Program Directory for

VM/Pass-Through Facility

Version 02 Release 01, Modification Level 01

Program Number 5684-100

for Use with
z/VM

Document Date: February 2024

GI10-4664-01

Note!

Before using this information and the product it supports, be sure to read the general information under “Notices” on page 80.

This program directory, dated February 2024, applies to VM/Pass-Through Facility Version 02 Release 01, Modification Level 01 (PVM), Program Number 5684-100.

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1.0 Introduction

This program directory is intended for the system programmer responsible for program installation and maintenance. It contains information concerning the material and procedures associated with the installation of PVM. You should read all of this program directory before installing the program and then keep it for future reference.

The program directory contains the following sections:

- 2.0, “Program Materials” on page 2 identifies the basic and optional program materials and documentation for PVM.
- 3.0, “Program Support” on page 4 describes the IBM support available for PVM.
- 4.0, “Program and Service Level Information” on page 6 lists the APARs (program level) and PTFs (service level) incorporated into PVM.
- 5.0, “Installation Requirements and Considerations” on page 7 identifies the resources and considerations for installing and using PVM.
- 6.0, “Installation Instructions” on page 15 provides detailed installation instructions for PVM.
- 7.0, “Service Instructions” on page 46 provides detailed servicing instructions for PVM.
- Appendix A, “Test the Installation/Service for PVM” on page 63 provides instructions on testing for PVM.
- Appendix B, “Local Modification Example: Assemble File” on page 76 provides a local modification example for PVM.
- Appendix C, “Overriding the VMSYS File Pool Name” on page 79 provides instructions on overriding the VMSYS file pool name for PVM.

Before installing PVM, read 3.1, “Preventive Service Planning” on page 4. This section tells you how to find any updates to the information and procedures in this program directory.

2.0 Program Materials

An IBM program is identified by a program number. The program number for PVM is 5684-100.

The program announcement material describes the features supported by PVM. Ask your IBM marketing representative for this information if you have not already received a copy.

The following sections identify:

- basic and optional program materials available with this program
- publications useful during installation.

2.1 Basic Machine-Readable Material

The distribution medium for this program is electronic or DVD. It can be ordered through the z/VM SDO using IBM Shopz. The DVD contains the electronic envelope file. The electronic envelope file contains all the programs and data needed for installation. For more information about IBM Shopz go to

https://www.ibm.com/software/shopzseries See 6.0, “Installation Instructions” on page 15 for more information about how to install the program.

Notes:

1. A PVM Recommended Service Update (RSU) is not included with the product order as the latest, as of February 2024, is already included with the installation media.
2. When ordering the RSU separately, the RSU will be labeled 'yynnRSU', where 'yynn' indicates the RSU level.

2.2 Optional Machine-Readable Material

There are no optional machine-readable materials for PVM.

2.3 Program Publications

The following sections identify the basic and optional publications for PVM.

2.3.1 Basic Program Publications

Figure 1 identifies the basic program publications for PVM. One copy of each of these publications is included when you order the basic materials for PVM. For additional copies, contact your IBM representative.

Figure 1. Basic Material

Publication Title	Form Number
VM/Pass-Through Facility Licensed Programming Specifications	GC24-5591-01
VM/Pass-Through Facility User's Guide	SC24-5555
VM/Pass-Through Facility Programmer's Reference	SC24-5556
VM/Pass-Through Facility Administration and Operation	SC24-5557-02
VM/Pass-Through Facility Messages	SC24-5648-01
VM/Pass-Through Facility Auto-Signon Reference	SC24-5656
VM/Pass-Through Facility TCP/IP Line Driver Support	SC24-5710-01

2.3.2 Optional Program Publications

There are no optional publications for PVM.

2.4 Publications Useful During Installation/Service

The publications listed in Figure 2 may be useful during the installation of PVM. To order copies, contact your IBM representative.

Figure 2. Publications Useful During Installation/Service

Publication Title	Form Number
z/VM: VMSES/E Introduction and Reference	GC24-6336
z/VM: Service Guide	GC24-6325
z/VM: CP Planning and Administration	SC24-6271
z/VM: CMS Commands and Utilities Reference	SC24-6260
z/VM: CMS File Pool Planning, Administration, and Operation	SC24-6261
z/VM: CP Messages and Codes	GC24-6270
z/VM: Other Components Messages and Codes	GC24-6300

3.0 Program Support

This section describes the IBM support available for PVM.

3.1 Preventive Service Planning

Before installing PVM, check with your IBM Support Center or use either Information/Access or IBMLink (ServiceLink) to see whether there is additional Preventive Service Planning (PSP) information. To obtain this information, specify the following UPGRADE and SUBSET values:

Figure 3. PSP Upgrade and Subset ID

	Retain		
COMPID	**Release**	**Upgrade**	**Subset**
568410001	211	PVM211	PVM/211
568410001	211	PVM211	yynnRSU
568410001	211	PVM211	PVM/yy-n
568410001	211	PVM211	RSUINFO
568410001	211	PVM211	RSU-BY-LVL
568410001	211	PVM211	RSU-BY-APAR
568410001	211	PVM211	RSU-BY-PTF
568410001	2G1	PVM211	PVM/211
568410001	2J1	PVM211	PVM/211
568410001	211	VMPEINFO	PVM211

3.2 Statement of Support Procedures

Report any difficulties you have using this program to your IBM Support Center. If an APAR is required, the Support Center will tell you where to send any needed documentation.

Figure 4 identifies the component IDs (COMPID), Retain Release and Field Engineering Service Numbers (FESN) for PVM.

Figure 4. Component IDs

	Retain		
COMPID	**Release**	**Component Name**	**FESN**
568410001	211	PVM 2.1.1	0401164
568410001	2G1	PVM 2.1.1 Kanji	0401164
568410001	2J1	PVM 2.1.1 German	0401164

4.0 Program and Service Level Information

This section identifies the program and any relevant service levels of PVM 2.1.1. The program level refers to the APAR fixes incorporated into the program. The service level refers to the PTFs integrated. Information about the Recommended Service Update is also provided.

4.1 Program Level Information

The following APAR fixes against previous releases of PVM have been incorporated into this release:

VM50935	VM51963	VM52576	VM53178	VM53790	VM54607
VM51060	VM51996	VM52683	VM53191	VM53791	VM54616
VM51165	VM52055	VM52697	VM53223	VM53792	VM54617
VM51289	VM52171	VM52704	VM53276	VM53794	VM55072
VM51425	VM52208	VM52747	VM53313	VM53795	VM55195
VM51434	VM52289	VM52793	VM53327	VM53826	VM55310
VM51661	VM52358	VM52952	VM53338	VM54054	VM55445
VM51689	VM52410	VM52977	VM53412	VM54200	VM55565
VM51732	VM52419	VM52982	VM53447	VM54309	VM55615
VM51746	VM52502	VM52992	VM53615	VM54331	VM55618
VM51781	VM52503	VM53088	VM53660	VM54384	VM55952
VM51796	VM52515	VM53091	VM53776	VM54401	VM56017
VM51870	VM52538	VM53099			

4.2 Service Level Information

This is the initial release of PVM 2.1.1. In addition to the most current PVM RSU, dated October 1999, the following PTFs are included with the installation media:

UV58789	UV59931	UV59997	UV60128	UV60356
UV59901	UV59984	UV60088	UV60298	UV60715

4.3 Recommended Service Update (RSU)

An RSU for VM/Pass-Through Facility 2.1.1 is now available. See upgrade bucket PVM211 subset yynnRSU (where yynn is the RSU service level) for information about the latest RSU available. For the list of PTF's included on the RSU, see the service memo. The RSU can be obtained by ordering PTF UV99211.

5.0 Installation Requirements and Considerations

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

5.1 System Requirements

This section describes the system environment required to install and use PVM.

5.1.1 Programming Requirements

There are no special programming requirements for the PVM.

5.2 DASD Storage Requirements

Figure 5 lists the user IDs and minidisks that are used to install and service PVM.

Important Installation Notes:

- The user ID's and mindisks will be defined in 6.1.1, “Plan Your Installation For PVM” on page 16 and are listed here so that you can get an idea of the resources that you will need prior to allocating them.
- P684100E is a default user ID and can be changed. If you choose to change the name of the installation user ID you need to create a Product Parameter Override (PPF) to change the name. This can be done as described in 6.1.1, “Plan Your Installation For PVM” step 7 on page 17.
- If you chose to change the installation user ID, you must ensure that all the default virtual minidisk addresses for PVM are unique on the new installation user ID. You will have to create a PPF override to change any minidisk address conflicts. Use of the shared file system will help reduce these conflicts. However, any disk with *NONSFS listed in the SFS 4K block column of Figure 5 must remain a minidisk.
- This product has not been updated to support running in an SSI cluster. If you wish to use it on members of an SSI cluster, you will need to make changes to how the product is installed. All userids for this product (P5684100E, PVM, PVMG and CVIEW) must be defined in the user directory using IDENTITY and SUBCONFIG constructs. The SUBCONFIG entry for P5684100E for each member should contain all the LINK and MDISK statements and the minidisks should all be defined on MEMBER specific volumes. If installing to Shared File System, the use of the VMSYS filepool, as documented, is correct. The SUBCONFIG entries for the server ids (PVM, PVMG and CVIEW) should contain the LINK statements for that ID. You will need to install and service PVM on each member separately, from each member's P5684100E userid. If you have additional questions about using PVM in an SSI cluster, contact IBM support.

Figure 5 (Page 1 of 2). DASD Storage Requirements for (Required) Target Minidisks

Minidisk owner (user ID)	Default Address	Storage in Cylinders		FB-512 Blocks	SFS 4K Blocks	Usage
		DASD	CYLS			Default SFS Directory Name
P684100E	2B2	3390	13	18720	2340	Contains the base code shipped with PVM **VMSYS:P684100E.PVM.PRODUCT**
P684100E	2C2	3390	4	5760	720	Contains sample files and user local modifications for PVM **VMSYS:P684100E.PVM.SAMPLES**
P684100E	2D2	3390	50	72000	9000	Contains serviced files **VMSYS:P684100E.PVM.DELTA**
P684100E	2A6	3390	9	12960	1620	Contains AUX files and version vector table that represents your test level of PVM **VMSYS:P684100E.PVM.APPLY1**
P684100E	2A2	3390	9	12960	1620	Contains AUX files and version vector table that represent your production level of PVM **VMSYS:P684100E.PVM.APPLY2**
P684100E	29D	3390	9	12960	1620	Contains American English help files for PVM **VMSYS:P684100E.PVM.HELPAME**
P684100E	400	3390	13	18720	2340	Test disk for PVM, EFGVIEW and DVMUSI MODULEs, and PVMG LOADLIB
P684100E	401	3390	4	5760	720	Production disk for PVM server, also PVM user ID's 191 disk
P684100E	404	3390	5	7200	900	Test disk for CVIEW

Notes:

1. Cylinder values defined in this table are based on a 4k block size. FB-512 and SFS block values are derived from the 3390 cylinder values in this table.
2. If you are not using CVIEW, then the P684100E 404 minidisk is not required. Create a PPF override to remove this disk from the :DCL, :MDA, :RECINS, :RECSER, and :BLD sections of the PPF.
3. *NONSFS in the SFS 4K block column means that disk cannot be installed to the shared file system and must remain a minidisk, which will be defined in 6.1.2, “Allocate Resources for Installing PVM.” on page 19.
4. The PVM and CVIEW server production code can be placed in a shared file system. If this is desired, then replace the P684100E's 400, 401, 403, 404, and 405 minidisks with appropriate SFS directories. If the MPVM code on the P684100E 403 minidisk is placed in an SFS directory, then the MPVM EXEC will have to be modified, changing the link and access of PVM's 199 minidisk to the shared file directory chosen. The PVMG server production code located on P684100E's 402 minidisk cannot be placed on a shared file directory since GCS does not support SFS.

Figure 5 (Page 2 of 2). DASD Storage Requirements for (Required) Target Minidisks

Minidisk owner (user ID)	Default Address	Storage in Cylinders		FB-512 Blocks	SFS 4K Blocks	Usage
		DASD	CYLS			Default SFS Directory Name
P684100E	191	3390	21	30240	3780	P684100E user ID's 191 minidisk **VMSYS:P684100E.**
MAINT*vrm*	19E	3390	2	2880	360	Production disk for MPVM and PASSTHRU users for PVM

Notes:

1. Cylinder values defined in this table are based on a 4k block size. FB-512 and SFS block values are derived from the 3390 cylinder values in this table.
2. If you are not using CVIEW, then the P684100E 404 minidisk is not required. Create a PPF override to remove this disk from the :DCL, :MDA, :RECINS, :RECSER, and :BLD sections of the PPF.
3. *NONSFS in the SFS 4K block column means that disk cannot be installed to the shared file system and must remain a minidisk, which will be defined in 6.1.2, “Allocate Resources for Installing PVM.” on page 19.
4. The PVM and CVIEW server production code can be placed in a shared file system. If this is desired, then replace the P684100E's 400, 401, 403, 404, and 405 minidisks with appropriate SFS directories. If the MPVM code on the P684100E 403 minidisk is placed in an SFS directory, then the MPVM EXEC will have to be modified, changing the link and access of PVM's 199 minidisk to the shared file directory chosen. The PVMG server production code located on P684100E's 402 minidisk cannot be placed on a shared file directory since GCS does not support SFS.

