Note!

Before using this information and the product it supports, read the information in "Notices" on page 157.

Third Edition (May 2002)

This edition applies to the Version 4, Release 3, Modification 0 of IBM® z/VM (product number 5739-A03) and to all subsequent releases and modifications until otherwise indicated in new editions.

This edition replaces GC24-5992-01.

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</table>
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 (May 2002). 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 Directory Build worksheet 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 Find More Information

For more information about z/VM functions, see the books listed in the Bibliography on page 163.

PDF Links to Other Books

The PDF version of this book provides links to other IBM books by file name. The name of the PDF file for an IBM book is unique and identifies the book and its edition. The book links provided in this book are for the editions (PDF file names) that were current when this PDF file was generated. Newer editions of some books (with different file names) may exist. A PDF link from this book to another book works only when a PDF file with the requested file name resides in the same directory as this book.

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:** vmpub@us.ibm.com
  
  **IBMLink™:** GDLVME(PUBRCF)

- Fill out the Readers’ Comments form at the back of this book and return it by mail, by fax (1–607–752–2327), or by giving it to an IBM representative. If the form is missing, you can mail your comments to the following address:

  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.


This edition contains updates for the General Availability of z/VM 4.3.0.

- TCP/IP configuration wizard support
  After z/VM is installed, you can use the IPWIZARD command to create a minimal TCP/IP configuration that establishes basic connectivity to your IP network. The command displays a panel requesting network information. After you fill out the panel, the information is processed and the TCP/IP SYSTEM DTCPARMS, TCPIP DATA, and PROFILE TCPIP files are created.
  - 3590 tape drive is now supported for installation.
  - Non-XF 3480 tape drive is no longer supported for installation.
  - 4mm cartridge is no longer supported.
  - 3380 DASD is no longer supported for installation.
  - Mixed DASD support is no longer supported. All 3390 DASD used for installation must be the same model.
  - TSAF and AVS are now part of the BASE installation.
  - RACF® is preinstalled on z/VM, but it is disabled.


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

- 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 customers.
- 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.
Part 1. z/VM System DDR Installation

In this part, you will:

- Be introduced to the different installation procedures that you can use to install the z/VM System DDR
- Choose an installation procedure
- Fill in worksheets
- Install the z/VM System DDR.
z/VM System DDR Installation
Chapter 1. Plan 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, the Directory Build Worksheet, and the TCP/IP configuration worksheet.
Step 1. Understand the Requirements

Before you install z/VM Version 4 Release 3.0, you must satisfy the following requirements:

- Be sure that you have the proper processor for your z/VM 4.3.0 system.
- A local non-SNA 3270 terminal or equivalent is required for installation of z/VM.
- If you are installing from another VM system, review the z/VM: Migration Guide.
- See the z/VM Program Directory and the PSP Bucket for the latest information affecting z/VM.
- Be sure you have a full screen terminal with at least 20 lines.
**Step 2. Describe the Installation Procedures**

After reading this section, you will be able to choose your installation procedure using the diagram in "Step 3. Choose the Appropriate Installation Procedure" on page 6.

- **z/VM 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 3.0.

- **z/VM Procedure 2**
  Use this procedure if you are installing second level on a supported VM system.

There are two sets of instructions for using Procedure 1 and Procedure 2:

- The *z/VM Installation and Service Summary*—contains only the commands needed to install z/VM. The one-page installation and service summary is packaged with the *z/VM: Installation Guide*.

- The *z/VM: Installation Guide*—contains the commands needed to install z/VM, in addition to descriptions of the parameters used and messages received.
Choose Your Installation Procedure

**Step 3. 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 "Step 2. Describe the Installation Procedures" on page 5.

![Installation Flow Chart]

*Figure 1. Installation Flow Chart*

If you are using the procedure described in the z/VM Installation and Service Summary, leave this book and use the one-page document. Otherwise, continue to the next step.
Step 4. Decide What You Want to Load

The Installation Worksheet (Table 1 on page 10) 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.

**Using z/VM as a base to run Linux**

If you are using z/VM as a base to run Linux, you do not need to load Source or the large FILEPOOL. Therefore, for the following items, place a “Yes” in the Select To Load column in the Installation Worksheet:

- BASE
- SMALL FILEPOOL
- OSA/SF
- TSM

For the following items, place a “No” in the Select To Load column:

- FILEPOOL
- CP, DV Source
- CMS, REXX Source
- VMSES/E Source
- RSCS Source

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)
- TSAF and AVS - Transparent Services Access Facility and APPC/VM VTAM® Support
- 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
- TCP/IP
- RSCS installed disabled
- RTM installed disabled
- VMPRF installed disabled
- DirMaint installed disabled
- RACF installed disabled.

The optional items you may Select To Load are:

- FILEPOOL - CMS file pools VMSYS, VMSYSU, and VMSYSR
Decide What You Want to Load

If you want to move all products into SFS, choose FILEPOOL. You cannot select both the FILEPOOL and the SMALL FILEPOOL items.

- SMALL FILEPOOL - CMS file pools VMSYS, VMSYSU, and VMSYSR with a much smaller data minidisk area for the VMSYS file pool. You cannot select both the SMALL FILEPOOL and the FILEPOOL items.
  There is not enough space to move all products into SFS if you choose SMALL FILEPOOL.
- CP, DV source - Source minidisk shared by the CP and DV components.
  You only need this minidisk if local modifications will be made to these components.
- CMS, REXX source - Source minidisk shared by the CMS and REXX/VM components.
  You only need this minidisk if local modifications will be made to these components.
- VMSES/E source - Source minidisk for the VMSES/E component.
  You only need this minidisk if local modifications will be made to this component.
- RSCS source - Source minidisk for RSCS.
  You only need this minidisk if local modifications will be made to this component.
- Open Systems Adapter Support Facility (OSA/SF)
  OSA/SF lets you customize the integrated Open Systems Adapter (OSA) hardware feature for the OSA modes, change the OSA port parameters, and obtain status about the OSA.
- Tivoli® Storage Manager (TSM) installed disabled.
  TSM 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 5. Select the DASD Required to Install

1. Select the 3390 DASD model (density) you will use to install. The choices are:
   - Single (1113 cylinders)
   - Double (2226 cylinders)
   - Triple (3339 cylinders)

2. Calculate the number of cylinders needed for each optional item you selected to load. See the Installation Worksheet (Table 1 on page 10).

3. Determine the number of DASD you will need.

<table>
<thead>
<tr>
<th>Device Model</th>
<th>Density</th>
<th>Number of DASD Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>3390</td>
<td>Single (1113 cylinders)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If you selected 89 or less cylinders of optional items</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If you selected more than 89 cylinders and less than 1200 cylinders of optional items</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If you selected 1200 or more cylinders of optional items</td>
</tr>
<tr>
<td></td>
<td>Double (2226 cylinders)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If you selected fewer than 1206 cylinders of optional items</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If you selected 1206 or more cylinders of optional items</td>
</tr>
<tr>
<td>Triple (3339 cylinders)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>If you selected fewer than 1208 cylinders of optional items</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If you selected 1208 or more cylinders of optional items</td>
</tr>
</tbody>
</table>

4. In the Directory Build Worksheet (Table 2 on page 11), record the DASD model (density) and the number of DASD required (shown in the table).

5. Choose the addresses of your DASD. Select the number of DASD recorded in the Directory Build Worksheet (Table 2 on page 11) and verify that each DASD is the density recorded in the Directory Build Worksheet. Now, record the DASD addresses for each DASD in the Directory Build Worksheet (Table 2 on page 11).
**LOAD SELECTION SECTION**

<table>
<thead>
<tr>
<th>Item/Minidisk</th>
<th># of cylinders</th>
<th>Select To Load (Yes/No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASE (required)</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>FILEPOOL</td>
<td>1112</td>
<td></td>
</tr>
<tr>
<td>SMALL FILEPOOL</td>
<td>272</td>
<td></td>
</tr>
<tr>
<td>CP, DV Source</td>
<td>208</td>
<td></td>
</tr>
<tr>
<td>CMS, REXX Source</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>VMSES/E Source</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>RSCS Source</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>OSA/SF</td>
<td>455</td>
<td></td>
</tr>
<tr>
<td>TSM</td>
<td>210</td>
<td></td>
</tr>
</tbody>
</table>

**TAPE DRIVE SECTION**

<table>
<thead>
<tr>
<th>Drive</th>
<th>Address (1st Level)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

**MISCELLANEOUS INFORMATION**

consaddr (Primary System Console Address) :
Table 2. Directory Build Worksheet

**DASD Model (Density):** __________

**Number of DASD Required:** __________

<table>
<thead>
<tr>
<th>Label</th>
<th>Addr</th>
</tr>
</thead>
<tbody>
<tr>
<td>430RES</td>
<td></td>
</tr>
<tr>
<td>430W01</td>
<td></td>
</tr>
<tr>
<td>430W02</td>
<td></td>
</tr>
<tr>
<td>430W03</td>
<td></td>
</tr>
<tr>
<td>430W04</td>
<td></td>
</tr>
<tr>
<td>430W05</td>
<td></td>
</tr>
<tr>
<td>430W06</td>
<td></td>
</tr>
</tbody>
</table>
Establish Basic Connectivity to Your IP Network

Step 6. Decide If You Want to Establish Basic Connectivity to Your IP Network

After you have completed your z/VM installation, you can optionally create a minimal TCP/IP configuration that establishes basic connectivity to your IP network. If you choose to perform this configuration, you must gather the following information from your network system administrator and record the information in the TCP/IP Configuration Worksheet (Table 3) and the appropriate interface worksheet.

### Table 3. TCP/IP Configuration Worksheet

<table>
<thead>
<tr>
<th>User ID of the VM TCP/IP stack virtual machine (8):</th>
<th>(Initially displays the value TCP/IP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host name (20):</td>
<td></td>
</tr>
<tr>
<td>Domain name (40):</td>
<td></td>
</tr>
<tr>
<td>DNS IP address (three choices) (15):</td>
<td>1) __________________</td>
</tr>
<tr>
<td></td>
<td>2) __________________</td>
</tr>
<tr>
<td></td>
<td>3) __________________</td>
</tr>
<tr>
<td>Gateway IP address (15):</td>
<td></td>
</tr>
<tr>
<td>Interface name (16):</td>
<td></td>
</tr>
<tr>
<td>Device number (4):</td>
<td></td>
</tr>
<tr>
<td>IP address (15):</td>
<td></td>
</tr>
<tr>
<td>Subnet mask (15):</td>
<td></td>
</tr>
<tr>
<td>Choose the interface you will be using (check one):</td>
<td>__ QDIO</td>
</tr>
<tr>
<td></td>
<td>__ LCS</td>
</tr>
<tr>
<td></td>
<td>__ HiperSockets</td>
</tr>
<tr>
<td></td>
<td>__ CLAW</td>
</tr>
<tr>
<td></td>
<td>__ CTC</td>
</tr>
<tr>
<td>Refer to the appropriate interface worksheet to gather more information.</td>
<td></td>
</tr>
</tbody>
</table>

### Table 4. QDIO Interface Worksheet

<table>
<thead>
<tr>
<th>Network type (select one):</th>
<th>__ Ethernet</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>__ Token Ring</td>
</tr>
<tr>
<td>Port name (8):</td>
<td></td>
</tr>
<tr>
<td>Router type (select one):</td>
<td>__ Primary</td>
</tr>
<tr>
<td></td>
<td>__ Secondary</td>
</tr>
<tr>
<td></td>
<td>__ None</td>
</tr>
<tr>
<td>Maximum Transmission Unit (MTU) size (5):</td>
<td></td>
</tr>
</tbody>
</table>

### Table 5. LCS Interface Worksheet

<table>
<thead>
<tr>
<th>Network type (select one):</th>
<th>__ Ethernet</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>__ Token Ring</td>
</tr>
<tr>
<td></td>
<td>__ FDDI</td>
</tr>
<tr>
<td>Port/Adapter number (3):</td>
<td></td>
</tr>
<tr>
<td>Maximum Transmission Unit (MTU) size (5):</td>
<td></td>
</tr>
</tbody>
</table>

### Table 6. HiperSockets Interface Worksheet

| Maximum Frame Size (MFS): (in kilobytes) |         |
Table 7. CLAW Interface Worksheet

<table>
<thead>
<tr>
<th>CLAW host name (8):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(This name must match the value configured on the CLAW device)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CLAW adapter name (8):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(This name must match the value configured on the CLAW device):</td>
<td></td>
</tr>
</tbody>
</table>

| Maximum Transmission Unit (MTU) size (5): |  |

Table 8. CTC Interface Worksheet

<table>
<thead>
<tr>
<th>Write Channel Device Number (select one):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>___ This choice contains the device number specified on the main z/VM TCP/IP Configuration Wizard panel.</td>
<td></td>
</tr>
<tr>
<td>___ This choice contains the device number specified on the main z/VM TCP/IP Configuration Wizard panel + 1.</td>
<td></td>
</tr>
</tbody>
</table>

| Maximum Transmission Unit (MTU) size (5): |  |
| Peer IP Address (15): |  |
Establish Basic Connectivity to Your IP Network
Chapter 2. Procedure 1

In this chapter, you will:

- Use step-by-step procedures to install the z/VM System DDR in a new system environment.
Step 1. Restore the Initial Installation System (IIS)

In this step, you will:

- Mount volume 1 of the z/VM System DDR on a 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 DASD with the same labels you are using for installation are not attached to your system.

1. Before you begin, read Chapter 1, "Plan Your Installation" on page 3.
2. 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 (Table 2 on page 11) to ensure all the DASD addresses listed on the worksheet are available for use. Follow the operation manual for your own hardware.

   Attention: Make sure that any DASD with the same labels that you are using for installation are never attached to your system. Any such DASD may be brought online when you IPL the Initial Installation System in Step 3. Restore the Initial Installation System (IIS) on page 33. Either remove these DASD now and continue to substep 4, or continue to substep 4 now and use the Device Support Facilities (ICKDSF) to relabel the DASD, which is described in substep 7 on page 17.

4. Mount volume 1 of the z/VM System DDR on a tape drive.

   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.

5. IPL the tape drive, which contains volume 1, 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:

6. 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.
Restore the Initial Installation System (IIS)

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

Press the Reset key to unlock the keyboard. Depending on how your console is defined, you may not have to clear your screen. This message tells you that the Device Support Facilities (ICKDSF) is loaded and ready.

CLEAR SCREEN WHEN READY

ICK005E DEFINE INPUT DEVICE, REPLY 'DDDD,CUU' OR 'CONSOLE'
ENTER INPUT/COMMAND:
console

ICK006E DEFINE OUTPUT DEVICE, REPLY 'DDDD,CUU' or 'CONSOLE'
ENTER INPUT/COMMAND:
console

ICKDSF - SA/XA/ESA DEVICE SUPPORT FACILITIES
nn.n TIME:hh:mm:ss dd/mm/yy PAGE 1

7. If you have DASD with the same labels listed in the Directory Build Worksheet (Table 2 on page 11) that are not being used for this installation, use the ICKDSF program to relabel them. If there is more than one DASD to relabel, relabel one at a time.

```
cpvolume label unit(dasdaddr) novfy valid(valid)  dasdaddr is the address of the DASD you want to relabel, and valid is the new label you will use for that DASD.
```

ICK00700I DEVICE INFORMATION FOR dasdaddr IS CURRENTLY AS FOLLOWS:
PHYSICAL DEVICE = xxxx.
STORAGE CONTROLLER = xxxx
STORAGE CONTROL DESCRIPTOR = xx
DEVICE DESCRIPTOR = xx

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

```
u
```

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

8. If your DASD are already initialized, skip to substep 10 on page 18 to format them.

9. For uninitialized DASD, use the INSTALL command to initialize the DASD. If there is more than one uninitialized DASD, initialize one at a time.

```
install unit(dasdaddr) novfy  dasdaddr is the address of the DASD you want to initialize. dasdaddr is recorded in your Directory Build Worksheet (Table 2 on page 11).
```
ICK00700I DEVICE INFORMATION FOR dasdaddr IS CURRENTLY AS FOLLOWS:
PHYSICAL DEVICE = xxxx.
STORAGE CONTROLLER = xxxx
STORAGE CONTROL DESCRIPTOR = xx
DEVICE DESCRIPTOR = xx
ICK003D REPLY U TO ALTER VOLUME dasdaddr CONTENTS,
ELSE T
ENTER INPUT/COMMAND: u

The system takes at least 20 to 40 minutes to inspect and initialize a DASD. You will get a series of ICK messages that describe the status of the device being initialized at the point that the initialization is almost complete.

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

10. Format the 430RES and each DASD listed on your Directory Build Worksheet. Issue the following command for each DASD.

    cnpvolume format unit(dasdaddr) novfy valid(volid) mode(esa) nofiller

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

    valid is the volume identifier (Label) listed in your Directory Build Worksheet.

