IBM Virtual Machine/System Product Installation Guide


This Technical Newsletter applies to the IBM Virtual Machine/System Product Installation Guide for VM/SP Release 6, Program Number 5664-167. It provides additional or replacement pages for your publication. These pages remain in effect until specifically altered. Pages to be added or replaced are:

- Title Page, Notices: 11-1 to 11-18
- ix to x: X-1 to X-6
- 9-1 to 9-22: X-23 to X-41
- 10-1 to 10-34

Summary of Changes

This Technical Newsletter includes information about the installation of optional feature products available through VM/IS 6. For a complete list of changes, see page X-1.

Note: Please insert this page in your publication to provide a record of changes.
Fifth Edition (August 1988)

This edition, SC24-5237-04, with Technical Newsletter SN24-5765, dated February 24, 1989, is a major revision of SC24-5237-03, and applies to Release 6 of Virtual Machine/System Product (VM/SP), Program Number 5664-167, and to all subsequent releases of this product until otherwise indicated in new editions or Technical Newsletters. Changes are made periodically to the information herein; before using this publication in connection with the operation of IBM systems, consult the latest IBM System/370, 30xx, 4300, and 9370 Processors Bibliography, GC20-0001, for the editions that are applicable and current.

Summary of Changes

For a list of the major changes, see page X-1.

Specific changes or additions to text and illustrations are indicated by a vertical line to the left of the change.

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Chapter 9. Installing Optional Feature Products on VM/SP

Overview

VM/Integrated System is a package that includes VM/SP and a predefined set of optional feature products. To install any optional feature products, use the following procedure.

1. Format and allocate the new or unused DASD volumes you plan to use during installation. These DASD types are supported: 3350, 3375, 3380, 3370, 3370-2, 9332-400, 9332-600, or 9335.

2. Invoke DIRECGEN with either the GROW option or the NOGROW option. Use DIRECGEN with the GROW option to prepare for invocation of DIRECGRO.

3. If you invoked DIRECGEN (GROW, use DIRECGRO immediately afterwards to create new minidisks and expand existing ones, and to finalize directory changes.

4. Use the PASSMOD EXEC to modify logon passwords in the CP directory.

5. Use the INSTFPP EXEC to install the selected optional feature products from the optional feature product tape.

6. Use the PASSMOD EXEC to modify minidisk passwords.

Note: Do not use these installation tools if VM Directory Maintenance is operational.
The following table lists the steps for installing optional feature products:

| 1 | Formatting and Allocating | • Format and allocate DASD volumes you plan to use during installation. These DASD types are supported: 3350, 3375, 3380, 3370, 3370-2, 9332-400, 9332-600, or 9335. |
| 2 | Before Running DIRECGEN | • Make sure you are logged on to MAINT user ID and MAINT has all privilege classes.  
• Make sure VM Directory Maintenance is not operational.  
• Make sure you have read/write access to the input CP directory file (VMUSERS DIRECT by default) and the DIRECGEN EXTENTS file (usually on MAINT 295).  
• Make sure your CP directory file has fixed length, 80 character records.  
• Make sure the 193 minidisk is linked and accessed.  
• Make sure the 319 minidisk is linked read/write.  
• Make sure you have enough space on the disk containing the input CP directory file for the input CP directory and DIRECGEN output files. The amount of space required is approximately five times that of the original directory.  
• Tailor the DIRECGEN EXTENTS file. |
| Run DIRECGEN | • Invoke DIRECGEN with either the GROW option or the NOGROW option. Use DIRECGEN with the GROW option to process the directory requirements in preparation for DIRECGRO. Use DIRECGRO immediately after using DIRECGEN (GROW).  
• Select the products you want to install. |
| After Running DIRECGEN | • Refer to the DIRECGEN HISTORY file on the MAINT 319 disk. |
| 3 | Running DIRECGRO | • If you have selected the GROW option of DIRECGEN, use DIRECGRO immediately after DIRECGEN. Use DIRECGRO in conjunction with DIRECGEN to create new minidisks and expand existing ones. |
| 4 | Before Running PASSMOD | • Make sure you have read/write access to the CP directory file. |
| Running PASSMOD | • Invoke PASSMOD LOGON.  
• Change logon passwords. |
| After Running PASSMOD | • Type in DIRECT VMUSERS to place directory on-line.  
• Logoff.  
• Logon to MAINT user ID. |

Table 9-1 (Page 1 of 2). Optional Feature Product Installation Overview
### Optional Feature Product Installation Overview

<table>
<thead>
<tr>
<th>Step</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>Make sure you are logged on to MAINT user ID and MAINT has all privilege classes.</td>
</tr>
<tr>
<td></td>
<td>Format common minidisks if necessary.</td>
</tr>
<tr>
<td></td>
<td>Make sure MAINT 319 minidisk is linked read/write.</td>
</tr>
<tr>
<td></td>
<td>Make sure MAINT 191, MAINT 193, and MAINT 194 are linked.</td>
</tr>
<tr>
<td></td>
<td>Make sure MAINT 193 is accessed.</td>
</tr>
<tr>
<td></td>
<td>Mount the optional feature product tape.</td>
</tr>
<tr>
<td></td>
<td>Make sure you have a hardcopy of your CP directory available.</td>
</tr>
<tr>
<td></td>
<td>Print and review the product Memos to Users.</td>
</tr>
<tr>
<td></td>
<td>Make sure your virtual storage size is 16M unless otherwise specified by the product Memo to Users.</td>
</tr>
<tr>
<td>5.2</td>
<td>Invoke INSTFPP.</td>
</tr>
<tr>
<td></td>
<td>Select the products you want to install.</td>
</tr>
<tr>
<td>5.3</td>
<td>Execute manual installation and verification procedures if necessary.</td>
</tr>
<tr>
<td></td>
<td>Tailor product dependent files if necessary.</td>
</tr>
<tr>
<td></td>
<td>Resave CMS if code has been loaded to MAINT 19E.</td>
</tr>
<tr>
<td></td>
<td>Consider placing file directory information for shared, read/only minidisks into a DCSS.</td>
</tr>
<tr>
<td>6</td>
<td>Invoke PASSMOD MDISK.</td>
</tr>
<tr>
<td></td>
<td>Modify minidisk passwords.</td>
</tr>
</tbody>
</table>

Chapter 10, “Information About Optional Feature Products” on page 10-1 contains a list of optional feature products included on the optional feature product tape and other information related to product installation. Refer to the chapter when needed as you install optional feature products.
Formatting and Allocating DASD Volumes

The optional feature product installation execs do not format and allocate DASD volumes, such as PROFPK and SQLPK, that you may use when installing optional feature products.

In addition, the installation execs do not format and allocate additional volumes, such as VMPK03, that might be available at your installation. The needed control statements for these additional volumes are not in the sample CP directory.

If additional DASD volumes are needed for product installation, do the following:

1. See the *VM/SP Planning Guide and Reference* for a description of the MDISK directory control statement.
2. Follow the corresponding statements in the sample CP directory for volume VMPK01 as an example when coding these statements.
3. Add an MDISK control statement under the $ALLOC$ user ID entry for each additional volume.
4. Add an MDISK statement defining a full-pack minidisk to the user IDs MAINT and SYSDUMP1 for each of these volumes.

To format and allocate these volumes, enter the following commands from the MAINT user ID for each of the volumes you want to format:

**Note:** If possible, format your DASD at first level. Also, you should initialize the volume with the Device Support Facility. Refer to the *Device Support Facility User's Guide and Reference*, GC35-0033.

**vary on rdev**

```
rdev VARIED ONLINE
Ready;
```

**attach rdev * vdev**

```
DASD rdev ATTACH TO MAINT vdev
Ready;
```

**spool punch**

```
pun ipl fmt s (noheader
```

```
PUN FILE nnnn TO MAINT COPY 001 NOHOLD
Ready;
```

**order reader nnnn**

```
order reader nnnn
```

* rdev is the real address of the DASD volume.
* vdev is an available virtual address.
* From the MAINT user ID, punch the "IPL FMT" file to your card reader.
* nnnn is the number received in the previous system response.
IPL the card reader to start the FORMAT/ALLOCATE program.

vdev is the virtual address of the DASD volume.

devtype is the device type of the DASD. Enter 3350, 3375, 3380, or FB-512 for the 3370, 3370-2, 9332-400, 9332-600, or 9335.

xxxxxx is your label name, for example VMPK03.

If the previous message does not show 000 read-check errors, stop the installation process and contact your Systems Engineer or hardware service representative. (You might have to initialize the volume with the Device Support Facility. Refer to the Device Support Facility User's Guide and Reference, GC35-0033.)
allocate

ALLOCATE FUNCTION SELECTED
ENTER DEVICE ADDRESS (CUU):

vdev

vdev is the virtual address of the DASD volume.

devtype

devtype is the device type of the DASD. Enter 3350, 3375, 3380, or FB-512 for the 3370, 3370-2, 9332-400, 9332-600, or 9335.

ENTER DEVICE LABEL:

xxxxxx

xxxxxx is your label name, for example VMPK03.

ENTER ALLOCATION DATA FOR VOLUME xxxxxx TYPE PAGE PG CYL CYL

Find the correct start and end page/cylinder values for your DASD type in the following table:

<table>
<thead>
<tr>
<th>DASD Type</th>
<th>Page or Cylinder Start</th>
<th>Page or Cylinder End</th>
</tr>
</thead>
<tbody>
<tr>
<td>3350</td>
<td>000</td>
<td>554</td>
</tr>
<tr>
<td>3370</td>
<td>00002</td>
<td>69749</td>
</tr>
<tr>
<td>3370-2</td>
<td>00002</td>
<td>89093</td>
</tr>
<tr>
<td>3375</td>
<td>000</td>
<td>958</td>
</tr>
<tr>
<td>3380</td>
<td>000</td>
<td>884</td>
</tr>
<tr>
<td>3380-E4</td>
<td>000</td>
<td>1769</td>
</tr>
<tr>
<td>3380-K4</td>
<td>000</td>
<td>2654</td>
</tr>
<tr>
<td>9332-400</td>
<td>00002</td>
<td>45003</td>
</tr>
<tr>
<td>9332-600</td>
<td>00002</td>
<td>69349</td>
</tr>
<tr>
<td>9335</td>
<td>00002</td>
<td>100588</td>
</tr>
</tbody>
</table>

9-6 VM/SP Installation Guide
Then, using the correct values, invoke the following command:

```
perm sssss eeeeee
```

*ssss* is the start cylinder or page for DASD type.  
*eeeee* is the end cylinder or page for DASD type.

Note: For this newly allocated space to be used in a system, the ending allocation address must be within the formatted range.

```
end
```

At first level,

**ATTN** to enter the CP environment. (For example, press PA1 on a 3278 terminal.)

```
ipl cms
```

```
Ready;
```

```
detach vdev
```

*rdev* is the virtual address of the DASD volume.

```
DASD rdev DETACHED MAINT vdev
```

```
attach rdev system xxxxxx
```

*rdev* is the real address of the DASD volume.

*xxxxxx* is your label name, for example VMPK03.

```
DASD rdev ATTACH TO SYSTEM xxxxxx
```

The FORMAT/ALLOCATE step is complete.
Using the DIRECGEN EXEC to Tailor the CP Directory File

DIRECGEN sets up IBM predefined directory entries for optional feature products you want to install. Execute DIRECGEN after you create the VM/SP Release 6 base system and before you install optional feature products.

DIRECGEN may be used with either of two options—GROW or NOGROW:

- Use DIRECGEN with the GROW option to automatically expand minidisks. DIRECGEN (GROW) processes the directory requirements in preparation for DIRECGRO. Use DIRECGRO immediately after using the DIRECGEN (GROW) command.
- Use DIRECGEN with the NOGROW option to manually expand minidisk sizes.

Note: DIRECGEN can define user IDs and minidisks needed by optional feature products on DASD types other than the VM/SP system residence volume but only on supported DASD types.

Before Running DIRECGEN

Before running DIRECGEN, make sure:

- You logon to MAINT user ID.
- VM Directory Maintenance is not operational.
- You have read/write access to the input CP directory file (VMUSERS DIRECT by default) and the DIRECGEN EXTENTS file (usually on MAINT 295).
- Your CP directory file has fixed length, 80-character records.
- The 193 minidisk is linked and accessed.
- The 319 minidisk is linked read/write.
- You have enough space on the disk containing the input CP directory file for the input CP directory file, the output CP directory file, and the output data files used by DIRECGRO. The amount of space required is approximately five times that of the original directory.
- You tailor the DIRECGEN EXTENTS file. This file is usually on the MAINT 295 minidisk and is used to identify areas on DASD volumes that should be searched for available minidisk space. Read the comments in this file before making changes.

Do the following to update this file:

- Refer to the “Product Directory Information” on page 10-5 to calculate the DASD space needed for the set of products you plan to install.
- Refer to your directory diskmap to determine where DASD space is to be allocated for the product minidisks.
- XEDIT the DIRECGEN EXTENTS file and read the comments provided.
- You will have to modify the device type field in this file.
- Change default entries in the file if necessary.
- Make sure the product numbers under the ‘USED FOR’ column are the correct numbers for products you have installed or are installing on your system.
Notes:

1. You do not need the user ID $MDISK$, used in previous releases of VM/SP. Make sure it is not in your input CP directory.

2. If you add DASD volumes to the DIRECGEN EXTENTS file, make sure you have made the necessary CP directory updates to reflect the CP reserved areas of the new volume (such as $ALLOC$, $PAGES$, and all other reserved CP areas).

3. List extents for a volume in the DIRECGEN EXTENTS file in sequential order from the beginning of the volume.

4. Do not overlap extents for a volume in the DIRECGEN EXTENTS file.

5. Plan to select all the products you want to install on your system the first time you run DIRECGEN. If DIRECGEN is rerun to add the directory requirements of additional products, you may have to make manual updates to the CP directory as documented in the DIRECGEN HISTORY file on MAINT 319.

