z/VM^{TM}



Installation Guide

Version 4 Release 2.0

 z/VM^{TM}



Installation Guide

Version 4 Release 2.0

Note!

Before using this information and the product it supports, read the information in "Notices" on page 207.

Second Edition (October 2001)

This edition applies to the Version 4, Release 2, Modification 0 of IBM[®] z/VM (product number 5739-A03) and to all subsequent releases and modifications until otherwise indicated in new editions.

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Preface

This book guides system programmers through the step-by-step installation procedures for installing z/VM.

The procedures allow installation of the z/VM system first-level on a processor, or as a guest operating system hosted by z/VM. See the *z/VM: General Information* for a list of the processors supported by z/VM and the guest operating systems hosted by z/VM.

Who Should Read This Book

This book is intended for system programmers responsible for installing z/VM.

System programmers are responsible for system operation and system management activities requiring a higher degree of computer skill and technical training and education than those covered by other system support personnel. They are ultimately responsible for the efficient functioning of the system.

What You Should Know Before Reading This Book

This book assumes that you have a general idea of what z/VM does and that you understand the concept of a virtual machine. You should also have a general understanding of z/VM and S/390[®] data processing techniques.

This document includes all updates at the time of this publication (October 2001). Any updates to this document will be reflected in the document that is available at our website:

http://www.ibm.com/eserver/zseries/zvm/

What This Book Contains

This book describes the step-by-step installation procedures for z/VM.

This book contains an Installation worksheet and two Directory Build worksheets required for installation planning. This book also includes reference material and descriptions of the installation execs to be used while you install z/VM.

Where to Start

You should read Chapter 1. Introduction, and Chapter 2. Planning Your Installation of this book before beginning your installation. READ THEM EVEN IF YOU HAVE INSTALLED BEFORE. Some aspects of z/VM installation must be planned using the worksheets provided for you in the planning chapter. Before starting, you should read through the entire installation procedure you plan to use.

Where to Find More Information

See the bibliography at the back of this book, on page 213.

How to Send Your Comments to IBM

Your feedback is important in helping us to provide the most accurate and high-quality information. If you have comments about this book or any other VM documentation, send your comments to us using one of the following methods. Be sure to include the name of the book, the publication number (including the suffix), and the page, section title, or topic you are commenting on.

• Visit the z/VM web site at:

http://www.ibm.com/eserver/zseries/zvm/

There you will find the feedback page where you can enter and submit your comments.

• Send your comments by electronic mail to one of the following addresses:

Internet: pubrcf@vnet.ibm.com

IBMLink[™]: GDLVME(PUBRCF)

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IBM Corporation Information Development Department G60G 1701 North Street Endicott, New York 13760-5553 USA

Summary of Changes

This section describes the technical changes made in this edition of the book and in previous editions. This edition may also include minor corrections and editorial changes.

Second Edition for z/VM Version 4 (October 2001)

This edition contains updates for the General Availability of z/VM 4.2.0.

First Edition for z/VM Version 4 (July 2001)

This edition contains updates for the General Availability of z/VM 4.1.0.

- A new Express installation method is available. This new Express installation method makes it faster and easier for you to install and service z/VM 4.1.0. There are some restrictions when using the Express installation method:
 - Only one DASD type and model can be used for your installation.
 - VM source code is not installed.
 - Only the SMALL FILEPOOL is provided (no large VMSYS (SFS) filepool).
 - Products and features are installed onto minidisks only. You cannot move them to SFS.
 - Only IBM supplied PPFs are used.
 - Customer local modifications are not allowed.
- Two new commands, SERVICE and PUT2PROD, have been added to automate the application of an RSU and CORrective service. The SERVICE command installs an RSU or applies CORrective service for the z/VM components, features, or products that are installed on the z/VM System DDR. The PUT2PROD command places components, features, or products, that were serviced using the SERVICE command, into production.

All customers can use these commands at installation time. However, after installation is complete, they may only be used by Express cutsomers.

- DASD types 9345 and FBA are not supported.
- TCP/IP and NFS are not priced features.
- RTM, VMPRF, and DirMaint are preinstalled on z/VM, but they are disabled.
- CUF is part of the CMS component of z/VM.

First Edition for z/VM Version 3 (February 2001)

This edition contains updates for the General Availability of z/VM 3.1.0.

- Increased the size of the VMSYS file pool.
- Added ICKDSF to the MOVE2SFS exec.
- OpenExtensions[®] Shell and Utilities is now part of CMS.

Part 1. Introduction and Planning

In this part, you will:

- Be introduced to terms and techniques that have proven to assist during the installation of z/VM
- Learn the interactive dialog used within this book
- Plan for your installation
- · Fill in worksheets
- Choose an installation procedure.

Introduction and Planning

Chapter 1. Introduction

You should read this chapter to:

- · Review the definitions of terms, abbreviations, and variables
- Understand the format of this book
- Gather information and prepare for installation.

Terms and Concepts

The following information describes the terms, abbreviations, and format used in this book. Understanding this information will help you use this book with ease.

Important Terms

Term Definition

CD-ROM:

High-capacity read-only memory in the form of an optically read compact disk

Current System:

Your existing VM system.

DASD or Pack Support:

Dedicated pack:

A Direct Access Storage Device (DASD) that is not in use by your current system or CP. It can be attached or detached.

Install pack:

A DASD used for installation of your new z/VM system.

System residence pack:

The pack on which the CP nucleus of the operating system is located (designated as 420RES in this book). This pack must be of the same DASD type as your System DDR and must be one of the densities listed in Table 1 on page 19.

Initial Installation System (IIS):

A functional z/VM system included in the z/VM System DDR restored to the system residence pack (420RES) and used by all procedures to install the rest of the z/VM system.

Installation-supported tape drives:

The 3480, 3490, and CDROM (when emulating a 3422 tape drive) tape drives are supported for installation.

Installation-supported DASD types:

These are: 3380 and 3390 DASD. However, the 420RES must be one of the DASD type and density listed in Table 1 on page 19.

Recommended Service Upgrade (RSU) tape:

A service tape included in your z/VM order. The RSU has recommended service and will be installed during the z/VM System installation procedures in this manual.

z/VM System DDR:

Tapes or CD-ROM containing a prebuilt system packaged in DASD Dump Restore (DDR) image format. There is a separate prebuilt system for each installation-supported DASD type.

Common Abbreviations and Variables

Here is a list of common abbreviations and variables this publication uses:

Abbreviation	Term
compname	name of component
devno	device number
devtype	device type

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fm	file mode
fn	file name
ft	file type
langid	national language identifier
packaddr	DASD (pack) device address
rdev	real device type
tapeaddr	tape device address
userid, user ID	user identifier for a virtual machine
vdev	virtual device type
volid	volume identifier/pack label

Understanding the Dialog with the System

Whenever you need to perform a system task, this publication describes the task in one- and two-column format.

1. *Substeps* in any task will be numbered and appear in one-column format, just like the lines you are now reading.

2.	<i>Screen output and input</i> will appear on the left side of a two-column format.	Information about screen output and input appear on the right side of a two-column format. For example:
	DMSACC724I '195' REPLACES 'A (191)'	This message tells you that minidisk 195 is now the A-disk. The indentation of the second line indicates that this message appears all on one line on the display terminal.
3.	<i>Screen output</i> may appear in all capital letters or in mixed case. <i>Variable</i> information is denoted as a highlighted lowercase item (<i>value</i>). For example:	If screen output or input contains variable information, the information is explained on the right side. For example:
	REPLY <i>value</i> TO THE PROMPT "CYL ADDRESS"	<i>value</i> is the cylinder address where you will write the CMS nucleus.
4.	<i>Input</i> that you must enter appears on the left side of the two-column format as a highlighted lowercase item (like this). For example:	The right side of the two-column format will also explain input that you must enter. For example:
	access 191 a	Enter this command to make your 191 minidisk the A-disk.
5.	Sometimes input you must enter varies. In such cases, the variable information appears <i>like this</i> . For example:	When the input you enter is a variable, notes on the right side will explain the variable information. For example:

	input devno devtype 420res	The second control statement is the input control statement. Identify the device number (<i>devno</i>) and the tape device type (<i>devtype</i>) where the System DDR tape is mounted.
6.	Sometimes two or more choices are shown for input or output. In that case, the choices are separated by a vertical bar (I) and enclosed in braces. For example:	The choices are explained on the right-hand side. For example:
	vmfins build ppf {zvmluceng} cms cmsload (all	Use the PPF name ZVM for mixed case English (AMENG) text files or the PPF name UCENG for uppercase English (UCENG) text files.
7.	Keys you must press to perform or continue a specific function appear in reverse video. For example:	
	Press enter or clear key to continue	

+-----+

8. Instructions applying only to certain users are enclosed, like the example you are now reading, in wide horizontal brackets. A phrase identifying the users who must follow these instructions is printed in the middle of the first bracket. A matching end bracket indicates where the special instructions end and the instructions to all users begin again.

+	————End of Instructions	\$+
9.	:	The e
	•	ropost

The ellipsis indicates that the preceding item may be repeated, or that messages are not shown.

- **Note:** For one or both of the following reasons, the dialog you see on your terminal may vary from those shown in the installation procedures:
 - · Your system configuration differs from the one on which the procedures were tested
 - You changed the IBM-supplied defaults

Summary of the Installation Process

z/VM Version 4 Release 2.0 features an automated installation process that uses panel interface driven execs. You are able to select the items to load and there is flexibility in where you can place the items on your DASD. This installation process minimizes contiguous DASD requirements and DASD type restrictions.

This process offers a choice of procedures for installing your z/VM system. All use the z/VM System DDR that includes the Initial Installation System (IIS). The IIS is a functional VM system used during installation of z/VM. You will restore the IIS, IPL the new system, and then continue to load minidisks from the z/VM System DDR prepared for your particular DASD type. The installation procedures allow for:

- · Flexibility in which items to load
- Mixed DASD support
- · Automated directory build using one of the following two methods:

- The same DASD type and density for all installation packs. Requires the entire pack. The pack labels (420W01, ...) are defined by the installation execs, and the placement of minidisks is generated by the installation exec.
- Any combination of DASD types/models supported by your installation (3380, 3390). The extents
 used on each pack may be limited by the customer, and the pack labels are defined by the
 customer. However, the placement of items is generated by the installation execs.
- · Layout of your system during installation planning.

Gather Information and Prepare for a z/VM System DDR Installation

Before you begin installing there are a number of things you must do.

- 1. Be sure that you have the proper processor for your z/VM 4.2.0 system.
- 2. If you are installing from another VM system, review the z/VM: Migration Guide.
- 3. See the *z/VM Program Directory* and the PSP Bucket for the latest information affecting z/VM.

Tape Layout of the z/VM System DDR

IBM offers the z/VM System DDR on tapes for z/VM Version 4 Release 2.0. When you order z/VM System DDR tapes, the z/VM System DDR you receive contains a prebuilt system image for the DASD you specified.

Figure 1 shows the file arrangement of tape volume one (1) of the z/VM System DDR.

Device Support Facilities Program	DASD Dump Restore Program	Initial Installation System	Tape Header	Installation Files	ISMS Trailer File	
File 1		File 2	File 3	File 4		
File 1 The first file of volume one (1) includes the Device Support Facilities (ICKDSF) program and the DASD Dump/Restore (DDR) program. This file is used only during Procedure 1 of your installation. During installation, the ICKDSF program initializes and formats DASD packs. DDR is a stand-alone program that restores the Initial Installation System (IIS) from tape to the system residence device. Note: The Device Support Facilities and DDR program on file 1 of the z/VM System DDR may not be at the latest service level. Use these copies of the programs only during z/VM						
File 2	Ie 2 The second file of volume one (1) contains the IIS. The IIS is device dependent; that is, you must restore the IIS to the same device type as your z/VM System DDR. IBM can supply a 3380 and 3390 IIS.					
File 3	The third file o	of volume one (1)	contains the volu	ime identifier.		
File 4	The fourth file	of volume one ("	l) contains installa	ation tools.		
ISMS Trailer Files	A tape volume Manufacturing	e data file is need Solutions) proce	ed for ISMS (IBM essing.	Software		



Figure 2 shows the file arrangement of the remaining tape volumes of the z/VM System DDR.

Tape Header	DDR Image File			DDR Image File	ISMS Trailer File
File 1	File 2		·	File n	

DDR Image Files Each file is the DDR image of one minidisk.

Figure 2. z/VM System DDR Layout of Remaining Tape Volumes

CD-ROM Layout of the z/VM System DDR

IBM offers a z/VM System DDR on CD-ROM for z/VM Version 4 Release 2.0. When you order z/VM on CD-ROM, you receive four (4) CD-ROMs, two (2) CD-ROMs for each of the installation-supported DASD types (3380 and 3390). The CD-ROM for a particular DASD type has one logical tape containing identical data to that included on the z/VM System DDR on tape. **Be sure to use only one CD-ROM type (2 volumes) for installation of z/VM**.

Note: All media is referred to as tape throughout the installation procedures. The term *z/VM System DDR*, used throughout the installation procedures, refers to both tape and CD-ROM media.

One of the following is required to install from a CDROM:

- PS2 with S/390 Optical Media Attach/2 (OMA/2)
- Multiprise[®] 3000.

Figure 3 on page 9 shows the file arrangement of the z/VM System DDR CD-ROMs.

1st CD-ROM (Volumes 1-4)



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Stopping and Restarting the Installation Procedures

Each installation procedure is divided into chapters. You can interrupt a procedure at the end of any chapter. The procedures to stop and restart are described in "Appendix I. Stopping or Restarting the Installation Procedure" on page 189.

Figure 3. Layout of z/VM CD-ROMs

Introduction and Planning

Chapter 2. Planning Your Installation

In this chapter you will:

- Choose the appropriate installation procedure to use based on your system requirements and available
 resources
- · Determine the items to load for your installation
- Determine the DASD requirements for your installation
- Fill in the Installation Worksheet and the Directory Build Worksheet.

Step 1. What You Need to Know First

z/VM Version 4 Release 2.0 provides four installation procedures from which to choose. To determine the proper installation procedure, you need to know some information about the system on which you are installing z/VM Version 4 Release 2.0. The following is a list of questions you must be able to answer:

- What is the DASD type of your z/VM System DDR?
- What type and amount of DASD is available for the installation of z/VM Version 4 Release 2.0?
- · Is there a supported VM operating system running on the processor or LPAR?
- Does your full screen monitor display at least 20 lines? Installation requires a full screen terminal with at least 20 lines.

Step 2. Choosing Your Installation Procedure

In this section, you will choose a procedure for installing the z/VM Version 4 Release 2.0 System DDR.

Installation Procedure Overview

This section gives you a description of each installation procedure available for installing z/VM Version 4 Release 2.0. After reading this section, you will be able to choose your installation procedure in "Choose the Appropriate Installation Procedure" on page 14.

• z/VM Express Installation and Service Procedure

This procedure installs z/VM with minimal input from the customer. Express customers are able to use the new SERVICE and PUT2PROD execs to service the products provided on the z/VM System DDRs.

If you can adhere to the following restrictions, you can use the Express procedure:

- All DASD used for installation must be the same DASD type and model
- Source code is not installed
- The SMALL FILEPOOL is loaded, which has a smaller data minidisk area than the regular filepool
- Products cannot be moved from minidisks into the Shared File System
- IBM supplied PPFs must be used with no overrides.
- Customer local modifications are not allowed

The one-page Express procedure is packaged with the *z/VM: Installation Guide*.

z/VM Installation Guide Procedure 1

Use this procedure if no supported VM system is running in the processor or LPAR on which you are installing z/VM Version 4 Release 2.0 and you are not an Express customer.

• z/VM Installation Summary

Use this procedure if you are installing second level on a supported VM system, and the DASD on which you are installing are all the same DASD type and model.

The one-page summary is packaged with the *z/VM: Installation Guide*.

• z/VM Installation Guide Procedure 2

Use this procedure if you are installing second level on a supported VM system, and the DASD on which are you installing are not all the same DASD type and model.

Planning Your Installation

Choose the Appropriate Installation Procedure

Answering the questions and following the flow chart will lead you to the installation procedure that most closely matches your requirements.

If you have any questions, refer back to "Installation Procedure Overview" on page 13.



Figure 4. Installation Flow Chart

If you are using the procedure described in the z/VM Express Installation and Service Procedure or the z/VM Installation Summary, leave this book and use to the appropriate one-page document.

If you are using the z/VM Installation Guide Procedure 1 or z/VM Installation Guide Procedure 2, record your procedure number in the Installation Procedure # field in the Installation Worksheet (Table 4 on page 21) and continue to the next step.

Step 3. Decide What You Want to Load

The BASE item is required and includes the following:

- Control Program (CP)
- Dump Viewing Facility (DV)
- Conversational Monitor System (CMS)
- REstructured eXtended eXecutor (REXX/VM)
- Virtual Machine Serviceability Enhancements Staged/Extended (VMSES/E)
- Group Control System (GCS)
- 3800 Model-3 Printer Image Library
- System minidisks
- EREP, ICKDSF, and LE/370
- UCENG Help Uppercase English Help minidisk
- German Help German Help minidisk
- Kanji Help Japanese Help minidisk
- · RSCS enabled only for system use
- TCP/IP
- RTM installed disabled
- · VMPRF installed disabled
- DirMaint installed disabled.

The optional items you may Select To Load are:

- TSAF and AVS Transparent Services Access Facility and APPC/VM VTAM[®] Support
- FILEPOOL CMS file pools VMSYS, VMSYSU, and VMSYSR
- SMALL FILEPOOL CMS file pools VMSYS, VMSYSU, and VMSYSR with a much smaller data minidisk area for the VMSYS file pool
- · CP, DV source Source minidisk shared by the CP and DV components
- · CMS, REXX source Source minidisk shared by the CMS and REXX/VM components
- · VMSES/E source Source minidisk for the VMSES/E component
- RSCS source Source minidisk for RSCS
- OSA/SF
- TSM installed disabled.

The Installation Worksheet (Table 4 on page 21) lists all the items you can load. As you review each of the following items, place a "Yes" in the **Select To Load** column in the Installation Worksheet for each optional item you select to load. Place a "No" in the **Select to Load** column in the Installation Worksheet for each optional item you select to not load. The BASE item is required; therefore, "Yes" has been placed in the **Select To Load** column for this item.

TSAF

- The Transparent Services Access facility (TSAF) is a z/VM component that lets users connect to and communicate with other APPC/VM applications. TSAF runs in a virtual machine and does not need VTAM to communicate with other z/VM systems in the local z/VM collection. TSAF provides z/VM users with transparent access to server resources across a collection of up to eight z/VM systems.
- For more information on TSAF, see the VM/ESA: Connectivity Planning, Administration, and Operation manual.
- TSAF and AVS share minidisks. If you decide to load one, you must select the TSAF, AVS item, which loads both TSAF and AVS.

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 TSAF is installed on minidisks. If you want TSAF in the VMSYS file pool, you must load both the TSAF, AVS item and the FILEPOOL item. After loading your system, you will be able to move TSAF from minidisks to the VMSYS file pool directories.

AVS

- The APPC/VM VTAM support (AVS) component includes the AVS virtual machine and lets z/VM users connect to and communicate with a SNA network. With AVS, an APPC/VM program in the collection can connect to APPC programs in the SNA network so you can easily access more information. Also, APPC programs in the SNA network can access global and private resources on z/VM.
- For more information on AVS, see the VM/ESA: Connectivity Planning, Administration, and Operation manual.
- TSAF and AVS share minidisks. If you decide to load one, you must select the TSAF, AVS item, which loads both TSAF and AVS.
- AVS is installed on minidisks. If you want AVS in the VMSYS file pool, you must load both the TSAF, AVS item and the FILEPOOL item. After loading your system, you will be able to move AVS from minidisks to the VMSYS file pool directories.

FILEPOOL

- The FILEPOOL item defines the three file pools—VMSYS, VMSYSU, and VMSYSR. The Byte File System (BFS) root directories are also defined in VMSYS and VMSYSU. A file pool is a collection of minidisks assigned to a single virtual machine called a file pool server machine. Because the minidisks in a file pool are shared by many users, using the Shared File System can save DASD space.
- If you plan to move your VMSYS, VMSYSU, and VMSYSR file pools from an existing VM system, do not select the FILEPOOL item. See the section on converting your SFS file pool servers in the *z/VM: Migration Guide* for information about moving your existing file pools to *z*/VM Version 4 Release 2.0. If you are going to use Java, NetRexx[™], or OpenExtensions Shell & Utilities, you must have the Byte File System defined. If you do not have the Byte File System, use BFSROOT to set up the Byte File System default file space in the VMSYS and VMSYSU file pools. See the *z/VM: CMS File Pool Planning, Administration, and Operation* for details on setting up the Byte File System.
- If you do not plan to move VMSYS, VMSYSU, and VMSYSR from an existing VM system, place a "Yes" in the **Select To Load** column in the Installation Worksheet (Table 4 on page 21) for either the FILEPOOL or SMALL FILEPOOL item. You cannot load both.

SMALL FILEPOOL

- The SMALL FILEPOOL item also defines the three file pools—VMSYS, VMSYSU, and VMSYSR, but the SMALL FILEPOOL item defines a much smaller data minidisk area for the VMSYS file pool. The Byte File System (BFS) root directories are also defined in VMSYS and VMSYSU. A file pool is a collection of minidisks assigned to a single virtual machine called a file pool server machine. Because the minidisks in a file pool are shared by many users, using the Shared File System can save DASD space. If SMALL FILEPOOL is selected, VMSYS contains a smaller SFS area, therefore items cannot be moved into SFS.
- If you plan to move your VMSYS, VMSYSU, and VMSYSR file pools from an existing VM system, do
 not select the SMALL FILEPOOL item. Select the SMALL FILEPOOL item if you are not moving the
 items you selected to load from minidisks into SFS.
- If you do not plan to move VMSYS, VMSYSU, and VMSYSR from an existing VM system, place a "Yes" in the **Select To Load** column in the Installation Worksheet (Table 4 on page 21) for either the FILEPOOL or SMALL FILEPOOL item. You cannot load both.

CP, DV Source

• The CP, DV source item consists of a single minidisk. This minidisk contains the source for the CP and DV components. You only need this minidisk if local modifications will be made to these components.

 If you choose not to load this item, a 1 cylinder minidisk will be defined instead of the full-sized source minidisk. The source minidisk address is defined in the Product Parameter File (PPF); therefore, it must be defined in the directory.

CMS, REXX/VM Source

- The CMS, REXX source item consists of a single minidisk. This minidisk contains the source for the CMS and REXX components. You only need this minidisk if local modifications will be made to these components.
- If you choose not to load this item, a 1 cylinder minidisk will be defined instead of the full-sized source minidisk. The source minidisk address is defined in the Product Parameter File (PPF); therefore, it must be defined in the directory.

VMSES/E Source

- The VMSES/E source item consists of a single minidisk. This minidisk contains the source for the VMSES/E component. You only need this minidisk if local modifications will be made to this component.
- If you choose not to load this item, a 1 cylinder minidisk will be defined instead of the full-sized source minidisk. The source minidisk address is defined in the Product Parameter File (PPF); therefore, it must be defined in the directory.

RSCS Source

• The RSCS source item consists of a single minidisk. This minidisk contains the source for the RSCS component. You only need this minidisk if local modifications will be made to this component.

OSA/SF

 Open Systems Adapter Support Facility lets you customize the integrated Open Systems Adapter (OSA) hardware feature for the OSA modes, change the settable OSA port parameters, and obtain status about the OSA.

TSM

• Tivoli[®] Storage Manager, which replaced Tivoli ADSM for VM, is a client/server program that provides storage management to customers in a multivendor computer environment.

TSM provides an automated centrally scheduled, policy-managed backup, archive, and space management facility for file servers and workstations.

Step 4. Determine DASD Requirements and Directory Build Method

The Version 4 Release 2.0 installation process allows you choose where to install the items you selected in one of two ways:

- 1. Method 1 uses the same DASD type and density for all installation packs. The packs must be the same device type as your z/VM System DDR and must match one of the densities listed in Table 1 on page 19. The pack labels are defined by the installation execs as 420RES, 420W01, Placement of items on the packs is generated by the installation execs.
- 2. Method 2 allows you to install to any combination of 3380 and 3390 models listed in Table 1 on page 19. The extents used on each pack are defined by the customer, the pack labels are defined by the customer, and the placement of minidisks is generated by the installation execs within the extents provided by the customer. However, the system residence pack must be labeled 420RES and be one of the DASD types/densities listed in Table 1 on page 19.

Method 1

Using the same DASD type and density for all installation packs.

This method requires the least amount of customer input. The packs will be labeled 420RES, 420W01, 420W02, 420W03, ... as needed. The minidisks will be placed on the packs in the same order as they are listed in the **LOAD SELECTION SECTION** in the Installation Worksheet (Table 4 on page 21), except where individual disks are moved to prevent unused space at the end of a pack.

It is required that you have a predetermined number of packs, all of the same DASD type and density available for installation.

1. Refer to Table 1 on page 19 for a list of the **Number of Packs Required** for each DASD type (**Device Type**) and **Density** supported.

Notes:

- a. All packs required for this method must be of the same DASD type as your z/VM System DDR
- b. All packs required for this method must be of the same density.
- 2. Get the Directory Build Worksheet—Method 1 (Table 5 on page 22).
- 3. Select the DASD to use for installation, and in the Directory Build Worksheet—Method 1, record the DASD type, density, and the number of packs required.
- In the Directory Build Worksheet—Method 1, for each pack required, record the *Address* of each pack next to its respective *Label*. If you do not need all the packs listed, ignore the extra pack labels in the table.

Method 2

Using any combination of DASD types/models supported by your installation.

This method allows you to use both 3380 and 3390 DASD types/models. It also allows placement of minidisks to be restricted to defined extents on a pack. The minidisks will be placed on the extents (taken in the order listed on the input panel) in the same order as they are listed in the **LOAD SELECTION SECTION** in the Installation Worksheet (Table 4 on page 21), except when FILEPOOL was selected (it will be placed first) or where individual disks are moved to optimize DASD space (to prevent unused space at the end of a pack).

- 1. Refer to Table 2 on page 20 and determine the number of cylinders needed for the items you choose to load.
- 2. Select the DASD to be used for installation.
- 3. Get the Directory Build Worksheet—Method 2 (Table 6 on page 23).

- 4. In the Directory Build Worksheet—Method 2, record the DASD address and type of the 420RES pack. This pack must be the same device type as your z/VM System DDR and must match one of the densities listed in Table 1.
- 5. Determine the DASD requirements for the items you selected to load by reviewing Table 2 on page 20. In the Directory Build Worksheet—Method 2, record the *Label*, *Address*, *Type*, and *Extents* for each DASD to be used for installation. (The *Type* field must be 3380 or 3390.) The total free space on DASD must equal or exceed the total space required for the items you selected to load. If you want to use the remainder of the 420RES for minidisk placement, see Table 3 on page 20 to determine the starting extent available for use.
 - **Note:** If the FILEPOOL or SMALL FILEPOOL item is selected, it will be placed on the first set of extents defined on the panel. Therefore, the first extents defined on the panel must be at least the following size:

	FILEPOOL	SMALL FILEPOOL
3380	116 cylinders	316 cylinders
3390	105 cylinders	272 cylinders

Note: Gaps may be left at the end of some of the extents. This occurs when the space remaining in a set of extents is less than the smallest minidisk left to load. As a result, you may need more cylinders than what is specified in Table 2 on page 20. The more sets of extents you use to define your system, the greater the potential for gaps. Therefore, we recommend that you do not use more than four or five sets of extents.

Note: Do not use cylinder 0. It is reserved for the allocation area.

6. If you plan to use multiple DASD types, you may have to allocate a work minidisk depending on the size of the minidisks that are loaded to a DASD type other than that of your System DDR. This work minidisk must be the same DASD type as your z/VM System DDR. Refer to the following table for the maximum number of cylinders you may have to allocate for the work minidisk:

 3380
 540 cylinders

 3390
 450 cylinders

Record the *Label*, *Type*, and *Extents* in the Work Minidisk area of the Directory Build Worksheet—Method 2. The extents you allocate for your work disk must be separate from the extents given to INSTDIR to define the directory. When the directory is built, INSTDIR calculates the size of the minidisk needed and prompts you to enter the pack label and starting extents for the work disk.

After the installation is complete, this space may be reused.

DASD Tables for Method 1 and Method 2

Device Type	Density	Number of Packs Required		
		Base Only	All	Express
3380	Single (885 cyl)	6	9	8
	Double (1770 cyl)	3	5	4
	Triple (2655 cyl)	2	3	3
3390	Single (1113 cyl)	5	6	5
	Double (2226 cyl)	3	3	3
	Triple (3339 cyl)	2	2	2

Table 1. Number of DASD Needed to Install z/VM Using Method 1

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Table 2. Number of DASD Cylinders Needed to Install z/VM Using Method 2

Item	3380	3390
FILEPOOL	1116	940
SMALL FILEPOOL	316	272
BASE	4,553	3,926
TSAF, AVS	40	38
CP, DV Source ²	250	208
CMS, REXX Source ²	95	80
VMSES/E Source ²	28	24
RSCS Source	23	20
OSA/SF	544	455
TSM	251	210
Total ³	6,668	5,709

Notes:

- 1. To roughly estimate how many cylinders of one type of DASD is equivalent to the number of cylinders of another type of DASD, use the following conversions:
 - (3380 cylinders) x .84 = (3390 cylinders)
 - (3390 cylinders) x 1.19 = (3380 cylinders)
- 2. For each source item you selected **not** to load, you must allocate a 1 cylinder extent.
- 3. Total includes the FILEPOOL sizes, but does not include the SMALL FILEPOOL sizes.

Table 3. 4	20RES IIS	Location
------------	-----------	----------

DASD Device Type	IIS Location on 420RES	Start Location of Free Extents
3380	0-881	882
3390	0-751	752

Worksheet Tables

This section includes the Installation Worksheet and the two Directory Build Worksheets.

Table 4. Installation Worksheet

LOAD SELECTION SECTION				
Item/Minidisk		Select To Load (Yes/No)		
BASE (required)		Yes		
TSAF, AVS				
FILEPOOL				
SMALL FILEPOOL				
CP, DV Source				
CMS, REXX Source				
VMSES/E Source	VMSES/E Source			
RSCS Source				
OSA/SF				
TSM				
	TAPE DRIV	E SECTION		
Drive	Address (1st Level Real)	Address (1st Level Virtual) (2nd Level Real)	Address (2nd Level Virtual)	
1				
2				
3				
4				
5				
6				
7				
8				
	MISCELLANEOU	IS INFORMATION		
Installation Procedure # :				
currID (Procedure 2 ONLY) U	Jser ID :			
consaddr (Primary System C	onsole Address) :			
Note: You will fill in the TAP	E DRIVE SECTION, wdaddr,	currID, and consaddr during	the procedures.	

Planning Your Installation

Table 5. Directory Build Worksheet-Method 1

Device Type and Density: Number of Packs Required:			
Label	Addr		
420RES			
420W01			
420W02			
420W03			
420W04			
420W05			
420W06			
420W07			
420W08			
420W09			

Table 6. Directory Build Worksheet—Method 2

420RES Address: Type/Model (Density):				
Addrress	Label	Туре	Extents	
			Start	End
Work Minidisk (if required)				

- Note: If loading either the FILEPOOL or SMALL FILEPOOL item, it will be placed in the first set of extents listed. Therefore, the first extent defined **must** be at least as large as that item.
- Note: Make a separate entry for each set of contiguous extents on the same pack.
- **Note:** Do not use cylinder 0. It is reserved for the allocation area.

Planning Your Installation
Part 2. z/VM System DDR Installation

This part contains the different installation procedures that you can use to install z/VM System DDR.

z/VM System DDR Installation

Chapter 3. Procedure 1

In this chapter, you will use step-by-step procedures to install the z/VM System DDR in a new system environment.

 $^-$ In this step you will: $^-$

- Mount the z/VM System DDR on the tape drive.
- Initialize, format, and relabel the DASD.
- Load down the Initial Installation System (IIS) from the z/VM System DDR.

Notes:

- 1. The IPLable Device Support Facilities (ICKDSF) program in Tape File 1 of the z/VM System DDR may not be at the latest service level. Use this copy of the program only for installation.
- 2. Make sure that any packs with the same labels you are using for installation are **not** attached to your system.
- 1. Before you begin, read "Chapter 1. Introduction" on page 3 and "Chapter 2. Planning Your Installation" on page 11.
- If possible, power off all devices you do not plan to use during installation. This precaution is advisable because the initial install program on the z/VM System DDR assumes that the first device to present an interrupt is the system console.
 - **Note:** If your system has a 3725, 3745, 3704, or 3705 controller attached and available to it and that controller is ALSO available and active to other systems, it is possible that the IPL of the z/VM install tape (which will IPL ICKDSF) will cause the controller to re-IPL. To prevent this from occurring, do one of the following:
 - a. Make the controller channel path ID (CHPID) unavailable at the system console
 - b. Make sure the controller is configured so the system running z/VM cannot IPL the controller.
- ____ 3. Refer to the Directory Build Worksheet that corresponds to the directory build method you selected. Ensure all the DASD packs listed on the worksheet are available for use. Follow the operation manual for your own hardware.

Attention: Make sure that any packs with the same labels that you are using for installation are **never** attached to your system. Any such packs might be brought online when you IPL the Initial Installation System in "Step 2. Restore the Initial Installation System (IIS)" on page 43. Either remove these packs or use the Device Support Facilities (ICKDSF) to relabel your packs in substep 9 on page 29.

Attention: The system residence pack used for installation must be the same DASD device type as your z/VM System DDR and must match a density listed in Table 1 on page 19 in order to restore the Initial Installation System.

- 4. Choose the addresses of your tape drives. For the Base item, you will need tape drives for tape volumes (2-6) of the z/VM System DDR. Depending on the optional items you choose to load, you will need tape drives for volumes (7-8). You will need two CD-ROM volumes for the z/VM System DDR on CD-ROM.
 - **Note:** If you use a unique tape drive for each volume, or use a tape stacker in automatic mode, the tapes will be loaded without interruption. If you must use one tape drive for multiple volumes, you will be prompted when a tape volume needs to be changed.
- 5. Record the real address of each tape drive in the 1st Level Real and 1st Level Virtual/2nd Level Real address columns in the TAPE DRIVE SECTION in Installation Worksheet Table 4.
 Record the device type(s) of the tape drive(s) in the Device Type column of the TAPE DRIVE SECTION in Installation Worksheet Table 4.
- 6. Mount Volume 1 of the z/VM System DDR on tape drive 1. Make sure the tape is write protected. If you are installing with CDROM and you are:

- Installing from a PS2 with OMA/2, refer to the Optical Media Attach/2 User's Guide and the Optical Media Attach/2 Technical Reference.
- Installing from a Multiprise 3000, refer to the Emulated I/O User's Guide and AWSOMA.DOC in the Service Element directories.
- 7. IPL the tape drive to load the Device Support Facilities (ICKDSF) program. Follow the hardware IPL procedure specified for your processor.

Refer to your processor's hardware operation manuals for help.

Notes:

- a. For more information about the Device Support Facilities (ICKDSF), see the Device Support Facilities User's Guide and Reference.
- 8. Wait 60 seconds or so for the IPL to complete. You will see no messages. Press Enter to create an interrupt. If you do not see a response, you pressed Enter before the IPL was complete. Reset the keyboard. Wait approximately 60 seconds and press Enter again.

Note: You may have to wait approximately 15 minutes on a CD-ROM device.

ENTER

CLEAR SCREEN WHEN READY Reset Press the **Reset** key to unlock the keyboard. Clear Depending on how your console is defined, you may not have to clear your screen. This message tells you that the Device Support ICK005E DEFINE INPUT DEVICE, REPLY Facilities (ICKDSF) is loaded and ready. 'DDDD,CUU' OR 'CONSOLE' ENTER INPUT/COMMAND: console CONSOLE ICK006E DEFINE OUTPUT DEVICE, REPLY 'DDDD,CUU' or 'CONSOLE' ENTER INPUT/COMMAND: console CONSOLE ICKDSF - SA/XA/ESA DEVICE SUPPORT FACILITIES nn.n TIME:hh:mm:ss mm/dd/yy PAGE 1 ENTER INPUT/COMMAND:

9. If you have packs with the same labels listed on your Directory Build Worksheet that are not being used for this installation, use the ICKDSF program to relabel them. If there is more than one pack to relabel, relabel one at a time.

```
to relabel, and volid is the new label you will use for
                                                   that pack.
ICK00700I DEVICE INFORMATION FOR packaddr IS
            CURRENTLY AS FOLLOWS:
          PHYSICAL DEVICE = xxxx.
          STORAGE CONTROLLER = xxxx
          STORAGE CONTROL DESCRIPTOR = xx
          DEVICE DESCRIPTOR = xx
ICK003D REPLY U TO ALTER VOLUME packaddr CONTENTS,
          ELSE T
ENTER INPUT/COMMAND:
u
ENTER INPUT/COMMAND:
```

cpvolume label unit(packaddr) novfy volid(volid)

packaddr is the address of the DASD pack you want

If you have another initialized pack to relabel, repeat the CPVOLUME LABEL command.

- ____10. If your DASD packs are already initialized, skip now to substep 12 to format them.
- ____11. For uninitialized DASD, use the INSTALL command to initialize the packs. If there is more than one uninitialized pack, initialize one at a time.

```
install unit(packaddr) novfy
```

packaddr is the address of the DASD pack you want to initialize. *packaddr* is recorded on your Directory Build Worksheet.

```
ICK00700I DEVICE INFORMATION FOR packaddr IS
            CURRENTLY AS FOLLOWS:
          PHYSICAL DEVICE = xxxx.
          STORAGE CONTROLLER = xxxx
          STORAGE CONTROL DESCRIPTOR = xx
          DEVICE DESCRIPTOR = xx
ICK003D REPLY U TO ALTER VOLUME packaddr CONTENTS,
          FLSF T
ENTER INPUT/COMMAND:
                                                     The system takes at least 20 to 40 minutes to
u
                                                     inspect and initialize a pack. You will get a series of
   ÷
                                                     ICK messages that describe the status of the device
                                                     being initialized at the point that the initialization is
ENTER INPUT/COMMAND:
                                                     almost complete.
```

If you have another pack to initialize, **repeat** the INSTALL command.

12. Format the 420RES and each pack listed on your Directory Build Worksheet that does not contain data you want to save. Do **not** format any packs with data you need to keep. Issue the command for each pack.

cpvolume format unit(packaddr) novfy volid(volid) mode(esa) nofiller

packaddr is the address of the DASD pack you want to format. *packaddr* is recorded on your Directory Build Worksheet.

volid is the volume identifier recorded on your Directory Build Worksheet.

```
:
ICK003D REPLY U TO ALTER VOLUME packaddr CONTENTS,
ELSE T
ENTER INPUT/COMMAND:
U
:
```

```
ENTER INPUT/COMMAND:
```

If you have another pack to format, repeat the CPVOLUME FORMAT command.

13. IPL the tape drive again to load the DDR program from tape. You do not have to exit the ICKDSF program. Follow the **hardware IPL** procedure specified for your processor.

During hardware IPL procedures, you may specify a console address in the Load Parameter field.

```
------Load Parameter Specified -----+
```

If the Load Parameter field is used, the DDR program will appear at the specified console.

-End of Load Parameter Specified ------+

–Load Parameter Not Specified ——

If no console address is used, you will need to wait a minute or so for the IPL to complete. You will see no messages. Press **Enter** to create an interrupt. If you do not see a response, you pressed **Enter** before the IPL was complete. Reset the keyboard. Wait approximately 60 seconds and press **Enter** again.

ENTER CLEAR SCREEN WHEN READY Reset Clear

Press the **Reset** key to unlock the keyboard. Depending on your console, you may not have to clear your screen.

-----End of Load Parameter Not Specified -----+

- 14. Answer the following prompts from the DDR program to load the Initial Installation System from the z/VM System DDR to the system residence pack (420RES).
 - **Note:** The device types for which the following steps are valid are 3380 and 3390 DASD and 3480, 3490, and 3422 (when using a CDROM) tape drives.

z/VM DASD DUMP/RESTORE PROGRAM ENTER CARD READER ADDRESS OR CONTROL STATEMENTS ENTER: sysprint cons ENTER: input tapeaddr tape (skip 1 ENTER:

tapeaddr is the address of the tape drive recorded in the **TAPE DRIVE SECTION** in Installation Worksheet Table 4.