Figure 6 (Page 1 of 2). DASD Storage Requirements for (Optional) Target Minidisks

Minidisk owner (user ID)	Default Address	Storage in Cylinders		FB-512 Blocks	SFS 4K Blocks	Usage
		DASD	CYLS			
P684100E	2B1	3390	21	30240	3780	Contains base assemble, $exec, and other optional source files **VMSYS:P684100E.PVM.SOURCE**

Notes:

1. Cylinder values defined in this table are based on a 4k block size. FB-512 and SFS block values are derived from the 3390 cylinder values in this table.
2. *NONSFS in the SFS 4K block column means that disk cannot be installed to the shared file system and must remain a minidisk, which will be defined in 6.1.2, “Allocate Resources for Installing PVM.” on page 19.
3. The PVM and CVIEW server production code can be placed in a shared file system. If this is desired, then replace the P684100E's 400, 401, 403, 404, and 405 minidisks with appropriate SFS directories. If the MPVM code on the P684100E 403 minidisk is placed in an SFS directory, then the MPVM EXEC will have to be modified, changing the link and access of PVM's 199 minidisk to the shared file directory chosen. The PVMG server production code located on P684100E's 402 minidisk cannot be placed on a shared file directory since GCS does not support SFS.

Figure 6 (Page 2 of 2). DASD Storage Requirements for (Optional) Target Minidisks

Minidisk owner (user ID)	Default Address	Storage in Cylinders		FB-512 Blocks	SFS 4K Blocks	Usage
		DASD	CYLS			
P684100E	502	3390	9	12960	1620	Contains Upper Case English help files for PVM **VMSYS:P684100E.PVM.HELPUCE**
P684100E	501	3390	9	12960	1620	Contains Kanji help files for PVM **VMSYS:P684100E.PVM.HELPKAN**
P684100E	505	3390	9	12960	1620	Contains German help files for PVM **VMSYS:P684100E.PVM.HELPGER**
P684100E	402	3390	2	2880	*NONSFS	Production disk for PVMG server, also PVMG user ID's 191 disk
P684100E	403	3390	4	5760	720	Production disk for MPVM users, also PVM user ID's 199 disk
P684100E	405	3390	5	7200	900	Production disk for CVIEW server, also CVIEW user ID's 191 disk
MAINT*vrm*	19D	3390	9	12960	1620	Production disk containing American English help files for PVM
MAINT*vrm*	402	3390	9	12960	1620	Production disk containing Upper Case English help files for PVM

Notes:

1. Cylinder values defined in this table are based on a 4k block size. FB-512 and SFS block values are derived from the 3390 cylinder values in this table.
2. *NONSFS in the SFS 4K block column means that disk cannot be installed to the shared file system and must remain a minidisk, which will be defined in 6.1.2, “Allocate Resources for Installing PVM.” on page 19.
3. The PVM and CVIEW server production code can be placed in a shared file system. If this is desired, then replace the P684100E's 400, 401, 403, 404, and 405 minidisks with appropriate SFS directories. If the MPVM code on the P684100E 403 minidisk is placed in an SFS directory, then the MPVM EXEC will have to be modified, changing the link and access of PVM's 199 minidisk to the shared file directory chosen. The PVMG server production code located on P684100E's 402 minidisk cannot be placed on a shared file directory since GCS does not support SFS.

5.3 Program Considerations

The following sections list the considerations for installing PVM and activating its functions.

5.3.1 Operating System Requirements

The following operating systems can be used to install PVM:

- z/VM Version 7 Release 2.0 (or higher)

5.3.2 Program Installation / Service Considerations

This section describes items that should be considered before you install or service PVM.

- VMSES/E is required to install and service this product.
- If multiple users install and maintain licensed products on your system there may be a problem getting the necessary access to MAINT's 51D disk. If you find that there is contention for write access to the 51D disk, you can eliminate it by converting the Software Inventory from minidisk to the Shared File System (SFS). See the *VMSES/E Introduction and Reference* manual section "Changing the Software Inventory to an SFS directory", for information on how to make this change.
- Customers will install and service PVM using user ID P684100E (which happens to be PVM 2.1.1's product ID, with P substituted for the 5). This is the IBM suggested user ID name. Customers are free to change this to any user ID name they wish. However, in that case a PPF override must be created.

  Note: It may be easier to make changes during the installation procedure 6.1.1, “Plan Your Installation For PVM” step 7 on page 17, then after you have installed this product.
- If you are going to install to minidisks you should keep in mind that the segments must be built from the installation user ID P684100E. If you want to build segments from a common user ID you will need to install PVM using the SFS system so that the common user ID can obtain access to the PVM code when building segments.
- RSUs will be supplied as necessary. Service between RSUs can be obtained via CORrective service. The PVM, DVMUSI and EFGVIEW MODULES, PVMG LOADLIB, and DVMMAC MACLIB files, and the files used by PVM to build the MODULES, LOADLIB, and MACLIB, will no longer be shipped as CORrective service. These files will be built by the customer using VMFBLD. The EFGVSTUB and LOGONID modules used by MPVM and all CVIEW product files are shipped with the PVM 2.1.1 product and serviced as full part replacements. The rest of the PVM 2.1.1 product is a mixture of full part replacement and source maintained parts.
- The CVIEW function of PVM 2.1.1 is installed and serviced using VMSES/E support, at the same time as PVM, from the same product base or CORrective service. It is installed directly to its own separate test minidisk. The installation will instruct you to copy the contents of that disk to a production CVIEW disk.

5.3.3 Required Program Products / Components

If the PVMG gateway to VTAM or use of PVM's APPC line driver is required then the following products must be installed:

- VTAM (ACF/VTAM) Version 3 Release 2 (or higher)
- GCS component of z/VM.

If the use of PVM's TCP/IP line driver is required then the following must be configured:

- z/VM TCP/IP Support

5.3.4 User ID Directory Information

User directory statements supplied in the 5684100E PRODPART file have user IDs that have privilege classes other than G. These privilege classes are required for the following reasons:

- The installing ID, P684100E, must have class E privilege for building the MPVM shared segment.
- The PVM virtual machine must have class B privilege for any of the following:
  - The configuration file (PVM CONFIG) contains a MSGNOH record, or
  - to allow warning messages to be issued to PVM users.
- The PVMG machine must have class B privilege if the configuration file (PVMG CONFIG) contains a MSGNOH record.
- The CVIEW machine must have class B privilege if you wish CVIEW to issue messages using MSGNOH.

370 mode is required for the CVIEW virtual machine.

370 Accommodation Mode Requirements

The CVIEW server will run on an ESA mode virtual machine using CP's 370 accommodation support. To turn this on, add the following line in the PROFILE EXEC:

```
'CP SET 370ACCOM ON'
```

With the PTF for APAR VM66733, the PVM server no longer requires 370 accommodation support.

5.3.5 Special Program Installation Considerations for NLS

PVM 2.1.1 is shipped with mixed-case American English, uppercase American English, German, and Kanji message repository language files. They are also built into the PVM, EFGVIEW, and DVMUSI MODULEs and PVMG LOADLIB supplied on the product media. The sample configuration files define mixed-case American English as the default national language. You can use the LANG configuration file record to automatically set the system national language. PVM users receive PVM messages, menus, and HELP

panels in the system national language. Only American English help files are shipped on the PVM 2.1.1 product media.

You can order other national language help files to install on your system. However, z/VM only provides support for American English and Uppercase English help files.

For further details on PVM national languages, review the "National Languages on Your PVM System" chapter in the *VM/Pass-Through Facility Administration and Operation* manual.

5.3.6 Available PVM 2.1.1 SPE's

The following SPE's are available for PVM 2.1.1:

- APAR VM57537

  Provides a PVM peer to peer TCP/IP line driver. Publication describing this SPE is *VM/Pass-Through Facility TCP/IP Line Driver Support*, manual SC24-5710

- APAR VM57538

  Provides the PVM SNA gateway facility (PVMG) for VM on a VSE guest, PVMG/VSE.

- APAR VM58551

  Provides several enhancement's to the PVMG SNA gateway facility.

- APAR VM60644

  Provides several enhancement's to the PVM server, including multiple session capability when DIALing PVM.

- APAR VM61373

  Provides enhancements to the PVM and CVIEW servers in support of expanded logical device addressing, enhancements to the screen handler within the DVMUSI MODULE, and the addition of an MPVMLINK EXEC exit point within the MPVM EXEC.

- APAR VM66331

  With the PTF for APAR VM66331, the PVM peer to peer TCP/IP line driver is updated to support secure connectivity via TCP/IP. PVM TCPIP links can communicate securely when configured with an x.509 digital certificate that will be used to encrypt/decrypt all data flowing over the link using TLS protocols.

- APAR VM66733

  With the PTF for APAR VM66733, the PVM server no longer requires SET 370ACCOM ON. The PVM server will execute in a MACHINE ESA mode virtual machine and can operate in either CMS or z/CMS environments. In addition, support for configuring the following obsolete devices and functions has been removed with no replacements available:

  – BSCA: Bi-Sync device driver

  – ISFC (CSECOM): CSE Support

- R3270: Remote 3270 device support
- ROCF: Remote Operator Console Facility
- S3270: SNA 3270 device support
- TRACE command: System Trace File Interface (Diagnose X'E0') support
- 3088: DIAG/NODIAG options
- 327X: Direct attached 3270 device
- 328X: Attached printer support

PVM continues to support the following connectivity configurations:

- CTCA: Channel-to-channel adapters
- TCPIP: Secure or non-secure TCPIP
- APPC: Advanced Program-to-Program Communications
- 3088: Via FICON„ adapters
- IUCV: Inter User Communication Vehicle (IUCV) to communicate with a PVM to VTAM gateway (PVMG) server
- PCCF: For cross-systems IUCV communications
- GRAF: Graphics for direct-attached display stations

Multiple Pass-Through VM(MPVM), CMS PASSTHRU, and Cooperative Viewing Facility(CVIEW) continue to be supported environments.

6.0 Installation Instructions

This chapter describes the installation methods and the step-by-step procedures to install and activate PVM.

The step-by-step procedures are in a two column format. The steps to be performed are in bold large numbers. Commands for these steps are on the left side of the page in bold print. Additional information for a command may exist to the right of the command.

Each step of the installation instructions must be followed. Do not skip any step unless otherwise directed. All instructions showing accessing of disks assumes the use of default minidisk addresses or SFS directories. If different minidisk addresses or SFS directory names are used, change the instructions appropriately.

Note!

The sample console output presented throughout these instructions may differ from those depicted here.

6.1 VMSES/E Installation Process Overview

The following is a brief description of the main steps for installing PVM using VMSES/E.

- Plan Your Installation

  Use the VMFINS command to load several VMSES/E files from the product media and to obtain PVM resource requirements.

- Allocate Resources

  Use the information obtained from the previous step to allocate the appropriate minidisks (or SFS directories) and user IDs needed to install and use PVM.

- Install the PVM Product

  Use the VMFINS command to load the PVM product files from media to the test BUILD and BASE minidisks/directories. VMFINS is then used to update the VM SYSBLDS file used by VMSES/E for software inventory management.

- Perform Post-installation Tasks

  Information about file tailoring and initial activation of the program is presented in 6.1.1, “Plan Your Installation For PVM” on page 16.

- Place the PVM Files into Production

  Once the product files have been tailored and the operation of PVM is satisfactory, copy the product files from the test BUILD disk(s) or directories to production BUILD disk(s) or directories.

For a complete description of all VMSES/E installation options refer to:

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

6.1.1 Plan Your Installation For PVM

The VMFINS command will be used to plan the installation. This section has 2 main steps that will:

- load the first tape file, containing installation files
- generate a 'PLANINFO' file listing
  - all user ID and mdisks directory requirements
  - required products

To obtain planning information for your environment:

1 Log on as the PVM installation planner.

This user ID can be any ID that has read access to the MAINT*vrm* 5E5 minidisk and write access to the MAINT*vrm* 51D minidisk. The MAINT*vrm* ID is recommended.

2 Load the PVM installation DVD and follow the instructions for electronically delivered service, as the procedure is the same:
https://www.vm.ibm.com/install/servinst.html

3 Establish read access to the VMSES/E code.

link MAINT*vrm* 5e5 5e5 rr **access 5e5 b**	The 5E5 disk contains the VMSES/E code.

4 Establish write access to the Software Inventory disk.

link MAINT*vrm* 51d 51d mr **access 51d d**	The MAINT*vrm* 51D disk is where the VMSES/E system-level Software Inventory and other dependent files reside.

Note: If another user already has the MAINT*vrm* 51D minidisk linked in write mode (R/W), you will only obtain read access (R/O) to this minidisk. If this occurs, you will need to have that user re-link the 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 51D minidisk.

5 Load PVM specific files to the 51D disk.

This command will perform the following:

- load Memo-to-Users
- load various product control files, including the Product Parameter File (PPF) and the PRODPART files
- create VMFINS PRODLIST on your A-disk. The VMFINS PRODLIST contains a list of products on the installation media.

6 Installing from a product **envelope** file

vmfins install info (nomemo env *envfilename*

envfilename is the file name of the product envelope file. The file type must be SERVLINK.

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

```
VMFINS2760I VMFINS processing started
VMFINS1909I VMFINS PRODLIST created on your A-disk
VMFINS2760I VMFINS processing completed successfully
Ready;
```

7 Obtain resource planning information for PVM

Notes:

- The product will not be loaded by the VMFINS command at this time.
- The **PLAN** option indicates that VMFINS will perform requisite checking, plan system resources, and provide an opportunity to override the defaults in the product parameter file. See the notes following the command, before you issue the command, for more information about overrides and PVM.