6. DIRECGEN will not recognize abbreviated control statements in the input CP directory file. You can abbreviate operands to these statements.

7. DIRECGEN generates a number of user IDs listed in “User ID Descriptions” on page 10-14. The PARM NOSPROF statement has been added to disconnected machines that IPL CMS so the system profile is not executed when the user IDs are autologged.

8. DIRECGEN does not add non-MDISK control statements to a user ID if it conflicts with an existing statement. Such control statements are recorded in the DIRECGEN HISTORY file on the MAINT 319 disk.

9. DIRECGEN sorts the MDISK statements for each user ID that has been assigned new minidisk in ascending hexadecimal order by virtual address. If necessary, do additional manual sorting.

Running DIRECGEN

To Invoke DIRECGEN

You can run DIRECGEN in panel mode, line mode, or by specifying products on the command line.

The format of the DIRECGEN command is:

```
DIRECGEN [prodspec1 [prodspec2 ...prodspecn]] [options]
```

options:

```
[LFName fn LFType [ft PRODUCTS] LFMode [fm*]]
[DFName [fn VMUSERS] DFType [ft DIRECT] DFMode [fm*]]
[GROW NOGrow] [DISTriBute]
```
prodspec
are product specification codes that let you specify the products for which you
want DIRECGEN to generate directory resources. These codes consist of the
product number and the feature identification code as listed in the FEATURES-
PRODUCTS file. If no feature identification code exists for a product, specify
just the product number. If one exists, attach it to the end of the product
number. Specify these codes without imbedded hyphens or other punctuation.

Note: If the prodspec parameter is selected, then the LFName, LFType, and
LFMode options cannot be selected.

LFName LFType LFMode
specify the LIST file name. These options identify a file, fn ft fm, that contains
the product numbers of those products for which directory resources are to be
allocated. If you do not specify a file mode, all accessed disks are searched for
the first occurrence of the file. This file must be in the same format as the
FEATURES PRODUCTS file.

Note: If the LFName, LFType, and LFMode options are selected, then the
prodspec parameter cannot be selected.

DFName DFType DFMode
identify the name of the CP directory updated by DIRECGEN. The default is
VMUSERS DIRECT *.

NOGrow
sets up new user IDs in the CP directory and assigns minidisk sizes. Existing
minidisks will not be automatically expanded. A new CP directory file is created
that contains the original directory information as well as information for the
selected products. The original CP directory is renamed VMOLD DIRECT.

GROw
used for automatically expanding minidisks. This option generates output files
used by the DIRECGRO exec. The GROW option must be used in conjunction
with the DIRECGRO exec. For more information on using the DIRECGRO
EXEC, see “Running DIRECGRO” on page 9-13.

DISTRIBUTE
specifies that DIRECGEN is to do a rotational search on the DASD listed in
the DIRECGEN EXTENTS file when minidisk space is allocated. If this option
is not used, minidisks will be allocated sequentially starting from the first
available DASD on the DASD list.

Using the DIRECGEN Panels
• Invoke DIRECGEN from a full-screen terminal without product specification
codes or the LFName, LFType, and LFMode options.

• When a panel listing optional feature products appears on your screen, type an
  X next to the products you want to represent in the CP directory. If you want
to select all the products listed on the screen, choose the SELECT ALL option
that is shown on the panel.

Note: For NetView and SQL/DS, there are two entries on the panel. You may
select only one of these entries; your choice depends on which installation path
you wish to follow.

• Press PF5 to execute or PF3 to QUIT.

Note: See “DIRECGEN Panel” on page 11-14.
Using DIRECGEN on a Line Mode Terminal

- Copy FEATURES PRODUCTS file into a work file.
- Edit the work file by deleting each line that lists a product you do not want to represent in the CP directory, and file the edited version.

Notes:
1. Do not change the file in any other way.
2. For NetView, select either NetView without the DASD Conservation Option (5664-204), or NetView with the DASD Conservation Option (5664-204 DC).
   For SQL/DS, select either Structured Query Language/Data System Full Product (5688-004 DS), or Structured Query Language/Data System User Facility Subset (5688-004 US).
- Invoke DIRECGEN using the LFName, LFType, and LFMode options to specify the name of the file you just created and edited.

Specifying Products on the Command Line
You can specify product specification codes as arguments when you invoke DIRECGEN instead of listing them in a file or selecting them from a panel.

After Running DIRECGEN (NOGROW)
After you run DIRECGEN (NOGROW, do the following:

- If you received message 835W, refer to the DIRECGEN HISTORY file on the MAINT 319 disk for additional updates that you must make to the CP directory.
- Use the DISKMAP EXEC. DISKMAP summarizes the MDISK statements in the CP directory file. Review the DISKMAP results before you continue. Type HELP DISKMAP for more information.
- If you find, by reviewing the DIRECGEN HISTORY file on the MAINT 319 disk, that you must increase the size of an existing minidisk and you do not have VM Directory Maintenance operational, do the following:
  1. Find space for a minidisk the size of the original plus the needed expansion size, using DISKMAP output.
  2. Define a new minidisk in the CP directory using a temporary virtual address.
  3. Run DISKMAP again to verify.
  4. Place the CP directory on-line by issuing DIRECT VMUSERS DIRECT.
     Note: If the name of your CP directory is not VMUSERS DIRECT, substitute the name of your directory.
  5. Link and format the new minidisk.
  6. Copy the contents of the original minidisk to the new minidisk.
  7. Verify the contents of the new minidisk.
  8. CP format the original minidisk extents, and delete the minidisk from the CP directory.
  9. In the CP directory, change the address of the new minidisk to the address of the original.
10. Run DISKMAP again to verify.

11. Place the CP directory on-line by issuing DIRECT VMUSERS DIRECT.

12. Detach and relink the new minidisk.

- You can tailor the CP directory before installation for better use of DASD space. For example, you can move minidisks you plan to use more often than others to the center of a DASD volume.

Use the DISKMAP EXEC to produce a directory map before putting the directory on-line. Once you make all your changes, process the directory file with the following CMS command to see if it follows the required directory format:

```
DIRECT VMUSERS DIRECT
```

**Note:** If VM Directory Maintenance is installed, you can use the DIRMAINT CMDISK command to increase the size of an existing minidisk.

### Backing Out and Restarting DIRECGEN after Using DIRECGEN (NOGROW)

If you have updated the CP directory since the last time you ran DIRECGEN, do not try to back out and restart DIRECGEN or you will lose these updates. In addition, optional feature products might be erased when you restart DIRECGEN and place a new directory on-line.

If you want to undo directory updates made during the last successful execution of DIRECGEN, use the following procedure. Be sure that VM Directory Maintenance is not operational.

1. Logon to MAINT user ID.
2. Make sure VMOLD DIRECT exists.
   
   **Note:** During the last execution of DIRECGEN, the input CP directory was saved as VMOLD DIRECT.
3. Erase VMUSERS DIRECT.
   
   **Note:** If the name of your CP directory is not VMUSERS DIRECT, substitute the name of your directory.
4. Rename VMOLD DIRECT to VMUSERS DIRECT.
5. XEDIT the DIRECGEN $SELECT$ file on MAINT 319 and delete the entries for products selected in the last successful execution of DIRECGEN. If you are going to delete all the entries, use ERASE DIRECGEN $SELECT$ instead of XEDIT. (XEDIT will not file an empty file.)
6. Run DIRECGEN.
7. If optional feature products have not been installed and new minidisks have not been formatted since the last time you ran DIRECGEN, continue the steps in “After Running DIRECGEN (NOGROW)” on page 9-11.

If optional feature products have been installed or new minidisks have been formatted since the last time you ran DIRECGEN:

a. Enter DIRECT VMUSERS to place the directory on-line.

b. Logoff.

c. Logon to MAINT user ID.
d. Compare the new VMUSERS DIRECT with VMOLD DIRECT, and format new minidisks (using the block sizes in Table 10-1 on page 10-6) before beginning product installation.

e. Continue the steps in “After Running DIRECGEN (NOGROW)” on page 9-11.

After Running DIRECGEN (GROW)
If you wish to start over after you have used DIRECGEN (GROW and before you have used DIRECGRO, you may do so simply by reinvoicing the DIRECGEN (GROW command. However, after you have run DIRECGRO, there is no way to reverse the changes made to the original directory.

Running DIRECGRO
Use the DIRECGRO EXEC only if you ran DIRECGEN with the GROW option. Invoke DIRECGRO immediately after running DIRECGEN (GROW).

Use DIRECGRO to:
• Add new user IDs and update existing ones.
• Create new minidisks and expand existing ones.
• Create and place online a new directory with all updates made for selected products.

To invoke DIRECGRO
The format of the DIRECGRO command is:

```
DIRECGRO ([DFName fn] [DFType ft] [DFMode fm]
```

<table>
<thead>
<tr>
<th>DFName fn</th>
<th>DFType ft</th>
<th>DFMode fm</th>
</tr>
</thead>
</table>
| identify the name of the output CP directory. The default is VMUSERS DIRECT filemode, where filemode is the mode of the minidisk containing the input file DIRECGRO $NEWCP$.

After Running DIRECGRO
After you run DIRECGRO, do the following:
• If you received message 835W, refer to the DIRECGEN HISTORY file on the MAINT 319 disk for additional updates that you must make to the CP directory.
• Use the DISKMAP EXEC. DISKMAP summarizes the MDISK statements in the CP directory file. Review the DISKMAP results before you continue. Type HELP DISKMAP for more information.
• You can tailor the CP directory before installation for better use of DASD space. For example, you can move minidisks you plan to use more often than others to the center of a DASD volume.

Use the DISKMAP EXEC to produce a directory map before putting the directory on-line. Once you make all your changes, process the directory file with the following CMS command to see if it follows the required directory format:

```
DIRECT VMUSERS DIRECT (EDIT
```
**DIRECGEN HISTORY File**

The DIRECGEN HISTORY file on MAINT 319 is updated each time you run DIRECGEN or DIRECGRO. This file lists products with directory resources defined by DIRECGEN and contains other information such as time stamps, error messages, and return codes. It also contains information about manual directory updates you might have to make after you run DIRECGEN.
Using the PASSMOD EXEC to Change Logon and Minidisk Passwords

PASSMOD is used to change logon passwords for user IDs in the CP directory file. PASSMOD can also be used to change minidisk passwords.

To change logon passwords, invoke PASSMOD after you execute DIRECGEN and before you install optional feature products with INSTFPP. To change minidisk passwords, invoke PASSMOD after you run INSTFPP.

Before Running PASSMOD
Before you run PASSMOD, make sure:

- VM Directory Maintenance is not operational.
- You have read/write access to the CP directory file.
- The CP directory file has fixed length, 80-character records.
- User control statements in the input CP directory file are uppercased and are not abbreviated.

Running PASSMOD
To Invoke PASSMOD
You can run PASSMOD in panel mode, line mode, or by entering user IDs on the command line.

The format of the PASSMOD command is:

<table>
<thead>
<tr>
<th>Command</th>
<th>Format</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>PASSMOD</td>
<td>Logon [ fn [ ft [ fm ] ] ] [ (options a [ ]) ]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mdisk [ fn [ ft [ fm ] ] ] [ (options b [ ]) ]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Print [ fn [ ft [ fm ] ] ]</td>
<td></td>
</tr>
<tr>
<td>options:</td>
<td>(a) [ Random ]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[ Userid userid [ Newpw newpw ] ]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(b) [ Userid userid Cuu cuu ]</td>
<td></td>
</tr>
</tbody>
</table>

**Logon**

specifies that logon passwords are to be changed. Unless the Userid option is specified, a password modification panel is displayed.

**Note:** You cannot change the logon passwords of user IDs that begin and end with '$'.

**Mdisk**

specifies that minidisk passwords are to be changed. The MDISK option of PASSMOD should be used only after INSTFPP has been run. On line mode terminals, the Userid Cuu option must be specified or an error will occur. On
full screen terminals, the Userid option does not need to be specified; a panel displays the list of user IDs with current minidisk passwords.

**Print**

specifies that the list of user IDs, logon passwords, minidisks, and minidisk passwords is printed in the order of the user IDs in the CP directory. The panel is not displayed, and line mode is not entered.

PASSMOD produces virtual printer spool files with the PRINT command. Make sure appropriate spooling control options are in effect to direct output to the desired real printer. You might have to invoke the CP SPOOL command and/or the CP TAG command.

\( fn \)

is the file name of the CP directory source file. The default is VMUSERS.

\( ft \)

is the file type of the CP directory source file. The default is DIRECT.

\( fm \)

is the file mode of the CP directory source file. You need read/write access to the disk containing the file. The default is *.

**Random**

specifies that logon passwords are generated at random for user IDs in the CP directory file that have the password NOLOG and do not begin and end with ‘$’. When the passwords have been generated, the panel is displayed with the current passwords and the new random passwords. Then, you can make more changes to the passwords. If your terminal is in line mode, you can change new random passwords individually before execution.

**Userid userid [Newpw newpw]**

specifies the name of a user ID with a current password you want to change. If Newpw is not specified, you are prompted for the new password. The new password is written to the CP directory file. Newpw specifies a new password that is written to the CP directory file.

**Userid userid Cuu cuu**

specifies that minidisk passwords are to be changed for the specified minidisk of the given user ID. You are prompted for the read, write and multi passwords. The new passwords are written to the CP directory file.

**Using the PASSMOD Panel**

- Invoke PASSMOD from a full-screen terminal without specifying the USERID or PRINT options. To display the logon password modification panel, invoke PASSMOD LOGON. To display the minidisk password modification panel, invoke PASSMOD MDISK.
- When a panel displays the product IDs with their user IDs and current passwords, change the passwords according to the explanation on the panel.
  