By typing the word **tape**, the tape device type is automatically identified by the DDR program, either 3422, 3480, or 3490.

output packaddr dasd 420res

pack (420RES) recorded on your Directory Build Worksheet.

packaddr is the address of the system residence

DDR checks the pack label to make sure it is 420RES, the system residence pack.

ENTER:

restore all

HCPDDR725D SOURCE DASD DEVICE WAS (IS) LARGER THAN OUTPUT DEVICE DO YOU WISH TO CONTINUE? RESPOND YES OR NO:

You may or may not receive this message. This is not a problem. Respond **yes** and continue.

yes

RESTORING 420RES

DATA DUMPED mm/dd/yy AT hh.mm.ss GMT FROM 420RES RESTORED TO 420RES Informational messages: GMT means Greenwich Mean Time. The exact cylinder extents vary according to the device type.

INPUT CYLIND	ER EXTENTS	OUTPUT CYLINDER EX	XTENTS
START	STOP	START	STOP
nnnnnnn	nnnnnnn	nnnnnnn	nnnnnnn

÷

END OF RESTORE BYTES RESTORED nnnnnnnn

ENTER:

ENTER

END OF JOB

Press Enter to end the program.

Step 2. IPL the z/VM IIS

- In this step you will:
- Bring up the z/VM Initial Installation System first-level.
- 1. Bring up the z/VM Version 4 Release 2.0 system from the DASD device you just restored it to; that is, IPL the real address of 420RES noted on your Directory Build Worksheet. Follow the specified hardware IPL operation for your processor. You must specify your operator console address on the Load Parameter field on the hardware system console. Record this console address (*consaddr*) on the Installation Worksheet Table 4.

Note: Refer to the proper hardware operation manuals for help.

___ 2. The stand alone program loader panel is displayed on the VM operator console you specified in substep 1.

(STAND ALONE	PROGRAM LOAD	ER: z/VM VERSION 4	RELEASE 2.0			
	DEVICE NUMBE	R: packadd	r MINIDISK OFFSET	T: nnnnnnnn	EXTENT:	1	
	MODULE NAME:	CPLOAD	LOAD ORIGIN:	1000			
	cons=consaddr		IPL PARAMET	TERS			
			COMMENTS	S			
			CONTREATE				
	9= FILELIST	10= LOAD 1	1= TOGGLE EXTENT/OF	FFSET			

Figure 5. Sample Stand Alone Program Loader Panel

____3. Move the cursor to the IPL PARAMETERS field and type:

cons=consaddr

As shown in Figure 5, *consaddr* is the primary system console address recorded in the **CONSOLE SECTION** in Installation Worksheet Table 4 on page 21. This statement defines the operator console. Spaces are not allowed around the equal sign.

____4. Press PF10 to load.

PF10

____ 5. The IPL of your z/VM system continues:

IPL the z/VM IIS

hh:mm:ss z/VM V4 R2.0 SERVICE LEVEL nnnn (mode)	
<pre>hh:mm:ss SYSTEM NUCLEUS CREATED ON yyyy-mm-dd AT LOADED FROM 420RES hh:mm:ss *********************************</pre>	<pre>hh:mm:ss, **** * * * * * * * * * * *</pre>
<i>hh:mm:ss</i> HCPZCO6718I Using parm disk 1 on volume <i>hh:mm:ss</i> HCPZCO6718I Parm disk resides on cylind : :	<i>volid</i> (device <i>xxxx</i>). ers <i>xx</i> through <i>xx</i> . You may receive an informational message, HCPISU951I, about volumes not mounted. If you are not using those volume labels, ignore this message.
	Attention: If you receive informational message HCPIIS954I, you have duplicate volumes with the same label and must correct this error before continuing. Refer back to substep 3 on page 28.
hh:mm:ss Start ((Warm Force COLD CLEAN) (DRain)	
(DISADIE) (NUDIRect) (NUAUIOIog)) or (cold drain noautolog	Because there is no data or accounting information to recover, use cold drain to request a cold start. Use noautolog at this point because you do not need the servers and all user IDs logged on.
6. If it has not been set before, set the TOD (time-of-c Consult <i>z/VM: System Operation</i> for those procedu	lay) clock using standard operating procedures. res.
NOW <i>hh:mm:ss</i> {EST EDT} <i>weekday yyyy-mm-dd</i> Change TOD clock (yes no)	You will see this message only if the TOD clock has been set before.
{yeslno}	Answer yes to reset the TOD clock, no to keep the current setting.
+Yes Reply System Response	+
Set date MM/DD/YY	Type in the month, day and year, separated by slash marks.
Set time HH:MM:SS	Type in the hours, minutes and seconds, separated by colons.
Press "TOD ENABLE SET" key at designated instant NOW <i>hh:mm:ss</i> {EST EDT} <i>weekday mm/dd/yy</i> Change TOD clock (Yes No)	
no	
+End of Yes Reply System Response	+

If you are using a multiprocessor, you may receive a message here concerning the clocks of the different images of the processor. If you do, see *z/VM: System Operation* for information about resetting the clocks.

___7. CP logs on the primary system operator (user ID OPERATOR).

hh:mm:ss The directory on volume 420RES at address nnnn
has been brought online.
hh:mm:ss HCPWRS2513I
hh:mm:ss HCPWRS2513I Spool files available {nnnn NONE}

Note: Depending on the type of spool files available, you may receive the following prompt:

–Spool Files Prompt – hh:mm:ss HCPWRS2513I hh:mm:ss HCPWRS2513I Spool files on offline volumes {nnnn | NONE } hh:mm:ss HCPWRS2513I Spool files with I/O errors {*nnnn* | NONE} hh:mm:ss HCPWRS2513I Spool files with control errors {nnnn | NONE} *hh:mm:ss* HCPWRS2513I Spool files to be discarded {nnnn | NONE } hh:mm:ss HCPWRS2513I ----hh:mm:ss HCPWRS2513I Total files to be deleted nnnn hh:mm:ss HCPWRS2511A hh:mm:ss HCPWRS2511A Spool files will be deleted because of COLD start. hh:mm:ss HCPWRS2511A No files have been deleted yet. hh:mm:ss HCPWRS2511A To continue COLD start and delete files, enter GO. hh:mm:ss HCPWRS2511A To stop COLD start without deleting files, enter STOP. go

Here the system gives you an opportunity to stop the cold start and save your spool files. You do not need to save any spool files at this time; answer **go**.

-End of Spool Files Prompt ————–

hh:mm:ss HCPWRS2512I Spooling initialization is complete. hh:mm:ss DASD nnnn dump unit CP IPL pages nnnn hh:mm:ss HCPAAU2700I System gateway ZVMV4R20 identified. z/VM Version 4 Release 2.0, Service Level 0000 (64-bit), built on IBM Virtualization Technology hh:mm:ss There is no logmsg data hh:mm:ss FILES: NO RDR, NO PRT, NO PUN hh:mm:ss LOGON AT hh:mm:ss EDT DAY mm/dd/yy hh:mm:ss GRAF nnnn LOGON AS OPERATOR USERS = n hh:mm:ss HCPIOP952I nnnnM system storage hh:mm:ss FILES: nonnnnn RDR, nnnnnnn PRT, NO PUN

__8. Disconnect from the OPERATOR user ID.

disconnect

DISCONNECT AT hh:mm:ss {EST EDT} weekday mm/dd/yy

Press enter or clear key to continue
ENTER

___ 9. Log on to the MAINT user ID.

```
ENTER
```

The default password for MAINT is MAINT.

logon maint

z/VM Version 4 Release 2.0, Service Level 0000 (64-bit), built on IBM Virtualization Technology There is no logmsg data FILES: NO RDR, NO PRT, NO PUN LOGON AT hh:mm:ss EDT DAY mm/dd/yy DMSIND2015W Unable to access the Y-disk. Filemode Y (19E)not accessed z/VM V4.2.0 yyyy-mm-dd hh:mm ENTER DMSACP113S B(5E5) not attached or invalid device address DMSACP113S D(51D) not attached or invalid device address Ready; T=n.nn/n.nn hh:mm:ss

____10. Run INSTPLAN to select items to load and the DASD type on which to install.

instplan fullfunc

*** z/VM INSTALLATION PLANNING *** Mark items selected to be loaded with an S in the STATUS column, and those selected not to be loaded with an N . Status Item Status Item Status Item ----- ----- ------
 BASE
 S
 TSAF/AVS
 N
 FILEPOOL

 SMALL FILEPOOL
 N
 CP/DV SOURCE
 N
 CMS/REXX SOURCE

 VMSES SOURCE
 N
 RSCS SOURCE
 S
 OSA/SF
 S BASE S Ν S TSM Place a nonblank character in front of the DASD model layout onto which the selected items will be loaded. Only one layout may be selected. The number in parenthesis is the number of packs needed to load the items selected. _ (3) 3390 Double _ (2) 3390 Triple _ (6) 3390 Single _ () USER PLACEMENT PF1 = HELP PF3/PF12 = QUIT PF5 = Process ENTER = Refresh

- _____a. Refer to Installation Worksheet Table 4 on page 21. In the z/VM INSTALLATION PLANNING panel, place an "N" in the STATUS column for each item you did not choose to load. Place an "S" in the STATUS column for each item you chose to load.
- _____b. If you are using Directory Build Method 1, place a nonblank character in front of the DASD model that matches the *Device Type and Density* in Table 5 on page 22. If you are using Directory Build Method 2, place a nonblank character in front of USER PLACEMENT.
- ____ c. After you select the items to be loaded and the DASD model to be used for installation, press PF5 to complete the planning step.

HCPIPX8475I THE ITEMS YOU SELECTED TO BE LOADED ARE: BASE TSAF/AVS FILEPOOL CP/DV SOURCE CMS/REXX SOURCE VMSES SOURCE RSCS SOURCE OSA/SF TSM THE ITEMS YOU SELECTED NOT TO BE LOADED ARE: SMALL FILEPOOL THE DASD TYPE YOU SELECTED TO LOAD ON IS: dasd model THE PACKS NEEDED TO LOAD THESE ITEMS ARE: packs

If you selected USER PLACEMENT, *packs* refers to all the packs listed on your Directory Build Worksheet.

HCPINP8391I INSTPLAN EXEC ENDED SUCCESSFULLY
Ready; T=n.nn/n.nn hh:mm:ss

What to Do Next

Go to "Chapter 5. Load the System DDR" on page 55.

IPL the z/VM IIS

Chapter 4. Procedure 2

In this chapter, you will use step-by-step procedures to install the z/VM System DDR from a VM system.

Step 1. Planning for Installation

$^-$ In this step you will $^-$

- Choose a first-level user ID, currID.
- Attach a tape drive to *currID*.
- Mount Volume 1 of the z/VM System DDR on the tape drive.
- Load the installation tools.
- Run the installation tools to:
 - 1. Plan for your install
 - 2. Format the DASD
 - 3. Load down the Initial Installation System (IIS) from the z/VM System DDR.
- ____1. Before you begin, read "Chapter 1. Introduction" on page 3 and "Chapter 2. Planning Your Installation" on page 11.
- 2. Choose a first-level user ID from your current operating system with privilege classes B through G which you will use to install z/VM Version 4 Release 2.0. This procedure refers to this user ID as *currID*. **Record** *currID* in Installation Worksheet Table 4. It is a good idea **not** to grant *currID* **privilege class A authority**, so that you cannot accidentally shutdown the first-level system.

Whenever you see these procedures using *currID*, substitute the user ID you recorded in Installation Worksheet Table 4.

- ___ 3. Log on to *currID*.
- 4. Verify that the 191 disk is accessed as A and has at least 2 cylinders of available space. The DASD type of this disk does not have to be the same DASD type as the z/VM System DDR. The installation tools will be loaded to the work disk.

access 191 a

Ready; T=n.nn/n.nn hh:mm:ss

- ____5. **Record** the following in the **TAPE DRIVE SECTION** in Installation Worksheet Table 4:
 - ____a. The real address (tapeaddr) of tape drive 1 under the 1st Level Real column
 - ____b. 181 in the 1st Level Virtual/2nd Level Real column
- ___6. Attach tape drive 1 to *currID* at virtual device address 181.

If you are installing with CDROM and you are:

- Installing from a PS2 with OMA/2, refer to the *Optical Media Attach/2 User's Guide* and the *Optical Media Attach/2 Technical Reference*.
- If installing from a Multiprise 3000, refer to the *Emulated I/O User's Guide* and AWSOMA.DOC in the Service Element directories.

attach tapeaddr * 181

TAPE tapeaddr ATTACHED TO currID 0181 Ready; T=n.nn/n.nn hh:mm:ss *tapeaddr* is the **1st Level Real** address of the tape drive where Volume 1 of the z/VM System DDR will be mounted. *tapeaddr* is recorded in the **TAPE DRIVE SECTION** in Installation Worksheet Table 4.

- ____7. Mount Volume 1 of the z/VM System DDR on tape drive 1 attached as 181. Make sure the tape is write protected.
- ___8. Load the installation tools from Volume 1 of the z/VM System DDR to your work disk.

vmfplc2 rew

Ready; T=n.nn/n.nn hh:mm:ss

```
vmfplc2 fsf 3
Ready; T=n.nn/n.nn hh:mm:ss
vmfplc2 load * * a
Loading ...
End-of-file or end-of-tape
Ready; T=n.nn/n.nn hh:mm:ss
```

___9. Invoke INSTPLAN to select which items to load and the DASD type on which to install.

instplan fullfunc

Figure 6. Installation Planning Panel

- ____a. Refer to Installation Worksheet Table 4 on page 21. In the z/VM INSTALLATION PLANNING panel, place an "N" in the STATUS column for each item you did not choose to load. Place an "S" in the STATUS column for each item you chose to load.
- b. If you are using Directory Build Method 1, place a nonblank character in front of the DASD model that matches the *Device Type and Density* in Table 5 on page 22. If you are using Directory Build Method 2, place a nonblank character in front of USER PLACEMENT.
- ____ c. After you select the items to be loaded and the DASD model to be used for installation, press PF5 to complete the planning step.

HCPIPX8475I THE ITEMS YOU SELECTED TO BE LOADED ARE: BASE TSAF/AVS FILEPOOL CP/DV SOURCE CMS/REXX SOURCE VMSES SOURCE RSCS SOURCE OSA/SF TSM THE ITEMS YOU SELECTED NOT TO BE LOADED ARE: SMALL FILEPOOL

THE DASD TYPE YOU SELECTED TO LOAD ON IS: dasd model

Planning for Installation

THE PACKS NEEDED TO LOAD THESE ITEMS ARE: packs

If you selected USER PLACEMENT, *packs* refers to all the packs listed on your Directory Build Worksheet.

HCPINP8392I INSTPLAN EXEC ENDED SUCCESSFULLY
Ready; T=n.nn/n.nn hh:mm:ss

- ___1. If you logged off after Step 1:
 - ____a. Log on to *currID*. This must be the same user ID used in "Step 1. Planning for Installation" on page 40.
 - ____b. Attach tape drive 1 to *currID* at virtual device address 181.

If you are installing with CD-ROM, refer to the *Optical Media Attach/2 User's Guide* and the *Optical Media Attach/2 Technical Reference*.

If you are installing from a Multiprise 3000, refer to the *Emulated I/O User's Guide* and AWSOMA.DOC in the Service Element directories.

attach tapeaddr * 181 TAPE tapeaddr ATTACHED TO currID 0181 Ready; T=n.nn/n.nn hh:mm:ss *tapeaddr* is the **1st Level Real** address of the tape drive where Volume 1 of the z/VM System DDR will be mounted. *tapeaddr* is recorded in the **TAPE DRIVE SECTION** in Installation Worksheet Table 4.

- ____ c. Mount Volume 1 of the z/VM System DDR on your tape drive. Make sure the tape is write protected.
- _____d. Verify that the 191 is accessed as your A-disk.

access 191 a

Ready; T=n.nn/n.nn hh:mm:ss

__2. Refer to the Directory Build Worksheet that corresponds to the directory build method you selected. Attach all the packs listed on the worksheet that are not already attached to *currID*. Enter the following ATTACH command for each pack:

attach packaddr*
DASD packaddr ATTACHED TO currID packaddr
.

packaddr is the address of the DASD.

Ready; T=n.nn/n.nn hh:mm:ss

Attention: Make sure that any packs with the same labels that you are using for installation are **not** attached to *currID* (issue **QUERY DASD ATT** *). You must detach any other packs with these labels now to **prevent** bringing them online.

Attention: The system residence pack used for installation must be of the same DASD device type as your z/VM System DDR in order to restore the Initial Installation System.

____3. Invoke INSTIIS to format and label your installation DASD and to restore the IIS.

instiis

- ____a. Depending on the DASD layout you chose on the z/VM INSTALLATION PLANNING panel, one of the following panels is displayed:
 - If you selected a specific DASD type on which to install, the following panel is displayed:

*	** z/VM INSTALLATION	N DASD FORMAT/REST	ORE ***	
DASD LABEL	DASD ADDRESS	VIRTUAL TAPE ADDRESS	DO NOT FORMAT DASD	
420RES 420W01 420W02 420W03 420W03 420W04 420W05				
PF1 = HELP	PF3/PF12 = QUIT	PF5 = PROCESS	ENTER = REFRESH	

Figure 7. Installation DASD Format and Restore Panel (3390 Model Layout)

- Fill in the panel using the information from the Installation Worksheet (Table 4 on page 21) and your Directory Build Worksheet. For detailed information, press PF1 for HELP.
- 2) Press **PF5** to process and continue to substep 3b on page 46.

• If you selected User Placement DASD layout, the following panel is displayed:

Figure 8. Installation DASD Format and Restore Panel (User Placement DASD Layout)

- **Note:** If you select to format your DASD, enter only the labels and addresses of packs you want to format. (If you place a character in the DO NOT FORMAT DASD column, none of the packs listed will be formatted.)
- Fill in the panel using the information from the Installation Worksheet (Table 4 on page 21) and your Directory Build Worksheet. For detailed information, press PF1 for HELP.
- 2) Press **PF5** to process and continue to substep 3b on page 46.

- ____b. Depending on whether you selected to format your DASD or selected not to format your DASD, one of the following groups of messages is displayed:
 - If you put an X in the DO NOT FORMAT DASD column, the following is displayed: HCPIIX8381I CHECKING TAPE VOLUME NUMBER FOR DRIVE 181

HCPIIX8483R YOU HAVE SELECTED NOT TO FORMAT YOUR DASD. THIS ASSUMES YOU HAVE DONE THIS PRIOR TO ENTERING THIS EXEC. ANY PROCESSING WHICH FOLLOWS THIS PROMPT COULD RESULT IN ERRORS IF YOU HAVE NOT MANUALLY FORMATTED AND LABELED YOUR DASD.

DO YOU WANT TO CONTINUE ? (Y/N)

У

HCPIIX8380I RESTORING IIS TO 420RES RESTORING 420RES DATA DUMPED mm/dd/yy AT hh.mm.ss GMT FROM 420RES RESTORED TO 420RES INPUT CYLINDER EXTENTS OUTPUT CYLINDER EXTENTS START STOP START STOP nnnnnnn nnnnnnn nnnnnnn Nnnnnnn nnnnnnn nnnnnnn END OF RESTORE BYTES RESTORED nnnnnnnnn

END OF JOB HCPINI8392I INSTIIS EXEC ENDED SUCCESSFULLY Ready; T=n.nn/n.nn hh:mm:ss If you did not put an X in the DO NOT FORMAT DASD column, therefore, choosing to format your DASD, the following is displayed:

HCPIIX8381I CHECKING TAPE VOLUME NUMBER FOR DRIVE 181

HCPIIX8377R YOU HAVE SELECTED TO FORMAT THE FOLLOWING PACKS:

420RES packaddr1 packname2 packaddr2 packname3 packaddr3 : ALL DATA ON THESE PACKS WILL BE LOST. DO YOU WANT TO CONTINUE ? (Y/N) **Y** HCPIIX8490I NOW FORMATTING PACK packaddr1

```
HCPIIX8490I NOW FORMATTING PACK packaddr2
HCPIIX8490I NOW FORMATTING PACK packaddr3
```

END OF JOB HCPINI8392I INSTIIS EXEC ENDED SUCCESSFULLY Ready; T=n.nn/n.nn hh:mm:ss

_____4. If you are installing from CD-ROM, skip this substep and go to "Step 3. IPL the z/VM IIS" on page 49 . If you are installing from tape, continue with this substep. Volume 1 of the z/VM System DDR is complete. Unload the tape from the drive.

tape run

Ready; T=n.nn/n.nn hh:mm:ss

Step 3. IPL the z/VM IIS

- $^-$ In this step you will: $^-$
- Bring up the Initial Installation System.
 - When you IPL second-level note the following:
 - Contention for service by the devices on shared control units may result in this step taking longer than it would when you are installing a first-level system.
- _ 1. Choose the addresses of your tape drives.

For the Base item, you will need tape drives for five tape volumes (2-6) of the z/VM System DDR. Depending on the optional items you chose to load, you will need tape drives for volumes (7-8). You will need two CD-ROM volumes for the z/VM System DDR on CD-ROM.

- **Note:** If you use a unique tape drive for each volume, or use a tape stacker in automatic mode, the tapes will be loaded without interruption. If you must use one tape drive for multiple volumes, you will be prompted by the INSTALL EXEC when a tape volume needs to be changed.
- 2. If you are using more than one tape drive, record the following in the **TAPE DRIVE SECTION** in Installation Worksheet (Table 4 on page 21):
 - ____a. The real address (*tapeaddr*) of each tape drive in the **1st Level Real** and **1st Level** Virtual/2nd Level Real columns
 - ____b. The device type of each tape drive under the *Device Type* column.
- ____ 3. Attach the install tape drives that are not already attached to *currID*. Repeat the ATTACH command for each tape drive you plan to use for installation.

attach tapeaddr *

tapeaddr is the address of the tape drive.

TAPE tapeaddr ATTACHED TO currID tapeaddr

4. Attach the packs for installation that are not already attached to *currID*. Repeat the ATTACH command for each pack you plan to use for installation.

attach packaddr * DASD packaddr ATTACHED TO currID packaddr *packaddr* is the address of the DASD recorded in your Directory Build Worksheet.

Attention: Make sure that any packs with the same labels that you are using for installation are **not** attached to *currID*. You must now detach any packs with these labels to **prevent** bringing them online.

____ 5. Enter the following commands to clear your virtual machine and make sure that the z/VM system will recognize your terminal as a 3277, 3278, or 3279:

system clear

Reset and clear your virtual machine storage.

Storage cleared - system reset.

terminal conmode 3270

IPL the z/VM IIS

____ 6. Determine the amount of your virtual storage. If it is less than 64MB, define your storage to 64MB.

query virtual storage Run the define command only if you have less than 64M of storage. STORAGE = nnnnMdefine storage 64m STORAGE = 64M Storage cleared - system reset ___ 7. Set virtual machine mode to XA. set machine xa Setting the virtual machine to XA architecture causes a reset as if you entered SYSTEM CLEAR. If your SYSTEM RESET machine is already in XA mode, you will not get a SYSTEM = XA response. 8. Query the console and record the virtual console address (consaddr) on the Installation Worksheet Table 4. The address is required in the next substep. consaddr is the address of your virtual console. query console CONS consaddr : 9. IPL the IIS you loaded to the system residence pack (420RES). ipl packaddr clear loadparm consaddr Clear is necessary. Do not omit it. packaddr is the address of the system residence pack (420RES). Refer to your Directory Build Worksheet.

consaddr is the address of your virtual console recorded previously.

MORE...

Clear

The stand alone program loader panel displays after issuing the IPL command.

	STAND ALONE PROG	RAM LOADER:	z/VM VERSION 4 REL	EASE 2.0		
l	DEVICE NUMBER:	packaddr	MINIDISK OFFSET:	nnnnnnn	EXTENT:	1
I	MODULE NAME:	CPLOAD	LOAD ORIGIN:	1000		
C	cons=consaddr					
			COMMENTS			
	9= FILELIST 10=	LOAD 11=	TOGGLE EXTENT/OFFSE	T		

Figure 9. Sample Stand Alone Program Loader Panel

____10. Move the cursor to the IPL PARAMETERS field and type

cons=consaddr

As shown in Figure 9, *consaddr* is the primary system console address recorded as the value of *consaddr* on the Installation Worksheet Table 4 on page 21. This statement defines the operator console. Spaces are not allowed around the equal sign.

___11. Press PF10 to load.

PF10

12. The IPL of your z/VM system continues:

```
hh:mm:ss z/VM V4 R2.0
        SERVICE LEVEL nnnn (mode)
hh:mm:ss SYSTEM NUCLEUS CREATED ON yyyy-mm-dd AT hh:mm:ss,
        LOADED FROM 420RES
hh:mm:ss * LICENSED MATERIALS - PROPERTY OF IBM*
                                           *
hh:mm:ss * 5739-A03 (C) COPYRIGHT IBM CORP. 1983,
                                            *
hh:mm:ss * 2001. ALL RIGHTS RESERVED.
hh:mm:ss * US GOVERNMENT USERS RESTRICTED RIGHTS - *
hh:mm:ss * USE, DUPLICATION OR DISCLOSURE
hh:mm:ss * RESTRICTED BY GSA ADP SCHEDULE CONTRACT *
hh:mm:ss * WITH IBM CORP.
hh:mm:ss *
hh:mm:ss * * TRADEMARK OF INTERNATIONAL BUSINESS
hh:mm:ss * MACHINES
hh:mm:ss HCPZC06718I Using parm disk 1 on volume volid (device xxxx).
hh:mm:ss HCPZC06718I Parm disk resides on cylinders xx through xx.
```

You may receive an informational message, : HCPISU951I, about volumes not mounted. If you are not using those volume labels, ignore this message. Attention: If you receive informational message HCPIIS954I, you have duplicate volumes with the same label and must correct this error before continuing. Refer back to substep 4 on page 49. hh:mm:ss Start ((Warm|Force|COLD|CLEAN) (DRain) (DIsable) (NODIRect) (NOAUTOlog)) or (SHUTDOWN) cold drain noautolog Because there is no data or accounting information to recover, use **cold drain** to request a cold start. Use **noautolog** at this point because you cannot have the servers and all user IDs logged on. NOW hh:mm:ss {EST | EDT} weekday yyy-mm-dd Change TOD clock (yes|no) no ____13. CP logs on the primary system operator (user ID OPERATOR).

hh:mm:ss The directory on volume 420RES at address nnnn has been brought online. hh:mm:ss HCPWRS2513I hh:mm:ss HCPWRS2513I Spool files available nnnn

-Spool Files Prompt —

Note: Depending on the type of spool files available, you may receive the following prompt:

hh:mm:ss HCPWRS2513I *hh:mm:ss* HCPWRS2513I Spool files on offline volumes {nnnn | NONE} *hh:mm:ss* HCPWRS2513I Spool files with I/O errors {nnnn | NONE } {nnnn | NONE} hh:mm:ss HCPWRS2513I Spool files with control errors *hh:mm:ss* HCPWRS2513I Spool files to be discarded {nnnn NONE} hh:mm:ss HCPWRS2513I ----hh:mm:ss HCPWRS2513I Total files to be deleted nnnn hh:mm:ss HCPWRS2511A hh:mm:ss HCPWRS2511A Spool files will be deleted because of COLD start. hh:mm:ss HCPWRS2511A No files have been deleted yet. hh:mm:ss HCPWRS2511A To continue COLD start and delete files, enter GO. hh:mm:ss HCPWRS2511A To stop COLD start without deleting files, enter STOP. Here the system gives you an opportunity to stop the go cold start and save your spool files. You do not need to save any spool files at this time; answer go.

-End of Spool Files Prompt —————

hh:mm:ss HCPWRS2512I Spooling initialization is complete. hh:mm:ss DASD nnnn dump unit CP IPL pages nnnn hh:mm:ss HCPAAU2700I System gateway ZVMV4R20 identified. z/VM Version 4 Release 2.0, Service Level 0000 (64-bit), built on IBM Virtualization Technology hh:mm:ss There is no logmsg data hh:mm:ss FILES: NO RDR, NO PRT, NO PUN hh:mm:ss LOGON AT hh:mm:ss EDT DAY mm/dd/yy hh:mm:ss GRAF nnnn LOGON AS OPERATOR USERS = n hh:mm:ss HCPIOP952I nnnnM system storage hh:mm:ss FILES: no PUN

____14. Disconnect from the OPERATOR user ID.

disconnect

DISCONNECT AT hh:mm:ss {EST | EDT} weekday mm/dd/yy

Press enter or clear key to continue

ENTER

What to Do Next

Go to "Chapter 5. Load the System DDR" on page 55.

IPL the z/VM IIS

Chapter 5. Load the System DDR

In this chapter, you will run INSTDIR to generate the system directory and INSTVM to load your new system.

Step 1. Run INSTDIR

- $^-$ In this step you will: $^-$
- Log on to the MAINT user ID.
- Run INSTDIR to build the directory for your system.
- · Update your system configuration file.

____1. Log on to the MAINT user ID if you are not already logged on.

ENTER

The default password for MAINT is MAINT.

logon maint

z/VM Version 4 Release 2.0, Service Level 0000 (64-bit), built on IBM Virtualization Technology There is no logmsg data FILES: NO RDR, NO PRT, NO PUN LOGON AT hh:mm:ss EDT DAY mm/dd/yy DMSIND2015W Unable to access the Y-disk. Filemode Y (19E)not accessed z/VM V4.2.0 yyyy-mm-dd hh:mm

ENTER

DMSACP113S B(5E5) not attached or invalid device address DMSACP113S D(51D) not attached or invalid device address Ready; T=n.nn/n.nn hh:mm:ss

____2. Run INSTDIR to build the appropriate directory for your installation.
 If you select Directory Build Method 1, go to substep 2a on page 57.
 If you select Directory Build Method 2, go to substep 2b on page 58.

- a. You selected Directory Build Method 1 to install.
 - ____1) Run INSTDIR to build the appropriate directory for your installation.

instdir

DASD 0199 DETACHED

The minidisks with the END option specified in this directory will not be includ ed in the following DISKMAP file.

File USER DISKMAP A has been created. CPRELEASE request for disk A scheduled. HCPZAC6730I CPRELEASE request for disk A completed. HCPIND8392I INSTDIR EXEC ENDED SUCCESSFULLY Ready; T=n.nn/n.nn hh:mm:ss

USER DIRECT and VMFRMT EXTENTS are built.

____2) Run DIRONLIN to bring the new USER DIRECT directory online.

dironlin

HCPZAC6730I CPRELEASE request for disk B completed. z/VM USER DIRECTORY CREATION PROGRAM - VERSION 4 RELEASE 2.0 EOJ DIRECTORY UPDATED AND ON LINE HCPZAC6732I CPACCESS request for MAINT'S 0CF1 in mode A completed. HCPZAC6732I CPACCESS request for MAINT'S 0CF2 in mode B completed. HCPD0L8391I DIRONLIN EXEC ENDED SUCCESSFULLY Ready; T=n.nn/n.nn hh:mm:ss

____3) Log off of the MAINT user ID.

logoff

This is required to pick up the new or changed directory links.

CONNECT= nn:nn:nn VIRTCPU= nnn:nn.nn TOTCPU= nnn:nn.nn LOGOFF AT hh:mm:ss {EST|EDT} weekday mm/dd/yy

Press enter or clear key to continue
ENTER

_____4) Go to "Step 3. Run INSTVM EXEC" on page 62.

Run INSTDIR

- b. You selected Directory Build Method 2 to install.
 - ____1) Run INSTDIR to build the appropriate directory for your installation.

instdir

The following panel is displayed:

ABEL TYPE	START	END

- 2) Fill in the panel using the information from your Directory Build Worksheet—Method 2, Table 6 on page 23. For detailed information press PF1 for HELP.
 - **Note:** INSTDIR does not verify that the extents entered for a DASD are within the actual extents of that DASD. **Do not enter cylinder 0.**
 - **Note:** If you receive the message HCPIDX8492W NOT ENOUGH DISK SPACE DEFINED TO LOAD THE SELECTED ITEM, you must add more space. You receive this message because gaps may be left at the end of each set of extents when the space remaining is less than the smallest minidisk left to place. As a result, you may need more cylinders than what is specified in Table 2 on page 20. The more sets of extents you use to define your system, the greater the potential for gaps.
 - **Note:** The FILEPOOL or SMALL FILEPOOL item will be loaded to the first extent specified. If you receive message HCPIDX8497W, the first set of extents listed on the panel is not large enough to hold the FILEPOOL or SMALL FILEPOOL item. You must move a DASD with enough free space to the first position on the panel.
- ____3) Press **PF5** to process.

HCPWDK8494I or	NO WORK DISK NEEDED	You will receive either message 8494I or 8493R.
HCPWDK8493R	YOU MUST DEFINE A nnnn cylinder MINIDISK AS A WORK DISK. THIS MINI MUST RESIDE ON <i>ddrtype</i> DASD. ENTER LABEL AND STARTING EXTENT WHERE YOU WOULD LIKE THIS WORK DISK PLACED, O PRESS ENTER TO EXIT.	DISK R DASD J R

dasdlabel strtext

dasdlabel is the label of the DASD.

strtext is the starting extent where the work disk will be placed.

Do **not** use cylinders located within the extents defined on the previous panel. INSTDIR has defined minidisks on those extents.

The minidisks with the END option specified in this directory will not be included in the following DISKMAP file.

File USER DISKMAP A has been created. HCPINP83911 INSTDIR EXEC ENDED SUCCESSFULLY Ready; T=n.nn/n.nn hh:mm:ss

- ___ 3. Review USER DISKMAP to check for the following:
 - No overlaps exist.
 - Cylinder 0 is not used.
 - Labels are correct.
 - Correct extents are used for each label.

xedit user diskmap

If there are errors in the file, do one of the following:

Erase USER DIRECT and go to substep 2b on page 58.

or

- Correct all errors by updating USER DIRECT and then issue the DISKMAP command. If there
 are still errors in the file, repeat this task.
- 4. Add the pack labels listed on your Directory Build Worksheet to your system configuration file (SYSTEM CONFIG). Any volumes that will contain real system paging, spooling, dump, directory, or temporary disk space need to be added to the CP-owned volume list. Any volumes that will contain only minidisks need to be added to the user volume list.

cprelease a

HCPZAC6730I CPRELEASE request for disk A completed. Ready; T=n.nn/n.nn hh:mm:ss

link maint cf1 cf1 mw

DASD 0CF1 LINKED R/W: R/O BY SYSTEM Ready; T=n.nn/n.nn hh:mm:ss

access cf1 a

DMSACC724II CFI replaces A(191). Ready; T=n.nn/n.nn hh:mm:ss xedit system config a ====> set case mixed ignore

__a. Locate the CP-owned volume list in the system configuration file.

====> locate /cp_owned/&/420RES/

If you are not using 420W01, 420W02, 420W03, 420W04, 420W05, 420W06, 420W07, 420W08, or 420W09, change the pack label to RESERVED.

Add each of the volumes that need to be added, if any, to the CP-owned volume list by changing the label RESERVED to the label of your volume.

Run INSTDIR

____b. Locate the user volume list in the system configuration file

===> locate /user_volume_list usrp01/
===> input User_Volume_List volid1
:

Add each of the volumes that need to be added to the list (*volid1* to *volidxx*).

===> input User_Volume_List volidxx

====> file

Ready; T=n.nn/n.nn hh:mm:ss

access 191 a

DMSACC724I 191 replaces A(CF1) Ready; T=n.nn/n.nn hh:mm:ss

____5. Attach all packs added to the system configuration file in substep 4 on page 59 to your system by repeating the ATTACH command for each volume (pack) you are using for installation.

attach packaddr system volid

packaddr is the address of the DASD device.

volid is the pack's label.

DASD packaddr ATTACHED TO SYSTEM volid Ready; T=n.nn/n.nn hh:mm:ss
Step 2. Run DIRONLIN EXEC

$^-$ In this step you will: $^-$

- Run DIRONLIN to bring the new directory online.
- Log off of the MAINT user ID.
- ___1. Bring the new USER DIRECT directory online.

dironlin

HCPZAC6730I CPRELEASE request for disk B completed. z/VM USER DIRECTORY CREATION PROGRAM - VERSION 4 RELEASE 2.0 EOJ DIRECTORY UPDATED AND ON LINE HCPZAC6732I CPACCESS request for MAINT'S 0CF1 in mode A completed. HCPZAC6732I CPACCESS request for MAINT'S 0CF2 in mode B completed. HCPDOL8391I DIRONLIN EXEC ENDED SUCCESSFULLY Ready; T=n.nn/n.nn hh:mm:ss

___2. Log off of the MAINT user ID.

logoff

This is required to pick up the new or changed directory links.

CONNECT= nn:nn:nn VIRTCPU= nnn:nn.nn TOTCPU= nnn:nn.nn LOGOFF AT hh:mm:ss {EST|EDT} weekday mm/dd/yy

Press enter or clear key to continue ENTER

Step 3. Run INSTVM EXEC

In this step you will:

- · Log on to the MAINT user ID
- Run INSTVM to load the items from the z/VM System DDR.

Notes:

- 1. On all panels, CP and CMS commands can be issued from the panel command line. Line end characters, for example #, cannot be used.
- 2. Running the INSTVM EXEC requires a full screen terminal with at least 20 lines.

_ 1. Log on to the MAINT user ID.

ENTER

The default password for MAINT is MAINT.

Message DMSACP112S is not a problem at this

logon maint

z/VM Version 4 Release 2.0, Service Level 0000 (64-bit),
built on IBM Virtualization Technology
There is no logmsg data
FILES: nnnn RDR, NO PRT, NO PUN
LOGON AT hh:mm:ss EDT DAY yyyy-mm-dd
z/VM V4.2.0 yyyy-mm-dd hh:mm

ENTER

DMSACP112S B(5E5) device error DMSACP112S D(51D) device error

Ready; T=n.nn/n.nn hh:mm:ss

time.

+ Procedure 1 Only _____2. Choose the addresses of your tape drives.

For the Base item, you will need tape drives for five tape volumes (2-6) of the z/VM System DDR. Depending on the optional items you chose to load, you need tape drives for volumes (7-8). You may need two CD-ROM volumes for the z/VM System DDR on CD-ROM.

- **Note:** If you use a unique tape drive for each volume, or use a tape stacker in automatic mode, the tapes will be loaded without interruption. If you must use one tape drive for multiple volumes, you will be prompted when a tape volume needs to be changed.
- ____3. If you require any more tape drives, record the following in the **TAPE DRIVE SECTION** in Installation Worksheet (Table 4 on page 21):
 - ____a. The real address (*tapeaddr*) of each tape drive in the **1st Level Real** and **1st Level Virtual/2nd Level Real** columns
 - ____b. The device type of each tape drive under the *Device Type* column.

-----End of Procedure 1 Only -----+

_____4. Attach the tape drives by repeating this step for each tape drive needed. Refer to the 1st Level Virtual/2nd Level Real column in the TAPE DRIVE SECTION in Installation Worksheet Table 4 on page 21 for tapeaddr. You can attach additional tape drives from the INSTALL panel command line.

attach tapeaddr * vtapeaddr

TAPE tapeaddr ATTACHED TO MAINT vtapeaddr Ready; T=n.nn/n.nn hh:mm:ss *tapeaddr* is the address in the **1st Level Virtual/2nd Level Real** column of the **TAPE DRIVE SECTION** in Installation Worksheet Table 4.

vtapeaddr is the virtual address where the tape drive will be attached. *vtapeaddr* must be attached at virtual addresses within the following ranges: 180 to 187 or 288 to 28F.

- ____5. Record *vtapeaddr* in the *2nd Level Virtual* column in the **TAPE DRIVE SECTION** in Installation Worksheet Table 4.
- __6. Run INSTVM to install the z/VM System DDRs. If installing from CD-ROM, enter:

instvm cd

If installing from tape, enter:

instvm

The LOAD DEVICE MENU panel displays after issuing the INSTVM command.