    :

    ICK003D REPLY U TO ALTER VOLUME dasdaddr CONTENTS,
    ELSE T
    ENTER INPUT/COMMAND: u

    :

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

11. 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.
12. Answer the following prompts from the DDR program to load the Initial Installation System from the z/VM System DDR to the system residence device (430RES).

```
z/VM DASD DUMP/RESTORE PROGRAM
ENTER CARD READER ADDRESS OR CONTROL STATEMENTS
ENTER:
sysprint cons
ENTER:
input tapeaddr tape (skip 1 rew
ENTER:
output dasdaddr dasd 430res
ENTER:
restore all
HCPDDR725D SOURCE DASD DEVICE WAS (IS) LARGER THAN OUTPUT DEVICE
DO YOU WISH TO CONTINUE? RESPOND YES OR NO:

yes
RESTORING 430RES
DATA DUMPED mm/dd/yy
AT hh:mm:ss GMT FROM 430RES
RESTORED TO 430RES
INPUT CYLINDER EXTENTS OUTPUT CYLINDER EXTENTS
START STOP START STOP
n n n n n n
n n n n n n
n n n n n n
n n n n n n
n n n n n n
n n n n n n
END OF RESTORE
BYTES RESTORED n n n n n n
ENTER:
END OF JOB
```

```
tapeaddr is the address of the tape drive where you mounted volume 1.

By typing the word tape, the tape device type is automatically identified by the DDR program.
dasdaddr is the address of the system residence device (430RES) recorded on your Directory Build Worksheet.

DDR checks the DASD label to make sure it is 430RES, the system residence device.

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

Informational messages: GMT means Greenwich Mean Time. The exact cylinder extents vary according to the device type.

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 3.0 system from the DASD device you just restored it to; that is, IPL the real address of 430RES 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**) in the Installation Worksheet (**Table 1 on page 10**).

   **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.

3. Move the cursor to the IPL PARAMETERS field and type:
   
   ```
   cons=consaddr
   ```

   As shown in **Figure 2**, **consaddr** is the primary system console address recorded in the Installation Worksheet (**Table 1 on page 10**). This statement defines the operator console. Spaces are not allowed around the equal sign.

4. Press **PF10** to load.

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

hh:mm:ss z/VM V4 R3.0
SERVICE LEVEL nnnn (mode)

hh:mm:ss SYSTEM NUCLEUS CREATED ON yyyy-mm-dd AT hh:mm:ss,
LOADED FROM 430RES

hh:mm:ss *******************************************

hh:mm:ss HCPZCO6718I Using parm disk 1 on volume volid (device xxxx).

hh:mm:ss HCPZCO6718I 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 HCPIS954I, you have duplicate volumes with the same label and must correct this error before continuing. Refer back to substep 3 on page 16.

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 do not need the servers and all user IDs logged on.

6. If it has not been set before, set the TOD (time-of-day) clock using standard operating procedures. Consult z/VM: System Operation for those procedures.

NOW hh:mm:ss {EST|EDT} weekday yyyy-mm-dd
Change TOD clock (yes|no)
(yes|no)

You will see this message only if the TOD clock has been set before.
Answer yes to reset the TOD clock, no to keep the current setting.

++++Yes Reply System Response+++++

Set date MM/DD/YY
Set time HH:MM:SS

Press "TOD ENABLE SET" key at designated instant
NOW hh:mm:ss {EST|EDT} weekday mm/dd/yy
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.
IPL the z/VM IIS

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

hh:mm:ss The directory on volume 430RES 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 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 HCPWED876I The processor controller will not notify VM prior to
hh:mm:ss HCPWED876I deactivation. To ensure guest integrity, issue the VM
hh:mm:ss HCPWED876I SHUTDOWN command before deactivating it.
hh:mm:ss HCPAAU2700I System gateway ZVMV4R30 identified.
z/VM Version 4 Release 3.0, 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: nnnnnnnn RDR, nnnnnnnn 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 3.0, 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 V4.3.0 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
Select the Items to Load

Step 3. Select the Items to Load from the z/VM System DDR

In this step, you will:

- Run INSTPLAN to determine which items you want to load from the z/VM System DDR.

1. Run INSTPLAN to select items to load and the DASD model (density) 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.

<table>
<thead>
<tr>
<th>Status</th>
<th>Item</th>
<th>Status</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>BASE</td>
<td>N</td>
<td>FILEPOOL</td>
</tr>
<tr>
<td>N</td>
<td>CP/DV SOURCE</td>
<td>N</td>
<td>CMS/REXX SOURCE</td>
</tr>
<tr>
<td>N</td>
<td>RSCS SOURCE</td>
<td>S</td>
<td>OSA/SF</td>
</tr>
<tr>
<td>S</td>
<td>SMALL FILEPOOL</td>
<td>N</td>
<td>VMSES SOURCE</td>
</tr>
<tr>
<td>N</td>
<td>CMS/REXX SOURCE</td>
<td>N</td>
<td>VMSES SOURCE</td>
</tr>
<tr>
<td>N</td>
<td>RSCS SOURCE</td>
<td>N</td>
<td>TSM</td>
</tr>
</tbody>
</table>

   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.

   _ (6) 3390 Single _ (3) 3390 Double _ (2) 3390 Triple

   PF1 = HELP   PF3/PF12 = QUIT   PF5 = Process   ENTER = Refresh

   a. Refer to the Installation Worksheet (Table 1 on page 10). 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. Place a nonblank character in front of the DASD model that matches the Device Density in the Directory Build Worksheet (Table 2 on page 11).

   c. After filling in the STATUS column and selecting the DASD model to be used for installation, press PF5 to complete the planning step.

   ```
   HCPIP8475I THE ITEMS YOU SELECTED TO BE LOADED ARE:
   BASE SMALL FILEPOOL OSA/SF TSM
   
   THE ITEMS YOU SELECTED NOT TO BE LOADED ARE:
   FILEPOOL CP/DV SOURCE CMS/REXX SOURCE
   VMSES SOURCE RSCS SOURCE
   
   THE DASD TYPE YOU SELECTED TO LOAD ON IS:
   3390 model
   
   THE PACKS NEEDED TO LOAD THESE ITEMS ARE:
   430RES 430W01 ...
   ```

   HCPINP8391I INSTPLAN EXEC ENDED SUCCESSFULLY

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

   2. Choose the addresses of your tape drives.

   If you are installing on CD-ROM, you need tape drives for two volumes.
Select the Items to Load

If you are installing on 3590 tape, you need a tape drive for one volume.

If you are installing on 3480 or 3490 tape, you need tape drives for eight volumes. If you are not loading ADSM or any Source, you do not need volume 8.

3. Record the real address (*tapeaddr*) of each tape drive in the 1st Level address column in the TAPE DRIVE SECTION in the Installation Worksheet (Table 1 on page 10).

   **What to Do Next**
   
   Go to [Chapter 4, “Load the System DDR” on page 41](#).
Select the Items to Load
Chapter 3. Procedure 2

In this chapter, you will:
Use step-by-step procedures to install the z/VM System DDR from a VM system.
Load the Installation Tools

Step 1. Load the Installation Tools from the z/VM System DDR

In this step, you will
• Log on to a first-level user ID
• Attach tape drives
• Mount the z/VM System DDR tapes on the tape drives
• Load the installation tools

1. Before you begin, read Chapter 1, “Plan Your Installation” on page 3.

2. From your current operating system, log on to a first-level user ID with privilege classes B through G and 64MB virtual storage, which you will use to install z/VM Version 4 Release 3.0. It is a good idea not to grant your user ID privilege class A authority, so that you cannot accidentally shutdown the first-level system.

3. Verify that you have a 191 disk accessed as A and it has at least 2 cylinders of available space. The installation tools will be loaded to the work disk.

```
access 191 a
Ready; T=n.nn/n.nn hh:mm:ss
```

4. Choose the addresses of your tape drives.
   If you are installing on CD-ROM, you need tape drives for two volumes.
   If you are installing on 3590 tape, you need a tape drive for one volume.
   If you are installing on 3480 or 3490 tape, you need tape drives for eight volumes. If you are not loading TSM or any Source, you do not need 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.

5. Record the real address (tapeaddr) of each tape drive in the 1st Level column in the TAPE DRIVE SECTION in the Installation Worksheet (Table 1 on page 10).

6. Attach the tape drives.
   • If you are installing with CD-ROM 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 for information about attaching the tape drives.
     – Installing from a Multiprise 3000, refer to the Emulated I/O User's Guide and AWSOMA.DOC in the Service Element directories for information about attaching the tape drives.
   • If you are installing with 3590, 3480, or 3490 tape, enter the following ATTACH command for each tape drive needed. Volume 1 must be mounted on 181.

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

tapeaddr is the 1st Level address of the tape drive where the z/VM System DDR tapes will be mounted. tapeaddr is recorded in the TAPE DRIVE SECTION in the Installation Worksheet (Table 1 on page 10). userID is the first-level user ID logged on to in the previous substep.

7. Mount the z/VM System DDR tapes on the tape drives. Volume 1 must be mounted at address 181.
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
```
Select the Items to Load

Step 2. Select the Items to Load from the z/VM System DDR

In this step, you will:

- Run INSTPLAN to determine which items you want to load from the z/VM System DDR.

1. Run INSTPLAN to select items to load and the DASD model 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.

<table>
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<tr>
<th>Status</th>
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<td>N</td>
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<tr>
<td>N</td>
<td>CP/DV SOURCE</td>
<td>N</td>
<td>CMS/REXX SOURCE</td>
</tr>
<tr>
<td>N</td>
<td>RSCS SOURCE</td>
<td>S</td>
<td>OSA/SF</td>
</tr>
</tbody>
</table>

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.

- (6) 3390 Single
- (3) 3390 Double
- (2) 3390 Triple

PF1 = HELP  PF3/PF12 = QUIT  PF5 = Process  ENTER = Refresh

Figure 3. Installation Planning Panel

a. Refer to the Installation Worksheet (Table 1 on page 10). 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. Place a nonblank character in front of the DASD model that matches the **Device Density** in the Directory Build Worksheet (Table 2 on page 11).

c. After filling in the STATUS column and selecting the DASD model to be used for installation, press **PF5** to complete the planning step.

   HCPINPX8475I THE ITEMS YOU SELECTED TO BE LOADED ARE:
   BASE SMALL FILEPOOL OSA/SF TSM

   HCPINPX8475I THE ITEMS YOU SELECTED NOT TO BE LOADED ARE:
   FILEPOOL CP/DV SOURCE CMS/REXX SOURCE
   VMSES SOURCE RSCS SOURCE

   HCPINPX8475I THE DASD TYPE YOU SELECTED TO LOAD ON IS:
   3390 model

   HCPINPX8475I THE PACKS NEEDED TO LOAD THESE ITEMS ARE:
   430RES 430W01 ...

   HCPINP8392I INSTPLAN EXEC ENDED SUCCESSFULLY

Ready; T=n.nn/n.nn hh:mm:ss
Select the Items to Load
Step 3. Restore the Initial Installation System (IIS)

In this step, you will:

- Format the DASD
- Load down the Initial Installation System (IIS) from the z/VM System DDR.

1. Refer to the Directory Build Worksheet (Table 2 on page 11). Attach all the DASD listed in the worksheet that are not already attached. Enter the following ATTACH command for each DASD:

   ```bash
   attach dasdaddr *
   DASD dasdaddr ATTACHED TO userID dasdaddr
   ...
   Ready; T=n.nn/nn.nn hh:mm:ss
   ``

   *dasdaddr* is the address of the DASD. *userID* is the first-level user ID logged on to previously.

   **Attention:** Issue the QUERY DASD ATTACH * command to make sure that any DASD with the same labels that you are using for installation are **not** already attached. You must detach any other DASD with these labels now to prevent bringing them online.

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

   ```bash
   instiis
   ```
Restore the Initial Installation System (IIS)

a. Fill in the DASD addresses using the information from the Directory Build Worksheet (Table 2 on page 11). For detailed information, press /SF580000PF1/SF590000 for HELP.

b. Fill in the tape address (181) where volume 1 is mounted.

c. Press /SF580000PF5/SF590000 to process.

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)

  **y**

  **HCPIIX8380I** RESTORING IIS TO 430RES
  
  RESTORING 430RES DATA DUMPED mm/dd/yy AT hh.mm.ss GMT FROM 430RES RESTORED TO 430RES INPUT CYLINDER EXTENTS OUTPUT CYLINDER EXTENTS
  
  START STOP START STOP
  
  nnnnnnnn nnnnnnnn nnnnnnnn nnnnnnnn
  
  nnnnnnnn nnnnnnnn nnnnnnnn nnnnnnnn
  
  nnnnnnnn nnnnnnnn nnnnnnnn nnnnnnnn
  
  nnnnnnnn nnnnnnnn nnnnnnnn nnnnnnnn
  
  nnnnnnnn nnnnnnnn nnnnnnnn nnnnnnnn
  
  END OF RESTORE
  
  BYTES RESTORED nnnnnnnnnn

---

**Figure 4. Installation DASD Format and Restore Panel (3390 Model Layout)**

- Fill in the DASD addresses using the information from the Directory Build Worksheet (Table 2 on page 11). For detailed information, press PF1 for HELP.

- Fill in the tape address (181) where volume 1 is mounted.

- Press PF5 to process.

---

---
Restore the Initial Installation System (IIS)

END OF JOB
HCPIN18392I 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:

430RES dasdaddr1
dasdnname2 dasdaddr2
dasdnname3 dasdaddr3

::

ALL DATA ON THESE PACKS WILL BE LOST.
DO YOU WANT TO CONTINUE? (Y/N)

Y

HCPIIX8490I NOW FORMATTING PACK dasdaddr1
HCPIIX8490I NOW FORMATTING PACK dasdaddr2
HCPIIX8490I NOW FORMATTING PACK dasdaddr3
::

HCPIIX8380I RESTORING IIS TO 430RES
RESTORING 430RES
DATA DUMPED mm/dd/yy AT hh.mm.ss GMT FROM 430RES RESTORED TO 430RES
INPUT CYLINDER EXTENTS OUTPUT CYLINDER EXTENTS
START STOP START STOP
nnnnnnnn nnnnnnnn nnnnnnnn nnnnnnnn
nnnnnnnn nnnnnnnn nnnnnnnn nnnnnnnn
nnnnnnnn nnnnnnnn nnnnnnnn nnnnnnnn
nnnnnnnn nnnnnnnn nnnnnnnn nnnnnnnn
nnnnnnnn nnnnnnnn nnnnnnnn nnnnnnnn
END OF RESTORE
BYTES RESTORED nnnnnnnnn

END OF JOB
HCPIIN8392I INSTIIS EXEC ENDED SUCCESSFULLY
Ready; T=n.nn/n.nn hh:mm:ss
3. If you are installing from CD-ROM or 3590, skip this substep and go to Step 4. IPL the z/VM IIS on page 37.

If you are installing from 3480 or 3490 tape, continue with this substep. You are finished using volume 1 of the z/VM System DDR. Unload the tape from the drive.

    tape run
    Ready; T=n.nn/n.nn hh:mm:ss
Step 4. 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. 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
   Storage cleared - system reset.
   terminal conmode 3270

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

   query virtual storage
   STORAGE = nnnnM
   define storage 64m
   STORAGE = 64M
   Storage cleared - system reset

3. Set virtual machine mode to XA.

   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.

4. Query the console and record the virtual console address (consaddr) in the Installation Worksheet (Table 1 on page 10). The address is required in the next substep.

   query console
   CONS consaddr
   consaddr is the address of your virtual console.

5. IPL the IIS you loaded to the system residence device (430RES).

   ipl dasdaddr clear loadparm consaddr
   Clear is necessary. Do not omit it.
   dasdaddr is the address of the system residence device (430RES). Refer to your Directory Build Worksheet.
   consaddr is the address of your virtual console recorded previously.
IPL the z/VM IIS

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

---

6. 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 Installation Worksheet (Table 1 on page 10). This statement defines the operator console. Spaces are not allowed around the equal sign.

7. Press PF10 to load.

```
PF10
```

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

```
hh:mm:ss z/VM V4 R3.0
SERVICE LEVEL nnnn (mode)

hh:mm:ss SYSTEM NUCLEUS CREATED ON yyyy-mm-dd AT hh:mm:ss, LOADED FROM 430RES

hh:mm:ss ****************************************

hh:mm:ss * LICENSED MATERIALS - PROPERTY OF IBM* *
hh:mm:ss * 5739-A03 (C) COPYRIGHT IBM CORP. 1983, *
hh:mm:ss * 2002. 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 * TRADMARK OF INTERNATIONAL BUSINESS *
hh:mm:ss * MACHINES *
hh:mm:ss ****************************************

hh:mm:ss HCPZCO6718I Using parm disk 1 on volume volid (device xxxx).
hh:mm:ss HCPZCO6718I Parm disk resides on cylinders xx through xx.

---

Figure 5. Sample Stand Alone Program Loader Panel
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 HCPIS954I, you have duplicate volumes with the same label. You must return to the first-level CP environment and detach the duplicate volumes. Then go back to substep 1 on page 37.

```
hh:mm:ss Start ((Warm|Force|COLD|CLEAN) (DRAIN) (DISABLE) (NODIRECT) (NOMAUTLOG)) 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 yyyy-mm-dd
Change TOD clock (yes|no)
no

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

```
hh:mm:ss The directory on volume 430RES at address nnnn has been brought online.
hh:mm:ss HCPWRS2513I
hh:mm:ss HCPWRS2513I Spool files available  nnnn
```

**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---+
```
IPL the z/VM IIS

hh:mm:ss  HCPWRS2512I Spooling initialization is complete.
hh:mm:ss  DASD nnnn dump unit CP IPL pages nnnn
hh:mm:ss  HCPWED876I The processor controller will not notify VM prior to
deactivation. To ensure guest integrity, issue the VM
SHUTDOWN command before deactivating it.
hh:mm:ss  HCPAAU2700I System gateway ZVMV4R30 identified.
z/VM Version 4 Release 3.0, 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  HCP10P952I nnnnM system storage
hh:mm:ss  FILES:  nnnnnnnn RDR, nnnnnnnn PRT,  NO PUN

10. 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

What to Do Next

Go to Chapter 4, “Load the System DDR” on page 41.
Chapter 4. Load the System DDR

In this chapter, you will:

- Use INSTDIR to generate the system directory
- Use INSTVM to load your new system
- Use INSTDEF to complete processing and to optionally move products to SFS
- Use SERVICE and PUT2PROD to install RSU service
- Configure TCP/IP
- Load new CPLOAD module
- Back up system to tape.
Step 1. Run INSTDIR and DIRONLIN

In this step, you will:

- Run INSTDIR to build the directory for your system
- Run DIRONLIN to bring the new directory online.

