25 NCP Packet Switching Interface (X.25 NPSI)*.

For information on customization and tailoring refer to the *X.25 NPSI Version 3 Diagnosis, Customization and Tuning*.

For service instructions, please refer to Chapter 7 of the *Program Directory for X.25 NCP Packet Switching Interface (X.25 NPSI)*.

For more information on servicing using VMSES/E refer to *VMSES/E Introduction and Reference*.

5.1.19.8 DCSS Information

None.

5.1.19.9 Verification

None.

5.1.20 5688-188 C/370 LIBRARY V2R2.0

5.1.20.1 PUT/RSU/ESO Applied

The product is at service level ESO9907.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.20.2 Service Excluded

None.

5.1.20.3 Pre-Requisite Service

None.

5.1.20.4 Co-Requisite Service

None.

5.1.20.5 If-Requisite Service

None.

5.1.20.6 Product Manuals

Form Number	Publication Title
GC09-1389	IBM C/370 Licensed Program Specifications
GC09-1387	IBM C/370 Installation and Customization Guide

5.1.20.7 Installation

Note: DO NOT install this product on the 19E disk because it will overlay the current version of LE that is delivered with the BASE. If you want to use this product make sure that the disk that the code is on is accessed before the 19E.

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* **(PLAN NOMEMO ENV** *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* **(NOMEMO NOLINK ENV** *envelope_filename*

For installation details, please reference the *Program Directory for IBM C/370 Library*, section 6.0, entitled "Installation Instructions."

For instructions on applying service to C/370 Library, please refer to the *Program Directory for IBM C/370 Library*, section 7.0.

5.1.20.8 DCSS Information

The suggested commands for generating/saving the C/370 segments follow. Please note that the segment addresses are based on the segment layout as defined and distributed as part of the SDO package. See Appendix D, "Saved Segments" on page 211 for more information.

```
define storage 840m
ipl 190 parm nosprof instseg no
access(nosprof
```

link maint 5e5 5e5 rr

access 5e5 b

link maint 51d 51d mr

access 51d d

vmfsgmap segbld esasegs segblist

Go to Add Segment Definition panel by pressing **PF10**

Update OBJNAME...{**EDCXV|EDCX24**}

Update PRODID....**5688188A C370L**

To obtain the C/370 Library segment information from the 5688188A PRODPART file press **PF10**

Confirm information shown on the panels is correct. To return to the Segment Map panel press **PF5**

Save new information and exit from Segment Map Panel by pressing **PF5**

ipl 190 parm nosprof instseg no

access (nosprof

access 5e5 b

access 51d d

set ldrtbls 15

To build the EDCXV Segment enter the following:

vmfbld ppf segbld esasegs segblist edcxv (all

To build the EDCX24 Segment enter the following:

vmfbld ppf segbld esasegs segblist edcx24 (all

vmfview build

Note: If you receive the message: **VMFBDS2003W** then the **SYSTEM SEGID D(51D)** file has been changed and must be moved to the S-disk. The **SYSTEM SEGID** file must be copied over to the the S-disk in order to stay in sync with the system SEGID. Remember to re-save CMS to avoid the Shared S-STAT not available message.

For further information on saved segments see *Program Directory for IBM C/370 Library*.

5.1.20.9 Verification

Verification of C/370 is done automatically during installation.

You can run the installation verification manually by issuing the following:

v5688188

5.1.21 5688-235 IBM PL/I V1R1.1

5.1.21.1 PUT/RSU/ESO Applied

The product is at service level ESO0510.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.21.2 Service Excluded

None.

5.1.21.3 Pre-Requisite Service

Product Number	PTF	APAR	Product Description
5654-030	UM27728	VM60191	VMFBLD FAILS FOR OUTSTANDING DELETES IN BYPASSED BUILD LIST - FOR VM/ESA V2R4.0 ONLY.

5.1.21.4 Co-Requisite Service

None.

5.1.21.5 If-Requisite Service

None.

5.1.21.6 Product Manuals

Form Number	Publication Title
GC26-3116	PL/I for MVS & VM Licensed Program Specifications
SC26-3113	PL/I for MVS & VM Programming Guide
SC26-3114	PL/I for MVS & VM Language Reference
SC26-3118	PL/I for MVS & VM Compiler & Run-Time Migration Guide
SC26-3149	PL/I for MVS & VM Diagnosis Guide
SC26-3229	PL/I for MVS & VM Compile-Time Messages & Codes
SX26-3821	PL/I for MVS & VM Reference Summary
SK2T-1237	Application Development Collection Kit (All above publications are available on this softcopy collection kit)

5.1.21.7 Installation

IMPORTANT: The following is an excerpt from the PSP bucket UPGRADE= ADCPL1111 SUBSET= VM/111 for IBM PL/I for MVS & VM V1R1.1.

Any reference to **LE 1.5** also applies to **LE 1.6.** and to **LE 1.8.**

```
*****
* SECTION 1.      I N S T A L L A T I O N   I N F O R M A T I O N      *
*****
THIS SECTION CONTAINS CHANGES TO THE PRODUCT'S PROGRAM DIRECTORY.
2. 96/02/01 SECTION OF PROG. DIRECTORY REFERENCED: VM/SES install
The PL/I for MVS & VM compiler requires the LE product 1.5
or later to install. The compiler has a PRE-REQ for 1.4. If
you have 1.5 installed VMSES currently does not recognize
that 1.5 of LE has superceded the 1.4 release of LE. You
will need to enter the following commands if you have LE
1.5 installed:
VMFSIM MODIFY VM SYSRECS D TDATA :PRODID 5688198D
:PPF 5688198D DUMMY :STAT RECEIVED
** VM SYSRECS is default for Receive Status Table **
VMFSIM MODIFY VM SYSAPPS D TDATA :PRODID 5688198D
:PPF 5688198D DUMMY :STAT APPLIED
** VM SYSAPPS is default for Apply Status Table **
```

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

For installation details, please reference the *Program Directory for IBM PL/I for MVS & VM*, section 6.0, entitled "Installation Instructions."

For customization instructions, please refer to section 10.0 entitled "Customizing PL/I" in the *Program Directory for IBM PL/I for MVS & VM*.

For instructions on applying service to PL/I for MVS & VM, refer to the *Program Directory for IBM PL/I for MVS & VM*, section 8.0, entitled "Service Instructions."

5.1.21.8 DCSS Information

None.

5.1.21.9 Verification

Verification of PL/I for MVS & VM is done automatically during installation.

You can run the installation verification manually. First, link and Access Language Environment for VM V1 R6.0 (5688-198). Then issue the following commands:

```
vmfsetup 5688235a pli  
v5688235
```

5.1.22 5695-013 REXX/370 COMPILER V1R4.0

5.1.22.1 PUT/RSU/ESO Applied

The product is at service level ESO0507.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.22.2 Service Excluded

None.

5.1.22.3 Pre-Requisite Service

None.

5.1.22.4 Co-Requisite Service

None.

5.1.22.5 If-Requisite Service

None.

5.1.22.6 Product Manuals

Form Number	Publication Title
SH19-8160	REXX: User's Guide and Reference
SH19-8179	REXX: Diagnosis Guide

5.1.22.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* **(PLAN NOMEMO ENV** *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* **(NOMEMO NOLINK ENV** *envelope_filename*

For installation instructions, please refer to chapter 6 of the *Program Directory for IBM COMPILER for REXX on zSeries*.

5.1.22.8 DCSS Information

None.

5.1.22.9 Verification

Verification could be started automatically by the installation exec or manually by entering:

v5695013

5.1.23 5695-013 REXX/370 COMPILER KANJI V1R4.0

5.1.23.1 PUT/RSU/ESO Applied

The product is at service level ESO0404.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.23.2 Service Excluded

None.

5.1.23.3 Pre-Requisite Service

None.

5.1.23.4 Co-Requisite Service

None.

5.1.23.5 If-Requisite Service

None.

5.1.23.6 Product Manuals

5.1.23.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

For installation instructions, please refer to Appendix A. 'Install NLS Japanese (Kanji) Feature with VMSES/E in the *Program Directory for IBM COMPILER for REXX on zSeries*.

- **Note:**

1. The Program Directory indicates that 'the Japanese (Kanji) feature is located on the REXX Compiler base tape.' Since the time that this was written, IBM has changed the procedure utilized to create Product Tapes. Please check the documentation provided with your order to determine which tape contains the Japanese feature.
2. Step 3 'Install the Japanese feature' is missing several of the steps required to load the REXX Compiler Japanese Feature control files to the 51D disk. The following steps must be executed to load the Japanese Feature:

vmfins install info (nomemo

vmfins install ppf 5695013J {rexxc|rexxcfs}{plan nomemo

vmfins install ppf 5695013J {rexxc|rexxcfs}{nomemo nalink

vmfins build ppf 5695013J {rexxc|rexxcfs}{serviced nalink

- Use **rexxc** if installing using minidisks or
- Use **rexxcfs** if installing using SFS

5.1.23.8 DCSS Information

None.

5.1.23.9 Verification

None. for the Japanese Feature of the REXX Compiler.

5.1.24 5695-014 REXX/370 LIBRARY V1R4.0

5.1.24.1 PUT/RSU/ESO Applied

The product is at service level ESO0505.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.24.2 Service Excluded

None.

5.1.24.3 Pre-Requisite Service

None.

5.1.24.4 Co-Requisite Service

None.

5.1.24.5 If-Requisite Service

None.

5.1.24.6 Product Manuals

Form Number	Publication Title
SH19-8179	REXX: Diagnosis Guide
SH19-8160	REXX: User's Guide and Reference

5.1.24.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* **(PLAN NOMEMO ENV** *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* **(NOMEMO NOLINK ENV** *envelope_filename*

For installation instructions, please refer to Chapter 6 of the *Program Directory for IBM Library for REXX on z/Series*.

5.1.24.8 DCSS Information

Be sure that your virtual storage size is set to 999M before saving the segment if you are going to use the segment location specified in the SDO segment map (Appendix D, "Saved Segments" on page 211).

Refer to Define and Build the REXX Library Saved Segment section of the *IBM Library for REXX on z/Series Program Directory*. Please note that the segment range should be based on the segment layout as defined in the SDO Program Directory. See Appendix D, "Saved Segments" on page 211 for more information.

5.1.24.9 Verification

Verification could be started automatically by the installation exec or manually by entering:

v5695014

5.1.25 5695-014 REXX/370 LIBRARY KANJI V1R4.0**5.1.25.1 PUT/RSU/ESO Applied**

The product is at service level ESO0404.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.25.2 Service Excluded

None.

5.1.25.3 Pre-Requisite Service

None.

5.1.25.4 Co-Requisite Service

None.

5.1.25.5 If-Requisite Service

None.

5.1.25.6 Product Manuals

5.1.25.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

For installation instructions, please refer to Appendix B. 'Install NLS Japanese (Kanji) Feature with VMSES/E in the *Program Directory for IBM LIBRARY for REXX on zSeries*.

- **Note:**

1. The Program Directory indicates that 'the Japanese (Kanji) feature is located on the REXX Library base tape.' Since the time that this was written, IBM has changed the procedure utilized to create Product Tapes. Please check the documentation provided with your order to determine which tape contains the Japanese feature.
2. Step 3 'Install the Japanese feature' is missing several of the steps required to load the REXX Library Japanese Feature control files to the 51D disk. The following steps must be executed to load the Japanese Feature:

vmfins install info (nomemo

vmfins install ppf 5695014J {rexxl|rexxlsfs}{plan nomemo

vmfins install ppf 5695014J {rexxl|rexxlsfs}{nomemo nolinek

vmfins build ppf 5695014J {rexxl|rexxlsfs}{serviced nolinek

- Use **rexxl** if installing using minidisks or
- Use **rexxlsfs** if installing using SFS

5.1.25.8 DCSS Information

None.

5.1.25.9 Verification

None. for the Japanese Feature of the REXX Library.

5.1.26 5696-234 HLASM V1R5.0

5.1.26.1 PUT/RSU/ESO Applied

The product is at service level ESO0606.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.26.2 Service Excluded

None.

5.1.26.3 Pre-Requisite Service

None.

5.1.26.4 Co-Requisite Service

None.

5.1.26.5 If-Requisite Service

None.

5.1.26.6 Product Manuals

Form Number	Publication Title
GC26-4944	HLASM Licensed Program Specifications
SC26-3494	HLASM Installation and Customization Guide
SC26-4940	HLASM Language Reference
SC26-4941	HLASM Programmers Guide
GC26-4943	HLASM General Information

5.1.26.7 Installation

See the IBM HLASM Installation and Customization Guide for installation instructions.

IBM High Level Assembler V1R5.0 is VMSES/E enabled and must be installed using VMFINS. VMFINS is an installation aid supplied as part of VMSES/E to make installation of VM and LPs consistent.

The installation and tailoring of IBM High Level Assembler V1R5.0 is documented in the *IBM HLASM Installation and Customization Guide*. You **must** have a copy of this manual to properly install and customize the High Level Assembler.

The *IBM HLASM Installation and Customization Guide* can be found on the following web page:

<http://www-306.ibm.com/software/awdtools/hlasm/library.html>

Installation and Customization Guide (SC26-3494-03)

Click on either View in PDF or BookServer format.

Additional information on the installation, customization and servicing of High Level Assembler may be found in the following chapters of the *IBM HLASM Installation and Customization Guide*:

- Installation: Chapter 8, "Installing High Level Assembler on VM"
- Customization: Chapter 9, "Customizing High Level Assembler on VM"
- Service: Chapter 10, "Maintaining High Level Assembler on VM"

For more information on servicing IBM High Level Assembler using VMSES/E refer to *VMSES/E Introduction and Reference*.

5.1.26.8 DCSS Information

Refer to Part 2, Chapter 8, Step 5 "Define and Build High Level Assembler Saved Segment" of the *Installation and Customization Guide* for HLASM V1R5. for complete instructions. Please note that the segment range should be based on the segment layout as defined in the SDO Program Directory. See Appendix D, "Saved Segments" on page 211 for more information.

5.1.26.9 Verification

See the IBM HLASM Installation and Customization Guide for verification instructions.

When the command is issued to update the VMSES/E Build Status Table for IBM High Level Assembler, VMSES/E also executes the verification EXEC, V5696234. The procedure for updating the build status table is outlined in Step 4: "Verify the Installation in a Test Environment" in Chapter 8. "Installing High Level Assembler on VM" of the *IBM HLASM Installation and Customization Guide*.

5.1.27 5696-234 HLASM TOOLKIT V1R5.0

5.1.27.1 PUT/RSU/ESO Applied

The product is at service level ESO0606.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.27.2 Service Excluded

5.1.27.3 Pre-Requisite Service

None.

5.1.27.4 Co-Requisite Service

None.

5.1.27.5 If-Requisite Service

None.

5.1.27.6 Product Manuals

Form Number	Publication Title
GC26-4944	HLASM Licensed Program Specifications
GC26-8711	HLASM Toolkit Feature Installation and Customization Guide
GC26-8709	HLASM Toolkit Feature Interactive Debug Facility User's Guide
GC26-8710	HLASM Toolkit Feature User's Guide
GC26-8712	HLASM Toolkit Feature Debug Facility Reference Summary

5.1.27.7 Installation

See the High Level Assembler Toolkit Feature Installation and Customization Guide for installation instructions.

IBM High Level Assembler Toolkit Feature is VMSES/E enabled and must be installed using VMFINS.

The installation and tailoring of IBM High Level Assembler Toolkit Feature is documented in the *High Level Assembler Toolkit Feature Installation and Customization Guide*. You **must** have a copy of this manual to properly install and customize the High Level Assembler Toolkit Feature.

The *IBM High Level Assembler Toolkit Feature Installation and Customization Guide* can be found on the following web page:

<http://www-306.ibm.com/software/awdtools/hlasm/library.html>

Installation and Customization Guide (GC26-8711-07)

Click on View in PDF or BookServer format.

Additional information on the installation, customization and servicing of HLASM Toolkit may be found in the following chapters of the *IBM Toolkit Installation and Customization Guide*:

5.1.27.8 DCSS Information

The HLASM ToolKit Feature does not have any segments.

5.1.27.9 Verification

See the IBM High Level Assembler Toolkit Feature Installation and Customization Guide for verification instructions.

Chapter 5 step 4 describes the verification test. You need to run T5696234 exec and reproduce the output shown in the *IBM High Level Assembler Toolkit Installation and Customization Guide*.

5.1.28 5697-F42 DB2 SERVER FOR VM V7R4.0

5.1.28.1 PUT/RSU/ESO Applied

The product is at service level ESO0601.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.28.2 Service Excluded

None.

5.1.28.3 Pre-Requisite Service

None.

5.1.28.4 Co-Requisite Service

None.

5.1.28.5 If-Requisite Service

None.

5.1.28.6 Product Manuals

Form Number	Publication Title
GC09-2984	DB2 Server for VM Messages and Codes
GC09-2995	DB2 Server for VSE & VM Overview
GC09-2659	DB2 Server for VSE & VM Licensed Program Specifications
LC09-2907	DB2 Server for VM Diagnosis Guide and Reference
SC09-2989	DB2 Server for VSE & VM SQL Reference
SC09-2980	DB2 Server for VM System Administration
SC09-2888	DB2 Server for VSE & VM Database Administration
SC09-2986	DB2 Server for VSE & VM Operation
SC09-2990	DB2 Server for VSE & VM Interactive SQL Guide and Reference
SC09-2983	DB2 Server for VSE & VM Database Services Utility
SC09-2889	DB2 Server for VSE & VM Application Programming
SC09-2988	DB2 Server for VSE & VM Quick Reference
GC09-2987	DB2 Server for VSE & VM Performance Tuning Handbook
SC09-2890	DB2 Server for VSE & VM Master Index and Glossary
GC09-4768	DB2 Server for VSE & VM Training Brochure
LCD4-3781	QMF For Windows Try/Buy Kit

5.1.28.7 Installation

Important Note for Users Regarding the Service that has been applied.

DB2 Server for VM DBS Utility load module service applied. Link-edit all user programs that include the DBS Utility according to instructions in the DB2 Server for VM Database Services Utility manual.

DB2 Server for VM production minidisk updated. Update all secondary production minidisks according to instructions in the DB2 Server for VM Program Directory.

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO ENV *envelope_filename*

For installation instructions and details, please refer to the Installing DB2 for VM section in the *Program Directory for IBM DATABASE 2 Server for VM Version 7 Release 4 Modification Level 0*.

The DB2 management system you will install, following the install instructions, does not support the distributed relational database architecture (DRDA). You can install the additional DRDA code required for these facilities after installation, by following the instructions in the *The DB2 Server for VM System Administration* manual.

If you plan to use VM DB2 Data Spaces Support (VMDSS) please review “Chapter 6” in the *DB2 Server for VSE & VM Performance Tuning Handbook* manual.

5.1.28.8 DCSS Information

Refer to the Saved Segment section of the *DB2 Server for VM System Administration* manual for details on Saving Segments. Please note that the segment range should be based on the segment layout as defined in the SDO Program Directory. See Appendix D, “Saved Segments” on page 211 for more information.

5.1.28.9 Verification

For instructions on verifying DB2, please refer to the “Section for Installation Verification” in the *Program Directory for IBM DATABASE 2 Server for VM Version 7 Release 4 Modification Level 0*.

5.1.29 5697-F42 DB2 DATA PROPAGATOR V7R4.0

5.1.29.1 PUT/RSU/ESO Applied

The product is at service level ESO0509.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.29.2 Service Excluded

None.

5.1.29.3 Pre-Requisite Service

None.

5.1.29.4 Co-Requisite Service

None.

5.1.29.5 If-Requisite Service

None.

5.1.29.6 Product Manuals

Form Number	Publication Title
SC18-7568	IBM DB2 Information Integrator Replication and Event Publishing Guide and Reference

5.1.29.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO ENV *envelope_filename*

Co-Requisite non-VM Licensed Products

DB2 UDB Universal Database Version 8 Release 2

MQ Series Client for VM/ESA

For installation instructions and details, please refer to “The Installation Instructions section” in the *Program Directory for DataPropagator Q Capture for VM Version 7 Release 4.0*.

Error Message

During installation you may see the following error message, which the developer has determined can be ignored. The PSP Bucket in RETAIN (Upgrade: DB2VSEVM740 Subset: DPRVM will be updated to reflect this information in the near future:

```
VMFSIP2500E Requisite error, missing requisite *C0092YD* for PRODID
5697F74B%DPROPR
```

5.1.29.8 DCSS Information**5.1.29.9 Verification**

For instructions on verifying DB2 DataPropagator Q Capture, please reference “The Installation Verification section” in the *Program Directory for DataPropagator Q Capture for VM Version 7 Release 4.0*.

5.1.30 5697-F42 DB2 QMF V7R2.0**5.1.30.1 PUT/RSU/ESO Applied**

The product is at service level ESO0501.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.30.2 Service Excluded

None.

5.1.30.3 Pre-Requisite Service

None.

5.1.30.4 Co-Requisite Service**5.1.30.5 If-Requisite Service**

None.

5.1.30.6 Product Manuals

Form Number	Publication Title
GC27-0720	Installing and Managing QMF on VM/ESA

Form Number	Publication Title
GC27-0717	QMF Messages and Codes
GC27-0714	Introducing QMF
SC27-0715	QMF Reference
SC27-0716	Using QMF
SC27-0718	Developing QMF Applications

5.1.30.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (PLAN NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (NOMEMO ENV envelope_filename

For installation instructions and details, please refer to the “Installation Instructions” section of the *Program Directory for Query Management Facility Version 7 Release 2.0*.

NOTE: The P697F4BA 2D2 disk has increased to 1350 4K blocks. (9 cylinders of 3380 DASD or 8 cylinders of 3390 DASD.)

NOTE: Refer to the **Memo To Users** section of the UQ83930 \$PTFPART file on the P697F4BA 2D2 disk for important USER information regarding service that has been applied.

5.1.30.8 DCSS Information

For segment build instructions and details, please refer to the “Place QMF Into Production” section of the *Program Directory for Query Management Facility Version 7 Release 2.0*. Please note that the segment range should be based on the segment layout as defined in the SDO Program Directory. See Appendix D, “Saved Segments” on page 211 for more information.

Important Note for Saving QMF Segment

Step 6.5.1.8 **Prepare to build segments.** of the *Program Directory for Query Management Facility Version 7 Release 2.0.* needs to be updated with the following:

Virtual Storage Needs to be set to **999M**.

Change the GDDM Link statement in substep D. to read:

```
link p68416b 29e 194 rr
```

5.1.30.9 Verification

For instructions on verifying QMF, please refer to the *Installing and Managing QMF on VM/ESA* manual.

5.1.31 5697-J05 ARCHIVE MANAGER FOR Z/VM V1R1.0**5.1.31.1 PUT/RSU/ESO Applied**

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.31.2 Service Excluded**5.1.31.3 Pre-Requisite Service**

None.

5.1.31.4 Co-Requisite Service

None.

5.1.31.5 If-Requisite Service

None.

5.1.31.6 Product Manuals

Form Number	Publication Title
SC18-9345	Archive Manager for z/VM Administration Guide

5.1.31.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid (PLAN NOMEMO ENV* *envelope_filename*

VMFINS INSTALL PPF *ppfname compid (NOMEMO NOLINK ENV* *envelope_filename*

For installation instructions, please refer to the Installation Instructions section of the *Archive Manager for z/VM Program Directory* .

Post-installation information is contained in the *Archive Manager Installation Guide* (SC18-9345). Perform the steps required for file tailoring and initial activation of the program, as described in the *Archive Manager Administration Guide*, before continuing.

For service instructions, please refer to the Service Instructions section of the *Archive Manager for z/VM Program Directory*

5.1.31.8 DCSS Information**5.1.31.9 Verification**

None

5.1.32 5697-J06 BACKUP AND RESTORE MANAGER V1R2.0**5.1.32.1 PUT/RSU/ESO Applied**

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.32.2 Service Excluded**5.1.32.3 Pre-Requisite Service**

None.

5.1.32.4 Co-Requisite Service

None.

5.1.32.5 If-Requisite Service

None.

5.1.32.6 Product Manuals

Form Number	Publication Title
SC18-9346	Backup and Restore Manager for z/VM Administration Guide
SC18-9523	Backup and Restore Manager for z/VM User's Guide

5.1.32.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

For installation instructions, please refer to the Installation Instructions section of the *Backup and Restore Manager for z/VM Program Directory*

Post-installation information is contained in the *Backup and Restore Manager Administration Guide* (SC18-9346). Perform the steps required for file tailoring and initial activation of the program, as described in the *Backup and Restore Manager Administration Guide* (SC18-9346). before continuing.

For service instructions, please refer to the Service Instructions section of the *Backup and Restore Manager for z/VM Program Directory*

5.1.32.8 DCSS Information

5.1.32.9 Verification

None

5.1.33 5697-J08 TAPE MANAGER FOR Z/VM V1R2.0

5.1.33.1 PUT/RSU/ESO Applied

The product is at service level ESO0604.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.33.2 Service Excluded

5.1.33.3 Pre-Requisite Service

None.

5.1.33.4 Co-Requisite Service

None.

5.1.33.5 If-Requisite Service

None.

5.1.33.6 Product Manuals

Form Number	Publication Title
SC18-9344	Tape Manager for z/VM Installation and Administration Guide
SC18-9349	Tape Manager for z/VM User's Guide and Reference
GI10-8660	Tape Manager for z/VM Program Directory

5.1.33.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* **(PLAN NOMEMO ENV** *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* **(NOMEMO NOLINK ENV** *envelope_filename*

The installation instructions are contained in the *IBM Tape Manager for z/VM Program Directory* (GI10-8660). Follow the directions in the Program Directory up to the **Post-Installation Instructions** section, then refer to **Chapter 2. Installing Tape Manager** in the *Tape Manager Installation and Administration Guide* manual (SC18-9344) to complete the installation.

For service instructions, please refer to the Service Instructions section of the *Tape Manager for z/VM Program Directory*

Note: Important Information regarding PTF UK16098

The sample configuration files have changed. Review the following APAR description for more information: Made changes to support a generic scratch request in standard mode. The change applies to manual mount messages when the GENSCRATCH configuration statement is set to YES and the mount pool has a free pool. In that case, if there are tapes in the free pool, the mount message indicates SCRATCH rather than a VOLSER and any scratch tape from the free pool or the mount pool can be mounted to satisfy the mount request. Made a change to the TAPEMOD command to correct a condition where the expiration date was set to a non-zero value even though the use status was free.