	LOAD DEV	ICE MENU		
	MEDIA SELECT	ED IS: media		
	MOUNT VOLUME 2 3 4 5 6 7 8	VADDR		
====> PF1 = HELP	PF3 = QUIT	PF5 = LOAD	PF12 = RETURN	

- ___7. Complete the LOAD DEVICE MENU panel.
 - **Note:** This panel shows you which tape volumes you need to mount based on the items you are loading. You will be prompted if a tape volume needs changing.
 - _____a. Check the **MEDIA SELECTED IS:** field. This is a required field that will contain either TAPE or CD depending on the parameter used to invoke the INSTVM exec. If the *media* specified is not correct, press **PF3** to quit and run the INSTVM exec with the correct parameter.
 - ____b. Attach additional tape drive(s), if needed, from the panel's command line.

Note: Tape drives must be attached at virtual addresses within the following ranges: 180 to 187 or 288 to 28F.

____ c. Type in the tape drive addresses.

Use the addresses in the *2nd Level Virtual* column in the **TAPE DRIVE SECTION** in the Installation Worksheet Table 4 on page 21.

Run INSTVM EXEC

Each volume must have an associated tape drive. If you use one tape drive or tape stacker for multiple volumes, you must enter that tape drive address next to each volume for which it will be used.

Note: If you use a unique tape drive for each volume, or use a tape stacker in automatic mode, the tapes will be loaded without interruption. If you must use one tape drive for multiple volumes, you will be prompted when a tape volume needs to be changed.

___8. Mount the z/VM System DDR tape(s) or CD-ROM on the corresponding tape drive(s).

Note: Only mount the tape volumes listed on your screen.

___9. Press **PF5** to load.

PF5

The load starts with the following system messages:

Note: You will not see the optional item messages if you chose not to load those items.

HCPWIN8388I CHECKING	STATUS OF DRIVES	
HCPWIN8381I CHECKING	TAPE VOLUME NUMBER FOR DR	IVE <i>vaddr</i> You will receive this message for each tape drive you are using. The screen will clear after these messages are displayed.
HCPWIN8371I LOADING B HCPWIN8371I LOADING T HCPWIN8371I LOADING F HCPWIN8371I LOADING C HCPWIN8371I LOADING C HCPWIN8371I LOADING V :	BASE SAF, AVS FILEPOOL CP, DV SOURCE MS, REXX SOURCE MSES/E SOURCE	
HCPWIN8428I TOTAL PER	RCENT LOADED -> nn%	The screen will clear for a few seconds after these messages are displayed. <i>volid</i> is the volume identifier.
HCPWIN8380I RESTORING	G MINIDISK nnn TO volid	
HCPDDR725D SOURCE DASD RESTORING volid DATA DUMPED mm/dd/yy INPUT CYLINDER EXTENTS START STOP nnnnnnn nnnnnnn	DEVICE WAS (IS) LARGER T AT hh.mm.ss GMT FROM vo OUTPUT CYLINDER EXT START STO nnnnnnn nnnnnn	HAN OUTPUT DEVICE <i>lid</i> RESTORED TO SCRATCH ENTS P n
END OF RESTORE BYTES RESTORED nnnnnn END OF JOB	nn	
	ot+	

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HCPWIN8433I INSTALL PROCESSING CONTINUES HCPWIN8372A PLEASE MOUNT VOLUME *n* ON TAPE DRIVE *vaddr* THEN PRESS ENTER TO CONTINUE HCPWIN8381I CHECKING TAPE VOLUME NUMBER FOR DRIVE *vaddr*

If you need to mount a tape volume, you will receive these messages.

-End of Tape prompt — HCPWIN8434I item HAS BEEN SUCCESSFULLY LOADED. This message is repeated for each item loaded. : HCPWSR8409I GENERATING SOFTWARE INVENTORY FILES HCPWSR8413I GENERATING SOFTOWARE INVENTORY FILES COMPLETED HCPWSR8413I UPDATE OF VM SYSSUF TABLE COMPLETED HCPPLD8392I POSTLOAD EXEC COMPLETED SUCCESSFULLY Messages received if file pools are started — DMSACC724I 2CC replaces E (2CC) VMSERVS USERS = nAUTO LOGON *** HCPCLS6056I XAUTOLOG information for VMSERVS: The IPL command is verified by the IPL command processor. VMSERVS : z/VM V4.2.0 yyyy-mm-dd hh:mm VMSERVS : DMSACP723I B (193) R/O VMSERVS : DMSWFV1117I FILESERV processing begun at hh:mm:ss on dd month yyyy VMSERVS : DMSWFV1121I VMSERVS DMSPARMS A1 will be used for FILESERV processing VMSERVS : DMSWFV1121I VMSYS POOLDEF A1 will be used for FILESERV processing AUTO LOGON *** VMSERVU USERS = nHCPCLS6056I XAUTOLOG information for VMSERVU: The IPL command is verified by the IPL command processor. VMSERVU : z/VM V4.2.0 yyyy-mm-dd hh:mm VMSERVU : DMSACP723I B (193) R/O VMSERVU : DMSWFV1117I FILESERV processing begun at hh:mm:ss on dd month yyyy VMSERVU : DMSWFV1121I VMSERVU DMSPARMS A1 will be used for FILESERV processing VMSERVU : DMSWFV1121I VMSYSn POOLDEF A1 will be used for FILESERV processing VMSERVU : DMS5BB3045I Ready for operator communications VMSERVR USERS = nAUTO LOGON *** HCPCLS6056I XAUTOLOG information for VMSERVR: The IPL command is verified by the IPL command processor. VMSERVR : DMS5BB3045I Ready for operator communications VMSERVR : z/VM V4.2.0 yyyy-mm-dd hh:mm VMSERVR : DMSACP723I B (193) R/O VMSERVR : DMSWFV1117I FILESERV processing begun at hh:mm:ss on dd month yyyy VMSERVR : DMSWFV1121I VMSERVR DMSPARMS A1 will be used for FILESERV processing VMSERVR : DMSWFV1121I VMSYSn POOLDEF A1 will be used for FILESERV processing VMSERVR : DMS6LG3335I CRR log recovery begins at mm-dd-yy hh:mm:ss VMSERVR : DMS6LG3335I CRR log recovery completes at mm-dd-yy hh:mm:ss VMSERVR : DMS5BB3045I Ready for operator communications —End of Messages received if file pools are started ————+ -Messages received for each file pool if file pools are generated — DASD 0804 DETACHED AUTO LOGON *** VMSERVn USERS = n HCPCLS6056I XAUTOLOG information for VMSERVn: The IPL command is verified by the IPL command processor.

VMSERV*n* : DMSACC724I 19E replaces Y (19E)

Run INSTVM EXEC

```
yyyy-mm-dd hh:mm
VMSERVn : z/VM V4.2.0
VMSERVn : DMSWSP100W Shared S-STAT not available
VMSERVn : DMSWSP100W Shared Y-STAT not available
VMSERVn : DMSACP723I B (193) R/O
VMSERVn : DMSWFV1117I FILESERV processing begun at hh:mm:ss on dd month yyyy
VMSERVn : DMSWFV1121I VMSERVn DMSPARMS A1 will be used for FILESERV processing
VMSERVn : DMS4PD3400I Initializing begins for DDNAME = CONTROL
VMSERVn : DMS4PD3400I Initializing ends for DDNAME = CONTROL
VMSERVn : DMS4PD3400I Initializing begins for DDNAME = MDK00001
VMSERVn : DMS4PD3400I Initializing ends for DDNAME = MDK00001
VMSERVn : DMS4PD3400I Initializing begins for DDNAME = MDK00002
VMSERVn : DMS4PD3400I Initializing ends for DDNAME = MDK00002
VMSERVn : DMS4PG3404W File pool limit of 2 minidisks has been reached
VMSERVn : DMS4PD3400I Initializing begins for DDNAME = LOG1
VMSERVn : DMS4PD3400I Initializing ends for DDNAME = LOG1
VMSERVn : DMS4PD3400I Initializing begins for DDNAME = LOG2
VMSERVn : DMS4PD3400I Initializing ends for DDNAME = LOG2
VMSERVn : DMS6LB3336I Initialization begins for the CRR log minidisks
VMSERVn : DMS6LB3336I Initialization completes for the CRR log minidisks
VMSERVn : DMS5FD3032I File pool server has terminated
VMSERVn : DMSWFV1120I File VMSYSn POOLDEF A1 created or replaced
VMSERVn : DMSWFV1117I FILESERV processing ended at hh:mm:ss on dd month yyyy
RDR FILE 0010 SENT FROM VMSERVn PUN WAS 0001 RECS 0004 CPY 001 A NOHOLD NOKEEP
VMSERVn : File FILESERV VALID A3 sent to MAINT at ZVMV4R20 on mm/dd/yy hh:mm:ss
VMSERVn : Ready; T=n.nn/n.nn hh:mm:ss
HCPQCS150A User VMSERVn has issued a VM read
VMSERVn : CONNECT= hh:mm:ss VIRTCPU= 000:00.90 TOTCPU= 000:02.12
VMSERVn : LOGOFF AT hh:mm:ss EDT WEDNESDAY mm/dd/yy BY MAINT
USER DSC LOGOFF AS VMSERVn USERS = 2
                                            FORCED BY MAINT
DASD 0804 DETACHED
AUTO LOGON ***
                     VMSERVn USERS = 3
HCPCLS6056I XAUTOLOG information for VMSERVn: The IPL command is verified by the IPL
 command processor.
VMSERVn : DMSACC724I 19E replaces Y (19E)
VMSERVn : DMSACP723I Y (19E) R/O
VMSERVn : z/VM V4.2.0 yyyy-mm-dd hh:mm
VMSERVn : DMSWSP100W Shared S-STAT not available
VMSERVn : DMSWSP100W Shared Y-STAT not available
VMSERVn : DMSACP723I B (193) R/O
VMSERVn : DMSWFV1117I FILESERV processing begun at hh:mm:ss on dd month yyyy
VMSERVn : DMSWFV1121I VMSERVn DMSPARMS A1 will be used for FILESERV processing
VMSERVn : DMSWFV1121I VMSYSn POOLDEF A1 will be used for FILESERV processing
VMSERVn : DMS6LG3335I CRR log recovery begins at mm-dd-yy hh:mm:ss
VMSERVn : DMS6LG3335I CRR log recovery completes at mm-dd-yy hh:mm:ss
VMSERVn : DMS5BB3045I Ready for operator communications
```

End of Messages received for each file pool if file pools are generated——+

HCPIFP8392I INSTPOOL EXEC ENDED SUCCESSFULLY HCPIVM8392I INSTVM EXEC ENDED SUCCESSFULLY Ready; T=n.nn/n.nn hh:mm:ss

What to Do Next

Go to "Chapter 6. Post Load Installation Tasks" on page 67.

Chapter 6. Post Load Installation Tasks

- $^-$ In this chapter, you will: $^-$
- Use SERVICE and PUT2PROD to install RSU service.
- Use INSTDEF to complete postload processing and to optionally move products to SFS.
- Load new CPLOAD module
- Back up system to tape.

Run SERVICE EXEC

Step 1. Run SERVICE EXEC

If you have an RSU, continue with this step. Otherwise, go to "Step 3. Plan for Running INSTDEF EXEC" on page 70.

$^-$ In this step you will: $^-$

Run SERVICE to load the service files from the Recommended Service Upgrade (RSU) tapes. You need to have the RSU tape mounted and ready on a tape drive before you run SERVICE.

____1. Log on to the MAINT user ID if you are not already logged on.

ENTER

The default password for MAINT is MAINT.

logon maint

÷

Ready; T=n.nn/n.nn hh:mm:ss

_ 2. Attach the tape drive used for the RSU to MAINT as 181.

attach tapeaddr * 181
TAPE tapeaddr ATTACHED TO MAINT 181
Ready; T=n.nn/n.nn hh:mm:ss

____3. Mount the RSU on your tape drive. Follow the operation manual for the machine on which you mount the tapes.

Note: Make sure that the tapes are write-protected.

___ 4. IPL CMS.

ipl cms

z/VM V4.2.0 yyyy-mm-dd hh:mm ENTER Ready; T=n.nn/n.nn hh:mm:ss

___ 5. Run SERVICE.

service

VMFSRV2760I SERVICE processing started :

VMFSRV2760I SERVICE processing completed successfully Ready; T=n.nn/n.nn hh:mm:ss

Step 2. Run PUT2PROD EXEC

If you have an RSU, continue with this step. Otherwise, go to "Step 3. Plan for Running INSTDEF EXEC" on page 70.

$^-$ In this step you will: $^-$

:

• Run PUT2PROD to place the product into production.

____1. Log on to the MAINT user ID if you are not already logged on.

ENTER logon maint

The default password for MAINT is MAINT.

Ready; T=n.nn/n.nn hh:mm:ss

___ 2. IPL CMS.

ipl cms
z/VM V4.2.0 yyyy-mm-dd hh:mm
ENTER
Ready; T=n.nn/n.nn hh:mm:ss

____ 3. Run PUT2PROD.

put2prod
VMFP2P2760I PUT2PROD processing started
:

VMFP2P2760I PUT2PROD processing completed successfully Ready; T=n.nn/n.nn hh:mm:ss

Step 3. Plan for Running INSTDEF EXEC

 $^-$ In this step you will: $^-$

- Select which items to move to SFS.
- Select the system default language.

The information you record in this step will be used to fill out the panel in "Step 4. Run INSTDEF EXEC" on page 71.

1. When you installed the system, all items were loaded to minidisks. You may now select to move these items to Shared File System directories. If you want all items to remain on minidisks, skip to substep 2. Otherwise, record an S next to each item you selected to move to the SFS directories. If you selected to load the SMALL FILEPOOL item, VMSYS contains a smaller SFS area. DO NOT try to move items into SFS. After the item is moved into SFS, the minidisks are commented out in USER DIRECT to free up the DASD space.

_ AVS	_ GCS	_ TSAF
_ LE370	_ RSCS	_ TCP/IP
_ OSA	_ TSM	_ ICKDSF
_ RTM	_ PRF	_ DIRM

- ____2. Both CP and CMS were built with a system default language of mixed case English (AMENG). You may choose to leave the system default language as mixed case English (AMENG) or change it to Upper Case English (UCENG), Kanji, or German.. Record AMENG, UCENG, KANJI, or GERMAN.
- ____3. OpenExtensions Shell and Utilities is now shipped as part of CMS. If you do not want to use OpenExtensions Shell and Utilities or you want to move it into BFS directories other than the IBM defined default directories, record an N. If you want to move OpenExtensions Shell and Utilities into the IBM defined BFS directories, record a Y.

_____ (Y/N)

Note: You must run the INSTDEF exec even if you do not want to change any of these defaults.

Step 4. Run INSTDEF EXEC

- In this step you will:
- · Move items to SFS
- · Select the system default language
- · Move OpenExtensions Shell and Utilities into BFS directories
- Complete installation cleanup.

__1. Invoke INSTDEF.

instdef

		*** z/VM]	NSTDEF MENU	J ***		
Mark items s and those se	selected to b elected not t	be moved into to be moved ir	SFS with ar ito SFS with	n Sin n an N	the Move •	e to SFS column
Move to SFS	Component	Move to SFS	Component	Move	to SFS	Component
N	AVS	N	GCS		N	TSAF
N	LE370	N	RSCS		N	TCPIP
N	OSA	N	TSM		Ν	ICKDSF
N	RTM	Ν	PRF		Ν	DIRM
System Default Language (AMENG, UCENG, KANJI, GERMAN) Move Shell & Utilities into the IBM default Byte File System? (Y/N)						
PF1 = HI	ELP PF3/PF3	12 = QUIT PF	5 = Process	s en	TER = Ref	Fresh

_____a. If you are moving items into SFS, modifying the default language, or moving Shell & Utilities into the BFS, fill in the panel and press PF5 to process. If you are not moving items into SFS and you are using the default values, just press PF5 to process.

HCPDFX8475I THE ITEMS YOU SELECTED TO MOVE TO SFS ARE: AVS GCS TSAF LE370 RSCS TCPIP OSA TSM ICKDSF RTM PRF DIRM THE ITEMS YOU SELECTED NOT TO MOVE TO SFS ARE: NONE THE LANGUAGE IDENTIFIER IS: AMENG MOVE SHELL & UTILITIES INTO IBM DEFAULT BFS: YES HCPDFX8338I NOW EXECUTING THE MOVE TO SFS STEP HCPWMV8456I PROCESSING COMPONENT AVS HCPWMV8453I MOVE OF AVS COMPONENT TO SFS COMPLETED SUCCESSFULLY HCPWMV8457I BOTH AVS AND TSAF MUST BE MOVED TO SFS BEFORE THE DISK SPACE CAN BE RECLAIMED HCPDRX83357W THE COMMAND CMS MOVE2SFS AVS (RECLAIM COMPLETED WITH RC=4 PROCESSING CONTINUES

HCPWMV8456I HCPWMV8453I HCPWMV8465I	PROCESSING COMPONENT GCS MOVE OF GCS COMPONENT TO SFS COMPLETED SUCCESSFULLY THE FOLLOWING MINIDISKS FOR COMPONENT GCS HAVE BEEN RECLAIMED: 6A6 6A4 6A2 6D2 6B2
HCPWMV8392I	MOVE2SFS EXEC ENDED SUCCESSFULLY
HCPDFX8341I	THE COMMAND CMS MOVE2SFS GCS (RECLAIM COMPLETED SUCCESSFULLY
HCPWMV8456I HCPWMV8453I HCPWMV8465I	PROCESSING COMPONENT TSAF MOVE OF TSAF COMPONENT TO SFS COMPLETED SUCCESSFULLY THE FOLLOWING MINIDISKS FOR COMPONENT TSAF HAVE BEEN RECLAIMED: 7A6 7A4 7A2 7D2 7B2
HCPWMV8392I	MOVE2SFS EXEC ENDED SUCCESSFULLY
HCPDFX8341I	THE COMMAND CMS MOVE2SFS TSAF (RECLAIM COMPLETED SUCCESSFULLY
HCPWMV8456I HCPWMV8453I HCPWMV8465I	PROCESSING COMPONENT LE370 MOVE OF LE370 COMPONENT TO SFS COMPLETED SUCCESSFULLY THE FOLLOWING MINIDISKS FOR COMPONENT LE370 HAVE BEEN RECLAIMED: 2B2 2C2 2D2 2A6 2A2
HCPWMV8392I	MOVE2SFS EXEC ENDED SUCCESSFULLY
HCPDFX8341I	THE COMMAND CMS MOVE2SFS LE370 (RECLAIM COMPLETED SUCCESSFULLY
HCPWMV8456I HCPWMV8453I HCPWMV8465I	PROCESSING COMPONENT RSCS MOVE OF RSCS COMPONENT TO SFS COMPLETED SUCCESSFULLY THE FOLLOWING MINIDISKS FOR COMPONENT RSCS HAVE BEEN RECLAIMED: 282 202 202 206 202 200 502 402 406 283
HCPWMV8392I	MOVE2SFS EXEC ENDED SUCCESSFULLY
HCPDFX8341I	THE COMMAND CMS MOVE2SFS RSCS (RECLAIM COMPLETED SUCCESSFULLY
HCPWMV8456I HCPWMV8453I HCPWMV8465I	PROCESSING COMPONENT TCPIP MOVE OF TCPIP COMPONENT TO SFS COMPLETED SUCCESSFULLY THE FOLLOWING MINIDISKS FOR COMPONENT TCPIP HAVE BEEN RECLAIMED: 2B2 2C4 2D2 2A6 2A2 2B3
HCPWMV8392I	MOVE2SFS EXEC ENDED SUCCESSFULLY
HCPDFX8341I	THE COMMAND CMS MOVE2SFS TCPIP (RECLAIM COMPLETED SUCCESSFULLY
HCPWMV8456I HCPWMV8453I HCPWMV8465I	PROCESSING COMPONENT OSA MOVE OF OSA COMPONENT TO SFS COMPLETED SUCCESSFULLY THE FOLLOWING MINIDISKS FOR COMPONENT OSA HAVE BEEN RECLAIMED: 2B2 2C2 2D2 2A6 2A2 100 300 200 400
HCPWMV8392I	MOVE2SFS EXEC ENDED SUCCESSFULLY
HCPDFX8341I	THE COMMAND CMS MOVE2SFS OSA (RECLAIM COMPLETED SUCCESSFULLY
HCPWMV8456I HCPWMV8453I HCPWMV8465I	PROCESSING COMPONENT TSM MOVE OF TSM COMPONENT TO SFS COMPLETED SUCCESSFULLY THE FOLLOWING MINIDISKS FOR COMPONENT TSM HAVE BEEN RECLAIMED: 2B2 2D2 2A6 2A2
HCPWMV8392I	MOVE2SFS EXEC ENDED SUCCESSFULLY
HCPDFX8341I	THE COMMAND CMS MOVE2SFS TSM (RECLAIM COMPLETED SUCCESSFULLY
HCPWMV8456I HCPWMV8453I HCPWMV8465I	PROCESSING COMPONENT ICKDSF MOVE OF ICKDSF COMPONENT TO SFS COMPLETED SUCCESSFULLY THE FOLLOWING MINIDISKS FOR COMPONENT ICKDSF HAVE BEEN RECLAIMED: 2B2 2C2 2D2 2A6 2A2 29E 29D
HCPWMV8392I	MOVE2SFS EXEC ENDED SUCCESSFULLY
HCPDFX8341I	THE COMMAND CMS MOVE2SFS ICKDSF (RECLAIM COMPLETED SUCCESSFULLY

HCPWMV8456I PROCESSING COMPONENT RTM HCPWMV8453I MOVE OF RTM COMPONENT TO SFS COMPLETED SUCCESSFULLY HCPWMV84651 THE FOLLOWING MINIDISKS FOR COMPONENT RTM HAVE BEEN RECLAIMED: 2A2 2A6 2B2 2C2 2C4 2D2 400 401 1CC CCC HCPWMV8392I MOVE2SFS EXEC ENDED SUCCESSFULLY HCPDFX83411 THE COMMAND CMS MOVE2SFS RTM (RECLAIM COMPLETED SUCCESSFULLY HCPWMV8456I PROCESSING COMPONENT PRF HCPWMV8453I MOVE OF PRF COMPONENT TO SFS COMPLETED SUCCESSFULLY HCPWMV8465I THE FOLLOWING MINIDISKS FOR COMPONENT PRF HAVE BEEN RECLAIMED: 2A2 2A6 2B2 2C2 2C4 2D2 597 497 1CC CCC 192 HCPWMV8392I MOVE2SFS EXEC ENDED SUCCESSFULLY HCPDFX8341I THE COMMAND CMS MOVE2SFS PRF (RECLAIM COMPLETED SUCCESSFULLY HCPWMV8456I PROCESSING COMPONENT DIRM HCPWMV8453I MOVE OF DIRM COMPONENT TO SFS COMPLETED SUCCESSFULLY HCPWMV84651 THE FOLLOWING MINIDISKS FOR COMPONENT DIRM HAVE BEEN RECLAIMED: 2A2 2A6 2B2 2C2 2C4 2D2 29D 29E 2B1 502 HCPWMV8392I MOVE2SFS EXEC ENDED SUCCESSFULLY HCPDFX83411 THE COMMAND CMS MOVE2SFS DIRM (RECLAIM COMPLETED SUCCESSFULLY HCPDFX83411 INSTDEF FUNCTION 'MOVE TO SFS' COMPLETED SUCCESSFULLY

HCPDFX8338I NOW EXECUTING 'MOVE SHELL & UTILITIES TO BFS' STEP RC=0 from EXEC OPENVM UNMOUNT/ HCPDFX8341I INSTDEF FUNCTION 'MOVE TO BFS' STEP COMPLETED SUCCESSFULLY HCPDFX8338I NOW EXECUTING 'UPDATE SYSTEM LANGUAGE ID' STEP CPRELEASE request for disk A scheduled. HCPZAC6730I CP RELEASE request for disk A completed. HCPDFX8341I INSTDEF FUNCTION 'CHANGE SYSTEM LANGID' COMPLETED SUCCESSFULLY HCPDFX8338I NOW EXECUTING 'REMOVAL OF MAINT'S 800 LINKS' STEP HCPDFX8341I INSTDEF FUNCTION 'REMOVE MAINT'S 800 LINKS' COMPLETED SUCCESSFULLY HCPDFX8321 INSTDEF EXEC ENDED SUCCESSFULLY Ready; T=n.nn/n.nn hh:mm:ss

Step 5. Shutdown and Re-IPL Your System

In this step you will:

- Shutdown your z/VM Version 4 Release 2.0 system.
- Re-IPL your z/VM Version 4 Release 2.0 system using the new CP nucleus.

____1. Shutdown and re-IPL the z/VM Version 4 Release 2.0 system.

shutdown reipl

SYSTEM SHUTDOWN STARTED Ready; T=n.nn/n.nn hh:mm:ss This message is displayed on all enabled consoles.

-----First-Level Only ------+

The real system console shows disabled PSW wait state. End of First-Level Only -----+

HCPWRP9277I SYSTEM TERMINATION COMPLETE, ATTEMPTING RESTART This will appear on the operator's console.

__2. The IPL of your z/VM system continues:

hh:mm:ss HCPWRP9277I SYSTEM TERMINATION COMPLETE. ATTEMPTING RESTART hh:mm:ss z/VM SYSTEM RESTART FROM SHUTDOWN REIPL hh:mm:ss z/VM V4 R2.0 SERVICE LEVEL nnnn (mode) hh:mm:ss SYSTEM NUCLEUS CREATED ON yyyy-mm-dd AT hh:mm:ss, LOADED FROM 420RES hh:mm:ss * LICENSED MATERIALS - PROPERTY OF IBM* hh:mm:ss * 5739-A03 (C) COPYRIGHT IBM CORP. 1983, hh:mm:ss * 2001. ALL RIGHTS RESERVED. hh:mm:ss * US GOVERNMENT USERS RESTRICTED RIGHTS - * *hh:mm:ss* * USE, DUPLICATION OR DISCLOSURE hh:mm:ss * RESTRICTED BY GSA ADP SCHEDULE CONTRACT * *hh:mm:ss* * WITH IBM CORP. hh:mm:ss * hh:mm:ss * * TRADEMARK OF INTERNATIONAL BUSINESS hh:mm:ss * MACHINES *hh:mm:ss* HCPZC06718I Using parm disk 1 on volume *volid* (device *xxxx*). hh:mm:ss HCPZC06718I Parm disk resides on cylinders xx through xx. Attention: If you receive informational message : HCPIIS954I, you have duplicate packs with the same label and must correct this error before continuing. hh:mm:ss The directory on volume 420RES at address nnnn has been brought online. hh:mm:ss HCPWRS2513I *hh:mm:ss* HCPWRS2513I Spool files available {*nnnn* | none} hh:mm:ss HCPWRS2512I Spooling initialization is complete. *hh:mm:ss* FILES: *nnn* RDR, *nnn* PRT, nnn PUN

```
hh:mm:ss LOGON AT hh:mm:ss {EST | EDT} weekday mm/dd/yy
  :
hh:mm:ss HCPIOP952I nnnnM system storage
hh:mm:ss FILES: nnnnnn RDR, nnnnnn PRT,
                                                NO PUN
                                                  This message tells you the amount of storage
                                                  available.
                                                  The FILES message here refers to operator spool
                                                  files.
                                                  CP automatically disconnects from the primary
                                                  system operator (user ID OPERATOR).
hh:mm:ss HCPUS0967I Disconnect OPERATOR - system
          restarted SHUTDOWN and system console
          not VM operator console
hh:mm:ss DISCONNECT AT hh:mm:ss {EST | EDT} weekday mm/dd/yy
                                                   Press enter or clear key to continue.
hh:mm:ss Press enter or clear key to continue
ENTER
```

___ 3. Log on to the MAINT user ID.

ENTER

The password for MAINT is MAINT.

logon maint

```
:
Ready; T=n.nn/n.nn hh:mm:ss
```

Note

If you want to use the System Administration Facility tools to create and manage Linux images on your z/VM system, you must initialize the System Administration Facility environment before making any modifications to your z/VM installation. Refer to the *z/VM: System Administration Facility* for more information.

Step 6. Back Up the Named Saved Systems and Segments

In this step you will: _____

- Back up all the named saved systems/segments, including CMS, on tape.
- ____1. Follow the First-Level or Second-Level steps that follow to attach a tape drive.

------First-Level Only -----+

___a. Attach a tape drive to MAINT.

------End of First-Level Only ------+

+------Second-Level Only ------+

- ____a. Attach the tape drive to the first-level system.
- ____b. Attach the tape drive to MAINT on a second-level system.

-----End of Second-Level Only -----+

- ____2. Mount a scratch tape in write mode.
- ____3. Spool the console.

spool console * start

____4. Enter the SPXTAPE command to dump the named saved systems and segments to tape.

spxtape dump devno sdf all run	Substitute the address of the tape drive for the value
SPXTAPE DUMP INITIATED ON VDEV devno	<i>devno. devno</i> is the address you used to define the device. The operand RUN specifies that the SPXTAPE rewinds and unloads the tape after the operation.
Ready; T=n.nn/n.nn hh:mm:ss	
DUMPING devno : nnn FILES, PAGES :	nnnn nn% COMPLETE
DUMPING <i>devno</i> : <i>nnn</i> FILES, PAGES RDR FILE <i>fileno1</i> SENT FROM MAINT CON WAS <i>file</i> SPXTAPE DUMP COMMAND COMPLETED ON VDEV <i>devno</i>	nnnn nn% COMPLETE eno1 RECS nnnn CPY 001 T NOHOLD NOKEEP
TIME STARTED: hh:mm:ss TIME ENDED: hh:mm:ss TAPE COUNT: nnn FILES PROCESSED: nnn SPOOL PAGES: nnnn	The messages from SPXTAPE tell you that the files are being dumped to tape.
RDR FILE fileno2 SENT FROM MAINT CON WAS file	<i>tileno2</i> RECS <i>nnnn</i> CPY 001 T NOHOLD NOKEEP <i>fileno1</i> is the file number of the volume log file. The volume log file records information about the files processed by the SPXTAPE DUMP command that are associated with a particular tape volume.
	<i>fileno2</i> is the file number of the command summary log file. The command summary log file records the progress and status of the SPXTAPE DUMP operation.

____5. Store the tape for emergency use. If it is ever necessary, you can use this tape and the SPXTAPE command to restore the CMS system data file. For more information about the SPXTAPE command, see the *z/VM: CP Command and Utility Reference.* For information on how to restore this tape to your system, see "Appendix G. Restoring Your Named Saved Systems and Segments" on page 183.

Step 7. Store a Backup Copy of the z/VM System on Tape

 $^-$ In this step you will: $^-$

- · Load the DDRXA utility to tape
- Use DDRXA to store a backup copy of the z/VM system on tape.

Attention: You must back up **all** your installation volumes in order to back up the z/VM system. You may wish to check your Directory Build Worksheet. This example requires a full pack minidisk be defined in the CP directory, USER DIRECT, for each volume you are dumping to tape.

____1. Mount a scratch tape in write mode.

____ 2. Attach the tape drive to MAINT at virtual device address 181.

 attach
 devno * 181

 TAPE
 0181
 ATTACHED

 Ready;
 T=n.nn/n.nn
 hh:mm:ss

The ATTACH command attaches the device (*devno*) to MAINT's virtual machine at virtual device address 181.

____ 3. Access the 193 minidisk in read/write mode.

access 193 z

Ready; T=n.nn/n.nn hh:mm:ss

____ 4. Load the DDRXA utility to tape.

utility utiltape ddrxa

Rewind complete HCPWUT8317I MOVING IPL DDRXA TO TAPE HCPWUT8318I THE IPL DDRXA PROGRAM IS ON TAPE FILE NUMBER 1 Ready; T=n.nn/n.nn hh:mm:ss

____ 5. Change MAINT's virtual machine mode to XA. Do **not** IPL CMS.

set machine xa SYSTEM RESET SYSTEM = XA Setting the virtual machine to XA architecture causes a reset as if you entered SYSTEM CLEAR. If your machine is already in XA mode, you will not get a response.

____ 6. Rewind the scratch tape on virtual device number 181.

rewind 181

Rewind complete

____ 7. IPL the tape and answer the prompts from DDR. For information about DDRXA, see the *z/VM: CP Command and Utility Reference* and *z/VM: System Operation*.

ipl 181 clear

Clear is necessary. Do not omit it.

Wait a few moments for DDRXA to prompt you. If a prompt does not appear, press the **Enter** key.

z/VM DASD DUMP/RESTORE PROGRAM ENTER CARD READER ADDRESS OR CONTROL STATEMENTS ENTER: sysprint cons ENTER:

This first control statement tells DDRXA that you want program messages sent to your console.

Store a Backup Copy of the z/VM System on Tape

input devno dasd volid ENTER:		The second control statement is the input control statement.
		<i>devno</i> is the full pack minidisk address of the volume you are backing up. You must back up all your installation volumes.
		The fullpack minidisk address for the default packs are 123 (420RES), 124 (420W01), 125 (420W02),
		By typing the word dasd , the device type is automatically identified by the DDR program, either 3380 or 3390.
		<i>volid</i> is the label of this volume, for example 420RES.
output 181 tape (compact ENTER:		This control statement specifies the device to which you are dumping the system.
		By typing the word tape , the tape device type is automatically identified by the DDR program, either 3422, 3424, 3430, 3480, 3490, or 9348.
dump all		This command dumps the specified volume to the tape.
DUMPING volid DUMPING DATA mm/dd/yy AT hh.mm.ss GMT FROM volid		These are informational messages that will vary according to your use of device types. GMT means Greenwich Mean Time.
		The exact cylinder extents vary according to the device type.
INPUT CYLINDER EXTENTS START STOP nnnnnnnn nnnnnnnn	OUTPUT CYLINDER START nnnnnnn	EXTENTS STOP nnnnnnn
÷		
END OF DUMP BYTES IN <i>nnnnnnnn</i> BYTES OUT <i>n</i> TRACKS NOT COMPACTED ON TAPE -	nnnnnnnn nnnnnnnnn	
ENTER:		When DDRXA finishes dumping the volume, it prompts you with ENTER.

- **Note:** When DDR encounters the end of a tape, which is continued on the next tape, it prompts you to mount the next tape, if required. If you are using the same tape drive, mount the next tape and DDR will continue. If you are using a different tape drive, issue the INPUT control statement to identify the tape drive and the issue the DUMP ALL statement.
- If you have any more DASD volumes to back up, repeat the INPUT, OUTPUT, and DUMP ALL statements for each volume.
- ____ 9. To end the program, press the **Enter** key.

ENTER

END OF JOB

___ 10. Re-IPL CMS.

#cp ipl cms z/VM V4.2.0 *yyyy-mm-dd hh:mm*

ENTER

Ready; T=n.nn/n.nn hh:mm:ss

Press Enter to return to the command line.

For information on how to restore your system from tape, see "Appendix F. Restoring the z/VM System Backup Copy" on page 181.

What to Do Next

Go to "Chapter 7. System Default Information" on page 83.

Store a Backup Copy of the z/VM System on Tape

Part 3. Post System DDR Installation Information

This part covers the following information (after you have installed from the DDR):

- · Default values used when building the z/VM System DDR
- Preinstalled licensed products and features information.

- Note

Some of the preinstalled product and features require additional installation steps. You **must complete** these steps for the product or feature to be completely installed.

• Installation information for features not preinstalled on the System DDR.

Post System DDR Installation Information

Chapter 7. System Default Information

This chapter reviews the various default values used when building the z/VM System DDR. It presents build information for the CMS, CP, and GCS components as well as CMS's saved segments.

Step 1. CMS Defaults

 $^-$ In this step you will: $^-$

· Review the defaults used to build the CMS nucleus and named saved system.

This step is for your information only.

- 1. The CMS nucleus is IPLed with the system default language, mixed case American English (AMENG), Uppercase English (UCENG), Kanji (KANJI), or German (GER), which was selected in Step 3. Plan for Running INSTDEF EXEC substep 2 on page 70.
- 2. The CMS named saved system was built with a system name of CMS and is loaded at storage location X'F00000'-X'13FFFFF' (starting at 15MB and ending at 20MB).
- 3. DMSNGP ASSEMBLE is a profile that contains CMS configuration defaults and responses to system prompts; these will become part of the CMS nucleus. Read the discussion of the DMSNGP profile in *z/VM: Planning and Administration*, within the chapter on tailoring CMS with the DEFNUC macro.
- 4. The CMS nucleus shipped on the z/VM System DDR was built with the following definitions in the DMSNGP ASSEMBLE file:

DMSNGP	CSECT	
	DEFNUC SYSDISK=190,	* S-disk address *
	YDISK=19E,	* Y-disk address *
	HELP=19D,	* Help disk address *
	LANGID=AMENG,	<pre>* Default is American English *</pre>
	DBCS=NO,	* Default is not a DBCS lang *
	LANGLEV=S,	* Mult. lang. in saved seg.level ID*
	BUFFSIZ=20,	* SFS R/W cache buffer size *
	MDBUFSZ=8,	* Minidisk R/W cache buffer size *
	SAVESYS=NO,	* Save CMS as a named saved system *
	SYSNAME=CMS,	* Name given to named saved system *
	USEINST=YES,	* Use EXEC/XEDIT in a saved segment*
	INSTSEG=CMSINST,	* Name of above saved segment *
	USEMTSG=YES,	*** See Operation Section *
	MTSEG=VMMTLIB,	*** See Operation Section *
	REWRITE=YES,	* Write nucleus to disk *
	IPLADDR=190,	* Address of where to write *
	CYLADDR=nnnnn,	* Cyl/Blk of where to write *
	IPLCYL0=YES,	* Write IPL text on cyl 0 *
	VERSION=,	* Version Release nnnn *
	INSTID=	* VM Conversational Monitor System
	END	

Note: CYLADDR is the cylinder on the MAINT 190 minidisk at which the system will start writing the CMS nucleus. The appropriate starting location depends on the device type of the DASD where the MAINT 190 minidisk is defined. The CYLADDR value is defined using a local modification (DMSNGP EL0001DS) for the z/VM System DDR according to the following table:

Device Type	Cylinder Address
3380	120
3390	100

5. The GUI workstation agents, along with their help files, are not shipped with z/VM. They are available with limited support from the VM Download Library:

http://www.ibm.com/s390/vm/download/

 Java and NetRexx reside on MAINT's 400 minidisk. The Java and NetRexx files are placeholders only. To receive the actual files, you must download them from the following website: http://www.ibm.com/s390/vm/java/ 7. OpenExtensions Shell and Utilities and CMS Utilities Feature (CUF) are now part of the CMS component.

Step 2. CP Defaults

- In this step you will:
- · Locate the sample files
- · Locate the hardcopy sample file layouts
- · Learn where to read more about the CP system configuration function
- · Review the defaults used to build the CPLOAD module
- Review the contents of the CP directory file (USER DIRECT)
- Review information about the SYSTEM NETID file.
- 1. The LOGO CONFIG and SYSTEM CONFIG files are located on the primary parm disk (CF1). A shadow of these files resides on the secondary parm disk (CF2). These files contain the system configuration data used by CP.
- 2. For detailed information about the CP system configuration function, CP nucleus options, and CP planning, see *z/VM: Planning and Administration*.
- 3. The CP nucleus on the z/VM System DDR is a module. The module resides on the parm disks (CF1, CF2, and CF3).
- The CP nucleus is IPLed with the system default language, mixed case American English (AMENG), Uppercase English (UCENG), Kanji (KANJI), or German (GER), which was selected in Step 3. Plan for Running INSTDEF EXEC substep 2 on page 70.
- 5. The USER DIRECT file contains entries defining each virtual machine (user) permitted to log on to your system.

The default machine mode definition for user IDs in the directory is XA. However, any SET MACHINE statement issued for a user ID overrides the default setting. The USER DIRECT file built during installation contains a SET MACH XA, SET MACH ESA, or SET MACH XC command for all user IDs.