1. Log on to the MAINT user ID.

   ENTER

   logon maint

   z/VM Version 4 Release 3.0, 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 V4.3.0 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 USER DIRECT for your installation.

   instdir

   DASD 0199 DETACHED
   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.
   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

3. 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 3.0
   EDJ 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

4. Log off of the MAINT user ID.

   logoff

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

   LOGOFF AT hh:mm:ss (EST|EDT) weekday mm/dd/yy

   Enter
Run INSTVM EXEC

Step 2. Run INSTVM EXEC

In this step, you will:

• 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.

   logon maint

   The default password for MAINT is MAINT.

   enter

   z/VM Version 4 Release 3.0, 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 V4.3.0 yyyy-mm-dd hh:mm
   enter

   DMSACP112S B(5E5) device error
   DMSACP112S D(51D) device error
   Message DMSACP112S is not a problem at this time.

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

2. Attach the tape drives, where the z/VM System DDR tapes are mounted, by repeating this step for each tape drive needed. Refer to the 1st Level column in the TAPE DRIVE SECTION in the Installation Worksheet (Table 1 on page 10) for tapeaddr.

   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 column of the TAPE DRIVE SECTION in the Installation Worksheet (Table 1 on page 10).

   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.

3. If the tapes are not already mounted, mount the z/VM System DDR tapes on the tape drives. If you are using 3480 or 3490 tapes, do not mount volume 1.

4. Run INSTVM to install the z/VM System DDRs.

   If installing from CD-ROM, enter:

   instvm cd

   If installing from 3590 tape, enter:

   instvm 3590

   Otherwise, enter:

   instvm
Run INSTVM EXEC

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

5. Complete the LOAD DEVICE MENU panel.

**Note:** This panel shows you which tape volumes you need 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, 3590, or CD depending on the parameter used to call the INSTVM exec. If the media specified is not correct, press **PF3** to quit and run the INSTVM exec with the correct parameter.

b. Type in the tape drive addresses where each volume of the z/VM System DDR is mounted. 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.

6. Press **PF5** to load.

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 DRIVE vaddr
HCPWIN8371I LOADING BASE
HCPWIN8371I LOADING FILEPOOL ...
HCPWIN8371I LOADING CP, DV SOURCE ...
HCPWIN8371I LOADING CMS, REXX SOURCE ...
HCPWIN8371I LOADING VMSES/E SOURCE ...
```

You will receive this message for each tape drive you are using. The screen will clear after these messages are displayed.
Run INSTVM EXEC

The screen will clear for a few seconds after these messages are displayed.

valid is the volume identifier.

HCPWIN8428I TOTAL PERCENT LOADED -> nn%

HCPWIN8380I RESTORING MINIDISK nnn TO valid

HCPD0R725D SOURCE DASD DEVICE WAS (IS) LARGER THAN OUTPUT DEVICE
RESTORING valid
DATA DUMPED mm/dd/yy AT hh:mm:ss GMT FROM valid RESTORED TO SCRATCH
INPUT CYLINDER EXTENTS OUTPUT CYLINDER EXTENTS
START STOP START STOP
nnnnnnnn nnnnnnnn nnnnnnnn nnnnnnnn

END OF RESTORE
BYTES RESTORED nnnnnnn
END OF JOB

+———Tape prompt———+

:

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.

:

HPWSR8409I GENERATING SOFTWARE INVENTORY FILES
HPWSR8413I GENERATING SOFTWARE INVENTORY FILES COMPLETED
HPPLD8392I POSTLOAD EXEC COMPLETED SUCCESSFULLY

+———Messages received if FILEPOOL was loaded———+

DMSACC724I 2CC replaces E (2CC)
AUTO LOGON *** VMSRVUS USERS = n
HPCLSL6056I XAUTOLOG information for VMSRVUS: The IPL command is verified by the IPL command processor.
VMSRVUS : z/Vm V4.3.0 yyyy-mm-dd hh:mm
VMSRVUS : DMSACP723I B (193) R/O
VMSRVUS : DMSWFV1117I FILESERV processing begun at hh:mm:ss on dd month yyyy
VMSRVUS : DMSWFV1121I VMSRVUS DMSPARMS A1 will be used for FILESERV processing
VMSRVUS : DMSWFV1121I VMSYS POOLDEF A1 will be used for FILESERV processing
AUTO LOGON *** VMSRVUS USERS = n
HPCLSL6056I XAUTOLOG information for VMSRVUS: The IPL command is verified by the IPL command processor.
VMSRVUS : z/Vm V4.3.0 yyyy-mm-dd hh:mm
VMSRVUS : DMSACP723I B (193) R/O
VMSRVUS : DMSWFV1117I FILESERV processing begun at hh:mm:ss on dd month yyyy
VMSRVUS : DMSWFV1121I VMSRVUS DMSPARMS A1 will be used for FILESERV processing
VMSRVUS : DMSWFV1121I VMSYS POOLDEF A1 will be used for FILESERV processing
VMSRVUS : DMS5BB3045I Ready for operator communications

Chapter 4. Load the System DDR 45
Run INSTVM EXEC

AUTO LOGON *** VMSERV USERS = n
HCPLS60561 XAUTOLOG information for VMSERV: The IPL command is verified by the IPL
command processor.
VMSERV : DMS5BB3045I Ready for operator communications
VMSERV : z/VM V4.3.0 yyyy-mm-dd hh:mm
VMSERV : DMSACP723I B (193) R/O
VMSERV : DMSWFV1117I FILESERV processing begun at hh:mm:ss on dd month yyyy
VMSERV : DMSWFV1121I VMSERV DMSPARMS A1 will be used for FILESERV processing
VMSERV : DMS6LG3335I CRR log recovery begins at mm-dd-yy hh:mm:ss
VMSERV : DMS6LG3335I CRR log recovery completes at mm-dd-yy hh:mm:ss
VMSERV : DMS5BB3045I Ready for operator communications

+——— End of Messages received if FILEPOOL was loaded ———+

+——— Messages received for each file pool if SMALL FILEPOOL was loaded ———+

DASD 0804 DETACHED
AUTO LOGON *** VMSERVn USERS = n
HCPLS60561 XAUTOLOG information for VMSERVn: The IPL command is verified by the IPL
command processor.
VMSERVn : DMSACCC724I 19E replaces Y (19E)
VMSERVn : DMSACP723I Y (19E) R/O
VMSERVn : z/VM V4.3.0 yyyy-mm-dd hh:mm
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 : 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 ZVMV4R30 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 *** VMSERV USERS = 3
HCPLS60561 XAUTOLOG information for VMSERV: The IPL command is verified by the IPL
command processor.
VMSERV : DMSACCC724I 19E replaces Y (19E)
VMSERV : DMSACP723I Y (19E) R/O
VMSERV : z/VM V4.3.0 yyyy-mm-dd hh:mm
VMSERV : DMSWFV1117I FILESERV processing begun at hh:mm:ss on dd month yyyy
VMSERV : DMSWFV1121I VMSERV DMSPARMS A1 will be used for FILESERV processing
VMSERVn : DMSWFV1121I VMSYSn POOLDEF A1 will be used for FILESERV processing
Run INSTVM EXEC

VMSERVn: DMSLG3335I CRR log recovery begins at mm-dd-yy hh:mm:ss
VMSERVn: DMSLG3335I 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 SMALL FILEPOOL was loaded———+

HCPIFP8392I INSTPOOL EXEC ENDED SUCCESSFULLY
HCPIVM8392I INSTVM EXEC ENDED SUCCESSFULLY
Ready; T=n.nn/n.nn hh:mm:ss
Step 3. 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. Run INSTDEF.

```
  instdef
```

```
*** z/VM INSTDEF MENU ***

Mark items selected to be moved into SFS with an S in the Move to SFS column
and those selected not to be moved into SFS with an N.

<table>
<thead>
<tr>
<th>Move to SFS</th>
<th>Component</th>
<th>Move to SFS</th>
<th>Component</th>
<th>Move to SFS</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>AVS</td>
<td>N</td>
<td>GCS</td>
<td>N</td>
<td>TSAF</td>
</tr>
<tr>
<td>N</td>
<td>LE370</td>
<td>N</td>
<td>RSCS</td>
<td>N</td>
<td>TCPIP</td>
</tr>
<tr>
<td>N</td>
<td>OSA</td>
<td>N</td>
<td>TSM</td>
<td>N</td>
<td>ICKDSF</td>
</tr>
<tr>
<td>N</td>
<td>RTM</td>
<td>N</td>
<td>PRF</td>
<td>N</td>
<td>DIRM</td>
</tr>
<tr>
<td>N</td>
<td>RACF</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

System Default Language (AMENG, UCENG, KANJI, GERMAN) AMENG

Move Shell & Utilities into the IBM default Byte File System? (Y/N) Y

PF1 = HELP  PF3/PF12 = QUIT  PF5 = Process  ENTER = Refresh
```

a. If you are moving items into SFS, change the “N” to “S” for each item to be moved.

**Note:** To move items into SFS, you must have loaded the FILEPOOL item.

b. If you want a different system default language, change “AMENG” to another language.

c. If you do not want to move Shell & Utilities in BFS, change the “Y” to “N”.

**Note:** To move Shell & Utilities into BFS, you must have loaded either the FILEPOOL or SMALL FILEPOOL item.

d. 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  RACF

THE ITEMS YOU SELECTED NOT TO MOVE TO SFS ARE:
  NONE

THE LANGUAGE IDENTIFIER IS:
  AMENG

MOVE SHELL & UTILITIES INTO IBM DEFAULT BFS:
  YES
```
NOW EXECUTING THE MOVE TO SFS STEP

MOVE OF AVS COMPONENT TO SFS COMPLETED SUCCESSFULLY

AVS MUST BE MOVED TO SFS BEFORE THE DISK SPACE CAN BE RECLAIMED

THE COMMAND CMS MOVE2SFS AVS (RECLAIM COMPLETED WITH RC=4 PROCESSING CONTINUES

NOW EXECUTING THE MOVE TO SFS STEP

MOVE OF GCS COMPONENT TO SFS COMPLETED SUCCESSFULLY

THE FOLLOWING MINIDISKS FOR COMPONENT GCS HAVE BEEN RECLAIMED:

6A6 6A4 6A2 6D2 6B2

THE COMMAND CMS MOVE2SFS GCS (RECLAIM COMPLETED SUCCESSFULLY

NOW EXECUTING THE MOVE TO SFS STEP

MOVE OF TSAF COMPONENT TO SFS COMPLETED SUCCESSFULLY

THE FOLLOWING MINIDISKS FOR COMPONENT TSAF HAVE BEEN RECLAIMED:

7A6 7A4 7A2 7D2 7B2

THE COMMAND CMS MOVE2SFS TSAF (RECLAIM COMPLETED SUCCESSFULLY

NOW EXECUTING THE MOVE TO SFS STEP

MOVE OF LE370 COMPONENT TO SFS COMPLETED SUCCESSFULLY

THE FOLLOWING MINIDISKS FOR COMPONENT LE370 HAVE BEEN RECLAIMED:

2B2 2C2 2D2 2A6 2A2

THE COMMAND CMS MOVE2SFS LE370 (RECLAIM COMPLETED SUCCESSFULLY

NOW EXECUTING THE MOVE TO SFS STEP

MOVE OF RSCS COMPONENT TO SFS COMPLETED SUCCESSFULLY

THE FOLLOWING MINIDISKS FOR COMPONENT RSCS HAVE BEEN RECLAIMED:

2B2 2C2 2D2 2A6 2A2 290 502 402 406 2B3

THE COMMAND CMS MOVE2SFS RSCS (RECLAIM COMPLETED SUCCESSFULLY

NOW EXECUTING THE MOVE TO SFS STEP

MOVE OF TCPIP COMPONENT TO SFS COMPLETED SUCCESSFULLY

THE FOLLOWING MINIDISKS FOR COMPONENT TCPIP HAVE BEEN RECLAIMED:

2B2 2C4 2D2 2A6 2A2 2B3

THE COMMAND CMS MOVE2SFS TCPIP (RECLAIM COMPLETED SUCCESSFULLY

NOW EXECUTING THE MOVE TO SFS STEP

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

THE COMMAND CMS MOVE2SFS OSA (RECLAIM COMPLETED SUCCESSFULLY

NOW EXECUTING THE MOVE TO SFS STEP

MOVE OF TSM COMPONENT TO SFS COMPLETED SUCCESSFULLY

THE FOLLOWING MINIDISKS FOR COMPONENT TSM HAVE BEEN RECLAIMED:

2B2 2D2 2A6 2A2

THE COMMAND CMS MOVE2SFS TSM (RECLAIM COMPLETED SUCCESSFULLY

NOW EXECUTING THE MOVE TO SFS STEP

MOVE OF ICKDSF COMPONENT TO SFS COMPLETED SUCCESSFULLY

THE FOLLOWING MINIDISKS FOR COMPONENT ICKDSF HAVE BEEN RECLAIMED:

2B2 2C2 2D2 2A6 2A2 29E 29D

THE COMMAND CMS MOVE2SFS ICKDSF (RECLAIM COMPLETED SUCCESSFULLY

NOW EXECUTING THE MOVE TO SFS STEP

Run INSTDEF EXEC

Chapter 4. Load the System DDR 49
Run INSTDEF EXEC

HCPWMV8456I PROCESSING COMPONENT RTM
HCPWMV8453I MOVE OF RTM COMPONENT TO SFS COMPLETED SUCCESSFULLY
HCPWMV8465I THE FOLLOWING MINIDISKS FOR COMPONENT RTM
HAVE BEEN RECLAIMED:
    2A2 2A6 2B2 2C2 2C4 2D2 400 401 1CC CCC
HCPWMV8392I MOVE2SFS EXEC ENDED SUCCESSFULLY
HCPDFX8341I 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
HCPWMV8465I THE FOLLOWING MINIDISKS FOR COMPONENT DIRM
HAVE BEEN RECLAIMED:
    2A2 2A6 2B2 2C2 2C4 2D2 29D 29E 2B1 502
HCPWMV8392I MOVE2SFS EXEC ENDED SUCCESSFULLY
HCPDFX8341I THE COMMAND CMS MOVE2SFS DIRM (RECLAIM COMPLETED SUCCESSFULLY
HCPWMV8456I PROCESSING COMPONENT RACF
HCPWMV8453I MOVE OF RACF COMPONENT TO SFS COMPLETED SUCCESSFULLY
HCPWMV8465I THE FOLLOWING MINIDISKS FOR COMPONENT RACF
HAVE BEEN RECLAIMED:
    2A2 2A6 2B2 2B3 2C2
HCPWMV8392I MOVE2SFS EXEC ENDED SUCCESSFULLY
HCPDFX8341I THE COMMAND CMS MOVE2SFS RACF (RECLAIM COMPLETED SUCCESSFULLY
HCPDFX8341I 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
HCPINP8392I INSTDEF EXEC ENDED SUCCESSFULLY
Ready; T=n.nn/n.nn hh:mm:ss
Step 4. Run SERVICE EXEC

**In this step, you will:**
- Run SERVICE to load the service files from the Recommended Service Upgrade (RSU) tapes.

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

```
logon maint
```

The default password for MAINT is 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.

If the RSU has multiple volumes, either:
- Stack the RSU volumes on 181, or
- Attach another tape drive as 182, another as 183, ..., and then mount each volume.

4. IPL CMS.

```
ipl cms
```

```
z/VM V4.3.0   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
```
**Run PUT2PROD EXEC**

**Step 5. Run PUT2PROD EXEC**

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 V4.3.0 yyyy-mm-dd hh:mm
   ENTER
   ```

3. Run PUT2PROD.

   ```
   put2prod
   VMFP2P2760I PUT2PROD processing started
   : VMFP2P2760I PUT2PROD processing completed successfully
   Ready; T=n.nn/n.nn hh:mm:ss
   ```
Step 6. Shutdown and Re-IPL Your System

In this step, you will:

- Shutdown your z/VM Version 4 Release 3.0 system
- Re-IPL your z/VM Version 4 Release 3.0 system using the new CP nucleus.

1. Shutdown and re-IPL the z/VM Version 4 Release 3.0 system.

```plaintext
shutdown reipl
SYSTEM SHUTDOWN STARTED
Ready; T=n.nn/n.nn hh:mm:ss
```

*First-Level Only*

The real system console shows disabled PSW wait state.

*End of First-Level Only*

```plaintext
HCPWRP9277I SYSTEM TERMINATION COMPLETE,
ATTEMPTING RESTART
```

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

```plaintext
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 R3.0
SERVICE LEVEL nnnn (mode)

hh:mm:ss SYSTEM NUCLEUS CREATED ON yyyy-mm-dd AT hh:mm:ss,
LOADED FROM 430RES
hh:mm:ss *******************************************
```

Attention: If you receive informational message HCPIIS954I, you have duplicate DASD with the same label and must correct this error before continuing.