  You can override any of the following:

  – the name of the product parameter file

  – the default user IDs

  – minidisk/directory definitions

– change the address for the ISPVM 192 minidisk

– remove the PRODUSER A5 minidisk as it is not required on z/VM

– change the address and owner of the minidisk where the PVM help files will be installed

vmfins install ppf 5684100E {PVMINS|PVMISFS} (plan nomemo env *envfilename*

envfilename is the file name of the product envelope file. The file type must be SERVLINK.

Use **PVMINS** if installing using minidisks or **PVMISFS** if installing using SFS

Notes:

a. If you change the PPF name, a default user ID, or other parameters via a PPF override, you'll need to use your changed values instead of those indicated (when appropriate), throughout the rest of the installation instructions, as well as those provide for servicing PVM. For example, you'll need to specify your PPF override file name instead of 5684100E for certain VMSES/E commands. For more information about changing the VMSYS file pool name see see Appendix C, “Overriding the VMSYS File Pool Name” on page 79

b. If you're not familiar with creating PPF overrides using VMFINS, review the 'Using the Make Override Panel' section in Chapter 3 of the *VMSES/E Introduction and Reference* before you continue.

c. If you choose to make overrides, be sure they're saved on the 51D disk.

```
VMFINS2760I VMFINS processing started
VMFREQ2805I Product 5684100E component PVMINS passed requisite checking
Do you want to create an override for 5684100E PVMINS (prodid 5684100E)?
Enter 0 (No), 1 (Yes) or 2 (Exit)
0
VMFRMT2760I VMFRMT processing started
VMFRMT2760I VMFRMT processing completed successfully
VMFPLA1909I 5684100E PLANINFO created on your A-disk
VMFINS2760I VMFINS processing completed successfully
Ready;
```

8 Review the install message log ($VMFINS $MSGLOG). If necessary, correct any problems before going on. For information about handling specific install messages, see *z/VM: Other Components Messages and Codes* or use on-line HELP.

vmfview install

6.1.2 Allocate Resources for Installing PVM.

Use the planning information in the 5684100E PLANINFO file, created in the PLAN step, to:

- Create the following user IDs if they do not already exist:
  - P684100E
  - PVM
  - PVMG
  - CVIEW
- Place the new directory on-line

1 Obtain the user directory entries from the 5684100E PLANINFO file.

Notes:

a. The user directory entries are located at the bottom of the PLANINFO file. It contains necessary links and privilege classes for all of the user IDs.

b. Update the directory entry for userid P684100E: change the default virtual storage size from 24M to 32M

2 If you are using minidisks, add the MDISK statements to the directory entry for P684100E. Use Figure 5 on page 7 to obtain the minidisk requirements.

Note: The disk size information in the PLANINFO file is out of date.

3 If you are using SFS then you will need to do the following:

a Determine the number of 4k blocks that are required for SFS directories. From the 5684100E PLANINFO file add up all of the 4k blocks for all of the SFS directories listed or add up all of the SFS Blocks in Figure 5 on page 7. This will give you the total number of 4k blocks that will be needed to install PVM. This information will be used when enrolling the P684100E user ID to the VMSYS filepool. Note that the P684100E 402 minidisk cannot be placed in an SFS directory.

b Enroll user P684100E in the VMSYS filepool using the ENROLL USER P684100E VMSYS (BLOCKS *blocks* command, where *blocks* is the number of 4k blocks that you calculated in the previous step.

Note: This must be done from a user ID that is an administrator for the VMSYS: filepool.

c Determine if there are enough blocks available in the filepool to install PVM. This information can be obtained from 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 blocks free is smaller than the total 4k blocks needed to

install PVM 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.

d Create the necessary subdirectories listed in the 5684100E PLANINFO file using the CREATE DIRECTORY command.

e Create the minidisks tha cannot be placed into an SFS. These disks include the P684100E's 402 minidisk.

Note: This must be done from the installation user ID P684100E.

f If you intend to use an SFS directory as the work space for the P684100E used ID, include the following IPL control statement in the P684100E directory entry:

```
IPL CMS PARM FILEPOOL VMSYS
```

This will cause CMS to automatically access the P684100E's top directory as file mode A.

4 Change passwords for the user ID's.

5 Add all of the user ID directory enteries to the user directory.

6 Place the new user directory on-line using VM/Directory Maintenance (DIRMAINT) or an equivalent CP directory maintenance method.

Notes:

a. All minidisks for the P684100E user ID must be formatted before installing PVM.

6.1.3 Install PVM

The *ppfname* used throughout these instructions is **5684100E**, which assumes you are using the override PPF supplied by IBM for PVM. If you have your own PPF override file for PVM, you should use your file's *ppfname* instead of **5684100E**. Use this *ppfname* **throughout** the rest of this procedure.

1 Log on to the installation user ID **P684100E**.

2 Create a PROFILE EXEC that will contain the access of MAINT's 5E5 and 51D minidisks.

```
xedit profile exec a
====> input /**/
====> input 'access 5e5 b'
====> input 'access 51d d'
====> file
```

3 Establish write access to the Software Inventory Disk if not linked R/W.

Note: If the MAINT*vrm* 51D minidisk was accessed R/O, you will need to have the user who has it linked R/W link it as R/O. You then can issue the following commands to obtain R/W access to it.

link maint*vrm* 51d 51d mr
access 51d d

The MAINT*vrm* 51D disk is where the VMSES/E system level software inventory files reside.

4 Execute the profile to access the 5E5 and 51D disks.

profile

5 If the Software Inventory disk (51D) was accessed R/O (read only) then establish write access to the Software Inventory disk.

Note: If the MAINT*vrm* 51D minidisk was accessed R/O, you will need to have the user who has it linked R/W link it as R/O. You then can issue the following commands to obtain R/W access to it.

link MAINT*vrm* 51d 51d mr
access 51d d

Make sure the product envelope SERVLINK file is available on the A-disk or any work disk accessed as C.

6 Install PVM

Notes:

- If you've already created a PPF override file, you should specify your override file name, in place of the default PPF name (5684100E), after the **PPF** keyword for the following VMFINS command.
- You will need to link the MAINT 19D minidisk **R/W** in order to complete the install of PVM,
- You may be prompted for additional information during VMFINS INSTALL processing depending on your installation environment. If you're unsure how to respond to a prompt, refer to the "Installing Products with VMFINS" and "Install Scenarios" chapters in the *VMSES/E Introduction and Reference* to decide how to proceed.

a Installing from a product **envelope**

vmfins install ppf 5684100E {PVMINS|PVMISFS} (nomemo nolink env *envfilename*

envfilename is the file name of the product envelope file. The file type must be SERVLINK.

Use **PVMINS** if installing using minidisks or **PVMISFS** if installing using SFS

The NOLINK option indicates that you don't need VMFINS to link to the appropriate minidisks, only access them if not accessed.

```
VMFINS2760I VMFINS processing started
VMFREQ2805I Product 5684100E component PVMINS passed requisite checking
Do you want to create an override for 5684100E PVMINS (prodid 5684100E)?
Enter 0 (No), 1 (Yes) or 2 (Exit)
0
VMFINT2760I VMFINST processing started
VMFLDP2706I 5684100E PVMINS (prodid 5684100E) will be processed as a PDI product
VMFSET2760I VMFSETUP processing started
VMFUTL2205I Minidisk|Directory Assignments:
            String    Mode  Stat  Vdev  Label
                                      or    ....
VMFUTL2205I LOCALSAM  E      R/W  2C2   P682C2
VMFUTL2205I APPLY     F      R/W  2A6   P682A6
VMFUTL2205I           G      R/W  2A2   P682A2
VMFUTL2205I DELTA     H      R/W  2D2   P682D2
VMFUTL2205I BUILD0    I      R/W  400   P68400
VMFUTL2205I BUILD4    J      R/W  404   P68404
VMFUTL2205I BUILD6    K      R/W  29D   P6829D
VMFUTL2205I BASE      L      R/W  2B2   P682B2
VMFUTL2205I --------  A      R/W  191   P68191
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
VMFREC1852I Volume 1 of 1 of INS ENVELOPE envname
VMFREC1851I (1 of 9) VMFRCAXL processing AXLIST
VMFRCX2159I Loading n part(s) to DELTA 2D2 (H)
VMFREC1851I (2 of 9) VMFRCPTF processing PARTLST
  ⋮
VMFRCA2159I Loading part(s) to BUILD4 404 (J)
VMFRCA2159I Loaded n part(s) to BUILD4 404 (J)
  ⋮
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 install messages, see *z/VM: Other Components Messages and Codes* or use on-line HELP.

vmfview install

6.2 Optional Installation Steps

This section describes optional install steps that include uppercase English help files, optional source, NLS features, and local modifications.

If you plan on doing any of the following:

- 6.2.1, “Install Uppercase English Help Files”
- 6.2.2, “Install NLS features”
- 6.2.3, “Install Optional Source Files”
- 6.2.4, “Local Modifications to PVM”

Then continue with all applicable steps. Otherwise continue with 6.3, “Update Build Status Table for PVM.”

6.2.1 Install Uppercase English Help Files

1. Get the 502 minidisk or SFS requirements from Figure 6 on page 9. Add the minidisk to the P684100E user ID directory and place the directory on-line.
2. Format the disk, or create the VMSYS:P684100E.PVM.HELPUCE directory.
3. Create Uppercase English files from American English Help Files

   a. If installing using minidisks

```
access 29d e
access 502 f
vmfcopy * * e = = f (prodid 5684100E%PVM olddate replace upcase
```

   b. If installing using SFS

```
access VMSYS:P684100E.PVM.HELPAME e
access VMSYS:P684100E.PVM.HELPUCE f
vmfcopy * * e = = f (prodid 5684100E%PVM upcase replace olddate
```

4. Copy Uppercase English Help Files into Production from P684100E's 502 disk to MAINT's 402 disk

   a. Log on to **MAINT***vrm*

      This step has to be done from the MAINT*vrm* user ID

   b. Copy the uppercase help files to the MAINT 402 minidisk.

      1. If installing using minidisks

```
link P684100E 502 addr rr
link MAINT 402 402 mr
access addr e
access 402 f
vmfcopy * * e = = f (prodid 5684100E%PVM replace olddate
```

addr is any free disk address on the MAINT*vrm* user ID

      2. If installing using SFS

```
access VMSYS:P684100E.PVM.HELPUCE e
access 402 f
vmfcopy * * e = = f (prodid 5684100E%PVM replace olddate
```

   c. Log off **MAINT***vrm*

6.2.2 Install NLS features

Note: z/VM NLS features are obsolete and no longer supported. Therefore, the PVM German and Kanji help features should not be installed.

6.2.3 Install Optional Source Files

1. Get the 2B1 minidisk or SFS requirements from Figure 6 on page 9. Add the minidisk to the P684100E user ID directory and place the directory on-line.
2. Log on to the installation user ID **P684100E**.
3. Format the disk, or create the VMSYS:P684100E.PVM.SOURCE directory.
4. Make sure the PVM installation envelope SERVLINK file is available on the A-disk or any work disk accessed as C.
5. Install Optional Source Using VMFINS

vmfins install ppf 5684100E {PVMSRC|PVMSSFS} (nomemo nolink env *envfilename*

envfilename is the file name of the product envelope file. The file type must be SERVLINK.

Use **PVMSRC** if installing using minidisks or **PVMSSFS** if installing using SFS.

6.2.4 Local Modifications to PVM

If any local modifications to PVM are required, contact IBM support for assistance applying local service.

Notes:

1. There is a local modification assemble file example in Appendix B, “Local Modification Example: Assemble File” on page 76.

6.3 Update Build Status Table for PVM

1 Log on to the installation user ID **P684100E**.

2 Update the VM SYSBLDS software inventory file for PVM

vmfins build ppf 5684100E {PVMINS|PVMISFS} (serviced nolink

Use **PVMINS** if installing using minidisks or **PVMISFS** if installing using SFS

The SERVICED option will build any parts that were not built on the installation media (if any) and update the software inventory build status table showing that 5684100E has been built.

Note

If the $PPF files have been serviced you will get the following prompt:

```
VMFBLD2760I VMFBLD processing started
VMFBLD1851I Reading build lists
VMFBLD2182I Identifying new build requirements
VMFBLD2185R The following source product parameter files have been
            serviced:
VMFBLD2185R 5684100E $PPF
VMFBLD2185R When source product parameter files are serviced, all
            product parameter files built from them must be recompiled
            using VMFPPF before VMFBLD can be run.
VMFBLD2185R Enter zero (0) to have the serviced source product
            parameter files built to your A-disk and exit VMFBLD so
            you can recompile your product parameter files with VMFPPF
VMFBLD2185R Enter one (1) to continue only if you have already
            recompiled your product parameter files with VMFPPF
```

0	Enter a 0 and complete the following steps before you continue.