The pool free chain for manual mounts was not correctly updated when TAPEMOD EJECT (without the RETAIN option) was used to eject a scratch volume from an ATL; consequently the ejected volume was not on the chain of volumes that could be used to satisfy a request.

The TAPEMOD processing was altered so that a tape will only return to the free pool if the volume is a scratch volume. The previous process returned a volume when the use status was FREE even though the volume might not be a scratch volume; e.g., the volume was an external volume or had a hold action such as DSE pending.

Expiration processing was modified to ensure that the expiration date of a tape is set to zero if the use status of the volume is FREE. Any of the corrected volumes are then subject to expiration processing, which will return a free tape to the free pool, if a related free pool is defined and if the volume is eligible to be a scratch volume.

Corrected an error that occurred when a secondary mount preference was used for a TAPEMNT command and the volume was moved from a free pool for a scratch request.

Corrected the TAPEMNT processing to ensure that all volumes enqueued by a request were released when the command terminated. The change fixed an error in scratch mount processing that occurred when multiple tapes were mounted as the result of retries.

Added auto-loader support, in standard mode, for dynamically allocated devices that are in SYSTEM mode. The support allows for a device to be used for both scratch and volume specific mounts.

A correction was made to the TAPEMOD command for a problem that occurred when multiple volumes from different pools were modified by a single command. In that case, if a volume became eligible as a scratch volume and needed to be moved to a free pool, the volume would move only when the free pool was the first free pool that required a volume move. Scratch volumes that needed to be moved to other free pools remained in the original pool instead.

Changed the RMM to default to MSG if neither the MDG nor RDR parameter is required. If neither is specified the default is MSG. The change allows the RMM commands to be entered in a manner that is more consistent with the TSO command.

5697-J10

Corrected a problem with the TAPEMNT command that caused the pool free count to be overstated when a scratch volume was moved from the system pool to the mount pool. The count should not have been incremented since the volume was being used for the tape mount.

Improved free-pointer checking when a volume is removed from a free chain to ensure the pointer is valid.

Incorrect processing was corrected for the TAPEMNT command when a volume moved from a free pool to the mount pool. The processing referenced the free pool when the mount pool should have been referenced.

Made a change to the TAPEMNT command to improve the processing of scratch requests that result in a retry. Corrected an error that occurred when the pool counts were updated and pool threshold processing occurred. The error could cause an unwarranted warning message to be issued when the threshold values for the pool were checked.

Corrected an error that occurred when the TAPELBL statement parameters to be ignored and the default values for the statement to be used. Non-standard label tape mounts (both NL and BLP) failed and the TAPELBL AUTH command was needed to set the correct values once Tape Manager was active.

Updated comments in the RMMODE SAMPCNFG file to elaborate on the RMMSRPOOL statement; specifically, manual mount pools are only for dedicated devices and no dynamic allocations are attempted.

Corrected the TAPELBL statement in the sample configuration file STDMODE CONFSAMP.

Note:

5.1.33.8 DCSS Information

5.1.33.9 Verification

None

5.1.34 5697-J10 OPERATIONS MANAGER FOR Z/VM V1R2.0

5.1.34.1 PUT/RSU/ESO Applied

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.34.2 Service Excluded

5.1.34.3 Pre-Requisite Service

None.

5.1.34.4 Co-Requisite Service

None.

5.1.34.5 If-Requisite Service

None.

5.1.34.6 Product Manuals

Form Number	Publication Title
SC18-9347	Operations Manager for z/VM Administration Guide

5.1.34.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

For installation instructions, please refer to the Installation Instructions section of the *Operations Manager for z/VM Program Directory* .

Post-installation information is contained in the *Operations Manager Administration Guide* (SC18-9347). Perform the steps required for file tailoring and initial activation of the program, as described in the Administration Guide, before continuing.

For service instructions, please refer to the Service Instructions section of the *Operations Manager for z/VM Program Directory*

5.1.34.8 DCSS Information

5.1.34.9 Verification

None

5.1.35 5698-A36 IBM TIVOLI OMEGAMON XE ON Z/VM V4R1.0

5.1.35.1 PUT/RSU/ESO Applied

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.35.2 Service Excluded

None.

5.1.35.3 Pre-Requisite Service

None.

5.1.35.4 Co-Requisite Service

None.

5.1.35.5 If-Requisite Service

None.

5.1.35.6 Product Manuals

Form Number	Publication Title
GC32-1979	IBM OMEGAMON XE on z/VM and Linux Program License Specification
SCD7-0968	IBM Tivoli OMEGAMON XE Documentation CD-ROM
GC32-1957	IBM OMEGAMON XE on z/VM and Linux Planning and Configuration Guide
GC32-9489	IBM OMEGAMON XE on z/VM and Linux User's Guide
GC32-1901	IBM OMEGAMON XE on z/VM and Linux Problem Documentation Guide
GI11-4095	IBM OMEGAMON XE on z/VM and Linux Release Notes

5.1.35.7 Installation

5.1.35.8 Packaging of IBM Tivoli OMEGAMON on z/VM and Linux

IBM Tivoli OMEGAMON on z/VM and Linux consists of three (3) components as follows which execute both under z/VM and Linux:

1. z/VM Performance Toolkit Component

- z/VM Performance Toolkit with the IBM Service applied which contains the modifications to Toolkit to allow Toolkit to interface with the Linux Agent Component of IBM Tivoli OMEGAMON on z/VM and Linux. The z/VM Performance Toolkit executes under z/VM.

— NOTE:

z/VM Performance Toolkit is an optional z/VM V5R2.0 feature which is delivered on the z/VM V5R2.0 DDR in a 'DISABLED' state. In order to utilize IBM Tivoli OMEGAMON on z/VM and Linux, the following z/VM Performance Toolkit requirements must be met:

- License obtained.
 - 'ENABLED' on the z/VM System that IBM Tivoli OMEGAMON on z/VM and Linux will be utilized on.
 - Upgraded to include the service that contains the modifications that allows Toolkit to gather data required by OMEGAMON and place the data where it can be retrieved by the OMEGAMON Linux Agent.
- For additional information on the z/VM Performance Toolkit and the service that is required to support OMEGAMON, please refer to the following website:

www.vm.ibm.com/related/perfkit/

2. Linux Agent

- The Linux Agent Component is designed to take the data collected by the z/VM Performance Toolkit and transfer the data to the Tivoli Enterprise Management Server. The Linux Agent executes under the Linux operating system.

For information on the Linux Agent Component of the IBM Tivoli OMEGAMON on z/VM and Linux Product and the service requirement for z/VM Performance Toolkit, please refer to the '1.1 Program Description' Section in the *Program Directory for IBM Tivoli OMEGAMON XE on z/VM and Linux Version 4 Release 1.0*.

3. Command Processor

- The Command Processor Component is designed to allow action to be taken on the commands sent from the Linux Agent. The Command Process executes under z/VM.

This Service Delivery Offering (SDO) Program Directory and the *Program Directory for IBM Tivoli OMEGAMON XE on z/VM and Linux Version 4 Release 1.0*. are designed to provide the information required to install the **Command Processor Component** of the IBM Tivoli OMEGAMON on z/VM and Linux Product on your z/VM System.

5.1.35.9 Installation Instructions for OMEGAMON Command Processor Component

For installation instructions for IBM Tivoli OMEGAMON XE on z/VM and Linux please refer to the '6.0 Installation Instructions' Section in the *Program Directory for IBM Tivoli OMEGAMON XE on z/VM and Linux Version 4 Release 1.0*.

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO ENV *envelope_filename*

5.1.35.10 DCSS Information

None.

5.1.35.11 Verification

There is no verification program for IBM Tivoli OMEGAMON XE on z/VM and Linux.

5.1.36 5741-A05 DFSMS/VM V2R2.1

5.1.36.1 PUT/RSU/ESO Applied

The product is at service level ESO0602.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.36.2 Service Excluded

None.

5.1.36.3 Pre-Requisite Service

None.

5.1.36.4 Co-Requisite Service

None.

5.1.36.5 If-Requisite Service

None.

5.1.36.6 Product Manuals

Form Number	Publication Title
SC24-6049	z/VM: DFSMS/VM Function Level 221 Planning Guide
GC24-6047	z/VM: DFSMS/VM Function Level 221 Customization
SC24-6051	z/VM: DFSMS/VM Function Level 221 Storage Administration Guide and Reference
SC24-6048	z/VM: DFSMS/VM Function Level 221 Messages and Codes
SC24-6050	z/VM: DFSMS/VM Function Level 221 Removable Media Services
GC24-6046	z/VM: DFSMS/VM Function Level 221 Diagnosis Guide

5.1.36.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

For installation instructions, please refer to chapter 6 of the *Program Directory for DFSMS/VM*.

When you get to the part where you build the DFSMSSEG segment, you will need to do the following commands first:

When you get to the part where you build the DFSMSSEG segment, you will need to update the FSMSEGDF EXEC file on the DFSMS 1B5 mdisk. The segment location should be changed because it conflicts with the INSTSEG segment. You will want to change the line that reads:

```
seg_address = '1400-14FF'          /* address of DFSMS segment */
```

to something like this:

```
seg_address = '2200-22FF'          /* address of DFSMS segment */
```

You will get an error when running FSMSEGDF if you do not make this change to the FSMSEGDF EXEC first.

Refer to chapter 6 of the *Program Directory for DFSMS/VM* in section 6.6.2 step number 13 "Update the ISMF EXEC". It explains how to update the ISMF EXEC. You want to change this file to show that the PDF code is installed on the ISPVM 192 disk. You want to change the line from:

```
separate_pdf_disk = 'YES';          /* PDF available */
```

to:

```
separate_pdf_disk = 'NO';           /* PDF available */
```

Refer to the *Program Directory for DFSMS/VM* in the chapter entitled "Installation Requirements and Considerations" in the section titled "Migrating from Previous Releases of DFSMS/VM to Function Level 221" for information on migration considerations.

5.1.36.8 DCSS Information

The steps to create the DFSMS segment are described in: *z/VM DFSMS/VM Function Level 221 Customization*

Refer to Define the DFSMS/VM Saved Segment for Space Management step in the DFSMS/VM Tailoring section of the *z/VM DFSMS/VM Function Level 221 Program Directory for DFSMS/VM*, in the chapter entitled "Installation Instructions". Please note that the segment range should be based on the segment layout as defined in the SDO Program Directory. See Appendix D, "Saved Segments" on page 211 for more information.

5.1.36.9 Verification

Refer to the *z/VM DFSMS/VM Function Level 221 Customization* in the chapter entitled "Verifying the Installation Process" for information on verifying DFSMS.

5.1.37 5741-A05 DFSMS/VM KANJI V2R2.1

5.1.37.1 PUT/RSU/ESO Applied

The product is at service level ESO0510.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

5.1.37.2 Service Excluded

None.

5.1.37.3 Pre-Requisite Service

None.

5.1.37.4 Co-Requisite Service

None.

5.1.37.5 If-Requisite Service

None.

5.1.37.6 Product Manuals

Form Number	Publication Title
SC24-6049	z/VM: DFSMS/VM Function Level 221 Planning Guide
GC24-6047	z/VM: DFSMS/VM Function Level 221 Customization
SC24-6051	z/VM: DFSMS/VM Function Level 221 Storage Administration Guide and Reference
SC24-6048	z/VM: DFSMS/VM Function Level 221 Messages and Codes
SC24-6050	z/VM: DFSMS/VM Function Level 221 Removable Media Services
GC24-6046	z/VM: DFSMS/VM Function Level 221 Diagnosis Guide

5.1.37.7 Installation

The mdisks listed in the Appendix labeled DASD Requirements of this document show the size of the mdisks for DFSMS. These mdisks must be increased by the amount shown for Kanji feature mdisks.

For installation instructions, please refer to Install Japanese Language Feature section of chapter 6 of the *Program Directory for DFSMS/VM*.

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* **(PLAN NOMEMO ENV** *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* **(NOMEMO NOLINK ENV** *envelope_filename*

5.1.37.8 DCSS Information

5.1.37.9 Verification

6.0 Semi-VMSES/E Licensed Product Technical Notes

This chapter provides technical considerations for the Semi-VMSES/E Licensed Products. After you have followed the general instructions for Semi-VMSES/E products, from 4.0, “Semi-VMSES/E Licensed Product Installation Instructions” on page 21, locate the specific Licensed Product in this chapter to complete the installation. Products are ordered in this section by product number.

Note!

The Technical Notes in this section override all the documents in case of a conflict.

6.1 Semi-VMSES/E Licensed Product Specific Considerations

6.1.1 5648-B33 AFP FONTS V2R1.0

6.1.1.1 PUT/RSU/ESO Applied

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

6.1.1.2 Service Excluded

None.

6.1.1.3 Pre-Requisite Service

None.

6.1.1.4 Co-Requisite Service

None.

6.1.1.5 If-Requisite Service

None.

6.1.1.6 Product Manuals

Form Number	Publication Title
S544-3802	AFP FONTS: Technical Reference for Code Pages

Form Number	Publication Title
S544-3122	AFP FONTS: Introduction to Typography
S544-5228	AFP FONTS: Technical Reference for IBM Expanded Fonts
S544-3516	AFP FONTS: IBM's Technical Reference for 240-Pel Digitized Type
S544-3709	AFP FONTS: IBM's Technical Reference for 4028 Font Metrics
S544-3285	Data Stream and Object Architectures: Font Object Content Architecture (FOCA) Reference

6.1.1.7 Installation

Due to the number of Fonts included with the AFP Font Collection, the AFP Font Collection is delivered on three (3) tape volumes. In addition, the AFP Font Collection has been repacked in Semi-VMSES/E format and **cannot** be installed utilizing the installation execs documented in the *Program Directory for AFP Font Collection Fonts* GI10-0222-00.

In order to load the entire AFP Font Collection, the following environment must be established:

1. The Virtual Machine Size of the ID utilized to install the AFP Font Collection must be at least 32M.
2. There must be at least 450 4K blocks of free space on the '51D' disk that is utilized for the installation of the AFP Font Collection.

Once the proper environment for installation has been established, the tape containing the AFP Font Collection may be mounted and the AFP Font Collection installed from the tape utilizing one of the following VM/SES commands:

- To install this product onto the test disk issue:

```
vmfins install ppf  tape_ppfname  AFPnALL  (nomemo
```

- To install this product onto the production disk issue:

```
vmfins install ppf  tape_ppfname  AFPnALLPRD  (nomemo
```

- To install this product into the SFS test directory issue:

```
vmfins install ppf  tape_ppfname  AFPnALLSFS  (nomemo
```

- To install this product into the SFS production directory issue:

```
vmfins install ppf  tape_ppfname  AFPnALLSFSPRD  (nomemo
```

— **Where:**

n - The tape number
 tape_ppfname - The name of the PPF file
 for the tape as follows.

Tape	PPF
Number	File Name
1	A5648B33
2	B5648B33
3	C5648B33

— Note:

- The above command must be repeated for each of the three (3) tapes used to deliver the AFP Font Collection.
 - As the above commands require that the tape containing the AFP Font Collection be mounted at address '181', each of the three (3) tapes used to deliver the AFP Font Collection must be separately mounted at address '181'. The tapes may be restored in any order.
- Ensure that all minidisks required by this Licensed Product are not linked R/W by any user ID including the user ID where this Licensed Product is being installed from.
- For production minidisk information refer to Appendix C, "DASD Requirements" on page 197
- For test minidisk information refer to Figure 2 on page 28.

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands.

VMFINS INSTALL PPF *ppfname compid (NOMEMO ENV envelope_filename*

If the product was installed onto a test disk, the **VMFCOPY** command in the following format may be utilized to copy the files from the test disk to the production disk:

vmfcopy * * test_fm == prod_fm (prodid 5648B33%AFP replace oldd

• **Where:**

test_fm - The filemode of the Test Disk
 prod_fm - The filemode of the Production Disk

As an alternative to installing all the fonts associated with the AFP Font Collection, individual fonts may be installed by mounting the tape containing the required font and issuing one of the following VM/SES commands:

- To install this product onto the test disk issue:

vmfins install ppf *tape_ppfname font_compid (nomemo*

- To install this product onto the production disk issue:

vmfins install ppf tape_ppfname font_compidPRD (nomemo

- To install this product into the SFS test directory issue:

vmfins install ppf tape_ppfname font_compidSFS (nomemo

- To install this product into the SFS production directory issue:

vmfins install ppf tape_ppfname font_compidSFSPRD (nomemo

— **Where:**

font_compid - The component identifier
for the required font.

tape_ppfname - The name of the PPF file
for the tape as follows.

Tape Number	PPF File Name
1	A5648B33
2	B5648B33
3	C5648B33

The Font Component IDs (compid) for each Font and the AFP Font Collection Tape that contains the Font are provided in the following tables:

- Figure 3: Tape Format for AFP Font Collection Tape 1
- Figure 4: Tape Format for AFP Font Collection Tape 2
- Figure 5: Tape Format for AFP Font Collection Tape 3

Figure 3 (Page 1 of 2). Tape Format for AFP Font Collection Tape 1

File Number	Font Component ID (compid)	Font Name
5	240PEL	240-Pel Code Pages
6	240LATIN1	240-Pel Latin1 Fonts
7	240SYMBOL	240-Pel Symbols Fonts
8	240LATIN2	240-Pel Latin2345 Fonts
9	240CYRILLI	240-Pel Cyrillic Greek Fonts
10	240ARABIC	240-Pel Arabic Fonts
11	240HEBREW	240-Pel Hebrew Fonts

Figure 3 (Page 2 of 2). Tape Format for AFP Font Collection Tape 1

File Number	Font Component ID (compid)	Font Name
12	240THAI	240-Pel Thai Fonts

- Note:
 - Tape Files 1, 2, 3 and 4 contain VM/SES Control Files.

Figure 4. Tape Format for AFP Font Collection Tape 2

File Number	Font Component ID (compid)	Font Name
5	240BOOKMAS	240-Pel BookMaster Fonts
6	240LAO	240-Pel Lao Fonts
7	240OCR	240-Pel OCR Fonts
8	240APL	240-Pel APL Fonts
9	240KATAKAN	240-Pel Katakana Fonts
10	300PEL	300-Pel Code Pages
11	300LATIN1	300-Pel Latin1 Fonts
12	300LATIN2	300-Pel Latin2345 Fonts
13	300SYMBOL	300-Pel Symbols Fonts
14	300ARABIC	300-Pel Arabic Fonts

- Note:
 - Tape Files 1, 2, 3 and 4 contain VM/SES Control Files.

Figure 5 (Page 1 of 2). Tape Format for AFP Font Collection Tape 3

File Number	Font Component ID (compid)	Font Name
5	300HEBREW	300-Pel Hebrew Fonts
6	300THAI	300-Pel Thai Fonts
7	300LAO	300-Pel Lao Fonts
8	300OCR	300-Pel OCR Fonts
9	300APL	300-Pel APL Fonts
10	300KATAKAN	300-Pel Katakana Fonts

Figure 5 (Page 2 of 2). Tape Format for AFP Font Collection Tape 3

File Number	Font Component ID (compid)	Font Name
11	300BOOKMAS	300-Pel BookMaster Fonts
12	300CYRILLI	300-Pel Cyrillic Greek Fonts
13	OUTLINE	Outline Code Pages
14	OLNLATIN1	Latin1 Outlines
15	OLNSYMBOL	Symbols Outlines
16	OLNLATIN2	Latin2345 Outlines
17	OLNCYRILLI	Cyrillic Greek Outlines
18	OLNARABIC	Arabic Outlines
19	OLNHEBREW	Hebrew Outlines
20	OLNTHAI	Thai Outlines
21	OLNLAO	Lao Outlines
22	OLNOCR	OCR Outlines
23	OLNAPL	APL Outlines
24	OLNKATAKAN	Katakana Outlines
25	OLNBOOKMAS	BookMaster Outlines

- Note:
 - Tape Files 1, 2, 3 and 4 contain VM/SES Control Files.

Please refer to the *Program Directory for AFP Font Collection Fonts* GI10-0222-00, section 5.0 "Installation Requirements and Considerations" for information on the DASD resources required to install each individual font.

6.1.1.8 DCSS Information

None.

6.1.1.9 Verification

Installation verification execs are provided with each collection of fonts that are available on the installation tape. See Figures 2 through 4 in the *Program Directory for AFP Font Collection Fonts* GI10-0222-00 for the names of these installation verification execs.

6.1.2 5654-260 EREP V3R5.0

6.1.2.1 PUT/RSU/ESO Applied

The product is at service level PUT9405.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

6.1.2.2 Service Excluded

None.

6.1.2.3 Pre-Requisite Service

None.

6.1.2.4 Co-Requisite Service

None.

6.1.2.5 If-Requisite Service

None.

6.1.2.6 Product Manuals

Form Number	Publication Title
GC35-0151	EREP User's Guide
GC35-0152	EREP Reference

6.1.2.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

Notes:

Ensure that all minidisks required by this Licensed Product are not linked R/W by any user ID including the user ID where this Licensed Product is being installed from. For production minidisk information refer to Appendix C, "DASD Requirements" on page 197 or for test minidisk information refer to Figure 2 on page 28.

To install this product onto a test disk issue:

vmfins install ppf \$5654260 erep (nomemo

To install this product onto the production disk issue:

vmfins install ppf \$5654260 ereprd (nomemo

To install this product into the SFS test directory issue:

vmfins install ppf \$5654260 erepsfs (nomemo

To install this product into the SFS production directory issue:

vmfins install ppf \$5654260 erepsfsprd (nomemo

If you have installed the product onto a test disk, use **VMFCOPY** to copy the files to your production disks once you have completed your testing.

6.1.2.8 DCSS Information

None.

6.1.2.9 Verification

Verification can be started by entering:

v5654260

6.1.3 5668-717 VS PASCAL LIBRARY V1R2.0

6.1.3.1 PUT/RSU/ESO Applied

The product is at service level PUT9404.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

6.1.3.2 Service Excluded

None.

6.1.3.3 Pre-Requisite Service

None.

6.1.3.4 Co-Requisite Service

None.

6.1.3.5 If-Requisite Service

None.

6.1.3.6 Product Manuals

Form Number	Publication Title
GC26-4317	VS Pascal Licensed Program Specification
GC26-4318	VS Pascal General Information
SC26-4342	VS Pascal Installation and Customization for VM
SC26-4320	VS Pascal Language Reference
SC26-4319	VS Pascal Application Programming Guide
LY27-9525	VS Pascal Diagnosis Guide and Reference
SX26-3760	VS Pascal Reference Summary

6.1.3.7 Installation

Important Note Regarding Manuals

The manual *SC26-4342 VS Pascal Installation and Customization for VM* can no longer be shipped with the product. Please go to the following Website to access a PDF version of the manual:
<http://www.vm.ibm.com/sdo/sc264342.pdf>

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

Note: Ensure that all minidisks required by this Licensed Product are not linked R/W by any user ID including the user ID where this Licensed Product is being installed from. For production minidisk information refer to Appendix C, "DASD Requirements" on page 197 or for test minidisk information refer to Figure 2 on page 28.

To install this product onto a test disk issue:

vmfins install ppf \$5668717 vspasl (nomemo

To install this product onto the production disk issue:

vmfins install ppf \$5668717 vspaslprd (nomemo

To install this product into the SFS test directory issue:

vmfins install ppf \$5668717 vspaslsfs (nomemo

To install this product into the SFS production directory issue:

vmfins install ppf \$5668717 vspaslsfsprd (nomemo

If you have installed the product onto a test disk, use **VMFCOPY** to copy the files to your production disks once you have completed your testing.

The VS Pascal Library was installed using the following IBM supplied defaults:

- * Date format = US
- * Default Language = Uppercase English

The DATETIME format and the default language may be changed following installation. The procedure for changing the defaults is outlined in the chapter 'Customizing VS Pascal after Installation' of the *VS Pascal Installation and Customization for VM* manual. The procedure is also outlined in the 'Tailoring Section' of the 'Memo to Users'.

The process for applying service is outlined in 'Appendix C: Servicing VS Pascal' of the *VS Pascal Installation and Customization for VM* manual. Please review this Appendix prior to applying service to the VS Pascal Library.

Service may also be applied from an IBM PUT tape through the use of the VMSERV EXEC. The VMSERV EXEC relies on the 5668717A EXEC which is distributed on the PUT tape. Versions of the 5668717A EXEC created prior to February 15, 1994 will not work correctly with this service level of the VS Pascal Library and should be replaced by the exec included with this SDO release.

6.1.3.8 DCSS Information

None.

6.1.3.9 Verification

The installation verification procedure may be run by issuing:

v5668717

6.1.4 5668-767 VS PASCAL V1R2.0

6.1.4.1 PUT/RSU/ESO Applied

The product is at service level PUT9404.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

6.1.4.2 Service Excluded

None.

6.1.4.3 Pre-Requisite Service

None.

6.1.4.4 Co-Requisite Service

None.

6.1.4.5 If-Requisite Service

None.

6.1.4.6 Product Manuals

Form Number	Publication Title
GC26-4317	VS Pascal Licensed Program Specification
GC26-4318	VS Pascal General Information
SC26-4342	VS Pascal Installation and Customization for VM
SC26-4320	VS Pascal Language Reference
SC26-4319	VS Pascal Application Programming Guide
LY27-9525	VS Pascal Diagnosis Guide and Reference
SX26-3760	VS Pascal Reference Summary

6.1.4.7 Installation

Important Note Regarding Manuals

The manual *SC26-4342 VS Pascal Installation and Customization for VM* can no longer be shipped with the product. Please go to the following Website to access a PDF version of the manual:
<http://www.vm.ibm.com/sdo/sc264342.pdf>

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

Note: Ensure that all minidisks required by this Licensed Product are not linked R/W by any user ID including the user ID where this Licensed Product is being installed from. For production minidisk information refer to Appendix C, "DASD Requirements" on page 197 or for test minidisk information refer to Figure 2 on page 28.