```
hh:mm:ss HCPZCO6718I Using parm disk 1 on volume valid (device xxxx).
hh:mm:ss HCPZCO6718I Parm disk resides on cylinders xx through xx.
```

```
hh:mm:ss The directory on volume 430RES 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.
```
Shutdown and Re-IPL Your System

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).

3. Log on to the MAINT user ID.

The password for MAINT is MAINT.

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 7. Configure TCP/IP for an Initial Network Connection

You can optionally configure TCP/IP after you have completed your z/VM installation. The TCP/IP configuration created in this step provides only a basic IP network connection for your z/VM host. In addition, this configuration is suitable for installations that employ only static (as opposed to dynamic) network routes.

If you choose to configure a basic IP network connection for your z/VM host at this time, continue with this step. Otherwise, go to "Step 8. Back Up the Named Saved Systems and Segments" on page 58.

For details about any DTCIPW messages you may receive while running IPWIZARD, refer to z/VM: TCP/IP Level 430 Messages and Codes.

To establish a TCP/IP configuration that provides more comprehensive TCP/IP services, after you have completed your z/VM installation, see z/VM: TCP/IP Level 430 Planning and Customization.

In this step, you will:
- Configure TCP/IP.

1. Gather the information from the TCP/IP Configuration Worksheet (Table 3 on page 12).
   ```
   access 193 e
   Ready; T=n.nn/n.nn hh:mm:ss
   ```
3. Run IPWIZARD.
   ```
   ipwizard
   ```

   *** z/VM TCP/IP Configuration Wizard ***

   The items that follow describe your z/VM host
   User ID of VM TCP/IP Stack Virtual Machine:  TCPIP___
   Host Name: ____________________
   Domain Name: ________________________________________
   DNS Addresses: 1) _______________ 2) _______________ 3) _______________
   Gateway IP Address: _______________
   Interface Name: _______________ Device Number: __
   IP Address: _______________ Subnet Mask: _______________
   Interface Type (Select one):
   _ QDIO _ LCS _ HiperSockets
   _ CLAW _ CTC
   PF1 = HELP  PF3 = QUIT  PF8 = Continue  ENTER = Refresh

4. Using the information you gathered in the TCP/IP Configuration Worksheet (Table 3 on page 12), fill in the panel and press **PF8** to continue.
5. Depending on the interface type you selected, fill in one of the following panels and press **PF5** to process.
Configure TCP/IP

For the QDIO interface:

*** QDIO Interface Configuration Panel ***

Network type (Select one):
_ Ethernet _ Token Ring

Port Name: ________

Router Type (Select one):
_ Primary _ Secondary _ None

Maximum Transmission Unit (MTU) size: _____

PF1 = HELP PF3 = QUIT PF5 = Process PF7 = Backward ENTER = Refresh

For the LCS interface:

*** LCS Interface Configuration Panel ***

Network type (Select one):
_ Ethernet _ Token Ring _ FDDI

Port/Adapter Number ______

Maximum Transmission Unit (MTU) size: _____

PF1 = HELP PF3 = QUIT PF5 = Process PF7 = Backward ENTER = Refresh

For the HiperSockets interface:

*** HiperSockets Interface Configuration Panel ***

Maximum Frame Size (MFS): _____K

PF1 = HELP PF3 = QUIT PF5 = Process PF7 = Backward ENTER = Refresh
For the **CLAW** interface:

*** CLAW Interface Configuration Panel ***

The items that follow must match the values configured on the CLAW device.

CLAW Host Name: ________

CLAW Adapter Name: ________

Maximum Transmission Unit (MTU) size: _____

PF1 = HELP  PF3 = QUIT  PF5 = Process  PF7 = Backward  ENTER = Refresh

For the **CTC** interface:

The write channel device numbers from which you can choose, **devnum1** and **devnum2**, automatically display in the CTC Interface Configuration Panel. **devnum1** is the device number specified on the main z/VM TCP/IP Configuration Wizard panel. **devnum2** is the device number specified on the main z/VM TCP/IP Configuration Wizard panel + 1.

*** CTC Interface Configuration Panel ***

Write Channel Device Number (Select one):

- devnum1
- devnum2

Maximum Transmission Unit (MTU) size: _____

Peer IP Address: ________________

PF1 = HELP  PF3 = QUIT  PF5 = Process  PF7 = Backward  ENTER = Refresh
Step 8. Back Up the Named Saved Systems and Segments

In this step, you will:

- Back up all the named saved systems and 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

   SPXTAPE DUMP INITIATED ON VDEV devno

   Substitute the address of the tape drive for the value devno. devno 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 nnn% COMPLETE

   DUMPING devno : nnn FILES, PAGES nnnn nnn% COMPLETE

   RDR FILE fileno1 SENT FROM MAINT CON WAS fileno1 RECS nnnn CPY 001 T NOHOLD NOKEEP

   SPXTAPE DUMP COMMAND COMPLETED ON VDEV devno

   TIME STARTED: hh:mm:ss

   TIME ENDED: hh:mm:ss

   FILES PROCESSED: nnn

   SPOOL PAGES: nnnn

   RDR FILE fileno2 SENT FROM MAINT CON WAS fileno2 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 DUMP command that are associated with a particular tape volume.

   fileno2 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.

   The messages from SPXTAPE tell you that the files are being dumped to tape.

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 F, “Restore Your Named Saved Systems and Segments” on page 115.
Step 9. 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 O181 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. Rewind the scratch tape on virtual device number 181.
   ```
   rewind 181
   Rewind complete
   ```
6. 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
   ```
   This first control statement tells DDRXA that you want program messages sent to your console.
   ```
   ENTER:
input  devno dasd volid
ENTER:

The second control statement is the input control statement.

devno 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 DASD are 123 (430RES), 124 (430W01), 125 (430W02), ....

By typing the word dasd, the device type (3390) is automatically identified by the DDR program.

volid is the label of this volume, for example 430RES.

output 181 tape (compact)
ENTER:

dump all

DUMPING volid
DUMPING DATA mm/dd/yy
   AT hh:mm:ss GMT FROM volid

INPUT CYLINDER EXTENTS     OUTPUT CYLINDER EXTENTS
   START    STOP        START    STOP
   nnnnnnnn  nnnnnnnn  nnnnnnnn  nnnnnnnn

; END OF DUMP
BYTES IN nnnnnnnnnn  BYTES OUT nnnnnnnnnn
TRACKS NOT COMPACTED ON TAPE - nnnnnnnnnn
ENTER:

When DDRXA finishes dumping the volume, it prompts you with ENTER.

Note: When DDR encounters the end of a 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 then issue the DUMP ALL statement.

7. If you have any more DASD volumes to back up, repeat the INPUT, OUTPUT, and DUMP ALL statements for each volume.

8. To end the program, press the Enter key.

   ENTER
   END OF JOB

9. Re-IPL CMS.

   #cp ipl cms
   z/VM V4.3.0   yyyy-mm-dd hh:mm
   ENTER
   Ready; T=n.nn/n.nn hh:mm:ss

   Press Enter to return to the command line.
Store a Backup Copy of the z/VM System on Tape

For information on how to restore your system from tape, see Appendix E, “Restore the z/VM System Backup Copy” on page 113.

What to Do Next

Go to Chapter 5, “System Default Information” on page 65.
Part 2. Post z/VM System DDR Installation Information

In this part (after you have installed from the z/VM System DDR), you will:

- Review the default values used when building the z/VM System DDR
- Customize or configure the preinstalled licensed products and features

**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.

- Review installation information about features and install features not preinstalled on the System DDR.
Post System DDR Installation Information
Chapter 5. System Default Information

In this chapter, you will:

- Review the various default values used when building the z/VM System DDR. This includes build information for the CMS, CP, and GCS components as well as CMS's saved segments.
Step 1. CMS Defaults

Information only:
This step is for your information only.

1. 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/
2. 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/
3. OpenExtensions Shell and Utilities and CMS Utilities Feature (CUF) are now part of the CMS component.
Step 2. CP Defaults

Information only:  
This step is for your information only.

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: CP 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).

4. 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 during installation.

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 D, “The SYSTEM NETID File” on page 111.

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 (430RES) and various system parameters, defining the configuration of your system.
   • 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: CP Planning and Administration to determine how to set up your IPL parameters for SAIPL.

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:

<table>
<thead>
<tr>
<th>Default Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saved System Name</td>
<td>GCS</td>
</tr>
<tr>
<td>Authorized VM User IDs</td>
<td>VTAM GCS MAINT NETVIEW OPERATNS RSCS AVVM PDMREM1</td>
</tr>
<tr>
<td></td>
<td>PDMGRP4 SNALNKA PVMG NVAS IHVOPER CMEOSI NPM VSCS</td>
</tr>
<tr>
<td>Saved System Information</td>
<td>Recovery machine user ID: GCS</td>
</tr>
<tr>
<td></td>
<td>User ID to receive storage dumps: OPERATNS</td>
</tr>
<tr>
<td></td>
<td>GCS Trace Table Size: 16KB</td>
</tr>
<tr>
<td></td>
<td>Common storage above 16MB line (YES or NO): YES</td>
</tr>
<tr>
<td></td>
<td>Single user environment: no</td>
</tr>
<tr>
<td></td>
<td>Maximum number of VM machines: 14</td>
</tr>
<tr>
<td></td>
<td>System ID: GCS</td>
</tr>
<tr>
<td></td>
<td>Name of the VSAM segment: CMSVSAM</td>
</tr>
<tr>
<td></td>
<td>Name of the BAM segment: CMSBAM</td>
</tr>
<tr>
<td></td>
<td>GCS saved system is restricted: yes</td>
</tr>
<tr>
<td></td>
<td>Trace table in private storage: yes</td>
</tr>
<tr>
<td>Saved System links</td>
<td>VTAM NETVSG00</td>
</tr>
<tr>
<td>User IDs needing VSAM storage</td>
<td>NETVIEW NVAS CMEOSI</td>
</tr>
</tbody>
</table>
Step 4. Saved Segments on the z/VM System

In this step, you will:

- Review the saved segments that are installed on your system and their addresses.

1. 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.

2. The QUERY NSS ALL MAP command displays the saved segments and saved systems defined on your system.

```
query nss all map

FILE FILENAME FILETYPE MINSIZE BEGPAG ENDPAG TYPE CL #USERS PARMREGS VMGROUP

nnnn CMS NSS 0000256K 00000 0000D EW A 00000 00-15 NO
    0020 0023 EW
    00F00 013FF SR

nnnn GCS NSS 0000256K 00000 0000C EW R 00000 OMITTED YES
    00400 0044E SR
    0044F 0044F SW
    00450 005FF SN
    01000 011FF SN
    01000 011FF SN