```
VMFBLD2188I Building 5684100E $PPF on 191 (A) from level $PFnnnnn
```

vmfppf 5684100E {PVMINS|PVMISFS} **vmfppf 5684100E {PVM|PVMSFS}**	Use **PVMINS** and **PVM** if installing using minidisks or **PVMISFS** and **PVMSFS** if installing using SFS **Note:** If you've created your own PPF override then use your PPF name instead of 5684100E. You should recompile all overrides to ensure they are at the proper level for future use.
copy 5684100E $ppf a = = d (olddate replace **erase 5684100E $ppf a**	**Note: Do not** use your own PPF name in place of 5684100E for the COPY and ERASE commands.
vmfins build ppf 5684100E {PVMINS|PVMISFS} (serviced nolink	
1	This will complete updating the build status table. When you receive the prompt that was previously displayed, enter a 1 to continue.

6.4 Post Installation

This section is required to initialize the server machines minidisks with PVM code and tailor the server machines for your operating environment.

6.4.1 Copy the Server Code to the Server Minidisks

This step is accomplished by using the IN2PROD EXEC. To find out more information on the IN2PROD EXEC issue **in2prod {?|help}** after accessing the 400 disk.

1 Log on to P684100E, if you are not already logged on to it.

2 Access the disk where the IN2PROD EXEC resides

access 400 e

If you are planning on using any combination of PVM, PVMG, MPVM or CVEIW, but not all, continue with step 3 and select the applicable steps. Otherwise, issue the following command:

in2prod all

and continue with 6.4.2, “Tailor the PVM Server Machines (Initial Installation)” on page 28.

Note: Not all CVIEW files exist at this time since the tailoring steps are still to be completed. See step 6 on page 28 for further CVIEW tailoring details.

3 Copy PVM server code to P684100E's 401 disk

in2prod pvm

Note: The PVM server machine links to the 401 disk as it's 191.

4 If you are using PVMG, copy server code to P684100E's 402 disk

in2prod pvmg

Note: The PVMG server machine links to the 402 disk as it's 191.

5 If you are using MPVM, copy code to P684100E's 403 disk

in2prod mpvm

Note: MPVM users link to the 403 disk as PVM's 199 disk.

6 Copying CVIEW code from the 404 test minidisk to the 405 production minidisk will be done in 6.4.2.3, “Tailor the CVIEW Virtual Machine” on page 30 for initial installation,.

6.4.2 Tailor the PVM Server Machines (Initial Installation)

If you are installing PVM for the first time, copy and tailor sample files for each program that you will be using.

Select any or all of the following based on the functions that you will be using:

- 6.4.2.1, “Tailor the PVM Virtual Machine”
- 6.4.2.2, “Tailor the MPVM Files” on page 29
- 6.4.2.3, “Tailor the CVIEW Virtual Machine” on page 30
- 6.4.2.4, “Tailor the PVMG Server Virtual Machine” on page 31

6.4.2.1 Tailor the PVM Virtual Machine

1 Log on to P684100E if you are not already logged on to it.

2 Access the LOCALSAM disk (2C2).

Note: If PVM was installed in SFS then the equivalent SFS directory should be accessed.

access 2c2 t The sample files were loaded to the 2C2 minidisk.

3 Access the 401 minidisk.

access 401 u The P684100E 401 minidisk is PVM's 191 minidisk.

4 Copy the sample files to the 401 minidisk.

```
vmfcopy pvm confsamp t = config u (prodid 5684100E%PVM olddate replace
vmfcopy profile pvmsamp t = pvm u (prodid 5684100E%PVM olddate replace
vmfcopy profpvm execsamp t profile exec u (prodid 5684100E%PVM olddate replace
vmfcopy ucomdir namesamp t = names u (prodid 5684100E%PVM olddate replace
```

5 Tailor each of the files that you just copied. See "Defining Your PVM Configuration" of the *VM/Pass-Through Facility Administration and Operation* manual for details on configuring these files.

6 Tailor the REMOTE AUTH file.

VM/Pass-Through Facility now contains the Access Security Exits in the PVM module that was supplied with the installation materials, therefore, you will need to create this file even if you will not be using these exits.

Important Information on the REMOTE AUTH File

Even if you will not be using the Access Security Exits provided with PVM, a REMOTE AUTH file is necessary. When PVM tries to establish a session, the request will be rejected if the REMOTE AUTH file does not exist. If use of these exits are not desired, create a REMOTE AUTH file with a comment line.

The REMOTH AUTH file can be used to limit availability of the PVM network by user ID, terminal ID, and node ID (originating and destination) to selected users.

a Create the REMOTE AUTH file.

xedit *filename* **auth u**

filename is the name of your PVM local node or REMOTE if you choose not to use your PVM local node.

b Make any desired changes. See the Appendix "PVM Access Security Exits" in the *VM/Pass-Through Facility Administration and Operation* manual for details on these exits.

c Save your changes.

====> file

6.4.2.2 Tailor the MPVM Files

1 Log on to P684100E if you are not already logged on to it.

2 Access the LOCALSAM disk (2C2)

Note: If PVM was installed in SFS then the equivalent SFS directory should be accessed.

access 2c2 t

The sample files were loaded to the 2C2 minidisk.

3 Access 403 minidisk.

access 403 u

The P684100E 403 minidisk is PVM's 199 minidisk.

4 Copy the sample files to the 403 minidisk.

```
vmfcopy mpvmsys namesamp t = names u (prodid 5684100E%PVM olddate replace
vmfcopy mpvm namesamp t = names u (prodid 5684100E%PVM olddate replace
vmfcopy mpvmsgns namesamp t = names u (prodid 5684100E%PVM olddate replace
```

5 Make any desired changes to these files. See the following for further details:

- "Developing NAMES Files for MPVM" in the *VM/Pass-Through Facility Administration and Operation* manual for details on modifying the names files.
- "Getting Started Using MPVMSGN" in the *VM/Pass-Through Auto-Signon Reference* manual for details on modifying the auto-signon names file.

6.4.2.3 Tailor the CVIEW Virtual Machine

1 Log on to P684100E if you are not already logged onto it.
The DXGINIT EXEC will only run in a 370 mode virtual machine. In order to process the CVIEW menu files you will need to turn on CP's 370 accommodation.

```
set 370accom on
```

2 Access the 404 minidisk.

```
access 404 a
```

The P684100E 404 minidisk is CVIEW's test 191 minidisk.

3 Tailor the CONSULT IDNAME file.

See "Customizing - CVIEW" in the *VM/Pass-Through Facility Administration and Operation* manual for details on modifying this file.

4 Run the DXGINIT EXEC to create the SAVEPAN files needed by CVIEW.

dxginit

The DXGINIT EXEC will prompt you for additional information to customize the CVIEW server machine. You should answer the prompts according to how you want to set up your CVIEW environment.

Note: Do not run the DXGCVIEW EXEC at this time.

For further details about this command see the *VM/Pass-Through Facility Administration and Operation* manual.

5 Create the PROFILE EXEC for CVIEW.

vmfcopy dxgprof exec a profile = = (prodid 5684100E%PVM olddate replace

The DXGPROF EXEC is a sample profile exec provided by PVM. You should not have to tailor this file.

6 Copy server code to P684100E's 405 disk

acc 400 e
in2prod cview

Note: The CVIEW server machine links to the 405 disk as its 191. All CVIEW files should now exist.

7 Turn off 370 accommodation support

set 370accom off

6.4.2.4 Tailor the PVMG Server Virtual Machine

1 Log on to P684100E if you are not already logged onto it.

2 Access the LOCALSAM disk (2C2).

Note: If PVM was installed in SFS then the equivalent SFS directory should be accessed.

access 2c2 t

The 2C2 minidisk contains the samples that need to be copied to the 402 minidisk.

3 Access the 402 minidisk.

access 402 u

The 402 minidisk is PVMG's 191 minidisk.

4 Copy the sample files to the 402 minidisk.

```
vmfcopy pvmg confsamp t = config u (prodid 5684100E%PVM olddate replace
vmfcopy profile gcssamp t = gcs u (prodid 5684100E%PVM olddate replace
```

5 Tailor the sample files that were just copied.

See "Defining Your PVMG Configuration" in the *VM/Pass-Through Facility Administration and Operation* manual for details on modifying these files.

6 Ensure that the PVMG user ID is defined to GCS.

The PVMG server virtual machine must be configured as an authorized member of a VM Group Control System (GCS) group that runs VTAM.

For more information on how to authorize the PVMG user ID as a member of the GCS group that runs VTAM, see the *z/VM: Group Control System Reference*

7 Define the VTAM configuration for PVMG.

The PVMG server virtual machine runs as a VTAM application. PVMG must be varied on every time VTAM is initialized. In this step you need to choose if you want to vary the PVMG resource definition on-line either automatically or dynamically.

a If you prefer AUTOMATIC varying of PVMG (during initialization of VTAM), do the following:

Note: The next time VTAM is initialized, it will read the following file and automatically VARY on the PVMG resource.

link maint 298 *addr* **w**
access *addr mode*
xedit atccon*nn* **vtamlst**

Note: This step still assumes that VTAM links to the MAINT 298 minidisk as its 191 minidisk; your installation may use a different address for VTAM's 191.

where *addr* is the address assigned to P684100E's virtual machine

mode is any free filemode.

where *nn* is an installation-dependent number

b Add the PVMG VTAM applid to the list of existing resource names in ATCCONnn VTAMLST and then file it.

Refer to the *VTAM Network Implementation Guide* and the *VTAM Resource Definition Reference* manuals for more information on VTAM configuration lists.

What's Next?

Proceed with step 8 to tailor PVMG VTAMLST.

c If you prefer DYNAMIC varying of PVMG, do the following:

vtam vary net,act,id=pvmg

Where pvmg is the resource definition.

This command needs to be issued from the VTAM operator console.

8 Tailor the APPL statements in the PVMG VTAMLST file

The supplied PVMG VTAMLST file, which is installed on P684100E's 2C2 minidisk, contains the VTAM network resource definitions for PVMG. The resources PVMG is concerned with are:

- Terminals that are allowed to use PVMG. VTAM sees these terminals as logical unit (LU) names. These terminal (LU) names are shown as labels on the APPL statements and as values of the ACBNAME= parameter.
- The *application major node table* for PVMG application, which must be activated by VTAM startup. This mode table is shown as a value of the MODETAB= parameter.

Use the following steps to tailor PVMG VTAMLST.

Refer to the *VTAM Network Implementation Guide* and the *VTAM Resource Definition Reference* manuals for more information on tailoring VTAM.

a Copy the sample PVMG VTAMLST file to MAINT's 298 minidisk

```
link maint 298 298 mr
access 2c2 e
access 298 f
access 400 g
vmfcopy pvmg vtamlst e = = f (prodid 5684100E%PVM olddate replace
vmfcopy snamodet * g = = f (prodid 5684100E%PVM olddate replace
```

b For the first APPL statement, the label and ACBNAME= parameter value must match the LOCAL record definition in the PVMG configuration file.

For example,

```
ACBNAME=N2ECAPV2
```

c The label and the ACBNAME= parameter value for each subsequent APPL statements must be within the LU range that you specify on the LU definitions in the PVMG configuration file.

The ACB definitions start with N2ECAP01 and are in numeric sequence up to the highest number of PVM sessions *through SNA* you wish to support. As distributed, the PVMG VTAMLST file has ACB name definitions that run from N2ECAP01 through N2ECAP20, allowing a maximum of 20 SNA sessions.

d The MODETAB= parameter points to the mode table filename which is a table of session parameters. The SNAMODET ASSEMBLE file (on MAINT's 298 minidisk) is a sample mode table as part of the PVM product material. The file contains definitions for your terminal types.

If you do not wish to use the supplied samples, edit the SNAMODET ASSEMBLE file and assemble it. Next add this file to an existing TXTLIB that has been defined (GLOBAL command) in VTAM's search order or build your own one-member TXTLIB and add it to VTAM's search order.

What's Next?

You have now finished tailoring the PVM virtual machines. Continue with Appendix A, “Test the Installation/Service for PVM” on page 63. You will return to 6.5, “Place PVM Into Production” to place the new PVM code into production.

6.5 Place PVM Into Production

You now will need to copy the PVM code to MAINT's 19E minidisk to make it available to all users.

6.5.1 Copy PVM to MAINT's 19E Minidisk for Production

1 Log on as **MAINT***vrm*

Note: The following steps should be done from the MAINT*vrm* user ID so that the appropriate CMS shared segment can be saved.

2 Copy the system Y-disk code from P684100E's 400 disk to MAINT's 19e disk

link P684100E 400 *addr* **rr**
access *addr* **e**
access 19E f
vmfcopy dvmusi * e = = f (prodid 5684100E%PVM olddate replace
vmfcopy mpvm exec e = = f (prodid 5684100E%PVM olddate replace
vmfcopy passthru exec e = = f (prodid 5684100E%PVM olddate replace

addr is any free disk address on the MAINT*vrm* user ID

Notes:

1. MPVM and PASSTHRU users require files placed on the 19E disk.
2. Re-save the CMS saved system, to return the Y-disk (product code or MAINT's 19E disk) to 'shared' status. See Chapter 5 "Running Standalone Builds" in the *z/VM: Service Guide* for detailed information about how to save the CMS saved system.

3 Copy help files from P684100E's 29D disk to MAINT's 19D disk

a If servicing using minidisks

link P684100E 29d *addr2* **rr**
access *addr2* **e**
access 19d f
vmfcopy * * e = = f (prodid 5684100E%PVM replace olddate

addr2 is any free disk address on the MAINT*vrm* user ID

Note: Users wishing to access PVM help files require the 19D disk.

b If servicing using SFS

access VMSYS:P684100E.PVM.HELPAME e
access 19d f
vmfcopy * * e = = f (prodid 5684100E%PVM replace olddate

Note: Users wishing to access PVM help files require the 19D disk.

6.5.2 Define and Build Saved Segments (optional)

Notes:

1. User errors can occur after building the MPVM segment prior to placing the SYSTEM SEGID on the CMS 190/490 disk and resaving the CMS Named Saved System.

6.5.2.1 Define and Build the MPVM Saved Segment Using VMSES/E

You will first have to define the segments to the system using the segment mapping tool VMFSGMAP. Once the segment is defined you will have to build it using the VMFBLD command.

For more information on using VMSES/E for saved segments, review Chapter 26, 'Using VMSES/E to Define, Build, and Manage Saved Segments' in the *z/VM: CP Planning and Administration* manual.

Note: The defining and building of the MPVM saved segment should be performed from the installation user ID. If you move any segments that are currently defined on your system you must ensure that they are rebuilt from the user ID that maintains them.

1 Log on to the installation user ID **P684100E**

2 Establish write access to the Software Inventory Disk if it is not already linked R/W.

Note: If the MAINT*vrm* 51D minidisk was accessed R/O, you will need to have the user who has it linked R/W link it as R/O. You then can issue the following commands to obtain R/W access to it.

link maint*vrm* 51d 51d mr **access 51d d**	The MAINT*vrm* 51D disk is where the VMSES/E system level software inventory files reside.

3 Add the MPVM segment object definitions to the SEGBLIST EXC00000 build list.

vmfsgmap segbld esasegs segblist	This command displays a panel for making segment updates. See Figure 7 on page 37 for an example of the Segment Map panel that will be displayed.