  **Note:** You can enter passwords in panel mode with imbedded periods, but you cannot enter passwords with leading or trailing periods. To enter passwords with leading or trailing periods, invoke PASSMOD with the USERID option.

- On the PASSMOD MDISK panel, you may type DELETE if you wish to remove any existing minidisk password.
- Press PF5 to execute or PF3 to QUIT.
Using PASSMOD on a Line Mode Terminal to Change Logon Passwords

- Invoke the PASSMOD LOGON command.
- As you are prompted, enter a new logon password for each user ID and corresponding password.
- To exit PASSMOD, enter either EXECUTE or QUIT, but do not abbreviate these.

  If you enter EXECUTE, new passwords are written to the CP directory file.
  If you enter QUIT, PASSMOD prompts you to enter QUIT again to confirm that you do not want to save the passwords. If you enter QUIT again, PASSMOD exits, leaving the CP directory file unchanged.

  **Note:** If you want to change a logon password to QUIT or EXECUTE, invoke PASSMOD with the USERID option.

Using PASSMOD on a Line Mode Terminal to Change Minidisk Passwords

- Invoke the PASSMOD MDISK (USERID userid CUU cuu) command.
- As you are prompted, enter new read, write, and/or multi-access passwords for the specified minidisk for the specified user ID.
- A null response causes no change to the current minidisk password.

Entering User IDs on the Command Line

To change only one password, invoke PASSMOD LOGON with the USERID option and enter the user ID and new password or just the user ID on the command line. If you do not specify a password, a prompt is displayed to let you enter a new password. The new password is verified and placed in the CP directory file.

After Running PASSMOD

After you run PASSMOD, do the following:

- Use the CMS DIRECT command to place the directory on-line.
- Logoff.
- Logon to MAINT user ID.
- Secure the print file if the print option was selected.
Using the INSTFPP EXEC to Install Optional Feature Products

Note: Before using INSTFPP to install optional feature products, read “Considerations for Installing Optional Feature Products” in the VM/IS Program Directory.

Before Running INSTFPP

Before you invoke INSTFPP to install optional feature products, make sure:

- You run PASSMOD LOGON to change passwords for any new user IDs; DIRECGEN will have set them to NOLOG.
- You are logged on to MAINT user ID.
- MAINT has all privilege classes.
- MAINT has the MAINT 319 minidisk linked as read/write.
- MAINT 190, MAINT 191, MAINT 193, and MAINT 194 are linked.
- You access the MAINT 193 disk.
- Use the following example to format common minidisks 19E, 326, and 348 if they are present in your directory and have not already been formatted:

```sh
format 19e c (blksize 4k)
```

Mode is variable.

```
DMSFOR603R FORMAT will erase all files
on disk C(19E). Do you wish to continue?
Enter 1 (YES) or 0 (NO).

1

DMSFOR605R Enter disk label:

mnt19e

Formatting disk C
20 cylinders formatted on C(19E)
Ready;
```

- You mount the optional feature product tape. INSTFPP stops if the tape is not mounted correctly.
- Optionally attach the tape drive containing the product tape as MAINT's virtual 181. Or, you can pass INSTFPP the real address of the tape drive, and let INSTFPP attach the drive as MAINT's virtual 181. If a device is already defined at 181, INSTFPP issues a warning message and redefines the device address before attaching the tape as 181.
- You have a hardcopy of your directory available. Many product installation execs link to the user minidisks in write mode using default passwords. If the link attempt fails, you might be asked to enter the write or multi password of the minidisk.
• You review the Memo to Users for products you plan to install. Enter
INSTFPP (NOINSTALL MEMO to print the product Memo to Users for
reference and to copy the Memo to Users to the MAINT 319 minidisk. The
Memo to Users is named Jprodid MEMOfc, where fc is the feature code. The
feature code may contain up to two characters.

• Appropriate spooling control options are in effect to direct the virtual printer
spool files INSTFPP produces with the PRINT command to the desired real
printer. You might have to invoke the CP SPOOL command and/or the CP
TAG command.

If your printer handles only uppercase characters, use the FOLD option of the
CP LOADBUF command. If your printer does not accept the LOADBUF
command, print memos by issuing the PRINT command with the UPCASE
option. In addition, if your printer cannot print special characters contained in
the product memos printed by INSTFPP, look on-line at the product Memo to
Users on the MAINT 319 minidisk.

Refer to the VM/SP CP General User Command Reference and the VM/SP
CMS Command Reference for more information about these commands.

• Your virtual storage size is 16M unless otherwise specified by the product Memo
to Users.

Running INSTFPP

To Invoke INSTFPP

You can run INSTFPP in panel mode or by specifying products on the command
line.

The format of the INSTFPP command is:

<table>
<thead>
<tr>
<th>INSTFPP</th>
<th>[prodspec1 [prodspec2 ...prodspecn ]] [(options [])]</th>
</tr>
</thead>
<tbody>
<tr>
<td>options:</td>
<td>Prompt [NOPrompt] [Memo [NOMemo]]</td>
</tr>
<tr>
<td></td>
<td>Install [NOInstall] [Rewind [NORewind]]</td>
</tr>
<tr>
<td></td>
<td>All [TAPE rceu]</td>
</tr>
</tbody>
</table>

prodspec

are the product specification codes that let you specify the products you want
processed. These codes consist of the product number and the feature
identification code as listed in the FEATURES PRODUCTS file. If no feature
identification code exists for a product, specify just the product number. If one
exists, attach it to the end of the product number. Specify these codes without
imbedded hyphens or other punctuation. INSTFPP scans the files on the
stacked tape and processes the selected optional feature products.
**Prompt**

displays the prompts that ask if you want to process the specified optional feature products. Prompt is the default.

**NOPrompt**

eliminates the prompts that asks if you want to install the specified optional feature products.

**Memo**

prints a product Memo to Users from the tape for each selected product. Memo is the default.

**NOMemo**

lets you process the selected products without printing product Memo to Users. You cannot specify NOMemo if you have specified NOInstall.

**Install**

lets you install the selected products. Install is the default.

**NOInstall**

lets you process the selected products without installing them. You cannot specify NOInstall if you have specified NOMemo.

**Rewind**

makes sure the tape is rewound before and after product installation and that it is properly mounted. Rewind is the default.

**NORewind**

lets INSTFPP processing continue without tape rewinds before and after product installation. This option is not available with INSTFPP panels.

**Note:** Make sure the tape is properly mounted and attached as 181. You can only install products located after the initial tape position. The tape must be positioned at the start of a product.

**All**

lets you process all the products on the tape. All is the default if you do not enter product specification codes.

**TAPE rceu**

lets you specify the real address of the tape drive.

---

**Using the INSTFPP Panels**

- Invoke INSTFPP with no arguments from a 3270 device (20 line minimum).
- When a panel appears on your screen, enter the real tape drive address, change defaults if necessary, and press ENTER.
- If you choose not to install all products on the product tape, another panel will be displayed. Type an X next to the products you want to install. Press PF5 to execute or PF3 to QUIT.

**Note:** See “INSTFPP Panels” on page 11-17.

---

**Specifying Products on the Command Line**

If you enter arguments, the INSTFPP panels do not appear on your screen. You can specify product specification codes by listing them as you find them in the FEATURES PRODUCTS file. Omit hyphens or other punctuation marks, and leave one blank between each code. You can specify up to 130 characters, including the command and options, on the CMS command line.
After Running INSTFPP

After you run INSTFPP, do the following:

- Execute manual installation and verification procedures as indicated in the product Memo to Users if necessary.
- Tailor product dependent files as indicated in the product Memo to Users if necessary.
- Run PASSMOD MDISK to change minidisk passwords.
- Resave CMS if optional feature products that you installed loaded files to the MAINT 19E minidisk.
- Consider placing file directory information for shared, read/only minidisks into a DCSS using the SAVEFD command. Refer to VM/SP Application Development Guide for CMS.
- Resave the Help DCSS if optional feature products that you installed loaded files to the MAINT 19D minidisk.

Notes:

1. INSTFPP cannot properly restore minidisks accessed as read/only extensions with a subset defined. INSTFPP reaccesses minidisks as read/only extensions with no subset specification.
2. INSTFPP leaves the tape drive containing the optional feature product tape attached as virtual address 181.
3. At least 30 contiguous cylinders of 3380 temporary disk space or equivalent must be available.
4. If the console was spooled stop before invoking INSTFPP, then a console log will be spooled to your reader.

PROD LEVEL File

INSTFPP updates a file named “PROD LEVEL” on the MAINT 319 minidisk with the results of each optional feature product installation.

The following is an example of what a PROD LEVEL file can look like:

```
5664318  Virtual Machine / Interactive Productivity Facility (VM/IPF)
VER 2  REL 3  MOD 0  VM PUT 8703  SERVICE LEVEL 201
Time and date of entry: 00:00:01 31 Jan 1989
*** Product installed and verified successfully

5664282 - INTERACTIVE SYSTEM PRODUCTIVITY FACILITY 2.2.1 for VM/SP 6
VER 2  REL 2  MOD 1  PUT LEVEL N/A  SERVICE LEVEL 0
Time and date of entry: 00:00:01 31 Jan 1989
*** Product installed and verified successfully
```
Update Messages

Each optional feature product entry in the PROD LEVEL file has an update message associated with it. The possible update messages and their explanations are:

*** **Product installed and verified successfully**
The optional feature product installed correctly, and the product was verified successfully.

*** **Product files loaded; see the Memo to Users to complete installation**
The optional feature product files have been loaded successfully. Refer to the product Memo to Users printed by INSTFPP. This memo tells you how to complete the installation of the product and then verify that it installed correctly. In some cases, the product Memo to Users refers to other documentation.

*** **Product installed; manual verification required**
The optional feature product installed, but it was not verified automatically. Refer to the product Memo to Users printed by INSTFPP. This memo tells you how to make sure the optional feature product installed correctly. In some cases, the product Memo to Users refers to other documentation.

*** **Product installed; verification failed**
The optional feature product installed, but the automatic verification failed. Try to install the optional feature product again after correcting any problems; if it does not verify correctly, contact your support personnel.

*** **Product Installation EXEC failed; RC = rc**
The product installation exec failed, and the return code passed back by this exec to INSTFPP is rc. Refer to the product Memo to Users or product installation exec prologue to see what this return code means. If you cannot fix the problem, contact your support personnel.

Rerunning INSTFPP

If any optional feature products do not install correctly, do the following:

- Try to solve the problem by using the console log, product Memo to Users, the PROD LEVEL file, and other product specific documentation.
- Ready the tape.
- Invoke INSTFPP.
- Reinstall products that did not install correctly. (Also reinstall products that have these products as prerequisites. Refer to “Optional Feature Products” on page 10-1 to see if products you are reinstalling are prerequisites for other products you are installing.)
- If product installation is abnormally terminated (for example, if you enter HX, or by an unrecoverable error) so that INSTFPP is unable to restore the invocation environment, log off and log on again to make sure the environment is properly restored before you invoke INSTFPP again.

After you install each optional feature product, follow the instructions in the product Memo to Users to verify that it has installed correctly (unless it was automatically verified during installation.)
Chapter 10. Information About Optional Feature Products

Optional Feature Products

VM/IS 6 supports the following list of optional feature products. The list shows the abbreviations, numbers, and release levels of each product. Also shown are prerequisite products needed to install or operate the optional feature products.

<table>
<thead>
<tr>
<th>Product</th>
<th>Abbreviation</th>
<th>Number</th>
<th>Level</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACF/Network Control Program</td>
<td>ACF/NCP</td>
<td>5668-854</td>
<td>4.3.0</td>
<td>5664-280&lt;sup&gt;7&lt;/sup&gt; 5664-289</td>
</tr>
<tr>
<td>ACF/Network Control Program</td>
<td>ACF/NCP</td>
<td>5668-738</td>
<td>5.2.0</td>
<td>5664-280&lt;sup&gt;7&lt;/sup&gt; 5664-289</td>
</tr>
<tr>
<td>ACF/System Support Program</td>
<td>ACF/SSP</td>
<td>5664-289</td>
<td>3.4.0</td>
<td>5664-282</td>
</tr>
<tr>
<td>ACF/Virtual Telecommunications Access Method</td>
<td>ACF/VTAM</td>
<td>5664-280</td>
<td>3.2.0</td>
<td>GCS&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>ACF/Virtual Telecommunications Access Method for VM/9370</td>
<td>ACF/VTAM</td>
<td>5684-052&lt;sup&gt;5&lt;/sup&gt;</td>
<td>3.2.0</td>
<td>GCS&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>APL2</td>
<td>APL2 V1R3</td>
<td>5668-899</td>
<td>1.3.0</td>
<td></td>
</tr>
<tr>
<td>Application System</td>
<td>AS</td>
<td>5767-032</td>
<td>1.5.1</td>
<td>5684-007 5668-812</td>
</tr>
<tr>
<td>Application Preparation Feature</td>
<td>APF</td>
<td>5767-032 AP</td>
<td>1.5.1</td>
<td>5767-032 5684-007 5668-812</td>
</tr>
<tr>
<td>Application System</td>
<td>AS NL</td>
<td>5767-032 NL</td>
<td>1.5.1</td>
<td>5767-032 5684-007 5668-812</td>
</tr>
<tr>
<td>Customer Information Control System/VM</td>
<td>CICS/VM</td>
<td>5684-011</td>
<td>1.2.0</td>
<td></td>
</tr>
<tr>
<td>Assembler H</td>
<td>HASM</td>
<td>5668-962</td>
<td>2.1.0</td>
<td></td>
</tr>
<tr>
<td>Contextual File Search/370 for VM/CMS</td>
<td>CFSearch/370</td>
<td>5664-329</td>
<td>1.1.2</td>
<td></td>
</tr>
<tr>
<td>Cooperative Viewing Facility Version 2</td>
<td>CVIEW</td>
<td>5664-296</td>
<td>2.1.2</td>
<td></td>
</tr>
<tr>
<td>Cross System Product/Application Development</td>
<td>CSP/AD</td>
<td>5668-813</td>
<td>3.2.1</td>
<td>5746-AM2 5747-DS1&lt;sup&gt;2&lt;/sup&gt; 5668-814</td>
</tr>
<tr>
<td>Cross System Product/Application Execution</td>
<td>CSP/AE</td>
<td>5668-814</td>
<td>3.2.1</td>
<td>5746-AM2 5747-DS1&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>Cross System Product/Query</td>
<td>CSP/Q</td>
<td>5668-918</td>
<td>1.2.1</td>
<td>5746-AM2 5747-DS1&lt;sup&gt;2&lt;/sup&gt; 5668-814</td>
</tr>
<tr>
<td>DFSORT/CMS</td>
<td>DFSORT/CMS</td>
<td>5664-325</td>
<td>1.1.0</td>
<td></td>
</tr>
</tbody>
</table>