nnnn CMSDOS DCSS-M N/A 00B00 00B0C SR A 00000 N/A N/A

nnnn CMSBAM DCSS-M N/A 00B00 00B37 SR A 00000 N/A N/A

nnnn DOSBAM DCSS-S N/A 00B00 00B37 -- A 00000 N/A N/A

nnnn MONDCSS CPDCESS N/A 02100 028FF SC R 00000 N/A N/A

nnnn GUICSLIB DCSS N/A 01F00 01FFF SR A 00000 N/A N/A

nnnn CMSFILES DCSS N/A 01900 01BFF SR A 00000 N/A N/A

nnnn SVM DCSS N/A 01900 019FF SR A 00000 N/A N/A

nnnn CMSPIPES DCSS N/A 01800 01BFF SR A 00000 N/A N/A

nnnn CMSVMLIB DCSS N/A 01700 017FF SR A 00000 N/A N/A

nnnn INSTSEG DCSS N/A 01400 016FF SR A 00000 N/A N/A

nnnn HELPSSEG DCSS N/A 00C00 00CFF SR A 00000 N/A N/A

nnnn DOSINST DCSS N/A 00900 0090F SR A 00000 N/A N/A

nnnn SCEE DCSS N/A 00900 009FF SR A 00000 N/A N/A

nnnn SCEEX DCSS N/A 01A00 01EFF SR A 00000 N/A N/A

nnnn NLSGER DCSS N/A 02000 020FF SR A 00000 N/A N/A

nnnn NLSKANJI DCSS N/A 02000 020FF SR A 00000 N/A N/A

nnnn NLSUCENG DCSS N/A 02000 020FF SR A 00000 N/A N/A

nnnn NLSAMENG DCSS N/A 02000 020FF SR A 00000 N/A N/A

Ready; T=n.nn/n.nn hh:mm:ss
```
VMSERVS, VMSERVU, and VMSERVR File Pool Defaults

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)
  - 4TCPIP30 (for TCP/IP)
  - 5654A09A (for TSM)
  - P684042H (for ICKDSF)
  - 4VMRTM10 (for RTM)
  - VMRTM (for RTM)
  - 4VMRF10 (for VMPRF)
  - VMPRF (for VMPRF)
  - 4VMDVH10 (for DirMaint)
  - 5767002P (for RACF)

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
  - RACF
VMSERVS, VMSERVU, and VMSERVR File Pool Defaults

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

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 6. Preinstalled Licensed Products and Features

In this chapter, you will:

- Review information about licensed products and features that are 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.

Table 9. Preinstalled Licensed Products and Features

<table>
<thead>
<tr>
<th>Product name</th>
<th>Release level</th>
<th>Program number</th>
<th>Is product or feature installed disabled or enabled?</th>
<th>Do I need to configure before using the product or feature?</th>
</tr>
</thead>
<tbody>
<tr>
<td>EREP</td>
<td>3.5.0</td>
<td>5654-260</td>
<td>Enabled</td>
<td>No</td>
</tr>
<tr>
<td>ICKDSF</td>
<td>1.16.0</td>
<td>5684-042</td>
<td>Enabled</td>
<td>No</td>
</tr>
<tr>
<td>LE</td>
<td>1.8.0</td>
<td>5739-A03</td>
<td>Enabled</td>
<td>No^6</td>
</tr>
<tr>
<td>RSCS</td>
<td>3.2.0</td>
<td>5684-096</td>
<td>Disabled^3</td>
<td>Yes^4</td>
</tr>
<tr>
<td>TCP/IP</td>
<td>L430^1</td>
<td>5739-A03</td>
<td>Enabled</td>
<td>Yes^4</td>
</tr>
<tr>
<td>OSA/SF</td>
<td>FL220^2</td>
<td>5654-A17</td>
<td>Enabled</td>
<td>Yes^4</td>
</tr>
<tr>
<td>Tivoli Storage Manager</td>
<td>3.1</td>
<td>5694-TSM</td>
<td>Disabled^3</td>
<td>Yes^5</td>
</tr>
<tr>
<td>RTM</td>
<td>FL410^2</td>
<td>5739-A03</td>
<td>Disabled^3</td>
<td>No^6</td>
</tr>
<tr>
<td>VMPRF</td>
<td>FL410^2</td>
<td>5739-A03</td>
<td>Disabled^3</td>
<td>No^6</td>
</tr>
<tr>
<td>DirMaint</td>
<td>FL410^2</td>
<td>5739-A03</td>
<td>Disabled^3</td>
<td>No^6</td>
</tr>
<tr>
<td>RACF</td>
<td>1.10.0</td>
<td>5740XXH</td>
<td>Disabled^3</td>
<td>Yes^4</td>
</tr>
</tbody>
</table>

Notes:

1. L means level.
2. FL means function level.
3. This product or feature is not available for customer use unless you have a license for it. To use this product or feature, you must order it as documented in the appropriate program directory.
4. To use this product or feature, it must be configured. For configuration information, see the appropriate program directory.
5. For instructions on how to set up the Tivoli ADSM for VM servers and the CMS Admin Client on your system, refer to the Tivoli ADSTAR Distributed Storage Manager for VM: QuickStart.
6. This product can be customized.

For service instructions for a specific product or feature, refer to the appropriate program directory.

For detailed information about a product or feature, refer to its own documentation. See the Bibliography on page 163.
Preinstalled Licensed Products and Features

**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.

**Installation Instructions:** No additional installation instructions are required.

**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.

**Installation Instructions:** No additional installation instructions are required.

**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.

**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.

**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, Linux, 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.

The enhanced level of TCP/IP print support provided by RSCS (LPR, LPD, UFT, and TN3270E) may be used without obtaining a license for RSCS and enabling RSCS. All other RSCS features can only be used after obtaining a license and enabling RSCS.

**Installation Instructions:** The installation of RSCS is complete. To use RSCS, it must be enabled and configured. Refer to section “6.0 Installation Instructions” in the RSCS Version 3 Release 2 Program Directory.
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.

**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 430 Program Directory* for more information. If you used the IPWIZARD command to initially configure TCP/IP, additional modifications may be required depending on the needs of your installation.

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.

**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.

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.

**Installation Instructions:** 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. The installation of Tivoli Storage Manager is complete.

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.

**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*.

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
**Preinstalled Licensed Products and Features**

- DASD activity and channel utilization.

**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*.

---

**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.

**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*.

---

**RACF**

Resource Access Control Facility (RACF) for VM is a product that works together with the existing system features of z/VM to provide improved data security for an installation.

**Installation Instructions:** The installation of RACF is complete. To use RACF, it must be enabled and configured. Refer to section “6.0 Installation Instructions” in the *Resource Access Control Facility Feature for VM Program Directory*.
Chapter 7. Install z/VM Features

In this chapter, you will:

- Install z/VM features not shipped on the z/VM System DDR.

  If you want the z/VM features that are not shipped on the z/VM System DDR, you must separately order them. Refer to the z/VM: General Information for packaging and ordering information.

The features not shipped on the z/VM System DDR are optional. You only have to install the features you require. These features include:

- 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
Install the z/VM Restricted Source Feature

**Step 1. Install the z/VM Restricted Source Feature**

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

**In this step, you will:**

- Learn details about what the Restricted Source feature contains
- Install the Restricted Source feature.

1. Define a minidisk (xxx) to load these additional source files.
2. Use the `vmfplc2 load` command to receive these tape files in the order shown:

   **Table 10. Order of Source Feature Tapes Received**

<table>
<thead>
<tr>
<th>Component</th>
<th>Tape File</th>
<th>3590 or CD File</th>
<th>Minidisk Loaded To</th>
<th># 3390 Cylinders (4KB block size)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Header (Volume 1)</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP</td>
<td>2</td>
<td>2</td>
<td>minidisk xxx</td>
<td>162</td>
</tr>
<tr>
<td>Header (Volume 2)</td>
<td>1</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CMS</td>
<td>2</td>
<td>4</td>
<td>minidisk xxx</td>
<td>445</td>
</tr>
<tr>
<td>Header (Volume 3)</td>
<td>1</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CMS (cont.)*</td>
<td>2</td>
<td>6</td>
<td>minidisk xxx</td>
<td></td>
</tr>
<tr>
<td>Header (Volume 4)</td>
<td>1</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CMS (cont.)*</td>
<td>2</td>
<td>8</td>
<td>minidisk xxx</td>
<td></td>
</tr>
<tr>
<td>Header (Volume 5)</td>
<td>1</td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>REXX/VM</td>
<td>2</td>
<td>10</td>
<td>minidisk xxx</td>
<td>3</td>
</tr>
<tr>
<td>VMSES/E</td>
<td>3</td>
<td>11</td>
<td>minidisk xxx</td>
<td>2</td>
</tr>
<tr>
<td>GCS</td>
<td>4</td>
<td>12</td>
<td>minidisk xxx</td>
<td>25</td>
</tr>
<tr>
<td>TSAF</td>
<td>5</td>
<td>13</td>
<td>minidisk xxx</td>
<td>18</td>
</tr>
</tbody>
</table>

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

- The cylinders for the 3390 DASD were figured with a 4KB block size.
Install the z/VM Restricted Source Feature

- The feature on CD-ROM or 3590 has one logical tape containing identical data to that included on the five restricted source tape volumes.
- 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.
Install the z/VM PL/X-370 Source Code Feature

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

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.

In this step, you will:

- Learn details about what the z/VM PL/X-370 source code feature contains
- Install the z/VM PL/X-370 source code feature.

1. Increase the sizes of the following MAINT minidisks:

   Table 11 shows how many cylinders you must increase your minidisk in order to install the z/VM PL/X source code feature tape.

   Table 11. Minidisk Cylinder Size Increases Needed to Install PL/X-370 Source Code Feature Tape

<table>
<thead>
<tr>
<th>Minidisk Address</th>
<th># 3390 Cylinders (4KB block size)</th>
</tr>
</thead>
<tbody>
<tr>
<td>193/493</td>
<td>38</td>
</tr>
<tr>
<td>194</td>
<td>12</td>
</tr>
<tr>
<td>394</td>
<td>19</td>
</tr>
<tr>
<td>3B2</td>
<td>16</td>
</tr>
<tr>
<td>393</td>
<td>71</td>
</tr>
</tbody>
</table>

   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.
     - The cylinders for the 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
   
   **TAPE tapeaddr ATTACHED TO userID 0181**
   
   Ready; T=n.nn/n.nn hh:mm:ss

   The ATTACH command attaches the device (tapeaddr) 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. Enter the VMFREC command for each component you choose to load.

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

   **vmfrec ppf zvm compname (ins setup**

   compname is CP, CMS, or REXX.
Install the z/VM PL/X-370 Source Code Feature

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

VMFSET2760I  VMFSETUP  processing  completed  successfully
VMFREC1852I  Volume  n  of  n  of  INS  TAPE  nnnn

VMFREC2760I  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. Install the 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.*
Appendix A. Move Components to SFS Directories

This appendix describes how to move GCS, TSAF, AVS, LE/370, RSCS, OSA/SF, TCP/IP, TSM, ICKDSF, RTM, VMPRF, DirMaint, or RACF from minidisks to Shared File System directories. You can move these components after you have completed the installation of your z/VM 4.3.0 system.

Note: Once the components are moved to SFS directories, you must use the following component 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
- VMPRF SFS instead of VMPRF
- DIRMSFS instead of DIRM
- RACFSFS instead of RACF

In this appendix, you will:

- Log on to the MAINT user ID on your new z/VM Version 4 Release 3.0 system
- Add MAINT links to the USER DIRECT file
- Ensure the VMSYS file pool is active
- Run 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.

   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

   z/VM V4.3.0 yyyy-mm-dd hh:mm

The default password for MAINT is MAINT.

Clear is necessary. Do not omit it.

If you have changed the version heading, your own heading will appear.
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 4TCPIP30 191 865 WR`
- `LINK 4TCPIP30 2C4 866 WR`
- `LINK 4TCPIP30 2D2 868 WR`
- `LINK 4TCPIP30 2A6 869 WR`
- `LINK 4TCPIP30 2A2 86A WR`
- `LINK 4TCPIP30 2B2 86E WR`
- `LINK 4TCPIP30 2B3 86F WR`
Move Components to SFS Directories

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 VMRTM 191 8A9 WR

VMPRF:

LINK 4VMRF10 191 89B WR
LINK 4VMRF10 2A2 89C WR
LINK 4VMRF10 2A6 89D WR
LINK 4VMRF10 2B2 89E WR
LINK 4VMRF10 2C2 89F WR
LINK 4VMRF10 2C4 8A0 WR
LINK 4VMRF10 2D2 8A1 WR
LINK 4VMRF10 597 8A2 WR
LINK 4VMRF10 497 8A3 WR
LINK 4VMRF10 1CC 8A4 WR
LINK 4VMRF10 CCC 8A5 WR
LINK VMRF 191 8A6 WR
LINK VMRF 192 8A7 WR

DIRM:

LINK 4VMDVH10 191 880 WR
LINK 4VMDVH10 2A2 881 WR
LINK 4VMDVH10 2A6 882 WR
LINK 4VMDVH10 2B2 883 WR
LINK 4VMDVH10 2C2 884 WR
LINK 4VMDVH10 2C4 885 WR
LINK 4VMDVH10 2D2 886 WR
LINK 4VMDVH10 29D 887 WR
LINK 4VMDVH10 29E 888 WR
LINK 4VMDVH10 2B1 889 WR
LINK 4VMDVH10 29D 88A WR
LINK 4VMDVH10 502 88B WR

TSM:

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

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

RACF
Move Components to SFS Directories

5. Save all changes in the USER DIRECT file.

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

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.

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

    Press enter or clear key to continue

8. Log on to the MAINT user ID.

    The default password for MAINT is MAINT.

    logon maint
     ...

    z/VM V4.3.0 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

12. Move data for the components selected from minidisks to the Shared File System servers (SFS).

    move2sfs component (reclaim)
    HCPWMV8456I PROCESSING COMPONENT component
    :

    HCPWMV8392I MOVE2SFS EXEC ENDED SUCCESSFULLY
    Ready; T=n.nn/n.nn hh:mm:ss

    component can be GCS, TSAF, AVS, LE370, OSA, RSCS, TCP/IP, TSM, ICKDSF, RTM, PRF, DIRM, or RACF. (See "MOVE2SFS" on page 151 for details.)

    reclaim removes the minidisks no longer needed from the directory. (The minidisks entries are commented out in the directory.)


    xedit user direct c

14. Comment out all MAINT’s LINK statements from the USER DIRECT file that were added in substep 4 on page 84.

    =====> top
    =====> locate /user maint/
    =====> locate /link/ & /801/
    =====> change / LINK/*LINK/:MDISK

    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 3.0 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 R3.0
    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.

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

    Press enter or clear key to continue

    ENTER
Move Components to SFS Directories

You are completely done with this appendix.
Appendix B. Post Install Load of Optional Items

When you go through the initial installation procedures of z/VM Version 4 Release 3.0, 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: You must be logged on to the MAINT user ID on your new z/VM Version 4 Release 3.0 system to complete all the steps in this appendix.
Prepare the USER DIRECT File for New Loads

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

   logon maint
   :
   :
   Ready; T=nn.nn hh:mm:ss

   The default password for MAINT is MAINT.

3. Make a copy of USER DIRECT.

   copyfile user direct c userback = (olddate
   Ready; T=nn.nn hh:mm:ss

4. Run LATELOAD to update USER DIRECT.

   lateload

   *** z/VM LATE LOAD ITEM SELECTION PANEL ***

   Select Items you wish to have loaded

   Status   Item       Status   Item       Status   Item
   -------- ----------------- ----------------- ----------------- ----------------- 
   _ FILEPOOL _ SMALL FILEPOOL _ CP/DV SOURCE
   _ CMS/REXX SOURCE _ VMSES SOURCE _ RSCS SOURCE
   _ OSA/SF _ TSM

   PF1 = HELP PF3/PF12 = QUIT PF5 = Process ENTER = Refresh

   a. On the z/VM LATE LOAD ITEM SELECTION PANEL panel, select the items you want to late load.

   b. Press PF5 to process.
a. On the z/VM LATE LOAD ITEM PLACEMENT panel, specify the DASD label, type, and extents where you want the items loaded. The DASD type must be 3390.

1) Refer to Table 12 to determine the number of cylinders needed for each item you now choose to install.

Table 12. Number of 3390 Cylinders Needed to Install LATELOAD Items

<table>
<thead>
<tr>
<th>Item</th>
<th>Cylinders</th>
</tr>
</thead>
<tbody>
<tr>
<td>FILEPOOL</td>
<td>1112</td>
</tr>
<tr>
<td>SMALL FILEPOOL</td>
<td>272</td>
</tr>
<tr>
<td>CP, DV Source</td>
<td>208</td>
</tr>
<tr>
<td>CMS, REXX Source</td>
<td>80</td>
</tr>
<tr>
<td>VMSES/E Source</td>
<td>24</td>
</tr>
<tr>
<td>RSCS Source</td>
<td>20</td>
</tr>
<tr>
<td>OSA/SF</td>
<td>455</td>
</tr>
<tr>
<td>TSM</td>
<td>210</td>
</tr>
</tbody>
</table>

2) Do not use cylinder 0. It is reserved for the allocation area.

b. Press **PF5**.

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

File USER DISKMAP A has been created.

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

5. Edit USER DISKMAP and 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:
Prepare the USER DIRECT File for New Loads

- Copy USERBACK DIRECT C to USER DIRECT C.

  `copyfile userback direct c user direct c (olddate replace)`

  Go to substep 4 on page 90.

  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.

  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.

  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:**

- 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
   
   logon maint
   
   The default password for MAINT is MAINT.

   
z/VM V4.3.0 yyyy-mm-dd hh:mm
   
   ENTER
   
   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. If you are using 3590 tape, all optional items are on volume 1. If you are using 3480 or 3490 tape, FILEPOOL and OSA/SF are on volume 7 and TSM and 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.

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

5. Run INSTALL to display the z/VM LOAD MENU panel.

   If installing from CD-ROM, enter:

   install cd (lateload)

   If installing from 3590 tape, enter:

   install 3590 (lateload)
Run INSTALL EXEC

If installing from 3480 or 3490 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
    FILEPOOL
    SMALL FILEPOOL
    CP, DV SOURCE
    CMS, REXX SOURCE
    VMSES/E SOURCE
    RSCS SOURCE
    OSA/SF
    TSM

====>
PF1 = HELP PF3 = QUIT PF4 = UNLOCK RELOAD PF5 = NEXT
```

6. The “L” in the z/VM LOAD MENU panel shows all items you loaded during installation. Mark each item you are now loading with an “S”.

7. Press PF5 to proceed.

```
PF5
```

8. Complete the LOAD DEVICE MENU panel.

```
LOAD DEVICE MENU
MEDIA SELECTED IS: media
MOUNT VOLUME   VADDR
  7
  8

====>
PF1 = HELP PF3 = QUIT PF5 = LOAD PF12 = RETURN
```

Note: The LOAD DEVICE MENU panel contains the 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 contains either TAPE, 3590, or CD depending on the parameter used to call 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 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: Tape drives must be attached at virtual addresses within the following ranges: 180 to 187 or 288 to 28F.

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.

9. Press PF5 to load.

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 DRIVE vaddr

HCPWIN8371I LOADING FILEPOOL ...
HCPWIN8371I LOADING CP, DV SOURCE ...
HCPWIN8371I LOADING CMS, REXX SOURCE ...
HCPWIN8371I LOADING VMSES/E SOURCE ...
HCPWIN8371I LOADING RSCS SOURCE ...
HCPWIN8371I LOADING OSA/SF ...
HCPWIN8371I LOADING TSM ...

HCPWIN8428I TOTAL PERCENT LOADED -> nn%
HCPWIN8380I RESTORING MINIDISK nnn TO valid

+— Additional messages —+

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

+— End of Additional messages —+

HCPWIN8434I item HAS BEEN SUCCESSFULLY LOADED.

Ready; T=n.nn/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 97.
Step 3. Update System Tables

If you just finished loading OSA/SF or TSM, continue with this step. Otherwise, skip to [Step 5. Start the File Pools](#) on page 100.

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
Load RSU for OSA/SF or TSM

Step 4. Load RSU for OSA/SF or TSM

If you just loaded 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 100.

In this step, you will:

- Load the service files for any or all of the loaded 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 181
   Ready; T=n.nn/n.nn hh:mm:ss

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

   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. IPL CMS.

   `ipl cms`
   
   z/VM V4.3.0 yyyy-mm-dd hh:mm
   
   Enter
   
   Ready; T=n.nn/n.nn hh:mm:ss

4. If you loaded OSA/SF, receive the service for OSA/SF.

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

5. If you loaded TSM, receive the service for TSM.

   `service adsm`
   VMFSRV2760I SERVICE processing started
   ...
   VMFSRV2760I SERVICE 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. IPL CMS.

```
ipl cms
z/VM V4.3.0 yyyy-mm-dd hh:mm
ENTER
Ready; T=n.nn/n.nn hh:mm:ss
```

8. Run PUT2PROD.

```
put2prod
VMFP2P2760I PUT2PROD processing started
VMFP2P2760I PUT2PROD processing completed successfully
Ready; T=n.nn/n.nn hh:mm:ss
```
Start the File Pools

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 93, continue with this step. Otherwise, go to “Step 6. Move OSA/SF or TSM to SFS” on page 103.