```
                          VMFSGMAP - Segment Map                  More: +
                                                               Lines 1 to nn of nn

              000-MB          001-MB          002-MB          003-MB
  Name     Typ 0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF
M CMS      SYS W-W-------------1.............2.............3.............
M GCS      SYS W---------------1.............2.............3.............

              004-MB          005-MB          006-MB          007-MB
  Name     Typ 0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF
  CMSPIPES DCS 4.............5.............6.............RRRR------------
M GCS      SYS RRRRRRNNNNNNNNNNNNNNNNNNNNNNNN6.............7.............
M HLASM    DCS 4.............5.............RRRRRRRRRRRRRRR7.............

              008-MB          009-MB          00A-MB          00B-MB
  Name     Typ 0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF
  DOSBAM   SPA 8.............9.............A.............====------------
  CMSBAM   MEM 8.............9.............A.............BRRR............
  CMSDOS   MEM 8.............9.............A.............R.............
  CMSVMLIB DCS RRRRRRRRRRRRRRR9.............A.............B.............
  DOSINST  DCS 8.............R---------------A.............B.............

              00C-MB          00D-MB          00E-MB          00F-MB
  Name     Typ 0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF
  HELPINST DCS RRRRRRRRRRRRRRRD.............E.............F.............
M CMS      SYS C.............D.............RRRRRRRRRRRRRRRRRRRRRRRRRRRRRR>

================================ 16-MB Line ================================

              010-MB          011-MB          012-MB          013-MB
 F1=Help     F2=Chk Obj   F3=Exit      F4=Chg Obj   F5=File       F6=Save
 F7=Bkwd     F8=Fwd       F9=Retrieve  F10=Add Obj  F11=Del Obj   F12=Cancel
====> _
```

Figure 7. Segment Map panel.

4 Go to Add Segment Definition panel by pressing PF10.

F10

F10 will take you from the Segment Map panel to the Add Segment Definition panel. See Figure 8 on page 38 to see the Add Segment Definition panel that will be displayed.

```
                          Add Segment Definition
                                                        Lines 1 to nn of nn

 OBJNAME....:  {mpvmph|mpvmp}
 DEFPARMS...:
 SPACE......:
 TYPE.......:  SEG
 OBJDESC....:
 OBJINFO....:
 GT_16MB....:  NO
 DISKS......:
 SEGREQ.....:
 PRODID.....:  5684100E pvm
 BLDPARMS...:  UNKNOWN









 F1=Help     F2=Get Obj   F3=Exit      F4=Add Line  F5=Map        F6=Chk MEM
 F7=Bkwd     F8=Fwd       F9=Retrieve  F10=Seginfo  F11=Adj MEM   F12=Cancel
====>
```

Figure 8. Add Segment Definition panel.

5 Obtain the MPVM segment definitions from the prodpart file.

OBJNAME....: **{mpvmph|mpvmp}**
PRODID.....: **5684100E pvm**

Enter **mpvmph** in the OBJNAME field if you want to run the saved segment above the 16 Meg line. Otherwise, enter **mpvmp** to run the saved segment below the 16 Meg line.

Enter **5684100E pvm** in the PRODID field to select the MPVM segment information.

F10

F10 will obtain the MPVM segment information from the 5684100E PRODPART file. See Figure 9 on page 39 for the refreshed Add Segment definition panel that will be displayed if you selected the MPVMPH segment. Otherwise, see Figure 10 on page 40.

```
                              Add Segment Definition
                                                                Lines 1 to nn of nn

 OBJNAME....:  MPVMPH
 DEFPARMS...:  1200-12FF SR
 SPACE......:
 TYPE.......:  PSEG
 OBJDESC....:  FOR BUILDING THE MPVM SHARED SEGMENT ABOVE THE 16M LINE
 OBJINFO....:
 GT_16MB....:  YES
 DISKS......:  400
 SEGREQ.....:
 PRODID.....:  5684100E PVM
 BLDPARMS...:  PROD(LSEG MPVMHIGH)




VMFSMD2760I SEGINFO processing completed SUCCESSFULLY
 F1=Help     F2=Get Obj   F3=Exit      F4=Add Line  F5=Map        F6=Chk MEM
 F7=Bkwd     F8=Fwd       F9=Retrieve F10=Seginfo   F11=Adj MEM   F12=Cancel
====>
```

Figure 9. Add Segment Definition panel showing the MPVMPH saved segment

```
                              Add Segment Definition
                                                              Lines 1 to nn of nn

 OBJNAME....:  MPVMP
 DEFPARMS...:  500-5FF SR
 SPACE......:
 TYPE.......:  PSEG
 OBJDESC....:  FOR BUILDING THE MPVM SHARED SEGMENT BELOW THE 16M LINE
 OBJINFO....:
 GT_16MB....:  NO
 DISKS......:  400
 SEGREQ.....:
 PRODID.....:  5684100E PVM
 BLDPARMS...:  PROD(LSEG MPVM)




VMFSMD2760I SEGINFO processing completed SUCCESSFULLY
 F1=Help     F2=Get Obj   F3=Exit      F4=Add Line  F5=Map        F6=Chk MEM
 F7=Bkwd     F8=Fwd       F9=Retrieve F10=Seginfo   F11=Adj MEM   F12=Cancel
====>
```

Figure 10. Add Segment Definition panel showing the MPVMP saved segment

6 Make any desired changes to the segment information displayed in either Figure 9 on page 39 or Figure 10 on page 40.

7 Go back to the Segment Map panel.

F5

F5 will return you to the Segment Map panel. See Figure 11 for the refreshed Segment Map panel that will be displayed if you selected the MPVMPH segment. Otherwise, see Figure 12 on page 42.

```
                            VMFSGMAP - Segment Map                  More:  -
                                                                 Lines xx to yy of zz
P MPVMPH   DCS 0.............1.............RRRRRRRRRRRRRRR3.............

               014-MB          015-MB          016-MB          017-MB
  Name     Typ 0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF
  CMSFILES DCS -----RRRRRRRRRRRRRRRRRRRRRRRRR6.............7.............
==============================  End Segment Map ==============================









 F1=Help     F2=Chk Obj   F3=Exit      F4=Chg Obj   F5=File       F6=Save
 F7=Bkwd     F8=Fwd       F9=Retrieve  F10=Add Obj  F11=Del Obj   F12=Cancel
====>
```

Figure 11. Segment Map panel with MPVMPH saved segment

```
                            VMFSGMAP - Segment Map                 More: + -
                                                                 Lines xx to yy of zz
P MPVMP    DCS 4.............RRRRRRRRRRRRRRR6.............7.............

               008-MB          009-MB          00A-MB          00B-MB
  Name     Typ 0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF
  DOSBAM   SPA 8.............9.............A.............====------------
  CMSBAM   MEM 8.............9.............A.............BRRR............
  CMSDOS   MEM 8.............9.............A.............R..............
  CMSVMLIB DCS RRRRRRRRRRRRRRR9.............A.............B..............
  DOSINST  DCS 8.............R--------------A.............B..............
  NLSUCENG DCS 8.............9.............A.............RRRRRRRRRRRRRRR
  NLSKANJI DCS 8.............9.............A.............RRRRRRRRRRRRRRR
  NLSFRANC DCS 8.............9.............A.............RRRRRRRRRRRRRRR
  NLSGER   DCS 8.............9.............A.............RRRRRRRRRRRRRRR
  NLSESPAN DCS 8.............9.............A.............RRRRRRRRRRRRRRR
  NLSHANZI DCS 8.............9.............A.............RRRRRRRRRRRRRRR
  NLSCANFR DCS 8.............9.............A.............RRRRRRRRRRRRRRR

               00C-MB          00D-MB          00E-MB          00F-MB
  Name     Typ 0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF
 F1=Help     F2=Chk Obj   F3=Exit      F4=Chg Obj   F5=File       F6=Save
 F7=Bkwd     F8=Fwd       F9=Retrieve  F10=Add Obj  F11=Del Obj   F12=Cancel
====>
```

Figure 12. Segment Map panel with MPVMP saved segment

8 Save the new information and exit from the Segment Map panel.

F5

```
Ready;
```

F5 saves all changed information and exits the map panel.

9 Prepare to build the MPVM segment.

a IPL CMS to clear the virtual storage

***** DO NOT PRESS ENTER AT THE VM READ! *****

ipl cms parm clear nosprof instseg no

IPL CMS to clear your virtual machine. This command bypasses the execution of the system profile (SYSPROF EXEC) and without loading the installation saved segment (CMSINST).

access (noprof

Bypass the execution of the PROFILE EXEC.

b Access the VMSES/E code

access 5e5 b

C Establish write access the Software Inventory Disk

link maint*vrm* 51d 51d mr
access 51d d

10 Run VMFBLD to build the MPVMPH or the MPVMP saved segment.

Note: There may be additional build requirements remaining after building the saved segment. You should only build the MPVMPH or the MPVMP saved segment from this user ID. Any other segments that need to be built should be done from the user ID that is used to maintain them.

vmfbld ppf segbld esasegs segblist {mpvmph|mpvmp} (serviced

Use **mpvmph** if you are building the MPVM segment above the 16 Meg line. Otherwise, use **mpvmp**.

```
VMFBLD2760I VMFBLD processing started
VMFBLD1851I Reading build lists
VMFBLD2182I Identifying new build requirements
VMFBLD2182I No new build requirements identified
VMFBLD1851I (1 of 1) VMFBDSEG processing SEGBLIST EXC00000
VMFBDS2115I Validating segment MPVMP|MPVMPH
VMFBDS2002I A DEFSEG command will be issued for 1 segment(s).
VMFBDS2219I Processing object MPVMP|MPVMPH.SEGMENT
HCPNSS440I Saved segment MPVMP|MPVMPH was successfully saved in fileid 0441.
VMFBDS2003W The SYSTEM SEGID D(51D) file has been changed and must be moved to
            the S disk.
VMFBLD1851I (1 of 1) VMFBDSEG completed with return code 4
VMFBLD2180I There are n build requirements remaining
VMFBLD2760I VMFBLD processing completed with warnings
Ready(00004); T=s.ss/s.ss hh:mm:ss
```

What's next?

The updated SYSTEM SEGID must be copied to the MAINT*vrm* 190 minidisks so that users can use the MPVM saved segment. Go to 6.5.3.1, “Place the Updated SYSTEM SEGID Into Production” on page 44 for details on how to place the SYSTEM SEGID into production.

6.5.3 Place the Updated SYSTEM SEGID Into Production

Since the MPVM saved segment is a logical segment the SYSTEM SEGID must be moved to the MAINT*vrm* 190 disk in order for users to be able to use it. Since this file is being copied to the MAINT*vrm* 190 disk the CMS and ZCMS NSSes must also be resaved. This procedure should be done from the MAINT*vrm* user ID.

You should proceed with this section only if you have built the MPVM saved segment.

6.5.3.1 Place the Updated SYSTEM SEGID Into Production

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

2 Access the minidisk containing the updated SYSTEM SEGID file for the MPVM saved segment.

```
access 51d r
```

3 Access the test system disk, the MAINT*vrm* 490 disk and the system disk the MAINT*vrm* 190 disk. VM copies the 490 disk to the 190 disk to place its service into production. Therefore, you must also copy the updated SYSTEM SEGID to the 490 disk so that the MPVM segment data will not be lost when the VM code is placed into production.

```
access 490 t
access 190 u
```

4 Copy the updated SYSTEM SEGID to the MAINT 490 and 190 disk.

```
vmfcopy system segid r = = t2 (prodid 5684100E%PVM olddate replace
vmfcopy system segid r = = u2 (prodid 5684100E%PVM olddate replace
```

The SYSTEM SEGID must have a filemode of **2**.

5 Resave the CMS Named Saved System. Since the SYSTEM SEGID was copied to the 190 disk you must resave the CMS and ZCMS NSSes.