To install this product onto a test disk issue:

vmfins install ppf \$5668767 vspas (nomemo

To install this product onto the production disk issue:

vmfins install ppf \$5668767 vspasprd (nomemo

To install this product into the SFS test directory issue:

vmfins install ppf \$5668767 vspassfs (nomemo

To install this product into the SFS production directory issue:

vmfins install ppf \$5668767 vspassfsprd (nomemo

If you have installed the product onto a test disk, use **VMFCOPY** to copy the files to your production disks once you have completed your testing.

The VS Pascal Compiler and Library was installed with the following IBM supplied defaults:

- * Date format = US
- * Default Language = Uppercase English
- * Compiler is installed below the 16M line.

The DATETIME format and the default language may be changed following installation. In addition, the VS Pascal Uppercase and Character Translation Tables may be customized. The procedure for changing

the defaults is outlined in the chapter 'Customizing VS Pascal after Installation' of the *VS Pascal Installation and Customization for VM* manual. The procedure is also outlined in the 'Tailoring Section' of the 'Memo to Users'.

The location of the VS Pascal Compiler may be changed from below the 16MB line to above the 16MB line (and vice versa) at any time following installation. The procedure for moving the compiler location is found in the 'Customizing the XA option after Installation' section in the chapter 'Customizing VS Pascal after Installation' of the *VS Pascal Installation and Customization for VM* manual.

The following notes are corrections to the *VS Pascal Installation and Customization for VM* manual. The outlined steps must be followed if the VS Pascal Compiler is moved above the 16MB line:

Page 7 Add the following note:

Note: If you choose to install the compiler above the 16-Megabyte line, you have to modify the VSPASCAL EXEC as follows:

- Add "GLOBAL LOADLIB PASRTLIB" after "GLOBAL TXTLIB AMPLANG".

Page 22 Add the following note to the end of the section:

Note: If you choose to install the compiler above the 16-megabyte line, you have to modify the VSPASCAL EXEC as follows:

- Add "GLOBAL LOADLIB PASRTLIB" after "GLOBAL TXTLIB AMPLANG".

(Please note that in cases of conflicting information, the information in this Program Directory takes precedence.)

The process for applying service is outlined in 'Appendix C: Servicing VS Pascal' of the *VS Pascal Installation and Customization for VM* manual. Please review this Appendix prior to applying service to the VS Pascal Compiler and Library.

Service may also be applied from an IBM PUT tape through the use of the VMSERV EXEC. The VMSERV EXEC relies on the 5668767A EXEC which is distributed on the PUT tape. Versions of the 5668767A EXEC created prior to November 16, 1993 will not work correctly with this service level of the VS Pascal Compiler and Library and should be replaced by the exec included with this SDO release.

6.1.4.8 DCSS Information

None.

6.1.4.9 Verification

The installation verification procedure may be run by issuing:

v5668767

6.1.5 5668-806 VS FORTRAN V2R6.0

6.1.5.1 PUT/RSU/ESO Applied

The product is at service level PUT9405.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

6.1.5.2 Service Excluded

None.

6.1.5.3 Pre-Requisite Service

None.

6.1.5.4 Co-Requisite Service

None.

6.1.5.5 If-Requisite Service

None.

6.1.5.6 Product Manuals

Form Number	Publication Title
GC26-4219	VS FORTRAN Version 2 General Information
GC26-4225	VS FORTRAN Version 2 Licensed Program Specifications
SC26-4603	VS FORTRAN Version 2 Master Index and Glossary
SC26-4221	VS FORTRAN Version 2 Language and Library Reference
SC26-4222	VS FORTRAN Version 2 Programming Guide for CMS and MVS
SC26-4223	VS FORTRAN Version 2 Interactive Debug Guide and Reference
SC26-4339	VS FORTRAN Version 2 Installation and Customization for CMS
SX26-3751	VS FORTRAN Version 2 Reference Summary
SC26-4686	VS FORTRAN Version 2 Migration from the Parallel FORTRAN PRPQ
LY27-9516	VS FORTRAN Version 2 Diagnostic Guide
SC26-4357	SAA CPI FORTRAN Reference

6.1.5.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

Notes:

1. Please review the **PSP Bucket** for the latest updates for this product prior to installing it.
2. Ensure that all minidisks required by this Licensed Product are not linked R/W by any user ID including the user ID where this Licensed Product is being installed from. For production minidisk information refer to Appendix C, "DASD Requirements" on page 197 or for test minidisk information refer to Figure 2 on page 28.
3. Installation is not complete until you have installed the Saved Segments. See section **DCSS Information** for instructions on saving segments.
4. The *Program Directory for VS FORTRAN Compiler/Library/Interactive Debug*, is not required for installation. Please utilize the following commands for installation:

To install this product onto a test disk issue:

vmfins install ppf \$5668806 vsfort (nomemo

To install this product onto the production disk issue:

vmfins install ppf \$5668806 vsfortprd (nomemo

To install this product into the SFS test directory issue:

vmfins install ppf \$5668806 vsfortsfs (nomemo

To install this product into the SFS production directory issue:

vmfins install ppf \$5668806 vsfortsfsprrd (nomemo

If you have installed the product onto a test disk, use **VMFCOPY** to copy the files to your production disks once you have completed your testing.

Update the VMSES/E System Inventory files using the following commands:

- **vmfsim modify vm sysrecs d tdata :prodid 5668806 :ppf 5668806 base :stat received**
- **vmfsim modify vm sysapps d tdata :prodid 5668806 :ppf 5668806 base :stat applied**
- **vmfsim modify vm sysreqt d tdata :prodid 5668806**

For additional information about the System Inventory files and the VMFSIM command see the VMSES/E Introduction and Reference (SC24-5444).

6.1.5.8 DCSS Information

See *VS FORTRAN Installation and Customization for CMS*, chapter entitled "Planning for Installation", for segment planning information. Please note that the segment range should be based on the segment layout as defined in the SDO Program Directory. See Appendix D, "Saved Segments" on page 211 for more information.

6.1.5.9 Verification

Verification of FORTRAN must be done manually at the end of the installation if the installer elected to install FORTRAN in shared segments. To run the verification program stand-alone, refer to *VS FORTRAN Installation and Customization for CMS*, chapter entitled "Installing VS FORTRAN Version 2", section entitled "Verifying a Successful Installation" for complete instructions.

The following is an **Example** of the prompts presented during verification. Responses to the prompts are listed in **BOLD** typeface.

```
>>> v5668806 (vsf2fort vsf2link vsf2load vsf2math yes
VS FORTRAN VERSION 2 Release 6 ENTERED. 09:35:21
*MAIN** END OF COMPILATION 1 *****
VS FORTRAN VERSION 2 Release 6 EXITED. 09:35:22
** Sample program compiled successfully
DMSLI0994W Restrictive RMODE encountered in CSECT AFBVLCI1.
DMSLI0994W LOAD continues below 16Mb.
DMSLI0740I Execution begins...
** Sample program completed successfully in "link" mode
DMSLI0740I Execution begins...
** Sample program completed successfully in "load" mode
An IAD Installation Verification Program (AFFIVP) will
now be compiled and executed. During its execution,
your terminal will be placed into a "VM READ" status.
See the "Installation and Customization" guide for
information on IAD verification input and expected
results.
VS FORTRAN VERSION 2 Release 6 ENTERED. 09:35:28
*CIRCLE** END OF COMPILATION 1 *****
*DIAM** END OF COMPILATION 2 *****
*CIRCUM** END OF COMPILATION 3 *****
*AREA** END OF COMPILATION 4 *****
VS FORTRAN VERSION 2 Release 6 EXITED. 09:35:29
DMSLI0740I Execution begins...
AFF010I VS FORTRAN VERSION 2 RELEASE 6 INTERACTIVE DEBUG
AFF011I 5668-806 (C) COPYRIGHT IBM CORP. 1985, 1990
AFF013I LICENSED MATERIALS-PROPERTY OF IBM
AFF995I WHERE: CIRCLE.7
```

```
AFF001A FORTIAD
go
FT06F001  ENTER THE VALUE OF THE CIRCLE RADIUS (xxx.xx):
FT05F001 INPUT: PRECEDE INPUT WITH % OR ENTER IAD COMMAND
AFF001A FORTIAD
%352.67
FT06F001  THE DIAMETER OF THE CIRCLE IS  705.34
FT06F001  THE CIRCUMFERENCE OF THE CIRCLE IS 2215.89
FT06F001  THE AREA OF THE CIRCLE IS  390738.94
AFF306I PROGRAM HAS TERMINATED; RC ( 0)
AFF001A FORTIAD
quit
```

6.1.6 5684-043 ISPF V3R2.0

6.1.6.1 PUT/RSU/ESO Applied

The product is at service level PUT9404.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

6.1.6.2 Service Excluded

None.

6.1.6.3 Pre-Requisite Service

None.

6.1.6.4 Co-Requisite Service

None.

6.1.6.5 If-Requisite Service

None.

6.1.6.6 Product Manuals

Form Number	Publication Title
GC34-4268	ISPF LICENSED PROGRAM SPECIFICATION
SC34-4273	ISPF DIALOG MANAGEMENT GUIDE AND REFERENCE
SC34-4265	ISPF DIALOG MANAGEMENT EXAMPLES

Form Number	Publication Title
SC34-4267	ISPF DIALOG TAG LANGUAGE GUIDE AND REFERENCE
SC34-4297	ISPF AND ISPF/PDF REFERENCE SUMMARY
GC34-4261	ISPF AND ISPF/PDF GENERAL INFORMATION
SC34-4271	ISPF AND ISPF/PDF PLANNING AND CUSTOMIZING
SC34-4270	ISPF AND ISPF/PDF PRIMER
SC34-4282	ISPF AND MASTER INDEX
SC34-4311	ISPF V3R2 PROGRAM DIRECTORY
SC34-4312	ISPF/PDF V3R1 PROGRAM DIRECTORY

6.1.6.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

Note: Ensure that all minidisks required by this Licensed Product are not linked R/W by any user ID including the user ID where this Licensed Product is being installed from. For production minidisk information refer to Appendix C, "DASD Requirements" on page 197 or for test minidisk information refer to Figure 2 on page 28.

To install this product onto a test disk issue:

vmfins install ppf \$5684043 ispdm (nomemo

To install this product onto the production disk issue:

vmfins install ppf \$5684043 ispdmprd (nomemo

To install this product into the SFS test directory issue:

vmfins install ppf \$5684043 ispdmsfs (nomemo

To install this product into the SFS production directory issue:

vmfins install ppf \$5684043 ispdmsfsprd (nomemo

If you have installed the product onto a test disk, use **VMFCOPY** to copy the files to your production disks once you have completed your testing.

Please note that segments are required for this product. Do not wipe out the production segment during testing.

Warning

The ISPVM virtual machine is restricted to using the System/370 architecture. The 370 Accommodation Facility available in VM/ESA 1.2.x and later allows these applications written for the 370 virtual machine to run in a ESA-family virtual machine. The 370 Accommodation Facility is activated by adding the following command 'CP SET 370ACCOM ON' to the PROFILE EXEC prior to starting the 370 application. (The PROFILE EXEC delivered on the ISPVM 191 Mdisk reflects this already).

6.1.6.8 DCSS Information

Refer to the *Program Directory for ISPF/DM V3* in section 6 entitled "Installation Instructions" for instructions on saving segments. Please note that the segment range should be based on the segment layout as defined in the SDO Program Directory. See Appendix D, "Saved Segments" on page 211 for more information.

6.1.6.9 Verification

1. Make sure the ISPVM Virtual Machine is running disconnected:

query ispvvm

This should return:

ISPVM - DSC

2. Run the ISPSTART EXEC
3. The ISPF exec has executed successfully if the master application panel is displayed.

6.1.7 5684-062 BOOKMANAGER READ/VM V1R3.0

6.1.7.1 PUT/RSU/ESO Applied

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

6.1.7.2 Service Excluded

None.

6.1.7.3 Pre-Requisite Service

None.

6.1.7.4 Co-Requisite Service

None.

6.1.7.5 If-Requisite Service

None.

6.1.7.6 Product Manuals

Form Number	Publication Title
GC23-0447	IBM BookManager READ/VM and BookManager BUILD/VM: General Information
GC23-0453	IBM BookManager READ/VM and BookManager BUILD/VM: Directory of Programming Interfaces for Customers
GC23-0456	IBM BookManager READ/VM: Licensed Program Specifications
SC23-0448	IBM BookManager READ/VM: Getting Started and Command Summary
SC23-0449	IBM BookManager READ/VM: Displaying Online Books
SC23-0455	IBM BookManager READ/VM: Installation and Customization

6.1.7.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

Notes:

1. The following non-VM/ESA SDO products are also co-requisites for BookManager Read:
5664-387 PROCESSMASTER
5688-015 BOOKMASTER
2. Ensure that all minidisks required by this Licensed Product are not linked R/W by any user ID including the user ID where this Licensed Product is being installed from. For production minidisk information refer to Appendix C, "DASD Requirements" on page 197 or for test minidisk information refer to Figure 2 on page 28.

To install this product onto a test disk issue:

vmfins install ppf \$5684062 bmread (nomemo

To install this product onto the production disk issue:

vmfins install ppf \$5684062 bmreadprd (nomemo

To install this product into the SFS test directory issue:

vmfins install ppf \$5684062 bmreadsfs (nomemo

To install this product into the SFS production directory issue:

vmfins install ppf \$5684062 bmreadsfsprd (nomemo

If you have installed the product onto a test disk, use **VMFCOPY** to copy the files to your production disks once you have completed your testing.

BookManager READ has been pre-installed without the use of a segment. All code used with BookManager READ resides on the BOOKMGR 191 and BOOKMGR 192 minidisks.

This level of BookManager Read contains the PTF UG03934 which corrects a number of problems with BookManager's index function and provides support for the graphics functionality added to BookManager Build by PTF UG03935.

In addition, PTF UG03934 included a significant changes in the BookManager READ code which changed the VM environment that is required to support BookManager READ. Because of the major changes introduced, this level of BookManager READ may not execute correctly with levels of VM prior to z/VM 3.1 and therefore is not supported by BookManager Development for levels of VM prior to z/VM 3.1.

For a detailed explanation of the code changes included with PTF UG03934, please review the file UG03934 TEXT which is loaded onto the MAINT 319 disk by the installation procedures.

Please note that due to the graphics support that has been included with PTF UG03934 that the recommended minimum virtual storage size to OPEN Books containing graphics is 128M.

BookManager READ was built using LE/370 Language Environment V1R8.0.

In the manual *BookManager Read/VM Installation and Customization*, any references to the C/370 libraries should be replaced with the LE libraries. If you are going to re-gen a module or apply service, you must global the LE libraries.

If you decide to install BookManager READ as a segment, refer to the **DCSS Information** section for additional information.

Installation defaults have been placed on the BOOKMGR 192 disk. This was done during the installation of BookManager READ using the EIJCUST command. The defaults file is named EIJINST DEFAULTS. The default response was selected for each entry in the EIJCUST command.

Prior to using BookManager READ at your facility, you should use EIJCUST to define the public library owner userid. The default for this entry is MAINT. You should enter the name of the userid which will be used as the public library owner.

To make this or any other changes to the EIJINST DEFAULTS file, you need to logon to the BOOKMGR userid. Issue the following:

```
logon bookmgr noipl
(enter password)
ipl cms
access(noprof
access 191 a
access 291 b
access 300 c
access 192 d
eijcust
```

Note: After issuing **eijcust**, you will be prompted for input.

Additional information on the customization of BookManager Read is documented in the manual *BookManager Read/VM Installation and Customization*, section entitled "Setting the Installation Defaults."

6.1.7.8 DCSS Information

Notes:

1. The segment range should be based on the segment layout as defined in the SDO Program Directory. See Appendix D, "Saved Segments" on page 211 for more information.

```
define storage 999m
ipl 190 parm nosprof instseg no
defseg bookmgr 33700-33aff sr
det 191
link bookmgr 191 191 mr
access 191 a
link bookmgr 192 192 mr
access 192 d
set ldrtbls 20
5684062
```

2. If GDDM is NOT installed as a segment, LDRTBLS should be set to at least 100.
3. The 5684062 exec will issue numerous prompts during the installation. Additional information on the installation of BookManager Read is documented in the manual *Bookmanager Read/VM Installation and Customization*, section entitled "Installing the Software for BookManager Read on VM/ESA." You **must** have a copy of this manual available prior to the installation of BookManager Read.

6.1.7.9 Verification

Verification of BookManager READ is done by logging on to the BOOKMGR userid and issuing the following:

open eijsamp

Re-verification of the “Read Book” function is also recommended, if any other entries in the EIJINST DEFAULTS file are changed.

6.1.8 5684-113 DMS/CMS V2R1.0

6.1.8.1 PUT/RSU/ESO Applied

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

6.1.8.2 Service Excluded

None.

6.1.8.3 Pre-Requisite Service

None.

6.1.8.4 Co-Requisite Service

None.

6.1.8.5 If-Requisite Service

None.

6.1.8.6 Product Manuals

Form Number	Publication Title
GC24-5503	DMS/CMS General Information Version 2
LY24-5249	DMS/CMS Logic Manual Version 2
SC24-5504	DMS/CMS Guide and Reference Version 2

6.1.8.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

Note: Ensure that all minidisks required by this Licensed Product are not linked R/W by any user ID including the user ID where this Licensed Product is being installed from. For production minidisk information refer to Appendix C, "DASD Requirements" on page 197 or for test minidisk information refer to Figure 2 on page 28.

To install this product onto the test disk issue:

vmfins install ppf \$5684113 dmscms (nomemo

To install this product onto the production disk issue:

vmfins install ppf \$5684113 dmscmsprd (nomemo

To install this product into the SFS test directory issue:

vmfins install ppf \$5684113 dmcmssfs (nomemo

To install this product into the SFS production directory issue:

vmfins install ppf \$5684113 dmcmssfsprd (nomemo

If you have installed the product onto a test disk, issue: **VMFCOPY** to copy the files to your production disks once you have completed your testing.

Note: The EUDSGEN EXEC has already been run and all appropriate modules have been generated.

Re-save CMS

Note: To use DMS/CMS in the CMS/DOS Environment, please refer to the DMS/CMS *MEMO TO USERS* in the section entitled "Special Instructions Section".

6.1.8.8 DCSS Information

None.

6.1.8.9 Verification

To complete the verification, run the EUDXREX EXEC. To invoke this exec, enter the command:

eudxrex

If the DMS/CMS sample program panel EUDXPANL is displayed, verification is completed successfully. To leave the EUDXPANL panel, move the cursor until it is under the word "EXIT", and then press ENTER.

6.1.9 5684-123 ISPF/PDF V3R2.0

6.1.9.1 PUT/RSU/ESO Applied

The product is at service level PUT9405.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

6.1.9.2 Service Excluded

None.

6.1.9.3 Pre-Requisite Service

Product Number	PTF	APAR	Product Description
5684-043	UM18982	VM45458	ISPF APAR
5684-043	UM16038	VM43115	ISPF APAR
5684-043	UM17561	VM44707	ISPF APAR
5748-XX9	UN04159	PL77128	SCRIPT APAR: execute SCRIPT/BOOKMASTER in ISPF/PDF

6.1.9.4 Co-Requisite Service

Product Number	PTF	APAR	Product Description
5684-123	UM18168	VM46996	ISPF/PDF NLS - Swiss German
5684-123	UM18424	VM47921	ISPF/PDF NLS - Swiss German
5684-123	UM19493	VM47561	ISPF/PDF NLS - Swiss German
5684-123	UM19509	VM46996	ISPF/PDF NLS - Swiss German
5684-123	UM19509	VM47574	ISPF/PDF NLS - Swiss German

5684-123

Product Number	PTF	APAR	Product Description
5684-123	UM19510	VM47675	ISPF/PDF NLS - Swiss German
5684-123	UM19515	VM47676	ISPF/PDF NLS - Swiss German
5684-123	UM21878	VM47921	ISPF/PDF NLS - Swiss German
5684-123	UM21878	VM51918	ISPF/PDF NLS - Swiss German
5684-123	UM22584	VM53357	ISPF/PDF NLS - Swiss German
5684-123	UM22769	VM53002	ISPF/PDF NLS - Swiss German
5684-123	UM23024	VM53030	ISPF/PDF NLS - Swiss German
5684-123	UM23197	VM53876	ISPF/PDF NLS - Swiss German
5684-123	UM23669	VM53876	ISPF/PDF NLS - Swiss German
5684-123	UM23669	VM54245	ISPF/PDF NLS - Swiss German
5684-123	UM24823	VM56318	ISPF/PDF NLS - Swiss German
5684-123	UM25230	VM54518	ISPF/PDF NLS - Swiss German
5684-123	UM25939	VM57709	ISPF/PDF NLS - Swiss German
5684-123	UM26370	VM58322	ISPF/PDF NLS - Swiss German
5684-123	UM27019	VM59075	ISPF/PDF NLS - Swiss German
5684-123	UM27102	VM59240	ISPF/PDF NLS - Swiss German
5684-123	UM27655	VM60128	ISPF/PDF NLS - Swiss German
5684-123	UM28251	VM60513	ISPF/PDF NLS - Swiss German
5684-123	UM28303	VM60791	ISPF/PDF NLS - Swiss German
5684-123	UM29205	VM62060	ISPF/PDF NLS - Swiss German
5684-123	UM31095	VM63433	ISPF/PDF NLS - Swiss German
5684-123	UM18169	VM46996	ISPF/PDF NLS - Japanese
5684-123	UM18425	VM47921	ISPF/PDF NLS - Japanese
5684-123	UM19494	VM47561	ISPF/PDF NLS - Japanese
5684-123	UM19508	VM46996	ISPF/PDF NLS - Japanese
5684-123	UM19508	VM47574	ISPF/PDF NLS - Japanese
5684-123	UM19511	VM47675	ISPF/PDF NLS - Japanese
5684-123	UM19516	VM47676	ISPF/PDF NLS - Japanese
5684-123	UM21879	VM47921	ISPF/PDF NLS - Japanese
5684-123	UM21879	VM51918	ISPF/PDF NLS - Japanese
5684-123	UM22585	VM53357	ISPF/PDF NLS - Japanese
5684-123	UM22770	VM53002	ISPF/PDF NLS - Japanese

Product Number	PTF	APAR	Product Description
5684-123	UM23025	VM53030	ISPF/PDF NLS - Japanese
5684-123	UM23198	VM53876	ISPF/PDF NLS - Japanese
5684-123	UM23670	VM53876	ISPF/PDF NLS - Japanese
5684-123	UM23670	VM54245	ISPF/PDF NLS - Japanese
5684-123	UM24824	VM56318	ISPF/PDF NLS - Japanese
5684-123	UM25231	VM54518	ISPF/PDF NLS - Japanese
5684-123	UM25940	VM57709	ISPF/PDF NLS - Japanese
5684-123	UM26371	VM58322	ISPF/PDF NLS - Japanese
5684-123	UM27020	VM59075	ISPF/PDF NLS - Japanese
5684-123	UM27103	VM59240	ISPF/PDF NLS - Japanese
5684-123	UM27656	VM60128	ISPF/PDF NLS - Japanese
5684-123	UM28252	VM60513	ISPF/PDF NLS - Japanese
5684-123	UM28304	VM60791	ISPF/PDF NLS - Japanese
5684-123	UM29206	VM62060	ISPF/PDF NLS - Japanese
5684-123	UM31096	VM63433	ISPF/PDF NLS - Japanese
5684-123	UM18170	VM46996	ISPF/PDF NLS - German
5684-123	UM18426	VM47921	ISPF/PDF NLS - German
5684-123	UM19495	VM47561	ISPF/PDF NLS - German
5684-123	UM19503	VM46996	ISPF/PDF NLS - German
5684-123	UM19503	VM47574	ISPF/PDF NLS - German
5684-123	UM19512	VM47675	ISPF/PDF NLS - German
5684-123	UM19517	VM47676	ISPF/PDF NLS - German
5684-123	UM21880	VM47921	ISPF/PDF NLS - German
5684-123	UM21880	VM51918	ISPF/PDF NLS - German
5684-123	UM22586	VM53357	ISPF/PDF NLS - German
5684-123	UM22771	VM53002	ISPF/PDF NLS - German
5684-123	UM23026	VM53030	ISPF/PDF NLS - German
5684-123	UM23199	VM53876	ISPF/PDF NLS - German
5684-123	UM23671	VM53876	ISPF/PDF NLS - German
5684-123	UM23671	VM54245	ISPF/PDF NLS - German
5684-123	UM24825	VM56318	ISPF/PDF NLS - German
5684-123	UM25232	VM54518	ISPF/PDF NLS - German

5684-123

Product Number	PTF	APAR	Product Description
5684-123	UM25941	VM57709	ISPF/PDF NLS - German
5684-123	UM26372	VM58322	ISPF/PDF NLS - German
5684-123	UM27021	VM59075	ISPF/PDF NLS - German
5684-123	UM27104	VM59240	ISPF/PDF NLS - German
5684-123	UM27657	VM60128	ISPF/PDF NLS - German
5684-123	UM28253	VM60513	ISPF/PDF NLS - German
5684-123	UM28305	VM60791	ISPF/PDF NLS - German
5684-123	UM29207	VM62060	ISPF/PDF NLS - German
5684-123	UM31097	VM63433	ISPF/PDF NLS - German
5684-123	UM18216	VM46996	ISPF/PDF NLS - Traditional Chinese
5684-123	UM18427	VM47921	ISPF/PDF NLS - Traditional Chinese
5684-123	UM19496	VM47561	ISPF/PDF NLS - Traditional Chinese
5684-123	UM19504	VM46996	ISPF/PDF NLS - Traditional Chinese
5684-123	UM19504	VM47574	ISPF/PDF NLS - Traditional Chinese
5684-123	UM19513	VM47675	ISPF/PDF NLS - Traditional Chinese
5684-123	UM19518	VM47676	ISPF/PDF NLS - Traditional Chinese
5684-123	UM21881	VM47921	ISPF/PDF NLS - Traditional Chinese
5684-123	UM21881	VM51918	ISPF/PDF NLS - Traditional Chinese
5684-123	UM22587	VM53357	ISPF/PDF NLS - Traditional Chinese
5684-123	UM22772	VM53002	ISPF/PDF NLS - Traditional Chinese
5684-123	UM23027	VM53030	ISPF/PDF NLS - Traditional Chinese
5684-123	UM23200	VM53876	ISPF/PDF NLS - Traditional Chinese
5684-123	UM23672	VM53876	ISPF/PDF NLS - Traditional Chinese
5684-123	UM23672	VM54245	ISPF/PDF NLS - Traditional Chinese
5684-123	UM24826	VM56318	ISPF/PDF NLS - Traditional Chinese
5684-123	UM25235	VM54518	ISPF/PDF NLS - Traditional Chinese
5684-123	UM25942	VM57709	ISPF/PDF NLS - Traditional Chinese
5684-123	UM26373	VM58322	ISPF/PDF NLS - Traditional Chinese
5684-123	UM27022	VM59075	ISPF/PDF NLS - Traditional Chinese
5684-123	UM27105	VM59240	ISPF/PDF NLS - Traditional Chinese
5684-123	UM27658	VM60128	ISPF/PDF NLS - Traditional Chinese
5684-123	UM28254	VM60513	ISPF/PDF NLS - Traditional Chinese

Product Number	PTF	APAR	Product Description
5684-123	UM28306	VM60791	ISPF/PDF NLS - Traditional Chinese
5684-123	UM29208	VM62060	ISPF/PDF NLS - Traditional Chinese
5684-123	UM31098	VM63433	ISPF/PDF NLS - Traditional Chinese

6.1.9.5 If-Requisite Service

None.