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 FILEPOOL was loaded

   + DMSACC724I 2CC replaces E (2CC)
   + AUTO LOGON *** VMSERVUS = n
   + HCPLCS5065I XAUTOLOG information for VMSERVU: The IPL command is verified by the IPL command processor.
   + VMSERVU : z/VM V4.3.0 yyyy-mm-dd hh:mm
   + VMSERVU : DMSACP723I B (193) R/O
   + VMSERVU : DMSWFV111I FILESERV processing begun at hh:mm:ss on dd month yyyy
   + VMSERVU : DMSWFV1121I VMSERVU DMSPARMS A1 will be used for FILESERV processing
   + VMSERVU : DMSWFV1121I VMSYS POOLDEF A1 will be used for FILESERV processing
   + AUTO LOGON *** VMSERVUS = n
   + HCPLCS5065I XAUTOLOG information for VMSERVU: The IPL command is verified by the IPL command processor.
   + VMSERVU : z/VM V4.3.0 yyyy-mm-dd hh:mm
   + VMSERVU : DMSACP723I B (193) R/O
   + VMSERVU : DMSWFV111I FILESERV processing begun at hh:mm:ss on dd month yyyy
   + VMSERVU : DMSWFV1121I VMSERVU DMSPARMS A1 will be used for FILESERV processing
   + VMSERVU : DMSWFV1121I VMSYS POOLDEF A1 will be used for FILESERV processing
   + VMSERVU : DMSBB3045I Ready for operator communications
   + AUTO LOGON *** VMSERVUS = n
   + HCPLCS5065I XAUTOLOG information for VMSERVU: The IPL command is verified by the IPL command processor.
   + VMSERVU : z/VM V4.3.0 yyyy-mm-dd hh:mm
   + VMSERVU : DMSACP723I B (193) R/O
   + VMSERVU : DMSWFV111I 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 : DMSBB3045I Ready for operator communications

   End of Messages received if FILEPOOL was loaded

   Messages received for each file pool if SMALL FILEPOOL was loaded

   + DASD 0804 DETACHED
   + AUTO LOGON *** VMSERVv USERS = n
   + HCPLCS5065I XAUTOLOG information for VMSERVv: The IPL command is verified by the IPL command processor.
   + VMSERVv : DMSACC724I 19E replaces Y (19E)
   + VMSERVv : DMSACP723I Y (19E) R/O
   + VMSERVv : z/VM V4.3.0 yyyy-mm-dd hh:mm
   + VMSERVv : DMSWP100W Shared S-STAT not available
   + VMSERVv : DMSWP100W Shared Y-STAT not available
Start the File Pools

VMSERVn : DMSACP723I B (193) R/O
VMSERVn : DMSWFV1117I FILESERV processing begun at hh:mm:ss on dd month yyyy
VMSERVn : DMSWFV1117I VMSENV FILESERV DMSPARMS A1 will be used for FILESERV processing
VMSERVn : DMS4P034001 Initializing for DDNAME = CONTROL
VMSERVn : DMS4P034001 Initializing ends for DDNAME = CONTROL
VMSERVn : DMS4P034001 Initializing begins for DDNAME = MDK00001
VMSERVn : DMS4P034001 Initializing ends for DDNAME = MDK00001
VMSERVn : DMS4P034001 Initializing begins for DDNAME = MDK00002
VMSERVn : DMS4P034001 Initializing ends for DDNAME = MDK00002
VMSERVn : DMS6P034004W File pool limit of 2 minidisks has been reached
VMSERVn : DMS4P034001 Initializing begins for DDNAME = LOG1
VMSERVn : DMS4P034001 Initializing ends for DDNAME = LOG1
VMSERVn : DMS4P034001 Initializing begins for DDNAME = LOG2
VMSERVn : DMS4P034001 Initializing ends for DDNAME = LOG2
VMSERVn : DMS6L03436I Initialization begins for the CRR log minidisks
VMSERVn : DMS6L03436I Initialization completes for the CRR log minidisks
VMSERVn : DMS5FD0332I File pool server has terminated
VMSERVn : DMSWFV1120I File VMSYS POOLDEF A1 created or replaced
VMSERVn : DMSWFV1117I FILESERV processing ended at hh:mm:ss on dd month yyyy
RDR FILE 0010 SENT FROM VMSERV PUN WAS 0001 RECS 0004 CPY 001 A NOHOLD NOKEEP
VMSERVn : File FILESERV VALID A3 sent to MAINT at ZVMV4R30 on mm/dd/yy hh:mm:ss
VMSERVn : Ready; T=n.nn/n.nn hh:mm:ss

HCPCQCS150A User VMSERVn has issued a VM read
VMSERVn : CONNECT= hh:mm:ss VIRTCP= 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
HCPCLS6065I 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 V4.3.0 yyyy-mm-dd hh:mm
VMSERVn : DMSWFV1117I FILESERV processing begun at hh:mm:ss on dd month yyyy
VMSERVn : DMSWFV1117I VMSENV DMSPARMS A1 will be used for FILESERV processing
VMSERVn : DMSWFV1117I VMSENV 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 : DMS6LG3335I CRR log recovery completes at mm-dd-yy hh:mm:ss

+——— End of Messages received for each file pool if SMALL FILEPOOL was loaded ———+

HCPIF8392I 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
Start the File Pools

What to Do Next

Go to "Step 6. Move OSA/SF or TSM to SFS" on page 103
Step 6. Move OSA/SF or TSM to SFS

If you loaded the OSA/SF or TSM item and you want to move either of them to SFS, continue with this step. Otherwise, skip to “Step 7. Update the Directory” on page 104.

In this step, you will:

• Copy 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 :
   :

   HCPWMV8392I MOVE2SFS EXEC ENDED SUCCESSFULLY
   Ready; T=n.nn/n.nn hh:mm:ss

   component can be OSA or TSM.

   reclaim removes the minidisks no longer needed from the directory. (The minidisks entries are commented out in the directory.)
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 90.

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 90. These links were only used for install and should be removed to prevent errors.
   
   `====> set case mixed ignore`  
   `====> top`  
   `====> locate /user maint/`  
   `====> locate /link/ & /801/`  
   `====> change / LINK*/LINK/:MDISK`

   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 3.0 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: CP 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 R3.0
   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.
   ```

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

   ```
   Press enter or clear key to continue
   ```

3. Log on to the MAINT user ID.

   ```
   logon maint
   The default password for MAINT is MAINT.
   ```

   ```
   z/VM V4.3.0 yyyy-mm-dd hh:mm
   ```

4. If you just finished loading any of the following:
   - OSA/SF
   - TSM

   refer to Chapter 6, “Preinstalled Licensed Products and Features” on page 73. Some of the preinstalled products and features require additional steps to complete the installation process.

You are completely done with this appendix.
Appendix C. 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 3.0 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.
   ```

   Z

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.

<table>
<thead>
<tr>
<th>AC</th>
<th>Compname</th>
<th>Prodid</th>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>SHELL</td>
<td>2VMVMZ30</td>
<td>APPLIED</td>
<td>Shell and Utilities for VM/ESA 2.3.0</td>
</tr>
<tr>
<td>M</td>
<td>DITTO</td>
<td>5654029C</td>
<td>NONE</td>
<td>DITTO/ESA VM 1.2.0</td>
</tr>
<tr>
<td>D</td>
<td>CMS</td>
<td>5735NFSQ</td>
<td>ENABLED</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>CP</td>
<td>2VMVB30</td>
<td>BUILT</td>
<td>CMS component for VM/ESA 2.3.0</td>
</tr>
<tr>
<td>D</td>
<td>TCPIP</td>
<td>5735FALQ</td>
<td>BUILT</td>
<td>TCP/IP LEVEL 310 - TCP/IP FEATURE (BASE)</td>
</tr>
<tr>
<td>I</td>
<td>ICKDSF</td>
<td>5684042H</td>
<td>BUILT</td>
<td>ICKDSF DEVICE SUPPORT FACILITIES R16 for CMS</td>
</tr>
</tbody>
</table>

**Notes:**

1. Products that are preselected as D (Do Not Migrate) should not be changed.
2. If a product is not supported on the new z/VM release, you should enter D (Do Not Migrate) for that product.
3. 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.
Set action code AC to \textit{D} = \textit{Do Not Migrate} or to \textit{M} = \textit{Migrate} segment. Action code \textit{P} means segment will be migrated due to product migration. If \textit{*******} or \textit{********} appears under \textit{Segname}, enter a new name to change the segment name upon migration ( \textit{*******} \textit{Must} be changed, \textit{********} \textit{May} be changed ).

<table>
<thead>
<tr>
<th>AC</th>
<th>Segname</th>
<th>Prodid</th>
<th>Compname</th>
<th>Defparms</th>
<th>Bldparms</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>CMSBAM Old-&gt; 2VMVMA30 CMS B0D-B37 SR PPF(ESA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>New-&gt; 4VMVMA30 CMS B0D-B37 SR PPF(ZVM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>******* Mig-&gt; 4VMVMA20 CMS B0D-B37 SR PPF(ZVM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>CMSDDOS Old-&gt; 2VMVMA30 CMS B00-B0C SR PPF(ESA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>New-&gt; 4VMVMA30 CMS B00-B0C SR PPF(ZVM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>******* Mig-&gt; 4VMVMA20 CMS B00-B0C SR PPF(ZVM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>CMSFILES Old-&gt; 2VMVMA30 CMS 1900-1BFF SR PPF(ESA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>New-&gt; 4VMVMA30 CMS 1900-1BFF SR PPF(ZVM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>******* Mig-&gt; 4VMVMA20 CMS 1900-1BFF SR PPF(ZVM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>CMSPIPES Old-&gt; 2VMVMA30 CMS 1800-18FF SR PPF(ESA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>New-&gt; 4VMVMA30 CMS 1800-18FF SR PPF(ZVM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>******* Mig-&gt; 4VMVMA20 CMS 1800-18FF SR PPF(ZVM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Migrate 51D from Old System**

Set action code AC to \textit{D} = \textit{Do Not Migrate} or to \textit{M} = \textit{Migrate} segment. Action code \textit{P} means segment will be migrated due to product migration. If \textit{*******} or \textit{********} appears under \textit{Segname}, enter a new name to change the segment name upon migration ( \textit{*******} \textit{Must} be changed, \textit{********} \textit{May} be changed ).

<table>
<thead>
<tr>
<th>AC</th>
<th>Segname</th>
<th>Prodid</th>
<th>Compname</th>
<th>Defparms</th>
<th>Bldparms</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>CMSBAM Old-&gt; 2VMVMA30 CMS B0D-B37 SR PPF(ESA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>New-&gt; 4VMVMA30 CMS B0D-B37 SR PPF(ZVM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>******* Mig-&gt; 4VMVMA20 CMS B0D-B37 SR PPF(ZVM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>CMSDDOS Old-&gt; 2VMVMA30 CMS B00-B0C SR PPF(ESA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>New-&gt; 4VMVMA30 CMS B00-B0C SR PPF(ZVM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>******* Mig-&gt; 4VMVMA20 CMS B00-B0C SR PPF(ZVM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>CMSFILES Old-&gt; 2VMVMA30 CMS 1900-1BFF SR PPF(ESA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>New-&gt; 4VMVMA30 CMS 1900-1BFF SR PPF(ZVM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>******* Mig-&gt; 4VMVMA20 CMS 1900-1BFF SR PPF(ZVM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>CMSPIPES Old-&gt; 2VMVMA30 CMS 1800-18FF SR PPF(ESA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>New-&gt; 4VMVMA30 CMS 1800-18FF SR PPF(ZVM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>******* Mig-&gt; 4VMVMA20 CMS 1800-18FF SR PPF(ZVM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**a.** Enter an action code for each segment listed. For information about the panel and action codes, press \texttt{PF1} for HELP.

This Segment Migration panel is only a sample. Your panels will not list the same segments, action codes, status, and description.

**b.** Press \texttt{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 3.0 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:

\texttt{vmfsgmap segbld esasegs segblist}

At this time, you can make further changes to any segment.

**b.** On the first panel, enter:

\texttt{segmerge}

**C.** Press the \texttt{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 \texttt{z/VM: Service Guide}, use the \texttt{ALL} option instead of the \texttt{SERVICED} option on the \texttt{VMFBLD} command for the segment.

For example,

\texttt{vmfbld ppf segbld esasegs segblist myseg (all}}
Migrate 51D from Old System

**Note:** You need to rebuild the segments on the new system to get the SYSTEM SEGID file updated.
Appendix D. 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:
The SYSTEM NETID File

- Create a record in the SYSTEM NETID file with the CPUID for each processor that you want to be able to IPL.
- **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 E. Restore 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.

   \texttt{ipl devno clear} \quad \textit{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.

   \texttt{z/VM DASD DUMP/RESTORE PROGRAM}
   \texttt{ENTER CARD READER ADDRESS OR CONTROL STATEMENTS}
   \texttt{ENTER:}
   \texttt{sysprint cons} \quad \textit{sysprint} tells DDRXA that you want program messages sent to your console.
   \texttt{ENTER:}
   \texttt{input devno tape} \quad \textit{devno} identifies the device number where the backup tape is mounted.
   \texttt{ENTER:}
   \texttt{output devaddr dasd valid} \quad \textit{devaddr} is the full pack minidisk address of the volume to which you are restoring this tape.
   \texttt{ENTER:}
   \texttt{restore all} \quad \textit{RESTORE ALL} tells DDRXA to restore the whole tape to the output device.

   RESTORING \textit{valid}
   DATA DUMPED mm/dd/yy
   AT hh:mm:ss GMT FROM \textit{valid}
   RESTORED TO \textit{valid}

   \texttt{INPUT CYLINDER EXTENTS} \quad \texttt{OUTPUT CYLINDER EXTENTS}
   \texttt{START} \quad \texttt{STOP} \quad \texttt{START} \quad \texttt{STOP}
   \texttt{nnnnnnnn} \quad \texttt{nnnnnnnn} \quad \texttt{nnnnnnnn} \quad \texttt{nnnnnnnn}
   
   END OF RESTORE
   BYTES RESTORED \texttt{nnnnnnnnnn}

   Informational messages: GMT means Greenwich Mean Time.
   The exact cylinder extents vary according to the device type.
Restore the z/VM System Backup Copy

Repeat input, output, and restore statements for each DASD you are restoring.

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 F. Restore 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.

```
logon maint
```

The default password for MAINT is MAINT.

2. Attach a tape drive to MAINT.

```
attach devno *
```

`devno` is the device address of the tape drive.

3. Mount the backup tape on the attached tape drive (`devno`).

4. Spool the console.

```
spool console *
```

5. Enter the SPXTAPE command to load the system data files.

```
spxtape load devno sdf all run
```

`devno` is the address you used to define the tape drive.

```
SPXTAPE LOAD INITIATED ON VDEV devno
Ready; T=n.nn/n.nn hh:mm:ss
LOADING devno : nnn FILES, PAGES nnnn
LOADING devno : nnn FILES, PAGES nnnn
SPXTAPE LOAD END-OF TAPE ON VDEV devno;
MOUNT NEXT TAPE
TAPE NUMBER: devno-001
FILES PROCESSED: nnnn
SPOOL PAGES: nnnnn
LOADING devno : nnn FILES, PAGES nnnn
LOADING devno : nnn FILES, PAGES nnnn
RDR FILE fileno1 SENT FROM MAINT CON WAS 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.
6. When all volumes have been loaded, use the SPXTAPE END command to end the SPXTAPE load.

```
spxtape end devno
```

The SPXTAPE END command ends the SPXTAPE LOAD operation at the completion of the current file.

```
The SPXTAPE END command initiates on VDEV devno
SPXTAPE LOAD COMMAND ENDED on VDEV devno
TIME STARTED: hh:mm:ss
TIME ENDED: hh:mm:ss
TAPE COUNT: nnn
FILES PROCESSED: nnn
SPOOL PAGES: nnnn
Ready; T=n.nn/n.nn hh:mm:ss
RDR FILE fileno2 sent from MAINT CON WAS fileno recs nnnn cpys 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 [z/VM: CP Command and Utility Reference](https://www.ibm.com).  

7. IPL the CMS named saved system.

```
ial cmsname
```

```
cmsname is either the IBM supplied system name (CMS) or the name you defined in DMSNGP on the SYSNAME statement.
```

```
If you have changed the version heading, your own heading will appear.
Press Enter to return to the command line.
```

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

z/VM V4.3.0 yyyy-mm-dd hh:mm
Appendix G. Recover 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 a 3390 DASD type and the same size as the minidisk you want to recover. (See the $ITEMMD$ $TABLE$ on the 2CC disk for the size of the minidisk you want to recover.)

   ```
   define t3390 loadaddr mdisksize
   DASD loadaddr DEFINED
   Ready; T=n.nn/n.nn hh:mm:ss
   ```

   loadaddr is the address of the temporary disk.

   mdisksize 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 a 3390 DASD type and the same size as the minidisk you want to recover.
Recover 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 3590, enter:

```
install 3590 (recover mdiskaddr loadaddr)
```

If installing from 3480 or 3490, 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 tapes or CD-ROM. Refer to the $ITEMMD$ $TABLE$ on the 2CC disk to determine if the minidisk you have chosen to restore has an alias. If the minidisk has an alias, mdiskaddr is the alias address. If the minidisk does not have an alias, mdiskaddr is the actual minidisk address.

b. To recover a minidisk and overlay the existing disk, you must link the minidisk in write mode. For example, 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 and overlay the existing minidisk, loadaddr is the address at which you have the disk linked.