```
put2prod savecms
```

6.5.4 Log On to the Server Machines.

Bring up your server machines by logging on to them. Logging on to them will restart them with the production code. First ensure that the installation user ID is not logged on. This will ensure that the server machines will be able to get their 191 minidisks in R/W mode.

Note: If you are migrating from a previous level of PVM you will first need to log the server machines off and then back on as they are currently running the old level of PVM.

The VM/Pass-Through Facility product is now installed and built on your system.

7.0 Service Instructions

Note!

If applying a PVM RSU, read through the latest RSU information hard copy memo before continuing with this section. You will return to a step in this chapter specified in that memo.

This section of the Program Directory contains the procedure to install CORrective service to PVM with VMSES/E.

To become more familiar with service using VMSES/E, you should read the introductory chapters in:

- *VMSES/E Introduction and Reference* manual

This manual also contains the command syntax for the VMSES/E commands listed in the procedure.

Notes:

1. Each step of the servicing instructions must be followed. Do not skip any step unless otherwise directed to. All instructions showing accessing of disks assume the use of default minidisk addresses or SFS directories. If different minidisk addresses or SFS directory names are used, change the instructions appropriately.
2. If the service instructions are not completed at one time, you can issue VMFSETUP and continue with the step you left off at.

7.1 VMSES/E Service Process Overview

The overview will give a brief description of the main steps in servicing VM/Pass-Through Facility using VMSES/E.

- Merge Service

  Use the VMFMRDSK command to clear the alternate apply disk before receiving new service. This allows you to easily remove the new service if a serious problem is found.

- Receive Service

  The VMFREC command receives service from the delivery media and places it on the Delta disk.

- Apply Service

  The VMFAPPLY command updates the version vector table (VVT), which identifies the service level of all the serviced parts. In addition, AUX files are generated from the VVT for parts that require them.

- Reapply Local Service (if applicable)

  All local service must be entered into the software inventory to allow VMSES/E to track the changes and build them into the system. Contact IBM support if you require assistance re-applying local service.

- Build New Levels

  The build tasks generates the serviced level of an object and places the new object on a BUILD disk or directory.

- Place the New Service into Production

  Once the service is satisfactorily tested it should be put into production by copying the new service to the production disk, re-saving the NSS (Named Saved System) or DCSS (Discontiguous Saved Segments), etc.

7.2 Servicing PVM

7.2.1 Prepare to Receive Service

The *ppfname* used throughout these instructions is **5684100E**, which assumes you are using the override PPF supplied by IBM for PVM. If you have your own PPF override file for PVM, you should use your file's *ppfname* instead of **5684100E**. The *ppfname* you use should be used **throughout** the rest of this procedure.

1 Log onto the PVM service user ID **P684100E**

2 Establish write access to the Software Inventory Disk if it is not already linked R/W.

Note: If the MAINT*vrm* 51D minidisk was accessed R/O, you will need to have the user who has it linked R/W link it as R/O. You then can issue the following commands to obtain R/W access to it.

link maint*vrm* 51d 51d mr **access 51d d**	The MAINT*vrm* 51D disk is where the VMSES/E system level software inventory files reside.

3 Make sure the PVM CORrective service envelope SERVLINK file is available on the A-disk or any work disk accessed as C.

4 Receive the documentation.

vmfrec info (env *envfilename*

envfilename is the file name of the service envelope file. The file type must be SERVLINK.

The INFO option loads the documentation and displays a list of all products in the envelope.

5 Review the receive message log ($VMFREC $MSGLOG). If necessary, correct any problems before going on. For information about handling specific receive messages, see *z/VM: Other Components Messages and Codes* or use on-line HELP.

vmfview receive

Also, make note of which products and components have service in the envelope. To do this, use the PF5 key to show all status messages which identify the components in the envelope.

6 Read the product memo (5684100E MEMO) before going on. These memos are loaded to the A-disk.

7 Setup the correct minidisk access order

vmfsetup 5684100E {PVM|PVMSFS}

Use component name **PVM** if the product is installed on minidisks or **PVMSFS** if the product is installed in SFS.

```
VMFSET2760I VMFSETUP processing started
VMFUTL2205I Minidisk|Directory Assignments:
            String    Mode  Stat  Vdev  Label/Directory
VMFUTL2205I LOCALSAM  E      R/W  2C2   P682C2
VMFUTL2205I APPLY     F      R/W  2A6   P682A6
VMFUTL2205I           G      R/W  2A2   P682A2
VMFUTL2205I DELTA     H      R/W  2D2   P682D2
VMFUTL2205I BUILD0    I      R/W  400   P68400
VMFUTL2205I BUILD4    J      R/W  404   P68404
VMFUTL2205I BUILD6    K      R/W  29D   P6829D
VMFUTL2205I BASE      L      R/W  2B2   P682B2
VMFUTL2205I --------  A      R/W  191   P68191
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
READY;
```

8 Clear the alternate APPLY disk for the new service. This command will copy the contents of the alternate apply disk to the production apply disk.

vmfmrdsk 5684100E {PVM|PVMSFS} apply

Use component name **PVM** if the product is installed on minidisks or **PVMSFS** if the product is installed in SFS.

This command clears the alternate APPLY disk.

```
VMFMRD2760I VMFMRDSK processing started
VMFMRD1937I Merge of APPLY started
VMFMRD1938I Merging APPLY 2A6 to 2A2
VMFMRD2065I APPLY 2A2 is now n percent full
VMFMRD1939I Merge of APPLY completed
VMFMRD2760I VMFMRDSK processing completed successfully
READY;
```

9 Review the merge message log ($VMFMRD $MSGLOG). If necessary, correct any problems before going on. For information about handling specific merge messages, see *z/VM: Other Components Messages and Codes* or use on-line HELP.

vmfview mrd

7.2.2 Receive the Service

1 Receive the Service

vmfrec ppf 5684100E {PVM|PVMSFS} (**env** *envfilename*

envfilename is the file name of the service envelope file. The file type must be SERVLINK.

Use component name **PVM** if the product is installed on minidisks or **PVMSFS** if the product is installed in SFS.

This command receives service to the DELTA disk.

```
VMFREC2760I VMFREC processing started
  ⋮
VMFREC1852I Volume 1 of 1 of COR nnnn created on 11 March 93
VMFREC1851I (1 of 3) VMFRCAXL processing AXLIST
VMFRCX2159I Loading 0 part(s) to DELTA 2D2 (H)
VMFREC1851I (2 of 3) VMFRCPTF processing PARTLST
VMFRCP2159I Loading 1 part(s) to DELTA 2D2 (H)
VMFREC1851I (3 of 3) VMFRCCOM processing DELTA
VMFRCC2159I Loading 1 part(s) to DELTA 2D2 (H)
VMFREC2189I Updating Requisite table 5684100E SRVREQT, Description table
            5684100E SRVDESCT and Receive Status table 5684100E SRVRECS   with 1
            new PTFs from COR nnnn
VMFREC2760I VMFREC processing completed successfully
READY;
```

2 Review the receive message log ($VMFREC $MSGLOG). If necessary, correct any problems before going on. For information about handling specific receive messages, see *z/VM: Other Components Messages and Codes* or use on-line HELP.

vmfview receive

7.2.3 Apply the Service

1 Apply the new service

vmfapply ppf 5684100E {PVM|PVMSFS}

Use component name **PVM** if the product is installed on minidisks or **PVMSFS** if the product is installed in SFS.

This command applies the service that you just received. The version vector table (VVT) is updated with all serviced parts and all necessary AUX files are generated on the alternate apply disk.

```
VMFAPP2760I VMFAPPLY processing started
VMFAPP1851I Processing user exit BUILDDT to set up
VMFAPP2106I Apply list 5684100E contains 1 PTFs that need to be applied and 0
            PTFs that are already applied
VMFAPP2102I 1 of 1 PTFs processed
VMFAPP2105I VMFAPPLY processing completed successfully.
            The Apply list 5684100E contains 1 PTFs.
            0 PTFs were already applied.
            1 PTFs applied successfully.
            0 PTFs were included.
            0 PTFs were excluded or require excluded PTFs.
            0 PTFs failed
VMFAPP2103I The Software Inventory has been updated on the 2A6 (F) disk
VMFAPP1851I Processing user exit BUILDDT to clean up
READY;
```

2 Review the apply message log ($VMFAPP $MSGLOG). If necessary, correct any problems before going on. For information about handling specific apply messages, see *z/VM: Other Components Messages and Codes* or use on-line HELP.

vmfview apply

Note

If you get the message VMFAPP2120W then re-apply any local modifications before building the new PVM. Contact IBM support if you require assistance re-applying local service.

Notes:

1. There is a local modification assemble file example in Appendix B, “Local Modification Example: Assemble File” on page 76.

7.2.4 Update the Build Status Table

1 Update the Build Status Table with serviced parts.

vmfbld ppf 5684100E {PVM|PVMSFS} (status

Use component name **PVM** if the product is installed on minidisks or **PVMSFS** if the product is installed in SFS.

This command updates the build status table.

Note

If the $PPF files have been serviced you will get the following prompt:

```
VMFBLD2760I VMFBLD processing started
VMFBLD1851I Processing user exit BUILDDT to set up
VMFBLD1851I Reading build lists
VMFBLD2182I Identifying new build requirements
VMFBLD2185R The following source product parameter files have been
            serviced:
VMFBLD2185R 5684100E $PPF
VMFBLD2185R When source product parameter files are serviced, all
            product parameter files built from them must be recompiled
            using VMFPPF before VMFBLD can be run.
VMFBLD2185R Enter zero (0) to have the serviced source product
            parameter files built to your A-disk and exit VMFBLD so
            you can recompile your product parameter files with VMFPPF
VMFBLD2185R Enter one (1) to continue only if you have already
            recompiled your product parameter files with VMFPPF
```

0	Enter a 0 and complete the following steps before you continue.