Chapter 10. Information About Optional Feature Products 10-1
<table>
<thead>
<tr>
<th>Product</th>
<th>Abbreviation</th>
<th>Number</th>
<th>Level</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display Management System for CMS</td>
<td>DMS/CMS</td>
<td>5748-XXB</td>
<td>1.2.0</td>
<td></td>
</tr>
<tr>
<td>DisplayWrite/370</td>
<td>DW/370</td>
<td>5664-370</td>
<td>1.2.1</td>
<td></td>
</tr>
<tr>
<td>Data Interfile Transfer, Testing and Operations Utility</td>
<td>DITTO</td>
<td>5688-052</td>
<td>3.1.0</td>
<td></td>
</tr>
<tr>
<td>Document Composition Facility</td>
<td>DCF</td>
<td>5748-XX9</td>
<td>1.3.2</td>
<td></td>
</tr>
<tr>
<td>Host Document Composition Program/VM</td>
<td>DCP/VM</td>
<td>5664-362</td>
<td>1.2.1</td>
<td>5664-361</td>
</tr>
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<td>Data Extract Base Version 2</td>
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Chapter 10. Information About Optional Feature Products 10-3
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10-4 VM/SP Installation Guide
1 Group Control System (GCS) is provided with the VM/SP base.

2 Device Support Facilities (5747-DS1) is provided with the VM/SP base.

3 The following software products are not prerequisites for NetView Network Definer but must be installed for complete network operation and management:
   - ACF/VTAM Version 3.1.2 (5664-280) for VM/SP
   - NetView Release 2 (5664-204)
   - RSCS Version 2 (5664-188)
   - VM/DSNX Release 1.1 (5684-009).

4 This product has PC software prerequisites. Refer to individual product documentation for prerequisite information.

5 5684-052 is the order number for ACF/VTAM for VM/9370; however, when installing the product please use product number 5664-280 with feature code 93.

6 ACF/NCP version 4 or version 5

7 If applicable, ACF/VTAM for VM/9370 may be substituted.

8 This tape is shipped with the products VM/DSNX and Netview DM.

9 This feature of SQL/DS may be ordered separately. When installing the product, use product number 5688-EFI.

Reference Books

Reference books are available for all products listed in "Optional Feature Products" on page 10-1. Refer to the VM/IS 6 ordering instructions for a list of available optional feature product publications. Your IBM representative or nearest IBM branch office can help you obtain these books and can tell you how to subscribe to them so you automatically get updates and new editions.

Product Directory Information

The following table lists each optional feature product, the user IDs and minidisks associated with each product, and the DASD space to be allocated for that minidisk. When you run DIRECGEN, the required space is allocated for the products you want to install.

Use the information in the following table to determine what user IDs, minidisks, and minidisk sizes are associated with the products you want to install.
### Table 10-1 (Page 1 of 8). Product Directory Information

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Chapter 10. Information About Optional Feature Products  10-7
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## Table 10-1 (Page 7 of 8). Product Directory Information

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1 The DCO (DASD Conservation Option) may be selected when installing NetView. NetView with DCO and NetView without DCO cannot be installed on the same system.

2 The User Facility Subset is an installation option for SQL/DS. SQL/DS User Facility Subset and SQL/DS Full Product cannot be installed on the same system.

3 EREP Feature 3 installs on the same disks as does EREP, but EREP is a prerequisite for EREP Feature 3.

### User ID Descriptions

This section gives a brief description of the user IDs associated with supported optional feature products.

**Note:** DIRECGEN generates some of the following user IDs. The PARM NOSPROF statement has been added to disconnected machines that IPL CMS so the system profile is not executed when the user IDs are autologged.

- **ADMIN (IPF)**
  
  The ADMIN user ID is reserved for the system administrator. The system administrator's tasks include authorizing users of the system and controlling the allocation of system resources (primarily DASD).

- **APL2PP (APL2)**
  
  APL2PP loads the APL2 product files, including the user common files copied to MAINT 19E.

- **AP2SVP (APL2)**
  
  The AP2SVP user ID that runs as a disconnected virtual machine is the APL2 shared variable processor.

- **ASAPF (APF)**
  
  The ASAPF service machine is required to hold the ASAPF code and to maintain ASAPF. You only need to have this machine logged on when completing the installation of ASAPF or when applying service.

- **AUDITOR (IPF)**
  
  The AUDITOR virtual machine runs the AUDITOR utility to monitor service virtual machines running on the system.

- **AUTOLOGI**
  
  VM/SP automatically logs on this virtual machine when the VM/SP system is IPLed. You can use the PROFILE EXEC for this user ID to automatically do a set of actions every time the system is IPLed. These actions include automatically logging on other disconnected virtual machines, enabling lines and/or starting printers, and so on.

- **BATCH, BATCH1, and BATCH2 (VMBATCH)**
  
  The program product VM Batch Subsystem uses these user IDs to provide a facility for scheduling, initiating, and monitoring batch jobs in a VM/CMS environment. A supervisory virtual machine that dispatches and monitors other virtual machines in which the batch jobs are processed controls the subsystem.
The VM batch subsystem monitor receives and responds to jobs and commands from users. When a task machine is available to process a job, the monitor selects an appropriate batch job and starts the job in the machine.

BATCH1 and BATCH2 are virtual machines that run user jobs. They are controlled by BATCH, which determines the sequence of jobs started, monitors job activity, and processes commands from users. Defining additional batch job-processing virtual machines will make it possible to run more jobs at the same time. An AUTOLOG command from BATCH starts the job-processing virtual machines when they are to process jobs. The task machines are not logged on when they are not processing jobs. BATCH always runs disconnected.

- **CICSSERV (CICS)**
  
  CICSSERV is the server machine user ID for CICS/VM release 2. The server machine in CICS/VM release 1 was CICSSFS. CICSSERV server machine has five functions, namely, file control for VSAM, interval control, task control, transient data control and temporary storage control.

- **CMSBATCH**
  
  You can send time-consuming jobs to user ID CMSBATCH, freeing your terminal for interactive work and keeping such jobs from slowing down the system. For more information about the CMSBATCH virtual machine, refer to the *VM/SP CMS User’s Guide*.

- **CMSUSER**
  
  CMSUSER is an example of a virtual machine needed by typical CMS users. Create similar entries for each CMS user in your installation.

- **CPRM (IPF)**
  
  VM/IPF Problem Control Facility (PCF) needs the CPRM (Central Problem Report Manager) user ID. This disconnected service machine controls and changes the problem data base.

- **CSPUSER (CSP/AD, CSP/AE, CSP/Q)**
  
  CSPUSER is an example of a user ID needed by typical Cross System Product/Application Development (CSP/AD), Cross System Product/Application Execution (CSP/AE), and Cross System Product/Query (CSP/Q) users. Create similar entries for each CSP user in your installation.

- **CVIEW (CVIEW)**
  
  CVIEW Version 2 runs as a CMS application in a disconnected virtual machine, letting many users view a single interactive session. The CVIEW virtual machine gives identical screen images to session participants at the same time.

- **DATAMOVE (DIRMAINT)**
  
  The DATAMOVE virtual machine automates the process of copying user CMS minidisks and cleaning old minidisks before making them available for later allocation. DATAMOVE should be autologged with the DIRMAINT virtual machine at system IPL time.

- **DEMO1, DEMO2, DEMO3, and DEMO4**
  
  These are sample user IDs provided by the VM/IS Productivity Facility.
• DIRMAINT (DIRMAINT)
The DIRMAINT virtual machine manages the CP directory source and associated control files. DIRMAINT makes changes to the CP directory source file so you do not have to manually edit the file. DIRMAINT should be autologged at system IPL time.

• DISKACNT (IPF)
DISKACNT collects accounting information generated by VM/SP.

• DSNXSERV (VM/DSNX)
This is the service machine that manages minidisks through requests submitted via the DSNX EXEC. DSNXSERV has to be able to get multi-read links to the minidisks it is going to manage.

• EREP (EREP)
The IBM Customer Service Representative (CSR) uses EREP while running CPEREP. The privilege class of F lets the CSR clear the error recording area. The maximum virtual size is set at 2 MB so the EREP table can be increased in size if needed.

• FTP (FTP)
This is a sample user ID for execution of the product.

• FTPSERVE (VM TCP/IP)
This is the virtual machine for the FTP server. It provides controlled access to datasets on the local host. You can use multiple FTP servers to improve system throughput.

• GCS
GCS is a virtual machine supervisor that lets group members share VM/SP systems.

• GRAPHPRT (GDDM)
This is a disconnected virtual machine used to transmit GDDM print files. This user ID should be autologged by AUTOLOG1.

• IPFAPPL (IPF)
IPFAPPL is used to process DIRMAINT and product enrollment commands at the remote and central systems.

• IPFSERV (IPF)
VM/IPF needs the IPFSERV user ID to build the CP nucleus. IPFSERV, a disconnected machine, runs Device Support Facilities for IPF DASD management.

• IPFSFS (IPF)
IPFSFS processes CMS shared file system dedicated maintenance mode and operator commands.
• ISPVM (ISPF, ISPF/PDF)

ISPVM is needed to run ISPF and ISPF/PDF. ISPVM runs in the disconnected state and should be logged on at system IPL time using the AUTOLOG1 virtual machine.

• IVPM1 and IVPM2

IVPM1 and IVPM2 are directory entries for the IVP virtual machine. They are used to run the initial verification procedure of VM/SP.

• MAINT

The system programmer traditionally uses the MAINT user ID to do system maintenance activities. VM/IPF System Support, RSCS, DIRMAINT, and tailoring dialogs support these functions. If the system programmer does other work on the system, establish another user ID for this activity, reserving the MAINT user ID for system updates and maintenance only.

• NAMESRV (VM TCP/IP)

This is the virtual machine for the Domain Name Server. It provides a network service that lets clients name resources or objects and share this information with other objects in the network.

• NDMADMIN (NetView Distribution Manager)

NDMADMIN is the NetView DM system administrator’s machine. It is used to customize the product during installation, to define and customize the NetView DM user profiles once the product has been installed.

• NDMBATCH (NetView Distribution Manager)

NDMBATCH is the machine where the batch utilities run when invoked with the RUNMODE OFF options by the users.

• NDMJOBS (NetView Distribution Manager)

NDMJOBS must be defined only if the following TCP facilities have been planned. This is the machine whose reader the TCP spools the name of the CMS user written procedures or programs to be executed as END OF PHASE job according to the conditions specified by the phase attribute. NDMJOBS must have an access to the disk where the user written procedures or programs are stored.

• NDMTCP (NetView Distribution Manager)

NDMTCP is the machine where the transmission control program runs. It has access to the NetView DM system files.

• NETVIEW (NetView)

NETVIEW is the user ID for the NetView product -- an authorized machine for Group Control System.

• NNDDEF (NetView Network Definer)

NNDDEF is the user ID for the NetView Network Definer product. This machine is used to execute the NetView Network Definer
• **OFSADMIN (OFSP/VM)**
  OFSP Administrator, who is responsible for the maintenance and administrator of the ODPS system.

• **OFSDISC (OFSP/VM)**
  OFSP batch machine for composing documents.

• **OFSDLGT (OFSP/VM)**
  OFSP disconnected service machine to process delegation function. It re-routes mail to specified users and sends a notification of absence.

• **OFSUSER1 OFSUSER2 (OFSP/VM)**
  OFSP/VM sample user IDs for verification.

• **OLTSEP**
  An IBM Customer Service Representative (CSR) uses OLTSEP when running the OnLine Test System Executive Program (OLTSEP). The privilege class of F lets the CSR specify intensive recording mode. Options have been set as needed by OLTSEP.

  **Note:** This user ID is not in the directory for FBA (3370) DASD.

• **OPERATNS**
  VM/IPF Problem Control Facility (PCF) needs the OPERATNS user ID. All IPCS Extended problems are sent to this user ID that provides standard IPCS Extended services. All CP system dumps are also sent to OPERATNS, because of the “SYSDUMP=OPERATNS” entry in the DMKSYS ASSEMBLE file.

  Refer to the *VM/SP Planning Guide and Reference* for more information about the OPERATNS virtual machine.

• **OPI (IPF) and OPERATOR**
  The operator uses the OPERATOR and OPI user IDs to control the system. If the VM/IPF operation dialogs are run on the OPERATOR user ID, system and user messages sent to the operator are displayed only when you press ENTER or otherwise clear the screen. To avoid these interruptions, logon the OPI user ID at a terminal and run the operator dialogs from there. The OPERATOR user ID can then be logged onto the console and reserved for system and user messages.