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 DEVICE MENU

MEDIA SELECTED IS: media

MOUNT VOLUME VADDR n  __________

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, 3590, 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 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
HCPDDR72SD  SOURCE DASD DEVICE WAS (IS) LARGER THAN OUTPUT DEVICE
DATA DUMPED mm/dd/yy at hh.mm.ss GMT FROM 430xxx RESTORED TO SYSTEM
INPUT CYLINDER EXTENTS START STOP START STOP
 uuuu uuuu uuuu uuuu
OUTPUT CYLINDER EXTENTS uuuu uuuu uuuu uuuu
END OF RESTORE
BYTES RESTORED uuuu uuuu
END OF JOB
HCPWIN8441I  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
Ready; T=n.nn/n.nn hh:mm:ss
access mdiskaddr fm-2
Ready; T=n.nn/n.nn hh:mm:ss
copyfile fn ft fm-1 = = fm-2 (olddate)
Ready; T=n.nn/n.nn hh:mm:ss
```

`loadaddr` is the address of the temporary disk.

`fm-1` is any available file mode.

`mdiskaddr` is the address of the target minidisk.

`fm-2` is any available file mode.

`fn` is the file name of the file you want to recover.

`ft` is the file type of the file you want to recover. Repeat the COPYFILE command for each file you want to recover.
Recover a File or Minidisk
Appendix H. Execs Used during Installation

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
- IPWIZARD
- LATELOAD
- MIGR51D
- MOVE2SFS
- POSTDDR
- POSTLOAD

## Exec Descriptions

z/VM provides a number of tools to help you perform install, service, and system generation tasks. Table 13 lists z/VM install, service, and system generation execs and the books describing each exec. Use the following key for this table.

### Table 13. z/VM Install, Service, and System Generation Tools

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Task Description</th>
<th>Book</th>
</tr>
</thead>
<tbody>
<tr>
<td>VMSES/E I and R</td>
<td>Processes source statements in assembler language source files.</td>
<td>CMS Cmd Ref</td>
</tr>
<tr>
<td>Install</td>
<td>Builds a callable services library (CSL).</td>
<td>CMS Cmd Ref</td>
</tr>
<tr>
<td>CMS Cmd Ref</td>
<td>Builds the CMS installation saved segment (CMSINST).</td>
<td>CMS Cmd Ref</td>
</tr>
<tr>
<td>CP Cmd Ref</td>
<td>Creates a user directory.</td>
<td>CP Cmd Ref</td>
</tr>
<tr>
<td>GCS Ref</td>
<td>Brings the directory built by INSTDIR online.</td>
<td>Install</td>
</tr>
<tr>
<td>DISKMAP</td>
<td>Summarizes the MDISK statements in the user directory. The output shows gaps and overlaps between minidisk assignments.</td>
<td>CP Cmd Ref</td>
</tr>
<tr>
<td>DOSGEN</td>
<td>Builds the CMSDOS physical saved segment.</td>
<td>CMS Cmd Ref</td>
</tr>
<tr>
<td>EXECUPDT</td>
<td>Produces an updated version of a $Source file.</td>
<td>CMS Cmd Ref</td>
</tr>
<tr>
<td>EXPAND</td>
<td>Adds space to a program in object deck form.</td>
<td>VMSES/E I and R</td>
</tr>
<tr>
<td>GENCPBLS</td>
<td>Updates the CP load list build list.</td>
<td>VMSES/E I and R</td>
</tr>
</tbody>
</table>

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### Table 13. z/VM Install, Service, and System Generation Tools (continued)

<table>
<thead>
<tr>
<th>Tool</th>
<th>Task</th>
<th>Book</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENMOD</td>
<td>Generates CMS module files.</td>
<td>CMS Cmd Ref</td>
</tr>
<tr>
<td>GROUP</td>
<td>Builds a GCS configuration file.</td>
<td>GCS Ref</td>
</tr>
<tr>
<td>HCPLDR</td>
<td>Calls and controls the system loader.</td>
<td>CP Cmd Ref</td>
</tr>
<tr>
<td>INSTALL</td>
<td>Loads base and optional components to disks.</td>
<td>Install</td>
</tr>
<tr>
<td>INSTDEF</td>
<td>Customizes CMS, rebuilds CMS, CP, and GCS, and moves selected items to SFS.</td>
<td>Install</td>
</tr>
<tr>
<td>INSTDIR</td>
<td>Builds a directory for your installation.</td>
<td>Install</td>
</tr>
<tr>
<td>INSTFPP</td>
<td>Installs optional products.</td>
<td>VMSES/E I and R</td>
</tr>
<tr>
<td>INSTIIS</td>
<td>Formats and labels your installation DASD and restores the IIS.</td>
<td>Install</td>
</tr>
<tr>
<td>INSTPLAN</td>
<td>Selects items to load and DASD type on which to install.</td>
<td>Install</td>
</tr>
<tr>
<td>INSTPOOL</td>
<td>Starts the file pool servers during installation procedures.</td>
<td>Install</td>
</tr>
<tr>
<td>INSTVM</td>
<td>Loads items from the z/VM System DDR.</td>
<td>Install</td>
</tr>
<tr>
<td>IPWIZARD</td>
<td>Creates a minimal TCP/IP configuration that establishes basic connectivity to your IP network. Creates the TCP/IP SYSTEM DTCPARMS, TCPIP DATA, and PROFILE TCPIP files.</td>
<td>Install</td>
</tr>
<tr>
<td>ITNVTSTR</td>
<td>Processes install and service orders delivered by Advanced Digital Delivery.</td>
<td>VMSES/E I and R</td>
</tr>
<tr>
<td>LANGGEN</td>
<td>Loads national language text files into a saved segment.</td>
<td>CMS Cmd Ref</td>
</tr>
<tr>
<td>LATELOAD</td>
<td>Updates the user directory for your installation using the items selected to be loaded.</td>
<td>Install</td>
</tr>
<tr>
<td>LANGMERG</td>
<td>Combines national language files for an application into a single text file.</td>
<td>CMS Cmd Ref</td>
</tr>
<tr>
<td>LOADLIB</td>
<td>Lists, copies, or compresses CMS load libraries.</td>
<td>CMS Cmd Ref</td>
</tr>
<tr>
<td>MIGR51D</td>
<td>Migrates and updates the System Software Inventory files.</td>
<td>Install</td>
</tr>
<tr>
<td>MOVE2SFS</td>
<td>Moves data for GCS, TSAF, and AVS from minidisks to Shared File System (SFS) servers.</td>
<td>Install</td>
</tr>
<tr>
<td>POSTDDR</td>
<td>Creates Software Inventory tables.</td>
<td>Install</td>
</tr>
<tr>
<td>POSTLOAD</td>
<td>Performs cleanup tasks depending on what you have loaded.</td>
<td>Install</td>
</tr>
<tr>
<td>PRELOAD</td>
<td>Collects multiple text files and reformats them into a single text file.</td>
<td>CMS Cmd Ref</td>
</tr>
<tr>
<td>PUT2PROD</td>
<td>Places a component, feature, or product that was serviced by the SERVICE exec into production.</td>
<td>VMSES/E I and R</td>
</tr>
<tr>
<td>SAMGEN</td>
<td>Builds the CMSBAM physical saved segment.</td>
<td>CMS Cmd Ref</td>
</tr>
<tr>
<td>SAMPNSS</td>
<td>Defines named saved systems.</td>
<td>CMS Cmd Ref</td>
</tr>
<tr>
<td>SAVEFD</td>
<td>Places file directory information for a shared, extended data format (EDF) R/O minidisk into a discontiguous shared segment (DCSS).</td>
<td>CMS Cmd Ref</td>
</tr>
<tr>
<td>SERVICE</td>
<td>Installs an RSU or applies CORrective service for the z/VM components, features, or products that are installed on the z/VM System DDR.</td>
<td>VMSES/E I and R</td>
</tr>
<tr>
<td>SEGGEN</td>
<td>Builds logical saved segments defined in a physical saved segment.</td>
<td>CMS Cmd Ref</td>
</tr>
<tr>
<td>SNTINFO</td>
<td>Gets discontiguous saved segment (DCSS) information directly from CP.</td>
<td>VMSES/E I and R</td>
</tr>
<tr>
<td>SPXTAPE</td>
<td>Saves standard spool files and system data files on tape and restores SPXTAPE-format files from tape to the spooling system.</td>
<td>CP Cmd Ref</td>
</tr>
</tbody>
</table>
### Table 13. z/VM Install, Service, and System Generation Tools (continued)

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

Table 13. z/VM Install, Service, and System Generation Tools  (continued)

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

This section describes how to read the syntax diagrams. Syntax diagrams show the format to use when calling an exec.

Table 14. Syntax Diagram Descriptions

<table>
<thead>
<tr>
<th>Syntax</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>➤</td>
<td>indicates the beginning of a syntax diagram.</td>
</tr>
<tr>
<td>➤</td>
<td>shown at the end of a line, indicates that the syntax diagram continues on the next line.</td>
</tr>
<tr>
<td>➤</td>
<td>shown at the beginning of a line, indicates that a syntax diagram continues from the previous line.</td>
</tr>
<tr>
<td>➤</td>
<td>indicates the end of a syntax diagram.</td>
</tr>
</tbody>
</table>

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:

➤ KEYWORD

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 (like this) denote variables.

For example:

➤ KEYWORD—var_name

In this example, var_name represents a variable you must specify when you code the KEYWORD command.
## Understand Syntax Diagrams

**Table 14. Syntax Diagram Descriptions (continued)**

### Repetition
An arrow returning to the left means that the item can be repeated.

For example:

A character within the arrow means you must separate repeated items with that character.

For example:

A number, for example (1), by the arrow references a footnote that identifies how many times
the item can be repeated.

For example:

### 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 *must* specify one
item.

For example:

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:

In this example, you can choose A, B, C, or nothing at all.
Table 14. Syntax Diagram Descriptions (continued)

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:

```
A
B
C
```

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:

```
A
B
C
```

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
B
C
```

In this example, the fragment is named “A Fragment.”
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
### Purpose

Use INSTALL to load the components provided on the z/VM System DDR tapes or CD-ROM. It also recovers 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

**TAPE**
loads the components from 3480 or 3490 tape. This is the default value.

**CD**
loads the components from the CD-ROM.

**3590**
loads the components from 3590 tape.

### 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 INSTALL 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 INSTALL 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.
INSTALL

When you recover a minidisk belonging to a user ID other than MAINT, you must specify the alias address instead of the actual minidisk address.

loadaddr

is the address to which you restore the minidisk. This disk must be a 3390 DASD 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, INSTALL 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. INSTALL is used with the z/VM System DDR to load z/VM.
2. INSTALL uses data supplied by you or IBM-supplied default data and a user-friendly panel interface to install z/VM.
3. INSTALL 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 INSTALL, 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 INSTALL requires a full screen terminal with at least 20 lines.
7. INSTALL 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 G, “Recover a File or Minidisk” on page 117.

9. When you recover a minidisk belonging to a user ID other than MAINT, you must use the alias address as mdiskaddr.
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.
Messages and Return Codes

**HCP8300E**  FILE fileID NOT FOUND

User Response: None.
Severity: 28

**HCP8306E**  HELPFILE fn MUST CONTAIN AT LEAST 5 LINES

User Response: None.
Severity: 101

**HCP8307E**  HELPFILE fn MUST NOT CONTAIN MORE THAN 100,003 LINES

User Response: None.
Severity: 102

**HCP8308E**  HELPFILE fn MUST HAVE A LRECL OF 80

User Response: None.
Severity: 103

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

User Response: None.
Severity: 104

**HCP8310E**  LINE x OF HELPFILE fn IS NOT BLANK

User Response: None.
Severity: 105, 106

**HCP8312E**  ERROR DISPLAYING HELPFILE fn

User Response: None.
Severity: None.
INSTALL

HCP8352E INVALID {OPERAND operand | OPTION option} SPECIFIED ON THE command 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 fn ft 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 G, "Recover a File or Minidisk" on page 117) and rerun INSTALL.
Severity: 8

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

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 \{label | MINIDISK label\}
User Response: None.
Severity: None.

HCP8381I  CHECKING TAPE VOLUME NUMBER FOR DRIVE \vaddr\nUser 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 MDISK | WORK DISK\} WAS NOT PROVIDED. ATTEMPT TO DEFINE TDISK FOR \{TARGET DISK | MIXED DASD LOAD\} FAILED.
User Response: Define a work disk or obtain enough tdisk.
Severity: 8

HCP8396E  THE WORK DISK \mdisk\ IS TOO SMALL. IT MUST BE AT LEAST \cyl\ CYLINDERS
User Response: Correct error and rerun INSTALL.
Severity: 8

HCP8397E  THE WORK DISK IS OF THE WRONG DEVICE TYPE. IT MUST BE \devtype\nUser Response: Correct error and rerun INSTALL.
Severity: 8

HCP8399E  COPYFILE FROM THE WORK DISK TO \vaddr\ FAILED WITH RC=\rc\nUser Response: Correct error and rerun INSTALL.
Severity: 8

HCP8401E  INSTALL EXEC MUST BE RUN ON A FULL SCREEN TERMINAL WITH AT LEAST 22 LINES
User Response: 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 Response: Recover the PRODUCT LAYOUT file (see Appendix G, " Recover a File or Minidisk" or page \page\117 ) 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\nUser Response: None.
Severity: None.

HCP8429E  INVALID SYNTAX. OPTIONS \{MUST FOLLOW A '(' | I MAY NOT FOLLOW A ')')\}
User Response: Correct error and rerun INSTALL.
Severity: 8
**INSTALL**

**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.
Purpose
Use INSTDEF 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

<table>
<thead>
<tr>
<th>Code</th>
<th>Message Description</th>
<th>User Response</th>
<th>Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCP8300E</td>
<td>FILE fileID NOT FOUND</td>
<td>None.</td>
<td>28</td>
</tr>
<tr>
<td>HCP8306E</td>
<td>HELPFILE fn MUST CONTAIN AT LEAST 5 LINES</td>
<td>None.</td>
<td>101</td>
</tr>
<tr>
<td>HCP8307E</td>
<td>HELPFILE fn MUST NOT CONTAIN MORE THAN 100,003 LINES</td>
<td>None.</td>
<td>102</td>
</tr>
<tr>
<td>HCP8308E</td>
<td>HELPFILE fn MUST HAVE A LRECL OF 80</td>
<td>None.</td>
<td>103</td>
</tr>
<tr>
<td>HCP8309E</td>
<td>HELPFILE fn DOES NOT CONTAIN A HELP FILE HEADER</td>
<td>None.</td>
<td>104</td>
</tr>
<tr>
<td>HCP8310E</td>
<td>LINE x OF HELPFILE fn IS NOT BLANK</td>
<td>None.</td>
<td>105, 106</td>
</tr>
<tr>
<td>HCP8312E</td>
<td>ERROR DISPLAYING HELPFILE fn</td>
<td>None.</td>
<td>None</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Message Description</th>
<th>User Response</th>
<th>Severity</th>
</tr>
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<tbody>
<tr>
<td>HCP8338I</td>
<td>NOW EXECUTING function</td>
<td>None.</td>
<td>0</td>
</tr>
<tr>
<td>HCP8339I</td>
<td>BYPASSING FUNCTION function DUE TO condition</td>
<td>A INSTDEF function requested by the user is being bypassed due to the condition specified in the message. Processing continues.</td>
<td>99, 0</td>
</tr>
<tr>
<td>HCP8340E</td>
<td>THE INSTDEF FUNCTION function HAS FAILED WITH RETURN CODE rc. PLEASE CORRECT THE PROBLEM AND RERUN INSTDEF. ERRORS HAVE BEENLOGGED IN INSTDEF MSGSLOG ON THE 2CC DISK</td>
<td>A INSTDEF function requested by the user failed with the return code specified in the message. Previous messages describe the error in greater detail. Correct the error and rerun INSTDEF.</td>
<td>100</td>
</tr>
<tr>
<td>HCP8341I</td>
<td>{INSTDEF FUNCTION function</td>
<td>THE COMMAND command} COMPLETED SUCCESSFULLY</td>
<td>None.</td>
</tr>
<tr>
<td>HCP8342E</td>
<td>THE COMMAND command FAILED WITH RC=rc</td>
<td>A command issued by INSTDEF failed with the return code specified in the message. Check the command return codes to determine the cause of the error.</td>
<td>8, 100</td>
</tr>
</tbody>
</table>
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 {CMS | GCS} NUCLEUS $$TLL$$ FILE IS: spoolid  
User Response: None.  
Severity: None.

HCP8356W  THE COMMAND command {FAILED | COMPLETED} 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: None.

HCP8415W  CMS TAILORING COMPLETED, {INSTALL ID | LANGUAGE ID | VERSION ID} CAN NO LONGER BE CHANGED  
User Response: Proceed without changing this field.  
Severity: None.

HCP8416W  MOVE2SFS COMPLETED, {RECLAIM OPTION | SFS 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

HCP8445W  INVALID STATUS status ENTERED FOR ITEM item — STATUS MUST BE "N" or "S"  
User Response: None.  
Severity: None.

HCP8451I  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

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

Messages and Return Codes

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<th>Code</th>
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<tbody>
<tr>
<td>HCP8300E</td>
<td>FILE fileID NOT FOUND</td>
</tr>
<tr>
<td>User Response</td>
<td>Correct error and rerun INSTDIR</td>
</tr>
<tr>
<td>Severity</td>
<td>28</td>
</tr>
<tr>
<td>HCP8342E</td>
<td>THE COMMAND command FAILED WITH RC=rc</td>
</tr>
<tr>
<td>User Response</td>
<td>Correct error and rerun INSTDIR</td>
</tr>
<tr>
<td>Severity</td>
<td>100</td>
</tr>
<tr>
<td>HCP8349W</td>
<td>INVALID ENTRY, PLEASE REENTER</td>
</tr>
<tr>
<td>User Response</td>
<td>Enter correct data</td>
</tr>
<tr>
<td>Severity</td>
<td>None</td>
</tr>
<tr>
<td>HCP8376E</td>
<td>INSTDIR EXEC ENDED IN ERROR</td>
</tr>
<tr>
<td>User Response</td>
<td>Correct error and rerun INSTDIR</td>
</tr>
<tr>
<td>Severity</td>
<td>100</td>
</tr>
<tr>
<td>HCP8392I</td>
<td>INSTDIR EXEC ENDED SUCCESSFULLY</td>
</tr>
<tr>
<td>User Response</td>
<td>None</td>
</tr>
<tr>
<td>Severity</td>
<td>0</td>
</tr>
<tr>
<td>HCP8401E</td>
<td>INSTDIR EXEC MUST BE RUN ON A FULL SCREEN TERMINAL WITH AT LEAST 20 LINES</td>
</tr>
<tr>
<td>User Response</td>
<td>Correct error and rerun INSTDIR</td>
</tr>
<tr>
<td>Severity</td>
<td>100</td>
</tr>
<tr>
<td>HCP8473E</td>
<td>DISK 2CC NOT ATTACHED</td>
</tr>
<tr>
<td>User Response</td>
<td>Access 2CC disk and rerun INSTDIR</td>
</tr>
<tr>
<td>Severity</td>
<td>100</td>
</tr>
<tr>
<td>HCP8474E</td>
<td>DASDTYPE OF insttype FOUND IN $INST$ $FILES$ DOES NOT MATCH THE DASDTYPE OF THE 2CC DISK WHICH IS actual_dasdtype</td>
</tr>
<tr>
<td>User Response</td>
<td>Correct error and rerun INSTDIR</td>
</tr>
<tr>
<td>Severity</td>
<td>100</td>
</tr>
<tr>
<td>HCP8492W</td>
<td>NOT ENOUGH DISK SPACE DEFINED TO LOAD THE SELECTED ITEMS.</td>
</tr>
<tr>
<td>User Response</td>
<td>Correct the entry</td>
</tr>
<tr>
<td>Severity</td>
<td>None</td>
</tr>
</tbody>
</table>
Purpose
Use INSTIIS to format and label your installation DASD and to restore the IIS.