- 6. For details on the SYSTEM NETID file, see "Appendix E. The SYSTEM NETID File" on page 179.
- 7. The z/VM System DDR contains system definition files with sample information and default parameters. You can modify the following files to define your system configuration.
 - The logo configuration file (LOGO CONFIG) defines both the logo that appears on your terminal screen when you log on your system and the logo that appears on separator pages for printers. This file also provides information to the system about status areas on the terminal screens.
 - **Note:** Status areas are normally in the lower right side of the terminal and contain such informational messages as RUNNING, VM READ, CP READ, MORE..., and HOLDING.
 - The CP system control file (SYSTEM CONFIG) describes the system residence device (420RES) and various system parameters, defining the configuration of your system. Information that was found in the HCPRIO and HCPSYS files, in previous VM releases, now resides in the SYSTEM CONFIG file.
 - The real I/O configuration file (HCPRIO ASSEMBLE) contains only the RIOGEN macro.
- 8. If you are generating a CP nucleus with a preferred virtual machine refer to *z/VM: Planning and Administration* to determine how to set up your IPL parameters for SALIPL.
- 9. The USER DIRECT file contains a common profile section, PROFILE IBMDFLT. An INCLUDE statement for this profile has been added to each user ID that previously linked to the AMENG HELP disk (19D). The PROFILE IBMDFLT section contains a link to each HELP disk. Each user you add to the directory that needs access to a HELP disk must have an INCLUDE statement to the PROFILE IBMDFLT section.

Step 3. GCS Defaults

— In	this	step	you	will:	
------	------	------	-----	-------	--

- Review the defaults that went into building the GCS nucleus.
- 1. The GCS nucleus was built with mixed case American English (AMENG) as the system default language.
- 2. The GCS nucleus was built with a system name of GCS and is loaded at storage locations X'400'-X'5FF' and X'1000'-X'11FF'.
- 3. The GCS nucleus was also built with the following defaults:

Default Item	Description
Saved System Name	GCS
Authorized VM User IDs	VTAM GCS MAINT NETVIEW OPERATNS RSCS AVSVM PDMREM1 PDMGRP4 SNALNKA PVMG NVAS IHVOPER CMEOSI NPM VSCS
Saved System Information	Recovery machine user ID: GCS
	User ID to receive storage dumps: OPERATNS
	GCS Trace Table Size: 16KB
	Common storage above 16MB line (YES or NO): YES
	Single user environment: no
	Maximum number of VM machines: 14
	System ID: GCS
	Name of the VSAM segment: CMSVSAM
	Name of the BAM segment: CMSBAM
	GCS saved system is restricted: yes
	Trace table in private storage: yes
Saved System links	VTAM NETVSG00
User IDs needing VSAM stor	age NETVIEW NVAS CMEOSI

Step 4. Saved Segments on the z/VM System

 $^-$ In this step you will: $^-$

• View the saved segments that are installed on your system, and their addresses.

- CMS improves system performance and storage usage by placing heavily used execs in the CMS installation segment, CMSINST. CMSINST is a logical segment within the INSTSEG physical segment. If you want to add or delete an exec from CMSINST, you should identify the changes to VMSES/E using the procedure within the local modification example for CMSINST, found in the *z/VM: Service Guide*. A local modification allows VMSES/E to track the changes and to ensure the CMSINST segment is rebuilt when any of the execs in it are serviced.
- The QUERY NSS ALL MAP command shows you the saved segments and saved systems defined on your system.

query nss all map								Enter the QUERY NSS ALL MAP command to list all defined saved segments, and to show their addresses.				
:												
FILE nnnn	FILENAME CMS	FILETYPE NSS	MINSIZE 0000256K	BEGPAG 00000 00020 00500	ENDPAG 0000D 00023 013FF	TYPE EW EW SR	CL A	#USERS 00000	PARMREGS 00-15	VMGROUP NO		
nnnn	GCS	NSS	0000256K	00000 00400 0044F 00450 01000 0101B	0000C 0044E 0044F 005FF 0101A 011FF	EW SR SW SN SR SN	R	00000	OMITTED	YES		
nnnn	CMSDOS	DCSS-M	N/A	00B00	00B0C	SR	А	00000	N/A	N/A		
nnnn	CMSBAM	DCSS-M	N/A	00B0D	00B37	SR	А	00000	N/A	N/A		
nnnn	DOSBAM	DCSS-S	N/A	00B00	00B37		А	00000	N/A	N/A		
nnnn	GUICSLIB	DCSS	N/A	01F00	01FFF	SR	А	00000	N/A	N/A		
nnnn	CMSFILES	DCSS	N/A	01900	01BFF	SR	А	00000	N/A	N/A		
nnnn	SVM	DCSS	N/A	01900	019FF	SR	А	00000	N/A	N/A		
nnnn	CMSPIPES	DCSS	N/A	01800	018FF	SR	А	00001	N/A	N/A		
nnnn	CMSVMLIB	DCSS	N/A	01700	017FF	SR	А	00001	N/A	N/A		
nnnn	INSTSEG	DCSS	N/A	01400	016FF	SR	А	00001	N/A	N/A		
nnnn	HELPSEG	DCSS	N/A	00000	00CFF	SR	А	00000	N/A	N/A		
nnnn	DOSINST	DCSS	N/A	00900	0090F	SR	А	00000	N/A	N/A		
nnnn	SCEE	DCSS	N/A	00900	009FF	SR	А	00000	N/A	N/A		
nnnn	SCEEX	DCSS	N/A	01A00	01EFF	SR	А	00000	N/A	N/A		
nnnn	NLSGER	DCSS	N/A	02000	020FF	SR	А	00000	N/A	N/A		
nnnn	NLSKANJI	DCSS	N/A	02000	020FF	SR	А	00000	N/A	N/A		
nnnn	NLSUCENG	DCSS	N/A	02000	020FF	SR	А	00000	N/A	N/A		
nnnn	NLSAMENG	DCSS	N/A	02000	020FF	SR	А	00000	N/A	N/A		
Ready; T=n.nn/n.nn hh:mm:ss												

Step 5. VMSERVS, VMSERVU, and VMSERVR File Pool Defaults

If you did not load FILEPOOL or SMALL FILEPOOL as part of the base z/VM (you are moving your existing SFS servers from a previous VM system), refer to the *z/VM: Migration Guide* for information describing how to move your SFS servers from a previous VM system.

In this step you will: -

- Review the defaults used to build the VMSERVS, VMSERVU, and VMSERVR.
- Refer to the *z/VM: CMS File Pool Planning, Administration, and Operation* manual for information describing the tailoring of SFS defaults.

The z/VM System DDR incorporates prebuilt file pools.

VMSYS

- Managed by the VMSERVS server machine
- If you chose to load FILEPOOL, the users enrolled are:
 - MAINT (for TSAF, AVS, and GCS)
 - P684096K (for RSCS)
 - XCHANGE (for RSCS)
 - 2VMVMV20 (for OSA/SF)
 - P688198H (for LE/370)
 - 4TCPIP20 (for TCP/IP)
 - 5654A09A (for TSM)
 - P684042H (for ICKDSF)
 - 4VMRTM10 (for RTM)
 - VMRTM (for RTM)
 - 4VMPRF10 (for VMPRF)
 - VMPRF (for VMPRF)
 - 4VMDVH10 (for DirMaint)

If you chose to load SMALL FILEPOOL, the user enrolled is MAINT.

- If you chose to load FILEPOOL, you can move the following items to SFS:

- GCS
- TSAF
- AVS
- RSCS
- TCP/IP
- LE/370
- OSA/SF
- TSM
- ICKDSF
- RTM
- VMPRF
- DirMaint

If you chose to load SMALL FILEPOOL, you cannot move items into SFS because the VMSYS area is too small.

VMSERVS, VMSERVU, and VMSERVR File Pool Defaults

VMSYSU

- Managed by the VMSERVU server machine
- Enrolled MAINT in the VMSYSU file pool
- MAINT.SAMPLES directory exists with SFS sample files installed.

VMSYSR

- Managed by the VMSERVR server machine
- Coordinated Resource Recovery (CRR) file pool

Each of these file pools has two definition files associated with it:

- *filename* POOLDEF, which defines the configuration of the file pool. *filename* is the name of the file pool.
- *filename* DMSPARMS, which contains start-up parameters for the file pool server machine. *filename* is the user ID of the server machine.

Read the *z/VM: CMS File Pool Planning, Administration, and Operation* book for information and examples on tailoring these files and for information on BFS root directory definitions.

Chapter 8. Preinstalled Licensed Products and Features

In this chapter you are presented with information about licensed products and features that were preinstalled on your system.

Note -

Some of the preinstalled product and features require additional installation steps. You must complete these steps for the product or feature to be completely installed.

The z/VM System DDR was built incorporating the following licensed products and features.

Product Name	Release Level	Service Level	Production Minidisk	Program Number	
EREP	3.5.0	SDO May 2001	MAINT 201	5654-260	
ICKDSF	1.16.0	SDO May 2001	MAINT 19E	5684-042	
LE	1.8.0	RSU0101	MAINT 19E	5739-A03	
RSCS	3.2.0	RSU0102	n/a	5684-096	
TCP/IP	L410	none	n/a	5739-A03	
OSA/SF	FL220	RSU0101	n/a	5654-A17	
Tivoli Storage Manager	3.1	RSU0101	n/a	5694-TSM	
RTM	FL410	none	n/a	5739-A03	
VMPRF	FL410	none	n/a	5739-A03	
DirMaint	FL410	none	n/a	5739-A03	

Table 7. Preinstalled Licensed Products and Features

Refer to each licensed program's own documentation for detailed information.

- FL means function level.
- L means level.
- Service Level is the level of the product or feature on the z/VM System DDR. This is not the RSU as shipped with z/VM service level.

Step 1. EREP

The Environmental Record Editing and Printing Program (EREP) is a diagnostic application program that runs under the MVS[™], VM, and VSE operating systems. The purpose of EREP is to help IBM service representatives maintain your data processing installations.

Introduction

EREP is preinstalled on the z/VM System DDR.

Review the following section in the EREP Program Directory:

- "2.0 Program Materials" identifies the basic and optional program materials and documentation for EREP.
- "3.0 Program Support" describes the IBM support available for EREP.
- "4.0 Program and Service Level Information" lists the program levels of the required licensed products and the service level of EREP.

Installation Requirements and Considerations

Review sections "5.1 Driving System Requirements" through "5.3 Programming Considerations" in the *EREP Program Directory*. EREP was installed on MAINT's 201 minidisk.

Installation Instructions

No additional installation instructions are required.

Service Instructions

Service instructions for EREP are found in the EREP Program Directory.

EREP

Step 2. ICKDSF

ICKDSF is a program you can use to perform functions needed for the installation, use, and maintenance of IBM DASD. You can also use it to perform service functions, error detection, and media maintenance.

Introduction

ICKDSF is preinstalled on the z/VM System DDR.

Review the following section in the ICKDSF Program Directory:

- "2.0 Program Materials" identifies the basic and optional program materials and documentation for ICKDSF.
- "3.0 Program Support" describes the IBM support available for ICKDSF.
- "4.0 Program and Service Level Information" lists the program levels of the required licensed products and the service level of ICKDSF.

Installation Requirements and Considerations

Review sections "5.1 Hardware Requirements" through "5.3 DASD Storage and User ID Requirements" in the *ICKDSF Program Directory*. ICKDSF was installed using VMSES/E on the user IDs, default addresses, and default SFS directories listed in section "5.3 DASD Storage and User ID Requirements".

Installation Instructions

No additional installation instructions are required.

Service Instructions

Service instructions for ICKDSF are found in the ICKDSF Program Directory.

Step 3. IBM Language Environment[®] VM

IBM Language Environment VM (LE) provides a common set of services in a single run-time environment while enhancing the run-time environment with additional support for emerging application development technologies, such as object-oriented, distributed client/server, and open standards.

Introduction

LE is preinstalled on the z/VM System DDR.

Review the following sections in the IBM Language Environment VM Program Directory:

- "2.0 Program Materials" identifies the basic and optional program materials and documentation for LE.
- "3.0 Program Support" describes the IBM support available for LE.
- "4.0 Program and Service Level Information" lists the program levels of the required licensed products and the service level of LE.

Installation Requirements and Considerations

Review sections "5.1 Hardware Requirements" through "5.3 DASD Storage and User ID Requirements" in the *IBM Language Environment VM Program Directory*. LE was installed using VMSES/E on the user IDs, default addresses, and default SFS directories listed in section "5.3 DASD Storage and User ID Requirements".

Installation Instructions

The installation of LE is complete.

To customize LE, refer to section "6.0 Installation Instructions" in the *IBM Language Environment VM Program Directory*.

Service Instructions

Service instructions for LE are found in the IBM Language Environment VM Program Directory.

Step 4. RSCS

VM Remote Spooling Communications Subsystem Networking (RSCS) lets z/VM users send messages, files and mail to co-workers at other systems on their TCP/IP, SNA, or non-SNA network. They can also use RSCS to print documents and issue commands on other systems.

RSCS uses z/VM spooling facilities to store and retrieve data. RSCS can transfer data to other systems (such as z/VM, z/OS, OS/400[®], VSE/ESA[™], UNIX, and AIX/ESA[®]) that support Network Job Entry (NJE) protocols. NJE connectivity options include TCP/IP, SNA, ESCON[®], channel to channel, and Binary Synchronous Communication.

RSCS also supports secure data transfer between z/VM spool and a system that is a workstation that supports Remote Job Entry (RJE) or Multi-leaving RJE (MRJE) protocols. RJE/MRJE connectivity options include SNA, and Binary Synchronous Communication.

RSCS provides the full range of all possible print service connectivity options. Instead of LPSERVE, the RSCS server may be chosen to provide an enhanced level of TCP/IP print support, including LPR and LPD. These services allow for intranet and internet print delivery for a system, and also accept print output from those networks. The ability to print data at a workstation printer in a transparent manner is available to end users regardless of how the printer is accessed.

Introduction

- Note

RSCS is not available for customer use unless you have a license for it. If you want to use RSCS, you must order RSCS as documented in the RSCS Version 3 Release 2 Program Directory.

If you have ordered RSCS, review the following sections in the RSCS Version 3 Release 2 Program Directory:

- "2.0 Program Materials" identifies the basic and optional program materials and documentation for RSCS.
- "3.0 Program Support" describes the IBM support available for RSCS.
- "4.0 Program and Service Level Information" lists the program levels of the required licensed products and the service level of RSCS.

Installation Requirements and Considerations

Review sections "5.1 Hardware Requirements" through "5.3 DASD Storage and User ID Requirements" in the *RSCS Version 3 Release 2 Program Directory*. RSCS was installed using VMSES/E on the user IDs, default addresses, and default SFS directories listed in section "5.3 DASD Storage and User ID Requirements".

Installation Instructions

To **complete** the installation of RSCS, refer to section "6.0 Installation Instructions" in the RSCS Version 3 Release 2 Program Directory.

Service Instructions

Service instructions for RSCS are found in the RSCS Version 3 Release 2 Program Directory.

TCP/IP

Step 5. TCP/IP

TCP/IP (Transmission Control Protocol/Internet Protocol) enables z/VM customers to participate in a multivendor, open networking environment using the TCP/IP protocol suite for communications and interoperability. The applications provided in TCP/IP include the ability to transfer files, send mail, log on a remote host, allow access from any other TCP/IP node in the network, and perform other network client and server functions.

Introduction

TCP/IP is preinstalled on the z/VM System DDR.

If you have ordered TCP/IP, review the following sections in the TCP/IP Level 420 Program Directory:

- "2.0 Program Materials" identifies the basic and optional program materials and documentation for TCP/IP.
- "3.0 Program Support" describes the IBM support available for TCP/IP.
- "4.0 Program and Service Level Information" lists the program levels of the required licensed products and the service level of TCP/IP.

Installation Requirements and Considerations

Review sections "5.1 Hardware Requirements" through "5.3 DASD Storage and User ID Requirements" in the *TCP/IP Level 420 Program Directory*. TCP/IP was installed using VMSES/E on the user IDs, default addresses, and default SFS directories listed in section "5.3 DASD Storage and User ID Requirements".

Installation Instructions

The installation of TCP/IP is complete.

To use TCP/IP, it must be configured. Refer to section "6.0 Installation" in the TCP/IP Level 420 Program Directory.

Service Instructions

Service instructions for TCP/IP are found in the TCP/IP Level 420 Program Directory.
Step 6. OSA/SF

Open Systems Adapter Support Facility (OSA/SF) lets you customize the integrated Open Systems Adapter (OSA) hardware feature for the OSA modes, change the settable OSA port parameters, and obtain status about the OSA.

OSA/SF has an Operating System/2[®] (OS/2[®]) interface, which is called the OSA/SF Graphical User Interface (OSA/SF GUI).

Through the System Authorization Facility (SAF) interface of the system image on which it is running, OSA/SF lets you use the Resource Access Control Facility (RACF[®]), or equivalent, to authorize or deny access to OSA/SF commands.

Introduction

If you did not choose to install OSA/SF and you wish to install it, go to "Appendix C. Post Install Load of Optional Items" on page 157, then return here.

If you chose to install OSA/SF, it was loaded from the z/VM System DDR. Review the following sections in the OSA/SF Program Directory:

- "2.0 Program Materials" identifies the basic and optional program materials and documentation for OSA/SF.
- "3.0 Program Support" describes the IBM support available for OSA/SF.
- "4.0 Program and Service Level Information" lists the program levels of the required licensed products and the service level of OSA/SF.

Installation Requirements and Considerations

Review sections "5.1 Hardware Requirements" through "5.3 DASD Storage and User ID Requirements" in the *OSA/SF Program Directory*. OSA/SF was installed using VMSES/E on the user IDs, default addresses, and default SFS directories listed in section "5.3 DASD Storage and User ID Requirements".

Installation Instructions

To **complete** the installation of OSA/SF, refer to section "6.0 Installation Instructions" in the OSA/SF *Program Directory* and follow the installation instructions.

Service Instructions

Service instructions for OSA/SF are found in the OSA/SF Program Directory.

Step 7. Tivoli Storage Manager

Tivoli Storage Manager is a client/server program that provides storage management to customers in a multivendor computer environment. Tivoli Storage Manager provides an automated centrally scheduled, policy-managed backup, archive, and space management facility for file servers and workstations.

Introduction

Note

Tivoli Storage Manager is not available for customer use unless you have a license for it. If you want to use Tivoli Storage Manager, you must order Tivoli Storage Manager as documented in the *Tivoli Storage Manager for VM Program Directory*.

If you did not choose to install Tivoli Storage Manager and you wish to install it, go to "Appendix C. Post Install Load of Optional Items" on page 157, then return here.

If you chose to install Tivoli Storage Manager, it was loaded from the z/VM System DDR. Review the following sections in the *Tivoli Storage Manager for VM Program Directory*:

- "2.0 Program Materials" identifies the basic and optional program materials and documentation for Tivoli Storage Manager.
- "3.0 Program Support" describes the IBM support available for Tivoli Storage Manager.
- "4.0 Program and Service Level Information" lists the program levels of the required licensed products and the service level of Tivoli Storage Manager.

Installation Requirements and Considerations

Review sections "5.1 Hardware Requirements" through "5.3 DASD Storage and User ID Requirements" in the *Tivoli Storage Manager for VM Program Directory*. Tivoli Storage Manager was installed using VMSES/E on the user IDs, default addresses, and default SFS directories listed in section "5.3 DASD Storage and User ID Requirements".

Installation Instructions

The installation of Tivoli Storage Manager is complete.

Refer to *Tivoli ADSTAR Distributed Storage Manager for VM: QuickStart* for instructions on how to set up the Tivoli ADSM for VM servers and the CMS Admin Client on your system.

Service Instructions

Service instructions for Tivoli Storage Manager are found in the *Tivoli Storage Manager for VM Program Directory*.

Step 8. RTM

RTM (RealTime Monitor) is a realtime monitor and diagnostic tool used for monitoring, analyzing, and solving problems. You can also use RTM for installations of hardware and software to assist in validating the system components and establishing requirements for additional hardware or software.

Introduction

Note

RTM is not available for customer use unless you ordered it when you ordered z/VM. If you want to use RTM, you must order RTM as documented in the *RealTime Monitor Function Level 410 Program Directory*.

If you have ordered RTM, review the following sections in the *RealTime Monitor Function Level 410 Program Directory*:

- "2.0 Program Materials" identifies the basic and optional program materials and documentation for RTM.
- "3.0 Program Support" describes the IBM support available for RTM.
- "4.0 Program and Service Level Information" lists the program levels of the required licensed products and the service level of RTM.

Installation Requirements and Considerations

Review sections "5.1 Hardware Requirements" through "5.3 DASD Storage and User ID Requirements" in the *RealTime Monitor Function Level 410 Program Directory*. RTM was installed using VMSES/E on the user IDs, default addresses, and default SFS directories listed in section "5.3 DASD Storage and User ID Requirements".

Installation Instructions

The installation of RTM is complete.

To use RTM, it must be enabled and configured. Refer to section "6.0 Installation Instructions" in the *RealTime Monitor Function Level 410 Program Directory*.

Service Instructions

Service instructions for RTM are found in the RealTime Monitor Function Level 410 Program Directory.

Step 9. VMPRF

VMPRF (VM Performance Reporting Facility) detects and diagnoses performance problems, analyzes system performance, and provides reports and trend data showing performance and usage of your z/VM system. The reports and history files produced by VMPRF include:

- System resource utilization, transaction response time, and throughput
- · Resource utilization by the user ID
- DASD activity and channel utilization.

Introduction

Note

VMPRF is not available for customer use unless you ordered it when you ordered z/VM. If you want to use VMPRF, you must order VMPRF as documented in the VM Performance Reporting Facility Function Level 410 Program Directory.

If you have ordered VMPRF, review the following sections in the VM Performance Reporting Facility Function Level 410 Program Directory:

- "2.0 Program Materials" identifies the basic and optional program materials and documentation for VMPRF.
- "3.0 Program Support" describes the IBM support available for VMPRF.
- "4.0 Program and Service Level Information" lists the program levels of the required licensed products and the service level of VMPRF.

Installation Requirements and Considerations

Review sections "5.1 Hardware Requirements" through "5.3 DASD Storage and User ID Requirements" in the *VM Performance Reporting Facility Function Level 410 Program Directory*. VMPRF was installed using VMSES/E on the user IDs, default addresses, and default SFS directories listed in section "5.3 DASD Storage and User ID Requirements".

Installation Instructions

The installation of VMPRF is complete.

To use VMPRF, it must be enabled and configured. Refer to section "6.0 Installation Instructions" in the VM *Performance Reporting Facility Function Level 410 Program Directory*.

Service Instructions

Service instructions for VMPRF are found in the VM Performance Reporting Facility Function Level 410 Program Directory.

Step 10. DirMaint

DirMaint (Directory Maintenance Facility) provides support for all the z/VM directory statements. DirMaint also provides additional utilities to help manage minidisk assignments and allocations, and provides a level of security regarding command authorizations and password monitoring.

Introduction

Note

DirMaint is not available for customer use unless you ordered it when you ordered z/VM. If you want to use DirMaint, you must order DirMaint as documented in the *Directory Maintenance Facility Function Level 410 Program Directory*.

If you have ordered DirMaint, review the following sections in the *Directory Maintenance Facility Function Level 410 Program Directory*:

- "2.0 Program Materials" identifies the basic and optional program materials and documentation for DirMaint.
- "3.0 Program Support" describes the IBM support available for DirMaint.
- "4.0 Program and Service Level Information" lists the program levels of the required licensed products and the service level of DirMaint.

Installation Requirements and Considerations

Review sections "5.1 Hardware Requirements" through "5.3 DASD Storage and User ID Requirements" in the *Directory Maintenance Facility Function Level 410 Program Directory*. DirMaint was installed using VMSES/E on the user IDs, default addresses, and default SFS directories listed in section "5.3 DASD Storage and User ID Requirements".

Installation Instructions

The installation of DirMaint is complete.

To use DirMaint, it must be enabled and configured. Refer to section "6.0 Installation Instructions" in the *Directory Maintenance Facility Function Level 410 Program Directory*.

Service Instructions

Service instructions for DirMaint are found in the *Directory Maintenance Facility Function Level 410 Program Directory*.

Post System DDR Installation Information

Chapter 9. Installing z/VM Features

This chapter provides installation information for the z/VM features not shipped on the z/VM System DDR. You order some features separately to install on z/VM, and others are shipped directly with the z/VM product. For packaging and ordering information, see the *z/VM: General Information*.

Note: All z/VM features are optional. You only have to install the features you require.

- · Restricted Source Annotated Assembler Listings for CP, CMS, REXX/VM, VMSES/E, GCS, and TSAF
- Programming Language/Cross Systems for System/370[™] (PL/X-370) Source
- DFSMS/VM[®] Function Level 221

Step 1. Installing the z/VM Restricted Source Feature

$^-$ In this step you will: $^-$

• Learn details about what the Restricted Source Feature contains and how you install it.

The z/VM Restricted Source Feature is shipped as a separate feature tape or as part of the Optional Features CD-ROM.

The z/VM Restricted Source Feature contains Assembler source code generated from z/VM PL/X source modules for the following components:

- CP
- CMS
- REXX/VM
- VMSES/E
- GCS
- TSAF

You need to define a minidisk (xxx) to load these additional source files.

Use the vmfplc2 load command to receive these tape files in the order shown:

Table 8. Order of Source Feature Tapes Received

Component	Tape File	CD File	Minidisk Loaded To	# Cylinders	
				3380	3390
Header (Volume 1)	1	1			
СР	2	2	minidisk xxx	195	162
Header (Volume 2)	1	3			
CMS	2	4	minidisk xxx	535	445
Header (Volume 3)	1	5			
CMS (cont.)*	2	6	minidisk xxx		
Header (Volume 4)	1	7			
CMS (cont.)*	2	8	minidisk xxx		
Header (Volume 5)	1	9			
REXX/VM	2	10	minidisk xxx	3	3
VMSES/E	3	11	minidisk xxx	2	2
GCS	4	12	minidisk xxx	30	25
TSAF	5	13	minidisk xxx	21	18
Nata: * Vou poo	d to include the	CMC motoria	al from Valume 2 and Valume	on the come minic	dial.

Note: * You need to include the CMS material from Volume 3 and Volume 4 on the same minidisk containing volume 2 material.

Installing the z/VM Restricted Source Feature

The feature on CD-ROM has one logical tape containing identical data to that included on the five restricted source tape volumes.

In Table 8 on page 104, the cylinders for the 3380 and 3390 DASD were figured with a 4KB block size.

All source files are loaded in **packed** format.

The GCS file GCTOM \$EXEC and all the macros listed within GCTOM \$EXEC are for IBM use only. They are shipped on the Source Feature for reference purposes and are not supported.

Step 2. Installing the z/VM PL/X-370 Source Code Feature

$^-$ In this step you will: $^-$

· Learn details about what the z/VM PL/X-370 source code feature contains and how you install it.

The z/VM PL/X-370 source code feature is shipped as a separate feature tape or as part of the Optional Features CD-ROM.

This tape contains z/VM PL/X-370 source code files, distributed as restricted material of IBM, for the CP, CMS, and REXX/VM components.

____1. Increase the sizes of the following MAINT minidisks:

Table 9 shows how much to increase the minidisk size in cylinders in order to install the z/VM PL/X source code feature tape.

Table 9. Minidisk Cv	/linder Size Increases	Needed to Install PL	X-370 Source	Code Feature Tac)e
				eede : eatare : ap	~ ~

Minidisk Address	3380 # Cylinders	3390 # Cylinders	
193/493	45	38	
194	14	12	
394	23	19	
3B2	18	15	
393	85	71	

Note:

- The 194 and 394 disks are for CP only.
- The 3B2 and 393 disks are for CMS and REXX/VM only.
- The 193/493 disks are used by CP, CMS and REXX/VM.
 - 50% is needed for CP
 - 50% is needed for CMS and REXX/VM.
 - In Table 9, the cylinders for the 3380 and 3390 DASD were figured with a 4KB block size.
- ____2. Attach the tape drive to your user ID at virtual device number 181.

If you are installing with CD-ROM, refer to the *Optical Media Attach/2 User's Guide* and the *Optical Media Attach/2 Technical Reference*.

attach tapeaddr * 181	The ATTACH command attaches the device
TAPE <i>tapeaddr</i> ATTACHED TO <i>userID</i> 0181 Ready: T=n.nn/n.nn hh:mm:ss	(<i>tapeaddr</i>) to your user ID's virtual machine at virtual device number 181.

- ____3. Mount the z/VM PL/X-370 source code feature tape on the 181 tape drive.
- ____4. Choose the components you wish to load (CP, CMS, REXX/VM). Enter the VMFREC command to load from the z/VM PL/X-370 source code feature tape one component at a time. Reenter the VMFREC command if you choose to load more than one component.

You will see the following messages for each component as it is loaded.

vmfrec ppf zvm	compname	(ins	setup
----------------	----------	------	-------

VMFINS2760I VMFREC processing started VMFINS2760I VMFSETUP processing started VMFUTL2205I Minidisk Directory Assignments: *compname* is CP, CMS, or REXX. This block of messages is repeated for each component, noting that the minidisk assignments will change with each component. String Mode Stat Vdev Label/Directory WMFSET2760I VMFSETUP processing completed successfully VMFREC1852I Volume n of n of INS TAPE nnnn WMFREC2760I VMFREC processing completed successfully Ready; T=n.nn/n.nn hh:mm:ss

____5. Use the DETACH command to rewind, unload, and detach the tape.

detach 181

TAPE 0181 DETACHED
Ready; T=n.nn/n.nn hh:mm:ss

Step 3. Installing the DFSMS/VM Feature

- $^-$ In this step you will be presented with reference information about: $^-$
- How to install the DFSMS/VM feature.

DFSMS/VM Feature

DFSMS/VM is shipped as a separate feature tape or as part of the Optional Features CD-ROM.

For more information on installing and customizing DFSMS/VM, see the *DFSMS/VM Function Level 221 Program Directory*.

Part 4. Reference

This section covers the tools (commands, execs, and modules) that are used during the installation procedures.

Reference

Chapter 10. Exec References

This section is a general reference for execs you may use during installation. The following execs are described in this section:

DIRONLIN INSTALL INSTDEF INSTDIR INSTIIS INSTPLAN INSTPOOL INSTVM LATELOAD MIGR51D MOVE2SFS POSTDDR POSTLOAD

Exec Format Summaries

z/VM provides a number of tools to help you perform install, service, and system generation tasks. Table 10 lists z/VM install, service, and system generation execs and the books describing each exec. Use the following key for this table.

Abbreviation	Title
VMSES/E I and R	z/VM: VMSES/E Introduction and Reference
Install	z/VM: Installation Guide
CMS Cmd Ref	z/VM: CMS Command and Utility Reference
CP Cmd Ref	z/VM: CP Command and Utility Reference
GCS Ref	z/VM: Group Control System

Table 10. z/VM Install, Service, and System Generation Tools

ТооІ	Task	Book
ASSEMBLE	Processes source statements in assembler language source files.	CMS Cmd Ref
CSLGEN	Builds a callable services library (CSL).	CMS Cmd Ref
DCSSGEN	Builds the CMS installation saved segment (CMSINST).	CMS Cmd Ref
DIRECTXA	Creates a user directory.	CP Cmd Ref
DIRONLIN	Brings the directory built by INSTDIR online.	Install
DISKMAP	Summarizes the MDISK statements in the user directory. The output shows gaps and overlaps between minidisk assignments.	CP Cmd Ref
DOSGEN	Builds the CMSDOS physical saved segment.	CMS Cmd Ref
EXECUPDT	Produces an updated version of a \$Source file.	CMS Cmd Ref
EXPAND	Adds space to a program in object deck form.	VMSES/E I and R
GENCPBLS	Updates the CP load list build list.	VMSES/E I and R
GENMOD	Generates CMS module files.	CMS Cmd Ref

Exec Format Summaries

Tool	Task	Book
GROUP	Builds a GCS configuration file.	GCS Ref
HCPLDR	Calls and controls the system loader.	CP Cmd Ref
INSTALL	Loads base and optional components to disks.	Install
INSTDEF	Customizes CMS, rebuilds CMS, CP, and GCS, and moves selected items to SFS.	Install
INSTDIR	Builds a directory for your installation.	Install
INSTFPP	Installs optional products.	VMSES/E I and R
INSTIIS	Formats and labels your installation DASD and restores the IIS.	Install
INSTPLAN	Selects items to load and DASD type on which to install.	Install
INSTPOOL	Starts the file pool servers during installation procedures.	Install
INSTVM	Loads items from the z/VM System DDR.	Install
ITNVTSTR	Processes install and service orders delivered by Advanced Digital Delivery.	VMSES/E I and R
LANGGEN	Loads national language text files into a saved segment.	CMS Cmd Ref
LATELOAD	Updates the user directory for your installation using the items selected to be loaded.	Install
LANGMERG	Combines national language files for an application into a single text file.	CMS Cmd Ref
LOADLIB	Lists, copies, or compresses CMS load libraries.	CMS Cmd Ref
MIGR51D	Migrates and updates the System Software Inventory files.	Install
MOVE2SFS	Moves data for GCS, TSAF, and AVS from minidisks to Shared File System (SFS) servers.	Install
POSTDDR	Creates Software Inventory tables.	Install
POSTLOAD	Performs cleanup tasks depending on what you have loaded.	Install
PRELOAD	Collects multiple text files and reformats them into a single text file.	CMS Cmd Ref
PUT2PROD	Places a component, feature, or product that was serviced by the SERVICE exec into production.	VMSES/E I and R
SAMGEN	Builds the CMSBAM physical saved segment.	CMS Cmd Ref
SAMPNSS	Defines named saved systems.	CMS Cmd Ref
SAVEFD	Places file directory information for a shared, extended data format (EDF) R/O minidisk into a discontiguous shared segment (DCSS).	CMS Cmd Ref
SERVICE	Installs an RSU or applies CORrective service for the z/VM components, features, or products that are installed on the z/VM System DDR.	VMSES/E I and R
SEGGEN	Builds logical saved segments defined in a physical saved segment.	CMS Cmd Ref
SNTINFO	Gets discontiguous saved segment (DCSS) information directly from CP.	VMSES/E I and R
SPXTAPE	Saves standard spool files and system data files on tape and restores SPXTAPE-format files from tape to the spooling system.	CP Cmd Ref
UTILITY	Provides occasionally-used installation functions, such as, issuing DIAGNOSE code X'24' and X'210' for a virtual device and creating a stand-alone service utility tape for either or both ICKDSF and DDRXA.	CP Cmd Ref
VMFAPPLY	Updates the maintenance level of the specified product.	VMSES/E I and R

Table 10. z/VM Install, Service, and System Generation Tools (continued)

Table 10. z/VM Install, Service, and System Generation Tools (continued)

Тооі	Task	Book
VMFASM	Updates an ASSEMBLE source file according to entries in a control file, then assembles the source file to produce an object file.	VMSES/E I and R
VMFBLD	Builds objects for the specified product.	VMSES/E I and R
VMFCNVT	Converts size and block size data into cylinders and displays the results.	VMSES/E I and R
VMFCOPY	Copies a file to a VMSES/E target minidisk or SFS directory and updates the parts catalog table on that target.	VMSES/E I and R
VMFERASE	Erases a file on a VMSES/E target minidisk or SFS directory and updates the parts catalog table on that target.	VMSES/E I and R
VMFEXUPD	Calls the EXECUPDT command to apply updates to a \$Source program.	VMSES/E I and R
VMFHASM	Updates an ASSEMBLE source file according to entries in a control file, then uses the H assembler to produce an object file.	VMSES/E I and R
VMFHLASM	Updates an ASSEMBLE source file according to entries in a control file, then uses the HL assembler to produce an object file.	VMSES/E I and R
VMFINFO	Queries the Software Inventory tables.	VMSES/E I and R
VMFINS	Installs, migrates, builds, and deletes products.	VMSES/E I and R
VMFLKED	Link edits modules into a load library (LOADLIB).	CMS Cmd Ref
VMFMAC	Builds macro libraries (MACLIBs) containing macro and copy files.	CMS Cmd Ref
VMFMERGE	Applies PTFs to Systems Network Architecture (SNA) products. VMFMERGE is used only to service SNA products.	VMSES/E I and R
VMFMRDSK	Consolidates the contents of minidisks/directories within a string.	VMSES/E I and R
VMFNLS	Applies updates to national language files and compiles the updated versions.	VMSES/E I and R
VMFOVER	Creates a temporary PPF by applying overrides to a source PPF.	VMSES/E I and R
VMFPLC	Provides a front end to routines that use VMFPLC2 when conversion to VMFPLCD or a dual path is desired.	CMS Cmd Ref
VMFPLCD	Loads files from an envelope, dumps files to an envelope, and controls various envelope operations.	CMS Cmd Ref
VMFPLC2	Loads files from tape, dumps files to tape, and controls various tape drive operations.	CMS Cmd Ref
VMFPPF	Compiles a source PPF into its usable form.	VMSES/E I and R
VMFPSU	Helps you choose which method to use when you install a Product Service Upgrade (PSU).	VMSES/E I and R
VMFQMDA	Displays the current VMSES/E access order.	VMSES/E I and R
VMFQOBJ	Returns information about objects defined in build lists.	VMSES/E I and R
VMFREC	Processes installation and service tapes.	VMSES/E I and R
VMFREPL	Supports the local modification of replacement maintained parts.	VMSES/E I and R
VMFREM	Removes PTFs received by the VMFREC exec and applied by the VMFAPPLY exec.	VMSES/E I and R
VMFREMOV	Removes PTFs from Systems Network Architecture (SNA) products. VMFREMOV is used only to service SNA products.	VMSES/E I and R
VMFSETUP	Sets up a minidisk and SFS directory access order, or detaches minidisks that were linked by previous invocations of VMFSETUP EXEC, depending on how it is invoked.	VMSES/E I and R

Exec Format Summaries

Tool	Task	Book
VMFSGMAP	Processes and displays the saved segment information defined in a saved segment configuration build list and save segment data file.	VMSES/E I and R
VMFSIM	Provides an interface to the Software Inventories.	VMSES/E I and R
VMFTXT	Builds a text library (TXTLIB) from text decks.	CMS Cmd Ref
VMFVIEW	Displays message logs using XEDIT with predefined PF keys.	VMSES/E I and R
VMFZAP	Applies ZAPs to Systems Network Architecture (SNA) products. VMFZAP is used only to service SNA products.	VMSES/E I and R
ZAP	Modifies or dumps MODULE, LOADLIB, or TXTLIB files.	CMS Cmd Ref
ZAPTEXT	Modifies or dumps individual text files.	VMSES/E I and R

Understanding Syntax Diagrams

This section describes how to read the syntax diagrams used in Exec Format Summaries. The diagrams show the format to use when invoking execs.

To read a syntax diagram, follow the path of the line. Read from left to right and top to bottom.

- The **>>** symbol indicates the beginning of a syntax diagram.
- The ----> symbol, at the end of a line, indicates that the syntax diagram continues on the next line.
- The ►— symbol, at the beginning of a line, indicates that a syntax diagram continues from the previous line.

Syntax items (for example, a keyword or variable) may be:

- Directly on the line (required)
- Above the line (default)
- Below the line (optional).

Syntax Diagram Descriptions

Abbreviations	Uppercase letters denote the shortest acceptable abbreviation. If an item appears entirely in uppercase letters, it cannot be abbreviated.			
	You can type the item in uppercase letters, lowercase letters, or any combination.			
	For example: ►►—KEYW0rd—►◀			
	In this example, you can enter KEYWO, KEYWOR, or KEYWORD in any combination of uppercase and lowercase letters.			
Symbols	You must code these symbols exactly as they appear in the syntax diagram.			
	For example:			
	 Asterisk Colon Comma Equal Sign Hyphen Parentheses Period 			
Variables	Highlighted lowercase items (<i>like this</i>) denote variables. For example: ► — KEYW0rd— <i>var_name</i> In this example, <i>var_name</i> represents a variable you must specify when you code the			

Understanding Syntax Diagrams

Repetition	An arrow returning to the left means that the item can be repeated.				
	For example:				
	▶ repeat				
	A character within the arrow means you must separate repeated items with that character.				
	For example:				
	► repeat				
	A number, for example (1), by the arrow references a footnote that identifies how many times the item can be repeated.				
	For example:				
	(1)				
	repeat				
	Notes				
	1 Specify repeat up to 5 times.				
Required Choices	When two or more items are in a stack and one of them is on the line, you <i>must</i> specify one item.				
	For example:				
	►► A A B A C A C A C A C A C A C A C A C A				
	In this example, you must choose A, B, or C.				
Optional Choices	When an item is below the line, the item is optional.				
	For example:				
	In this example, you can choose A or nothing at all				
	When two or more items are in a stack below the line, all of them are options.				
	For example:				
	►A ► ►				
	In this example, you can choose A, B, C, or nothing at all.				