6.1.9.6 Product Manuals

Form Number	Publication Title
GC34-4261	ISPF AND ISPF/PDF GENERAL INFORMATION
SC34-4270	ISPF AND ISPF/PDF PRIMER
SC34-4295	ISPF AND ISPF/PDF MASTER INDEX
GC34-4303	LICENSED PROGRAM SPECIFICATION
SC34-4305	ISPF AND ISPF/PDF PLANNING AND CUSTOMIZING
GC34-4306	ISPF/PDF GUIDE
GC34-4307	ISPF/PDF SERVICES
GC34-4308	ISPF/PDF LIBRARY MANAGEMENT FACILITY
SC34-4309	ISPF AND ISPF/PDF REFERENCE SUMMARY
SC34-4296	Software Configuration and Library Manager (SCLM) Guide and Reference

6.1.9.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (PLAN NOMEMO ENV *envelope_filename*

VMFINS INSTALL PPF *ppfname compid* (NOMEMO NOLINK ENV *envelope_filename*

PRODUCT INSTALLATION REQUIREMENTS

1. Mount the Product Tape as 181

2. Load Product Files from Tape

- To install this product onto a test disk issue:

vmfins install ppf \$5684123 ispdf (nomemo

- To install this product onto the production disk issue:

vmfins install ppf \$5684123 ispdfprd (nomemo

- To install this product into the SFS test directory issue:

vmfins install ppf \$5684123 ispdfsfs (nomemo

- To install this product into the SFS production directory issue:

vmfins install ppf \$5684123 ispdfsfsprd (nomemo

Warning: Ensure that all minidisks required by this Licensed Product are not linked R/W by any user ID including the user ID where this Licensed Product is being installed from. For production minidisk information refer to Appendix C, "DASD Requirements" on page 197 or for test minidisk information refer to Figure 2 on page 28.

3. Detach Product Tape

4. Load NLS Other Than English

Notes:

- a. The English ISPF/PDF - NLS feature in MACLIB format is included with this version of ISPF/PDF.
- b. The ISPF/PDF - NLS feature should be installed only if a language other than English is required.
- c. The SDO ISPF/PDF NLS feature has all the service listed as co-req service already applied. (i.e. If the SDO ISPF/PDF NLS feature is utilized to install a language, no additional service has to be applied to the language.)

If the SDO ISPF/PDF NLS feature **IS NOT** utilized to install a language, all the service listed as co-req service for the NLS must be applied. Failure to do so may result in incorrect results and/or the abend of ISPF/PDF.

5. Customize ISPF/PDF

Please refer to the *ISPF/PDF Program Directory* for tailoring and customization.

Notes:

- a. If the Remote Spooling Communications (RSCS) Subsystem and the PDF Spool Utility (Option 3.6) are to be utilized the ISRXPARM ASSEMBLE file must be created. Failure to do so will result in the ISPF/PDF modules being built incorrectly by the ISRINSXR exec. Please refer to the section *Preprocessing for Transmit/Receive* in the *ISPF/PDF Program Directory* for information on the ISRXPARM ASSEMBLE file.
- b. The ISPF/PDF modules are built utilizing the following command:

ISRINSXR fm

where:

fm - The file mode of the disk containing the ISPF/PDF code. The disk must be accessed as R/W.

Notes:

- 1) The disk containing the Product 5684-043 ISPF/DM must be accessed.
- 2) The modules created by the ISRINSXR EXEC are not included on the SDO tape. As a result, when the ISRINSXR EXEC attempts to erase the modules prior to creating them it is unable to do so and the following message is output:

DMSERS002E FILE module_name MODULE B1 NOT FOUND

This messages may be ignored.

- 3) Please refer to the section 'ISRINSXR EXEC' in the *ISPF/PDF Program Directory* for information on the use of the 'ISRINSXR EXEC'.

6. Build the ISPF/PDF Segments

Please refer to the section *DCSS Information* and to the *ISPF/PDF Program Directory* for information on building the ISPF/PDF segments.

Notes:

- a. Please note that a segment is required to run this product. Do not wipe out the current segment upon testing the product. Putting the new segment out with the same name may wipe out the old one in production.
- b. The SCLM feature of ISPF/PDF is not required, is not Y2K Ready and is no longer supported by IBM.

The SCLM feature has been included with this version of ISPF/PDF for consistency with previous versions of ISPF/PDF.

For more information on the SCLM function of ISPF/PDF, refer to the *ISPF/PDF Software Configuration and Library Manager(SCLM) Guide and Reference*.

7. Move ISPF/PDF Into Production

If you have installed the product onto a test disk, use **VMFCOPY** to copy the files to your production disks once you have completed your testing.

PRODUCT SERVICE REQUIREMENTS

- After the service has been loaded from the corrective service tape and the 'RENAME EXEC' has been executed, renamed files must be moved to the disk that contains your PDF Product maintenance.
- If your corrective service contains any of the following files the 'ISRINSXR EXEC' will have to be run to rebuild the appropriate modules. Please refer to the section 'ISRINSXR EXEC' in the the *ISPF/PDF Program Directory* for information on the use of the 'ISRINSXR EXEC'.

FLMCMD	TEXT	ISRFXDAT	TEXT	ISRLE*	TEXT
ISRLMFI	TEXT	ISRLMFZ	TEXT	ISRS*	TEXT
ISRV*	TEXT	ISRW*	TEXT	ISRX*	TEXT

- If your corrective service contains any 'ISR* TEXT' files other than those mentioned above, the 'ISRSAVE EXEC' will have to be run to rebuild your ISPF/PDF shared segment. Please refer to the section *SAVE THE ISPF/PDF AND SCLM DCSS* in the *ISPF/PDF Program Directory* for information on resaving the ISPF/PDF shared segments.
- If your corrective service contains any 'FLM* TEXT' files other than those listed above, the 'FLMSAVE EXEC' will have to be run to rebuild your SCLM shared segment. Please refer to the section *SAVE THE ISPF/PDF AND SCLM DCSS* in the *ISPF/PDF Program Directory* for information on resaving the ISPF/PDF shared segments.
- Any panels, messages, skeletons of tables should be put into the appropriate MACLIB using the CMS 'MACLIB REP' command.

6.1.9.8 DCSS Information

Refer to the Program Directory for ISPF/PDF V3 in section 6 entitled "Define and Save the ISPF/PDF and SCLM Shared Segments" for instructions on saving segments.

Notes:

1. Please note that the segment range should be based on the segment layout as defined in the SDO Program Directory. See Appendix D, "Saved Segments" on page 211 for more information.
2. The segment range specified in the SDO Program Directory is large enough to contain ISPF/PDF, LMF and two languages. If more than two languages are to be included in the segment, seven(7) must be added to the segment range for each additional language.

For example, if the specified segment range is 30000-300FF and one (1) additional language is to be included the segment range must be changed to 30000-30106. If three additional languages (i.e. all five languages provided with ISPF/PDF) are to be loaded, the segment range must be changed to 30000-30115.

6.1.9.9 Verification

1. Make sure the ISPVM Virtual Machine is running disconnected **query ispvm**

This should return:

ISPVM - DSC

2. Use the **PDF EXEC**
3. The exec ran successfully if the primary option panel is displayed.

6.1.10 5684-123 ISPF/PDF NLS V3R2.0

6.1.10.1 PUT/RSU/ESO Applied

The product is at service level PUT9405.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

6.1.10.2 Service Excluded

None.

6.1.10.3 Pre-Requisite Service

None.

6.1.10.4 Co-Requisite Service

Product Number	PTF	APAR	Product Description
5684-123	UM28301	VM60791	ISPF/PDF BASE
5684-123	UM28249	VM60513	ISPF/PDF BASE
5684-123	UM27100	VM59240	ISPF/PDF BASE
5684-123	UM27017	VM59075	ISPF/PDF BASE
5684-123	UM26368	VM58322	ISPF/PDF BASE
5684-123	UM25937	VM57709	ISPF/PDF BASE
5684-123	UM25228	VM54518	ISPF/PDF BASE
5684-123	UM23667	VM54245	ISPF/PDF BASE
5684-123	UM23195	VM53876	ISPF/PDF BASE
5684-123	UM23022	VM53030	ISPF/PDF BASE
5684-123	UM22767	VM53002	ISPF/PDF BASE
5684-123	UM31093	VM63433	ISPF/PDF BASE

6.1.10.5 If-Requisite Service

None.

6.1.10.6 Product Manuals

None.

6.1.10.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (PLAN NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (NOMEMO NOLINK ENV envelope_filename

SDO ISPF/PDF NLS Tape Content

The SDO ISPF/PDF NLS Tape contains the following languages in MACLIB format:

- German
- Swiss German
- Traditional Chinese
- Japanese
- English (American English)

All service specified as required in the ISPF/PDF Base feature section of the SDO Program Directory has been included. (i.e. If this feature is utilized to install a language no additional service has to be applied to the language.)

SDO ISPF/PDF NLS Disk Requirements

The disk size specified in the 'DASD Requirements' Appendix of the SDO Program Directory for ISPF/PDF NLS feature is the amount of DASD required to install one (1) NLS language. To estimate the total DASD required for the ISPF/PDF NLS feature multiple the disk size specified in the Appendix by the number of NLS languages to be installed.

For example, if you are going to install German and Swiss German and the 'DASD Requirements' Appendix states that 1000 4K blocks are required, then the DASD required for German and Swiss German is 2000 4k blocks (i.e. 2 x 1000).

NLS INSTALLATION REQUIREMENTS**1. Mount the SDO ISPF/PDF NLS Tape as 181****2. Load Language Files from Tape**

- *To install a language onto a test disk issue:*

vmfins install ppf \$568412n inLLL (nomemo

- *To install a language onto the production disk issue:*

vmfins install ppf \$568412n inLLLprd (nomemo

- To install a language into the SFS test directory issue:

vmfins install ppf \$568412n inLLSfs (nomemo

- To install a language into the SFS production directory issue:

vmfins install ppf \$568412n inLLSfsprd (nomemo

Notes:

- 'LLL' in the above command must be replaced with the three character language code for the language that is to be loaded:

DEU - German
 DES - Swiss German
 CHT - Traditional Chinese
 JPN - Japanese
 ENG - English

- The above command must be repeated for each language to be loaded.
- English NLS in MACLIB format is included with the SDO ISPF/PDF Base feature. If the Base feature of ISPF/PDF was installed from the SDO, the English NLS does not have to be installed from the ISPF/PDF NLS tape.
- All service listed in the SDO Program Directory under the ISPF/PDF Base Feature as co-req service for the NLS feature has already been applied. (i.e. If this feature is utilized to install a language, no additional service has to be applied to the language.)
- The SDO ISPF/PDF Base feature has all the service listed as co-req service already applied. (i.e. If the SDO ISPF/PDF Base feature was utilized to install the Base feature of ISPF/PDF no additional service has to be applied to the Base feature of ISPF/PDF.)

If the SDO ISPF/PDF Base feature **WAS NOT** utilized to install the Base feature of ISPF/PDF, all the service listed as co-req service for ISPF/PDF Base Feature must be applied. Failure to do so may result in incorrect results or the abend of ISPF/PDF.

Warning: Ensure that all minidisks required by this Licensed Product are not linked R/W by any user ID including the user ID where this Licensed Product is being installed from. For production minidisk information refer to Appendix C, "DASD Requirements" on page 197 or for test minidisk information refer to Figure 2 on page 28.

3. Detach ISPF/PDF NLS Tape

PRODUCT SERVICE REQUIREMENTS

The ISPF/PDF NLS feature is serviced as part of ISPF/PDF. Please refer to the ISPF/PDF Base feature section of the SDO Program Directory for information on servicing ISPF/PDF.

6.1.10.8 DCSS Information

Please refer to the ISPF/PDF Base feature section of the SDO Program Directory for information on the generation of the ISPF/PDF segment and the inclusion of a language within the segment.

6.1.10.9 Verification

Please refer to the ISPF/PDF Base feature section of the SDO Program Directory for information on ISPF/PDF verification.

6.1.11 5684-141 PSF/VM V2R1.1

6.1.11.1 PUT/RSU/ESO Applied

The product is at service level PUT9405.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

6.1.11.2 Service Excluded

None.

6.1.11.3 Pre-Requisite Service

None.

6.1.11.4 Co-Requisite Service

Product Number	PTF	APAR	Product Description
5664-310	UL90197	PL32424	PMF (New Function)
5664-310	UL90210	PL33141	PMF (New Function)
5664-312	UL90221	PL34363	PSAF (New Function)
5664-312	UL56588	PL46032	PSAF (PE FIX for UL90221)

6.1.11.5 If-Requisite Service

None.

6.1.11.6 Product Manuals

Form Number	Publication Title
G544-3135	Advanced Function Printing: Printer Summary
G544-3810	AFP FONTS: Font Summary
G544-3290	Advanced Function Printing: Printer Information
S544-3202	Advanced Function Printing: Data Stream reference
G544-3678	Print Services Facility/VM; Licensed Program Specifications
G544-3803	IBM's Quick Reference for IBM-Supplied Compatibility Fonts
G544-3804	IBM's Quick Reference for IBM Core Interchange Fonts
S544-3680	Print Services Facility/VM: System Programming Guide
S544-3677	Print Services Facility/VM: Application Programming Guide
S544-3681	Print Services Facility/VM: Messages and Codes
S544-3682	Print Services Facility/VM: Operator's Guide
S544-3679	Print Services Facility/VM: Quick Reference Guide
S544-3679	AFP: Application Programming Interface Programming Guide and Reference
S544-3672	AFP: Application Programming Interface COBOL Language Reference
S544-3673	AFP: Application Programming Interface PL/I Language Reference
S544-3673	AFP: Conversion and Indexing Facility Application Programming Guide

6.1.11.7 Installation

6.1.11.8 New Messages for EAN, UPC and Postnet Bar Codes

APAR PQ38247 adds Record Formatting, CCM maintenance, and blank truncation support for EAN, UPC, and Postnet bar codes.

To support these modifications, a number of ACIF error messages have been added or changed. These new messages have not been incorporated into any Print Service Facility publications, however the text for the new and changed messages has been included on the PSFMAINT 319 disk in the file APARTEXT PQ38247.

6.1.11.9 Print Service Facility (PSF) EURO Support

PTFs UQ23094 (APAR PQ18523) and UQ23384 (APAR PQ21057) provide PSF EURO support. Both these PTFs are included in this service level of PSF.

PTF UQ23384 (APAR PQ21057) added new code pages to APRFTBL, the Group 4 Resident Font Table. The Group 4 txtlib, PSFGRP4 TXTLIB, and loadlib, PSFGRP4 LOADLIB, as delivered are built WITH the PTF (i.e. the code pages required to provide EURO support are included).

If EURO support is NOT required, the Group 4 txtlib and loadlib may be rebuilt. A text deck, APRFTBLB ORIGTEXT, which does not include the new EURO code pages has been provided on the PSF Program Disk, PSFMAINT 291. This file may be renamed to APRFTBLB TEXT and utilized to rebuild the Group 4 txtlib and loadlib.

The txtlib and loadlib may be rebuilt by executing the PSF Service Exec, PSFSERVL. Additional information on the generation of APRFTBL, the Group 4 Resident Font Table, may be found in the PSF/VM Systems Programmer's Guide S544-3680, 'Chapter 8 Installation Exit Routines'.

In addition, the text from the APAR PQ21057 has been included on the PSFMAINT 319 disk in a file with a filename of APARTEXT and a filetype of PQ21057. This file should be carefully reviewed prior to making any modifications.

To provide full EURO support, the 5648-113 V1R1.0 AFP Font Collection has been replaced by 5648-B33 V2R1.0 AFP Font Collection. If full EURO support is required, 5648-B33 must be installed. Please refer to HONE announcement 398-107 for additional information.

6.1.11.10 Print Service Facility (PSF) Semi-VMSES/E Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (PLAN NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (NOMEMO NOLINK ENV envelope_filename

Although PSF may be installed from any ID that has write access to the PSFMAINT minidisks, it is recommended that the installation be performed from the PSFMAINT ID.

- **Note:** The ID that is utilized for installation must have READ access to the MAINT 5E5 and WRITE access to the MAINT 51D.

After logging onto the installation ID and mounting the PSF Product tape at virtual address 181, the following steps/commands may be utilized to install PSF:

1. Access the VMSES/E code:

link MAINT 5E5 5E5 rr

access 5E5 b

2. Access the System Software Inventory disk:

link MAINT 51D 51D mr

access 51D d

3. Install the PSF code:

a. Onto the production minidisk:

```
vmfins install ppf $5684141 psfvmprd (nomemo
```

b. Onto the SFS production directory:

```
vmfins install ppf $5684141 psfvmsfsprd (nomemo
```

- **Note:** If desired, the default installation disk addresses may be altered by creating a PPF override file for PSF. Please refer to the GC24-5837 VM/ESA VMSES/E Introduction and Reference manual for information on creating a PPF override file.

6.1.11.11 Print Service Facility (PSF) Semi-VMSES/E Contents

All the components that are available with PSF are included with the Semi-VMSES/E version. The components are as follows in Figure 6:

Figure 6. PSF Components and SubComponents

ID	Component Name	SubComponent
P	PSF Command Feature	PSF Command Code
B	Print Services Feature (SFCM)	SFCM Program Code
L	Group4 PDM Feature	Group4 PDM Program Code
A	Group3 PDM Feature	370 Channel Attach Code
		Remote Print Manager Code
S	3800 PDM Feature	3800 PDM Program Code
V	3820 PDM Feature	3820 PDM Program Code
R	PSF Resources	3800 & All Other Supported FORMDEFS
		3800 & All Other Supported PAGEDEFS
		Sample Overlays
		Sample Page Segments
		Verification Print File
D	AFP ACIF	Conversion & Indexing Tool
H	AFP API	Program Interface Code
F	Compatibility Fonts	Compatibility Fonts
		240 PEL Code Pages
		300 PEL Code Pages

In addition, all associated Sample Options Files, Sample Control Files, Sample Exits, Corrective Service Execs and installation files for the above components have been included.

The I5684141 Memo from the installation tape, LIST3820 files for the Product Program Directories generated from files loaded from the installation tape and the PSF V2R1.1 Announcement Letter have been provided on the PSFMAINT 319 disk.

Figure 7. Program Directories

File Name	ID	Name
PR616L	PRGDIR616L	Print Services Facility Version 2 for VM
PR617L	PRGDIR617L	IBM Compatibility Fonts

6.1.11.12 Print Service Facility (PSF) Semi-VMSES/E Minidisks

PSF was installed to the default maintenance ID, PSFMAINT, and the default PSFMAINT minidisks (Appendix C, "DASD Requirements").

*With the exception of the PSFMAINT Help Disk (address 29D) there is a one to one correspondance between the default PSFMAINT minidisks and the minidisks specified in PRGDIR616L Program Directory for Print Services Facility Version 2 for VM (**Note:** The PSFMAINT Help Disk contains the PSF CMS Help File. This file is also included on the PSF Program Disk).*

The PSF minidisks (i.e. UserID and disk addresses) specified in the PRGDIR616L Program Directory for Print Services Facility Version 2 for VM were not utilized for the default PSFMAINT minidisks. This was done to allow for the installation of PSF on systems with existing versions of PSF without the alteration of the existing installations.

*The default PSFMAINT minidisks and the corresponding minidisks specified in the PRGDIR616L Program Directory for Print Services Facility Version 2 for VM are shown in Figure 8. (**Note:** Often referred to in the PSF documentation as the 'Default Path').*

Figure 8. PSFMAINT Default Semi-VMSES/E Minidisk Addresses

Default PSFMAINT Address	Disk Definition / Contents	PSF Program Directory ID Address	
555	PSF Service and Verification EXECs	Install Specified	nnn
291	PSF Programs	PSFMAINT	191
293	PSF Resources and Samples	PSFMAINT	193
294	PSF Fonts (Compatibility Fonts)	PSFMAINT	194
29E	PSF Command & ACIF/AFP API Modules	MAINT	19E
29D	PSF CMS Help File (MAINT 19D)	PSFMAINT	191
391	SFCM Sample Options Files	SFCM1	191
491	Group4 Sample Options Files	PDMGRP4	191
591	Group3 Sample Options Files	PDM0490	191
691	3800 Printer Sample Options Files	PDM470	191
791	3820 Printer Sample Options Files	PDMREM1	191
319	PSF Documentation	Install Specified	nnn

All the sample PSF Service Machine VM Directory entries that are included as part of the VM/ESA SDO Delivery have been setup to utilize the above default PSFMAINT minidisk addresses.

In addition, a sample profile exec, *PROFILE SAMPEXEC*, for the PSFMAINT Service Machine which accesses the above default PSFMAINT minidisk addresses at the recommended file modes for the application of service and the regeneration of the PSF modules has been included on the PSFMAINT 555.

If desired, the default installation ID and disk addresses may be altered by creating a PPF override file for PSF. Please refer to GC24-5837 VM/ESA VMSES/E Introduction and Reference manual for information on creating a PPF override file.

6.1.11.13 Print Service Facility (PSF) Semi-VMSES/E Control Files

PSF Control Files for all the PSF Components, except the Compatibility Fonts which does not have one, with the above default PSFMAINT minidisk addresses have been included. The files all have a filetype of 'CTLFILE' and are found on the PSFMAINT 291 (with the exception of the Control File for the PSF Resources Component which is on the PSFMAINT 293).

The PSF Control Files provided are shown in Figure 9.

Figure 9. PSF Control Files

Component Name	Control File
PSF Command Feature	PSFCMD
Print Services Feature (SFCM)	PSFBASE
Group4 PDM Feature	PSFGRP4
Group3 PDM Feature	PSFGRP3
3800 PDM Feature	PSF3800
3820 PDM Feature	PSF3820
PSF Resources	PSFRES
AFP ACIF	PSFACIF
AFP API	PSFAPI

6.1.11.14 Print Service Facility (PSF) Semi-VMSES/E Compatibility Fonts

The PSF Compatibility Fonts Component is included on the Delivery Tape. The Default installation will place the Compatibility Fonts Component on PSFMAINT's 294 minidisk.

Please be aware that the PSF Compatibility Fonts Component was withdrawn by IBM from marketing effective May 1, 1995. The Compatibility Fonts Component however has continued to be provided with the PSF Product to provide consistency with previous releases of PSF.

The PSF Compatibility Fonts Component has been replaced by 5648-113 V1R1.0 AFP Font Collection.

The AFP Font Collection contains all the fonts that were previously supported through the PSF Compatibility Fonts Component including the following:

5012 240-pe1 Latin 1 Core Interchange Fonts
 5015 240-pe1 International Core Interchange Fonts
 5018 300-pe1 Latin 1 Core Interchange Fonts
 5021 300-pe1 International Core Interchange Fonts
 5033 4028 Font Metrics
 6000 IBM Compatibility Fonts

Please refer to HONE announcements 294-692 and 295-691 for further information.

- **Note:**

- 1. To provide full EURO support, the 5648-113 V1R1.0 AFP Font Collection has been replaced by 5648-B33 V2R1.0 AFP Font Collection. Please refer to HONE announcement 398-107 for additional information.*
- 2. The PSF Compatibility Fonts Component does not provide EURO support.*

In April of 1993 the PSF Compatibility Fonts Component was modified to include all the code pages required to support the Compatibility Fonts, IBM Core Interchange Fonts, 4028 Metric Fonts and a number of separately orderable Font Licensed Products (e.g. 57710ABA Sonoran Serif).

With the exception of a series of keyboard code pages for keyboards that are no longer supported by IBM, these code pages are provided with other IBM Products.

- **Note:** Code pages all have a filename which begins with the characters 'T1'.

If the 5648-113 V1R1.0 or 5648-B33 V2R1.0 of the AFP Font Collection has already been installed, there is no requirement to install the PSF Compatibility Fonts. The installation of the Fonts component can be bypassed by creating a PPF override file for PSF. Please refer to GC24-5837 VM/ESA VMSES/E Introduction and Reference manual for information on creating a PPF override file.

- **Note:**
 1. *The default installation disk for the AFP Font Collection is PSFMAINT 194. The default installation disk for the PSF Compatibility Fonts Component is PSFMAINT 294. If the default installation disks for these two Font deliverables are utilized, the installation of the PSF Compatibility Fonts Component will not overlay the AFP Font Collection.*
 2. *If the AFP Font Collection is installed to the default installation disk, PSFMAINT 194, the sample VM Directory entries for the PSF Service Machines must be modified to LINK the PSFMAINT 194 instead of the PSFMAINT 294.*

6.1.11.15 Print Service Facility (PSF) Semi-VMSES/E Module Generation

All the modules associated with PSF were generated without Shared Segments on a z/VM V3R1.0 system at Service Level RSU0101 utilizing Language Environment (LE) V1R1.8 at RSU0101. This level of PSF should be compatible with z/VM V4R2.0 with Language Environment V1R1.8 at Service Level RSU0101 or greater.