• **PDM470 (PSF/VM 3800 Attachment Feature)**
  PDMREM1 (PSF/VM 3820/3812 Attachment Feature)
  PDM0490 (PSF/VM Group 3 Attachment Feature)

  The Printer Driver Machines (PDM) PDM470, PDMREM1, and PDM0490, drive the 3800 or 3820/3812 respectively using the data stream and control files created by the Spool File Conversion Machine (SFCM). The PDM reads the files from the SFCM A-Disk and sends the appropriate commands to the page printer (CCWs for the 3800 or IPDS commands for the 3820, and CCWs/Advanced Function Printer-1 IPDS commands for the Group3). The PDM also processes the fonts needed for the print file. The PDM tracks the document, produces messages, and deletes the spooled print file when the document has printed. The SFCM monitors the PDM reader queue. When the SFCM detects that the print file was deleted from the PDM, it deletes corresponding files from its A-disk.
• PROCAL (PROFS)
  The calendar data base disconnected virtual machine stores and updates
  appointment calendars, conference room schedules, and equipment schedules.

• PRODBM (PROFS)
  The PRODBM disconnected virtual machine provides facilities for storing
  documents and controlling document security. PRODBM is also used during
  user enrollment.

• PROMAIL (PROFS)
  The PROMAIL disconnected virtual machine provides facilities for delivery and
  receipt of all documents.

• PSFMAINT (PSF/VM)
  The PSFMAINT user ID is defined for maintaining PSF.

• PVM (PVM)
  VM/Pass-Through Facility runs in the PVM virtual machine. This program lets
  VM display station users interactively access the local VM system and remote
  systems. Remote systems can be other VM systems (with or without PVM
  installed), or they can be non-VM systems.

• REXECD (TCP/IP)
  REXECD is the virtual machine for the REXECD server. It provides a remote
  execution service machine for TCP hosts that support the REXEC client.

• RSCSV2 (RSCS version 2)
  RSCS V2 runs in a virtual machine and relies on the VM/SP Group Control
  System (GCS) for supervisor services. The RSCS V2 virtual machine must be
  defined as part of a GCS virtual machine group. For a Systems Network
  Architecture (SNA) environment, VTAM must also be defined as part of the
  same GCS virtual machine group. Regular operation can be conducted without
  operator intervention with RSCS V2 running disconnected.

• SFCM1 (PSF/VM)
  The Spool File Conversion Machine (SFCM) converts the information from the
  print file and resource files sent by the PSF command to the appropriate data
  stream, either channel control words (CCWs) for the 3800 or intelligent-printer
  data stream (IPDS) commands for the 3820 or both for the Group3.
  Line-format print files are converted first to composed-text print files and then
  into CCWs or IPDS commands. It also builds a set of control files that contain
  additional information needed by the Printer Driver Machine (PDM) to do the
  print processing. The converted spool files and control files are stored on the
  SFCM A-disk for PDM to use.

• SMART (VM/RTM)
  SMART is a user ID for VM/RTM, a real-time monitor and diagnostic tool for
  short term monitoring, analysis, and problem solving. Run SMART as a
  disconnected virtual machine so many users can share a single copy of the
  program. SMART should be autologged by AUTOLOG1 when the system is
  IPLed, and the SMINIT EXEC should be executed as the last procedure in
  AUTOLOG1.
• SMTP (VM TCP/IP)
This is the virtual machine for both the SMTP user and server. It receives mail over a TCP network connection or from its virtual reader. It then sends the mail on through the TCP or RSCS network, depending on the destination.

• SNALNKA (TCP/IP)
SNALNKA is the virtual machine that runs the SNALNKA application. By allowing two TCP/IP virtual machines to communicate with each other via the VTAM virtual machines of their respective hosts, SNALNKA allows inter-networking between the TCP/IP networks connected to the respective TCP/IP virtual machines.

• SQLDBA (SQL/DS)
The SQL/DS data base machine is called the SQLDBA machine but can be defined with any valid machine user ID. The SQLDBA machine identifies the SQL/DS data base machine that owns the SQL/DS service and production minidisks and is used during SQL/DS installation processing.

• SQLSERV (SQL/DS)
This user ID is used by the SQL/DS User Facility Subset. This user ID owns minidisks SQLSERV 193, which is the service disk, and SQLSERV 195, which is the production disk. This user ID does not need to run disconnected.

• SQLUSER (SQL/DS)
SQLUSER is a SQL/DS user machine. You need one SQL/DS user machine to complete SQL/DS installation; however, you can define additional user machines.

• SQLUSERR (SQL/DS)
This user ID is used by the SQL/DS User Facility Subset; it is used for maintenance of the User Facility Subset.

• SYSADMIN (PROFS)
The System Administrator, who is responsible for the maintenance and administration of the PROFS system, uses the SYSADMIN user ID.

• SYSDUMP1 (IPF)
The SYSDUMP1 virtual machine handles the DASD volume backups, either on a specified schedule, or as requested by an administrator or the operator. This virtual machine also provides services for restoring a specified user’s CMS files from backup tapes.

• TSAFVM (TSAF)
The communication server for TSAF runs in the TSAFVM virtual machine. It needs a standard VM/SP virtual machine with communication facilities attached or dedicated to that virtual machine. For an abend, TSAF tries to restart itself using the CONCEAL option in the TSAFVM directory entry, so the virtual machine’s PROFILE EXEC should contain a RUNTSAF command. TSAF can be autologged by AUTOLOG1. Regular operation can be conducted without operator intervention with TSAFVM running disconnected.

Refer to the VM/SP Connectivity Planning, Administration, and Operation for more information about TSAF.
• TCPIP (VM TCP/IP)
  This is the main virtual machine for providing TCP/UDP/IP communication services. The Telnet server is also implemented in this virtual machine. This virtual machine should be autologged by the System Operator or at system IPL using the AUTOLOG1 user ID.

• TCPMAINT (VM TCP/IP)
  This virtual machine is used for maintaining the TCP/IP system. It has access to all TCP/IP minidisks, and console listings from other TCP/IP virtual machines are transferred to this user ID.

• VDCA (5210 Printer Support)
  VDCA controls 5210 Printer Support program disks.

• VMARCH (VMBACKUP-MS)
  The VMARCH service virtual machine runs the VMarchive subsystem of VMBACKUP-MS. VMARCH controls CMS file archival and recall requests generated by users.

• VMASMON (AS)
  This user ID is the monitor user ID that makes sure the number of users that can sign on and gather statistics about AS usage does not exceed the maximum. VMASMON runs as a disconnected virtual machine and should be autologged by the AUTOLOG1 virtual machine when the system is IPLed.

• VMASSYS (AS)
  AS (VM) needs this user ID for the installation of AS. It needs Class E authority to allow saving of the shared segment.

• VMBACKUP (VMBACKUP-MS)
  The VMBACKUP service virtual machine handles the minidisk dump and restore function for VMBACKUP-MS. VMBACKUP maintains an on-line catalog that monitors what data is dumped, when it is dumped, and where it is stored.

• VMMAP (VM MAP)
  Installations that want to take advantage of the VM/SP performance monitoring capabilities for long-term capacity planning and system tuning should install the VM Monitor Analysis Program on the VMMAP virtual machine to do the data reduction and report processing. VMMAP can run as a disconnected virtual machine if you want to establish automatic data collection.

• VMTAPE (VMTAPE-MS)
  The VMTAPE virtual machine manages tape volumes and tape drives and services tape mount requests. It usually runs disconnected.
• VMTLIBR (VMTAPE-MS)
  The VMTLIBR user ID does administrative and control functions for VMTAPE-MS. Facilities are available for making backups of the TMC and for generating reports. The VMTLIBR user ID is also authorized to do privileged operations for VMTAPE-MS.

• VMUTIL (IPF)
  The VMUTIL virtual machine can handle tasks that occur repeatedly on a schedule you select. Such tasks are scheduling periodic DASD volume backups and repeating a tape mount request periodically.

• VTAM (VTAM)
  The VTAM user ID is a Systems Network Architecture (SNA) access method supported in the native VM/SP environment by the Group Control System (GCS). VTAM provides a proven set of facilities and support for using certain terminal devices as virtual machine operator consoles. VM SNA Console Support (VSCS), an integrated component of VTAM, provides this support.

• WORKER1, WORKER2 (VM/DSNX)
  These user IDs can be used in conjunction with the DSNXSERV user ID to install program code on remote systems as part of the VM/DSNX Change Distribution and Implementation code. WORKER1 performs the product installation, using list control files. WORKER2 performs special tasks, such as restoring nuclei and saving CMS. WORKER1 can optionally own a number of product staging disks.

Shared Segment Information

The following table describes the sample DMKSNT layout for optional feature products. It lists the name of the saved system or Discontiguous Saved Segment (DCSS), the numbers of the pages to be saved for this system or segment (SYSPGNM), the segment numbers to be shared (SYSHRSG), and the overlaps between the saved systems and Discontiguous Saved Segments of different optional feature products. You cannot run overlapping saved systems and Discontiguous Saved Segments at the same time in the same virtual machine.
Table 10-2 (Page 1 of 11). SNT Planning Input.

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Chapter 10. Information About Optional Feature Products 10-33
**Using the SNTINFO EXEC to Get DCSS Information**

Use the SNTINFO command to get DCSS information directly from CP.

The format of the SNTINFO command is:

```
SNTINFO dcssname [(STACK [ ] ]]
```

*dcssname* is the Discontiguous Saved Segment name that you want information about.

**STACK**

specifies that the DCSS information is to be put on the stack (LIFO) instead of being displayed on the terminal. No error messages are issued when the STACK option is specified.

**Notes:**

1. You can invoke SNTINFO from the CMS command line, or it can be called from a REXX or EXEC2 exec.
2. If you do not specify the STACK option, the following line (8 tokens) is displayed on the terminal:

   START(HEX): <start>   END(HEX): <end>   SIZE(HEX): <size>   CC: <cc>

   If you specify the STACK option, the following line (4 tokens) is pushed LIFO onto the stack:

   <start>   <end>   <size>   <cc>

   where:

   *start* is the DCSS start load address in hexadecimal

   *end* is the DCSS end load address in hexadecimal

   *size* is the DCSS size in hexadecimal

   *cc* is the DCSS condition code from the CP DIAGNOSE command.
Chapter 11. Messages and Panels

Messages

002E File fn ft fm not found
   Refer to VM/SP System Messages and Codes.

003E Invalid option: option
   Refer to VM/SP System Messages and Codes.

005E No option specified
   Refer to VM/SP System Messages and Codes.

007E File fn ft fm is not fixed, 80-character records
   Refer to VM/SP System Messages and Codes.

037E Disk mode is accessed as read/only
   Refer to VM/SP System Messages and Codes.

054E Incomplete field specified
   Refer to VM/SP System Messages and Codes.

066E option1 and option2 are conflicting options
   Refer to VM/SP System Messages and Codes.

069E Disk mode not accessed
   Refer to VM/SP System Messages and Codes.

283E The name DCSS could not be found; condition code cc, return code rc from FINDSYS
   Refer to VM/SP System Messages and Codes.

336E No DCSS name specified
   Explanation: The SNTINFO command was invoked with no parameters, but the name of a Discontiguous Saved Segment (DCSS) is needed.
   System Action: RC = 24
   Command execution stops.

User Response: Invoke the command with a valid DCSS name.

337E DCSS name name is longer than eight characters
   Explanation: The name of a Discontiguous Saved Segment (DCSS) cannot be more than eight characters long.
   System Action: RC = 24
   Command execution stops.

User Response: Invoke the command with a valid DCSS name.

648E userid userid was not found
   Refer to VM/SP System Messages and Codes.

657E Undefined PFkey /PAkey
   Refer to VM/SP System Messages and Codes.

682E Error copying file fn ft fm to fn ft fm; rc = <rcode> from COPYFILE
   Refer to VM/SP System Messages and Codes.

833E Unable to process fn ft fm
   Explanation: A REXX coding error was detected while interpreting the file.
   System Action: RC = 64
   Command execution stops.

User Response: Make sure the file has not been modified, and report the problem to the IBM Support Center.

834E Product number prodnum requires a feature identification code; correct your input and run DIRECGEN again for all selected products
   Explanation: prodnum needs a feature identification code for DIRECGEN to distinguish between components of the product that you can install separately.
   System Action: RC = 8
   Command execution stops.

User Response: Refer to the FEATURES PRODUCTS file for a list of valid product numbers and feature identification codes. Invoke the command with the correct input.
**835W** Additional manual updates must be made to fn ft fm; refer to DIRECGEN HISTORY file for information

Explanation: Manual minidisk expansion is needed, or additional control statements must be added to a user ID. DIRECGEN does not expand the size of existing minidisks or add control statements that might result in duplication. Manual updates might be needed.

System Action: RC=4

User Response: Refer to the DIRECGEN HISTORY file for more information about the updates.

**836E** prodnum is not a Program Product; correct your input and run DIRECGEN again for all selected products

Explanation: DIRECGEN works only for VM/JS products listed in the FEATURES PRODUCTS file. prodnum is an invalid product or is not a System Offering product.

System Action: RC=8

User Response: Refer to the FEATURES PRODUCTS file for a list of valid VM/JS product numbers. Invoke the command with the correct input.

**837E** Incorrect feature identification code idcode specified for product number prodnum; correct your input and run DIRECGEN again for all selected products

Explanation: You entered a feature identification code that is either invalid or not needed for this product number.

System Action: RC=8

User Response: Refer to the FEATURES PRODUCTS file for a list of valid VM/JS product numbers and feature identification codes. Invoke the command with the correct input.

**838E** Insufficient DASD space for required minidisks; refer to DIRECGEN HISTORY file for information

Explanation: Not enough space for the minidisks of selected products is available on the DASD specified in the DIRECGEN EXTENTS file.