Understanding Syntax Diagrams

Defaults Defaults are above the line. The system uses the default unless you override it. You can override the default by coding an option from the stack below the line. For example: • —В-In this example, A is the default. You can override A by choosing B or C. **Repeatable Choices** A stack of items followed by an arrow returning to the left means that you can select more than one item or, in some cases, repeat a single item. For example: —А-—В-In this example, you can choose any combination of A, B, or C. Syntax Fragments Some diagrams, because of their length, must fragment the syntax. The fragment name appears between vertical bars in the diagram. The expanded fragment appears in the diagram after a heading with the same fragment name. For example: ►►── | A Fragment | ▶◀ A Fragment: -B-In this example, the fragment is named "A Fragment."

DIRONLIN EXEC

►►—DIRONLIN-

Purpose

Use DIRONLIN to bring the directory built by INSTDIR online.

-

Messages and Return Codes

HCP8342E THE COMMAND command FAILED WITH RC=rc

User Response: Correct error and rerun DIRONLIN

Severity: 100

HCP8376E DIRONLIN EXEC ENDED IN ERROR

User Response: Correct error and rerun DIRONLIN

Severity: 100

HCP8391I DIRONLIN EXEC ENDED SUCCESSFULLY

User Response: None.

Severity: 0

INSTALL EXEC

► INSTALL		
	QUIET	

Purpose

The INSTALL EXEC lets you load the components provided on the z/VM System DDR tapes or CD-ROM. It also lets you recover the contents of a minidisk from the z/VM System DDR tapes or CD-ROM. The exec is automated and panel-driven to simplify and quicken the load process.

Operands

CD

loads the components from the CD-ROM.

Options

QUIET

changes your console setting to **noterm** so you will not receive system output messages to your console during the run of the exec. This suppresses all but the percent loaded, loading, and completion messages during the load from the z/VM System DDR tapes or CD-ROM. You will see these messages:

HCPWIN8428I TOTAL PERCENT LOADED -> nn% HCPWIN8371I LOADING ... HCPWIN8434I compname HAS BEEN SUCCESSFULLY LOADED.

Note: If the INSTALL exec terminates before successful completion, you must manually return your console to the normal state of receiving system messages. Enter from the command line:

spool console term

You enter this command whether you have terminated the exec or the exec itself has abended because of an error.

As the INSTALL exec successfully completes, it automatically returns your console to the normal state of receiving system messages.

RECOVER

loads the contents of a minidisk from the z/VM System DDR tapes or CD-ROM.

mdiskaddr

is the address of the minidisk to be loaded from the z/VM System DDR tapes or CD-ROM.

When you recover a minidisk belonging to a user ID other than MAINT, you must specify the address MAINT links to instead of the actual minidisk address. See "MAINT LINKLIST" on page 203 for the "Linked by Maint as" address.

loadaddr

is the address to which you restore the minidisk. This disk must be the same DASD type as the

z/VM System DDR you ordered and must be the same size as the minidisk address (*mdiskaddr*) being loaded from the z/VM System DDR tapes or CD-ROM.

If *loadaddr* is not specified the INSTALL EXEC defines a temporary disk (T-disk) and a message informs you of the address where the minidisk was loaded. When you are finished with this temporary disk (T-disk), you may want to detach it.

LATELOAD

allows you to load products after initial install has been completed.

Usage Notes

- 1. The INSTALL EXEC is used with the z/VM System DDR to load z/VM.
- 2. The INSTALL EXEC uses preplanned data supplied by you or IBM-supplied default data and a user-friendly panel interface to install z/VM.
- 3. The INSTALL EXEC allows a selective load of source and component groups defined by you, enabling DASD conservation where appropriate.
- 4. If the RECOVER option is used with the INSTALL EXEC, and the *loadaddr* option is not specified, a temporary disk (T-disk) is created.
- 5. On all panels, CP and CMS commands can be issued from the panel command line. Line end characters, for example #, cannot be used.
- 6. Running the INSTALL EXEC requires a full screen terminal with at least 20 lines.
- 7. The INSTALL EXEC must be run from the 2CC disk accessed as file mode 'C'.
- 8. When you need to restore a file and do not know what minidisk it is on, you can look at the MINIDISK MAP file on the 194 minidisk. This file lists the minidisks on the z/VM System DDR, and the files contained on each minidisk.

Once you know the location, you can use the RECOVER option to help you restore the file from the z/VM System DDR. Recover the minidisk that contains the desired file from the z/VM System DDR to a minidisk with the same DASD type and size on your system. Then you can copy the desired file from this restored minidisk to any other desired location. See a detailed description in "Appendix H. Recovering a File or Minidisk" on page 185.

- 9. When you recover a minidisk belonging to a user ID other than MAINT, you must use the "Linked by Maint as" address as *mdiskaddr*. See "MAINT LINKLIST" on page 203 for details.
- 10. You cannot recover the 2CC minidisk directly to the 2CC minidisk. You can recover the 2CC to a *loadaddr* other than 2CC and copy the files you wish to recover to the 2CC minidisk.

Examples

The following are samples of the z/VM LOAD MENU panel and the LOAD DEVICE MENU panel. If you specify the LATELOAD option, the z/VM LOAD MENU panel displays followed by the LOAD DEVICE MENU panel. If you specify the QUIET or RECOVER option, only the LOAD DEVICE MENU panel displays.

z/VM LOAD MENU					
ENTER 'S' TO SELECT ('L' INDICATES ALREADY LOADED)					
	S S S S S S S S	BASE TSAF, AVS FILEPOOL SMALL FILEPOOL CP, DV SOURCE CMS, REXX SOURCE VMSES/E SOURCE RSCS SOURCE OSA/SF TSM			
====>					
PF1 = HELP	PF3 = QUI	T PF4 = UNLOCK RELOAD PF5 = NEXT			



Messages and Return Codes

HCP8300E FILE datafile NOT FOUND	HCP8308E HELPFILE <i>fn</i> MUST HAVE A LRECL OF 80			
Severity: 28	User Response: None. Severity: 103			
HCP8306E HELPFILE <i>fn</i> MUST CONTAIN AT LEAST 5 LINES User Response: None. Severity: 101	HCP8309E HELPFILE <i>in</i> DOES NOT CONTAIN A HELP FILE HEADER User Response: None. Severity: 104			
HCP8307E HELPFILE <i>fn</i> MUST NOT CONTAIN MORE THAN 100,003 LINES User Response: None.	HCP8310E LINE <i>x</i> OF HELPFILE <i>fn</i> IS NOT BLANK User Response: None.			

HCP8312E ERROR DISPLAYING HELPFILE fn

User Response: None.

Severity: None.

HCP8352E INVALID {OPERAND operand | OPTION option} SPECIFIED ON THE INSTALL COMMAND

User Response: Correct error and rerun INSTALL.

Severity: 8

HCP8360A WARNING: YOU SELECTED *item* FOR RELOAD. RELOADING OVERLAYS ANY CHANGES THAT MAY HAVE BEEN MADE TO THESE ITEMS. DO YOU REALLY WANT TO RELOAD? ENTER (Y)ES OR (N)O:

User Response: Enter a 'YES' or 'NO'.

Severity: None.

HCP8361E VADDR vaddr IS NOT A VALID CD DEVICE

User Response: Correct error and rerun INSTALL.

Severity: 8

HCP8363E VADDR vaddr IS AN UNKNOWN TAPE DEVICE

User Response: Correct error and rerun INSTALL.

Severity: 8

HCP8364E NO filename filetype FILE FOUND ON THE 2CC DISK

User Response: Correct error and rerun INSTALL.

Severity: 8

HCP8365E SYNTAX ERROR IN PRODUCT LAYOUT FILE REASON FOR FAILURE - mdisk IS A DUPLICATE

User Response: Recover the PRODUCT LAYOUT file (see "Appendix H. Recovering a File or Minidisk" on page 185) and rerun INSTALL.

Severity: 8

HCP8366E MINIDISK ERROR(S) FOR {Recover Operation litem}:

User Response: Correct error and rerun INSTALL.

Severity: 8

HCP8367E THE FOLLOWING MINIDISK(S) {DO NOT EXIST: mdisk mdisk ... | ARE READ ONLY: mdisk mdisk ... | ARE INVALID: mdisk mdisk ... | MUST BE THE SAME DEVTYPE AS THE SYSTEM DDR: mdisk mdisk ... | ARE INCORRECT SIZE: mdisk mdisk ... | HAVE INVALID DEVTYPES: mdisk mdisk ... }

User Response: Correct error and rerun INSTALL.

Severity: 8

HCP8370E PLEASE CORRECT THE INDICATED PROBLEMS AND RERUN THE INSTALL EXEC. ERRORS HAVE BEEN LOGGED IN ERROR \$MSGLOG ON THE 2CC DISK

User Response: Correct error and rerun INSTALL.

Severity: 8

HCP8371I LOADING component ...

User Response: None.

Severity: None.

HCP8372R PLEASE MOUNT VOLUME volno ON TAPE DRIVE vaddr THEN PRESS ENTER TO CONTINUE

User Response: Mount the indicated volume then press the Enter key.

Severity: None.

HCP8373E DDR HAS REPORTED {AN ERROR | A RETURN CODE OF 2 | A RETURN CODE OF 4 (PERMANENT TAPE OR DASD I/O ERROR)} [CHECK DDR \$MSGLOG ON THE 2CC DISK FOR MORE INFORMATION]

User Response: Refer to the *z/VM: CP Command and Utility Reference* for more information on the DDR command.

Severity: 8

HCP8376E INSTALL EXEC ENDED IN ERROR

User Response: Correct error and rerun INSTALL.

Severity: 8

HCP8379E DRIVE vaddr FAILED THE EXEC'S REWIND COMMAND WITH RC = rc

User Response: Check the tape drive and rerun INSTALL.

Severity: 8

HCP8380I RESTORING MINIDISK mdisk TO [/abe/IMINDISK labe/]

User Response: None.

Severity: None.

HCP83811 CHECKING TAPE VOLUME NUMBER FOR DRIVE vaddr

User Response: None.

Severity: None.

HCP8382E VOLUME volno IS NOT A DDR INSTALL TAPE

User Response: Correct error and rerun INSTALL.

Severity: 8

HCP8383R ERROR: WRONG TAPE MOUNTED ON DRIVE addr PLEASE MOUNT VOLUME volno ON DRIVE addr THEN PRESS ENTER TO CONTINUE OR TYPE 'EXIT' TO END INSTALL

User Response: Correct error and rerun INSTALL.

Severity: 0,8

HCP8386E DDR OR DDRXA MODULE DOES NOT EXIST ON SYSTEM

User Response: Correct error and rerun INSTALL.

Severity: 8

HCP8387E INSTALL EXEC MUST BE EXECUTED FROM THE 2CC DISK WHILE ACCESSED AS 'C' ACCESS 2CC AS 'C' AND RERUN INSTALL EXEC

User Response: Correct error and rerun INSTALL.

Severity: 8

HCP8388I CHECKING STATUS OF DRIVES

User Response: None.

Severity: None.

	_
HCP8395E	A {TARGET MDISKIWORK DISK} WAS NOT PROVIDED. ATTEMPT TO DEFINE TDISK FOR {TARGET DISKIMIXED DASD LOAD} FAILED.
User Respo tdisk.	nse: Define a work disk or obtain enough
Severity: 8	
HCP8396E	THE WORK DISK mdisk IS TOO SMALL. IT MUST BE AT LEAST cyl CYLINDERS
User Respo	nse: Correct error and rerun INSTALL.
Severity: 8	
HCP8397E	THE WORK DISK IS OF THE WRONG DEVICE TYPE. IT MUST BE <i>devtype</i>
User Respo	nse: Correct error and rerun INSTALL.
Severity: 8	
HCP8399E	COPYFILE FROM THE WORK DISK TO vaddr FAILED WITH RC=rc
User Respo	nse: Correct error and rerun INSTALL.
Severity: 8	
HCP8401E	INSTALL EXEC MUST BE RUN ON A FULL SCREEN TERMINAL WITH AT LEAST 22 LINES
User Respo	nse: Correct error and rerun INSTALL.
Severity: 8	
HCP8406E	SYNTAX ERROR IN PRODUCT LAYOUT FILE REASON FOR FAILURE - mdisk DOES NOT EXIST IN TAPE LAYOUT SECTION
User Respo	nse: Recover the PRODUCT LAYOUT file

User Response: Recover the PRODUCT LAYOUT file (see "Appendix H. Recovering a File or Minidisk" on page 185) and rerun INSTALL.

Severity: 8

HCP8420R TAPE addr IS NOT READY. PLEASE READY THE DRIVE THEN PRESS ENTER TO CONTINUE OR TYPE 'EXIT' TO END INSTALL

User Response: Ready the indicated drive, then press enter to continue. If you wish to exit at this time, enter 'exit'.

Severity: 0,8

HCP8428I TOTAL PERCENT LOADED -> percent

User Response: None.

Severity: None.

HCP8429E INVALID SYNTAX. OPTIONS {MUST FOLLOW A '(' | MAY NOT FOLLOW A ')'}

User Response: Correct error and rerun INSTALL.

Severity: 8

HCP8431E THE mdisk DISK MUST BE IN R/W MODE

User Response: Correct error and rerun INSTALL.

Severity: 8

HCP8433I INSTALL PROCESSING CONTINUES
[text]

User Response: None.

Severity: None.

HCP8434I comp HAS BEEN SUCCESSFULLY LOADED

User Response: None.

Severity: 0

HCP8435E 2CC DISK IS FULL.

User Response: Correct error and rerun INSTALL.

Severity: 8

HCP8437E TOO MANY ARGUMENTS: arg

User Response: Correct error and rerun INSTALL.

Severity: 8

HCP8438E TOO FEW ARGUMENTS: arg

User Response: Correct error and rerun INSTALL.

Severity: 8

HCP8439E mdisk IS NOT ON THE DDR TAPE

User Response: You tried to recover a minidisk which is not on the z/VM System DDR tape. Correct error and rerun INSTALL.

Severity: 8

HCP8441I mdisk HAS BEEN RESTORED TO MINIDISK mdisk

User Response: None.

Severity: 0

HCP8442E YOU CANNOT RESTORE THE 2CC DIRECTLY TO THE 2CC DISK

User Response: Restore the 2CC files to a temporary disk and copy the files you need to your 2CC minidisk.

Severity: None.

HCP8464A WARNING: YOU HAVE SPECIFIED THE SAME DISK FOR RECOVERY AS YOUR TARGET. THIS WILL OVERLAY ANY CHANGES THAT MAY HAVE BEEN MADE TO THE DISK. DO YOU REALLY WANT TO CONTINUE? ENTER (Y)ES OR (N)O:

User Response: Enter "Yes" or "No".

Severity: None.

INSTDEF EXEC

►►—INSTDEF-

Purpose

The INSTDEF EXEC allows you to move selected items to SFS, select the system default language, move Shell and Utilities into BFS, and complete installation cleanup.

Messages and Return Codes

HCP8300E FILE datafile NOT FOUND HCP8338I **NOW EXECUTING** function User Response: None. User Response: None. Severity: 28 Severity: 0 HCP8306E HELPFILE fn MUST CONTAIN AT HCP8339I **BYPASSING FUNCTION** function **DUE LEAST 5 LINES TO** condition **User Response:** A INSTDEF function requested by User Response: None. the user is being bypassed due to the condition Severity: 101 specified in the message. Processing continues. Severity: 99, 0 HCP8307E HELPFILE fn MUST NOT CONTAIN MORE THAN 100.003 LINES HCP8340E THE INSTDEF FUNCTION function HAS User Response: None. FAILED WITH RETURN CODE rc. PLEASE CORRECT THE PROBLEM Severity: 102 AND RERUN INSTDEF. ERRORS HAVE **BEEN LOGGED IN INSTDEF \$MSGLOG** HCP8308E HELPFILE fn MUST HAVE A LRECL OF **ON THE 2CC DISK** 80 User Response: A INSTDEF function requested by User Response: None. the user failed with the return code specified in the message. Previous messages describe the error in Severity: 103 greater detail. Correct the error and rerun INSTDEF. Severity: 100 HCP8309E HELPFILE fn DOES NOT CONTAIN A **HELP FILE HEADER** HCP83411 {INSTDEF FUNCTION function ITHE User Response: None. COMMAND command} COMPLETED Severity: 104 SUCCESSFULLY User Response: None. **HCP8310E** LINE *x* OF HELPFILE *fn* IS NOT BLANK Severity: 0 User Response: None. Severity: 105, 106 HCP8342E THE COMMAND command FAILED WITH RC=rc HCP8312E ERROR DISPLAYING HELPFILE fn User Response: A command issued by INSTDEF failed with the return code specified in the message. User Response: None. Check the command return codes to determine the Severity: None. cause of the error.

Severity: 8, 100

INSTDEF

HCP8352E INVALID OPTION(S): *options(s)*

User Response: Correct error and rerun INSTDEF.

Severity: 100

HCP8353W UNDEFINED PFKEY

User Response: Enter correct input.

Severity: None.

HCP8355I THE SPOOLID FOR THE {CMSIGCS} NUCLEUS \$\$\$TLL\$\$ FILE IS: spoolid

User Response: None.

Severity: None.

HCP8357W THE COMMAND cmd {FAILEDICOMPLETED} WITH RC= rc. PROCESSING CONTINUES

User Response: None.

Severity: None.

HCP8359W INVALID LANGUAGE ID string ENTERED

User Response: Enter correct input.

Severity: None.

HCP8376E INSTDEF EXEC ENDED IN ERROR

User Response: Previous messages describe the error in detail. Correct the error and rerun INSTDEF.

Severity: 100

HCP8392I INSTDEF EXEC ENDED SUCCESSFULLY

User Response: None.

Severity: None.

HCP8401E INSTDEF EXEC MUST BE RUN ON A FULL SCREEN TERMINAL WITH AT LEAST 20 LINES

User Response: Correct the error and rerun INSTDEF.

Severity: 100

HCP8411I COULD NOT WRITE TO log_file BECAUSE YOUR 'C' DISK IS FULL. MESSAGE LOGGING HAS BEEN SUSPENDED.

User Response: Correct the disk full condition and rerun INSTDEF, if necessary.

Severity: 8

HCP8415W CMS TAILORING COMPLETED, {INSTALL IDILANGUAGE IDIVERSION ID} CAN NO LONGER BE CHANGED

User Response: Proceed without changing this field.

Severity: None.

HCP8416W MOVE2SFS COMPLETED, {RECLAIM OPTIONISFS CHOICES} CAN NO LONGER BE CHANGED

User Response: Proceed without changing this field.

Severity: None.

HCP8417W THE FILEPOOL ITEM WAS NOT LOADED, THEREFORE ITEMS CANNOT BE MOVED TO SFS.

User Response: None.

Severity: None.

HCP8444E THE 51D DISK MUST BE ACCESSED AS D IN R/W MODE

User Response: Correct the error and rerun INSTDEF.

Severity: 100

HCP8469W INVALID STATUS status ENTERED FOR ITEM item — STATUS MUST BE "N" or "S"

User Response: None.

Severity: None.

HCP8475I ITEMS SELECTED TO BE LOADED ARE: *items* DASD TYPE SELECTED IS: *dasdtype* PACKS NEEDED TO LOAD THESE ARE: *packlabels*

User Response: None.

Severity: None.

HCP8498W YOUR 2CC DISK IS TOO FULL TO HOLD AN INSTDEF MESSAGE LOG. MESSAGES WILL BE DISPLAYED TO THE CONSOLE.

User Response: None.

Severity: None.

INSTDIR EXEC

►►—INSTDIR-

Purpose

Severity: None.

Use INSTDIR to dynamically create a user directory for your installation using the items selected to be loaded.

Messages and Return Codes

HCP8300E FILE datafile NOT FOUND HCP8312E ERROR DISPLAYING HELPFILE fn. User Response: Correct error and rerun INSTDIR User Response: None. Severity: 28 Severity: None. HCP8303I {STARTING | ENDING} EXTENT MUST HCP8342E THE COMMAND command FAILED **BE NUMERIC** WITH RC=rc User Response: Correct error and rerun INSTDIR User Response: Correct error and rerun INSTDIR Severity: None. Severity: 100 HCP8306E HELPFILE fn MUST CONTAIN AT HCP8349W INVALID ENTRY, PLEASE REENTER **LEAST 5 LINES** User Response: Enter correct data User Response: None. Severity: None. Severity: None. HCP8353W UNDEFINED PFKEY HCP8307E HELPFILE fn CANNOT CONTAIN MORE User Response: Enter the correct input **THAN 100,003 LINES** Severity: None User Response: None. Severity: None. HCP8376E INSTDIR EXEC ENDED IN ERROR User Response: Correct error and rerun INSTDIR HCP8308E HELPFILE fn MUST HAVE A LRECL OF 80 Severity: 100 User Response: None. HCP8392I INSTDIR EXEC ENDED SUCCESFULLY Severity: None. User Response: None HELPFILE fn DOES NOT CONTAIN A HCP8309E Severity: 0 **HELP FILE HEADER** User Response: None. HCP8401E INSTDIR EXEC MUST BE RUN ON A FULL SCREEN TERMINAL WITH AT Severity: None. **LEAST 20 LINES** User Response: Correct error and rerun INSTDIR HCP8310E LINE {2 | 4} OF HELPFILE fn IS NOT **BLANK** Severity: 100 User Response: None.

HCP8472I YOU MUST INPUT ALL fields BEFORE PRESSING PF5 TO PROCESS

User Response: Fill in all the fields specified

Severity: None

HCP8473E DISK 2CC NOT ATTACHED

User Response: Access 2CC disk and rerun INSTDIR

Severity: 100

HCP8474E DASDTYPE OF *insttype* FOUND IN \$INST\$ \$FILE\$ DOES NOT MATCH THE DASDTYPE OF THE 2CC DISK WHICH IS actual_dasdtype

User Response: Correct error and rerun INSTDIR

Severity: 100

HCP8476E YOU CANNOT LOAD BOTH THE FILEPOOL AND THE SMALL FILEPOOL ITEMS.

User Response: Select either the FILEPOOL or SMALL FILEPOOL item.

Severity: 100

HCP8484R YOU HAVE SELECT TO CUSTOMIZE PLACE OF ITEMS. ENTER A IF YOU WOULD LIKE AUTOMATIC PLACEMENT OF ITEMS ENTER U IF YOU WOULD LIKE USER DEFINED PLACEMENT OF ITEMS ENTER Q TO QUIT

User Response: Enter "A", "U", or "Q"

Severity: None

HCP8485I INVALID DASD TYPE ENTERED. VALID TYPES ARE 3380 and 3390

User Response: Correct the entry

Severity: None

HCP8486I STARTING EXTENT MUST BE SMALLER THAN THE ENDING EXTENT

User Response: Correct the entry

Severity: None

HCP8487I FREE EXTENTS ON PACK respack START AT type restart

User Response: Correct the entry

Severity: None

HCP8488I THIS IS THE FIRST PANEL

User Response: You cannot go backwards from the first page of extents

Severity: None

HCP8489I type starting/ending EXTENT MUST BE LESS THAN 5 CHARACTERS.

User Response: Correct the entry

Severity: None

HCP84911 MINIMUM OF size type ARE NEEDED FOR ITEM item

User Response: Correct entry

Severity: None

HCP8492W NOT ENOUGH DISK SPACE DEFINED TO LOAD THE SELECTED ITEMS.

User Response: Correct the entry

Severity: None

HCP8497W FIRST DEFINED EXTENT MUST BE LARGE ENOUGH TO LOAD THE FILEPOOL

User Response: Because the entire filepool must be loaded to the same DASD type, it is loaded into the first extent specified. You must ensure this first extent is large enough.

Severity: None

▶◀

INSTIIS EXEC

►►—INSTIIS—

Purpose

Use INSTIIS to format and label your installation DASD and to restore the IIS.

Messages and Return Codes

HCP8300E	FILE datafile NOT FOUND	HCP8342E	THE	COMMAND command FAILED	
User Response: Correct error and rerun INSTIIS		WITH RC=rc			
Severity: 28		User Respo	onse:	Correct error and rerun INSTIIS	
		Severity: 1	00		
HCP8306E	HELPFILE fn MUST CONTAIN AT LEAST 5 LINES	HCP8349W	INVA	LID ENTRY, PLEASE REENTER	
User Respor	nse: None.	User Respo	onse:	Enter correct input	
Severity: No	one.	Severity: N	None.		
HCP8307E	HELPFILE In CANNOT CONTAIN MORE	HCP8353W	UND	EFINED PFKEY	
	THAN 100,003 LINES	User Respo	onse:	Enter correct input	
User Respor	nse: None.	Severity: None.			
Severity: N	one.				
		HCP8376E	INST	TIIS EXEC ENDED IN ERROR	
HCP8308E	80	User Respo	onse:	Correct error and rerun INSTIIS	
User Respor	nse: None.	Severity: 1	00		
Severity: No	one.	HCP8377R	YOU	HAVE SELECTED TO FORMAT	
HCP8309E	HELPFILE fn DOES NOT CONTAIN A		pack	names	
	HELP FILE HEADER		ALL	DATA ON THESE PACKS WILL BE	
User Respor	nse: None.		DO	I. YOU WANT TO CONTINUE ? (Y/N)	
Severity: N	one.	User Respo	onse:	Input Response	
HCP8310E	LINE {2 4} OF HELPFILE fn IS NOT BLANK	Severity: N	None.		
llser Respor	se: None	HCP8378R	TAP	E tdrvaddr IS NOT READY. PLEASE	
Severity: No	one.		REA ENT TO E	DY THE DRIVE, THEN PRESS ER TO CONTINUE OR TYPE EXIT END INSTIIS	
HCP8312E	ERROR DISPLAYING HELPFILE fn	User Respo type "exit"	onse:	Ready the drive and press Enter or	
User Respor	nse: None.	Severity:	lone		
Severity: No	one.	Sevency. 1	10 110.		

INSTIIS

HCP8380I Restoring IIS to 420RES

User Response: None.

Severity: None.

HCP8381I CHECKING TAPE VOLUME NUMBER FOR DRIVE addr

User Response: None.

Severity: None.

HCP8383R WRONG TAPE MOUNTED ON DRIVE tdrvaddr. PLEASE MOUNT VOLUME volume ON DRIVE tdrvaddr THEN PRESS ENTER TO CONTINUE OR TYPE 'EXIT' TO END INSTIIS

User Response: Mount correct tape and press Enter or type "exit"

Severity: None.

HCP8392I INSTIIS EXEC ENDED SUCCESSFULLY

User Response: None.

Severity: None.

HCP8401E INSTIIS EXEC MUST BE RUN ON A FULL SCREEN TERMINAL WITH AT LEAST 20 LINES

User Response: Correct error and rerun INSTIIS

Severity: 100

HCP8472I YOU MUST action BEFORE PRESSING PF5 TO PROCESS

User Response: Enter correct input

Severity: None.

HCP8473E DASD/TAPE DRIVE disk/drive NOT ATTACHED

User Response: Correct error and rerun INSTIIS

Severity: 100

HCP84811 EXITING INSTIIS AT USER REQUEST

User Response: None.

Severity: 99

HCP8482E THE FIRST PACK LABEL IS label. IT MUST BE A RES PACK.

User Response: Correct error and rerun INSTIIS

Severity: 100

HCP8483R YOU HAVE SELECTED NOT TO FORMAT YOUR DASD. THIS ASSUMES YOU HAVE DONE THIS PRIOR TO ENTERING THIS EXEC. ANY PROCESSING WHICH FOLLOWS THIS PROMPT COULD RESULT IN ERRORS IF YOU HAVE NOT MANUALLY FORMATTED AND LABELED YOUR DASD. DO YOU WANT TO CONTINUE ? (Y/N)

User Response: Input Response

Severity: None.

HCP8490I NOW FORMATTING PACK packaddr

User Response: None.

Severity: None.

IIS to 420RES

INSTPLAN EXEC

►►INSTPLANFULLFUNC	▶◀

Purpose

Use INSTPLAN to select items to load and the DASD type on which to install.

Operands

FULLFUNC

displays the z/VM INSTALLATION PLANNING panel, which lists the items to load and the DASD type on which to install. You cannot use this operand if you are using the Express installation method.

PREDEF

requests the DASD model and language to be used for installation. You must use this operand if you are using the Express installation method.

Messages and Return Codes

HCP8300E FILE datafile NOT FOUND

User Response: Correct error and rerun INSTPLAN

Severity: 28

HCP8306E HELPFILE fn MUST CONTAIN AT LEAST 5 LINES

User Response: None.

Severity: None.

HCP8307E HELPFILE *fn* CANNOT CONTAIN MORE THAN 100,003 LINES

User Response: None.

Severity: None.

HCP8308E HELPFILE *fn* MUST HAVE A LRECL OF 80

User Response: None.

Severity: None.

HCP8309E HELPFILE *fn* DOES NOT CONTAIN A HELP FILE HEADER

User Response: None.

Severity: None.

BLANK User Response: None. Severity: None. HCP8312E ERROR DISPLAYING HELPFILE fn. User Response: None. Severity: None.

LINE {2 | 4} OF HELPFILE fn IS NOT

HCP8319E YOU MUST SPECIFY AN OPERAND ON THE INSTPLAN COMMAND

User Response: Correct error and rerun INTPLAN.

Severity: 100

HCP8310E

HCP8322R ENTER MODEL OF *dtype* YOU ARE INSTALLING ON. VALID ENTRIES ARE SINGLE, DOUBLE, OR TRIPLE. PRESS ENTER TO EXIT

User Response: None.

Severity: 0

INSTPLAN

HCP8323R PLEASE ENTER THE DEFAULT SYSTEM LANGUAGE. VALID ENTRIES ARE AMENG, UCENG, KANJI, OR GERMAN. PRESS ENTER TO EXIT.

User Response: None.

Severity: 0

HCP8342E THE COMMAND command FAILED WITH RC=rc

User Response: Correct error and rerun INSTPLAN Severity: 100

HCP8349W INVALID ENTRY, PLEASE RE-ENTER

User Response: Correct error and rerun INSTPLAN.

Severity: 0

HCP8352E INVALID OPERAND operand SPECIFIED ON THE INSTPLAN COMMAND

User Response: Correct error and rerun INSTPLAN.

Severity: 0

HCP8353W UNDEFINED PFKEY

User Response: Enter correct input

Severity: None.

HCP8376E INSTPLAN EXEC ENDED IN ERROR

User Response: Correct error and rerun INSTPLAN

Severity: 100

HCP8391I INSTPLAN EXEC ENDED SUCCESSFULLY

User Response: None.

Severity: 0

HCP8401E INSTPLAN EXEC MUST BE RUN ON A FULL SCREEN TERMINAL [WITH AT LEAST 20 LINES | WITH AT LEAST 80 COLUMNS]

User Response: Correct error and rerun INSTPLAN Severity: 100

HCP8431E THE mdisk DISK MUST BE IN R/W MODE.

User Response: Correct error and rerun INSTPLAN.

Severity: 0

HCP8468W BASE CODE MUST BE LOADED

User Response: Enter correct input

Severity: None.

HCP8469W INVALID STATUS status ENTERED FOR ITEM item

User Response: Enter correct input

Severity: None.

HCP8471W ONLY ONE TYPE OF DASD MAY BE SELECTED

User Response: Enter correct input

Severity: None.

HCP8472I YOU MUST SELECT A DASD TYPE BEFORE PRESSING PF5 TO PROCESS

User Response: Enter correct input

Severity: None.

HCP8475I THE ITEMS YOU SELECTED TO BE LOADED ARE: items THE ITEMS YOU SELECTED NOT TO BE LOADED ARE: items THE DASD TYPE YOU SELECTED TO LOAD ON IS: dasdtype THE PACKS NEEDED TO LOAD THESE ITEMS ARE: packnames

User Response: None.

Severity: None.

HCP8476E You cannot select both the FILEPOOL and the SMALL FILEPOOL items

User Response: Enter correct input

Severity: None.
INSTPOOL EXEC

►►—INSTPOOL-

Purpose

Use INSTPOOL to start the file pool servers during installation procedures.

Messages and Return Codes

HCP8324E ERROR OCCURED DURING BUILD OF FILEPOOL filepool

User Response: Correct error and rerun INSTPOOL

Severity: 100

HCP8342E THE COMMAND cmd FAILED WITH RC=rc

User Response: Correct error and rerun INSTPOOL

Severity: 100

HCP8376I INSTPOOL EXEC ENDED IN ERROR

User Response: Correct error and rerun INSTPOOL

Severity: 100

HCP8392I INSTPOOL EXEC ENDED SUCCESSFULLY

User Response: None

Severity: 0

HCP8494I SHARED FILE NOT LOADED

User Response: Shared file not loaded. Exec not needed.

Severity: 0

HCP8495E SERVER server NOT RESPONDING

User Response: Correct error and rerun INSTPOOL

Severity: 100

HCP8496E SERVER server DID NOT RETURN A READER FILE

User Response: Correct error and rerun INSTPOOL

INSTVM EXEC

▶ — INSTVM	►◀

Purpose

Use INSTVM to load items from the z/VM System DDR. You can load the items from tape or CD-ROM.

Operands

CD

Loads the components from the CD-ROM. Otherwise, the components are loaded from the tape.

Messages and Return Codes

HCP8339I BYPASSING function DUE TO PROGRAM RESTART

User Response: None.

Severity: 0

HCP8342E THE COMMAND cmd FAILED WITH RC= rc

User Response: Correct error and rerun INSTVM.

Severity: 100

HCP8376E INSTVM EXEC ENDED IN ERROR

User Response: Correct error and rerun INSTVM.

Severity: 0

HCP8392I INSTVM EXEC ENDED SUCCESSFULLY

User Response: None.

▶◀

LATELOAD EXEC

►►—LATELOAD—

Purpose

Use LATELOAD to update the user directory for your installation using the items selected to be loaded.

Messages and Return Codes

HCP8300E FILE datafile NOT FOUND	HCP8342E THE COMMAND command FAILED
User Response: Correct error and rerun LATELOAD	WITH RC=rc
Severity: 28	User Response: Correct error and rerun LATELOAD
	Severity: 100
HCP8306E HELPFILE <i>fn</i> MUST CONTAIN AT LEAST 5 LINES	HCP8353W UNDEFINED PFKEY
User Response: None.	User Response: Enter the correct input
Severity: None.	Severity: None
HCP8307E HELPFILE <i>fn</i> CANNOT CONTAIN MORE	HCP8376E LATELOAD EXEC ENDED IN ERROR
THAN 100,003 LINES	User Response: Correct error and rerun LATELOAD
User Response: None.	Severity: 100
Severity: None.	
	HCP8392I LATELOAD EXEC ENDED
80	
User Response: None.	User Response: None
Severity: None.	Severity: 0
HCP8309E HELPFILE <i>fn</i> DOES NOT CONTAIN A HELP FILE HEADER	FULL SCREEN TERMINAL WITH AT LEAST 20 LINES
User Response: None.	User Response: Correct error and rerun LATELOAD
Severity: None.	Severity: 100
HCP8310E LINE {2 4} OF HELPFILE fn IS NOT BLANK	HCP8472I YOU MUST INPUT ALL fields BEFORE PRESSING PF5 TO PROCESS
User Response: None.	User Response: Fill in all the fields specified
Severity: None.	Severity: None
HCP8312E ERROR DISPLAYING HELPFILE fn.	HCP8473E DISK 2CC NOT ATTACHED
User Response: None.	User Response: Access 2CC disk and rerun LATELOAD
Severity: None.	Severity: 100

LATELOAD

HCP8476E YOU CANNOT LOAD BOTH THE FILEPOOL AND THE SMALL FILEPOOL ITEMS.

User Response: Select either the FILEPOOL **or** SMALL FILEPOOL item.

Severity: 100

HCP8485I INVALID DASD TYPE ENTERED. VALID TYPES ARE 3380 and 3390

User Response: Correct the entry

Severity: None

HCP8486I STARTING EXTENT MUST BE SMALLER THAN THE ENDING EXTENT

User Response: Correct the entry

Severity: None

HCP8487I FREE EXTENTS ON PACK respack START AT type restart

User Response: Correct the entry

Severity: None

HCP8489I type starting/ending EXTENT MUST BE LESS THAN 5 CHARACTERS.

User Response: Correct the entry

Severity: None

MIGR51D EXEC

►►—MIGR51D-

Purpose

Use MIGR51D to update the System Software Inventory files of z/VM Version 4 Release 2.0 from the inventory files of your previous VM release. MIGR51D displays panels that allow you to select which products and segments to migrate and not to migrate.

Messages and Return Codes

HCP8300E FILE datafile NOT FOUND HCP8342E THE COMMAND cmd FAILED WITH RC=rc. User Response: Correct error and rerun MIGR51D. User Response: Correct the error and rerun Severity: 28 MIGR51D. Severity: 99 or 100 (If you received RC=99, an error HELPFILE fn MUST CONTAIN AT HCP8306E occurred, but the new, current 51D disk has been **LEAST 5 LINES** restored to its original condition.) User Response: None. HCP8353W UNDEFINED PFKEY Severity: None. User Response: Enter correct input. HCP8307E HELPFILE fn CANNOT CONTAIN MORE Severity: None. **THAN 100,003 LINES** User Response: None. HCP8385W **CANNOT MIGRATE SEGMENT** name. SEGMENT NAME MUST BE CHANGED Severity: None. User Response: Enter correct input. HCP8308E HELPFILE fn MUST HAVE A LRECL OF Severity: None. 80 User Response: None. HCP8401E **MIGR51D EXEC MUST BE RUN ON A** FULL SCREEN TERMINAL [WITH AT Severity: None. LEAST 22 LINES | WITH AT LEAST 80 COLUMNS] HCP8309E HELPFILE fn DOES NOT CONTAIN A **HELP FILE HEADER** User Response: Correct error and rerun MIGR51D. Severity: 99 (An error occurred, but the new, current User Response: None. 51D disk has been restored to its original condition.) Severity: None. HCP8423W CANNOT MIGRATE SEGMENT name. HCP8310E LINE x OF HELPFILE fn IS NOT BLANK SEGMENT NAME IS ALREADY IN USE. User Response: None. User Response: Enter correct input. Severity: None. Severity: None. HCP8312E ERROR DISPLAYING HELPFILE fn. HCP8427W SEGMENT NAME name ENTERED FOR SEGMENT name IS ALREADY IN USE. User Response: None. User Response: Enter correct input. Severity: None.

Severity: None.

MIGR51D

HCP8444E THE 51D DISK MUST BE ACCESSED AS D IN R/W MODE

User Response: Correct the error and rerun MIGR51D.

Severity: 8

HCP8469W INVALID [STATUS status | SYSTEMNAME name | OPTION option] ENTERED FOR [ITEM item | PRODID segment]

User Response: Enter correct input.

Severity: None.

HCP8477E A temporary MIGR51D file has been found on the previous release's Software Inventory Disk (51D). This disk must be restored prior to restarting MIGR51D.

User Response: A previous run of MIGR51D ended abnormally. Using your backups, restore the previous releases's 51D disk to its original condition and rerun MIGR51D.

Severity: 8

HCP8478R Please enter filemode letter of the Software Inventory Disk (51D) from the previous release. Press enter to exit.

User Response: Enter the file mode or press the Enter key.

Severity: 0

HCP8479E Invalid filemode entered: fmode

User Response: Enter the correct file mode.

Severity: 99 (An error occurred, but the new, current 51D disk has been restored to its original condition.)

HCP8480E Previous release's Software Inventory Disk (51D) did not pass validity check. Please correct and reissue MIGR51D.

User Response: Correct error and rerun MIGR51D.

Severity: 99 (An error occurred, but the new, current 51D disk has been restored to its original condition.)

HCP8499E The *fn ft fm* table contains the following duplicate key entries: *data*

User Response: Correct the table and rerun MIGR51D.