```
VMFBLD2188I Building 5684100E $PPF on 191 (A) from level $PFnnnnn
```

vmfppf 5684100E {PVM|PVMSFS}	Use component name **PVM** if the product is installed on minidisks or **PVMSFS** if the product is installed in SFS. **Note:** If you've created your own PPF override then use your PPF name instead of 5684100E. You should recompile all overrides to ensure they are at the proper level for future use.
copy 5684100E $ppf a = = d (olddate replace erase 5684100E $ppf a	**Note: Do not** use your own PPF name in place of 5684100E for the COPY and ERASE commands.
vmfbld ppf 5684100E {PVM|PVMSFS} (status 1	This will complete updating the build status table. When you receive the prompt that was previously displayed, enter a 1 to continue.

2 View the build status messages and see what objects need to be built.

vmfview build

7.2.5 Build Service Objects

1 Rebuild PVM serviced parts.

vmfbld ppf 5684100E {PVM|PVMSFS} (serviced

Use component name **PVM** if the product is installed on minidisks or **PVMSFS** if the product is installed in SFS.

2 Review the build message log ($VMFBLD $MSGLOG). If necessary, correct any problems before going on. For information about handling specific build messages, see *z/VM: Other Components Messages and Codes* or use on-line HELP.

vmfview build

3 Required step for CVIEW CONPANEL files

If any of the CVIEW CONPANEL files were serviced then new SAVEPAN files must be created before proceeding with testing of CVIEW. To do this issue:
The DXGINIT EXEC will only run in a 370 mode virtual machine. In order to process the CVIEW menu files you will need to turn on CP's 370 accommodation.

set 370accom on

4 Access the 404 minidisk

access 404 a

The 404 disk (test disk for CVIEW) must be accessed as the A-disk to issue this command.

5 Issue the DXGINIT EXEC

dxginit

The DXGINIT EXEC will prompt you for additional information to customize the CVIEW server machine. You should answer the prompts according to how you want to set up your CVIEW environment.

Note:

Do not run the DXGCVIEW EXEC at this time.

For further details about this command see the *VM/Pass-Through Facility Administration and Operation* manual.

6 Turn off 370 accommodation.

set 370accom off

7.3 Optional Service Steps (depending on what was installed)

7.3.1 Servicing the Uppercase English Files

1 Re-build Uppercase English serviced parts

vmfbld ppf 5684100E {PVMUCENG|PVMUSFS} (serviced setup

Use component name **PVMUCENG** if the product is installed on minidisks or **PVMUSFS** if the product is installed in SFS

The SETUP option sets up the minidisk/directory access order using the :MDA section of the PPF.

2 Place Uppercase English help files into production from P684100E's 502 disk to MAINT's 402 disk.

a Log on to **MAINT***vrm*

This step has to be done from the MAINT*vrm* user ID

1 If installing using minidisks

link P684100E 502 *addr* **rr**
access *addr* **e**
access 402 f
vmfcopy * * e = = f (prodid 5684100E%PVM replace olddate

addr is any free disk address on the MAINT*vrm* user ID

2 If installing using SFS

access VMSYS:P684100E.PVM.HELPUCE e
access 402 f
vmfcopy * * e = = f (prodid 5684100E%PVM replace olddate

7.4 Test the new PVM Service

At this point you can test the service that was applied. Go to Appendix A, “Test the Installation/Service for PVM” on page 63 for the minimum steps necessary for ensuring that your new code is functional. When your testing is complete you will return to 7.5, “Place serviced PVM into Production” to place the service into production.

7.5 Place serviced PVM into Production

Important note

This procedure should only be done when you have successfully tested the new service. Once you perform this step you can not back off to your previous production code. See the "Removing Service Levels" chapter in the *z/VM: Service Guide* for further details regarding backing off service levels.

Placing the PVM code into production is a two step process:

- First the test code is moved from the test build disks to the server production minidisks.
- Then new PVM user code is made available for users by placing it on MAINT's 19E minidisk.

7.5.1 Copy the Server Code to the Production Minidisks

This step will be accomplished by using the IN2PROD EXEC. to find out more information on the IN2PROD EXEC issue **in2prod {?|help}** after accessing the 400 minidisk.

1 Log on to P684100E, if you are not already logged on to it.

2 Access the disk where the IN2PROD EXEC resides

access 400 e

If you are planning on using any combination of PVM, PVMG, MPVM or CVEIW, but not all, continue with step 3 and select the applicable steps. Otherwise, issue the following command:

in2prod all

Continue with 7.5.2, “Copy the PVM Production code to MAINT's Minidisks” on page 58.

3 Copy PVM server code to P684100E's 401 disk

in2prod pvm

Note: The PVM server machine links to the 401 disk as it's 191.

4 If you are using PVMG, copy server code to P684100E's 402 disk

in2prod pvmg

Note: The PVMG server machine links to the 402 disk as it's 191.

5 If you are using MPVM, copy code to P684100E's 403 disk

in2prod mpvm

Note: MPVM users link to the 403 disk as PVM's 199 disk.

6 If you are using CVIEW, copy server code to P684100E's 405 disk

in2prod cview

Note: The CVIEW server machine links to the 405 disk as it's 191.

7 Log off of P684100E so that the server machines can gain R/W access to their 191 minidisks when re-establishing your production environment.

logoff

7.5.2 Copy the PVM Production code to MAINT's Minidisks

This step needs to be performed so that the new PVM code is available to general users to use.

1 Log on as **MAINT***vrm*

Note: The following steps should be done from the MAINT*vrm* user ID so that the appropriate CMS shared segment can be saved.

2 Copy the system Y-disk code from P684100E's 400 disk to MAINT's 19e disk

link P684100E 400 *addr* **rr**
access *addr* **e**
access 19E f
vmfcopy dvmusi * e = = f (prodid 5684100E%PVM olddate replace
vmfcopy mpvm exec e = = f (prodid 5684100E%PVM olddate replace
vmfcopy passthru exec e = = f (prodid 5684100E%PVM olddate replace

addr is any free disk address on the MAINT*vrm* user ID

Notes:

1. MPVM and PASSTHRU users require files placed on the 19E disk.
2. Re-save the CMS saved system, to return the Y-disk (product code or MAINT's 19E disk) to 'shared' status. See the 'Placing (Serviced) Components into Production' section of the *z/VM: Service Guide* for detailed information about how to save the CMS saved system.

3 Copy help files from P684100E's 29D disk to MAINT's 19D disk

a If servicing using minidisks

link P684100E 29d *addr2* **rr**
access *addr2* **e**
access 19d f
vmfcopy * * e = = f (prodid 5684100E%PVM replace olddate

addr2 is another free MAINT*vrm* user ID disk address

Note: Users wishing to access PVM help files require the 19D disk.

b If servicing using SFS

access VMSYS:P684100E.PVM.HELPAME e
access 19d f
vmfcopy * * e = = f (prodid 5684100E%PVM replace olddate

Note: Users wishing to access PVM help files require the 19D disk.

7.5.3 Rebuild MPVM Shared Segment

Notes:

1. User errors can occur after building the MPVM segment prior to placing the SYSTEM SEGID on the CMS 190/490 disk and resaving the CMS Named Saved System.
2. If you are using a shared segment for the MPVM code then you will need to follow this section. Otherwise, go to 7.5.5, “Reinitialize the Server Machines.” on page 61 to bring up the server machines with the new code.

7.5.3.1 Rebuild MPVM Shared Segment Using VMSES/E

1 Log on to service user ID **P684100E**.

2 Re-build Segments

ipl 190 clear parm nosprof instseg no
access (noprof
access 5e5 b
access 51d d
vmfbld ppf segbld esasegs segblist {mpvmp|mpvmph} (all

Use **mpvmp** when building below the 16 Meg line, and **mpvmph** when building above the 16 Meg line.

A successful build will complete with a return code of 4 and a warning message is issued since the SYSTEM SEGID file must be moved. Continue on with 7.5.4, “Place the Updated SYSTEM SEGID Into Production” on page 60.

7.5.4 Place the Updated SYSTEM SEGID Into Production

Since the MPVM saved segment is a logical segment the SYSTEM SEGID must be moved to the MAINT*vrm* 190 disk in order for users to be able to use it. Since this file is being copied to the MAINT*vrm* 190 disk the CMS NSS must also be resaved. This procedure should be done from the MAINT*vrm* user ID.

If you are not using the MPVM shared segment or it was not rebuilt proceed with 7.5.5, “Reinitialize the Server Machines.” on page 61 Otherwise continue with:

- 7.5.4.1, “Place the Updated SYSTEM SEGID Into Production”

7.5.4.1 Place the Updated SYSTEM SEGID Into Production

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

2 Access the minidisk containing the updated SYSTEM SEGID file for the MPVM saved segment.

```
access 51d r
```

3 Access the test system disk, the MAINT*vrm* 490 disk and the system disk the MAINT*vrm* 190 disk. VM copies the 490 disk to the 190 disk to place its service into production. Therefore, you must also copy the updated SYSTEM SEGID to the 490 disk so that the MPVM segment data will not be lost when the VM code is placed into production.

```
access 490 t
access 190 u
```

4 Copy the updated SYSTEM SEGID to the MAINT*vrm* 490 and 190 disk.

vmfcopy system segid r = = t2 (prodid 5684100E%PVM olddate replace
vmfcopy system segid r = = u2 (prodid 5684100E%PVM olddate replace

The SYSTEM SEGID must have a filemode of **2**.

5 Resave the CMS Named Saved System. Since the SYSTEM SEGID was copied to the 190 disk you must resave the CMS and ZCMS NSSes.

put2prod savecms

What's next?

Proceed with 7.5.5, “Reinitialize the Server Machines.” to bring up the new PVM code on your server machines.

7.5.5 Reinitialize the Server Machines.

The server machines will be reinitialized in order for them to use the new production code.

Note: Ensure that the installation user ID P684100E is not logged on. If the installation user ID is logged on it will prevent the servers from getting their 191 minidisks accessed R/W.

7.5.5.1 Reinitialize the PVM Server Machine

1 Log on to PVM.

2 Shutdown the PVM server machine.

shutdown

3 IPL CMS to reset the server machine.

ipl cms

After the server initializes you can disconnect from it.

4 Disconnect from the server machine.

disc

The server is now ready for use.

7.5.5.2 Reinitialize the CVIEW Server Machine

1 Log on to CVIEW.

2 Shutdown the CVIEW server machine.

shutdown

3 IPL CMS to reset the server machine.

ipl cms

After the server initializes you can disconnect from it.

4 Disconnect from the server machine.

cp disc

The server is now ready for use.

7.5.5.3 Reinitialize the PVMG Server Machine

1 Log on to PVMG.

2 Shutdown the PVMG server machine.

pvmg shutdown

3 IPL GCS to reset the server machine.

ipl gcs

After the server initializes you can disconnect from it.

4 Disconnect from the server machine.

pvmg disc

The server is now ready for use.

You have now finished servicing the VM/Pass-Through Facility product

Appendix A. Test the Installation/Service for PVM

This Appendix is used for testing the initial installation of PVM and it's related server machines. It will also be used prior to placing new service into production. You should follow the steps to test each of the server machines that you are using.

Notes

1. This procedure will require the PVM server machines to be shutdown, therefore, you should only test when it will least disrupt your production environment.
2. If the install ID is logged on you will get messages stating that the minidisks can not be accessed R/W. The install ID should be logged off during this procedure.
3. Once these instructions have been completed, logging the servers off and back on will cause them to be running the old level of PVM code.
4. A successful installation of PVM does not mean that your customization is correct. The installation complete messages only means that everything from the media has been properly installed onto the disk (or disks).
5. Follow the instructions and enter the commands, as shown after each **Step**, substituting *variable* information where required.
6. If after entering a node from one of the PVM/MPVM selection screens you get either of the following error messages:

   ```
   SEC01: NOT ALLOWED TO DESTINATION
   SEC06: REMOTE AUTH TABLE NOT BUILT
   ```

   Then you need to either create or modify the REMOTE AUTH file on PVM's 191 minidisk. See the Appendix "PVM Access Security Exits" in the *VM/Pass-Through Facility Administration and Operation* manual for details on this file.
7. If you get a VM Logo screen instead of the PVM selection screen when DIALing PVM or issuing the PASSTHRU command it is due to the LNODE * AUTO option specified in the PVM CONFIG file. See the description of the PVM LNODE configuration file record in Appendix D of the *VM/Pass-Through Facility Administration and Operation* manual for more information.
8. The CVIEW server **require's** the use of CP's **370 accommodation**. To turn this on, add the following line in the PROFILE EXEC:

   ```
   'CP SET 370ACCOM ON'
   ```

With the PTF for APAR VM66733, the PVM server no longer requires 370 accommodation support.

A.1 Test the PVM Server Machine

This procedure will test the new PVM code to see that it functions properly. You will log the PVM server machine on and access the appropriate disks. A second user ID is required in order to verify the PVM function.

1 Log on to PVM server user ID **PVM**.

2 Shutdown the PVM server machine.

Note: If you are installing PVM the server machine will be just coming up. When it has initialized you then can issue the shutdown command.

shutdown

3 Define a temporary minidisk that will be used as PVM's A-disk.

query virtual 191

Note the number of cylinders/blocks of the 191 disk as it will be used in the next command.

define t*dasd vaddr nnn*

dasd is the DASD type of the temporary disk that you are going to define.

vaddr is any free virtual address on this user ID.

nnn is size of the temporary disk in blocks or cylinders depending on the DASD type. This value was obtained from the QUERY VIRTUAL 191 command.

4 Format the temporary minidisk.

format *vaddr* **a**

vaddr is the virtual address that you defined.

```
DMSFOR603R FORMAT will erase all files on disk A(vaddr). Do you wish to continue?
Enter 1 (YES) or 0 (NO).
```

1

```
DMSFOR605R Enter disk label:
```

temp

```
DMSFOR733I Formatting disk A
DMSFOR732I n {cylinders|blocks} formatted on A(vaddr)
```

5 access the test build disk.

link P684100E 400 *vaddr* **rr**
access *vaddr* **b**

vaddr is any free virtual address. This disk contains the code to be tested. It needs to be accessed ahead of the PVM 191 minidisk which contains the production code.

6 Access PVM's 191 minidisk.

access 191 c

The PVM 191 minidisk containing the production code and config files must be accessed after the test build disk. This is to allow the new PVM code to be executed for testing.

7 Start the PVM server machine using the new code.

runpvm

RUNPVM will start the PVM virtual machine. See Figure 13 for an example of the console displayed when starting the PVM server.