System Action: RC=16

User Response: Refer to the DIRECGEN HISTORY file for an estimate of additional DASD needed. Then, specify more DASD space in the DIRECGEN EXTENTS file, or invoke the command with a smaller product set.

**839W** Directory resources have already been added for prodnum idcode; product will be bypassed and processing will continue

Explanation: prodnum idcode has been used in a previous successful execution of DIRECGEN. Therefore, DIRECGEN will not try to add the directory requirements for this product.

System Action: Command execution continues.

**840I** New directory successfully created: fn ft fm

Explanation: A new CP directory has been created containing the directory requirements for the selected products. If you also received the message 835W, you might have to make additional manual updates as recorded in the DIRECGEN HISTORY file.

System Action: Command execution continues.

User Response: No user action is required.

**841I** Old fn ft fm file renamed VMOLD DIRECT fm

Explanation: The input CP directory has been saved as a backup in the file VMOLD DIRECT.

System Action: Command execution continues.

User Response: No user action is required.

**889E** Product number prodnum was not found in PROGPROD PARMLIST file

Explanation: prodnum was not found in the PROGPROD PARMLIST file.

System Action: RC=64

User Response: Make sure the PROGPROD PARMLIST and the FEATURES PRODUCTS files have not been modified, and report the problem to the IBM Support Center.

**890R** Enter the name of the file containing the list of Program Products to be installed:

Explanation: The product selection panel cannot be displayed because the terminal is in line mode. You must create a file containing the products that need directory resources. This file must be in the same format as the FEATURES PRODUCTS file.

System Action: The system waits for a response.

User Response: If a product list file has been created, enter the file name and file type. If you omit file mode, the default is "*. If a product list file has not been created, enter a null line to exit and enter HELP DIRECGEN to get more information about running DIRECGEN in line mode.

**891E** Userid userid is required before adding the directory requirements for product number prodnum idcode

Explanation: The CP directory file does not contain a user ID that is a prerequisite for adding the directory requirements of this product.

System Action: RC=64

User Response: Make sure you select all prerequisite products, then invoke the command. If the user ID reported was in the IBM supplied sample CP directory file, add it to the input CP directory and invoke the command again.
Chapter 11. Messages and Panels

1001E  Disk mode(vdev) containing fn fi file is read/only

Explanation: The file fn fi must be updated during command execution. It cannot be updated because the minidisk containing the file is accessed read/only.

System Action: RC = 36
Command execution stops.

User Response: Make sure the minidisk is accessed R/W, and invoke the command again.

1002E  (Existing/Common) disk userid vdev can not have DASD specific sizing

Explanation:
(For an existing disk) userid vdev is already in the CP directory. Because of the specific requirements of the disk DIRECGEN has to create, this disk cannot be in the CP directory before running DIRECGEN with the same product selection.

(For a common disk) There is an error in the PROGPROD PARMLIST file. Conflicting requirements have been specified for the disk identified.

System Action: RC = 64
Command execution stops.

User Response:
(For an existing disk) Change the address of the existing minidisk and invoke the command again.

(For a common disk) Make sure the PROGPROD PARMLIST file has not been modified, and report the problem to the IBM Support Center.

1003E  Error found in line nn of fn fi file

Explanation: There is an error in a required DIRECGEN input file.

System Action: RC = 64
Command execution stops.

User Response: Make sure the file has not been modified and report the problem to the IBM Support Center.

1004E  Insufficient DASD space for product number prodnum; refer to DIRECGEN HISTORY file for information

Explanation: There is not enough DASD space available on the DASD extents specified in the DIRECGEN EXTENTS file for prodnum.

System Action: RC = 16
Command execution stops.

User Response: Look in the DIRECGEN HISTORY file for an approximation of the additional DASD space needed. Specify more DASD space for this product in the DIRECGEN EXTENTS file, or invoke the command without selecting this product.

1005E  Sufficient space is required on at least two packs for product number prodnum

Explanation: Available DASD space on at least two packs must be listed in the DIRECGEN EXTENTS file for prodnum. Two minidisks for this product cannot be on the same DASD volume.

System Action: RC = 16
Command execution stops.

User Response: Add an extent for an additional pack in the DIRECGEN EXTENTS file, or invoke the command without selecting this product.

1006E  Invalid entry entry on line nn of DIRECGEN EXTENTS file

Explanation: There is an error in the DIRECGEN EXTENTS file. There might be an unsupported device or an invalid START or SIZE entry. Supported devices are listed in the comments in the DIRECGEN EXTENTS file. The START entry must be a positive integer, and the SIZE entry must be an asterisk or a positive integer.

System Action: RC = 64
Command execution stops.

User Response: Correct the DIRECGEN EXTENTS file and invoke the command again.

1007I  Directory generation in progress...

Explanation: All input parameters and options have been verified, and the directory generation process is underway.

System Action: Command execution continues.

User Response: No user action is required.

1008I  The DIRECGEN HISTORY file is now being updated...

Explanation: Directory processing has ended, and the DIRECGEN HISTORY file is being updated with status information.

System Action: Command execution continues.

User Response: No user action is required.

1009I  A console file is being created containing information which was not recorded in the DIRECGEN HISTORY file

Explanation: There was an error while writing to the DIRECGEN HISTORY file. Information you might have lost is sent to the virtual reader in a console file.

System Action: Command execution continues.

User Response: For a record of the DIRECGEN execution history, refer to the DIRECGEN HISTORY file and the newly created console file. After correcting the write error to the disk containing the DIRECGEN HISTORY file, attach the console file to the history file to maintain a complete history.

1010W  Userid userid for product number prodnum already exists; manual updates may be required for this userid; refer to DIRECGEN HISTORY file for information

Explanation: A user ID to be created for a selected product is already in the input CP directory. DIRECGEN did not update the control statements for this user ID.

System Action: RC = 4
Command execution continues.

User Response: The required control statements for the product have been recorded in the DIRECGEN HISTORY file. Examine these entries, and update the existing user ID control statements in the CP directory as needed.
Error occurred creating directory fn ft fm; return code rc from the CMS COPYFILE command

Explanation: There might not be sufficient free space on the disk containing the CP directory.

System Action: RC = 100
Command execution stops.

User Response: Clear some disk space if there was not enough. Correct the problem and invoke the command again. Refer to the VM/SP CMS Command Reference for more information about the COPYFILE command.

Error occurred renaming fn ft fm to VMOLD DIRECT fm; return code rc from the CMS RENAME command

Explanation: The RENAME command failed. The name of the input CP directory cannot be VMOLD DIRECT. A backup of the input directory is stored as VMOLD DIRECT during command execution.

System Action: RC = 100
Command execution stops.

User Response: Correct the problem and invoke the command again. Refer to the VM/SP CMS Command Reference for more information about the RENAME command.

Pack label must be specified in the DIRECGEN EXTENTS file for product number prodnum

Explanation: An entry for the reported pack must be in the DIRECGEN EXTENTS file for this product.

System Action: RC = 64
Command execution stops.

User Response: Add an entry for this pack in the DIRECGEN EXTENTS file and code a 0 in the size field if no minidisks should reside on this pack.

No new product selections were made

Explanation: You did not make any new product selections, or all the products you selected have been processed in a previous execution of DIRECGEN as indicated by the message 839W.

System Action: RC = 8
Command execution stops.

User Response: Refer to the DIRECGEN HISTORY file for a list of products that have directory resources allocated. Invoke the command with the correct input.

EXECIO error rc reading file fn ft fm from disk

Explanation: There was an I/O error reading fn ft fm.

System Action: RC = 100
Command execution stops.

User Response: If the disk is read/only, make sure it has not been modified since the last access, and try accessing the disk again. Refer to the VM/SP CMS Command Reference for more information about the EXECIO command.
Passwords will not be saved; enter QUIT to quit anyway or press <ENTER> to continue

Explanation: You are using PASSMOD on a line-mode terminal. You entered QUIT on the command line. You have entered new passwords, but the CP directory has not been updated with the changes.

System Action: The system waits for a response.

User Response: Enter QUIT again to exit without updating the CP directory or press ENTER to continue processing passwords.

If you would like a list of userids and new passwords to be printed, enter 'YES'; otherwise, press <ENTER> to continue execution

Explanation: The list of user IDs and passwords is sent to the virtual printer if you enter YES. Where and how this file is printed depends on the printer spool options in effect before you invoke PASSMOD.

System Action: The system waits for a response.

User Response: Respond YES if you want the list printed. Keep in mind the printed list represents a security exposure if the printer area is not secure.

PASSMOD must not be used if DIRMAINT is operational

Explanation: You cannot use PASSMOD if DIRMAINT is used to maintain your CP directory.

System Action: Command execution continues.

User Response: If DIRMAINT is used, use DIRMAINT commands to change the logon passwords.

No USER control statements exist in fn/ft file

Explanation: PASSMOD expects the input file fn/ft to be in the format of a CP directory. All CP directories must contain USER statements for each user ID.

System Action: RC = 24
Command execution stops.

User Response: Invoke the command specifying a valid CP directory file.

Logon or minidisk passwords will not be printed; please ensure that they have been recorded

Explanation: A hard copy list of the passwords is not available. Without a record of passwords to be changed, you can have difficulty accessing the system the next time you try to log on.

System Action: Command execution continues.

User Response: Make sure the passwords have been recorded if the CP directory is placed on-line.

Only one option may be specified

Explanation: You specified two or more options on the command line. You can only specify one.

System Action: RC = 24
Command execution stops.

User Response: Invoke the command with a valid option.

Invalid password; please re-enter with no imbedded blanks

Explanation: You entered the password indicated by the cursor on the PASSMOD data entry panel with imbedded blanks. A valid VM/SP password cannot contain imbedded blanks.

System Action: The system waits for user input from the data entry panel. The cursor moves to the field needing correction.

User Response: Correct the password on the panel.

Invalid password; must be at most 8 characters with no imbedded blanks; please re-enter

Explanation: A valid VM/SP password cannot contain imbedded blanks and can be at most eight characters in length.

System Action: The system waits for a response.

User Response: Enter a valid password.

Userid userid [for product prodmun] has current logon password password; enter a new password, or press <ENTER> to retain the current password

Explanation: The new logon password you enter replaces the current logon password in the input CP directory file.

System Action: The system waits for a response.

User Response: Enter a new logon password or press ENTER to avoid changing the current logon password.

Enter EXECUTE to process or QUIT to exit

Explanation: You are using PASSMOD on a line-mode terminal. To update the CP directory file with the logon passwords you entered on the command line, you must enter EXECUTE. If QUIT is entered, the CP directory remains unchanged.

System Action: You are prompted to enter a logon password. Message 1030R or 1033R is displayed.

User Response: Respond to the prompt for a new logon password or enter EXECUTE or QUIT. Do not abbreviate EXECUTE or QUIT.

The following products were selected:

Explanation: You pressed the PF5 EXECUTE key on the DIRECGEN panel and the list of selected products is displayed.

System Action: Command execution continues.

User Response: Review the list to make sure you selected the correct products.

Random logon password password has been generated for userid userid [for product prodmun]; enter a new password or press <ENTER> to retain the random password

Explanation: The previous logon password for the user ID userid was NOLOG. It has been changed to a randomly selected string. You can keep the new logon password or change it again.

System Action: The system waits for a response.

User Response: Enter a new logon password or press ENTER to retain the random password.
1034E  Invalid product specification code prodspec; correct your input and run INSTFPP again for all selected products

Explanation: You passed an invalid product specification code as a parameter to INSTFPP. A product specification code is seven to nine characters long and is a combination of the product number and the feature identification code. If there is no feature identification code for this product, then the product specification code must be exactly seven characters long. You can leave a blank between the product number and the feature identification code.

System Action: RC = 24  
User Response: Invoke the command with a valid product specification code.

1035W  prodnum must be entered with a feature identification code; prodnum idcode was found on the tape

Explanation: The product prodnum has features. Each feature has its own feature identification code. You must specify both the product number and the idcode together on the command line.

System Action: Command execution continues.
User Response: Invoke the command with valid product specification codes.

1036I  Memo to Users, fn ft, has been printed

Explanation: The Memo to Users has been spooled to the virtual printer.

System Action: Command execution continues.
User Response: Retrieve the printed file from the real printer.

1037W  The following selected product numbers were not found on the tape: prodnums

Explanation: One or more of the products specified on the command line or selected from the panel is not on the tape at virtual address 181. The wrong tape might be mounted, or you did not correctly enter the product specification codes on the command line.

System Action: RC = 85  
User Response: Make sure the correct tape is mounted, and invoke the command with the correct parameters.

1038E  Error printing fn ft fm; return code rc from the CMS PRINT command

Explanation: The PRINT command with the CC option failed while trying to print the Memo to Users.

System Action: RC = 27  
User Response: Correct the problem and invoke the command again. Refer to the VM/SP CMS Command Reference for more information about the PRINT command.

1039E  Terminal is in line mode, so the INSTFPP user assistance panel cannot be displayed; INSTFPP arguments must be entered on the command line

Explanation: You must invoke INSTFPP with parameters and/or options if the terminal is in line mode, even if you want all the default options.

System Action: RC = 600  
User Response: Invoke the command with parameters and/or options.

1040E  Virtual machine size must be at least 12M for installation

Explanation: Some installation steps might fail if the virtual storage is less than 12M (12288K bytes). A virtual storage size of 12M or greater is needed to run INSTFPP.

System Action: RC = 51  
User Response: Redefine the virtual storage to 12M or greater using the CP DEFINE STORAGE command and re-ipl CMS before you invoke the command again.

1041E  Error (scanning/forwarding) tape vdev; return code rc from the CMS VMFPLC2 command

Explanation: An error occurred while forward spacing or scanning the tape. There is either a hardware problem or a tape error. The tape position is unknown.