MOVE2SFS EXEC



Purpose

The MOVE2SFS EXEC moves data from minidisks to the Shared File System servers (SFS) and then reclaims the unused minidisk space. MOVE2SFS creates the subdirectories on the VMSYS file pool that each component needs and then copies the data from the minidisks to the correct subdirectories. The System-Level Software Inventory tables VM SYSRECS and VM SYSAPPS are updated.

Operands

GCS

If GCS is chosen, then the data for GCS will be copied from minidisks to SFS.

TSAF

If TSAF is chosen, then the data for TSAF will be copied from minidisks to SFS.

AVS

If AVS is chosen, then the data for AVS will be copied from minidisks to SFS.

LE370

If LE370 is chosen, then the data for LE370 will be copied from minidisks to SFS.

OSA

If OSA is chosen, then the data for OSA will be copied from minidisks to SFS.

RSCS

If RSCS is chosen, then the data for RSCS will be copied from minidisks to SFS.

TCPIP

If TCPIP is chosen, then the data for TCPIP will be copied from minidisks to SFS.

TSM

If TSM is chosen, then the data for TSM will be copied from minidisks to SFS.

ICKDSF

If ICKDSF is chosen, then the data for ICKDSF will be copied from minidisks to SFS.

RTM

If RTM is chosen, then the data for RTM will be copied from minidisks to SFS.

MOVE2SFS

PRF

If PRF is chosen, then the data for VMPRF will be copied from minidisks to SFS.

DIRM

If DIRM is chosen, then the data for DirMaint will be copied from minidisks to SFS.

Options

RECLAIM

reclaims minidisks of moved items by commenting out their entries in the directory specified, bringing the directory online, and detaching the minidisks.

userdir

is the file name of the directory file. USER is the DEFAULT.

Usage Notes

- 1. The 2CC minidisk must be accessed in R/W mode.
- The Software Inventory minidisk (usually 51D) must be accessed as the file mode defined in VMFINS DEFAULT and it must be accessed in R/W mode. By default, the Software Inventory minidisk is 51D and is accessed as D.
- 3. The 193 minidisk must be accessed.
- 4. The VMSYS file pool must be active.
- 5. If you want to reclaim minidisks for either TSAF or AVS, you must move both TSAF and AVS because they share minidisks.

Messages and Return Codes

HCP8300E FILE datafile NOT FOUND

User Response: Correct error and rerun MOVE2SFS.

Severity: 28

HCP8342E THE COMMAND command FAILED WITH RC=rc

User Response: Check the command return codes to determine the cause of the error.

Severity: 8

HCP8352E INVALID {OPERAND operandIOPTION option} SPECIFIED ON THE MOVE2SFS COMMAND. PLEASE CORRECT AND REENTER

User Response: Correct error and rerun MOVE2SFS.

Severity: 8

HCP8366E MINIDISK ERROR(S) FOR component

User Response: Correct error and rerun MOVE2SFS.

Severity: 8

HCP8367E THE FOLLOWING MINIDISKS DO NOT EXIST: mdisk mdisk ...

User Response: Correct error and rerun MOVE2SFS. Severity: 8

HCP8376I MOVE2SFS EXEC ENDED IN ERROR

User Response: Correct error and rerun MOVE2SFS. Severity: 8, 28

HCP8392I MOVE2SFS EXEC ENDED SUCCESSFULLY.

User Response: None.

Severity: 0

HCP8399E COPYFILE FROM THE MINIDISK mdisk TO subdirectory_name FAILED WITH RC=rc

User Response: Correct error and rerun MOVE2SFS.

HCP8411E COULD NOT WRITE TO file BECAUSE YOUR '2CC' DISK IS FULL

User Response: Correct error and rerun MOVE2SFS.

Severity: 8

HCP8422E ATTEMPT TO QUERY DISK FAILED WITH RC=rc

User Response: Correct error and rerun MOVE2SFS.

Severity: 8

HCP8431E THE mdisk DISK MUST BE IN R/W MODE.

User Response: Correct error and rerun MOVE2SFS.

Severity: 8

HCP8437E TOO MANY {OPERANDS: operands|OPTIONS: options}

User Response: Correct error and rerun MOVE2SFS.

Severity: 8

HCP8444E THE 51D DISK MUST BE ACCESSED AS D AND IN R/W MODE

User Response: Correct error and rerun MOVE2SFS.

Severity: 8

HCP8445E THE {FILEPOOLIDIRECTORY} filepool_name IS NOT AVAILABLE

User Response: Start up the VMSERVS file pool and rerun MOVE2SFS.

Severity: 8

HCP8446I THE FOLLOWING COMPONENT(S) WERE ALREADY MOVED TO SFS: component component ...

User Response: None.

Severity: None.

HCP8448E THE FOLLOWING COMPONENTS HAVE NOT BEEN LOADED FROM THE SYSTEM DDR: component component ...

User Response: Check that the INSTALL EXEC was run and the components you are moving to SFS were loaded prior to running MOVE2SFS.

Severity: 8

HCP8449E THE SUBDIRECTORY subdirectory_name COULD NOT BE CREATED

User Response: Correct error and rerun MOVE2SFS.

Severity: 8

HCP8450E ACCESS OF {mdisklsubdirectory_name} AT FILEMODE filemode FAILED WITH RC=rc

User Response: Correct error and rerun MOVE2SFS.

Severity: 8

HCP8451W VMFERASE FAILED ON SUBDIRECTORY: subdirectory_name WITH RC=rc

User Response: Issue the following commands to update the subdirectory:

- 1. ACCESS subdirectory-name fm
- If the warning occurred when processing AVS, enter: VMFERASE PROD 4VMVMD20%AVS FROM fm
- If the warning when processing TSAF, enter: VMFERASE PROD 4VMVMH20%TSAF FROM fm

Severity: 4

HCP8452W VM SYSRECS TABLE WAS NOT UPDATED FOR THE FOLLOWING COMPONENT: component

User Response: Issue the following command to update the VM SYSRECS table:

PIPE < VM SYSRECS D|CHANGE /ZVM component/ZVM componentSFS/| > VM SYSRECS D

Severity: 4

HCP8453I MOVE OF component COMPONENT TO SFS COMPLETED SUCCESSFULLY

User Response: None.

Severity: 0

HCP8454E THERE ARE NOT ENOUGH FREE FILEMODES AVAILABLE. TWO ARE REQUIRED

User Response: Correct error and rerun MOVE2SFS.

MOVE2SFS

HCP8455W MOVE2SFS EXEC COMPLETED WITH WARNINGS.

User Response: Check the warning messages for each component.

Severity: 4

HCP8456I PROCESSING COMPONENT component

User Response: None.

Severity: None.

HCP8457W VM SYSRECS TABLE WAS ALREADY UPDATED FOR component

User Response: None.

Severity: 4

HCP8458W component IS NOT IN THE VM SYSRECS TABLE

User Response: Check that the components you are moving to SFS were loaded from the System DDR (with the INSTALL EXEC) and that the POSTDDR EXEC was run prior to running MOVE2SFS.

Severity: 4

HCP8459W MOVE OF component COMPONENT COMPLETED TO SFS WITH WARNINGS

User Response: Check the warning messages for the component listed.

Severity: 4

HCP8460E WRITE TO file FAILED WITH RC=rc

User Response: Correct error and rerun MOVE2SFS.

Severity: 8

HCP8465I THE FOLLOWING MINIDISKS FOR COMPONENTS(S): complist HAVE BEEN RECLAIMED: disk disk ...

User Response: None.

Severity: 0

HCP8466I fn DIRECT HAS BEEN UPDATED TO COMMENT OUT RECLAIMED MINIDISKS FOR THE MAINT USER ID

User Response: The user specified the RECLAIM option on the MOVE2SFS command. RECLAIM comments out the reclaimed disks in the directory file, but this directory has not been activated due to some failure. The user must put the directory online manually for the changes to go into effect.

Severity: 8

HCP8467I BOTH AVS AND TSAF MUST BE MOVED TO SFS BEFORE THE DISK SPACE CAN BE RECLAIMED

User Response: None.

Severity: None.

HCP8470W DETACH OF MINIDISK mdisk FAILED WITH RC=rc

User Response: Manually detach the disk to finish reclaiming unused minidisk space. MOVE2SFS processing continues

POSTDDR EXEC

►►—POSTDDR-

Purpose

The POSTDDR EXEC creates the system-level Software Inventory tables:

VM SYSRECS VM SYSDESCT VM SYSREQT VM SYSBLDS VM SYSAPPS.

It also builds the POSTDDR PRODLIST that loads the RSU during the installation procedures.

Usage Notes

1. The POSTDDR exec is to be run only once, unless additional components are loaded using the INSTALL exec.

Messages and Return Codes

HCP8300E FILE datafile NOT FOUND

User Response: Correct error and rerun POSTDDR.

Severity: 28

HCP8342E THE COMMAND command FAILED WITH RC=rc

User Response: Check command return codes to determine the cause of the error.

Severity: 8

HCP8408E BASE COMPONENTS ARE NOT LOADED

User Response: INSTALL EXEC must be run prior to running POSTDDR.

Severity: 8

HCP8409I Generating Software Inventory files

User Response: None.

Severity: 0

HCP8410E NO DISK IS ACCESSED AS fm

User Response: Access 191 as your 'A' disk and rerun POSTDDR.

Severity: 8

HCP84111 COULD NOT WRITE TO filename filetype BECAUSE YOUR 'A' DISK IS FULL

User Response: Correct the full disk condition and rerun POSTDDR.

Severity: 8

HCP8413I [GENERATING SOFTWARE INVENTORY FILE | UPDATE OF VM SYSSUF TABLE] COMPLETED

User Response: None.

Severity: 0

HCP8418I THE SOFTWARE INVENTORY TABLES ARE ALREADY UPDATED

User Response: None.

Severity: 0

HCP8422E ATTEMPT TO QUERY DISK filemode FAILED WITH RETURN CODE rc

User Response:

POSTDDR

HCP8431E THE mdisk DISK MUST BE IN R/W MODE

User Response: Correct error and rerun POSTDDR.

POSTLOAD EXEC



Purpose

The POSTLOAD EXEC performs clean-up tasks depending on the items you have loaded.

Options

OVERRIDE

displays the following menu, which allows you to choose what postload installation tasks you want to bypass.

Attention: Bypassing tasks may result in problems.

z/VM POST Indicate entering	LOAD OVERRIDE MENU which procedure(s) you INTEND TO E a NONBLANK CHARACTER next to the f and press ENTER to process	BYPASS by function	
Allocate the System Residence Pack Format Skeleton Source Minidisk Remove Server Autolog Statements Edit the Restricted Password List (RPWLIST Cleanup USER DIRECT and add links to help d Bring the updated USER DIRECT online Create the Software Inventory Tables		IST DATA) p disks	
PF1 = HELP	PF3/PF12 = QUIT	PF5 = Process	

Messages and Return Codes

HCP8320E D	ISK label NOT BIG ENOUGH TO HOLD ame						
Jser Response: Correct error and rerun POSTLOAD.							
Severity: 100							
HCP8321E S	SL FILE fn INSTALLED ON label						
User Response: None.							
Severity: 0							
HCP8338I N	IOW EXECUTING function						
User Respons	e: None.						

Severity: 0

HCP8339I BYPASSING function DUE TO condition

User Response: A POSTLOAD function requested by the user is being bypassed due to the condition specified in the message. Processing continues.

Severity: 99, 0

HCP8340E THE POSTLOAD FUNCTION function FAILED WITH RETURN CODE rc. PLEASE CORRECT THE PROBLEM AND RERUN POSTLOAD. ERRORS HAVE BEEN LOGGED IN POSTLOAD \$MSGLOG ON THE 2CC DISK

User Response: A POSTLOAD function requested by the user failed with the return code specified in the message. Previous messages describe the error in

POSTLOAD

greater detail. Correct the error and rerun POSTLOAD.

Severity: 100

HCP8341I POSTLOAD FUNCTION function COMPLETED SUCCESSFULLY

User Response: None.

Severity: 0

HCP8342E THE COMMAND command FAILED WITH RC=rc

User Response: A command issued by POSTLOAD failed with the return code specified in the message. Check the command return codes to determine the cause of the error.

Severity: 8, 100

HCP8343E ADDRESS 80A IS NOT AUTOLOG1'S 191 DISK

User Response: The address accessed as virtual address 80A does not belong to user AUTOLOG1. Link to AUTOLOG1's 191 as 80A and rerun POSTLOAD.

Severity: 100

HCP8346I SOURCE MINIDISK mdisk FOR COMPONENT component FORMATTED SUCCESSFULLY

User Response: None.

Severity: 0

HCP8348I SOFTWARE INVENTORY FILES VM SYSRECS, VM SYSDESCT, VM SYSREQT, VM SYSBLDS, AND VM SYSAPPS HAVE BEEN CREATED

User Response: None.

Severity: 0

HCP8351E YOU MUST HAVE A R/W DISK ACCESSED AS "A" TO RUN POSTLOAD

User Response: Correct the error and rerun POSTLOAD.

Severity: 8

HCP8352E INVALID {OPERAND(S) operandIOPTION(S) option} SPECIFIED ON THE POSTLOAD COMMAND. PLEASE CORRECT AND REENTER

User Response: Correct the error and rerun POSTLOAD.

Severity: 8

HCP8353W UNDEFINED PFKEY

User Response: Enter correct input

Severity: None

HCP8354W ENTER KEY NOT SUPPORTED FROM THIS PANEL

User Response: Enter correct input

Severity: None

HCP8392I POSTLOAD EXEC ENDED SUCCESSFULLY

User Response: None.

Severity: None.

HCP8401E POSTLOAD EXEC MUST BE RUN ON A FULL SCREEN TERMINAL WITH AT LEAST 16 LINES

User Response: Correct the error and rerun POSTLOAD

Severity: 100

HCP8411I COUND NOT WRITE TO log_file BECAUSE YOUR 'E' DISK IS FULL. MESSAGE LOGGING HAS BEEN SUSPENDED.

User Response: Correct disk full condition after the command completes. Processing continues without messages written to the log.

Severity: None.

HCP8498W YOUR 2CC DISK IS TOO FULL TO HOLD A POSTLOAD MESSAGE LOG. MESSAGES WILL BE DISPLAYED TO THE CONSOLE.

User Response: Correct disk full condition after command completes. Processing continues without messages written to the log.

Severity: None.

Part 5. Appendixes

Appendix A. Moving Components to SFS Directories

This appendix describes how to move GCS, TSAF, AVS, LE/370, RSCS, OSA/SF, TCP/IP, TSM, ICKDSF, RTM, VMPRF, or DirMaint from minidisks to Shared File System directories. You can move these components after you have completed the installation of your z/VM 4.2.0 system.

Note: Once the components are moved to SFS directories, you **must** use the following components names with VMSES/E commands:

GCSSFS instead of GCS TSAFSFS instead of TSAF AVSSFS instead of AVS LE370SFS instead of LE370 RSCSSFS instead of RSCS TCPIPSFS instead of TCPIP OSASFS instead of OSA ADSMSFS instead of ADSM (for TSM) ICKDSFSFS instead of ICKDSF RTMSFS instead of RTM VMPRFSFS instead of VMPRF DIRMSFS instead of DIRM

In this appendix, you will:

- · Be logged on to the MAINT user ID on your new z/VM Version 4 Release 2.0 system
- Add MAINT links to the USER DIRECT file
- · Ensure the VMSYS file pool is active
- Invoke MOVE2SFS to:
 - Create the SFS directories
 - Access the component's minidisks
 - Copy the minidisk files to the new SFS directory
 - Reclaim minidisks no longer needed.
- ____1. Choose the components you now wish to move to SFS directories.
- ____ 2. Log on to the MAINT user ID if you are not already logged on.

ENTER

The default password for MAINT is MAINT.

logon maint

```
...
Ready; T=n.nn/n.nn hh:mm:ss
```

____ 3. IPL your System disk to release any previously accessed minidisks.

ipl 190 clear	Clear is necessary. Do not omit it.
z/VM V4.2.0 yyyy-mm-dd hh:mm	If you have changed the version heading, your own heading will appear.
ENTER	Press Enter to return to the command line.
Ready; T= <i>n.nn/n.nn hh:mm:ss</i>	

Moving Components to SFS Directories

_____ 4. Edit USER DIRECT and add links for USERID MAINT.

xedit user direct c

Uncomment the following links to the USER MAINT for each component you are moving to SFS:

GCS: None

TSAF: None

AVS: None

LE370:

LINK	P688198H	191	82A	WR
LINK	P688198H	2A2	82B	WR
LINK	P688198H	2A6	82C	WR
LINK	P688198H	2B2	82D	WR
LINK	P688198H	2C2	82E	WR
LINK	P688198H	2D2	82F	WR

RSCS:

LINK	P684096K	2B2	850	WR
LINK	P684096K	2C2	851	WR
LINK	P684096K	2D2	852	WR
LINK	P684096K	2A6	853	WR
LINK	P684096K	2A2	854	WR
LINK	P684096K	29D	855	WR
LINK	P684096K	402	858	WR
LINK	P684096K	406	859	WR
LINK	P684096K	191	85A	WR
LINK	P684096K	502	85C	WR

If you loaded RSCS Source, uncomment:

LINK P684096K 2B3 85D WR

OSA:

LINK	2VMVMV20	2B2	840	WR
LINK	2VMVMV20	2C2	841	WR
LINK	2VMVMV20	2D2	842	WR
LINK	2VMVMV20	2A6	843	WR
LINK	2VMVMV20	2A2	844	WR
LINK	2VMVMV20	100	845	WR
LINK	2VMVMV20	300	846	WR
LINK	2VMVMV20	191	848	WR
LINK	OSASF	200	849	WR
LINK	OSASF	400	84A	WR

TCPIP:

LINK	4TCPIP20	191	865	WR
LINK	4TCPIP20	2C4	866	WR
LINK	4TCPIP20	2D2	868	WR
LINK	4TCPIP20	2A6	869	WR
LINK	4TCPIP20	2A2	86A	WR
LINK	4TCPIP20	2B2	86E	WR
LINK	4TCPIP20	2B3	86F	WR

RTM:

LINK	4VMRTM10	191	890	WR
LINK	4VMRTM10	2A2	891	WR
LINK	4VMRTM10	2A6	892	WR
LINK	4VMRTM10	2B2	893	WR
LINK	4VMRTM10	2C2	894	WR
LINK	4VMRTM10	2C4	895	WR
LINK	4VMRTM10	2D2	896	WR
LINK	4VMRTM10	400	897	WR
LINK	4VMRTM10	401	898	WR
LINK	4VMRTM10	100	899	WR
LINK	4VMRTM10	CCC	89A	WR
LINK	VMRTM	191	8A9	WR

VMPRF:

LINK	4VMPRF10	191	89B	WR
LINK	4VMPRF10	2A2	89C	WR
LINK	4VMPRF10	2A6	89D	WR
LINK	4VMPRF10	2B2	89E	WR
LINK	4VMPRF10	2C2	89F	WR
LINK	4VMPRF10	2C4	8A0	WR
LINK	4VMPRF10	2D2	8A1	WR
LINK	4VMPRF10	597	8A2	WR
LINK	4VMPRF10	497	8A3	WR
LINK	4VMPRF10	1CC	8A4	WR
LINK	4VMPRF10	CCC	8A5	WR
LINK	VMPRF	191	8A6	WR
LINK	VMPRF	192	8A7	WR

DIRM:

LINK	4VMDVH10	191	8B0	WR
LINK	4VMDVH10	2A2	8B1	WR
LINK	4VMDVH10	2A6	8B2	WR
LINK	4VMDVH10	2B2	8B3	WR
LINK	4VMDVH10	2C2	8B4	WR
LINK	4VMDVH10	2C4	8B5	WR
LINK	4VMDVH10	2D2	8B6	WR
LINK	4VMDVH10	29D	8B7	WR
LINK	4VMDVH10	29E	8B8	WR
LINK	4VMDVH10	2B1	8BD	WR
LINK	4VMDVH10	502	8BE	WR

TSM:

5654A09A	191	838	WR
5654A09A	2B2	83A	WR
5654A09A	2D2	83B	WR
5654A09A	2A6	83C	WR
5654A09A	2A2	83D	WR
	5654A09A 5654A09A 5654A09A 5654A09A 5654A09A	5654A09A 191 5654A09A 2B2 5654A09A 2D2 5654A09A 2A6 5654A09A 2A2	5654A09A 191 838 5654A09A 2B2 83A 5654A09A 2D2 83B 5654A09A 2A6 83C 5654A09A 2A2 83D

ICKDSF:

LINK	P684042H	191	822	WR
LINK	P684042H	2A2	823	WR
LINK	P684042H	2A6	824	WR
LINK	P684042H	2B2	825	WR
LINK	P684042H	2C2	826	WR
LINK	P684042H	2D2	827	WR
LINK	P684042H	29D	828	WR
LINK	P684042H	29E	829	WR

____ 5. Save all changes in the USER DIRECT file.

====> file

Ready; T=n.nn/n.nn hh:mm:ss

Moving Components to SFS Directories

____ 6. Bring the directory online.

directxa user direct

Ready; T=n.nn/n.nn hh:mm:ss

_ 7. Log off of the MAINT user ID.

logoff

This is required to pick up the new or changed directory links.

CONNECT= nn:nn:nn VIRTCPU= nnn:nn.nn TOTCPU= nnn:nn.nn LOGOFF AT hh:mm:ss {EST|EDT} weekday mm/dd/yy

Press enter or clear key to continue
ENTER

____ 8. Log on to the MAINT user ID.

ENTER

The default password for MAINT is MAINT.

logon maint

:

z/VM V4.2.0 yyyy-mm-dd hh:mm

ENTER

Ready; T=n.nn/n.nn hh:mm:ss

_ 9. Verify that the VMSYS file pool is active.

query vmservs VMSERVS - DSC

If active, the system responds saying the server is running in a disconnected state. Otherwise you receive a message about VMSERVS not being logged on.

____10. If VMSERVS is not logged on, log on the user ID.

xautolog vmservs COMMAND ACCEPTED : Ready; T=n.nn/n.nn hh:mm:ss :

DMSSBB3045I Ready for operator communications

____ 11. Access the 193 minidisk as your Z disk.

access 193 z

Ready; T=n.nn/n.nn hh:mm:ss

Moving Components to SFS Directories

____12. Move data for the components selected from minidisks to the Shared File System servers (SFS).

move2sfs component (reclaim	component can be GCS, TSAF, AVS, LE370, OSA,			
HCPWMV8456I PROCESSING COMPONENT component	RSCS, TCPIP, TSM, ICKDSF, RTM, PRF, or DIRM. (See "MOVE2SFS EXEC" on page 139 for details.)			
	reclaim removes the minidisks no longer needed from the directory. (The minidisks entries are commented out in the directory.)			
HCPWMV8392I MOVE2SFS EXEC ENDED SUCCESSFULLY Ready; T=n.nn/n.nn hh:mm:ss				

____13. Edit the USER DIRECT file.

xedit user direct c

____ 14. Comment out all MAINT's LINK statements from the USER DIRECT file that were added in substep4 on page 150.

====> top	Locate the USER MAINT statement. Next locate the
====> locate /user maint/	LINK statements for minidisks starting with 801. The
====> locate /link/ & /801/	change command comments out all MAINT LINK
====> change / LINK/*LINK/:MDISK	statements up to statements beginning with MDISK.
	These statements were only used during z/VM
	Version 4 Release 2.0 installation.
	Note: This directory was shipped with all LINK
	statements coming before the MDISK statements.
	Make sure no other statements are between the

LINK statements.

____15. Save all changes in the USER DIRECT file.

====> file

Ready; T=n.nn/n.nn hh:mm:ss

____16. Use the DIRECTXA command to update and place the user directory online.

directxa user direct

z/VM USER DIRECTORY CREATION PROGRAM - V4 R2.0 EOJ DIRECTORY UPDATED AND ON LINE Ready; T=n.nn/n.nn hh:mm:ss

____17. Log off of the MAINT user ID.

logoff

This is required to pick up the new or changed directory links.

CONNECT= nn:nn:nn VIRTCPU= nnn:nn.nn TOTCPU= nnn:nn.nn LOGOFF AT hh:mm:ss {EST | EDT} weekday mm/dd/yy

Press enter or clear key to continue ENTER

You are completely done with this appendix.

Reference

Appendix B. Adding a Work Disk

If you are increasing the size of any minidisk or moving any minidisk to DASD different than the DASD type of your System DDR, you will need a work disk. This appendix helps you determine if you must create a work disk or if the T-disk space on the system can accommodate the work disk.

In this appendix, you will:

- Determine the size of the work disk needed.
- Determine if the T-disk space can accommodate the work disk.
- If the T-disk space cannot accommodate the size required, define a work disk.
- 1. Determine the disk size. Using "ITEMMD TABLE" on page 192, determine the largest disk you will be increasing in size or moving to a DASD type different than that of your z/VM System DDR. Locate that disk in the ITEMMD TABLE file and make a note of the size located under the column that matches the DASD type of the z/VM System DDR. This is the size of the work disk needed.
- ____2. Compare the work disk size to the T-disk sizes available according to the appropriate DASD in the following table:

DASD Type maxsize

3380 60 3380 cyls

3390 50 3390 cyls

- ___3. If the T-disk space cannot accommodate the size required for a work disk, continue with the next substep to define a work disk. Otherwise, refer to the What To Do Next box.
- ____4. If you do not have enough T-disk space, you must define a work disk for user ID MAINT in the USER DIRECT file.

The work disk **must** reside on the **same** DASD device type as your z/VM System DDR and be of a size equal to, or greater than, the work disk size determined in substep 1.

____a. Generate a disk map of the USER DIRECT file, then edit the USER DISKMAP file and locate a gap large enough to define the work disk.

diskmap user direct

USER is the file name of the directory to be mapped.

File USER DISKMAP A has been created.
Ready; T=n.nn/n.nn hh:mm:ss

__b. Update the USER DIRECT file and add the work disk. The INSTALL exec uses the 111 minidisk if it is available. If the 111 minidisk cannot be found, the INSTALL exec uses the 222 minidisk.

xedit user direct c ====> top

====> locate /mdisk cf1/ Locate mdisk cf1. ====> input mdisk vaddr devtype startloc size dasdlabel mr

Insert a minidisk statement for 111 or 222.

vaddr can be 111 or 222.

devtype must be the same as your DDR system tape (3380 or 3390).

startloc is the cylinder location of the minidisk.

size is the work disk size determined in substep 1 on page 155.

dasdlabel is the label of the DASD where your minidisk resides.

====> file

Ready; T=n.nn/n.nn hh:mm:ss

What To Do Next

Return to Appendix C. Post Install Load of Optional Items, Step 1. Prepare the USER DIRECT File for New Loads, substep 5 on page 159.

Appendix C. Post Install Load of Optional Items

When you go through the initial installation procedures of z/VM Version 4 Release 2.0, there are optional items you may have chosen not to install. Once your z/VM system is installed, you may choose to add the optional items to your base z/VM system. This appendix is a guide to installing the optional items.

In this appendix, you will: -

- Prepare the USER DIRECT file for the new items to be loaded
- Run the INSTALL EXEC to load the new items
- Run the necessary post installation steps.

Note: All the steps in this appendix are done while logged onto the MAINT user ID on your new z/VM Version 4 Release 2.0 system.

Step 1. Prepare the USER DIRECT File for New Loads

- ___1. Choose the items you now wish to install.
- ___2. Log on to the MAINT user ID.

ENTER

The default password for MAINT is MAINT.

logon maint

```
:
Ready; T=n.nn/n.nn hh:mm:ss
```

___ 3. Make a copy of USER DIRECT.

copyfile user direct c userback = = (olddate

Ready; T=n.nn/n.nn hh:mm:ss

____4. Run LATELOAD to update USER DIRECT.

lateload

_ TSAF/AVS _ FILEPOOL _ SMALL FILEPOOL _ CP/DV SOURCE _ CMS/REXX SOURCE _ VMSES SOURCE _ RSCS SOURCE _ OSA/SF _ TSM	Status	I t om	Status	T t om	Status	Itom
CP/DV SOURCE _ CMS/REXX SOURCE _ VMSES SOURCE RSCS SOURCE _ OSA/SF _ TSM						
	-	CP/DV SOURCE RSCS SOURCE		CMS/REXX SOURCE OSA/SF	-	VMSES SOURCE TSM

- a. On the z/VM LATE LOAD ITEM SELECTION PANEL panel, select the items you want to late load.
- b. Press **PF5** to process.

**** z ITEM	/VM LATE LO/ DASD LABEL	AD ITEM PL DASD TYPE	ACEMENT **	* EX START	TENTS END
TSAF/AVS FILEPOOL CP/DV SOURCE CMS/REXX SOURCE VMSES SOURCE RSCS SOURCE OSA/SF TSM					
PF1 = HELP F	PF3/PF12 = QI	JIT PF5	= Process	ENTER = Re	fresh

- a. On the z/VM LATE LOAD ITEM PLACEMENT panel, specify the DASD label, type, and extents where you want the items loaded.
 - 1) Refer to Table 2 on page 20 to determine the number of cyliders needed for each item you now choose to install.
 - 2) Do not use cylinder 0. It is reserved for the allocation area.
 - 3) If any of the minidisks required for the optional items you are **now** loading are being moved to a DASD type other than that of your z/VM System DDR, you may have to allocate a work minidisk. This work minidisk must be the same DASD type as your z/VM System DDR. LATELOAD will prompt you for the pack label and starting extent of the minidisk.
- b. Press PF5.

The minidisks with the END option specified in this directory will not be ed in the following ${\sf DISKMAP}$ file.

File USER DISKMAP A has been created. HCPLLD8392I LATELOAD EXEC ENDED SUCCESSFULLY Ready; T=n.nn/n.nn hh:mm:ss

- 5. Review USER DISKMAP to check for the following:
 - No overlaps exist.
 - Cylinder 0 is not used.
 - Labels are correct.
 - Correct extents are used for each label.

xedit user diskmap

If there are errors in the file, do one of the following:

• Erase USER DIRECT and go to substep 4 on page 158.

or

- Correct all errors by updating USER DIRECT and then issue the DISKMAP command. If there
 are still errors in the file, repeat this task.
- ___6. Bring this updated directory online by entering the DIRECTXA command.

directxa user direct

The DIRECTXA command brings the directory online.

Prepare the USER DIRECT File for New Loads

EOJ DIRECTORY UPDATED AND ON LINE Ready; T=n.nn/n.nn hh:mm:ss

____7. Log off of the MAINT user ID.

logoff

This is required to pick up the new or changed directory links.

CONNECT= nn:nn:nn VIRTCPU= nnn:nn.nn TOTCPU= nnn:nn.nn LOGOFF AT hh:mm:ss {EST|EDT} weekday mm/dd/yy

Press enter or clear key to continue

Step 2. Run INSTALL EXEC

- In this step you will:
- Log on to the MAINT user ID
- Run INSTALL to load the optional items you chose.

Notes:

- 1. On all panels, CP and CMS commands can be issued from the panel command line. Line end characters, for example #, cannot be used.
- 2. Running the INSTALL EXEC requires a full screen terminal with at least 20 lines.
- 3. Run INSTALL from the 2CC disk accessed as file mode 'C'.
- ___1. Log on to the MAINT user ID.

ENTER

The default password for MAINT is MAINT.

logon maint :		
z/VM V4.2.0 ENTER	yyyy-mm-dd	hh:mm

Ready; T=n.nn/n.nn hh:mm:ss

____2. Choose the addresses of your tape drives.

If you are using CD-ROMs, all optional items are on Volume 2. Otherwise, TSM is on Volume 6 and Volume 7, OSA/SF is on Volume 7, FILEPOOL is on Volume 7, TSAF/AVS is on Volume 8, and All Source is on Volume 8.

- **Note:** If you use a unique tape drive for each volume, or use a tape stacker in automatic mode, the tapes will be loaded without interruption. If you must use one tape drive for multiple volumes, you will be prompted by the INSTALL EXEC when a tape volume needs to be changed.
- ____3. Attach the tape drives by **repeating** this step for **each** tape drive needed. You can attach additional tape drives from the INSTALL panel command line.

attach tapeaddr * vtapeaddr TAPE tapeaddr ATTACHED TO MAINT vtapeaddr Ready; T=n.nn/n.nn hh:mm:ss tapeaddr is the tape drive address.

vtapeaddr is the virtual address where the tape drive will be attached. *vtapeaddr* must be attached at virtual addresses within the following ranges: 180 to 187 or 288 to 28F.

____4. Run INSTALL to display the z/VM LOAD MENU panel. If installing from CD-ROM, enter:

install cd (lateload

If installing from tape, enter:

install (lateload

The z/VM LOAD MENU panel displays after issuing the INSTALL command.

	z/VM LOAD MENU
ENTER	S' TO SELECT ('L' INDICATES ALREADY LOADED)
	L BASE TSAF, AVS FILEPOOL SMALL FILEPOOL CP, DV SOURCE CMS, REXX SOURCE WMSES/E SOURCE RSCS SOURCE OSA/SF TSM
====>	
PF1 = HELP	PF3 = QUIT PF4 = UNLOCK RELOAD PF5 = NEXT

- _ 5. The "L" in the z/VM LOAD MENU panel shows all items you loaded during installation. Change the "_" to an "S" for each item you are now loading.
- ____6. **Press PF5** to proceed to the following LOAD DEVICE MENU.

PF5

	LOAD DEV	ICE MENU		
	MEDIA SELECT	ED IS: media		
	MOUNT VOLUME 6 7 8	VADDR		
====> PF1 = HELP	PF3 = QUIT	PF5 = LOAD	PF12 = RETURN	

- ___7. Complete the LOAD DEVICE MENU panel.
 - **Note:** The INSTALL EXEC shows you on this screen which tape volumes you need to mount based on your load choices from the z/VM LOAD MENU panel. The INSTALL EXEC prompts you when a tape volume needs changing.
 - _____a. Check the **MEDIA SELECTED IS:** field. This is a required field that will contain either TAPE or CD depending on the parameter used to invoke the INSTALL exec. If the *media* specified is not correct, press **PF3** to quit and run the INSTALL exec with the correct parameter.
 - ___b. Attach additional tape drive(s), if needed, from the panel's command line.

Note: Tape drives must be attached at virtual addresses within the following ranges: 180 to 187 or 288 to 28F.

_____ c. Type in the tape drive addresses.

Each volume must have an associated tape drive. If you use one tape drive or tape stacker for multiple volumes, you must enter that tape drive address next to each volume for which it will be used.

- **Note:** If you use a unique tape drive for each volume, or use a tape stacker in automatic mode, the tapes will be loaded without interruption. If you must use one tape drive for multiple volumes, you will be prompted by the INSTALL EXEC when a tape volume needs to be changed.
- ____8. Mount the z/VM System DDR tape(s) or CD-ROM on the corresponding tape drive(s).

Note: Only mount the tape volumes listed on your screen.

___ 9. Press PF5 to load.

PF5

+

The load starts with the following system messages:

Note: You will not see the optional items messages if you chose not to load those items.

HCPWIN8388I	CHECKING STATUS OF DRIVES	
HCPWIN8381I	CHECKING TAPE VOLUME NUMBER FOR DRIV	IE vaddr
		You will receive this message for each tape drive you need to mount. The screen will clear after these messages are displayed.
HCPWIN8371I HCPWIN8371I HCPWIN8371I HCPWIN8371I HCPWIN8371I HCPWIN8371I HCPWIN8371I HCPWIN8371I	LOADING TSAF, AVS LOADING FILEPOOL LOADING CP, DV SOURCE LOADING CMS, REXX SOURCE LOADING VMSES/E SOURCE LOADING RSCS SOURCE LOADING OSA/SF LOADING TSM	
HCPWIN8428I HCPWIN8380I	TOTAL PERCENT LOADED -> nn% RESTORING MINIDISK nnn TO volid	The screen will clear for a few seconds after these messages are displayed. <i>volid</i> is the volume identifier.
Ac	lditional messages ———	-+
÷		
HCPWIN8433I HCPWIN8372A HCPWIN8381I	INSTALL PROCESSING CONTINUES PLEASE MOUNT VOLUME <i>n</i> ON TAPE DRIVE <i>vaddr</i> THEN PRESS ENTER TO CONTINUE CHECKING TAPE VOLUME NUMBER FOR DRIV	/E
:		Depending on the tape devices you are using for installation, you may receive these tape device management messages.
———En	d of Additional messages ———	+
HCPWIN8434I :	<i>item</i> HAS BEEN SUCCESSFULLY LOADED.	This message is repeated for each item loaded.
Ready; T= <i>n.n</i>	n/n.nn hh:mm:ss	

Run INSTALL EXEC

What to Do Next -

If you loaded only the following:

- CP, DV Source
- CMS, REXX Source
- VMSES/E Source

no additional steps are required. You have now completed this appendix.

Otherwise, go to "Step 3. Update System Tables" on page 165.

Step 3. Update System Tables

If you just finished loading TSAF and AVS, OSA/SF, or TSM, continue with this step. Otherwise, skip to "Step 5. Start the File Pools" on page 168.

$^-$ In this step you will: $^-$

- Update the system-level Software Inventory Tables.
- ____1. Run the POSTDDR EXEC to build POSTDDR PRODLIST and to update the following system-level Software Inventory Tables:

VM SYSRECS VM SYSDESCT

VM SYSREQT

VM SYSBLDS

VM SYSAPPS

postddr

HCPWSR8409I GENERATING SOFTWARE INVENTORY FILES HCPWSR8413I GENERATING SOFTWARE INVENTORY FILES COMPLETED HCPWSR8413I UPDATE OF VM SYSSUF TABLE COMPLETED Ready; T=n.nn/n.nn hh:mm:ss

Step 4. Load RSU for TSAF, AVS, OSA/SF, TSM

If you just loaded TSAF and AVS, OSA/SF, or TSM **and** you have received an RSU, you must load service from the RSU for these components. Otherwise, go to "Step 5. Start the File Pools" on page 168.

In this step you will:

- Load the service files for any or all of the loaded TSAF, AVS, OSA/SF, and TSM components from the Recommended Service Upgrade (RSU).
- ____1. Attach a tape drive as virtual device 181. You must use 181.

attach devno 181

TAPE *devno* ATTACHED TO MAINT AS 181 Ready; T=n.nn/n.nn hh:mm:ss

___ 2. Mount the RSU on the tape drive.

If you are installing with CD-ROM, refer to the *Optical Media Attach/2 User's Guide* and the *Optical Media Attach/2 Technical Reference*.

Note: Make sure that the tape is write-protected.

____3. Load the first tape file. This tape file contains the RSU memos.

vmfins install info (nomemo :

The **nomemo** option suppresses the screen prompt for printing the Memo-To-Users.

Ready; T=n.nn/n.nn hh:mm:ss

- _____4. View or print the RSU memos. There is one memo for each component. The MEMO is found on the 51D disk.
- ___5. Enter the VMFINS command to load the contents of the RSU.

vmfins install list postddr prodlist c (nomemo link

POSTDDR PRODLIST identifies each component to be loaded. You will see these messages for each component as it is loaded.

VMFINS2767I Reading VMFINS DEFAULTS B for additional options VMFINS2767I Reading POSTDDR PRODLIST C for list of products to process VMFREQ2805I Product : PPF ZVM compname : PRODID prodid.%compname has passed requisite checking This message is repeated for each component. Do you want to create an override for :PPF ZVM compname :PRODID prodid.%compname Enter 0 (No), 1 (Yes) or 2 (Exit) 0 Type a 0 here. IBM does not recommend changing a product parameter file (PPF) in the middle of an installation procedure. Chances of error increase as PPF changes must be duplicated in many files. See z/VM: Service Guide for an explanation of PPF overrides. A response of 1 will bring up a panel interface for changing a PPF. Typing 2 will exit the

VMFINS command completely.