```
Execution begins...
VM Pass-Through Facility 2.1.1000, built MM/DD/YY HH:MM:SS, is ready
  ⋮
```

Figure 13. Sample screen that is displayed after starting the PVM server.

8 Disconnect the PVM user ID

disc

9 Log on to any other valid CMS user ID. This needs to be done so that you can issue the PASSTHRU command.

a Link to the test build disk P684100E's 400 minidisk.

link P684100E 400 *vaddr* **rr**
access *vaddr* **b**

vaddr is any free virtual address. This disk contains the PASSTHRU EXEC which we will use to verify that PVM code is satisfactory.

b Execute the PASSTHRU EXEC.

passthru

A PVM Selection Menu should be displayed containing node IDs that were defined in the PVM configuration file. See Figure 14 on page 67 for a sample screen that will be displayed.

Note: If you get a VM Logo screen instead of the PVM selection screen it is due to the LNODE * AUTO option specified in the PVM CONFIG file.

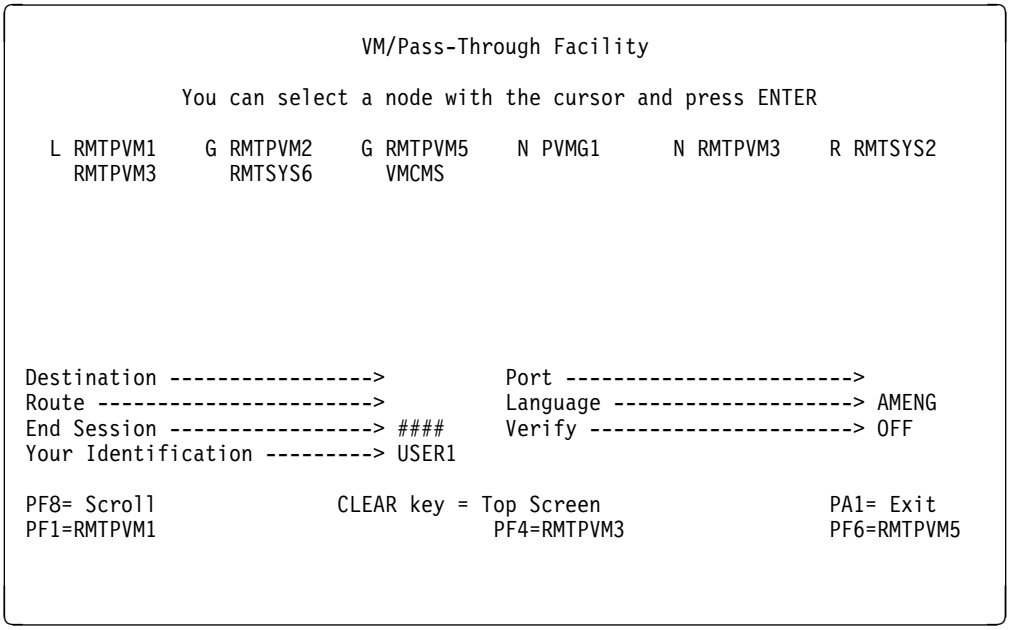

Figure 14. Sample screen that should be displayed after issuing PASSTHRU

c Leave the PVM selection screen.

pa1 **PA1** will exit the PVM selection screen.

d Do not disconnect from this user ID as it will be used to test the other PVM functions. Continue with A.2, “Verify the new MPVM code.” to test the service for the MPVM server machine.

A.2 Verify the new MPVM code.

This section will ensure that the new MPVM code is functional. A selection Menu will be displayed containing node IDs that were defined in the MPVMSYS and MPVM NAMES files. This ensures that the MPVM code is satisfactory.

1 Establish access to the test MPVM code.

link P684100E 400 *vaddr* **rr**
access *vaddr* **b**

vaddr is any free virtual address. This disk contains the test MPVM code which will be used to verify the new MPVM code.

2 Establish access to the MPVMSYS NAMES file.

link P684100E 403 *vaddr2* **rr**
access *vaddr2* **d**

vaddr2 is any free virtual address. This disk contains the MPVMSYS NAMES file which is required to verify the new MPVM code.

3 Execute MPVM to bring up the MPVM selection panel.

If you are running MPVM in a shared segment then you will need to zap the EFGVSTUB MODULE with a dummy segment name so that you can test the new MPVM code. You will need to issue:

copyfile efgvstub module b = = a
efgzap

Note: Refer to the "Installing MPVM in a Shared Segment" section of the "Tuning PVM Performance" chapter in the *VM/Pass-Through Facility Administration and Operation* manual for creating test segments.

when prompted for segment names enter any name that is not a current saved segment on your system.

mpvm

See Figure 15 on page 69 for a sample of the panel that will be displayed.

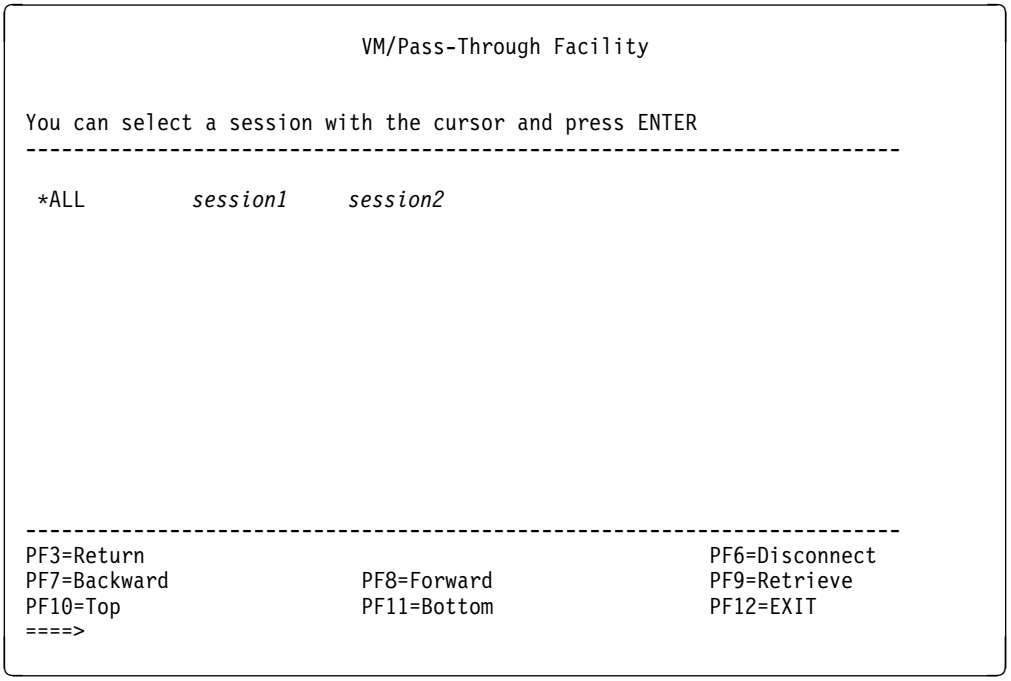

Figure 15. Sample screen that should be displayed after issuing MPVM

4 You should run any MPVM MACROs that you have created to ensure that they are functional. Once you are happy with the MPVM function continue with the following step.

5 Verification of MPVM is now complete. Exit the MPVM selection panel.

PF3 or **PF12**

6 If you zapped the EFGVSTUB MODULE with dummy segment names you need to erase it.

erase efgvstub module a

A.3 Verify the new CVIEW code.

1 Log on to user ID **CVIEW**

2 Shutdown the CVIEW server machine.

Note: If you are installing PVM the server machine will be just coming up. When it has initialized you then can issue the shutdown command.

shutdown

3 Re-define the CVIEW 191 minidisk.

def 191 405

The CVIEW 191 minidisk is P684100E's 405 minidisk.

4 Link the CVIEW test build disk as 191 and access it at filemode a.

link p684100e 404 191 mr
access 191 a

The CVIEW test build disk will be used to test the new CVIEW code. The test disk must be R/W.

5 Start the CVIEW server machine.

profile

The execution of the CVIEW PROFILE EXEC will start the CVIEW server machine. See Figure 16 for an example of the console displayed when starting the CVIEW server machine.

```
DXGCVI110I          Cooperative Viewing Facility (CVIEW)



DXGMAI250I CVIEW is operational.


DXGMAI250I You may now enter commands at the console.
DXGMAI250I For help on available commands type HELP and press ENTER.

DXGMAI250I To disconnect the console, type CP DISCONNECT and press ENTER.
```

Figure 16. Sample screen that is displayed after starting the CVIEW server.

6 Disconnect from the CVIEW user ID.

cp disc

7 Dial the CVIEW server from the VM logo screen to start a CVIEW session.

dial cview

This command will display a CVIEW session HOME panel. See Figure 17 for the panel that will be displayed.

```
HOME             COOPERATIVE VIEWING FACILITY (CVIEW)
------------------------------------------------------------------------------
 Enter an item number.

     Consultant session

         1 Receive assistance
         2 Give assistance

     Conference session

         3 Attend a conference
         4 Moderate a conference




 Press ENTER after you enter an item number.
------------------------------------------------------------------------------
PF:  1=Help      2=          3=Quit      4=          5=          6=
PF:  7=          8=          9=         10=         11=         12=

    ===>
```

Figure 17. CVIEW HOME panel that is displayed after dialing CVIEW.

8 You can now start a CVIEW session to perform additional testing if you like. See Chapter 10. Using CVIEW, "Establishing a Session" of the *VM/Pass-Through Facility Administration and Operation* manual for details on how to establish a CVIEW session.

What's Next?

Verification of CVIEW is now complete. Proceed with A.4, “Verify installation of PVMG” on page 72 to verify the new PVMG code if you are using the PVMG server machine. Otherwise continue with:

7.5, “Place serviced PVM into Production” on page 57 to place the new PVM code into production when servicing your system.

OR

6.5, “Place PVM Into Production” on page 34 to place the new PVM code into production for initial installations.

A.4 Verify installation of PVMG

Notes:

1. The prefix `PVMG` is used in the the command examples shown in this section. The command prefix is determined by the name you specified for PVMG when you loaded it using the LOADCMD command. See the "Defining Your PVMG Configuration" chapter of the *VM/Pass-Through Facility Administration and Operation* manual for more information.

1 Log on to user ID **PVMG**

2 Shutdown the PVMG server machine.

Note: If you are installing PVM the server machine will be just coming up. When it has initialized you then can issue the shutdown command.

pvmg shutdown

3 IPL CMS

ipl cms

4 Define the PVMG 191 minidisk to a temporary address.

define 191 402

The PVMG 191 minidisk is P684100E's 402 minidisk.

5 Define a temporary 191 minidisk.

Note: The minidisk address must be 191 as it is required when you IPL GCS to start the PVMG server machine.

query virtual 402

Note the number of cylinders/blocks of the 191 disk as it will be used in the next command.

define t*dasd* **191** *nnn*

dasd is the DASD type of the temporary disk that you are going to define.

nnn is size of the temporary disk in blocks or cylinders depending on the DASD type. This value was obtained from the QUERY VIRTUAL 191 command.

6 Format the temporary 191 minidisk.

format *vaddr* **a**

vaddr is the virtual address that you defined.

```
DMSFOR603R FORMAT will erase all files on disk A(vaddr). Do you wish to continue?
Enter 1 (YES) or 0 (NO).
```

1

```
DMSFOR605R Enter disk label:
```

temp

```
DMSFOR733I Formatting disk A
DMSFOR732I n {cylinders|blocks} formatted on A(vaddr)
```

7 Access the test build disk.

link P684100E 400 *vaddr* **rr**
access *vaddr* **b**

vaddr is any free virtual address. This disk contains the test PVMG LKEDIT and PVMG LOADLIB.

8 Copy the test PVMG LKEDIT and PVMG LOADLIB to the test 191 minidisk.

copyfile pvmg lkedit b = = a (olddate
copyfile pvmg loadlib b = = a (olddate

9 Access the 402 disk.

access 402 b

10 Copy the PROFILE GCS and PVMG CONFIG to the test 191 minidisk.

copyfile profile gcs b = = a (olddate
copyfile pvmg config b = = a (olddate

11 Start the PVMG server machine.

ipl gcs

This command will invoke the PROFILE GCS which starts the PVMG server machine. See Figure 18 for an example of the console displayed when starting the PVMG server.

```
GCS
Generated at mm/dd/yy hh:mm:ss
GCTACC423I A (0191) R/W
Ready;
VM Pass-Through Gateway Services 2.1.1000, built mm/dd/yy hh:mm:ss, is ready
The PVMG command processor is ready
  ⋮
Ready;
```

Figure 18. Sample screen that is displayed after starting the PVMG server.

12 Disconnect the PVMG user ID.

pvmg disc

13 Dial the VTAM virtual machine to obtain the PVMG selection menu.

dial VTAM
logon applid(*pvmgapplid***)**

VTAM is the virtual machine identifier.

pvmgapplid is the VTAM applid of PVMG.

A PVMG Selection Menu should be displayed. See Figure 14 on page 67 for an example of this panel. Note that this panel is very similar to that of the PASSTHRU panel.

14 Leave the PVMG Selection Menu

pa1

PA1 will exit the PVMG selection screen.

What's Next?

Verification of PVMG is now complete.

Proceed with:

7.5, “Place serviced PVM into Production” on page 57 to place the new PVM code into production when servicing your system.

OR

6.5, “Place PVM Into Production” on page 34 to place the new PVM code into production for initial installations.

Appendix B. Local Modification Example: Assemble File

Note!

This appendix provides an example for updating the DVMAIN ASSEMBLE part. You should substitute the file name of the part you are modifying for DVMAIN in the instructions. Since the output of the instructions is to create a TEXT file type with an abbreviation of TXT, you should substitute the abbreviation of the file type you are modifying for TXT. You can use these instructions to create local modifications to a PVM message repository, exec, or any other PVM part.

1 Set up the required access order

vmfsetup 5684100E {PVMSRC|PVMSSFS}

compname is **PVMSRC** if servicing using minidisks or **PVMSSFS** if servicing using SFS

2 Update the local service level (VVTLCL) of the software inventory to create a record of the local modification

vmfsim logmod 5684100E vvtlcl *fmlocal* **tdata :part dvmain txt :mod lcl0001.update1**

fmlocal is the fm of the local modification and sample minidisk or directory

3 Create or update and edit the 5684100E $SELECT file on the alternate apply disk.

xedit 5684100E $select *fmapply*
====> top
====> input :APPLYID.*mm/dd/yy hh:mm:ss*
====> input DVMAIN TXT
====> file

fmapply is the fm of the alternate apply minidisk or directory. *mm/dd/yy hh:mm:ss* is the current date and time and must be unique.

4 Create/Edit the AUXLCL file for the part to update

Note: This step can be skipped when applying a local modification to a full part replacement part.

xedit dvmain auxlcl *fmlocal* **(noprof**
====> input UPDATE1 LCL LCL0001 * comment
====> file

fmlocal is the fm of the local modification and sample minidisk or directory

5 XEDIT Source file to create the update file

Note: You do not need the XEDIT control (CTL) option when editing a full part replacement part.

xedit dvmain assemble (ctl pvm
====> fm *fmlocal*

fmlocal is the fm of the local modification and sample minidisk or directory

6 Make your desired changes

7 Issue the XEDIT file command when changes are completed

====> file

8 Use VMFHASM to generate the text deck with the changes. The following is a list of execs which can be substituted for VMFHASM when doing local modifications to PVM parts other than ASSEMBLE:

- PVMCMP to compile a message repository. See the PVMCMP command in the "PVM Commands" appendix and review the "National Languages on Your PVM System" chapter in the *VM/Pass-Through Facility Administration and Operation* manual.
- EXECUPTD to update a $EXEC part
- This step may be skipped for other PVM parts such as full part replacement parts or build lists.

vmfhasm dvmain 5684100E
{PVMSRC|PVMSSFS}

Use component name **PVMSRC** if using minidisks or **PVMSSFS** if using SFS.

9 Copy the updated text deck to the local modification and sample disk or directory

copyfile dvmain txtl0001 a = = *fmlocal* **(olddate replace**
erase dvmain txtl0001 a

fmlocal is the fm of the local modification and sample minidisk or directory

10 Build the PVM product by issuing VMFBLD

vmfbld ppf 5684100E {PVM|PVMSFS} (serviced	Use component name **pvm** if using minidisks or **pvmsfs** if using SFS.

Appendix C. Overriding the VMSYS File Pool Name

Note!

See "Changing the Shared File System Directory File Pool Name" section of the *VMSES/E Introduction and Reference* manual.

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