System Action: RC = 45  
User Response: Make sure your hardware is working properly and you have the correct tape mounted. Then, invoke the command again. If the problem persists, contact your IBM Customer Service Representative if you suspect a hardware problem or contact the IBM Support Center if you suspect a problem with the tape itself.

1042E  Device at virtual address vdev does not exist

Explanation: You invoked INSTFPP without specifying the real address of the stacked program product tape.

System Action: RC = 40  
User Response: Attach the tape unit to MAINT as vdev or invoke INSTFPP specifying the real address of the tape unit.

1043E  A Product Identifier file is missing on the tape

Explanation: INSTFPP did not find a required file on the tape. The tape might have been incorrectly positioned during the installation process.

System Action: RC = 87  
User Response: Make sure the correct tape is mounted and rewound, and invoke the command again. If the problem persists, contact the IBM Support Center.
Press <ENTER> to continue or type in any character before pressing <ENTER> to return to the panel:
Explanation: A list of products selected on the DIRECGEN panels has been displayed after pressing the PF5 EXECUTE key. Execution can continue or the panel can be redisplayed.
System Action: The system waits for a response.
User Response: After reviewing the product list for accuracy, respond to the prompt accordingly.

Error defining temporary work minidisk vdev; return code rc from the CP DEFINE command
Explanation: The CP DEFINE command failed with return code rc. If RC = 91, there might be insufficient temporary disk space available on the system.
System Action: RC = 30
Command execution stops.
User Response: Correct the problem and invoke the command again. Refer to the VM/SP CP General User Command Reference for more information about the DEFINE command.

Virtual device vdev1 has been redened to vdev2
Explanation: The virtual device at vdev1 has been moved to another virtual address, either to avoid detaching the original virtual device or because a particular virtual address is needed for the command to continue.
System Action: The virtual address of the device is redened. Command execution continues.
User Response: No user action is required.

Starting to process Program Product prodnum idcode...
Explanation: INSTFPP has started to process prodnum idcode.
System Action: INSTFPP processes the product according to the options specified.
User Response: No user action is required.

INSTFPP may only be executed from the MAINT userid
Explanation: Many installation steps need access to MAINT’s minidisks and privilege classes. You cannot run INSTFPP from another user ID.
System Action: RC = 50
Command execution stops.
User Response: Logon to MAINT userid, and invoke the command again.

Product numbers may not be specified with the option option
Explanation: You cannot enter product numbers on the command line with the option option.
System Action: RC = 24
Command execution stops.
User Response: Invoke the command with correct parameters and options.

There were no Program Products found on the tape
Explanation: The tape is correctly mounted and in VMFPLC2 format, but it is not a stacked program product tape for use with INSTFPP.
System Action: RC = 80
Command execution stops.
User Response: Mount the correct tape and invoke the command again.

Now updating the PROD LEVEL P file...
Explanation: INSTFPP updates the PROD LEVEL file with history information after installing an optional feature product.
System Action: The PROD LEVEL file on MAINT’s 319 minidisk is updated with the version, release, modification, and service level of the installed product. Additional installation requirements are also given. And, the return code is given if a severe error occurred during installation exec processing.
User Response: No user action is required.

Do you wish to install this product now (yes or no)?
Explanation: INSTFPP displays this prompt if the options Install and Prompt are active (specified on the command line, from the user data entry panel, or by default).
System Action: INSTFPP waits for a response.
User Response: If you respond YES, the product installation exec is called to install the product, and the Memo to Users is printed if the Memo option is in effect. If you respond NO, INSTFPP bypasses this product, and processing continues with the next product on the tape.

Do you wish to print the Memo to Users now (yes or no)?
Explanation: INSTFPP displays this prompt if the options NOInstall and Prompt are active (specified on the command line or from the user data entry panel).
System Action: INSTFPP waits for a response.
User Response: If you respond YES, the Memo to Users is printed. Otherwise, processing continues with the next product on the tape. The product is not installed in either case.

Now formatting temporary workdisk vdev as mode...
Explanation: A temporary minidisk is being prepared for the installation process to use. The formatting process can take some time.
System Action: The minidisk is formatted. Command execution continues.
User Response: No user action is required.

Installation EXEC failed...
Explanation: An installation exec called by INSTFPP exited with a return code other than 0, 777, or 888. Product installation was not completed.
System Action: INSTFPP continues processing with the next product on the tape.
User Response: Once INSTFPP finishes processing, look at the PROD LEVEL file on MAINT’s 319
minidisk to determine the return code from the failed installation exec, or look at the console file in the virtual reader. Correct the problem and invoke the command again.

10571 Leaving INSTFPP EXEC...

Explanation: INSTFPP has finished processing.

System Action: INSTFPP restores the environment (accessed disks, spool file characteristics) to its previous state and exits.

User Response: No user action is required.

1058E A valid real tape address must be entered

Explanation: The tape unit address specified on the INSTFPP data entry panel is not a valid device address. A valid device address consists of three or four consecutive hexadecimal digits (0-F).

System Action: The cursor moves to the field needing correction. The system waits for user input from the data entry panel.

User Response: Obtain the real address of the tape unit that has the stacked product tape mounted. The command CP QUERY TAPE can be helpful. Type the real address on the data entry panel and press ENTER.

1059E Reply must be “Y” or “N”

Explanation: Only Y (for YES) and N (for NO) are valid entries in the field.

System Action: The cursor moves to the field needing correction. The system waits for user input from the data entry panel.

User Response: Type either Y or N in the appropriate field and press ENTER.

1060E Option must be 1, 2 or 3

Explanation: Only 1, 2, and 3 are valid processing options.

System Action: The cursor moves to the field needing correction. The system waits for user input from the data entry panel.

User Response: Type a 1, 2, or 3 in the appropriate field and press ENTER.

1061E Device at real address rdev does not exist

Explanation: The device address you entered on the INSTFPP data entry panel is not the real address of any device. You might have entered a virtual address instead of a real address.

System Action: The cursor moves to the field needing correction. The system waits for user input from the data entry panel.

User Response: Obtain the real address of the tape unit on which the stacked product tape is mounted. The command CP QUERY TAPE can be helpful.

1062E Device at real address rdev is not a tape unit

Explanation: The device address you entered on the INSTFPP data entry panel is not the real address of a tape unit. You might have entered a virtual address instead of a real address.

System Action: The cursor moves to the field needing correction. The system waits for user input from the data entry panel.

User Response: Obtain the real address of the tape unit that has the stacked product tape mounted. The command CP QUERY TAPE can be helpful. Enter the real address on the data entry panel and press ENTER.

1063E Error attaching device rdev as vdev

Explanation: The device at real address rdev could not be attached as virtual address vdev. Make sure the device is not attached to another user and MAINT has user privilege class A or B.

System Action: RC = 40

(In panel mode) The cursor moves to the field needing correction. The system waits for user input from the data entry panel.

(In line mode) Command execution stops.

User Response:

(In panel mode) Try to correct the problem using the panel command line to enter CP/CMS commands. Continue processing the panel or press PF3 to QUIT.

(In line mode) Correct the problem and invoke the command again.

Refer to the VM/SP Operator's Guide for more information about the CP ATTACH command.

1064E Error rewinding tape; return code rc from the CP REWIND command

Explanation: The device at virtual address 181 might not be a tape unit or there might be a hardware tape unit error.

System Action: RC = 40

(In panel mode) The cursor moves to the field needing correction. The system waits for user input from the data entry panel.

(In line mode) Command execution stops.

User Response:

(In panel mode) Try to correct the problem using the panel command line to enter CP/CMS commands. Continue processing the panel or press PF3 to QUIT.

(In line mode) Correct the problem and invoke the command again.

Refer to the VM/SP CP General User Command Reference for more information about the CP REWIND command.
1065E Rewind not performed; device vdev not ready
Explanation: The tape unit is attached as vdev, but the CP REWIND command returned the response REWIND NOT PERFORMED. Possible explanations are: the tape is not mounted properly, the tape is not ready, or the tape is still rewinding from a previous CP REWIND vdev.
System Action: RC = 40
(In panel mode) The cursor moves to the field needing correction. The system waits for user input from the data entry panel.
(In line mode) Command execution stops.
User Response: Make sure the tape unit is operating correctly and the tape is mounted properly.
(In panel mode) Make sure the tape is ready and press ENTER to reprocess the panel or press PF3 to QUIT.
(In line mode) Make sure the tape is ready and invoke the command again.

1066E Return code rc from ACCESS vdev mode
Explanation: The access of a minidisk needed for command execution failed.
System Action: RC = 36
Command execution stops.
User Response: Make sure all required minidisks are attached, and invoke the command again. Refer to the VM/SP CMS Command Reference for more information about the ACCESS command.

1067E Return code rc from the CMS XEDIT command
Explanation: The attempt to display the user data entry panel failed.
System Action: RC = 32
Command execution stops.
User Response: Correct the problem and invoke the command again. Refer to the VM/SP CMS Command Reference for more information about the XEDIT command.

1068E Error copying Memo to Users to MAINT 319 P disk; return code rc from the CMS COPYFILE command
Explanation: The COPYFILE command failed with return code rc
System Action: RC = 29
Command execution stops.
User Response: Refer to the VM/SP CMS Command Reference for more information about the COPYFILE command. Make sure the MAINT 319 disk is linked in read/write mode and has sufficient DASD space and invoke the command again.

1069E Error formatting temporary work minidisk vdev; return code rc from the CMS FORMAT command
Explanation: The FORMAT command failed with return code rc
System Action: RC = 35
Command execution stops.
User Response: Correct the problem and invoke the command again. Refer to the VM/SP CMS Command Reference for more information about the FORMAT command.

1400R Mount next tape and press <ENTER> to continue or type in any character before pressing <ENTER> to quit:
Explanation: The program waits for the user to mount the next tape required and press <ENTER> when the tape is ready. If the user enters any character then the program exits.
System Action: The system waits for a response.
User Response: Press <ENTER> after the next tape is mounted if you wish to continue or enter any character to exit.

1401E Both userid and minidisk must be specified.
Explanation: The Userid and Cuu options must both be specified when PASSMOD MDISK command is invoked with either the Userid option or Cuu option.
System Action: RC = 24
Command execution stops.
User Response: Reissue the command with the USERID and Cuu options specified correctly. Type HELP PASSMOD for the correct syntax of the command.

1402E Minidisk vdev not accessed by userid userid.
Explanation: The specified minidisk address is not accessed by the specified user ID.
System Action: RC = 24
Command execution stops.
User Response: Reissue the command with a minidisk address that is accessed by the user ID.

1403E Restricted logon password entered; please re-enter password.
Explanation: The logon password specified is restricted for system use. User is prompted for another password.
System Action: Command execution interrupted.
User Response: Enter another logon password.

1404E Minidisk read password must be supplied before minidisk write password may be entered.

1404E Both minidisk read and write passwords must be supplied before minidisk multi password may be entered.
Explanation: The minidisk read password must be specified before the write password can be specified and the minidisk read and minidisk write passwords must be specified before the multi password can be specified.
System Action: Command execution continues.
User Response: In panel mode:
Ensure that the minidisk read password is supplied before write password is entered and that both the read and write passwords are specified before the the multi password is entered for the particular minidisk. In line mode:
Re-issue command and supply the minidisk read password before entering the minidisk write password or supply both the minidisk read and minidisk write passwords before entering the multi password.
Press PF5 again if you want to update the CP directory file.

Explanation: Pressing PF5 again confirms that the CP directory file will be updated with the changes you made from the panel session of PASSMOD.

System Action: Command execution interrupted.

User Response: Press PF5 to keep changes.

The PASSMOD MDISK command alone cannot be used on a line mode terminal; use the Userid userid Cuu cuu option

Explanation: You may only enter line commands on a line mode terminal. The PASSMOD MDISK command brings up a panel on a full screen terminal and is invalid on a line mode terminal.

System Action: RC=24 Command execution stops.

User Response: Enter the PASSMOD MDISK command with the User ID userid Cuu cuu option. Type HELP PASSMOD for the command syntax.

If you want the current {logon/minidisk} password deleted, Enter YES otherwise press < ENTER >.

Explanation: The indicated password will be deleted if you enter 'YES' to the prompt otherwise press < ENTER > to keep the password.

System Action: The system waits for a response.

User Response: Enter 'YES' to confirm deletion of password or press enter to keep the current password.

Minidisk {read/write/multi} password cannot be deleted due to invalid conditions; please re-enter password

Explanation: If a multi password exists you cannot delete the write password. If a write or multi password exists, you cannot delete the read password.

System Action: The System waits for user to continue.

User Response: Enter a valid password or delete the minidisk multi and minidisk write passwords before issuing the command again.

No minidisk {read/write/multi} password exists to be deleted

No minidisk {read/write/multi} password exists to be deleted; enter new password or press < ENTER > to continue:

Explanation: The minidisk password requested to be deleted is currently blank. A blank password cannot be deleted.

System Action: The System waits for user to continue.

User Response: In panel mode:
Enter a new password, or leave the password blank.

In line mode:
Enter a new password, or press < ENTER > to continue and leave the password blank.

DELETE will cause current minidisk passwords to be deleted.

Explanation: Any minidisk passwords entered as DELETE will be deleted on completion of the PASSMOD command.

System Action: Command execution continues.

User Response: No user action required.

Minidisk vdev accessed by user ID userid has current {read/write/multi} password; enter a new password, or press < ENTER > to retain the current password:

Minidisk vdev accessed by userid userid has no current {read/write/multi} password; enter a new password, or press < ENTER > to leave it blank:

Explanation: Enter a new password to change the password or press < ENTER > to retain the current password.

System Action: Command execution interrupted.

User Response: Enter a valid password, or press < ENTER > to leave the current password.