Load RSU for TSAF, AVS, OSA/SF, TSM

÷ An override prompt is repeated for each component. VMFINS2604E Product :PPF ZVM TSAF :PRODID 4VMVMH20%TSAF cannot be installed because it is not on the installation media VMFINS2605R How would you like to proceed? Enter the number of your choice: (0) Bypass this product (1) Exit 0 This message indicates that the RSU does not provide service for the specified item. Enter a 0 here. The following block of messages is repeated for each component. VMFINS2603I Processing product :PPF ZVM compname :PRODID prodid%compname VMFREQ2805I Product : PPF ZVM compname :PRODID prodid%compname has passed requisite checking VMFINS2603I Installing product : PPF ZVM compname :PRODID prodid%compname VMFSET2760I VMFSETUP processing started VMFUTL2205I Minidisk Directory Assignments: ÷ VMFSET2760I VMFSETUP processing completed successfully VMFREC2760I VMFREC processing started ÷ VMFREC2760I VMFREC processing completed successfully VMFINS2760I VMFINS processing completed successfully Ready; T=n.nn/n.nn hh:mm:ss

____6. Use the DETACH command to rewind, unload, and detach the tape.

detach 181

TAPE 0181 DETACHED Ready; T=n.nn/n.nn hh:mm:ss

___7. Use the VMFSETUP command to define minidisks.

vmfsetup detach all

Ready; T=n.nn/n.nn hh:mm:ss

Step 5. Start the File Pools

If you loaded the FILEPOOL or SMALL FILEPOOL item **using the substeps in "Step 2. Run INSTALL EXEC" on page 161**, continue with this step. Otherwise, go to "Step 6. Move TSAF, AVS, OSA/SF, or TSM to SFS" on page 171.

In this step you will: Start the VMSYS, VMSYSU, and VMSYSR file pools ____1. Run INSTPOOL either to start or generate the file pools VMSYS, VMSYSU, and VMSYSR. INSTPOOL will determine whether the file pools are started or generated. instpool DMSACC724I 2CC replaces C (2CC) Messages received if file pools are started — DMSACC724I 2CC replaces E (2CC) AUTO LOGON *** VMSERVS USERS = nHCPCLS6056I XAUTOLOG information for VMSERVS: The IPL command is verified by the IPL command processor. VMSERVS : z/VM V4.2.0 yyyy-mm-dd hh:mm VMSERVS : DMSACP723I B (193) R/O VMSERVS : DMSWFV1117I FILESERV processing begun at hh:mm:ss on dd month yyyy VMSERVS : DMSWFV1121I VMSERVS DMSPARMS A1 will be used for FILESERV processing VMSERVS : DMSWFV1121I VMSYS POOLDEF A1 will be used for FILESERV processing AUTO LOGON *** VMSERVU USERS = nHCPCLS6056I XAUTOLOG information for VMSERVU: The IPL command is verified by the IPL command processor. VMSERVU : z/VM V4.2.0 yyyy-mm-dd hh:mm VMSERVU : DMSACP723I B (193) R/O VMSERVU : DMSWFV1117I FILESERV processing begun at hh:mm:ss on dd month yyyy VMSERVU : DMSWFV1121I VMSERVU DMSPARMS A1 will be used for FILESERV processing VMSERVU : DMSWFV1121I VMSYSn POOLDEF A1 will be used for FILESERV processing VMSERVU : DMS5BB3045I Ready for operator communications AUTO LOGON *** VMSERVR USERS = nHCPCLS6056I XAUTOLOG information for VMSERVR: The IPL command is verified by the IPL command processor. VMSERVR : DMS5BB3045I Ready for operator communications yyyy-mm-dd hh:mm VMSERVR : z/VM V4.2.0 VMSERVR : DMSACP723I B (193) R/O VMSERVR : DMSWFV1117I FILESERV processing begun at hh:mm:ss on dd month yyyy VMSERVR : DMSWFV1121I VMSERVR DMSPARMS A1 will be used for FILESERV processing VMSERVR : DMSWFV1121I VMSYSn POOLDEF A1 will be used for FILESERV processing VMSERVR : DMS6LG3335I CRR log recovery begins at mm-dd-yy hh:mm:ss VMSERVR : DMS6LG3335I CRR log recovery completes at mm-dd-yy hh:mm:ss VMSERVR : DMS5BB3045I Ready for operator communications -End of Messages received if file pools are started — Messages received for each file pool if file pools are generated — DASD 0804 DETACHED AUTO LOGON *** VMSERV*n* USERS = nHCPCLS6056I XAUTOLOG information for VMSERVn: The IPL command is verified by the IPL command processor. VMSERVn : DMSACC724I 19E replaces Y (19E) VMSERVn : DMSACP723I Y (19E) R/O yyyy-mm-dd hh:mm VMSERV*n* : z/VM V4.2.0 VMSERVn : DMSWSP100W Shared S-STAT not available

VMSERVn : DMSWSP100W Shared Y-STAT not available
```
VMSERVn : DMSACP723I B (193) R/O
VMSERVn : DMSWFV1117I FILESERV processing begun at hh:mm:ss on dd month yyyy
VMSERVn : DMSWFV1121I VMSERVn DMSPARMS A1 will be used for FILESERV processing
VMSERVn : DMS4PD3400I Initializing begins for DDNAME = CONTROL
VMSERVn : DMS4PD3400I Initializing ends for DDNAME = CONTROL
VMSERVn : DMS4PD3400I Initializing begins for DDNAME = MDK00001
VMSERVn : DMS4PD3400I Initializing ends for DDNAME = MDK00001
VMSERVn : DMS4PD3400I Initializing begins for DDNAME = MDK00002
VMSERVn : DMS4PD3400I Initializing ends for DDNAME = MDK00002
VMSERVn : DMS4PG3404W File pool limit of 2 minidisks has been reached
VMSERVn : DMS4PD3400I Initializing begins for DDNAME = LOG1
VMSERVn : DMS4PD3400I Initializing ends for DDNAME = LOG1
VMSERVn : DMS4PD3400I Initializing begins for DDNAME = LOG2
VMSERVn : DMS4PD3400I Initializing ends for DDNAME = LOG2
VMSERVn : DMS6LB3336I Initialization begins for the CRR log minidisks
VMSERVn : DMS6LB3336I Initialization completes for the CRR log minidisks
VMSERVn : DMS5FD3032I File pool server has terminated
VMSERVn : DMSWFV1120I File VMSYSn POOLDEF A1 created or replaced
VMSERVn : DMSWFV1117I FILESERV processing ended at hh:mm:ss on dd month yyyy
RDR FILE 0010 SENT FROM VMSERVn PUN WAS 0001 RECS 0004 CPY 001 A NOHOLD NOKEEP
VMSERVn : File FILESERV VALID A3 sent to MAINT at ZVMV4R20 on mm/dd/yy hh:mm:ss
VMSERVn : Ready; T=n.nn/n.nn hh:mm:ss
HCPQCS150A User VMSERVn has issued a VM read
VMSERVn : CONNECT= hh:mm:ss VIRTCPU= 000:00.90 TOTCPU= 000:02.12
VMSERVn : LOGOFF AT hh:mm:ss EDT WEDNESDAY mm/dd/yy BY MAINT
USER DSC LOGOFF AS VMSERVn USERS = 2
                                            FORCED BY MAINT
DASD 0804 DETACHED
AUTO LOGON ***
                     VMSERVn USERS = 3
HCPCLS6056I XAUTOLOG information for VMSERVn: The IPL command is verified by the IPL
 command processor.
VMSERVn : DMSACC724I 19E replaces Y (19E)
VMSERVn : DMSACP723I Y (19E) R/O
VMSERVn : z/VM V4.2.0 yyyy-mm-dd hh:mm
VMSERVn : DMSWSP100W Shared S-STAT not available
VMSERVn : DMSWSP100W Shared Y-STAT not available
VMSERVn : DMSACP723I B (193) R/O
VMSERVn : DMSWFV1117I FILESERV processing begun at hh:mm:ss on dd month yyyy
VMSERVn : DMSWFV1121I VMSERVn DMSPARMS A1 will be used for FILESERV processing
VMSERVn : DMSWFV1121I VMSYSn POOLDEF A1 will be used for FILESERV processing
VMSERVn : DMS6LG3335I CRR log recovery begins at mm-dd-yy hh:mm:ss
VMSERVn : DMS6LG3335I CRR log recovery completes at mm-dd-yy hh:mm:ss
VMSERVn : DMS5BB3045I Ready for operator communications
```

——End of Messages received for each file pool if file pools are generated————

HCPIFP8392I INSTPOOL EXEC ENDED SUCCESSFULLY
Ready; T=n.nn/n.nn hh:mm:ss

___ 2. Rename AUTOLOG1's PROFILE EXEC.

link autolog1 191 999 mw mautolog

access 999 z

DASD 0999 LINKED R/W; R/W BY MAINT Ready; T=n.nn/n.nn hh:mm:ss

rename profsave execsave z profile exec z

Ready; T=n.nn/n.nn hh:mm:ss

What to Do Next -

Go to "Step 6. Move TSAF, AVS, OSA/SF, or TSM to SFS" on page 171.

Step 6. Move TSAF, AVS, OSA/SF, or TSM to SFS

If you loaded the TSAF, AVS, OSA/SF, or TSM item and you want to move any of them to SFS, continue with this step. Otherwise, skip to "Step 7. Update the Directory" on page 172.

$^-$ In this step you will: $^-$

• Optionally copy TSAF, AVS, OSA/SF, or TSM to SFS.

____1. Move data for the components selected from minidisks to the Shared File System servers (SFS).

move2sfs component (reclaim HCPWMV8456I PROCESSING COMPONENT component	<i>component</i> can be TSAF , AVS , OSA , or TSM . (See "MOVE2SFS EXEC" on page 139 for details.)		
:	reclaim removes the minidisks no longer needed from the directory. (The minidisks entries are commented out in the directory.)		
<pre>HCPWMV8392I MOVE2SFS EXEC ENDED SUCCESSFULLY Ready; T=n.nn/n.nn hh:mm:ss</pre>			

Step 7. Update the Directory

In this step you will:

· Comment out MAINT's LINK statements that were added or uncommented in the directory (USER DIRECT) in Step 1. Prepare the USER DIRECT File for New Loads substep 4 on page 158.

___1. Edit the USER DIRECT file.

xedit user direct c

____2. Comment out all MAINT's LINK statements from the USER DIRECT file that were added in "Step 1. Prepare the USER DIRECT File for New Loads" on page 158. These links were only used for install and should be removed to prevent errors.

Locate the USER MAINT statement. Next locate the
LINK statements for minidisks starting with 801. The
change command comments out all MAINT LINK
statements up to statements beginning with MDISK.
These statements were only used during z/VM
Version 4 Release 2.0 installation.
Note: This directory was shipped with all LINK
statements coming before the MDISK statements.
Make sure no other statements are between the
LINK statements.

____3. Save all changes in the USER DIRECT file.

====> file Ready; T=n.nn/n.nn hh:mm:ss

For more information about the directory, see *z/VM: Planning and Administration*.

Step 8. Bring the Changed Directory Online

- In this step you will:
- Use the DIRECTXA command to bring the changed directory online
- ____1. Use the DIRECTXA command to update and place the user directory online.

directxa user direct

z/VM USER DIRECTORY CREATION PROGRAM - V4 R2.0 EOJ DIRECTORY UPDATED AND ON LINE Ready; T=n.nn/n.nn hh:mm:ss

- ___ 2. Log off of the MAINT user ID.
 - logoff
 This is required to pick up the new or changed directory links.

 CONNECT= nn:nn:nn VIRTCPU= nnn:nn.nn TOTCPU= nnn:nn.nn LOGOFF AT hh:mm:ss {EST|EDT} weekday mm/dd/yy

 Press enter or clear key to continue

 ENTER
- ___ 3. Log on to the MAINT user ID.

ENTER logon maint

The default password for MAINT is MAINT.

```
z/VM V4.2.0 yyyy-mm-dd hh:mm
ENTER
```

- ____4. If you just finished loading any of the following:
 - OSA/SF
 - TSM

refer to "Chapter 8. Preinstalled Licensed Products and Features" on page 91. Some of the preinstalled products and features require additional steps to complete the installation process.

You are completely done with this appendix.

Reference

Appendix D. Migrate 51D from Old System

$^-$ In this appendix, you will: $^-$

• Migrate your 51D disk from your old system.

Note: Your old system must be a supported VM release.

- __1. Backup the z/VM Version 4 Release 2.0 System Software Inventory files (the 51D minidisk).
- 2. Obtain access to the System Software Inventory Files (51D) from your old system. For information on how to obtain access to these files, see your System Programmer.
- ___3. Access the minidisk or SFS directory containing the System Software Inventory files from your old system as file mode Z.

access old51d z
Ready; T=n.nn/n.nn hh:mm:ss

old51d is the minidisk address or the SFS directory ID containing the old System Software Inventory files.

____4. Access the 51D minidisk as file mode D.

access 51D d
Ready; T=n.nn/n.nn hh:mm:ss

____5. Access the 493 minidisk as file mode W.

access 493 w
Ready; T=n.nn/n.nn hh:mm:ss

___6. Use the MIGR51D EXEC to update the System Software Inventory files.

migr51d

HCPMIX8478R Please enter filemode letter of the Software Inventory Disk (51D) from the previous release. Press enter to Exit.

Ζ

After issuing the MIGR51D command, the following VM Software Inventory Disk (51D) Product and Segment Migration panels display:

*** VM Software Inventory Disk (51D) Product Migration ***							
Set action code AC to D = Do Not Migrate or to M = Migrate product. Action code I means product is already installed on new 51D and cannot be migrated.							
AC Compname	Prodid Status	Description					
D SHELL	2VMVMZ30 APPLIED	Shell and Utilities for VM/ESA					
M DITTO	5654029C NONE	DITTO/ESA VM 1.2.0					
D	5735NFSQ ENABLED						
D CMS	2VMVMA30 BUILT	CMS component for VM/ESA 2.3.0					
D CP	2VMVMB30 BUILT	CP component for VM/ESA 2.3.0					
D TCPIP	5735FALQ BUILT	TCP/IP LEVEL 310 - TCP/IP FEATURE					
I ICKDSF	5684042H BUILT	ICKDSF DEVICE SUPPORT FACILITIES R16 for CMS					
	Page 1 of 1						
PF1=H	HELP PF3/PF12=Quit	PF5=Process PF8=Forward					

____a. Enter an action code for each product listed. For information about the panel and action codes, press **PF1** for HELP.

Notes:

- 1) Products that are preselected as **D** (Do Not Migrate) should not be changed.
- If a product is not supported on the new z/VM release, you should enter D (Do Not Migrate) for that product.
- Before you delete any product, you must determine whether any product that you intend to migrate is dependent on this product. You can use VMFINFO or VMFSIM SYSDEP to determine the dependents of a product.
- 4) This Product Migration panel is only a sample. Your panels will not list the same products, action codes, status, and description.
- ____b. Press **PF5** to display the Segment Migration panel. Depending on the size of your software inventory files, it may take several minutes to process.

<pre>*** VM Software Inventory Disk (51D) Segment Migration *** Set action code AC to D = Do Not Migrate or to M = Migrate segment. Action code P means segment will be migrated due to product migration. If ======== or ******** appears under Segname, enter a new name to change the segment name upon migration (======= Must be changed, ******** May be changed).</pre>							
AC	Segname		Prodid	Compname	Defparms	Bldparms	
D	CMSBAM	01d->	2VMVMA30	CMS	B0D-B37 SR	PPF(ESA	
		New->	4VMVMA20	CMS	B0D-B37 SR	PPF(ZVM	
	*******	Mig->	4VMVMA20	CMS	B0D-B37 SR	PPF(ZVM	
D	CMSDOS	01d->	2VMVMA30	CMS	B00-B0C SR	PPF (ESA	
		New->	4VMVMA20	CMS	B00-B0C SR	PPF(ZVM	
_	*******	Mig->	4VMVMA20	CMS	B00-B0C SR	PPF (ZVM	
D	CMSFILES	01d->	2VMVMA30	CMS	1900-18FF SR	PPF (ESA	
		New->	4VMVMA20	CMS	1900-18FF SR	PPF (ZVM	
	*******	M1g->	4VMVMA20	CM2	1900-18FF SK	PPF(ZVM	
D	CMSPIPES	Uld->	ZVMVMA30	CM2	1800-18FF SK	PPF(ESA	
		New->	4VMVMA20	CMS	1800-18FF SR	PPF (ZVM	
	*******	Mig->	4VMVMA20	CMS	1800-18FF 2K	PPF(ZVM	
Page 1 of 4							
PFI=HELP PF3/PFIZ=Quit PF5=Process PF8=Forwara							

__c. Enter an action code for each segment listed. For information about the panel and action codes, press **PF1** for HELP.

This Segment Migration panel is only a sample. Your panels will not list the same segments, action codes, status, and description.

- _____d. Press **PF5** to process. Depending on the size of your software inventory files, it may take several minutes to process.
- ____7. MIGR51D updated the z/VM Version 4 Release 2.0 VMSES/E System Software Inventory files to reflect the licensed products installed on your old system that you chose to migrate. You must now migrate all code, user IDs, minidisks, and segments associated with each licensed product reflected in the new System Software Inventory files. Refer to the documentation for each licensed product for information on the code, user IDs, minidisks, and segments required.

If the licensed product segments are built by VMSES/E, you must sign on as any one of the licensed product installation user IDs, this includes MAINT. Then, do the following to update some of the other segment files on the System Software Inventory disk:

__a. Enter:

vmfsgmap segbld esasegs segblist

At this time, you can make further changes to any segment.

____b. On the first panel, enter:

segmerge

____c. Press the PF5 key to exit from VMFSGMAP.

These three steps only need to be done once from one user ID. At this point, the appropriate files on the System Software Inventory disk are updated. Now, you can build the licensed product segments, if necessary, from the corresponding licensed product installation user IDs. When following the information in the licensed product program directories or the *z/VM: Service Guide*, use the ALL option instead of the SERVICED option on the VMFBLD command for the segment.

For example,

vmfbld ppf segbld esasegs segblist myseg (all

Note: You need to rebuild the segments on the new system to get the SYSTEM SEGID file updated.

Migrate 51D from Old System

Appendix E. The SYSTEM NETID File

This appendix contains: -

• Reference material for the SYSTEM NETID file.

The SYSTEM NETID file is referenced when you use CMS commands to communicate across the network. CMS uses the CPUIDs in the SYSTEM NETID file to verify that it is running on a valid network system.

Record Format

The records in the SYSTEM NETID file have the following two formats:

cpuid nodeid netid

*comment

Operands

cpuid

is the processor (CPU) serial number found in CPUID positions 3-8. If this is an LPAR, the CPU serial number is proceeded by the LPAR numbers.

nodeid

is the local node ID of the RSCS virtual machine (when installing RSCS)

netid

is the user ID of the RSCS virtual machine, as defined in the CP directory.

*comment

is a comment line. In a comment, each line must begin with an asterisk in column one.

Usage

When you enter commands to communicate across the network, the SYSTEM NETID file is referenced as follows:

- 1. To transmit notes, files, and messages, the NOTE, SENDFILE, TELL, and RDRLIST commands enter the IDENTIFY command.
- 2. The IDENTIFY command:
 - a. Issues the QUERY CPUID command to retrieve the processor's serial number, and searches the SYSTEM NETID file for a matching serial number.
 - b. Issues the QUERY USERID command to retrieve the node identification, and compares it to the node in the SYSTEM NETID record.

If there is a conflict in nodes between the SYSTEM NETID file and the response from QUERY USERID, the node in SYSTEM NETID takes precedence.

Separate CPUIDs are generated for each processor in a multiprocessor configuration, and for each logical processor in an LPAR configuration. If you plan to run this system on multiple processors, or in an LPAR environment, you must do one of these two steps:

 Create a record in the SYSTEM NETID file with the CPUID for each processor that you want to be able to IPL.

The SYSTEM NETID File

OR update each user's directory to include an OPTION control statement containing the CPUID parameter, and place that CPUID parameter value into a record in the SYSTEM NETID file.
 The value specified on the CPUID parameter overrides all of the actual processor CPUIDs, and allows CMS network communications to function independently of the real processor configuration.

Appendix F. Restoring the z/VM System Backup Copy

In this appendix you will:

- Restore the backup copy of your new z/VM system from tape. This example requires a full pack • minidisk be defined in the CP directory, USER DIRECT, for each volume you are restoring.
- ___1. Mount the backup tape on a tape drive.
- 2. Perform an IPL of the tape device.

ipl devno clear

devno is the address of the tape drive.

_ 3. Use DDRXA to restore the system to disk. Repeat this substep for each DASD volume you are restoring.

z/VM DASD DUMP/RESTORE PROGRAM ENTER CARD READER ADDRESS OR CONTROL STATEMENTS ENTER: sysprint cons ENTER: input devno tape ENTER:

output devaddr dasd volid ENTER:

This first control statement tells DDRXA that you want program messages sent to your console.

The second control statement is the input control statement. Identify the device number (devno) where the backup tape is mounted. By typing the word tape, the tape device type is automatically identified by the DDR program, either 3430, 3480, 3490, or 9348.

This output statement specifies the DASD device to which you are restoring the system. devaddr identifies the full pack minidisk address for the DASD to which you are restoring this tape. By typing the word dasd, the device type is automatically identified by the DDR program, either 3380 or 3390. The RESTORE ALL statement tells DDRXA to restore the whole tape to the output device.

restore all

RESTORING volid DATA DUMPED mm/dd/yy AT hh.mm.ss GMT FROM volid RESTORED TO volid INPUT CYLINDER EXTENTS	OUTPUT CYLINDFF	R FXTENTS
START STOP	START	STOP
nnnnnnn nnnnnnn	nnnnnnn nnr	nnnnn
END OF RESTORE		
BYTES RESTORED nnnnnnnnn		
		Informational messages: GMT means Greenwich
		Mean Time.
		The exect cylinder extents year eccording to the
		device type
		device type.
ENTER:		Repeat input, output, and restore statements for
•		each DASD you are restoring.

EI

Restoring the z/VM System Backup Copy

ENTER:

ENTER END OF JOB When DDRXA finishes, it prompts you with ENTER. To end the program, press the **Enter** key.

Note: When DDR encounters the end of a tape, which is continued on the next tape, it prompts you to mount the next tape, if required. If you are using the same tape drive, mount the next tape and DDR will continue. If you are using a different tape drive, issue the INPUT control statement to identify the tape drive and the issue the RESTORE ALL statement to restore the whole tape to the output device.

Appendix G. Restoring Your Named Saved Systems and Segments

In this appendix, you will: _____

• Restore the CMS Named Saved System and saved segments.

You should have a loadable tape of the Named Saved System and segments. If you need to use this backup copy to restore your Named Saved System or segments, perform these steps:

___1. Log on to the MAINT user ID.



____5. Enter the SPXTAPE command to load the system data files.

spxtape load devno sdf all run	<i>devno</i> is the address you used to define the tape drive.
SPXTAPE LOAD INITIATED ON VDEV <i>devno</i> Ready; T= <i>n.nn/n.nn hh:mm:ss</i>	
LOADING <i>devno</i> : <i>nnn</i> FILES, PAG :	ES nnnn
LOADING <i>devno</i> : <i>nnn</i> FILES, PAG SPXTAPE LOAD END-OF-TAPE ON VDEV <i>devno</i> ; MOUNT NEXT TAPE TAPE NUMBER: <i>devno</i> -001 FILES PROCESSED: <i>nnn</i> SPOOL PAGES: <i>nnnn</i>	ES nnnn
LOADING <i>devno</i> : <i>nnn</i> FILES, PAG :	ES nnnn
LOADING <i>devno</i> : <i>nnn</i> FILES, PAG RDR FILE <i>fileno1</i> SENT FROM MAINT CON WAS	ES nnnn fileno RECS nnnn CPY 001 T NOHOLD NOKEEP fileno1 is the file number of the volume log file. The volume log file records information about the files processed by the SPXTAPE LOAD command that are associated with a particular tape volume.

Restoring Your Named Saved Systems and Segments

____6. When all volumes have been loaded, use the SPXTAPE END command to end the SPXTAPE load.

spxtape end devnoSPXTAPE ENDINITIATED ON VDEV devnoSPXTAPE LOAD COMMAND ENDEDON VDEV devnoTIME STARTED:hh:mm:ssTIME ENDED:hh:mm:ssTAPE COUNT:nnnFILES PROCESSED:nnnSPOOL PAGES:nnnn	The SPXTAPE END command ends the SPXTAPE LOAD operation at the completion of the current file.
Ready; T=n.nn/n.nn hh:mm:ss	The CMS ready message may occur between the messages.
RDR FILE <i>fileno2</i> SENT FROM MAINT CON WAS <i>file</i>	no RECS nnnn CPY 001 T NOHOLD NOKEEP fileno2 is the file number of the command summary log file. The command summary log file records the progress and status of the SPXTAPE LOAD operation.
	For more information on the SPXTAPE command, see the <i>z/VM: CP Command and Utility Reference</i> .

____7. IPL the CMS named saved system.

ipl cmsname :	<i>cmsname</i> is either the IBM supplied system name (CMS) or the name you defined in DMSNGP on the SYSNAME statement.
z/VM V4.2.0 yyyy-mm-dd hh:mm	If you have changed the version heading, your own heading will appear.
ENTER	Press Enter to return to the command line.
Readv: T= <i>n.nn/n.nn hh:mm:ss</i>	

Appendix H. Recovering a File or Minidisk

- In this appendix, you will:
- Restore a minidisk. To restore a minidisk, you may either overlay the existing disk or restore the minidisk to a temporary disk and copy the files to the target disk.
- Recover an individual file from the z/VM System DDR. To recover an individual file, you must first
 determine on which minidisk the file is located, restore the entire minidisk to a temporary disk, and
 copy the file from the temporary disk.

Note: The INSTALL EXEC requires a fullscreen terminal with at least 20 lines.

- __1. Log on to the MAINT user ID.
- ____2. Attach tape drive (devno) to the MAINT user ID at device address 181.

attach *devno* * **181** *devno* attached to MAINT Ready; T=*n.nn/n.nn hh:mm:ss*

__ 3. If you want to restore an entire minidisk, skip this step and go to substep 4.

To recover an individual file, you must first determine on which minidisk the file is located. If you already know on which minidisk the file is located, go to substep 4. Otherwise, check the minidisk map file.

```
access 194 z
Ready; T=n.nn/n.nn hh:mm:ss
xedit minidisk map z
...
quit
Ready; T=n.nn/n.nn hh:mm:ss
```

The MINIDISK MAP file lists the minidisks on the z/VM System DDR and the files contained on each minidisk. Look at MINIDISK MAP to determine which minidisk contains the file you want to recover.

____4. If you want to recover an individual file or restore the entire minidisk to a temporary disk, you need to define a temporary disk. This temporary disk must be the same type as your z/VM System DDR and the same size as the minidisk you want to recover. (See "ITEMMD TABLE" on page 192 for the size of the minidisk you want to recover.)

define tdasdtype loadaddr mdisksize	<i>dasdtype</i> is 3380 or 3390.	
DASD <i>loadaddr</i> DEFINED Ready; T= <i>n.nn/n.nn hh:mm:ss</i>	loadaddr is the address of the temporary disk.	
	<i>mdisksize</i> is the size of the minidisk you want to restore.	

If you receive the following message: HCPLNM091E DASD *loadaddr* not defined; temp space not available

you must add additional temporary disk space to your system or define a minidisk with the address *loadaddr*. If you define a minidisk, it must be the same type as your z/VM System DDR and the same size as the minidisk you want to recover.

Recovering a File or Minidisk

___5. To restore the chosen minidisk, enter the INSTALL EXEC with the RECOVER option. If installing from CD-ROM, enter:

install cd (recover mdiskaddr loadaddr

If installing from tape, enter:

install (recover mdiskaddr loadaddr

mdiskaddr is the address of the minidisk to be loaded from the z/VM System DDR.

loadaddr is the address to which you restore the minidisk.

Notes:

- a. *mdiskaddr* is the address of the minidisk to be loaded from the z/VM System DDR. Refer to "MAINT LINKLIST" on page 203 to determine if the minidisk you have chosen to restore is linked by MAINT at a different address. If it is, *mdiskaddr* is the address linked by MAINT. If it does not have a link, *mdiskaddr* is the actual minidisk address.
- b. To recover a minidisk directly to the address linked to by MAINT, you must link the minidisk in write mode. See "MAINT LINKLIST" on page 203. For example, to recover 801 to 801, you can enter the LINK CMSBATCH 195 801 WR command.
- c. *loadaddr* is the address to which you restore the minidisk. If you want to restore an entire minidisk directly to the same minidisk address, *loadaddr* is the same as *mdiskaddr* when issuing the INSTALL EXEC.

If the load address (loadaddr) is not specified, a temporary disk (T-disk) is created.

- d. You cannot recover the 2CC minidisk directly to the 2CC minidisk. You can recover the 2CC to an address other than 2CC and copy the files you wish to recover to the 2CC minidisk.
- __6. The following LOAD DEVICE MENU panel displays when you enter the INSTALL EXEC with the RECOVER option.

	LOAD DEV	ICE MENU		
	MEDIA SELECT	ED IS: media		
	MOUNT VOLUME n	VADDR		
====> PF1 = HELP	PF3 = QUIT	PF5 = LOAD	PF12 = RETURN	

- ___7. Complete the z/VM LOAD DEVICE MENU panel.
 - **Note:** This LOAD DEVICE MENU panel shows you the volume you need to mount based on the minidisk you want to restore.
 - _____a. Check the **MEDIA SELECTED IS:** field. This is a required field that will contain either TAPE or CD depending on the parameter used to invoke the INSTALL exec. If the *media* specified is not correct, press **PF3** to quit and run the INSTALL exec with the correct parameter.

- ____b. Type 181 for the tape drive virtual address (VADDR).
- ____ c. Mount the volume (n) of the z/VM System DDR tape or z/VM CD-ROM on tape drive 181.
- ____d. Press PF5 to load.



The load starts with the following system messages:

HCPWIN8388I CHECKING STATUS OF DRIVES HCPWIN8381I CHECKING TAPE VOLUME NUMBER FOR DRIVE 181 HCPWIN8380I RESTORING MINIDISK mdiskaddr TO MINIDISK loadaddr HCPDDR725D SOURCE DASD DEVICE WAS (IS) LARGER THAN OUTPUT DEVICE RESTORING 420xxx DATA DUMPED mm/dd/yy at hh.mm.ss GMT FROM 420xxx RESTORED TO SYSTEM INPUT CYLINDER EXTENTS OUTPUT CYLINDER EXTENTS START STOP START STOP nnnnnnn nnnnnnn nnnnnnn nnnnnnn END OF RESTORE BYTES RESTORED nnnnnnnnn END OF JOB HCPWIN84411 mdiskaddr HAS BEEN RESTORED TO MINIDISK loadaddr Ready; T=n.nn/n.nn hh:mm:ss

___ 8. If you restored the minidisk to a temporary disk, copy the file or files that you want to recover from the temporary disk to the target disk.

access loadaddr fm-1	loadaddr is the address of the temporary disk.			
Ready; T=n.nn/n.nn hh:mm:ss	fm-1 is any available file mode.			
access mdiskaddr fm-2	mdiskaddr is the address of the target minidisk.			
Ready; T= <i>n.nn/n.nn hh:mm:ss</i>	fm-2 is any available file mode.			
copyfile <i>fn ft fm-1 = = fm-2</i> (olddate	fn is the file name of the file you want to recover			
Ready; T= <i>n.nn/n.nn hh:mm:ss</i>	ft is the file type of the file you want to recover. Repeat the COPYFILE command for each file you want to recover.			

Recovering a File or Minidisk

Appendix I. Stopping or Restarting the Installation Procedure

$^-$ In this appendix, you will: $^-$

• Stop an installation procedure and restart the procedure.

Stopping the Installation Procedure

Each of the installation procedures is divided into chapters consisting of steps. You can interrupt a procedure at the end of any chapter.

Procedure 1

___1. Shutdown your z/VM Version 4 Release 2.0 system.

Procedure 2

- ___1. Shutdown your z/VM Version 4 Release 2.0 system.
- ____2. Enter #CP DISCONNECT to disconnect from your first-level user ID.

Restarting the Installation Procedures

Use these steps only if you stopped your installation at the end of a chapter. When you are ready to begin again, follow these steps to restart the installation procedures:

Procedure 1

- ___1. IPL and do a Force Drain Noautolog of the z/VM Version 4 Release 2.0 system.
- 2. Disconnect from the OPERATOR user ID and log on to the MAINT user ID.
- ___ 3. Attach tape drives (if needed).
- ____4. Resume at the chapter where you left off.

Procedure 2

- ___1. Log on to your **first-level** user ID.
- ____2. If you logged off your first level virtual machine at the end of a chapter, you must reestablish the second level environment before you can re-IPL your second level system. You must also make sure that your I/O devices are attached to your second level system and varied on.
 - ___a. Attach all DASD.
 - ____b. Attach tapes drives (if needed).
 - ___ c. Enter TERMINAL CONMODE 3270, define 64MB of storage, and set your virtual machine to XA mode.
 - ____d. IPL and do a Force Drain Noautolog of the z/VM Version 4 Release 2.0 system.
 - ____e. Disconnect from the OPERATOR user ID and log on to the MAINT user ID.
 - ____f. Attach tape drives (if needed).
 - ___g. Resume at the chapter where you left off.
- ____3. If you disconnected from your first level virtual machine at the end of a chapter, your second level environment should still be established.
 - ____a. IPL and do a Force Drain Noautolog of the z/VM Version 4 Release 2.0 system.
 - ____b. Disconnect from the OPERATOR user ID and log on to the MAINT user ID.
 - ____c. Attach tape drives (if needed).
 - ___d. Resume at the chapter where you left off.

Stopping or Restarting the Installation Procedure

Appendix J. ITEMMD TABLE and MAINT LINKLIST

This appendix contains ITEMMD TABLE and MAINT LINKLIST you use during the planning and installing of your z/VM system.

* Userid Mdisk 3380 3390								
* COPYRIGH	++++++	+++++	+++++	+++++	****			****
* USFRID	VADDR	ALTAS	\$ 3380	339	о О М(DF RPW	WPW	MPW
*******	*****	*****	*****	*****	****	********	*******	*****
:ITEMS.								
:BASE.								
MAINT	2D2	2D2	125	105	MR	READ	WRITE	MULTIPLE
MAINT	3B2	3B2	175	146	MR	ALL	WRITE	MULTIPLE
MAINT	194	194	150	125	MR	ALL	WRITE	MULTIPLE
MAINI	193	193	200	16/	MR	ALL	WRITE	MULTIPLE
	493 100	493 100	200	107	MR	ALL	WRITE	
MAINT	3D5 13D	3D5 13D	250	208	MD	ALL DFAD	WRITE	
MAINT	19F	19F	120	100	MR		WRITE	MULTIPLE
MAINT	5D2	5D2	035	030	MR	READ	WRITE	MULTIPLE
MAINT	201	201	026	022	MR	RMAINT	WMAINT	MMAINT
MAINT	51D	51D	015	013	MR	READ	WRITE	MULTIPLE
MAINT	3C4	3C4	010	009	MR	READ	WRITE	MULTIPLE
MAINT	5E5	5E5	010	009	MR	READ	WRITE	MULTIPLE
MAINT	5E6	5E6	010	009	MR	READ	WRITE	MULTIPLE
MAINT	319	319	010	009	MR	READ	WRITE	MULTIPLE
MAINT	5B2	5B2	010	009	MR	READ	WRITE	MULTIPLE
MAINT	376	376	006	005	MR	ALL	WRITE	MULTIPLE
MAINT	2A2	2A2	007	006	MR	READ	WRITE	MULTIPLE
MAINT	2A4	2A4	007	006	MR	READ	WRITE	MULTIPLE
MAINT	2A6	2A6	007	006	MR	READ	WRITE	MULTIPLE
MAINT	3A2	3A2	007	006	MR	READ	WRITE	MULTIPLE
MAINI	3A4	3A4	007	006	MR	READ	WRITE	MULTIPLE
MAINI	346	3A6	007	006	MR	READ	WRITE	MULTIPLE
MAINI	5A2	5A2	007	006	MR	READ	WRITE	
	5A4	5A4	007	000	MR		WRITE	
	2CA	2CA	007	000	MD		WRITE	
MAINT	302	302	005	005	MR	READ	WRITE	
MAINT	202	202	005	005	MR	READ	WRITE	MULTIPLE
MAINT	502	502	005	005	MR	READ	WRITE	MULTIPLE
MAINT	5C4	5C4	005	005	MR	READ	WRITE	MULTIPLE
MAINT	400	400	090	075	MR	READ	WRITE	MULTIPLE
MAINT	401	401	108	102	MR	ALL	WRITE	MULTIPLE
MAINT	402	402	108	102	MR	ALL	WRITE	MULTIPLE
MAINT	405	405	108	102	MR	ALL	WRITE	MULTIPLE
P684096K	505	85F	008	008	MR	READ	WRITE	MULTIPLE
P684096K	501	85E	008	008	MR	READ	WRITE	MULTIPLE
OPERATNS	191	80F	017	015	MR	RDVF	WDVF	MDVF
OPERSYMP	191	208	005	005	MR	READ	WRITE	MULTIPLE
OPERATOR	191	80D	005	005	MR	READ	WRITE	MULTIPLE
CM2RAICH	195	801	002	002	MR	REALCH	WBAICH	
	191	009	002	002	MD			
	191	20R	001	001	MD		WAUTULUU	
OP1	191	805 80F	001	001	MR	READ	WRITE	MOLTIFEL
LGLOPR	191	810	001	001	MR	READ	WRITE	
P688198H	191	82A	045	038	MR	READ	WRITE	MULTTPLE
P688198H	2A2	82B	003	003	MR	READ	WRITE	MULTIPLE
P688198H	2A6	82C	003	003	MR	READ	WRITE	MULTIPLE
P688198H	2B2	82D	080	067	MR	READ	WRITE	MULTIPLE
P688198H	2C2	82E	006	005	MR	READ	WRITE	MULTIPLE
P688198H	2D2	82F	120	100	MR	READ	WRITE	MULTIPLE
P688198H	29E	830	093	078	MR	READ	WRITE	MULTIPLE
P684042H	191	822	010	009	MR	READ	WRITE	MULTIPLE
P684042H	2A2	823	002	002	MR	READ	WRITE	MULTIPLE
P684042H	2A6	824	002	002	MR	READ	WRITE	MULTIPLE
P684042H	2B2	825	009	008	MR	READ	WRITE	MULTIPLE