The AFP Presentation Conversion and Indexing Facility modules, APKACIF and APKACIFK, were generated to execute in virtual memory of greater than 16M. However, problems have been reported at this service level with the execution of these modules in virtual memory greater than 16M. This may occur in any Virtual Machine which has a virtual machine size of greater than 16M. As a result it is recommended that these modules only be executed from Virtual Machines with a virtual machine size of 16M or less.

- **Note:** *For information on regenerating these modules to execute in a Virtual Machine with a virtual machine size of greater than 16M, please refer to the subsection 'Print Service Facility (PSF) Semi-VMSES/E AFP Module Generation'.*

For information on Shared Segment generation, please refer the subsection 'DCSS Information'.

6.1.11.16 Print Service Facility (PSF) Semi-VMSES/E Migration Consideration

If you are migrating from a version of PSF V2R1.1 that is installed on a lower level of VM/ESA (e.g. VM/ESA V1R1.2), the following should be considered:

- **PSF System, SFCM and PDM Configuration Files** - The format and content of the PSF Configuration Files (e.g. *OPTIONS SFCM*, *OPTIONS PDM*, *OPR SFCM*, *OPR PDN*, *OPRMSG SFCM*, *SYSTEM AFPOPTS*, *F1IBM AFPOPTS*, ...) have not changed. Existing Configuration Files should be able to be utilized.
 - **Note:** If existing 'OPTIONS' Files are utilized, please review the VM Directory entries for the Service Machines to insure that the disk addresses specified in the 'OPTIONS' Files match the addresses utilized on the LINK statements in the Directory entries.
- **SFCM and PDM PROFILES** - Existing PROFILE EXEC/GCS files should be able to be utilized.
 - **Note:** If existing 'PROFILE' Files are utilized, please review the VM Directory entries for the Service Machines to insure that the disk addresses specified in the 'PROFILE' Files match the addresses utilized on the LINK statements in the Directory entries.
- **SFCM and PDM Initialization EXECs** - Recent Service has modified the EXECs (*APRPDMEA*, *APRPDMES*, *APRSCHEC* ...) that are invoked by the SFCM and PDM PROFILES to initialize PSF. If these execs have been modified, the modifications will have to be incorporated into the new version of the EXECs.
- **PSF Exits** - All exit modules should be regenerated / re-linked utilizing this Service Level of PSF.

APARS PN83888 and PN86626 modified the APRSEPEC module, the SFCM separator page exit routine, to accommodate 4 digit years for YR2000 compatibility. Fields SPFCDATE and PDMPDATE were changed from c18 to c10.

APAR PQ21057 modified the APRFTBLB module, Group 4 Resident FONT Table, to provide additional code pages for EURO support.

The PTF UQ23768 (APARs PQ21549 and PQ18828) provided an updated source for the exits APRSEPEC and APRRECEC, and PTF UQ23384 (APAR PQ21057) provided an updated source for the exit APRFTBLB. The updated source files all have a filetype of ASSEMBLE.

If these exits have been modified, the changes introduced by the above APARs may have to be incorporated into the modified exits. Any routines that utilize these exits may also have to be modified to accommodate the changes.

The text from the APARs associated with these updated exits has been included on the PSFMAINT 319 disk in files with a filename of APARTEXT and a filetype equal to the APAR number (e.g. PQ21549). These files should be carefully reviewed prior to making any modifications.

- **Note:** PTF UQ23384 (APAR PQ21057) added new code pages to provide EURO support to APRFTBL, Group 4 Resident Font Table. The Group 4 txtlib, PSFGRP4 TXTLIB, and loadlib, PSFGRP4 LOADLIB, as delivered are built WITH the code pages required to provide EURO support. If EURO support is NOT required, the Group 4 txtlib and loadlib may be rebuilt. A text deck, APRFTBLB ORIGTEXT, which does not include the new EURO code pages has been provided on the PSF Program Disk, PSFMAINT 291. This file may be renamed to APRFTBLB

TEXT and utilized to rebuilt the Group 4 txtlib and loadlib. (A text deck, APRFTBLB EUROTTEXT which does include the new EURO code pages has also been provided.)

The exit MODULES may be created either by executing the PSF Service Execs or by issuing the LOAD and GENMOD commands. Additional information on the generation of exits may be found in the PSF/VM Systems Programmer's Guide S544-3680, 'Chapter 8 Installation Exit Routines'.

- **PSF Font Disk** - *If EURO support is NOT required, an existing Fonts disk without 5648-B33 V2R1.0 AFP Font Collection may be utilized. If full EURO support is required, 5648-B33 must be installed.*
 - **Note:** *If the existing Font Disk is NOT the PSFMAINT 294, the sample VM Directory entries for the PSF Service Machines must be modified to correctly LINK the Font Disk.*

6.1.11.17 Print Service Facility (PSF) Semi-VMSES/E Customization / Enablement

In order to enable the PSF code, the PSF Spool File Conversion Machine (SFCM) ID and the required Printer Driver Machine (PDM) IDs must be created. The recommended IDs are in listed in Figure 10.

Figure 10. PSF Default Service Machine IDs

Service Machine Description	Default Service Machine ID
Spool File Conversion Machine (SFCM)	SFCM1
Group4 Printer Driver Machine (PDM)	PDMGRP4
Group3 Printer Driver Machine (PDM)	PDM0490
3800 Printer Driver Machine (PDM)	PDM470
3820 Printer Driver Machine (PDM)	PDMREM1

Information on the Default Service Machine minidisk requirements may be found in (Appendix C, "DASD Requirements").

In addition to the creation of the IDs, the PSF Control Files, the PSF Code and your VM/ESA System definition may have to be customized dependent upon your requirements.

Information on required customization is found in PRGDIR616L Program Directory for Print Services Facility Version 2 for VM and S544-3680 Print Services Facility/VM: System Programming Guide

When reviewing this documentation, the following should be taken into consideration:

- **Service Machine Definitions** - *The initial virtual machine size and the Service Machine 191 disk size specifications provided in the sample VM Directory entries provided with the 'VM/ESA SDO Enabling Feature' and in this SDO Program Directory are the recommended minimum sizes.*

These sizes may differ from those listed in PRGDIR616L Program Directory for Print Services Facility Version 2 for VM

Your environment must be analyzed to determine the actual minimum requirements. Guidelines on the actual disk requirements may be found in 'Appendix E. Additional Workspace' in PRGDIR616L Program Directory for Print Services Facility Version 2 for VM.

In addition, all references to 'MACHINE 370' and the following two parameters which had previously been included on the 'OPTION' statement for several Service Machine entries have been removed from the entries as they are not supported under VM/ESA V2R3.0 or above:

- ECMODE
- BMX

- **Note:** Although 'MACHINE 370' is not allowed, 370 Mode operation may be simulated through the use of the command 'SET 370ACCOM ON'. To run the GROUP 3 PDM, PDM0490, under CMS requires that 370 Mode simulation be turned on. The 'SET 370ACCOM ON' command must be issued prior to starting the PDM.

- **PSF Service Machine Which Utilize GCS** - In order for a service machine to IPL GCS it must be identified to GCS as an authorized user.

The PDM Service Machines that can only operate under GCS are:

- PDMREM1 - 3820 PDM
- PDMGRP4 - Group 4 PDM

The Group 3 PDM, PDM0490, can optionally run under either CMS or GCS.

For additional information on how to authorize a service machine or segment to GCS, please contact your VM/ESA Base Support organization.

- **SYSTEM NETID File** - The default location for the SYSTEM NETID file utilized by the startup 'execs' that initialize the GCS PSF Service Machines is the MAINT 190 (System) disk. If the SYSTEM NETID file is not on the MAINT 190, the 'SYSNET' parameter of the startup exec may be utilized to specify the address of the disk that contains the SYSTEM NETID file.

For example, the following invocation of the startup exec for a Group4 PDM specifies that the SYSTEM NETID file is found on the disk accessed at 19E.

exec APRPDMEB SYSNET 19E

The startup execs for the GCS machine use the following command to access the disk that contains the SYSTEM NETID file:

access netdiskaddr B/B SYSTEM NETID

Where 'netdiskaddr' is the disk address.

The ACCESS command in this format allows only the SYSTEM NETID file to be 'viewed'. All other files on the 'B' disk are 'hidden' and cannot be read. As a result, if other files on the disk that contains the SYSTEM NETID are required the disk must be accessed at another file mode (e.g. 'Y').

Note: GCS initialization does not normally access the MAINT 19E disk. If files on the MAINT 19E are required, the PROFILE GCS for the Service Machine may have to be modified to access the MAINT 19E.

- **PSF Service Machine Sample Option Files and PROFILE EXEC/GCS Files** - The sample option files and PROFILES for the PSF Service Machines have been placed on PSFMAINT's 391, 491, 591, 691 and 791 minidisks.

The sample option files and PROFILES provided with the PSF product are as follows:

– *SFCM1 (Spool File Conversion) Service Machine*

OPTIONS SFCM - Sample 'OPTIONS SFCM' File
 OPRMSG SFCM - Sample 'OPRMSG SFCM' File
 OPR SFCM - Sample 'OPR SFCM' File
 PROFILE EXEC - Sample 'PROFILE EXEC' File

– *PDMGRP4 (Group 4) Service Machine*

OPTIONS PDM - Sample 'OPTIONS PDM' File
 for the Group4 Printer
 OPTIONS GRP4SNA - Sample 'OPTIONS GRP4' Taskprtid File
 for SNA Attached Printers
 OPTIONS GRP4CHAN - Sample 'OPTIONS GRP4' Taskprtid File
 OPRMSG PDM - Sample 'OPRMSG PDM' File
 OPR PDM - Sample 'OPR PDM' File
 FORM PDM - Sample 'FORM PDM' File
 PROFILE GCS - Sample 'PROFILE GCS' File

– *PDM0490 (Group 3) Service Machine*

OPTIONS GRP3CHAN - Sample 'OPTIONS PDM' File
 for Channel Attached Printers
 OPTIONS GRP3SNA - SAMPLE 'OPTIONS PDM' FILE
 for a SNA Attached Printer
 OPRMSG PDM - Sample 'OPRMSG PDM' File
 OPR PDM - Sample 'OPR PDM' File
 FORM PDM - Sample 'FORM PDM' File
 PROFGRP3 EXEC - Sample 'PROFILE EXEC'
 PROFGRP3 GCS - Sample 'PROFILE GCS'

– *PDM470 (3800 Printers) Service Machine*

OPTIONS PDM - Sample 'OPTIONS PDM' File
 OPRMSG PDM - Sample 'OPRMSG PDM' File
 OPR PDM - Sample 'OPR PDM' File
 FORM PDM - Sample 'FORM PDM' File
 PROFILE EXEC - Sample 'PROFILE EXEC'

– *PDMREM1 (3820 Printers) Service Machine*

OPTIONS PDMRSCS - Sample 'OPTIONS PDM' File
 for RSCS Attached Printers
 OPTIONS PDM3820 - Sample 'OPTIONS PDM' File
 for the 3820 Printer
 OPRMSG PDM - Sample 'OPRMSG PDM' File
 OPR PDM - Sample 'OPR PDM' File
 FORM PDM - Sample 'FORM PDM' File
 PROFILE GCS - Sample 'PROFILE GCS'

These files must be customized for your environment. Please refer to Chapter 5 of the S544-3680 PSF/VM System Programming Guide for complete instructions on how to customize the options files.

Once the files are customized/renamed they may be copied to the PSF Service Machine's 191 utilizing the VMFCOPY command.

For example, to copy the customized files for the Spool File Conversion Machine, the following commands issued under the PSFMAINT ID may be utilized:

link MAINT 5E5 5E5 rr

access 5E5 b

link MAINT 51D 51D mr

access 51D d

access 391 g

link SFCM1 191 777 mr

access 777 h

vmfcopy * * g = h (prodid \$5684141%PSFVMPRD replace oldd

In addition to the above files, the following AFP OPTIONS files which are found on the PSF Resource Disk should be customized/renamed and copied to the appropriate disks (e.g. SFCM1's 191) as shown in Figure 11.

Figure 11. System AFP OPTIONS Files

Delivery Name	Production Name	Contents
SYSTEM AFPOPTS	SYSTEM OPTIONS	Sample System PSF 'OPTIONS' File
CLASSA AFPOPTS	class OPTIONS	Sample Print Class 'OPTIONS' File
F1IBM AFPOPTS	form OPTIONS	Sample Formname 'OPTIONS' File

- **PSF Exits** - The sample files for the exits supported by PSF are provided on the PSF Resource Disk. The sample files originally delivered with PSF all have a filetype of 'EXAMPLE'.

The PTF UQ23768 (APARs PQ21549 and PQ18828) provided an updated source for the exits APRSEPEC and APRRECEC, and PTF UQ23384 (APAR PQ21057) provided an updated source for the exit APRFTBLB. The updated source files all have a filetype of ASSEMBLE.

These sample source files may be customized as required and utilized to create the TEXT files needed for the generation of the exit MODULES.

The text from the APARs associated with these updated exits has been included on the PSFMAINT 319 disk in files with a filename of APARTEXT and a filetype equal to the APAR number (e.g. PQ21549). These files should be reviewed prior to any customization.

- **Note:** PTF UQ23384 (APAR PQ21057) added new code pages to provide EURO support to APRFTBL, Group 4 Resident Font Table. The Group 4 txtlib, PSFGRP4 TXTLIB, and loadlib, PSFGRP4 LOADLIB, as delivered are built WITH the code pages required to provide EURO support. If EURO support is NOT required, the Group 4 txtlib and loadlib may be rebuilt. A text deck, APRFTBLB ORIGTEXT, which does not include the new EURO code pages has been provided on the PSF Program Disk, PSFMAINT 291. This file may be renamed to APRFTBLB

TEXT and utilized to rebuilt the Group 4 txtlib and loadlib. (A text deck, APRFTBLB EUROTTEXT, which includes the new EURO code pages has also been provided.)

The exit MODULES may be created either by executing the PSF Service Execs or by issuing the LOAD and GENMOD commands as follows:

load TEXT-FILE-NAME (rldsave

genmod

The use of the above commands will cause the created MODULE to be placed on the PSFMAINT A-disk. If the recommended access order is utilized for the creation of the MODULES, the A-disk is a work disk and the MODULES must be moved after they have been created to a disk that is linked and accessed by the PSF Service Machines (e.g. the PSF Program Disk)

For additional information on the generation of exits please see the PSF/VM Systems Programmer's Guide S544-3680, 'Chapter 8 Installation Exit Routines'.

- **PSFQUERY EXEC** - A sample PSFQUERY EXEC is delivered on the PSF Program disk. This exec may be customized as required for your environment.
- **PSF Command & ACIF/AFP API Modules** - The PSF Command and the ACIF/AFP modules are delivered on PSFMAINT's 29E disk. These may be copied to the System Common Disk (e.g. MAINT 19E) utilizing the VMFCOPY command as follows:

link MAINT 5E5 5E5 rr

access 5E5 b

link MAINT 51D 51D mr

access 51D d

access 29E g

link MAINT 19E 39E mr

access 39E h

vmfcopy * * g = h (prodid \$5684141%PSFVMPRD replace oldd

6.1.11.18 Print Service Facility (PSF) Semi-VMSES/E Service Application

Figure 12 provides the disks required for the application of service and the recommended access modes:

Figure 12. PSF Service Disk Access Order

Address	Disk Definition / Contents	Access Mode
555	PSF Service and Verification EXECs	C
291	PSF Programs	D
293	PSF Resources	E
29E	PSF Command & ACIF/AFP API Modules	L

When service is applied, the disk addresses to be utilized may be entered manually or through the use of PSF Control Files.

Default PSF Control Files which specify the above disk addresses have been provided. If the PSF Control Files are utilized and PSF has been installed on disks other than the above, the PSF Control Files must be modified to reflect the installation disk addresses.

Service for each component of PSF is provided separately. As a result, each component of PSF has a different service exec as shown in Figure 13.

Figure 13. PSF Service EXECs

ccc	Component Name	Service Exec	Control File
2B6	PSF Command	PTFSERP	PSFCMD
210	Print Services (SFCM)	PTFSERVB	PSFBASE
2BB	Group4 PDM	PTFSERVL	PSFGRP4
2B9	Group3 PDM	PTFSERVA	PSFGRP3
2B7	3800 PDM	PTFSERVS	PSF3800
2B8	3820 PDM	PTFSERVV	PSF3820
111	AFP ACIF	PTFSERVK	PSFACIF
113	AFP API	PTFSERVQ	PSFAPI

• **Note:**

1. The 'ccc' in the above table is the Retain Release identifier that is used to identify each component.
2. The PSF Component '2B9 Group3 Attach Support' provides support for both 370 Channel Attached Printers and Remotely Attached Printers. The Group 3 component was built for both of these. It is a requirement that if the Group 3 component is serviced that the modules for both of these be rebuilt.
3. If a single APAR effects multiple components of PSF, a separate PTF will be generated for each component (i.e. 'ccc'). All PTFs associated with the APAR must be applied. Failure to do so may cause unpredictable results when PSF is executed.
4. The service exec, PTFSERVQ, for the AFP API component of PSF, erroneously outputs the message 'YOU MUST HAVE THE C370 LIBRARIES ACCESSED NOW'. The requirement for the C370 Libraries has been removed and C370 is no longer required to support PSF. The exec however has never been updated to remove the message.
5. The AFP Presentation Conversion and Indexing Facility modules, APKACIF and APKACIFK, are generated by the service exec to be able to execute in virtual memory greater than 16M. However, problems have been reported at this service level when these modules have been executed in virtual memory greater than 16M. The problems may occur in any Virtual Machine with a virtual machine size of greater than 16M.

For information on regenerating these modules to execute in a Virtual Machine with a virtual memory size of greater than 16M, please refer to the section Print Service Facility (PSF) Semi-VMSES/E AFP Module Generation

For detailed information on the application of service and the rebuild of the PSF Modules, please refer to PRGDIR616L Program Directory for Print Services Facility Version 2 for VM

6.1.11.19 Print Service Facility (PSF) Semi-VMSES/E AFP Module Generation

To allow for the execution of the AFP Presentation Conversion and Indexing Facility modules, APKACIF and APKACIFK, at this service level in a Virtual Machine with a virtual machine size of greater than 16M, the modules must be regenerated so that they can only be loaded in virtual memory below 16M.

This can be accomplished by replacing line 283 as follows in the AFP Presentation Conversion and Indexing Facility (ACIF) service exec, PTFSERVK:

Call tracecmd 'LOAD' textfn '(NOINV NOAUTO RESET' WORD(textfn,1) modopts

with the following two lines:

loadopts='(NOINV NOAUTO RESET' WORD(textfn,1) modopts 'AMODE 31 RMODE 24'

Call tracecmd 'LOAD' textfn loadopts

and re-executing the exec in the following format:

PTFSERVK BUILD

6.1.11.20 DCSS Information

The PSF segments are listed in Figure 14.

Figure 14. PSF Segments

Component Name	Segment	Service Exec	Control File
PSF Command	APRPSFC4	PTFSERVV	PSFCMD
Print Services (SFCM)	APRSFCM4	PTFSERVB	PSFBASE
Group4 PDM	APRGRP44	PTFSERVL	PSFGRP4
	DCKVTBL4		
Group3 Channel Attach PDM	APRGP34A	PTFSERVA	PSFGRP3
Group3 Remote Attach PDM	APRGP34D	PTFSERVA	PSFGRP3
	DCKVTBL4		
3820 PDM	APRCALL4	PTFSERVV	PSF3820
	DCKVTBL4		
AFP ACIF	APKSMAN	PTFSERVK	PSFACIF
AFP API	APQTKMOD	PTFSERVQ	PSFAPI

Notes:

1. The Segment sizes provided in Figure 14 are the required sizes. In some instances the sizes differ from those listed in *PRGDIR616L Program Directory for Print Services Facility Version 2 for VM*. This is the result of service which has increased the size of the segments.
2. If a PDM is not going to be utilized on a system then the associated segment(s) should not be built.
3. The segment for the AFP Presentation Conversion and Indexing Facility, APKSMAIN, must be defined below the 16M line for this service level of PSF.
4. If the segment for the Group4 PDM, APRGRP44, is installed it must be authorized to GCS as a valid 'GCS' segment. If the segment is permanently deleted, the segment must be removed as a valid GCS segment.
5. The Group3 PDM provides support for both 370 Channel Attached Printers and Remotely Attached Printers. Each type of Printer support has a separate segment associated with it (APRGP34A for Channel Attached and APRGP34D for Remotely Attached). It is NOT a requirement that if one of these segments is built that the other must also be built.
6. The segment DCKVTBL4 is a common segment used by all 3 PDM types and only has to be defined once. For example, if both the Group4 and Group3 PDMs are to be utilized and the Group4 segments are built first, then the build of the DCKVTBL4 segment may be 'by passed' when the Group3 segments are built.
7. The 3800 PDM does not have a segment associated with it.

Prior to the generation of the segments, the segment space must be defined. Please note that the segment range should be based on the segment layout as defined in the SDO Program Directory. See Appendix D, "Saved Segments" on page 211 for more information. The following commands may be utilized to define the segments, replacing the word location with the default VM/ESA SDO recommended locations defined in the above mentioned table:

- *PSF Command*
cp defseg APRPSFC4 location SR
- *Print Services (SFCM)*
cp defseg APRSFCM4 location SR
- *Group4 PDM*
cp defseg APRGRP44 location SR
cp defseg DCKVTBL4 location SR
- *Group3 Channel Attach PDM*
cp defseg APRGP34A location SR
- *Group3 Remote Attach PDM*
cp defseg APRGP34D location SR
cp defseg DCKVTBL4 location SR

- 3820 PDM
 - cp defseg APRCALL4** location **SR**
 - cp defseg DCKVTBL4** location **SR**
- *AFP Presentation Conversion and Indexing Facility (ACIF)*
 - cp defseg APKSMAN** location **SR**
- *AFP Application Programming Interface (AFP API)*
 - cp defseg APQTKMOD** location **SR**

PSF Segments are generated through the execution of the component's service exec. After the PSF disks have been accessed as required for the application of service, the required service exec may be invoked with the following command:

exec service-exec-name build trace

where:

'service-exec-name' is the Service EXEC for the PSF Component

For additional information on the Service Execs and the disks required for segment generation please refer to the subsection 'Print Service Facility (PSF) Semi-VMSES/E Service Application'.

Notes:

1. If the PSF Control Files are utilized, the preset answer to the question asking whether the segment for the component is to generated must be changed from 'NO' to 'YES'.
2. It is recommended that prior to the generation of the PSF segments that all PSF service machines (i.e. SFCM1, PDM0490, PDMGRP4, PDM470 and PDMREM1) be taken down (i.e logged off) and that they remain down until after the segment generation is complete.
3. For detailed information on the generation of PSF Segments and the PSF Service Execs please refer to *PRGDIR616L Program Directory for Print Services Facility Version 2 for VM*

6.1.11.21 Verification

For detailed information on the verification of PSF installation please refer to PRGDIR616L Program Directory for Print Services Facility Version 2 for VM

6.1.12 5684-160 CALLUP V1R3.1

6.1.12.1 PUT/RSU/ESO Applied

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

6.1.12.2 Service Excluded

None.

6.1.12.3 Pre-Requisite Service

None.

6.1.12.4 Co-Requisite Service

None.

6.1.12.5 If-Requisite Service

None.

6.1.12.6 Product Manuals

Form Number	Publication Title
GC66-0603	Licensed Program Specifications
GC66-0606	CallUp General Information Manual
SC66-0600	CallUp User's Guide
SC66-0601	CallUp Installation and Reference Guide
SC66-0602	CallUp User's Reference Summary

6.1.12.7 Installation

Note: *A complete CALLUP installation consists of a test system and a production system. The test system is a staging area for making changes to your CALLUP application before actually effecting these changes on your production system.*

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (PLAN NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (NOMEMO NOLINK ENV envelope_filename

Before installation of your CALLUP test system, make sure the 192 disk of the userid CALLTEST has the label CALLMD, and the 193 disk of the same userid has the label CALLUP. If the labels are different, do the following to change the labels:

- Logon to the userid CALLTEST.
- Link and Access the CALLTEST 192 minidisk.
- Issue the command:

format 192 <fm> (label

where <fm> is the filemode that you have the CALLTEST 192 minidisk accessed as.

- You will be prompted to enter the new label for the minidisk. Enter:

callmd

Repeat the above steps for minidisk 193 and label it CALLUP.

Installing the CALLUP Test System:

Warning: Ensure that all minidisks required by this Licensed Product are not linked R/W by any user ID including the user ID where this Licensed Product is being installed from. For production minidisk information refer to Appendix C, "DASD Requirements" on page 197 or for test minidisk information refer to Figure 2 on page 28.

To install CALLUP to the CALLTEST and CALLADM userids, issue the command:

vmfins install ppf \$5684160 callupprd (nomemo

Once you have completed the installation of your CALLUP test system, you will need to install this release of CALLUP into your production system. Further instructions for getting started with CALLUP, customization, and implementing your production system are contained in the CALLUP/VM Installation and Reference manual, in the section entitled "Part 2. Installing and Customizing".

For customization, the USERPROF EXEC on 191 disk of userid CALLTEST has to be created. A sample profile is available as USERPROF CALLUP.

If you need to apply service to your CallUp installation, refer to the Program Directory for CallUp, in the section entitled "Service Instructions".

6.1.12.8 DCSS Information

For information on how to install Execs and Xedit Macros in saved segments, please refer to the chapter entitled "Improving CALLUP Performance", in the CALLUP/VM Installation and Reference manual.

6.1.12.9 Verification

Refer to the Program Directory for CallUp, in the section entitled "Verifying the Installation" for the CallUp installation verification procedure.

6.1.13 5688-188 C/370 COMMON LIBRARY V1R2.0

6.1.13.1 PUT/RSU/ESO Applied

The product is at service level PUT9405.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

6.1.13.2 Service Excluded

None.

6.1.13.3 Pre-Requisite Service

None.

6.1.13.4 Co-Requisite Service

None.

6.1.13.5 If-Requisite Service

None.