Messages and Return Codes

**HCP8300E**  FILE fileID NOT FOUND  
User Response: Correct error and rerun INSTIIS  
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.

**HCP8310E**  LINE (2 | 4) OF HELPFILE fn IS NOT BLANK  
User Response: None.  
Severity: None.

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

**HCP8324E**  THE COMMAND command FAILED WITH RC=rc  
User Response: Correct error and rerun INSTIIS  
Severity: 100

**HCP8349W**  INVALID ENTRY, PLEASE REENTER  
User Response: Enter correct input  
Severity: None.

**HCP8353W**  UNDEFINED PFKEY  
User Response: Enter correct input  
Severity: None.

**HCP8376E**  INSTIIS EXEC ENDED IN ERROR  
User Response: Correct error and rerun INSTIIS  
Severity: 100

**HCP8377R**  YOU HAVE SELECTED TO FORMAT THE FOLLOWING PACKS: packnames ALL DATA ON THESE PACKS WILL BE LOST. DO YOU WANT TO CONTINUE ? (Y/N)  
User Response: Input Response  
Severity: None.

**HCP8378R**  TAPE tdrvaddr IS NOT READY. PLEASE READY THE DRIVE, THEN PRESS ENTER TO CONTINUE OR TYPE EXIT TO END INSTIIS  
User Response: Ready the drive and press Enter or type "exit"  
Severity: None.
HCP8380I  Restoring IIS to 430RES
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.

HCP8383R  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.

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

HCP8481I  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
Purpose
Use INSTPLAN to select items to load and the 3390 DASD model on which to install.

Operands
FULLFUNC
  displays the z/VM INSTALLATION PLANNING panel, which lists the items to load and the DASD model on which to install.
PREDEF
  requests the DASD model and language to be used for installation.

Messages and Return Codes

HCP8300E  FILE fileID 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.

HCP8310E  LINE {2 | 4} OF HELPFILE fn IS NOT BLANK
  User Response:  None.
  Severity:  None.

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

HCP8319E  YOU MUST SPECIFY AN OPERAND ON THE INSTPLAN COMMAND
  User Response:  Correct error and rerun INSTPLAN.
  Severity:  100

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

HCP8323R  PLEASE ENTER THE DEFAULT SYSTEM LANGUAGE. VALID ENTRIES ARE AMENG, UCENG, KANJI, OR GERMAN.
  PRESS ENTER TO EXIT.
  User Response:  None.
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.
Purpose
Use INSTPOOL to start the file pool servers during installation procedures.

Messages and Return Codes

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<th>User Response</th>
<th>Severity</th>
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</thead>
<tbody>
<tr>
<td>HCP8324E</td>
<td>ERROR OCCURED DURING BUILD OF FILEPOOL filepool</td>
<td>Correct error and rerun INSTPOOL</td>
<td>100</td>
</tr>
<tr>
<td>HCP8342E</td>
<td>THE COMMAND command FAILED WITH RC=rc</td>
<td>Correct error and rerun INSTPOOL</td>
<td>100</td>
</tr>
<tr>
<td>HCP8376I</td>
<td>INSTPOOL EXEC ENDED IN ERROR</td>
<td>Correct error and rerun INSTPOOL</td>
<td>100</td>
</tr>
<tr>
<td>HCP8392I</td>
<td>INSTPOOL EXEC ENDED SUCCESSFULLY</td>
<td>None</td>
<td>0</td>
</tr>
<tr>
<td>HCP8494I</td>
<td>SHARED FILE NOT LOADED</td>
<td>Shared file not loaded. INSTPOOL is not needed.</td>
<td>0</td>
</tr>
<tr>
<td>HCP8495E</td>
<td>SERVER server NOT RESPONDING</td>
<td>Correct error and rerun INSTPOOL</td>
<td>100</td>
</tr>
<tr>
<td>HCP8496E</td>
<td>SERVER server DID NOT RETURN A READER FILE</td>
<td>Correct error and rerun INSTPOOL</td>
<td>100</td>
</tr>
</tbody>
</table>
Purpose
Use INSTVM to load items from the z/VM System DDR. You can load the items from tape or CD-ROM.

Operands
**TAPE**
loads the components from 3480 or 3490 tape. This is the default value.

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

**3590**
loads the components from 3590 tape.

Messages and Return Codes

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</tr>
</thead>
<tbody>
<tr>
<td>HCP8339I</td>
<td>BYPASSING <em>function</em> DUE TO PROGRAM RESTART</td>
<td>None.</td>
<td>0</td>
</tr>
<tr>
<td>HCP8342E</td>
<td>THE COMMAND <em>command</em> FAILED WITH RC= <em>rc</em></td>
<td>Correct error and rerun INSTVM.</td>
<td>100</td>
</tr>
<tr>
<td>HCP8376E</td>
<td>INSTVM EXEC ENDED IN ERROR</td>
<td>Correct error and rerun INSTVM.</td>
<td>0</td>
</tr>
<tr>
<td>HCP8392I</td>
<td>INSTVM EXEC ENDED SUCCESSFULLY</td>
<td>None.</td>
<td>0</td>
</tr>
</tbody>
</table>
IPWIZARD

Purpose
Use the IPWIZARD command to create a minimal TCP/IP configuration that establishes basic connectivity to your IP network. The command displays a panel requesting network information. After you fill out the panel, the information is processed and the TCP/IP SYSTEM DTCPARMS, TCPIP DATA, and PROFILE TCPIP files are created.

Usage Notes
1. IPWIZARD requires access to MAINT’s 193 and 2CC minidisks.

Messages and Return Codes

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Message Description</th>
<th>User Response</th>
<th>Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCP8300E</td>
<td>FILE fileID NOT FOUND</td>
<td>Correct error and rerun IPWIZARD.</td>
<td>28</td>
</tr>
<tr>
<td>HCP8312E</td>
<td>ERROR DISPLAYING HELP FILE fileID</td>
<td>Correct error and rerun IPWIZARD.</td>
<td>None</td>
</tr>
<tr>
<td>HCP8330E</td>
<td>DEVICE ADDRESS MUST BE BETWEEN addr1 and addr2</td>
<td>Enter a valid address. It must be between addr1 and addr2.</td>
<td>None</td>
</tr>
<tr>
<td>HCP8342E</td>
<td>THE COMMAND command FAILED WITH RC=rc</td>
<td>Correct error and rerun IPWIZARD.</td>
<td>100</td>
</tr>
<tr>
<td>HCP8352E</td>
<td>INVALID MTU SIZE ENTERED</td>
<td>Enter correct input.</td>
<td>None</td>
</tr>
<tr>
<td>HCP8353E</td>
<td>UNDEFINED PFKEY</td>
<td>Enter correct input.</td>
<td>None</td>
</tr>
<tr>
<td>HCP8357E</td>
<td>INVALID IP ADDRESS ENTERED</td>
<td>Enter correct input.</td>
<td>None</td>
</tr>
<tr>
<td>HCP8376E</td>
<td>IPWIZARD EXEC ENDED IN ERROR</td>
<td>Correct error and rerun IPWIZARD.</td>
<td>100</td>
</tr>
<tr>
<td>HCP8392I</td>
<td>IPWIZARD EXEC ENDED SUCCESSFULLY</td>
<td>None</td>
<td>0</td>
</tr>
<tr>
<td>HCP8401E</td>
<td>IPWIZARD EXEC MUST BE RUN ON A FULL SCREEN TERMINAL {WITH AT LEAST 20 LINES</td>
<td>WITH AT LEAST 80 COLUMNS}</td>
<td>Correct error and rerun IPWIZARD.</td>
</tr>
<tr>
<td>HCP8431E</td>
<td>THE mdisk DISK MUST BE IN R/W MODE TO RUN IPWIZARD</td>
<td>Correct error and rerun IPWIZARD.</td>
<td>100</td>
</tr>
<tr>
<td>HCP8471W</td>
<td>ONLY ONE selection MAY BE SELECTED</td>
<td>You specified more than one item. You can specify only one. Enter correct input.</td>
<td>None</td>
</tr>
</tbody>
</table>
Severity: None.

**HCP8472I** YOU MUST *action* BEFORE PRESSING PF*n* TO PROCESS

**User Response:** Correct error and press PF*n*.

Severity: None.

Refer to *z/VM: TCP/IP Level 430 Messages and Codes* for information about the DTCIPW messages you may receive.
Purpose
Use LATELOAD to update the user directory for your installation using the items selected to be loaded.

Messages and Return Codes

**HCP8300E**  
FILE fileID NOT FOUND  
User Response: Correct error and rerun LATELOAD  
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.

**HCP8310E**  
LINE (2 | 4) OF HELPFILE fn IS NOT BLANK  
User Response: None.  
Severity: None.

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

**HCP8342E**  
THE COMMAND command FAILED WITH RC=rc  
User Response: Correct error and rerun LATELOAD  
Severity: 100

**HCP8353W**  
UNDEFINED PFKEY  
User Response: Enter the correct input  
Severity: None

**HCP8376E**  
LATELOAD EXEC ENDED IN ERROR  
User Response: Correct error and rerun LATELOAD  
Severity: 100

**HCP8392I**  
LATELOAD EXEC ENDED SUCCESSFULLY  
User Response: None  
Severity: 0

**HCP8401E**  
LATELOAD EXEC MUST BE RUN ON A FULL SCREEN TERMINAL WITH AT LEAST 20 LINES  
User Response: Correct error and rerun LATELOAD  
Severity: 100

**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 LATELOAD  
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

HCP8485I INVALID DASD TYPE ENTERED. ONLY VALID TYPE IS 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 repack 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

Purpose
Use MIGR51D to update the System Software Inventory files of z/VM Version 4 Release 3.0 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

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

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.

Severity: 99
Purpose
Use MOVE2SFS to move data from minidisks to the Shared File System servers (SFS) and reclaim 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.
If PRF is chosen, then the data for VMPRF will be copied from minidisks to SFS.

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

If RACF is chosen, then the data for RACF 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.
2. 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**

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
<th>User Response</th>
<th>Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCP8300E</td>
<td>FILE fileID NOT FOUND</td>
<td>Correct error and rerun MOVE2SFS.</td>
<td>28</td>
</tr>
<tr>
<td>HCP8342E</td>
<td>THE COMMAND command FAILED WITH RC=rc</td>
<td>Check the command return codes to determine the cause of the error.</td>
<td>8</td>
</tr>
<tr>
<td>HCP8352E</td>
<td>INVALID (OPERAND operand I OPTION option) SPECIFIED ON THE MOVE2SFS COMMAND. PLEASE CORRECT AND REENTER</td>
<td>Correct error and rerun MOVE2SFS.</td>
<td>8</td>
</tr>
<tr>
<td>HCP8366E</td>
<td>MINIDISK ERROR(S) FOR component</td>
<td>Correct error and rerun MOVE2SFS.</td>
<td>8</td>
</tr>
<tr>
<td>HCP8367E</td>
<td>THE FOLLOWING MINIDISKS DO NOT EXIST: mdisk mdisk ...</td>
<td>Correct error and rerun MOVE2SFS.</td>
<td>8</td>
</tr>
<tr>
<td>HCP8376I</td>
<td>MOVE2SFS EXEC ENDED IN ERROR</td>
<td>Correct error and rerun MOVE2SFS.</td>
<td>8, 28</td>
</tr>
<tr>
<td>HCP8392I</td>
<td>MOVE2SFS EXEC ENDED SUCCESSFULLY.</td>
<td>None.</td>
<td>0</td>
</tr>
<tr>
<td>HCP8399E</td>
<td>COPYFILE FROM THE MINIDISK mdisk TO subdirectory_name FAILED WITH RC=rc</td>
<td>Correct error and rerun MOVE2SFS.</td>
<td>8</td>
</tr>
</tbody>
</table>
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 (FILEPOOL | DIRECTORY) 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 INSTALL 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 {mdisk I subdirectory_name} AT FILEMODE fm 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 directory:
1. ACCESS subdirectory-name fm
2. If the warning occurred when processing AVS, enter:
   VMFERASE PROD 4VMVMD30%AVS FROM fm
3. If the warning when processing TSAF, enter:
   VMFERASE PROD 4VMV30%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: None.

HCP8454E THERE ARE NOT ENOUGH FREE FILEMODES AVAILABLE. TWO ARE REQUIRED
User Response: Correct error and rerun MOVE2SFS.
Severity: 8
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 INSTALL) and that POSTDDR 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 MINIDISK 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.
Severity: 4
Purpose
Use POSTDDR to create the system-level Software Inventory tables:
VM SYSRECS
VM SYSDESCT
VM SYSREQT
VM SYSBLDS
VM SYSAPPS.

Usage Notes
1. POSTDDR is to be run only once, unless additional components are loaded using INSTALL.

Messages and Return Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Message</th>
<th>User Response</th>
<th>Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCP8300E</td>
<td>FILE fileId NOT FOUND</td>
<td>Correct error and rerun POSTDDR.</td>
<td>28</td>
</tr>
<tr>
<td>HCP8342E</td>
<td>THE COMMAND command FAILED WITH RC=rc</td>
<td>Check command return codes to determine the cause of the error.</td>
<td>8</td>
</tr>
<tr>
<td>HCP8408E</td>
<td>BASE COMPONENTS ARE NOT LOADED</td>
<td>INSTALL must be run prior to running POSTDDR.</td>
<td>8</td>
</tr>
<tr>
<td>HCP8409I</td>
<td>Generating Software Inventory files</td>
<td>None.</td>
<td>0</td>
</tr>
<tr>
<td>HCP8410E</td>
<td>NO DISK IS ACCESSED AS fm</td>
<td>Access 191 as your 'A' disk and rerun POSTDDR.</td>
<td>8</td>
</tr>
<tr>
<td>HCP8411I</td>
<td>COULD NOT WRITE TO fn ft BECAUSE YOUR 'A' DISK IS FULL</td>
<td>Correct the full disk condition and rerun POSTDDR.</td>
<td>8</td>
</tr>
<tr>
<td>HCP8413I</td>
<td>GENERATING SOFTWARE INVENTORY FILE</td>
<td>UPDATE OF VM SYSSUF TABLE} COMPLETED</td>
<td>None.</td>
</tr>
<tr>
<td>HCP8418I</td>
<td>THE SOFTWARE INVENTORY TABLES ARE ALREADY UPDATED</td>
<td>None.</td>
<td>0</td>
</tr>
<tr>
<td>HCP8422E</td>
<td>ATTEMPT TO QUERY DISK filemode FAILED WITH RETURN CODE rc</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>HCP8431E</td>
<td>THE mdisk DISK MUST BE IN R/W MODE</td>
<td>Correct error and rerun POSTDDR.</td>
<td>8</td>
</tr>
</tbody>
</table>
POSTLOAD

Purpose
Use POSTLOAD to perform clean-up tasks depending on the items you have loaded.

Options
OVERLOAD 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 POSTLOAD OVERRIDE MENU
Indicate which procedure(s) you INTEND TO BYPASS by entering a NONBLANK CHARACTER next to the function and press PF5 to process
__ Allocate the System Residence Pack
__ Format Skeleton Source Minidisk
__ Remove Server Autolog Statements
__ Cleanup USER DIRECT
__ Bring the updated USER DIRECT online
__ Create the Software Inventory Tables

PF1 = HELP          PF3/PF12 = QUIT          PF5 = Process
```

Messages and Return Codes

**HCP8320E** DISK label NOT BIG ENOUGH TO HOLD name

User Response: Correct error and rerun POSTLOAD.
Severity: 100

**HCP8321E** SSL FILE fn INSTALLED ON label

User Response: None.
Severity: 0

**HCP8338I** NOW EXECUTING function

User Response: 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 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 SYSDESC, VM SYSREQT, VM SYSBLDS, AND VM SYSSAPPS 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) operand|OPTION(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

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.
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Glossary

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
```

You will enter the HELP Facility's online glossary file and the definition of "cms" will be displayed as the current line. When you are in the glossary file, you can also search for the other terms.

If you are unfamiliar with the HELP Facility, you can enter:

```
help
```

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 IBM 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.

z/VM Internet Library

The latest editions of most z/VM publications are available in Adobe Portable Document Format (PDF) and IBM BookManager® format from the z/VM Internet Library:

The z/VM Internet Library also provides other information about z/VM, such as:
- Program directories
- Data areas and control blocks
- Monitor records

VM Collection CD-ROM

The Online Library Omnibus Edition: VM Collection, SK2T-2067, contains libraries in BookManager format for current IBM VM system products and IBM licensed programs that run on VM. It also contains PDF versions of many of these books.

Note: Only unlicensed publications are included.

z/VM Base Publications

Evaluation
z/VM: General Information, GC24-5991
z/VM License Information, GC24-6033
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Installation and Service
z/VM: Installation Guide, GC24-5992
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Operation
z/VM: System Operation, SC24-6000
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PRF

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RTM

z/VM: RealTime Monitor Function Level 410, SC24-6028

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