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P684042H	2C2	826	002	002	MR	READ	WRITE	MULTIPLE
P684042H	2D2	827	030	025	MR	READ	WRITE	MULTIPLE
P684042H	29D	828	002	002	MR	READ	WRITE	MULTIPLE
P684042H	29E	829	030	025	MR	READ	WRITE	MULTIPLE
P684096K	2B2	850	015	013	MR	READ	WRITE	MULTIPLE
P684096K	2C2	851	001	001	MR	READ	WRITE	MULTIPLE
P684096K	2D2	852	030	025	MR	READ	WRITE	MULTIPLE
P684096K	2A6	853	002	002	MR	READ	WRITE	MULTIPLE
P684096K	2A2	854	002	002	MR	READ	WRITE	MULTIPLE
P684096K	29D	855	008	008	MR	READ	WRITE	MULTIPLE
P684096K	400	856	015	013	MR	READ	WRITE	MULTIPLE
P684096K	401	857	010	009	MR	READ	WRITE	MULTIPLE
P684096K	402	858	003	003	MR	READ	WRITE	MULTIPLE
P684096K	406	859	008	008	MR	READ	WRITE	MULTIPLE
P684096K	191	85A	010	009	MR	READ	WRITE	MULTIPLE
P684096K	403	85B	003	003	MR	READ	WRITE	MULTIPLE
P684096K	502	85C	008	008	MR	READ	WRITE	MULTIPLE
XCHANGE	5BF	860	003	003	MR	READ	WRITE	MULTIPLE
GCS	191	807	004	004	MR	RGCS	WGCS	MGCS
GCSXA	191	808	004	004	MR	RGCS	WGCS	MGCS
MAINT	6A2	6A2	003	003	MR	READ	WRITE	MULTIPLE
MAINT	6A4	6A4	003	003	MR	READ	WRITE	MULTIPLE
MAINT	6A6	6A6	003	003	MR	READ	WRITE	MULTIPLE
MAINT	6B2	6B2	010	009	MR	READ	WRITE	MULTIPLE
MAINT	6C2	6C2	003	003	MR	READ	WRITE	MULTIPLE
MAINT	6C4	6C4	003	003	MR	READ	WRITE	MULTIPLE
MAINT	6D2	6D2	010	009	MR	READ	WRITE	MULTIPLE
TCPMAINT	591	861	045	038	MR	RTCPMAIN	WTCPMAIN	MTCPMAIN
TCPMAINT	592	862	080	067	MR	ALL	WTCPMAIN	MTCPMAIN
TCPMAINT	198	863	010	009	MR	RTCPMAIN	WTCPMAIN	MTCPMAIN
TCPMAINT	191	864	008	007	MR	RTCPMAIN	WTCPMAIN	MTCPMAIN
4TCPIP20	191	865	060	050	MR	R4TCPIP	W4TCPIP	M4TCPIP
4TCPIP20	2C4	866	005	005	MR	R4TCPIP	W4TCPIP	M4TCPIP
4TCPIP20	2D2	868	140	117	MR	R4TCPIP	W4TCPIP	M4TCPIP
4TCPIP20	2A6	869	005	005	MR	R4TCPIP	W4TCPIP	M4TCPIP
4TCPIP20	2A2	86A	005	005	MR	R4TCPIP	W4TCPIP	M4TCPIP
4TCPIP20	491	86B	045	038	MR	R4TCPIP	W4TCPIP	M4TCPIP
4TCPIP20	492	86C	080	067	MR	R4TCPIP	W4TCPIP	M4TCPIP
4TCPIP20	2B2	86E	103	086	MR	R4TCPIP	W4TCPIP	M4TCPIP
4TCPIP20	2B3	86F	054	045	MR	R4TCPIP	W4TCPIP	M4TCPIP
TCPIP	191	870	005	005	MR	RTCPIP	WTCPIP	MTCPIP
BOOTPD	191	885	002	002	MR	RBOOTPD	WBOOTPD	MBOOTPD
TFTPD	191	886	002	002	MR	RTFTPD	WTFTPD	MTFTPD
DHCPD	191	887	002	002	MR	RDHCPD	WDHCPD	MDHCPD
FTPSERVE	191	871	010	009	MR	RFTPSERV	WFTPSERV	MFTPSERV
SMTP	191	872	030	025	MR	RSMTP	WSMTP	MSMTP
NAMESRV	191	873	002	002	MR	RNAMESRV	WNAMESRV	MNAMESRV
REXECD	191	874	002	002	MR	RREXECD	WREXECD	MREXECD
X25IPI	191	875	002	002	MR	RX25IPI	WX25IPI	MX25IPI
PORTMAP	191	876	002	002	MR	RPORTMAP	WPORTMAP	MPORTMAP
NDBPMGR	191	877	001	001	MR	RNDBPMGR	WNDBPMGR	MNDBPMGR
NDBSRV01	191	878	001	001	MR	RNDBSRV0	WNDBSRV0	MNDBSRV0
SNMPQE	191	879	002	002	MR	RSNMPQE	WSNMPQE	MSNMPQE
SNMPD	191	87A	002	002	MR	RSNMPD	WSNMPD	MSNMPD
IMAP	191	87B	001	001	MR	RIMAP	WIMAP	MIMAP
ROUTED	191	87F	002	002	MR	RROUTED	WROUTED	MROUTED
LPSERVE	191	880	002	002	MR	RLPSERVE	WLPSERVE	MLPSERVE
SNALNKA	191	881	003	003	MR	RSNALNKA	WSNALNKA	MSNALNKA
VMNFS	191	882	010	009	MR	RVMNFS	WVMNFS	MVMNFS
VMKERB	191	883	007	006	MR	RVMKERB	WVMKERB	MVMKERB
ADMSERV	191	884	005	005	MR	RADMSERV	WADMSERV	MADMSERV
RSCSDNS	191	831	001	001	MR	READ	WRITE	MULTIPLE
UFTD	191	832	002	002	MR	RUFTD	WUFTD	MUFTD
MPROUTE	191	888	002	002	MR	RMPROUTE	WMPROUTE	MMPROUTE
SSLSERV	191	88A	001	001	MR	RSSLSERV	WSSLSERV	MSSLSERV
SSLSERV	201	889	001	001	MR	RSSLSERV	WSSLSERV	MSSLSERV
SSLSERV	202	88B	036	030	MR	RSSLSERV	WSSLSERV	MSSLSERV

SSLSERV	203	88C	002	001	MR	RSSLSERV	WSSLSERV	MSSLSERV
SSLSERV	204	88D	018	015	MR	RSSLSERV	WSSLSERV	MSSLSERV
SSLSERV	205	88F	168	140	MR	RSSISERV	WSSLSERV	MSSLSERV
	101	000	015	012	MD		WDITE	
4 VMR 1M10	191	090	015	012		READ	WRITE	MULTIPLE
4VMRIM10	ZAZ	891	002	002	MK	READ	WRITE	MULTIPLE
4VMRTM10	2A6	892	002	002	MR	READ	WRITE	MULTIPLE
4VMRTM10	2B2	893	010	009	MR	READ	WRITE	MULTIPLE
4VMRTM10	2C2	894	002	002	MR	READ	WRITE	MULTIPLE
4VMRTM10	204	895	002	002	MR	RFAD	WRITE	MULTIPLE
	202	806	060	050	MD		WDITE	MULTIDIE
	202	090	000	0.00				
4VMRTM10	400	897	010	009	MK	READ	WRITE	MULTIPLE
4VMRIM10	401	898	010	009	MR	READ	WRITE	MULIIPLE
4VMRTM10	1CC	899	001	001	MR	READ	WRITE	MULTIPLE
4VMRTM10	000	89A	001	001	MR	READ	WRITE	MULTIPLE
4VMPRF10	191	89B	005	005	MR	RFAD	WRITE	MULTIPLE
4VMPRF10	242	200	002	002	MR	READ	WRITE	MILLTTPLE
	216	2000	002	002	MD		WDITE	MILITIDIE
	280	090	002	002				
4VMPRF10	ZBZ	89E	010	009	MK	READ	WRITE	MULTIPLE
4VMPRF10	2C2	89F	002	002	MR	READ	WRITE	MULIIPLE
4VMPRF10	2C4	8A0	002	002	MR	READ	WRITE	MULTIPLE
4VMPRF10	2D2	8A1	108	090	MR	READ	WRITE	MULTIPLE
4VMPRF10	597	8A2	072	060	MR	READ	WRITE	MULTIPLE
4VMPRF10	497	843	072	060	MR	READ	WRITE	MILLTTPLE
	100	011	001	000	MD			
		044	001	001			WRITE	
4VMPRF10		8A5	001	001	MK	READ	WRITE	MULTIPLE
VMPRF	191	8A6	030	025	MR	READ	WRITE	MULTIPLE
VMPRF	192	8A7	010	009	MR	READ	WRITE	MULTIPLE
MONWRITE	191	8A8	100	090	MR	READ	WRITE	MULTIPLE
VMRTM	191	8A9	002	002	MR	READ	WRITE	MULTIPLE
BLDNUC	191	8AD	005	005	MR	RFAD	WRITE	MULTIPLE
	101	84F	005	005	MP		WAUDITOP	
AUDITUK SVSMON	101		005	005	MD	DEVENON	WAUDITUK	MEVENON
STSMUN	191	OAF	005	005	MK	RSTSMON	M212MON	IND A 21401A
4VMDVH10	191	880	010	009	MR			
4VMDVH10	2A2	8B1	005	004	MR			
4VMDVH10	2A6	8B2	005	004	MR			
4VMDVH10	2B2	8B3	015	013	MR			
4VMDVH10	202	8R4	002	002	MR			
	201	885	001	001	MP			
	207	005	001	001	MD			
4VMDVH10	202	8B0	020	01/	MR			
4VMDVH10	290	8R1	010	009	MK			
4VMDVH10	29E	8B8	001	001	MR			
4VMDVH10	491	8B9	012	010	MR			
4VMDVH10	492	8BA	012	010	MR			
4VMDVH10	41F	8BB	006	005	MR	ALL		
4VMDVH10	11F	8BC	006	005	MR	ALL		
	281	28D	000	000	MD	//LL		
	201		009	000				
	30Z	ODE	010	009	MD			
DATAMOVE	122	QRF	010	009	MK			
DATAMOVE	1AA	800	010	009	MR			
DATAMOVE	1FA	8C1	010	009	MR			
DATAMOVE	2AA	8C2	010	009	MR			
DIRMSAT	155	803	010	009	MR			
DIRMSAT	144	804	010	0.09	MR			
	1 = 1	80F	010	000	MD			
	7 L H	003	010	003	I'IR MD			
	288	000	010	009	MR			
DIRMAINT	IAA	8C7	010	009	MR			
DIRMAINT	1FA	808	010	009	MR			
DIRMAINT	1DE	8CA	001	001	MR			
DIRMAINT	2AA	8CB	010	009	MR			
DIRMAINT	155	208	010	000	MR			
	105	800	010	000	MD			
	יחם 101		010	003				
	TDR	OUL	010	009	MR			
DIRMAINT	ZDF	SCF	010	009	MK			
DIRMAINT	2DB	8D0	010	009	MR			
BLDCMS	191	8D1	005	005	MR	READ	WRITE	MULTIPLE
VMADMIN	191	8D2	048	040	RR	READ	WRITE	MULTIPLE
VMADMIN	194	8D3	030	025	MR	READ	WRITE	MULTIPLE
		-		-	-			

VMADMIN VMADMIN VMADMIN	195 203 391	8D4 8D5 8D6	012 006 012	010 005 010	MR RR MR	READ READ READ	WRITE WRITE WRITE	MULTIPLE MULTIPLE MULTIPLE
:EBASE. *								
GCS. GCS GCSXA MAINT MAINT MAINT MAINT MAINT MAINT FOOS	191 191 6A2 6A4 6A6 6B2 6C2 6C2 6C4 6D2	807 808 6A2 6A4 6A6 6B2 6C2 6C2 6C4 6D2	004 003 003 003 010 003 003 010	004 003 003 003 009 003 003 003 009	MR MR MR MR MR MR MR	RGCS READ READ READ READ READ READ READ	WGCS WGCS WRITE WRITE WRITE WRITE WRITE WRITE	MGCS MGCS MULTIPLE MULTIPLE MULTIPLE MULTIPLE MULTIPLE MULTIPLE
:EGUS. *								
:RSCS. P684096K P684096K P684096K P684096K P684096K P684096K P684096K P684096K P684096K P684096K P684096K P684096K P684096K P684096K SCSDNS :ERSCS.	2B2 2C2 2D2 2A6 2A2 29D 400 401 402 406 191 403 505 501 5BF 191	850 851 852 853 854 855 856 857 858 859 858 859 858 855 855 855 855 855	015 001 030 002 008 015 010 003 008 003 008 008 008 008 003 001	013 001 025 002 008 013 009 003 008 008 008 008 008 008 008 001	MR MR MR MR MR MR MR MR MR MR MR MR	READ READ READ READ READ READ READ READ	WRITE WRITE WRITE WRITE WRITE WRITE WRITE WRITE WRITE WRITE WRITE WRITE WRITE WRITE WRITE WRITE WRITE	MULTIPLE MULTIPLE MULTIPLE MULTIPLE MULTIPLE MULTIPLE MULTIPLE MULTIPLE MULTIPLE MULTIPLE MULTIPLE MULTIPLE MULTIPLE MULTIPLE MULTIPLE MULTIPLE
:TCP_IP. TCPMAINT TCPMAINT TCPMAINT TCPMAINT TCPIP20 4TCPIP20 4TCPIP20 4TCPIP20 4TCPIP20 4TCPIP20 4TCPIP20 4TCPIP20 4TCPIP20 4TCPIP20 TCPIP BOOTPD TFTPD DHCPD FTPSERVE SMTP NAMESRV REXECD X25IPI PORTMAP NDBPMGR NDBSRV01 SNMPQE SNMPD IMAP ROUTED	 591 592 198 191 191 2C4 2D2 2A6 2A2 491 492 2B3 191 	861 862 863 864 865 866 868 866 866 866 866 866 885 886 885 887 871 872 873 874 875 876 877 878 879 874 875	045 080 010 008 060 005 140 005 045 080 103 054 005 002 002 002 002 002 002 002 002 002	$\begin{array}{c} 038\\ 067\\ 009\\ 007\\ 050\\ 005\\ 117\\ 005\\ 038\\ 067\\ 086\\ 045\\ 002\\ 002\\ 002\\ 002\\ 002\\ 002\\ 002\\ 00$	MR M	RTCPMAIN ALL RTCPMAIN RTCPMAIN R4TCPIP R4TCPIP R4TCPIP R4TCPIP R4TCPIP R4TCPIP R4TCPIP R4TCPIP R4TCPIP R4TCPIP RTCPIP R500TPD RTFTPD RDHCPD RTFTPD RDHCPD R500TPD R500	WTCPMAIN WTCPMAIN WTCPMAIN WTCPMAIN W4TCPIP W4TCPIP W4TCPIP W4TCPIP W4TCPIP W4TCPIP W4TCPIP W4TCPIP W4TCPIP W4TCPIP WTCP	MTCPMAIN MTCPMAIN MTCPMAIN MTCPIP M4TCPIP M4TCPIP M4TCPIP M4TCPIP M4TCPIP M4TCPIP M4TCPIP M4TCPIP M4TCPIP M4TCPIP MTCPIP MTCPIP MTFTPD MDHCPD MFTPSERV MNAMESRV REXECD (25IPI MNDBPMGR MNDBPMGR MNDBSRV0 SNMPQE MPD RAP ROUTED

LPSERVE SNALNKA VMNFS VMKERB ADMSERV UFTD MPROUTE SSLSERV SSLSERV SSLSERV SSLSERV SSLSERV SSLSERV SSLSERV SSLSERV	191 191 191 191 191 191 191 201 202 203 204 205	880 881 882 883 884 832 888 884 888 888 888 888 888 888 880 888 880 888	002 003 010 007 005 002 002 001 001 036 002 018 168	002 003 009 006 005 002 001 001 030 001 015 140	MR MR MR MR MR MR MR MR MR MR MR	RLPSERVE WLPSERVE MLPSERVE RSNALNKA WSNALNKA MSNALNKA RVMNFS WVMNFS MVMNFS RVMKERB WVMKERB MVMKERB RADMSERV WADMSERV MADMSERV RUFTD WUFTD MUFTD RMPROUTE WMPROUTE MMPROUTE RSSLSERV WSSLSERV MSSLSERV RSSLSERV WSSLSERV MSSLSERV RSSLSERV WSSLSERV MSSLSERV RSSLSERV WSSLSERV MSSLSERV RSSLSERV WSSLSERV MSSLSERV RSSLSERV WSSLSERV MSSLSERV
:TCP_IP1. TCPMAINT	591	861	045	038	MR	RTCPMAIN WTCPMAIN MTCPMAIN
TCPMAINT TCPMAINT TCPMAINT 4TCPIP20 4TCPIP20 4TCPIP20 4TCPIP20 4TCPIP20 4TCPIP20 4TCPIP20	592 198 191 191 2C4 2A6 2A2 491 492 2B2	862 863 864 865 866 866 869 86A 86B 86C 86E	080 010 008 060 005 005 005 045 080 103	067 009 007 050 005 005 005 005 038 067 086	MR MR MR MR MR MR MR MR	ALLWICPMAINMICPMAINRTCPMAINWTCPMAINMTCPMAINRTCPMAINWTCPMAINMTCPMAINR4TCPIPW4TCPIPM4TCPIPR4TCPIPW4TCPIPM4TCPIPR4TCPIPW4TCPIPM4TCPIPR4TCPIPW4TCPIPM4TCPIPR4TCPIPW4TCPIPM4TCPIPR4TCPIPW4TCPIPM4TCPIPR4TCPIPW4TCPIPM4TCPIPR4TCPIPW4TCPIPM4TCPIPR4TCPIPW4TCPIPM4TCPIPR4TCPIPW4TCPIPM4TCPIP
4TCPIP20 :ETCP_IP1.	2B3	86F	054	045	MR	R4TCPIP W4TCPIP M4TCPIP
:TCP_IP2. 4TCPIP20 TCPIP BOOTPD TFTPD DHCPD FTPSERVE SMTP NAMESRV REXECD X25IPI PORTMAP NDBPMGR NDBSRV01 SNMPQE SNMPD IMAP ROUTED LPSERVE SNALNKA VMNFS VMKERB ADMSERV UFTD MPROUTE :ETCP_IP2. * TCP IP3	2D2 191 191 191 191 191 191 191 191 191 19	868 870 885 886 871 872 873 874 875 876 877 878 877 878 879 87A 878 877 880 881 882 883 884 832 888	140 005 002 002 010 030 002 002 002 001 002 002 001 002 002 00	$\begin{array}{c} 117\\ 005\\ 002\\ 002\\ 002\\ 002\\ 002\\ 002\\ 002$	MR MR MR MR MR MR MR MR MR MR MR MR MR M	R4TCPIP W4TCPIP M4TCPIP RTCPIP WTCPIP MTCPIP RB00TPD WBPPTPD MB00TPD RTFTPD WTFTPD MTFTPD RDHCPD WDHCPD MDHCPD RFTPSERV WFTPSERV MFTPSERV RSMTP WSMTP MSMTP RNAMESRV WNAMESRV MNAMESRV REXECD WREXECD MREXECD RX25IPI WX25IPI MX25IPI RPORTMAP WPORTMAP MPORTMAP RNDBPMGR WNDBPMGR MNDBPMGR RNDBSRV0 WNDBSRV0 MNDBSRV0 RSNMPQE WSNMPQE MSNMPQE RSNMPD WSNMPD MSNMPD RIMAP WIMAP MIMAP ROUTED WROUTED MROUTED RLPSERVE WLPSERVE MLPSERVE RSNALNKA WSNALNKA MSNALNKA RVMNFS WVMNFS MVMNFS RVMKERB WVMKERB RADMSERV WADMSERV MADMSERV RUFTD WUFTD MUFTD RMPROUTE WMPROUTE MMPROUTE
:ICP_IP3. SSLSERV SSLSERV SSLSERV SSLSERV SSLSERV SSLSERV :ETCP_IP3.	191 201 202 203 204 205	88A 889 88B 88C 88D 88E	001 001 036 002 018 168	001 001 030 001 015 140	MR MR MR MR MR	RSSLSERV WSSLSERV MSSLSERV RSSLSERV WSSLSERV MSSLSERV RSSLSERV WSSLSERV MSSLSERV RSSLSERV WSSLSERV MSSLSERV RSSLSERV WSSLSERV MSSLSERV RSSLSERV WSSLSERV MSSLSERV
:CMS_REXX.						

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MAINT	3A2	3A2	007	006	MR	READ	WRITE	MULTIPLE
MAINT	3A4	3A4	007	006	MR	READ	WRITE	MULTIPLE
MAINT	3A6	3A6	007	006	MR	READ	WRITE	MULTIPLE
MAINI	3B2	3B2	1/5	146	MR	ALL	WRITE	MULTIPLE
MAINI	302	302	005	005	MR	READ	WRITE	MULTIPLE
MAINI	304	304	010	009	MR	READ	WRITE	MULTIPLE
MAINI	3D2	3D2	250	208	MR	READ	WRITE	MULTIPLE
MAINT	400	400	090	075	MR	READ	WRITE	MULTIPLE
BLDNUC	191	8AD	005	005	MR	READ	WRITE	MULTIPLE
BLDCMS	191	8D1	005	005	MR	READ	WRITE	MULIIPLE
:ECMS_REXX	•							
*								
:CP_DV.	101	101	1 - 0	105				
MAINI	194	194	150	125	MR	ALL	WRITE	MULTIPLE
MAINI	2A2	ZAZ	007	006	MR	READ	WRITE	MULTIPLE
MAINI	2A4	ZA4	007	006	MR	READ	WRITE	MULTIPLE
MAINI	246	246	007	006	MR	READ	WRITE	MULTIPLE
MAINI	202	202	005	005	MR	READ	WRITE	MULTIPLE
MAINI	204	204	005	005	MR	READ	WRITE	MULTIPLE
MAINI	202	ZDZ	125	105	MR	READ	WRITE	MULTIPLE
AUDITOR	191	8AE	005	005	MR	RAUDITOR	WAUDITOR	MAUDITOR
SYSMUN	191	8AF	005	005	MK	RSYSMUN	WSYSMUN	MSYSMUN
VMADMIN	191	8D2	048	040	KK	READ	WRITE	MULTIPLE
VMADMIN	194	8D3	030	025	MR	READ	WRITE	MULTIPLE
VMADMIN	195	8D4	012	010	MK	READ	WRITE	MULTIPLE
VMADMIN	203	8D5	006	005	KK	READ	WRITE	MULTIPLE
	391	8D0	012	010	MK	READ	WRITE	MULTIPLE
:ECP_DV.								
*								
:VMSES.	E 1 0	E A O	007	006	мр			
	SAZ	SAZ	007	000	MD		WRITE	MULTIPLE
			007	000	MD	READ	WRITE	MULTIPLE
	DAC	DAC	007	000	MD	READ	WRITE	MULTIPLE
	282	282	010	009	MD		WRITE	MULTIPLE
	502	502	005	005	MD		WRITE	MULTIPLE
	504 502	504 502	005	000	MD		WRITE	MULTIPLE
	SDZ	SDZ	035	000	MD			
	DED EE6	3E3 5E6	010	009	MD			
	3E0	JE0	010	009	MR	KEAD	WRITE	MULTIPLE
EVMJES.								
2 100T2V2								
MAINT	103	103	200	167	MD	ΔΙΙ	WRITE	
ΜΔΙΝΤ	103	103	200	167	MR		WRITE	
•FSYST001S	чээ	+9J	200	107	PIIX	ALL	WINITE	
*	•							
•SYSTEM								
MAINT	19D	19D	108	102	MR	ALI	WRITE	MULTTPLF
MAINT	19F	19F	120	100	MR		WRITE	MULTIPLE
MAINT	201	201	026	022	MR	RMAINT	WMAINT	MMAINT
MAINT	319	319	010	009	MR	RFAD	WRITE	MULTIPLE
MAINT	376	376	006	005	MR	ALI	WRITE	MULTIPLE
MAINT	51D	51D	015	013	MR	RFAD	WRITE	MULTIPLE
MAINT	401	401	108	102	MR	ALI	WRITE	MULTIPLE
MAINT	402	402	108	102	MR	ALL	WRITE	MULTIPLE
MAINT	405	405	108	102	MR	ALL	WRITE	MULTIPLE
:ESYSTEM.								
*								
:SYSUSERS.								
CMSBATCH	195	801	002	002	MR	RBATCH	WBATCH	МВАТСН
EREP	191	809	002	002	MR	READ	WRITE	MULTIPLE
AUTOLOG1	191	80A	001	001	MR	RAUTOLOG	WAUTOLOG	MAUTOLOG
DISKACNT	191	80B	001	001	MR	READ	WRITE	MULTIPLE
OPERSYMP	191	80C	005	005	MR	READ	WRITE	MULTIPLE
OPERATOR	191	80D	005	005	MR	READ	WRITE	MULTIPLE
0P1	191	80E	001	001	MR	READ	WRITE	
OPERATNS	191	80F	017	015	MR	RDVF	WDVF	MDVF

LGLOPR :ESYSUSERS	191 •	810	001	001	MR	READ	WRITE	
* :ICKDSF. P684042H	191	822	010	009	MR	READ	WRITE	MULTIPLE
P684042H P684042H P684042H P684042H	2A2 2A6 2B2 2C2	823 824 825 826	002 002 009 002	002 002 008 002	MR MR MR MR	READ READ READ READ	WRITE WRITE WRITE WRITE	MULTIPLE MULTIPLE MULTIPLE MULTIPLE
P684042H P684042H P684042H :EICKDSF.	2D2 29D 29E	827 828 829	030 002 030	025 002 025	MR MR MR	READ READ READ	WRITE WRITE WRITE	MULTIPLE MULTIPLE MULTIPLE
* :LE_370. P688198H P688198H	191 242	82A 82B	045 003	038	MR MR	READ	WRITE	MULTIPLE
P688198H P688198H P688198H P688198H P688198H P688198H :ELE 370.	2A6 2B2 2C2 2D2 29E	82C 82D 82E 82F 830	003 080 006 120 093	003 067 005 100 078	MR MR MR MR MR	READ READ READ READ READ READ	WRITE WRITE WRITE WRITE WRITE WRITE	MULTIPLE MULTIPLE MULTIPLE MULTIPLE MULTIPLE
* :CMS_REXX_ MAINT :ECMS_REXX_ *	SOURCI 393 _SOUR(E. 393 CE.	095	080	MR	ALL	WRITE	MULTIPLE
CMS_REXX_ MAINT :ECMS_REXX	NOSOUI 393 _NOSOI	RCE. 393 JRCE.	001	001	MR	ALL	WRITE	MULTIPLE
* CP_DV_SOU MAINT :ECP_DV_SO	RCE. 394 URCE.	394	250	208	MR	ALL	WRITE	MULTIPLE
* CP_DV_NOS MAINT :ECP_DV_NO	OURCE 394 SOURCI	394 E.	001	001	MR	ALL	WRITE	MULTIPLE
* VMSES_SOU MAINT :EVMSES_SOU	RCE. 5B4 URCE.	5B4	028	024	MR	READ	WRITE	MULTIPLE
* VMSES_NOS MAINT :EVMSES_NO	OURCE 5B4 SOURCI	5B4 E.	001	001	MR	READ	WRITE	MULTIPLE
* RSCS_SOUR P684096K :ERSCS_SOU	CE. 2B3 RCE.	85D	023	020	MR	READ	WRITE	MULTIPLE
:FILEPOOL. VMSERVS VMSERVU VMSERVU VMSERVU VMSERVU VMSERVU VMSERVU	191 191 301 302 303 304 305	804 805 806 817 816 818 819 81A	003 002 010 016 016 003 007	003 002 009 014 014 003 006	MR MR WR WR WR WR	RSERVER RSERVER RCONTROL RLOG1 RLOG2 RCATALOG RDATA	WSERVER WSERVER WCONTROL WLOG1 WLOG2 WCATALOG WDATA	
VMSERVR VMSERVR VMSERVR VMSERVR VMSERVR VMSERVR	301 302 303 304 305 306	810 81B 81D 81E 81F 820	002 001 001 002 001 002	002 001 001 002 001 002	WR WR WR WR WR	RCONTROL RLOG1 RLOG2 RCATALOG RDATA RCRRLOG1	WLOG1 WLOG2 WCATALOG WDATA WCRRLOG1	

821 002 WR RCRRLOG2 WCRRLOG2 VMSERVR 307 002 VMSERVS 301 812 005 005 WR RCONTROL WCONTROL VMSERVS 302 811 005 005 WR RLOG1 WLOG1 VMSERVS 303 005 005 WR RLOG2 813 WLOG2 VMSERVS 304 814 030 025 WR RCATALOG WCATALOG VMSERVS 305 815 200 167 WR RDATA WDATA VMSERVS 306 834 200 167 WR RDATA WDATA VMSERVS 307 835 200 167 WR RDATA WDATA VMSERVS 308 836 200 167 WR RDATA WDATA WR RDATA VMSERVS 309 837 200 167 WDATA :EFILEPOOL. :SMALL FILEPOOL. VMSERVS 191 804 003 003 MR RSERVER WSERVER VMSERVU 191 003 003 MR RSERVER WSERVER 805 VMSERVR 191 806 002 002 MR RSERVER WSERVER 005 005 WR RCONTROL WCONTROL VMSERVS 301 812 811 VMSERVS 302 005 005 WR RLOG1 WLOG1 VMSERVS 303 813 005 005 WR RLOG2 WLOG2 VMSERVS 304 814 030 025 WR RCATALOG WCATALOG VMSERVS 305 815 200 167 WR RDATA WDATA VMSERVU 301 817 010 009 WR RCONTROL WCONTROL VMSERVU 302 816 016 014 WR RLOG1 WLOG1 VMSERVU 303 818 016 014 WR RLOG2 WLOG2 VMSERVU 304 819 003 003 WR RCATALOG WCATALOG VMSERVU 305 81A 007 006 WR RDATA WDATA VMSERVR 301 81C 002 002 WR RCONTROL WCONTROL VMSERVR 302 81B 001 001 WR RLOG1 WLOG1 VMSERVR 303 81D 001 001 WR RLOG2 WLOG2 VMSERVR 304 81E 002 002 WR RCATALOG WCATALOG VMSERVR 305 81F 001 001 WR RDATA WDATA VMSERVR 306 820 002 002 WR RCRRLOG1 WCRRLOG1 WR RCRRLOG2 WCRRLOG2 VMSERVR 307 821 002 002 :ESMALL FILEPOOL. * :VMSERVR. 191 806 002 MR RSERVER WSERVER VMSERVR 002 VMSERVR 301 81C 002 002 WR RCONTROL WCONTROL VMSERVR 302 81B 001 001 WR RLOG1 WLOG1 303 VMSERVR 81D 001 001 WR RLOG2 WLOG2 VMSERVR 304 81F 002 002 WR RCATALOG WCATALOG VMSERVR 305 81F 001 001 WR RDATA WDATA VMSERVR 306 820 002 002 WR RCRRLOG1 WCRRLOG1 VMSERVR 307 821 002 002 WR RCRRLOG2 WCRRLOG2 :EVMSERVR. :VMSERVS1. VMSERVS 191 804 003 003 MR RSERVER WSERVER VMSERVS 301 812 005 005 WR RCONTROL WCONTROL VMSERVS 302 811 005 005 WR RLOG1 WLOG1 VMSERVS 303 813 005 005 WR RLOG2 WLOG2 VMSERVS 304 814 030 025 WR RCATALOG WCATALOG VMSERVS 305 815 200 167 WR RDATA WDATA VMSERVS 306 834 200 167 WR RDATA WDATA :EVMSERVS1. :VMSERVS2. VMSERVS 307 835 200 167 WR RDATA WDATA VMSFRVS 308 836 200 167 WR RDATA WDATA VMSERVS 309 837 200 167 WR RDATA WDATA :EVMSERVS2. :VMSERVU. VMSERVU 191 805 003 003 MR RSERVER WSERVER VMSERVU 301 817 010 009 WR RCONTROL WCONTROL VMSERVU 302 816 016 014 WR RLOG1 WLOG1 014 WR RLOG2 VMSERVU 303 818 016 WLOG2

VMSERVU	304	819	003	003	WR	RCATALOG	WCATALOG	
VMSERVU	305	81A	00/	006	WR	RDATA	WDATA	
:EVMSERVU.								
·TSAF AVS								
TSAFVM	191	803	002	002	MR	RTSAFOB.1	WTSAFOB.1	MTSAFOB.1
AVSVM	191	802	003	003	MR	RAVSOBJ	WAVSOBJ	MAVSOBJ
MAINT	7A2	7A2	003	003	MR	READ	WRITE	MULTIPLE
MAINT	7A4	7A4	003	003	MR	READ	WRITE	MULTIPLE
MAINT	7A6	7A6	003	003	MR	READ	WRITE	MULTIPLE
MAINT	7B2	7B2	010	009	MR	READ	WRITE	MULTIPLE
MAINT	7C2	7C2	003	003	MR	READ	WRITE	MULTIPLE
MAINT	7C4	7C4	003	003	MR	READ	WRITE	MULTIPLE
MAINT	7D2	7D2	010	009	MR	READ	WRITE	MULTIPLE
:ETSAF_AVS.	•							
*								
:USA_SF.	0.00	040	010	015	мъ			
	ZBZ	840	018	015	MR	ALL	WRITE	MULTIPLE
	262	841	004	004	MR	ALL	WRITE	MULTIPLE
	202	042 042	240	200	MD	ALL	WRITE	MULTIPLE
	240	043 877	000	005	MD	ALL	WRITE	MULTIPLE
2VMVMV20	100	8/5	000	005	MD		WRITE	MULTIPLE
2VMVMV20	300	846	000	023	MR		WRITE	MULTIPLE
2VMVMV20	7F00	847	012	010	MR	ALL	WRITE	MULTIPLE
2VMVMV20	191	848	012	010	MR	ALL	WRITE	MULTIPLE
OSASF	200	849	060	050	MR	ALL	WRITE	MULTIPLE
OSASF	400	84A	027	023	MR	ALL	WRITE	MULTIPLE
OSASF	191	84B	012	010	MR	ALL	WRITE	MULTIPLE
OSAMAINT	191	839	012	010	MR	ALL	WRITE	MULTIPLE
OSAMAINT	7F00	84C	012	010	MR	ALL	WRITE	MULTIPLE
OSADMIN1	191	84D	012	010	MR	ALL	WRITE	MULTIPLE
OSADMIN2	191	84E	012	010	MR	ALL	WRITE	MULTIPLE
OSADMIN3	191	84F	012	010	MR	ALL	WRITE	MULTIPLE
:EOSA_SF.								
*								
:ISM.	101	000	0.01	0.01	мъ			
5654A09A	191	838	001	001	MR	ALL	WRITE	MULTIPLE
5054A09A	202 202	03A 02D	100	025	MD	ALL	WRITE	MULTIPLE
5654A09A	202	83U 03D	100	090	MD		WRITE	MULTIPLE
5654A09A	2A2	830	002	002	MR	ALL	WRITE	MULTIPLE
5654A09A	491	83F	054	045	MR	ALL	WRITE	MULTIPLE
5654A09A	4E2	83F	054	045	MR	ALL	WRITE	MULTIPLE
:ETSM.								
*								
:RTM.								
4VMRTM10	191	890	015	012	MR	READ	WRITE	MULTIPLE
4VMRTM10	2A2	891	002	002	MR	READ	WRITE	MULTIPLE
4VMRTM10	2A6	892	002	002	MR	READ	WRITE	MULTIPLE
4VMRTM10	2B2	893	010	009	MR	READ	WRITE	MULTIPLE
4VMRTM10	202	894	002	002	MR	READ	WRITE	MULTIPLE
4VMR1M10	204	895	002	002	MR	READ	WRITE	MULTIPLE
	ZUZ	890 007	000	050	MR	READ	WRITE	MULTIPLE
	400	09/	010	009	MD		WRIIE	MULTIPLE
	100	800	010	009	MD		WRITE	MULTIPLE
	100	800	001	001	MR	READ	WRITE	MULTIPLE
VMRTM	191	849	001	001	MR	READ	WRITE	MULTIPLE
:ERTM.		0.15						
*								
:PRF.								
4VMPRF10	191	89B	005	005	MR	READ	WRITE	MULTIPLE
4VMPRF10	2A2	89C	002	002	MR	READ	WRITE	MULTIPLE
4VMPRF10	2A6	89D	002	002	MR	READ	WRITE	MULTIPLE
4VMPRF10	2B2	89E	010	009	MR	READ	WRITE	MULTIPLE
4VMPRF10	2C2	89F	002	002	MR	READ	WRITE	MULTIPLE

4VMPRF10 4VMPRF10 4VMPRF10 4VMPRF10 4VMPRF10	2C4 2D2 597 497 1CC CCC	8A0 8A1 8A2 8A3 8A4 8A5	002 108 072 072 001 001	002 090 060 060 001 001	MR MR MR MR MR	READ READ READ READ READ READ	WRITE WRITE WRITE WRITE WRITE WRITE	MULTIPLE MULTIPLE MULTIPLE MULTIPLE MULTIPLE MULTIPLE
VMPRF VMPRF MONWRITE	191 192 191	8A6 8A7 8A8	030 010 100	025 009 090	MR MR MR	READ READ READ	WRITE WRITE WRITE	MULTIPLE MULTIPLE MULTIPLE
:EPKF. *								
:DIRM.	101	000	010	000	мр			
4VMDVH10 4VMDVH10	2A2	8B1	005	009	MR			
4VMDVH10	2A6	8B2	005	004	MR			
4VMDVH10 4VMDVH10	2B2 2C2	8B3 8B4	015	013	MR			
4VMDVH10	2C4	8B5	001	001	MR			
4VMDVH10	2D2	8B6	020	017	MR			
4VMDVH10 4VMDVH10	29D 29F	887 888	001	009	MR MR			
4VMDVH10	491	8B9	012	010	MR			
4VMDVH10	492	8BA	012	010	MR	A I I		
4VMDVH10 4VMDVH10	41F 11F	8BC	006	005	MR	ALL		
4VMDVH10	2B1	8BD	009	008	MR			
4VMDVH10	502 155	8BE	010	009	MR MD			
DATAMOVE	1AA	800	010	009	MR			
DATAMOVE	1FA	801	010	009	MR			
DATAMOVE	2AA 155	8C2 8C3	010 010	009 009	MR MR			
DIRMSAT	1AA	8C4	010	009	MR			
DIRMSAT	1FA	805	010	009	MR			
DIRMSAT	ZAA 1AA	8C7	010	009	MR			
DIRMAINT	1FA	808	010	009	MR			
	1DE 200	8CA	001	001 000	MR MP			
DIRMAINT	155	8CC	010	009	MR			
DIRMAINT	1DF	8CD	010	009	MR			
DIRMAINT	2DE	8CE 8CE	010	009	MR MR			
DIRMAINT	2DB	8D0	010	009	MR			
:EDIRM.								
:EITEMS.								
* + TTEM			3380	3300				
:TOTALS.			3300	2230				
BASE			4524	3901				
TCP_IP TCP_IP1			905 500	422				
TCP_IP2			239	208				
TCP_IP3			226	188				
RSCS			135	124				
CMS_REXX			561	471				
CP_DV VMSES			424 96	358				
SYSTEM			609	557				
SYSTOOLS			400	334				
JISUSERS			35 87	33 75				
LE_370		_	350	294				
CMS_REXX_S	OURC	E RCF	95 1	80 1				
3on			-	-				

CP DV SOURCE	250	208								
CP_DV_NOSOURCE	1	1								
VMSES_SOURCE	28	24								
VMSES_NOSOURCE	1	1								
RSCS_SOURCE	23	20								
FILEPOOL	1116	940								
FPOOL_SAMEDASD	116	105								
SMALL_FILEPOOL	316	272								
VMSERVS1	448	377								
VMSERVS2	600	501								
VMSERVU	55	49								
VMSERVR	13	13								
TSAF_AVS	40	38								
OSA_SF	544	455								
TSM	251	210								
RTM	117	101								
PRF	417	358								
DIRM	285	252								
:ETOTALS.										
* These are the	starting	addresses	for	free	space	on	the	RES	pack	
:RESSTART.										
3380 882										
3390 752										
:ERESSTART.										
*										
:DASDSIZE.										
3380 884										
338E 1769										
3383 2654										
3391 1112										
3392 2225										
3393 3338										
:EDASDSIZE.										

MAINT LINKLIST

ADMSERV	191	884
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The list of VM terms and their definitions is available through the online HELP Facility. For example, to display the definition of "cms", enter: help glossary cms

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If you are unfamiliar with the HELP Facility, you can enter:

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to display the main HELP Menu, or enter: help cms help

for information about the HELP command.

For more information about the HELP Facility, see the *z/VM: CMS User's Guide*. For more information about the HELP command, see the *z/VM: CMS Command and Utility Reference*.

Bibliography

This bibliography lists the publications that provide information about your z/VM system. The z/VM library includes z/VM base publications, publications for additional facilities included with z/VM, and publications for z/VM optional features. For abstracts of z/VM publications and information about current editions and available publication formats, see *z/VM: General Information*.

IBM VM Internet Library

The latest editions of most z/VM publications are available as Adobe PDF files and IBM BookManager[®] files from the IBM VM Internet Library:

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

The IBM VM Internet Library also includes other information about z/VM, such as:

- Program directories
- · Data areas and control blocks
- Monitor records

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Evaluation

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Installation and Service

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- *z/VM: System Messages and Codes CP*, GC24-6030
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- z/VM: Diagnosis Guide, GC24-6039
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- *z/VM:* Directory Maintenance Facility Function Level 410 Command Reference, SC24-6025
- z/VM: Directory Maintenance Facility Function Level 410 Messages, GC24-6026

PRF

• *z/VM: Performance Reporting Facility Function Level 410*, SC24-6027

RTM

• *z/VM: RealTime Monitor Function Level 410*, SC24-6028

IBM VM Collection CD-ROM

The Online Library Omnibus Edition: VM Collection, SK2T-2067, contains all the IBM libraries that are available in BookManager format for current VM system products and current IBM licensed programs that run on VM. This CD-ROM also contains PDF versions of most z/VM publications and publications for some related IBM licensed programs.

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