6.1.13.6 Product Manuals

6.1.13.7 Installation

Warning: *Ensure that all minidisks required by this Licensed Product are not linked R/W by any user ID including the user ID where this Licensed Product is being installed from. For production minidisk information refer to Appendix C, "DASD Requirements" on page 197 or for test minidisk information refer to Figure 2 on page 28.*

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (PLAN NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (NOMEMO NOLINK ENV envelope_filename

To install this product onto a test disk issue:

vmfins install ppf \$5688082 comlib (nomemo

To install this product onto the production disk issue:

vmfins install ppf \$5688082 comlibprd (nomemo

To install this product into the SFS test directory issue:

vmfins install ppf \$5688082 comlibsfs (nomemo

To install this product into the SFS production directory issue:

vmfins install ppf \$5688082 comlibsfsprd (nomemo

If you have installed the product onto a test disk, use **VMFCOPY** to copy the files to your production disks once you have completed your testing.

- **Note:** Only files with a file mode of '1' or a file mode of '2' are required to utilize the IBM Common Library, including the installation verification routines. Files with a file mode of '0' do not have to be copied.

Update the VMSES/E System Inventory files using the following commands:

```
vmfsim modify vm sysrecs d tdata :prodid 5688082 :ppf 5688082 base :stat received vmfsim modify  
vm sysapps d tdata :prodid 5688082 :ppf 5688082 base :stat applied vmfsim modify vm sysreqt d  
tdata :prodid 5688082
```

For additional information about the System Inventory files and the VMFSIM command see the VMSES/E Introduction and Reference (SC24-5444).

6.1.13.8 Steps to Service the Common Library

1. Define a 20 cylinders temporary mdisk and access as filemode A.
2. Place the service to be added on the A disk.
3. Link the disk containing the Common Library code in read/write mode and access as filemode B.
4. Issue the following command:

i5688082

5. Choose the **SERVICE** option when prompted.
6. Answer **YES** when asked if you wish to continue.
7. Use the default for the **TXTLIB** and **LOADLIB** names.

6.1.13.9 DCSS Information

None.

6.1.13.10 Verification

*The installation verification procedure may be run by accessing the Common Library disk and issuing the command: **i5688082 verify***

6.1.14 5688-190 PPFA V1R1.0

6.1.14.1 PUT/RSU/ESO Applied

The product is at service level PUT9401.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

6.1.14.2 Service Excluded

None.

6.1.14.3 Pre-Requisite Service

None.

6.1.14.4 Co-Requisite Service

None.

6.1.14.5 If-Requisite Service

None.

6.1.14.6 Product Manuals

Form Number	Publication Title
S544-5284	PPFA/370: User's Guide
G544-3696	PPFA/370: Licensed Program Specifications
G544-3701	PPFA/370: Command Quick Reference
S544-3766	Data Stream and Object Arch: Bar Code Object Content Arch

6.1.14.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (PLAN NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (NOMEMO NOLINK ENV envelope_filename

Note: *Ensure that all minidisks required by this LP are not linked R/W by any userid including the userid where this LP is being installed from.*

The website www.printers.ibm.com is a useful website for more information about IBM printing products.

To install this product onto a test disk issue:

vmfins install ppf \$5688190 ppfa (nomemo

To install this product onto the production disk issue:

vmfins install ppf \$5688190 ppfaprd (nomemo

To install this product into the SFS test directory issue:

vmfins install ppf \$5688190 ppfasfs (nomemo

To install this product into the SFS production directory issue:

vmfins install ppf \$5688190 ppfasfsprd (nomemo

*If you have installed the product onto a test disk, use **VMFCOPY** to copy the files to your production disks once you have completed your testing.*

Two execs are used for applying service to PPFA:

- *For applying PUT Tape Service:*

5688190

- *For applying Corrective Service:*

c5688190

6.1.14.8 DCSS Information

None.

6.1.14.9 Verification

To verify installation, link and access the MAINT 363 disk and issue:

v5688190

6.1.15 5688-228 APL2 V2R2.0

6.1.15.1 PUT/RSU/ESO Applied

The product is at service level PUT9405.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

6.1.15.2 Service Excluded

None.

6.1.15.3 Pre-Requisite Service

None.

6.1.15.4 Co-Requisite Service

None.

6.1.15.5 If-Requisite Service

None.

6.1.15.6 Product Manuals

Form Number	Publication Title
GH21-1051	APL2 General Information
GH21-1070	APL2 Licensed Program Specifications
GH21-1090	APL2 Fact Sheet
SH21-1062	APL2 Installation and Customization under CMS
SH21-1069	APL2 Migration Guide
SH21-1061	APL2 Programming: Language Reference
SH21-1058	APL2 Programming: Processor Interface Reference
SH21-1054	APL2 Programming: System Services Reference

Form Number	Publication Title
SH21-1071	APL2 Reference Card
SX26-3999	APL2 Reference Summary
SH21-1073	An Introduction to APL2
SH21-1074	APL2 GRAPHPAK: User's Guide and Reference
SH21-1072	APL2 Programming: Guide
SH21-1057	APL2 Programming: Using Structured Query Language (SQL)
SH21-1056	APL2 Programming: Using the Supplied Routines
SH21-1059	APL2 Messages and Codes
LY27-9601	APL2 Diagnosis

6.1.15.7 Installation

6.1.15.8 Planning for the Installation of APL2

Before installing APL2, ensure that the directory entry for the APL2 Maintenance ID 'APL2PP' has been defined and the required minidisks for the APL2PP and MAINT IDs defined and formatted. Please refer to the Appendix C, "DASD Requirements" on page 197 of the SDO Program Directory for information on the required disk allocations.

For additional planning information, please see Chapter 2 'Planning the Installation of APL2' in the APL2 Installation and Customization under CMS manual.

To take advantage of running APL2 in segments you will have to Customize APL2. For additional customizing information, please see Chapter 3 'Installing APL2' in the APL2 Installation and Customization under CMS manual.

6.1.15.9 Load of APL2 Code from Tape

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (PLAN NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (NOMEMO NOLINK ENV envelope_filename

As delivered, the 5688-228 APL2 V2R2.0 Licensed Product contains both 5688-228 APL2 and 5688-229 APL2 Application Environment (AE). As a result when 5688-228 APL2 V2R2.0 is installed, both 5688-228 APL2 and 5688-229 APL2/AE will be installed.

- Although APL2 may be installed from any ID that has write access to the require minidisks, it is recommended that the installation be performed from the MAINT ID.
- If APL2 is to be installed directly on the default production minidisk (APL2PP 191), the installation cannot be performed from the APL2 Maintenance ID APL2PP.
 - **Note:** The ID that is utilized for the default installation must have READ access to the MAINT 5E5; and WRITE access to the MAINT 51D, MAINT 319 and APL2PP 191.

After logging onto the installation ID and mounting the APL2 Product tape at virtual address 181, the following steps/commands may be utilized to install APL2:

- Install the APL2 code:
 - Onto the Production minidisk:
vmfins install ppf \$5688228 apl2prd (nomemo
 - Onto the SFS Production directory:
vmfins install ppf \$5688228 apl2prd (nomemo
 - Onto the Test minidisk:
vmfins install ppf \$5688228 apl2 (nomemo
 - Onto the SFS Test directory:
vmfins install ppf \$5688228 apl2 (nomemo
- **Note:** If desired, the default installation disk addresses may be altered by creating a PPF override file for APL2. Please refer to the GC24-5837 VM/ESA VMSES/E Introduction and Reference manual for information on creating a PPF override file.

6.1.15.10 Completion of APL2 Installation

The previous installation steps are designed to load the APL2 code from the Product Tape. Following the successful completion of the load, the APL2 code will have been placed on the APL2 Maintenance disk utilizing the following parameters:

- The APLSCOPT TEXT is not included.
- APL2's GDDM support is included (for V3R2.0 of GDDM/VM)
- APL2's DB2 support is included (for V7R2.0 of DB2/VM)
- No 3800 Fonts are included

Following the successful load, additional Install Steps are required to place the APL2 code into Production. For the required steps, please refer to Chapter 3 'Installing APL2' in the APL2 Installation and Customization under CMS manual.

The steps outlined in Chapter 3, must be modified as follows:

- All customization of APL2 should be performed on the APL2 Maintenance ID. The default APL2's Control Files delivered with APL2 are setup to utilize the APL2 Maintenance ID's 191 as the APL2 maintenance disk.

Unless a PPF override file is generated, the 'VMFINS INSTALL' will place the APL2 Code on the APL2PP ID's 191 minidisk.

- Step 3 can be skipped since the the Installation Exec and Memo have already been loaded via the VMFINS commands previously.
- As the APL2 code has been already loaded, the following procedures outlined in Step 4 'Perform Default or Customized Installation (Required)' are not required and MUST NOT BE PERFORMED:
 - Under 'Performing Default Installation', the following must not be performed:

```
For APL2
I5688229  INSTALL
For APL2 Application Environment
I5688229  INSTALL
```

- Under 'Performing Customized Installation' SubStep 1 must not be performed:

```
1. Prepare for the customization process by invoking
the APL2 installation EXEC with
For APL2
I5688229  INSTALL
For APL2 Application Environment
I5688229  INSTALL
```

- Under 'Performing Customized Installation' SubStep 5 'Gain access to GDDM, QMF, SQL/DS, and VS APL text decks' incorrectly lists the text decks required for DB2 QMF. For the current available levels of QMF the following text decks are required to support APL2's QMF interface:

1. DSQCIA TEXT
2. DSQCLOD2 TEXT
3. DSQVMCVP TEXT
4. DSQCLIBD TEXT

6.1.15.11 Servicing of APL2

For information on servicing APL2, please review the section 'Maintaining APL2' in Chapter 6 'Administering the APL2 Environment' in the APL2 Installation and Customization under CMS manual.

6.1.15.12 DCSS Information

As installed, the AP2LOCAL NAMES file is defined to only load the APL2 High Segment, AP2V22W1, and the APL2 Global Shared Storage Segment, AP2SM22. Please note that the segment range is based on the segment layout as defined in the SDO Program Directory. For information on the segment layout, please see Appendix D, "Saved Segments" on page 211

To take advantage of running APL2 in segments you will have to Customize APL2.

For additional APL2 segment information, please refer to Chapter 2: 'Planning the Installation of APL2' and Chapter 3 'Installing APL2' in the APL2 Installation and Customization under CMS manual.

6.1.15.13 Verification

If a 'Customized Installation' of APL2 is performed, the installation verification for APL2 is automatically run as the final step in the execution of the 'I5688228 GENERATE' (APL2) or 'I5688229 GENERATE' (APL2/AE) commands.

Standalone verification of APL2 and APL2/AE can be performed by executing the installation verification exec:

- V5688228 == APL2 Verification
 - V5688229 == APL2/AE Verification
-

6.1.16 5697-F42 DB2 RXSQL V7R1.0

6.1.16.1 PUT/RSU/ESO Applied

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

6.1.16.2 Service Excluded

None.

6.1.16.3 Pre-Requisite Service

None.

6.1.16.4 Co-Requisite Service

None.

6.1.16.5 If-Requisite Service

None.

6.1.16.6 Product Manuals

Form Number	Publication Title
SC09-2891	DB2 REXX SQL for VM/ESA Installation and Reference

6.1.16.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (PLAN NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (NOMEMO ENV envelope_filename

Note: *Ensure that all minidisks required by this product are not linked R/W by any userid, including the userid that this product is being installed from.*

To install this product onto a test disk issue:

- **vmfins install ppf B5697F42 db2 (nomemo**

To install this product onto the production disk issue:

- **vmfins install ppf B5697F42 db2prd (nomemo**

To install this product into the SFS test directory issue:

- **vmfins install ppf B5697F42 db2sfs (nomemo**

To install this product into the SFS production directory issue:

- **vmfins install ppf B5697F42 db2sfsprd (nomemo**

*If you have installed the product onto a test disk, use **VMFCOPY** to copy the files to your production disks once you have completed your testing. **Installation of RXSQL into a Database***

The RXSQL Package and Help tables must be manually installed into each DB2 DataBase that REXX SQL is to be utilized with.

The following steps may be used to install the RXSQL feature in the DataBase:

- Logon to an ID with DBA Authority

Note: *The DB2 Application Server that contains the DataBase must have already been started.*

- Link the DB2 RXSQL Production Disk, SQLMACH 198, type:

LINK SQLMACH 198 198 RR

ACCESS 198 P

- Link the DB2 RXSQL Service Disk, SQLMACH 199, type:

LINK SQLMACH 199 199 RR

ACCESS 199 V

- Link the DB2 Application Server Production Disk,SQLMACH 195, type:

LINK SQLMACH 195 195 RR

ACCESS 195 Q

- Enter the command:

SET LANG AMENG (ADD ARI USER

- Connect to the database

SQLINIT DB(dbname)

Note: The dbspace RXSQHELP will be dropped and recreated with the new RXSQL help tables if you are upgrading. The installation exec will acquire the necessary dbspace for the help tables if you are installing for the first time.

- Install DB2 RXSQL into a DB2 application server

ELOAMOD

- Install DB2 RXSQL HELP tables

ELOHLPLD

- To update the DB2 RXSQL HELP tables

ELOSHLP LANG(S001)

Please refer to the **Installing DB2 RXSQL** chapter of the 'DB2 REXX SQL for VM/ESA Installation' manual for complete installation instructions for RXSQL 7.1.0.

6.1.16.8 DCSS Information

None.

6.1.16.9 Verification

To verify the RXSQL installation, refer to the chapter entitled "Installing DB2 RXSQL", in the section entitled "Installation Verification", in the DB2 REXX SQL for VM/ESA Installation and Reference manual.

Prior to running step three of the verification (issuing the EMPCRE command), a private DB space for SQLUSER must be obtained. To do this, enter the following command from ISQL:

- **acquire private dbspace named sqluser.example**

Note: This step can only be done by a userid that already has DBA authority.

6.1.17 5697-F42 DB2 DATA RESTORE V7R3.0

6.1.17.1 PUT/RSU/ESO Applied

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

6.1.17.2 Service Excluded

None.

6.1.17.3 Pre-Requisite Service

None.

6.1.17.4 Co-Requisite Service

None.

6.1.17.5 If-Requisite Service

None.

6.1.17.6 Product Manuals

Form Number	Publication Title
SC09-2991	DB2 Data Restore Guide
GC09-2982	DB2 Server for VM & VSE LPS for VM/ESA & VSE/ESA

6.1.17.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (PLAN NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (NOMEMO ENV envelope_filename

Note: *Ensure that all minidisks required by this product are not linked R/W by any userid, including the userid that this product is being installed from.*

To install this product onto a test disk issue:

- **vmfins install ppf F5697F42 db2 (nomemo**

To install this product onto the production disk issue:

- **vmfins install ppf F5697F42 db2prd (nomemo**

To install this product into the SFS test directory issue:

- **vmfins install ppf F5697F42 db2sfs (nomemo**

To install this product into the SFS production directory issue:

- **vmfins install ppf F5697F42 db2sfsprrd (nomemo**

If you have installed the product onto a test disk, use **VMFCOPY** to copy the files to your production disks once you have completed your testing.

In order for the Data Restore facility to be utilized on a DB2 DataBase, Data Restore must be installed (loaded) into the DataBase.

Please refer to the **Installing Under VM** section in the **Installing Data Restore** chapter of the 'DB2 Data Restore Guide' manual for Data Restore installation instructions.

- **Note:**

1. The disk containing the Data Restore code (e.g. SQLDRR 191) must be linked in write mode and accessed as the 'A' disk.
2. If you are migrating from an earlier level of Data Restore, only **Step 3.3 Load the Data Restore Packages** is required to be performed.

- **Note:** The following error may occur during the execution of the exec XTS9PREP. This error does not relate to the reload of Data Restore and may be ignored.

```
ARI0503E An SQL error has occurred.  
An attempt to revoke a privilege from DATARFTR  
was denied. Either DATARFTR does not have  
this privilege, or SQLDBA does not have  
the authority to revoke this privilege.  
ARI0505I SQLCODE = -556 SQLSTATE = 42504 ROWCOUNT = 0  
ARI0504I SQLERRP: ARIXA09 SQLERRD1: -300 SQLERRD2: 0
```

3. If Data Restore is to be installed on more than one application server, repeat the installation steps for each application server.

6.1.17.8 DCSS Information

None.

6.1.17.9 Verification

To verify that the Restore Feature was installed successfully, follow the steps outlined in the chapter entitled "Installing Data Restore", Refer to section "Installing under VM", of the DB2 Data Restore Guide manual.

6.1.18 5697-F42 DB2 CONTROL CENTER V7R3.0

6.1.18.1 PUT/RSU/ESO Applied

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

6.1.18.2 Service Excluded

None.

6.1.18.3 Pre-Requisite Service

None.

6.1.18.4 Co-Requisite Service

None.

6.1.18.5 If-Requisite Service

None.

6.1.18.6 Product Manuals

Form Number	Publication Title
GC09-2993	DB2 Server for VSE & VM Control Center Operations Guide for VM

6.1.18.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (PLAN NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (NOMEMO ENV envelope_filename

Note: *Ensure that all minidisks required by this product are not linked R/W by any userid, including the userid that this product is being installed from.*

To install this product onto a test disk issue:

- **vmfins install ppf G5697F42 db2 (nomemo**

To install this product onto the production disk issue:

- **vmfins install ppf G5697F42 db2prd (nomemo**

To install this product into the SFS test directory issue:

- **vmfins install ppf G5697F42 db2sfs (nomemo**

To install this product into the SFS production directory issue:

- **vmfins install ppf G5697F42 db2sfsprd (nomemo**

*If you have installed the product onto a test disk, use **VMFCOPY** to copy the files to your production disks once you have completed your testing.*

For detailed instructions on installing the Control Center, reference the Program Directory for Control Center for VM V7R3.0.

NOTE. *You must configure the Control Center for your specific site. Please refer to section "Configure Control Center Files" in the Program Directory for Control Center for VM V7R3.0.*

NOTE. *For Migration information refer to Chapter 6 in the Program Directory for Control Center for VMV7R3.0.*

6.1.18.8 DCSS Information

None.

6.1.18.9 Verification

For instructions on verifying the Control Center, refer to section 7 “Installation Verification” in the Program Directory for Control Center for VM V7R3.0.

6.1.19 5697-F42 DB2 NLS VM HELP FILES V7R4.0

6.1.19.1 PUT/RSU/ESO Applied

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

6.1.19.2 Service Excluded

None.

6.1.19.3 Pre-Requisite Service

None.

6.1.19.4 Co-Requisite Service

None.

6.1.19.5 If-Requisite Service

None.

6.1.19.6 Product Manuals

6.1.19.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (PLAN NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (NOMEMO ENV envelope_filename

6.1.19.8 DB2 NLS Requirements

The requirements for the installation of an NLS Language are detailed in Section “10.0 NLS Installation Instructions” of the Program Directory for IBM DATABASE 2 Server for VM Version 7 Release 4 Modification Level 0

It is recommended that, with the exception of the Sub-Section “10.4.2 Install an NLS Language for DB2 for VM,” this section be reviewed prior to the installation of the DB2 NLS.

Please note that the 5697F74A 193 disk and the SQLMACH 193 DASD minidisks may require additional space to hold the NLS Languages.

For example, the 5697F74A 193 disk must have sufficient free space to hold all 5 NLS Languages provided for DB2. On a 3380 DASD, this amounts to approximately 9000 4k blocks (or 60 cylinders).

Please refer to Section 10.3 “DASD Storage and User ID Requirements” in the Program Directory for IBM DATABASE 2 Server for VM Version 7 Release 4 Modification Level 0

6.1.19.9 DB2 NLS Semi-VMSES/E Installation

DB2 NLS should be installed from the installation DB2 Installation ID 5697F74A.

All the NLS Languages will be installed to the DB2 Server Code test build 193 minidisk (or SFS Directory) under the ID 5697F74A. This is different from the standard installation defined in the Sub-Section “10.4.2 Install an NLS Language for DB2 for VM,” of the Program Directory for IBM DATABASE 2 Server for VM Version 7 Release 4 Modification Level 0 which provides for the installation of a single NLS language on the 5697F74A 193 (DB2 Server Code test build disk).

After logging onto the installation ID and mounting the DB2 for VM NLS installation tape at virtual address 181, the following steps/commands replace the commands specified in Sub-Section “10.4.2 Install an NLS Language for DB2 for VM,” and must be utilized to install DB2 NLS:

1. *Access the VMSES/E code:*

link MAINT 5E5 5E5 rr

access 5E5 b

2. *Access the System Software Inventory disk:*

link MAINT 51D 51D mr

access 51D d

3. *Install the DB2 NLS code:*

- **Note:** *Ensure that all minidisks required by this product are not linked R/W by any userid, including the userid that this product is being installed from.*

- a. *Onto the Pretest DB2 Server Code minidisk issue:*

vmfins install ppf I5697F42 db2 (nomemo

b. Onto the Pretest DB2 Server Code build SFS directory:

vmfins install ppf I5697F42 db2sfs (nomemo

c. Onto the DB2 Server production Code build minidisk:

vmfins install ppf I5697F42 db2prd (nomemo

d. Onto the production DB2 Server Code build SFS directory:

vmfins install ppf I5697F42 db2sfsprd (nomemo

- **Note:** *If desired, the default installation disk addresses may be altered by creating a PPF override file for the DB2 NLS. Please refer to the GC24-5837 VM/ESA VMSES/E Introduction and Reference manual for information on creating a PPF override file.*

After the NLS has been placed on the NLS disk, the desired NLS language must be integrated into the appropriate DB2 DataBase(s) and copied to DB2 and System Production minidisks (SFS Directories). This is accomplished by performing the steps defined in Sections “10.4.3 Installation Step 3. Install DB2 for VM Messages, ISQL Help Text and CMS Help” through “10.4.7 Installation Step 7. Post-Uninstallation Customization Steps for DB2 for VM”

6.1.19.10 DCSS Information

It is recommended for performance reasons that each activated NLS Language be saved in a shared segment. Please refer to the section “Using Saved Segments for NLS Components and Choosing a National Language” in the DB2 Server for VM System Administration for the procedures on “defining Message Repositories as Saved Segments.”

6.1.19.11 Verification

6.1.20 5748-XX9 DCF V1R4.0

6.1.20.1 PUT/RSU/ESO Applied

The product is at service level PUT9405.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

6.1.20.2 Service Excluded

None.

6.1.20.3 Pre-Requisite Service

None.

6.1.20.4 Co-Requisite Service

None.

6.1.20.5 If-Requisite Service

None.

6.1.20.6 Product Manuals

Form Number	Publication Title
GH20-9158	DCF & Document Library Facility General Information
S544-3191	SCRIPT/VS User's Guide
G544-3192	SCRIPT/VS Introduction to GML
SH35-0069	SCRIPT/VS Text Programmers Guide
SX26-3723	DCF: Text Programmer's Quick Reference
SH35-0048	DCF Messages
LH40-0209	DCF: Diagnosis Guide and Reference
S544-3115	DCF: Bar Code User's Guide
G544-3305	DCF: GML Applications Guide
SH20-9186	DCF: GML Starter Set User's Guide
SH20-9187	DCF: GML Starter Set Reference
SX26-3719	DCF: GML Starter Set Quick Reference Summary
S544-3484	DCF: Post Processor Examples
GH20-9159	DCF: Licensed Program Specification
SH35-0070	DCF: SCRIPT/VS Language Reference
G520-6362	DCF: ABOUT DCF

6.1.20.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (PLAN NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (NOMEMO NOLINK ENV envelope_filename

6.1.20.8 Document Composition Facility (DCF) Semi-VMSES/E Code Installation

Note: *Ensure that all minidisks required by this Licensed Product are not linked R/W by any user ID including the user ID where this Licensed Product is being installed from. For production minidisk information refer to Appendix C, "DASD Requirements" on page 197 or for test minidisk information refer to Figure 2 on page 28.*

To install this product onto a test disk issue:

vmfins install ppf \$5748XX9 dcf (nomemo

To install this product onto the production disk issue:

vmfins install ppf \$5748XX9 dcfprd (nomemo

To install this product into the SFS test directory issue:

vmfins install ppf \$5748XX9 dcfsfs (nomemo

To install this product into the SFS production directory issue:

vmfins install ppf \$5748XX9 dcfsfsprd (nomemo

*If you have installed the product onto a test disk, use **VMFCOPY** to copy the files to your production disks once you have completed your testing.*

In addition, all the files with the filetype of FONTPS should be made available.

6.1.20.9 Document Composition Facility (DCF) Fonts

There are three different types of fonts that can be used with DCF.

- *IBM 3800 Printing Subsystem Fonts*
- *IBM Page Printer Fonts*
- *PostScript Fonts*

For additional information on FONTS usage, please refer to the Document Composition Facility SCRIPT/VS Text Programmer's Guide, sections entitled IBM 3800 Model 1 Fonts, Font Library Index Program and PostScript.

6.1.20.10 Document Composition Facility (DCF) Euro Support

To provide support for the EURO symbol, the 5648-113 V1R1.0 AFP Font Collection has been replaced by 5648-B33 V2R1.0 AFP Font Collection. In order to define and print the EURO symbol in a DCF document, 5648-B33 V2R1.0 must be installed. Please refer to HONE announcement 398-107 for additional information.

In addition, the DCF document must specify a Font Type and Codepage that have been upgraded for the EURO symbol.

For additional information on the EURO symbol and its use with DCF, please review the information APAR II12094 and the IBM WebSites at the following URLs:

<http://www.printers.ibm.com>

<http://www.vm.ibm.com/euro>

- **Note:** The information for DCF on the 'www.printers.ibm.com' WebSite may be found by selecting 'Products' followed by 'Software' from the selection menu found on the left hand side of the screen.

6.1.20.11 Document Composition Facility (DCF) Shared Segment

DCF has been pre-installed without the use of a segment.

*If you decide to install DCF as a segment, refer to the **DCSS Information** section for additional information.*

6.1.20.12 Document Composition Facility (DCF) Maintenance

All code used with DCF resides on the MAINT 375 minidisk.

For future maintenance, access the MAINT 375 as A-disk. Access a temporary minidisk as the B-disk and place the fixes on it. Execute the DSMSRV40 EXEC to apply the fixes and then the DSMGND40 EXEC to update the Script modules and libraries.

Be sure to copy any of the following changed files on the MAINT 375 minidisk to the Product Code Disk (MAINT 19E) minidisk.

**SCRIPT MODULE
DSM4 MODULE
DSMHYLIB TXTLIB
DSMGML4 MACLIB
DSMMAC4 MACLIB
DSMPROF4 SCRIPT
DSMBPROF SCRIPT
DSMMPROF SCRIPT
DSMSPROF SCRIPT
DSMTPROF SCRIPT
DSMDMP4 EXEC**

In addition, all files with the filetype of FONTPS, HELPCMS, and HELPMSG should be made available.

6.1.20.13 DCSS Information

Please note that the segment range should be based on the segment layout as defined in the SDO Program Directory. See Appendix D, "Saved Segments" on page 211 for more information.

```
define storage 999m
ipl 190 parm nosprof instseg no
access (nosprof
defseg dsmseg4x 39200-392ff sr
link maint 375 375 mr
access 375 a
dsmgns40
```

Note: The DSMGNS40 exec will prompt you for input. Select SCRIPT for the Bootstrap name and DSMSEG4X as the segment to be loaded.

At the prompt, enter 1 (to use these names). Next choose by number the segment you would like to load. Enter 2. At the next prompt, enter the 3-4 character codes of the dictionaries you are interested in.

6.1.20.14 Verification

If you are planning to install SMFF immediately following the installation of DCF, you may want to defer verifying the installation of DCF until after you have completed the SMFF installation.

If you saved segments, you must verify the installation of DCF manually.

For manual verification of DCF, you should do the following after redefining your virtual memory size to be smaller than the starting address of the shared segment:

```
ipl cms
access 375 a
script dsmivc40 (m(id trace) profile(dsmprof4) device(1403w6)
```

6.1.21 5748-XX9 DCF ODF V1R4.0

6.1.21.1 PUT/RSU/ESO Applied

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

6.1.21.2 Service Excluded

None.

6.1.21.3 Pre-Requisite Service

None.

6.1.21.4 Co-Requisite Service

None.

6.1.21.5 If-Requisite Service

None.

6.1.21.6 Product Manuals

Form Number	Publication Title
G544-3129	DCF: Office Document Feature User's Guide
S544-3130	DCF: Office Document Feature Reference

6.1.21.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (PLAN NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (NOMEMO NOLINK ENV envelope_filename

Notes:

1. ODF is installed on top of BASE DCF. You must install the the BASE DCF feature before installing SMFF. If you choose to install the DCF/SMFF feature with the DCF/ODF feature, you must install the DCF/ODF feature first.
2. Ensure that all minidisks required by this Licensed Product are not linked R/W by any user ID including the user ID where this Licensed Product is being installed from. For production minidisk information refer to Appendix C, "DASD Requirements" on page 197 or for test minidisk information refer to Figure 2 on page 28.

To install this product onto a test disk issue:

vmfins install ppf A5748XX9 dcf (nomemo

To install this product onto the production disk issue:

vmfins install ppf A5748XX9 dcfprd (nomemo

To install this product into the SFS test directory issue:

vmfins install ppf A5748XX9 dcfsfs (nomemo

To install this product into the SFS production directory issue:

vmfins install ppf A5748XX9 dcfsfsprd (nomemo

*If you have installed the product onto a test disk, use **VMFCOPY** to copy the files to your production disks once you have completed your testing. All code used with ODF resides on the MAINT 375 minidisk.*

For future maintenance, access the MAINT 375 as A-disk. Access a temporary minidisk as the B-disk and place the fixes on it. Execute the DSMSRVOD EXEC to apply the fixes. Be sure to copy any of the following changed files on the MAINT 375 minidisk to the Product Code Disk (MAINT 19E) minidisk.

DSMPFODF MODULE
DSMDFODF MODULE
DSMODMAP MAP
DSMODJNK MAP
DSMODGML MAP
DSMODMSG MSG
DSMODWRP SCRIPT
DSMOPROF SCRIPT
DSMOGML MACLIB
FFTWOCOL SCRIPT
FFTOC SCRIPT
FFHYPH SCRIPT
FFGDOC SCRIPT
FFSUBSUP SCRIPT
FFGDOC2 SCRIPT
FFMAPFNT SCRIPT
FFHEAD SCRIPT
FFFOIL SCRIPT
DSMFPAGE SCRIPT
DSMFPOST SCRIPT
RFT2DCF EXEC
VERMAP EXEC
DCF2RFT EXEC

6.1.21.8 DCSS Information

None.

6.1.21.9 Verification

For manual verification of ODF, you should do the following:

```
script odf (prof(dsmoprof) fi($odf list1403) lib(dsmogml) fpasses(2) sysvar(f ffgdoc2)
dev(1403N6)
```

6.1.22 5748-XX9 DCF/SMFF V1R4.0

6.1.22.1 PUT/RSU/ESO Applied

The product is at service level PUT9403.

For specific APARs/PTFs see the ADDSERV file delivered with z/VM SDO Enabling Feature.

6.1.22.2 Service Excluded

None.

6.1.22.3 Pre-Requisite Service

None.

6.1.22.4 Co-Requisite Service

None.

6.1.22.5 If-Requisite Service

None.

6.1.22.6 Product Manuals

Refer to the Product Manuals section of 5748-XX9 DCF for the list of manuals associated with this feature.

6.1.22.7 Installation

Important Note for Product Envelopes

When installing using the Product Envelope, use the ENV option with the VMFINS commands. The Product Envelope should be on a minidisk or SFS directory accessed as the 'C' disk.

VMFINS INSTALL INFO (NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (PLAN NOMEMO ENV envelope_filename

VMFINS INSTALL PPF ppfname compid (NOMEMO NOLINK ENV envelope_filename

Notes:

1. SMFF is installed on top of the BASE DCF. You must install the the BASE DCF feature before installing SMFF.
2. If you choose to install the DCF/SMFF feature with the DCF/ODF feature, you must install both the BASE DCF and DCF/ODF features first.
3. Since SMFF is installed on top of DCF, It can be installed at the same time as DCF or at a later time.
4. Ensure that all minidisks required by this Licensed Product are not linked R/W by any user ID including the user ID where this Licensed Product is being installed from. For production minidisk information refer to Appendix C, "DASD Requirements" on page 197 or for test minidisk information refer to Figure 2 on page 28.

To install this product onto a test disk issue:

vmfins install ppf B5748XX9 dcf (nomemo

To install this product onto the production disk issue:

vmfins install ppf B5748XX9 dcfprd (nomemo

To install this product into the SFS test directory issue:

vmfins install ppf B5748XX9 dcfsfs (nomemo

To install this product into the SFS production directory issue:

vmfins install ppf B5748XX9 dcfsfsprd (nomemo

*If you have installed the product onto a test disk, use **VMFCOPY** to copy the files to your production disks once you have completed your testing.*

SMFF has been pre-installed without the use of a segment. All code used with SMFF resides on the MAINT 375 minidisk.

*If you decide to install SMFF as a segment, refer to the **DCSS Information** section for additional information.*

For future maintenance, access the MAINT 375 as A-disk. Access a temporary minidisk as the B-disk and place the fixes on it. Execute the DSMSRV40 EXEC to apply the fixes and then the DSMGND40 EXEC to

update the Script modules and libraries. Be sure to copy any of the following changed files on the MAINT 375 minidisk to the Product Code Disk (MAINT 19E) minidisk.

```
SCRIPT  MODULE
DSM4    MODULE
DSMFPROF SCRIPT
DSMFMAC  SCRIPT
```

6.1.22.8 DCSS Information

```
define storage 999m
ipl 190 parm nosprof instseg no
access (nosprof
defseg dsmseg4x 39200-392ff sr
link maint 375 375 mr
access 375 a
dsmgns40
```

Note: The DSMGNS40 exec will prompt you for input. Select SCRIPT for the Bootstrap name and DSMSEG4X as the segment to be loaded.

At the prompt, enter 1 (to use these names). Next choose by number the segment you would like to load. Enter 2. At the next prompt, enter the 3-4 character codes of the dictionaries you are interested in.

6.1.22.9 Verification

If you saved segments, you must verify the installation of SMFF manually.

If you installed SMFF as a shared segment, you must verify the installation of SMFF manually.

For manual verification of SMFF, you should do the following after redefining your virtual memory size to be smaller than the starting address of the shared segment:

```
ipl cms
access 375 a
script dsmeqspi (m(id trace) profile(dsmfprof) device(xxxxxx))
```

Note: 'xxxxxx' must be a SCRIPT/VS logical device that corresponds to a Mathematical Font that is available in an accessed FONT library. Please refer to 'Chapter 3. SCRIPT Command Options' of the DCF SCRIPT/VS Language Reference manual for additional information.

Appendix A. z/VM SDO IBM Licensed Program Products

The figure below is a list of the z/VM SDO Licensed Products. The list is in alphabetical order by "Product Abbrev" and can be used as a cross reference between Licensed Product name and Licensed Product number.

Note!

A **Semi-VMSES/E** product was previously called '**Pre-Install**' format.

These terms were misleading, so the names have been changed to better describe the install format of the Licensed Product. The term 'Pre-Install' may still appear on the Packing List or the Media Description report, the Configurator, or Marketing Literature, but should be interpreted to mean Semi-VMSES/E.

A.1 z/VM SDO Licensed Products Table

Figure 15 (Page 1 of 3). Licensed Products Abbreviations

Product Abbrev.	Product Number	Description	Install Format
Archive Manager for z/VM	5697-J05	Archive Manager for z/VM	VMSES/E
ACF/NCP	5648-063	Advanced Communication Function/Network Control Program	VMSES/E
ACF/SSP	5654-009	Advanced Communication Function/System Support Programs	VMSES/E
ACF/VTAM ESA	5654-010	ACF/VTAM for Use with VM/ESA	VMSES/E
AFP FONTS	5648-B33	AFP Font Collection for S390	Semi-VMSES/E
APL2	5688-228	APL2	Semi-VMSES/E
APPC APPL SUITE	5654-010	APPC Applications Suite	VMSES/E
Backup and Restore Manager	5697-J06	Backup and Restore Manager for z/VM	VMSES/E
BookManager READ/VM	5684-062	BookManager READ/VM	Semi-VMSES/E
C/370 Common Library	5688-188	C/370 Common Library	Semi-VMSES/E
C/370 Library	5688-188	C/370 Library	VMSES/E
CALLUP	5684-160	CALLUP	Semi-VMSES/E
DB2 Control Center	5697-F42	DB2 Control Center	Semi-VMSES/E
DB2 Data Propagator	5697-F42	DB2 Data Propagator	VMSES/E
DB2 Data Restore	5697-F42	DB2 Data Restore	Semi-VMSES/E

Figure 15 (Page 2 of 3). Licensed Products Abbreviations

Product Abbrev.	Product Number	Description	Install Format
DB2 NLS VM Help Files	5697-F42	DB2 NLS VM Help Files	Semi-VMSES/E
DB2 QMF	5697-F42	Query Management Facility English Base VM	VMSES/E
DB2 RXSQL	5697-F42	DB2 RXSQL	Semi-VMSES/E
DB2 Server for VM	5697-F42	DB2 Server for VM	VMSES/E
DCF/SMFF	5748-XX9	Document Composition Facility with Script Mathematical Formula Formatter (SMFF)	Semi-VMSES/E
DCF	5748-XX9	Document Composition Facility	Semi-VMSES/E
DCF ODF	5748-XX9	Document Composition Facility with Office Document Feature (ODF)	Semi-VMSES/E
DFSMS/VM	5741-A05	DFSMS/VM - Data Facility Storage Management Subsystem Function Level 221	VMSES/E
DFSMS/VM KANJI	5741-A05	DFSMS/VM - Data Facility Storage Management Subsystem Function Level 221 (JAPANESE)	VMSES/E
DITTO	5654-029	Data Interfile Transfer, Testing, and Operations Utility for VM	VMSES/E
DMS/CMS	5684-113	Display Management System for CMS Version 2	Semi-VMSES/E
EREP	5654-260	Environmental Record Editing and Printing Program	Semi-VMSES/E
GDDM-IMD	5668-801	Graphical Data Display Manager/Interactive Map Definition	VMSES/E
GDDM-IVU	5668-723	Graphical Data Display Manager/Image Viewing Facility	VMSES/E
GDDM-PGF	5668-812	Graphical Data Display Manager/Presentation Graphics Facility	VMSES/E
GDDM/VM	5684-168	Graphical Data Display Manager/VM	VMSES/E
HLASM	5696-234	IBM High Level Assembler/VM	VMSES/E
HLASM Toolkit	5696-234	IBM High Level Assembler/VM	VMSES/E
HMF	5684-157	Host Management Facilities/VM	VMSES/E
IBM C/C++ for z/VM	5654-A22	IBM C/C++ for z/VM	VMSES/E
IBM C Compiler for VM/ESA	5654-033	IBM C Compiler for VM/ESA	VMSES/E
IBM COBOL for OS/390 and VM	5648-A25	IBM COBOL for OS/390 and VM	VMSES/E
IBM Debug Tool for z/VM	5654-A23	IBM Debug Tool for z/VM	VMSES/E
IBM PL/I	5688-235	IBM PL/I for MVS and VM	VMSES/E
IBM Tivoli Omegamon XE on z/VM	5698-A36	IBM Tivoli Omegamon XE on z/VM and Linux	VMSES/E
ICKDSF	5684-042	Device Support Facilities	VMSES/E
ISPF/PDF	5684-123	ISPF/Program Development Facility	Semi-VMSES/E
ISPF/PDF NLS	5684-123	ISPF/Program Development Facility NLS	Semi-VMSES/E
ISPF	5684-043	Interactive System Productivity Facility/Dialog Manager	Semi-VMSES/E

Figure 15 (Page 3 of 3). Licensed Products Abbreviations

Product Abbrev.	Product Number	Description	Install Format
NPSI X.25	5688-035	X.25 NCP Packet Switching Interface	VMSES/E
Operations Manager for z/VM	5697-J10	Operations Manager for z/VM	VMSES/E
PPFA	5688-190	PPFA/370 Page Printer Formatting Aid/370	Semi-VMSES/E
PSF/VM	5684-141	Print Services Facility/VM	Semi-VMSES/E
PVM	5684-100	VM/Pass-Through Facility	VMSES/E
REXX/370 Compiler	5695-013	IBM Compiler for SAA REXX/370	VMSES/E
REXX/370 Compiler Kanji	5695-013	IBM Compiler for SAA REXX/370	VMSES/E
REXX/370 Library	5695-014	IBM Library for SAA REXX/370	VMSES/E
REXX/370 Library Kanji	5695-014	IBM Library for SAA REXX/370	VMSES/E
SDO z/VM 5.1.0 Opt. Prod. Aid	5741-A06	SDO z/VM 5.1.0 Optional Products Enabling Aid	Semi-VMSES/E
Tape Manager for z/VM	5697-J08	Tape Manager for z/VM	VMSES/E
VisualAge Generator NLS	5648-B02	VisualAge Generator NLS	VMSES/E
VisualAge Generator Server	5648-B02	VisualAge Generator Server	VMSES/E
VMBATCH	5684-137	VM/Batch Facility	VMSES/E
VS FORTRAN	5668-806	VS FORTRAN Compiler, Library, and Interactive Debug	Semi-VMSES/E
VS PASCAL	5668-767	VS Pascal Compiler and Library for VM	Semi-VMSES/E
VS PASCAL Library	5668-717	VS PASCAL Library for VM	Semi-VMSES/E

Appendix B. IBM Licensed Program Products Interdependencies

B.1 Requisite IBM Licensed Program Product Dependencies

Figure 16 on page 194 lists the pre-, co-, and if-requisites for all the z/VM SDO Licensed Products that are part of the z/VM SDO package. A requisite Licensed Product is one that is required by another Licensed Product. The extent of the requirement determines which requisite category the Licensed Product belongs in.

When re-installing a Licensed Product Y, then any Licensed Product X that has Y as a pre- or co-requisite should also be re-installed. This is recommended for every re-install.

Note: z/VM SDO ensures that the Pre-requisites and Co-requisites of the Licensed Products are also included in the z/VM SDO package, unless otherwise noted.

B.1.1 Pre-Requisites (Install-Time Full Requisite)

The absence of a pre-requisite (Y) prevents the successful installation of Licensed Product X. A pre-requisite (Y) must be installed prior to the installation of Licensed Product X; otherwise, Licensed Product X will not be installed successfully.

B.1.2 Co-Requisite (Run-time Full Requisite)

The absence of a co-requisite (Y) results in the full loss of the function of any Licensed Product X. This loss of function occurs at the time that Licensed Product X is used. Although Licensed Product X installed successfully, Licensed Product X will not function. A co-requisite (Y) may be installed after Licensed Product X without affecting the installation or the operation of Licensed Product X.

B.1.3 If-Requisites (Install-time and Run-time Part Requisites)

Note: Only Licensed Products supported by z/VM SDO are listed as If-requisites.

- If-requisite Needed for Install-time

The absence of an if-requisite (Y) for install results in the partial loss of function for any Licensed Product X, during the installation of Licensed Product X. Usually this loss occurs in the interface between Licensed Product X and the requisite (Y). An if-requisite for install must be installed prior to the installation of Licensed Product X; otherwise, Licensed Product X will lose some of its function.

- If-requisite Needed for Run-time

The absence of an if-requisite (Y) for run-time results in the partial loss of function for any Licensed Product X. This loss of function occurs at the time that Licensed Product X is used. Although Licensed Product X was installed successfully, some of the functions of Licensed Product X will not be

available when Licensed Product X is used. An if-requisite for run-time may be installed after Licensed Product X without affecting the installation or operation of Licensed Product X.

B.2 z/VM SDO Licensed Product Requisites Table

Figure 16 (Page 1 of 3). Product Pre-, Co-, and If-Requisites List

Product Number	Product Abbrev.	Pre-Requisites	If-Requisite (for Install)	Co-Requisite	If-Requisite (for run-time)
5648-A25	IBM COBOL OS390/VM				
5648-B02	VisualAge Gen. Base				IBM COBOL OS390/VM 3270 PC FT HLASM DB2 Data Propagator GDDM/VM GDDM-PGF
5648-B02	VisualAge Gen. NLS				
5648-B33	AFP FONTS			PSF/VM	
5648-063	ACF/NCP			ACF/SSP ACF/VTAM ESA	NPSI X.25
5654-A22	C/C++				
5654-A23	Debug Tool for z/VM		IBM PL/I IBM COBOL OS390/VM C/C++		IBM PL/I IBM COBOL OS390/VM C/C++
5654-009	ACF/SSP			ACF/NCP HLASM	
5654-010	ACF/VTAM ESA				
feature of 5654-010	APPC APPL SUITE			ACF/VTAM ESA C/370 Library	
5654-029	DITTO				
5654-033	IBM C Compiler				
5654-260	EREP				
5668-717	VS PASCAL LIB				
5668-723	GDDM-IVU	GDDM/VM			GDDM/VM
5668-767	VS PASCAL				
5668-801	GDDM-IMD	GDDM/VM			GDDM/VM
5668-806	VS FORTRAN				ISPF
5668-812	GDDM-PGF	GDDM/VM			GDDM/VM
5684-042	ICKDSF				
5684-043	ISPF				
5684-062	BookManager READ/VM	GDDM/VM REXX/370 Compiler			DCF
5684-100	PVM				ACF/VTAM ESA
5684-113	DMS/CMS				
5684-123	ISPF/PDF	ISPF	VS PASCAL LIB	ISPF/PDF NLS	
feature of 5684-123	ISPF/PDF NLS	ISPF/PDF			

Figure 16 (Page 2 of 3). Product Pre-, Co-, and If-Requisites List

Product Number	Product Abbrev.	Pre-Requisites	If-Requisite (for Install)	Co-Requisite	If-Requisite (for run-time)
5684-137	VMBATCH			ISPF/PDF	
5684-141	PSF/VM				IBM PL/I IBM COBOL OS390/VM EREP AFP FONTS
5684-157	HMF				
5684-160	CALLUP				DCF REXX/370 Library
5684-168	GDDM/VM				
5688-035	NPSI X.25			ACF/SSP ACF/NCP	
5688-188	C/370 Library	C/370 Common Library			
5688-188	C/370 Common Library				
5688-190	PPFA				
5688-228	APL2				GDDM-PGF GDDM/VM DB2 QMF DB2 Data Propagator
5688-235	IBM PL/I				
feature of 5695-013	REXX/370 Comp. Kanji	REXX/370 Compiler			
5695-013	REXX/370 Compiler			REXX/370 Library	
feature of 5695-014	REXX/370 Lib. Kanji	REXX/370 Library			
5695-014	REXX/370 Library			REXX/370 Compiler	
5696-234	HLASM				
feature of 5696-234	HLASM Toolkit	HLASM			
5697-F42	DB2 Server for VM				
feature of 5697-F42	DB2 Data Propagator			DB2 Server for VM	
feature of 5697-F42	DB2 RXSQL	DB2 Server for VM			
feature of 5697-F42	DB2 Data Restore	DB2 Server for VM			
feature of 5697-F42	DB2 Control Center	DB2 Server for VM			
feature of 5697-F42	DB2 QMF		DB2 Server for VM GDDM/VM	DB2 Server for VM GDDM/VM	ISPF/PDF GDDM-PGF
feature of 5697-F42	DB2 NLS VM Help			DB2 Server for VM	
5697-J05	Archive Manager			REXX/370 Library	
5697-J06	Backup and Restore			REXX/370 Library	
5697-J08	Tape Manager			REXX/370 Library	
5697-J10	Operations Manager			REXX/370 Library	

Figure 16 (Page 3 of 3). Product Pre-, Co-, and If-Requisites List

Product Number	Product Abbrev.	Pre-Requisites	If-Requisite (for Install)	Co-Requisite	If-Requisite (for run-time)
5698-A36	Omegamon XE				
feature of 5741-A05	DFSMS/VM FL 221			ISPF VM/DIRMAINT	ISPF/PDF REXX/370 Compiler REXX/370 Library
feature of 5741-A05	DFSMS/VM JAPANESE	DFSMS/VM FL 221		ISPF VM/DIRMAINT	ISPF/PDF REXX/370 Compiler REXX/370 Library
5741-A06	SDO OPT PROD AID				
5748-XX9	DCF				
feature of 5748-XX9	DCF ODF	DCF			
feature of 5748-XX9	DCF/SMFF	DCF			

Appendix C. DASD Requirements

This appendix provides the specific sizes for the minidisks associated with each of the Licensed Products in z/VM SDO.

To obtain an estimated total amount of DASD required to install the z/VM System DDR and selected Licensed Products please see your IBM Marketing Representative.

To estimate the size a minidisk should be in order to install the Licensed Products you have selected, total the number of blocks for each minidisk across all Licensed Products.

For example, the following Licensed Products are going to be installed:

AD/Cycle COBOL/370	MAINT 19E	3000 4K blocks
AD/Cycle COBOL/370 ENU-NLS	MAINT 19E	200 4K blocks
AD/Cycle COBOL/370 PUBS	MAINT 19E	600 4K blocks
	TOTAL	3800 4K blocks

VMFCNVT can be used to obtain the number of cylinders required for your DASD type. Refer to z/VM VMSES/E *Introduction and Reference* for more information on using VMFCNVT.

For updates, refer to 2.3.1, "Preventive Service Planning" on page 7 for PSP information.

C.1 z/VM SDO Licensed Product DASD Requirements

Figure 17 (Page 1 of 13). Product DASD Requirements

Product Number	Product Abbrev.	Minidisks	Size -CMS 4K blocks unless otherwise stated
5648-A25	IBM COBOL OS390/VM	19E MAINT 51D MAINT 191 5648A25B 29E 5648A25B 2A2 5648A25B 2A6 5648A25B 2B2 5648A25B 2C2 5648A25B 2D2 5648A25B	2250 450 1800 1800 900 900 3600 900 900
Note 1: The amount of DASD used by the feature has been included in the DASD allocation shown for a previous feature.			

Figure 17 (Page 2 of 13). Product DASD Requirements

Product Number	Product Abbrev.	Minidisks	Size -CMS 4K blocks unless otherwise stated
5648-B02	VisualAge Gen. Base	51D MAINT 191 5648B02A 200 5648B02A 29D 5648B02A 2A2 5648B02A 2A6 5648B02A 2B2 5648B02A 2C2 5648B02A 2D2 5648B02A 300 5648B02A	150 6000 1950 150 300 300 1200 450 1500 1200
5648-B02	VisualAge Gen. NLS	51D MAINT 191 5648B02A 200 5648B02A 29D 5648B02A 2A2 5648B02A 2A6 5648B02A 2B2 5648B02A 2C2 5648B02A 2D2 5648B02A 300 5648B02A	150 150 150 150 150 150 300 150 300 150
5648-B33	AFP FONTS	194 PSFMAINT	94950
feature of 5648-B33	AFP FONTS	194 PSFMAINT	38700
feature of 5648-B33	AFP FONTS	194 PSFMAINT	24750
5648-063	ACF/NCP	51D MAINT 191 P648063L 2A2 P648063L 2A6 P648063L 2B2 P648063L 2C2 P648063L 2D2 P648063L 400 P648063L 401 P648063L	150 17250 3000 3000 11000 750 4500 17250 17250
5654-A22	C/C++	19E MAINT 51D MAINT 191 5654A22A 29E 5654A22A 2A2 5654A22A 2A6 5654A22A 2B2 5654A22A 2C2 5654A22A 2D2 5654A22A	27000 2700 2700 27000 900 900 18000 900 36000
feature of 5654-A22	C/C++ (tape 2of2)	191 5654A22A 2A2 5654A22A 2A6 5654A22A 2B2 5654A22A	2700 900 900 18000
Note 1: The amount of DASD used by the feature has been included in the DASD allocation shown for a previous feature.			

Figure 17 (Page 3 of 13). Product DASD Requirements

Product Number	Product Abbrev.	Minidisks	Size -CMS 4K blocks unless otherwise stated
feature of 5654-A22	C/C++ (tape 2of3)	191 5654A22A 29E 5654A22A 2C2 5654A22A	2700 27000 900
5654-A23	Debug Tool for z/VM	19E MAINT 51D MAINT 191 5654A23A 29E 5654A23A 2A2 5654A23A 2A6 5654A23A 2B2 5654A23A 2C2 5654A23A 2D2 5654A23A	3600 360 900 3600 360 360 5400 360 2700
5654-009	ACF/SSP	51D MAINT 191 P654009G 2A2 P654009G 2A6 P654009G 2B2 P654009G 2C2 P654009G 2D2 P654009G 400 P654009G 401 P654009G	150 4500 3000 3000 6700 750 4500 4500 4500
5654-010	ACF/VTAM ESA	51D MAINT 191 5654010A 29A 5654010A 2A2 5654010A 2A6 5654010A 2B2 5654010A 2C2 5654010A 2C4 5654010A 2D2 5654010A 401 5654010A 402 5654010A 493 5654010A 49A 5654010A	35 3000 6000 1500 1500 11250 1500 300 10500 900 900 900 6000
feature of 5654-010	APPC APPL SUITE	191 ANAME 191 A3270 51D MAINT 191 5654025 29A 5654025 2A2 5654025 2A6 5654025 2B2 5654025 2C2 5654025 2D2 5654025 49A 5654025	1500 1500 150 1500 4500 300 300 4500 1500 1500 4500
Note 1: The amount of DASD used by the feature has been included in the DASD allocation shown for a previous feature.			

Figure 17 (Page 4 of 13). Product DASD Requirements

Product Number	Product Abbrev.	Minidisks	Size -CMS 4K blocks unless otherwise stated
5654-029	DITTO	51D MAINT 191 5654029D 2A2 5654029D 2A6 5654029D 2B2 5654029D 2C2 5654029D 2D2 5654029D 400 5654029D 401 5654029D	150 2250 300 300 3000 300 2250 2340 2250
5654-033	IBM C Compiler	51D MAINT 191 P654033A 29E P654033A 2A2 P654033A 2A6 P654033A 2B2 P654033A 2C2 P654033A 2D2 P654033A	450 2700 4500 900 900 6300 900 23850
5654-260	EREP	201 MAINT	2250
5668-717	VS PASCAL LIB	19E MAINT 319 MAINT	570 40
5668-723	GDDM-IVU	19E MAINT 29E P68416B 2B2 P68416B	150 150 300
5668-767	VS PASCAL	19E MAINT 319 MAINT	1218 40
5668-801	GDDM-IMD	19E MAINT 29E P68416B 2B2 P68416B	750 750 750
5668-806	VS FORTRAN	19E MAINT 319 MAINT 260 VSFORT 270 VSFORT	3750 150 4500 7000
5668-812	GDDM-PGF	19E MAINT 51D MAINT 191 P68416B 29E P68416B 2A2 P68416B 2A6 P68416B 2B2 P68416B 2C2 P68416B 2D2 P68416B	1800 180 180 1800 180 180 1980 180 1260

Note 1: The amount of DASD used by the feature has been included in the DASD allocation shown for a previous feature.

Figure 17 (Page 5 of 13). Product DASD Requirements

Product Number	Product Abbrev.	Minidisks	Size -CMS 4K blocks unless otherwise stated
5684-042	ICKDSF	19D MAINT 19E MAINT 51D MAINT 191 5684042J 29D 5684042J 29E 5684042J 2A2 5684042J 2A6 5684042J 2B2 5684042J 2C2 5684042J 2D2 5684042J	55 1K 775 35 1620 360 2700 360 360 1440 360 3600
5684-043	ISPF	191 ISPVM 192 ISPVM 319 MAINT	150 6700 150
5684-062	BookManager READ/VM	191 BOOKMGR 192 BOOKMGR 291 BOOKMGR 300 BOOKMGR 319 MAINT	2850 9000 1500 7500 150
5684-100	PVM	51D MAINT 191 P684100E 29D P684100E 2A2 P684100E 2A6 P684100E 2B1 P684100E 2B2 P684100E 2C2 P684100E 2D2 P684100E 400 P684100E 401 P684100E 402 P684100E 403 P684100E 404 P684100E 405 P684100E	150 3750 1500 1500 1500 3750 2250 600 12500 2250 600 300 600 750 750
5684-113	DMS/CMS	19E MAINT 319 MAINT	450 150
5684-123	ISPF/PDF	192 ISPVM 319 MAINT	6000 120
feature of 5684-123	ISPF/PDF NLS	192 ISPVM 192 ISPVM 192 ISPVM 192 ISPVM 192 ISPVM	2700 2700 2700 2700 2700
Note 1: The amount of DASD used by the feature has been included in the DASD allocation shown for a previous feature.			

Figure 17 (Page 6 of 13). Product DASD Requirements

Product Number	Product Abbrev.	Minidisks	Size -CMS 4K blocks unless otherwise stated
5684-137	VM BATCH	191 BATCH 193 BATCH 194 BATCH 195 BATCH 199 BATCH 191 BATCH1 51D MAINT 191 P684137A 22D P684137A 291 P684137A 296 P684137A 29D P684137A 29E P684137A 2A2 P684137A 2A6 P684137A 2B2 P684137A 2C2 P684137A 2D2 P684137A 191 TBATCH 193 TBATCH 194 TBATCH 195 TBATCH 199 TBATCH 191 TBATCH1 191 TBATCH2	150 750 150 150 150 300 150 1500 300 300 300 150 450 300 300 450 300 1500 1200 6000 1200 1200 1200 1200 2400 2400
5684-141	PSF/VM	191 PDMGRP4 191 PDMREM1 191 PDM0490 191 PDM470 191 PSFMAINT 291 PSFMAINT 293 PSFMAINT 294 PSFMAINT 29D PSFMAINT 29E PSFMAINT 319 PSFMAINT 391 PSFMAINT 491 PSFMAINT 555 PSFMAINT 591 PSFMAINT 691 PSFMAINT 791 PSFMAINT 191 SFCM1	1500 1500 1500 1500 4500 4500 1500 4500 150 900 750 150 150 1500 150 150 150 3000
Note 1: The amount of DASD used by the feature has been included in the DASD allocation shown for a previous feature.			

Figure 17 (Page 7 of 13). Product DASD Requirements

Product Number	Product Abbrev.	Minidisks	Size -CMS 4K blocks unless otherwise stated
5684-157	HMF	191 HMFserve 191 HRM 51D MAINT 191 P684157A 29D P684157A 2A2 P684157A 2A6 P684157A 2B2 P684157A 2C2 P684157A 2D2 P684157A 3E0 P684157A 3E1 P684157A 3E2 P684157A D0C P684157A	750 300 450 1500 1200 300 300 1350 150 3000 1350 1350 600 900
5684-160	CALLUP	191 CALLADM 191 CALLTEST 192 CALLTEST 193 CALLTEST 319 MAINT	9000 1500 9000 7500 150
5684-168	GDDM/VM	19E MAINT 51D MAINT 191 P68416B 29E P68416B 2A2 P68416B 2A6 P68416B 2B2 P68416B 2C2 P68416B 2D2 P68416B	15000 450 15000 15000 450 450 13600 450 9000
5688-035	NPSI X.25	51D MAINT 02A2 P688035N 02A6 P688035N 02B2 P688035N 02C2 P688035N 02D2 P688035N 0400 P688035N 0401 P688035N 191 P688035N	150 750 750 1500 750 1800 1500 1500 1500
5688-188	C/370 Library	19E MAINT 51D MAINT 191 P688188A 29E P688188A 2A2 P688188A 2A6 P688188A 2B2 P688188A 2C2 P688188A 2D2 P688188A	5250 900 4500 5250 900 900 6300 900 3000

Note 1: The amount of DASD used by the feature has been included in the DASD allocation shown for a previous feature.

Figure 17 (Page 8 of 13). Product DASD Requirements

Product Number	Product Abbrev.	Minidisks	Size -CMS 4K blocks unless otherwise stated
5688-188	C/370 Common Library	19E MAINT 319 MAINT	1072 150
5688-190	PPFA	319 MAINT 363 MAINT	30 300
5688-228	APL2	191 APL2PP 191 APL2PSRV 191 AP2SVP 319 MAINT	7500 1500 450 15
5688-235	IBM PL/I	19E MAINT 51D MAINT 191 P688235A 29E P688235A 2A2 P688235A 2A6 P688235A 2B2 P688235A 2C2 P688235A 2D2 P688235A	1800 450 1800 1800 900 900 900 900 1800
5695-013	REXX/370 Compiler	19E MAINT 51D MAINT 101 P695013H 191 P695013H 201 P695013H 2A2 P695013H 2A6 P695013H 2B2 P695013H 2C2 P695013H 2D2 P695013H	450 150 1200 1800 1200 300 300 1050 300 4500
feature of 5695-013	REXX/370 Comp. Kanji	51D MAINT 191 P695013H 2A2 P695013H 2A6 P695013H 2D2 P695013H 501 P695013H	150 150 150 150 150 300
5695-014	REXX/370 Library	19E MAINT 51D MAINT 100 P695014H 191 P695014H 200 P695014H 2A2 P695014H 2A6 P695014H 2B2 P695014H 2C2 P695014H 2D2 P695014H	600 150 600 1500 600 150 150 300 150 4500
Note 1: The amount of DASD used by the feature has been included in the DASD allocation shown for a previous feature.			

Figure 17 (Page 9 of 13). Product DASD Requirements

Product Number	Product Abbrev.	Minidisks	Size -CMS 4K blocks unless otherwise stated
feature of 5695-014	REXX/370 Lib. Kanji	51D MAINT 191 P695014H 2A2 P695014H 2A6 P695014H 2D2 P695014H 501 P695014H	150 150 150 150 150 150
5696-234	HLASM	51D MAINT 0191 P696234G 29E P696234G 2A2 P696234G 2A6 P696234G 2B2 P696234G 2C2 P696234G 2D2 P696234G	180 900 1080 180 180 1800 720 1800
feature of 5696-234	HLASM Toolkit	51D MAINT 0191 P696234H 29E P696234H 2A2 P696234H 2A6 P696234H 2B2 P696234H 2C2 P696234H 2D2 P696234H	180 900 9000 180 180 9000 720 9000
5697-F42	DB2 Server for VM	51D MAINT 191 SQLMACH 193 SQLMACH 195 SQLMACH 200 SQLMACH 201 SQLMACH 202 SQLMACH 191 SQLUSER 191 5697F74A 193 5697F74A 195 5697F74A 2A2 5697F74A 2A6 5697F74A 2B2 5697F74A 2C2 5697F74A 2D2 5697F74A	300 1980 12600 5940 5220 1K 1260 11700 900 5400 12600 5940 2340 2340 11160 1620 9900
Note 1: The amount of DASD used by the feature has been included in the DASD allocation shown for a previous feature.			

Figure 17 (Page 10 of 13). Product DASD Requirements

Product Number	Product Abbrev.	Minidisks	Size -CMS 4K blocks unless otherwise stated
feature of 5697-F42	DB2 Data Propagator	191 CAPTMACH 300 CAPTMACH 51D MAINT 191 5697F74B 200 5697F74B 2A2 5697F74B 2A6 5697F74B 2B2 5697F74B 2C2 5697F74B 2D2 5697F74B	180 2160 300 720 2160 180 180 2160 180 2700
feature of 5697-F42	DB2 RXSQL	198 SQLMACH 199 SQLMACH 191 SQLUSER	360 900 900
feature of 5697-F42	DB2 Data Restore	191 SQLDRR	1620
feature of 5697-F42	DB2 Control Center	191 MSTRSRVO 195 MSTRSRVO	2700 3600
feature of 5697-F42	DB2 QMF	51D MAINT 191 P697F4BA 2A2 P697F4BA 2A6 P697F4BA 2B2 P697F4BA 2C2 P697F4BA 2D2 P697F4BA 400 P697F4BA 401 P697F4BA 500 P697F4BA 501 P697F4BA	450 1620 360 360 4500 360 1350 3240 3240 3060 3060
feature of 5697-F42	DB2 NLS VM Help	401 MAINT 402 MAINT 404 MAINT 405 MAINT 193 SQLMACH 193 5697F74A	300 300 300 300 1800 9000

Note 1: The amount of DASD used by the feature has been included in the DASD allocation shown for a previous feature.

Figure 17 (Page 11 of 13). Product DASD Requirements

Product Number	Product Abbrev.	Minidisks	Size -CMS 4K blocks unless otherwise stated
5697-J05	Archive Manager	191 AMVADMIN 191 AMVARKIV 191 AMVCATLG 191 AMVWRK01 191 AMVWRK02 191 AMVWRK03 191 AMVWRK04 19D MAINT 19E MAINT 51D MAINT 191 5697J05A 198 5697J05A 2A2 5697J05A 2A6 5697J05A 2B2 5697J05A 2C2 5697J05A 2D2 5697J05A 491 5697J05A 492 5697J05A 49D 5697J05A 591 5697J05A 592 5697J05A	900 180 180 180 180 180 180 900 900 300 1800 360 180 180 900 360 1800 900 900 900 900 900
5697-J06	Backup and Restore	191 BKRADMIN 191 BKRBKUP 191 BKRCATLG 191 BKRWRK01 191 BKRWRK02 191 BKRWRK03 191 BKRWRK04 19D MAINT 19E MAINT 51D MAINT 191 5697J06B 198 5697J06B 199 5697J06B 2A2 5697J06B 2A6 5697J06B 2B2 5697J06B 2C2 5697J06B 2D2 5697J06B 491 5697J06B 492 5697J06B 49D 5697J06B 591 5697J06B 592 5697J06B	900 180 180 180 180 180 180 900 180 300 1800 360 900 180 180 900 360 1800 900 900 900 900 900

Note 1: The amount of DASD used by the feature has been included in the DASD allocation shown for a previous feature.

Figure 17 (Page 12 of 13). Product DASD Requirements

Product Number	Product Abbrev.	Minidisks	Size -CMS 4K blocks unless otherwise stated
5697-J08	Tape Manager	19D MAINT 19E MAINT 51D MAINT 191 TMCMM 191 TMDMM 191 TMLM1 191 TMRMM 191 TMTMM 200 TMTMM 210 TMTMM 191 5697J08B 2A2 5697J08B 2A6 5697J08B 2B2 5697J08B 2C2 5697J08B 2C4 5697J08B 2D2 5697J08B 300 5697J08B 310 5697J08B 400 5697J08B 410 5697J08B	180 180 300 900 900 900 540 540 5400 900 1800 360 360 720 180 180 5400 540 360 540 360
5697-J10	Operations Manager	19D MAINT 19E MAINT 51D MAINT 191 OPMGRM1 194 OPMGRM1 191 OPMGRS1 191 OPMGRS2 191 OPMGRS3 191 OPMGRS4 191 5697J10B 2A2 5697J10B 2A6 5697J10B 2B2 5697J10B 2C2 5697J10B 2C4 5697J10B 2D2 5697J10B 300 5697J10B 310 5697J10B 400 5697J10B 410 5697J10B	180 180 180 900 9000 900 900 900 900 1800 360 360 900 360 360 5400 900 900 900 900
Note 1: The amount of DASD used by the feature has been included in the DASD allocation shown for a previous feature.			

Figure 17 (Page 13 of 13). Product DASD Requirements

Product Number	Product Abbrev.	Minidisks	Size -CMS 4K blocks unless otherwise stated
5698-A36	Omegamon XE	51D MAINT 191 OMEGACMD 0191 5698A36A 02A2 5698A36A 02A6 5698A36A 02B2 5698A36A 02C2 5698A36A 02D2 5698A36A 300 5698A36A 301 5698A36A	180 1200 600 150 150 300 150 300 300 300
feature of 5741-A05	DFSMS/VM FL 221	191 DFSMS 1A2 DFSMS 1A4 DFSMS 1A6 DFSMS 1B1 DFSMS 1B5 DFSMS 1C2 DFSMS 1C4 DFSMS 1D6 DFSMS 19D MAINT 51D MAINT	5400 300 300 300 12300 12300 300 300 4417 2800 1K 700
feature of 5741-A05	DFSMS/VM JAPANESE	191 DFSMS 1A2 DFSMS 1A4 DFSMS 1A6 DFSMS 1B1 DFSMS 1B2 DFSMS 1B5 DFSMS 1C2 DFSMS 1C4 DFSMS 1D6 DFSMS 401 MAINT 51D MAINT	150 150 150 150 150 5400 150 150 150 750 4650 1K 150
5741-A06	SDO OPT PROD AID	2C2 MAINT 319 MAINT	70 250
5748-XX9	DCF	19E MAINT 375 MAINT	2700 7500
feature of 5748-XX9	DCF ODF	19E MAINT 375 MAINT	450 7500
feature of 5748-XX9	DCF/SMFF	19E MAINT 375 MAINT	1500 7500
Note 1: The amount of DASD used by the feature has been included in the DASD allocation shown for a previous feature.			

Appendix D. Saved Segments

This appendix contains information regarding specific sizes, locations and names of the saved segments associated with each of the Licensed Products in z/VM SDO.

Warning

Saved segments for Licensed Products do overlap. The overlapping occurs between Licensed Products that are normally not used at the same time. Use **VMFSGMAP** or **q nss map** to see which saved segments overlap.

D.1 Using VMSES/E Format Licensed Product Saved Segment Definitions

(SDOZVM52 PRODPART)

In the *z/VM CP Planning and Administration*, follow the instructions in the chapter entitled “Using VMSES/E to Define, Build and Manage Saved Segments” under the section entitled “Adding Saved Segment Definitions for a VMSES/E-Format Product” with the following exceptions:

1. In step 4, use **SDOZVM52 PRODPART** as the *prodid* (a *compname*, which represents a product component, is not required).
2. Skip step 5, continuing with step 6.
3. In step 7, type in the keyword **deleted** in the DEFPARMS field for any saved segments for a Licensed Product that you haven't installed and are not planning to install.
4. Complete the remaining steps in section “Adding Saved Segment Definitions for a VMSES/E-Format Product.”
5. Optionally, you can now use VMFBLD to define all of the saved segments.

D.2 Product Segments for z/VM SDO

The saved segment layout included with this release of z/VM SDO is the same layout that is used by IBM internally. The layout has been designed to allow for expansion and to keep as many saved segments above the 16MB line as possible.

This appendix contains information regarding specific sizes, locations and names of the saved segments associated with each of the Licensed Products in z/VM SDO.

Warning

Saved segments for Licensed Products do overlap. The overlapping occurs between Licensed Products that are normally not used at the same time. Use **VMFSGMAP** or **q nss map** to see which saved segments overlap.

Figure 18 (Page 1 of 2). Product Segments for z/VM SDO SDO Products

Product Number	Product Abbrev.	Segment Name	Location	Type	Space Name
5654-A22	C/C++ Compiler	CCNSEG	3D000-3FFFF	SR	
5654-A23	Debug Tool	SEQBSEG SEQASEG	900-9FF 2800-2EFF	SR SR	
5654-010	ACF/VTAM ESA	VTAM	D00-DFF	SR	
5654-033	IBM C/VM Compiler	CBC3SEG	4000-46FF	SR	
5668-723	GDDM-IVU	ADMIV000	3C900-3C9FF	SR	
5668-801	GDDM-IMD	ADMIM000	3BF00-3BFFF	SR	
5668-806	VS FORTRAN	AFBVRENB AFBVRENC AFBVRENA AFBVRENP DSSVFORT	B00-B0F B10-B5F 34100-341FF 34200-342FF 39D00-39FFF	SR SR SR SR SR	
5668-812	GDDM-PGF	ADMPG000	3B700-3BDFF	SR	
5684-043	ISPF	ISPDCSS	30000-300FF	SR	
5684-062	BookMgr READ	BOOKMGRR	33700-33AFF	SR	
5684-100	PVM	MPVMPH	20D00-20DFF	SR	
5684-123	ISPF/PDF	ISRDCSS FLMDCSS	30200-302FF 36000-36172	SR SR	
5684-141	PSF/VM	APRPSFC4 APRSFCM4 DCKVTBL4 APRGRP44 APRGP34A APRGP34D APRCALL4 APKSMAN APQTKMOD	700-70F 800-8B0 A00-A1F B00-B6F A00-A5F B00-B5F B00-B4F 900-980 A00-AFF	SR SR SR SR SR SR SR SR SR	
5684-168	GDDM/REXX GDDM/VM	ERXR000 ADMXSS00	36700-367FF 3C400-3C8FF	SR SR	
5688-188	C370 LIBRARY	EDCX24 EDCXV	32600-326FF 32500-325FF	SR SR	

<i>Figure 18 (Page 2 of 2). Product Segments for z/VM SDO SDO Products</i>					
Product Number	Product Abbrev.	Segment Name	Location	Type	Space Name
5688-228	APL2	AP2SM22 AP2V22W1	36800-377FF 32E00-32EFF	SW SR	
5695-014	REXX/370 Library	EAGRTSEG	32D00-32DFF	SR	
5696-234	HLASM	ASMAPSEG	3CF00-3CFFF	SR	
5697-F42	DB2/VM	SQLISQL	B00-B5F	SR	
		SQLRMGR	3A000-3A23F	SR	
		SQLSQLDS	900-A7F	SR	
		SQLXRDS	35000-353DF	SR	
		LANGS001	A00-A4F	SR	
		LANGS002	A00-A4F	SR	
		LANGS003	A00-A4F	SR	
		LANGS004	A00-A4F	SR	
		LANGD001	A00-A4F	SR	
		QMF720E	36400-366FF	SR	
	DB2/VM QMF				
5741-A05	DFSMS/VM FL 221	DFSMSSEG	2200-22FF	SW	
5748-XX9	DCF	DSMSEG4B	900-9BF	SR	
		DSMSEG4X	39000-392FF	SR	

Appendix E. Licensed Products Tapemaps

This appendix provides tapemaps of stacked VMSES/E and Semi-VMSES/E.

E.1 Stacked Tape for VMSES/E and Semi-VMSES/E Licensed Products

The first tape file of the Licensed Product tape is created by merging the first tape files of all the products on the tape. The second tape file of the Licensed Product tape is created by merging the second tape files of all the products on the tape. Together, the first and second files form the Table of Contents (TOC) of the Licensed Product tape.

The first file on Tape File 1 will be a file with a filename of 'INS' and filetype of the 'yymm' (where 'yy' is the year and 'mm' is the month in which the tape was manufactured). This file combines the 'INS' files for all the products on the tape. The next file will be the \$\$TAPE\$\$ VMSES file, which combines all the copyright files for all the products on the tape.

Tape File 3 marks the beginning of the first product on the tape and contains only information on the first product. It can be identified by the 'prodid 0vrmmn1' and 'prodid \$INSyymm' file. The remainder of the tape files for this product will follow in sequence.

The next product will follow, beginning with its Tape File 3, the 'prodid 0vrmmn1' and 'prodid \$INSyymm' files.

Figure 19 (Page 1 of 2). VMSES/E and Semi-VMSES/E IBM Licensed Program Product Tape Format

```
Tape File 1 (Combines all Tape Files 1 for all Products on
Tape)
INS      0203
$$TAPE$$ VMSES
prodid1  $PPF
prodid1  PPF
prodid1  PRODPART
prodid1  MEMO
.
.
.
prodidn  $PPF
prodidn  PPF
prodidn  PRODPART
prodidn  MEMO
```

Figure 19 (Page 2 of 2). VMSES/E and Semi-VMSES/E IBM Licensed Program Product Tape Format

Tape File 2 (Combines all Tape Files 2 for all Products on Tape)	
prodid1	0vrmmn1
prodid1	\$PPF
prodid1	PPF
prodid1	PRODPART
prodid1	MEMO
.	
.	
.	
prodidn	0vrmmn1
prodidn	\$PPF
prodidn	PPF
prodidn	PRODPART
prodidn	MEMO
Tape File 3 (Tape File 3 of first product only)	
prodid1	0vrmmn1
prodid1	\$INSyynn
Tape File 4 (Tape File 4 of first product only)	
\$prodid1	MEMO
Tape File 5 (Begins remaining tape files of first product)	
\$prodid1	Files
.	
.	
.	
Tape File n (Tape File 3 of next product)	
prodidn	0vrmmn1
prodidn	\$INSyynn
Tape File n + 1 (Tape File 4 of next product)	
prodidn	MEMO
Tape File n + 2 (Begins remaining tape files for this product)	
\$prodidn	Files
.	
.	
.	

Files in Tape File1 to Tape File 4

- prodid1, prodidn - Indicates the PPF file name
- INS 'yymm' - Content directory which lists tape files for all products on this tape. 'yymm' indicates the year and month this tape was manufactured.
- \$\$TAPE\$\$ VMSES - Contains copyright statements for all products on the tape.

-
- prodid MEMO - The z/VM SDO memo for prodid
 - prodid \$PPF - Source Product Parameter File (installation customization file) for prodid
 - prodid PPF - Compiled Product Parameter File prodidN
 - prodid PRODPART - Contains control information for prodidN such as resource requirements
 - prodid 0vrmmn1 - the Licensed Product identifier file for prodidN The characters in the file type are defined as follows

0	Constant denoting this as part of the Licensed Product tape.
v	The version number of the Licensed Product
r	The release number of the Licensed Product
m	The modification level number of the Licensed Product
nn	The number of product files + 2 product headers + 1 tape header
1	The "1" indicates it is in VMSES/E format.

Bibliography

z/VM Program Directory (Gl10-0770)

z/VM Guide for Automated Installation and Service
(GC24-6099)

z/VM General Information (GC24-6095)

z/VM VMSES/E Introduction and Reference
(GC24-6130)

z/VM Service Guide (GC24-6117)

z/VM CMS Command and Utility Reference
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*z/VM System Messages and Codes - Other
Components* (GC24-6120)

z/VM Saved Segment Planning and Administration
(SC24-6116)

Reader's Comments

Program Directory for System Delivery Offering Version 5

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RATING SCALE

very satisfied	<=====	very dissatisfied	not applicable
1	2 3 4	5	N

	Satisfaction					
Ease of Licensed Products installation	1	2	3	4	5	N
Contents of program directory	1	2	3	4	5	N
Installation Verification Programs	1	2	3	4	5	N
Time to install the Licensed Product	1	2	3	4	5	N
Readability and organization of program directory tasks	1	2	3	4	5	N
Necessity of all installation tasks	1	2	3	4	5	N
Accuracy of the definition of the installation tasks	1	2	3	4	5	N
Technical level of the installation tasks	1	2	3	4	5	N
Ease of getting the system into production after installation	1	2	3	4	5	N

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