Return code rcode from filename filetype command

Explanation: The program/module invoked by DIRECGRO exited with the indicated return code.

System Action: Depends on the accompanying messages issued with this message.

User Response: Refer to the DIRECGEN HISTORY file for more information on the problem and how to restart DIRECGRO.

Invalid format ifree Irecf for file fn ft fm

Invalid format for file fn ft fm must contain (multiple of 4) + 1 records

Explanation: The indicated file does not have the correct format. Either the directory file specified is not of ireef = F and irecf = 80 or the GROW minidisk file has the wrong number of records.

This error may occur if the user has modified the file or there are multiple copies of the file on the system.

System Action: RC=64 Command execution stops.

User Response: Ensure that the correct file is being specified to the command. If the indicated file has been modified then ensure that the file is corrected to conform to the proper format. If the files have not been modified report the problem to the IBM Support Center.

Error occurred copying all files from < source MINIDISK > to < target minidisk >

Error occurred copying file < source file > as < target file >

Error occurred appending file < append file > to < target file >

Explanation: Error occurred while copying file(s) or appending file(s).

System Action: RC=29 Command execution stops.

User Response: Refer to the DIRECGEN HISTORY file for more information on the COPYFILE error and how to restart DIRECGRO.
1415E Unable to place Directory fn ft fm online
Explanation: The indicated directory could not be put online, possibly due to an error with the DIRECT command.

System Action: RC = 44
Command execution stops.

User Response: Refer to the DIRECGEN HISTORY file for more information on the error and how to restart DIRECGRO.

1416E Error formatting userid vdev disk
Explanation: Formatting of indicated disk failed, possibly due to an error with the FORMAT command.

System Action: RC = 35
Command execution stops.

User Response: Refer to the DIRECGEN HISTORY file for more information on the error and how to restart DIRECGRO.

1417E No virtual addresses are available.
Explanation: The program cannot define a new virtual device address for your system. Either the user has the maximum allowable number of devices for his system or all device addresses between Hexidecimal addresses 100 and 5FF have been used.

System Action: RC = 50
Command execution stops.

User Response: Detach some minidisks that are not essential for DIRECGRO processing. Refer to the DIRECGEN HISTORY file for more information on how to restart DIRECGRO.

1418E No filemodes are available
Explanation: The program cannot find any free file modes to access. All file modes from A to Z have been accessed on your user ID.

System Action: RC = 52
Command execution stops.

User Response: Refer to the DIRECGEN HISTORY file for more information on the problem and how to restart DIRECGRO. You may have to release some non-essential minidisks to free up some file modes.

1419E Unable to LINK to userid vdev
1419E Unable to LINK to userid vdev since userid has disk linked R/W as <vdev>
Explanation: The program cannot LINK to the indicated disk, either due to some error or because someone else has the disk accessed R/W.

System Action: RC = 42
Command execution stops.

User Response: Check the DIRECGEN HISTORY file for more information on the problem and how to restart DIRECGRO. You may have to release and detach the minidisk from another user.

Ensure that the directory being modified by DIRECGRO is the same as the directory that is online on the system, either VMUSERS or as specified to DIRECGEN and DIRECGRO.

If the DIRECGEN HISTORY file has message 1412 indicating that the LINK command returned with return code = 15 (maximum number of password attempts was exceeded) the user must first logoff and log back on before continuing.

1420E R/W version of fn ft fm not found
Explanation: The indicated file cannot be found as a R/W file.

System Action: RC = 100
Command execution stops.

User Response: Check the DIRECGEN HISTORY file for more information on the problem and how to restart DIRECGRO. User may have to re-access the disk in R/W mode or re-link and re-access the disk in R/W mode.

1421E Unable to CREATE an EXCLUSIVE R/W LOCK for file fn ft fm
1421E Unable to CREATE an EXCLUSIVE R/W LOCK for file fn ft fm because userid has file locked with a locktype lock
Explanation: An EXCLUSIVE R/W LOCK cannot be created for the indicated file because of an error or because someone else has some type of lock on the file which is in an SFS directory.

System Action: RC = 100
Command execution stops.

User Response: Refer to Direcgen History file for more information on the problem and how to restart DIRECGRO. You may have to get another user to delete the LOCK that he has on the indicated file or wait until the user is finished with the file.

1422I No files exist on disk userid vdev to be copied; DIRECGRO continues.
Explanation: No files exist for copying on indicated minidisk. An empty minidisk is being expanded.

System Action: Command execution continues.

User Response: No user action is required.

1423E Unable to ERASE file fn ft fm
Explanation: Some error occurred while attempting to erase the specified file.

System Action: RC = 40
Command execution stops.

User Response: Refer to the DIRECGEN HISTORY file for more information on the problem and how to restart DIRECGRO.

1424W Unable to remove contents at old extents of disk userid vdev using DDR Copy because size of disk is less than 2 cylinders or less than 32 blocks
Explanation: Unable to remove minidisk because minidisk was too small. If another minidisk is defined starting at the same starting extent as the old minidisk then the new minidisk must be CMS formatted before the new disk can safely be used.

System Action: Command execution continues.

User Response: No user action required.
1425E Unable to remove contents at old extents of disk userid vdev using DDR Copy due to DDR error
Explanation: An error occurred during execution of DDR copy command.
System Action: RC = 32
Command execution stops.
User Response: Refer to the DIRECGEN HISTORY file for more information on the problem and how to restart DIRECGRO.

1426I DIRECGRO Started at date time
Explanation: DIRECGRO execution began at the indicated date and time.
System Action: Command execution continues.
User Response: No user action required.

1427I If the message "DIRECGRO processing complete" is not received upon completion of the EXEC, then place the directory directory id on-line with the DIRECT command
Explanation: If DIRECGRO does not complete normally with the message "DIRECGRO processing complete", you can recover by placing the indicated directory online using the DIRECT command.
System Action: Command execution continues.
User Response: No user action required.

1428I DIRECGRO successful
Explanation: The DIRECGRO exec executed successfully.
System Action: Execution completed.
User Response: No user action required.

1429I DIRECGRO failed. To restart, run DIRECGEN (GROW again, followed by DIRECGRO
Explanation: Execution of DIRECGRO failed. Run DIRECGRO again to restart.
System Action: Command execution stops.
User Response: Refer to the DIRECGEN HISTORY file for more information about why DIRECGRO failed. Once the problem is corrected, restart DIRECGRO as directed above.

1430I *** DIRECGRO processing complete
Explanation: Execution of DIRECGRO completed.
System Action: Execution completed.
User Response: No user action required.

1431I userid minidisk vdev moved - all files copied
1431I userid minidisk vdev moved - contents not moved since the minidisk was not in CMS format
Explanation: The indicated users minidisk was moved and all files were copied to the new disk or no files were copied since the original disk was not in CMS format. The disk may be a DOS formatted disk or a RECOMP area on disk.
System Action: Command execution continues.
User Response: No user action required.

1432I Temporary CP directory placed online.
Explanation: A Temporary CP directory has been placed online.
System Action: Command execution continues.
User Response: No user action required.

1433I Original source CP directory is placed online.
Explanation: Original source CP directory has been placed online.
System Action: Command execution continues.
User Response: No user action required.

1434E Return code rcode from DIRECT module. Original {Source|Temporary} CP directory directory id cannot be placed on-line.
Explanation: The DIRECT command failed with the indicated return code and the indicated directory was not placed online.
System Action: RC = 44
Command execution stops.
User Response: Refer to DIRECGEN HISTORY file for more information. Determine the problem with DIRECT command and run DIRECGEN again.

1435E Incomplete fileid (filename filetype) specified.
Explanation: DIRECGEN was invoked with an incomplete fileid.
System Action: RC = 24
Command execution stops.
User Response: Enter HELP DIRECGEN for the correct syntax of command.

1436E No unique userid found within the range userid userid.
Explanation: No unique user ID was found in specified range. DIRECGEN uses user IDs within this range for its own processing.
System Action: RC = 45
Command execution stops.
User Response: Free one of the user ID names within the range indicated.

1437E fn ft is a null file
Explanation: The file indicated contains no records.
System Action: RC = 64
Command execution stops.
User Response: Make sure the file specified in the DIRECGEN command is the correct file.

1438E Error found in PROGPROD PARMLIST. Conflicting userid vdev minidisk type definitions.
Explanation: The minidisk indicated has conflicting definitions of the type specified for it in the PROGPROD PARMLIST. For example, two products may define a common minidisk with different block sizes.
System Action: RC = 64
Command execution stops.
User Response: Make sure the PROGPROD PARMLIST has not been changed and contact the IBM Support Center.

11-12 VM/SP Installation Guide
**1439E** Duplicate virtual address for owner id vdev

**Explanation:** The minidisk indicated has duplicate virtual address specified for it.

**System Action:** RC = 64
Command execution stops.

**User Response:** Make sure the PROGPROD PARMLIST has not been changed and contact the IBM Support Center.

**1440W** userid vdev will not be grown. userid vdev is a non-CMS or RECOMP disk

**Explanation:** The minidisk indicated will not be grown because it is not in standard CMS format.

**System Action:** Command execution continues. User Response: No user action required.

**1441E** Error executing COPYFILE fn ft fm fn ft fm RC = rcode

**Explanation:** The COPYFILE command failed for the indicated file with the indicated return code.

**System Action:** RC = 100
Command execution stops.

**User Response:** Check that there is enough room on the target disk to copy the file.

**1442I** Successful execution of DIRECGEN. Please run DIRECGRO to generate new CP directory.

**Explanation:** DIRECGEN has been executed successfully. Run DIRECGRO to generate new CP DIRECTORY.

**System Action:** Execution is complete.
**User Response:** No user action required.

**1443R** Return code rcode returned accessing owner id vdev as mode. The probable cause is an unformatted disk. Press < ENTER > to continue with formatting, or type anything to quit.

**Explanation:** DIRECGEN tried to access the indicated disk and received the indicated return code. The probable cause is that the disk is unformatted. The user is prompted whether he wishes to format the disk or quit. The user may have run DIRECGEN without the GROW option earlier and then did not install the product.

**System Action:** The system waits for a response.
**User Response:** Press < ENTER > if you wish to format the disk and continue or enter anything else if you wish to quit.

**1444W** Directory directory id contains restricted passwords. The online directory will have the passwords changed to NOLOG by the DIRECT module.

**Explanation:** Users with restricted passwords will have their passwords changed to NOLOG. User should change the final directory's passwords for the users with restricted user IDs and put this directory online to avoid locking out user IDs.

**System Action:** Command execution continues.
**User Response:** No user action required.

**1445I** userid vdev will be formatted.

**Explanation:** The indicated minidisk will be formatted.

**System Action:** Command execution continues.
**User Response:** No user action required.
DIRECGEN Panel

Figure 11-1. DIRECGEN Panel

Note: All other products included in this offering are displayed on additional panels.
### PASSMOD Logon Panel

<table>
<thead>
<tr>
<th>Userid</th>
<th>Current pw</th>
<th>New pw</th>
<th>Prodid</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEM02</td>
<td>DEM02</td>
<td>.......</td>
<td>5664283</td>
<td>VM/IS-Productivity Facility sample</td>
</tr>
<tr>
<td>DEM03</td>
<td>DEM03</td>
<td>.......</td>
<td>5664283</td>
<td>VM/IS-Productivity Facility sample</td>
</tr>
<tr>
<td>DEM04</td>
<td>DEM04</td>
<td>.......</td>
<td>5664283</td>
<td>VM/IS-Productivity Facility sample</td>
</tr>
<tr>
<td>DIRMAINT</td>
<td>DIRM</td>
<td>.......</td>
<td>5748XE4</td>
<td>DIRMAINT</td>
</tr>
<tr>
<td>DISKACNT</td>
<td>ACNT</td>
<td>.......</td>
<td>5664318</td>
<td>VM/IPF</td>
</tr>
<tr>
<td>EREP</td>
<td>IBMCE</td>
<td>.......</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GCS</td>
<td>GCS</td>
<td>.......</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IPFAPPL</td>
<td>IPFAPPL</td>
<td>.......</td>
<td>5664318</td>
<td>VM/IPF</td>
</tr>
<tr>
<td>IPFSERV</td>
<td>IPFSERV</td>
<td>.......</td>
<td>5664318</td>
<td>VM/IPF</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PF1=Help</th>
<th>2=Print</th>
<th>3=Quit</th>
<th>4=Random</th>
<th>5=Execute 6=</th>
<th>PF7=Backward</th>
<th>8=Forward</th>
<th>9=Sort(prodid)</th>
<th>10=Sort(userid)</th>
<th>11=</th>
<th>12=Cursor</th>
</tr>
</thead>
</table>

Figure 11-2. PASSMOD LOGON panel

**Note:** Additional user IDs may also be displayed depending on the content of the input CP directory.
### PASSMOD Minidisk Panel

**DMSPASPM**

**MINIDISK PASSWORD MODIFICATION PANEL**

Type the new passwords for the minidisk(s) that you wish to change in the 'New rpw', 'New wpw', and 'New mpw' fields. Press the PF5 key to update the minidisk passwords in the CP directory file.

<table>
<thead>
<tr>
<th>Userid</th>
<th>Cuu</th>
<th>rpw</th>
<th>wpw</th>
<th>mpw</th>
<th>New rpw</th>
<th>New wpw</th>
<th>New mpw</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADMIN</td>
<td>191</td>
<td>RADMIN</td>
<td>WADMIN</td>
<td>MADMIN</td>
<td>.......</td>
<td>.......</td>
<td>.......</td>
</tr>
<tr>
<td>AUDITOR</td>
<td>191</td>
<td>RAUDITOR</td>
<td>WAUDITOR</td>
<td>MAUDITOR</td>
<td>.......</td>
<td>.......</td>
<td>.......</td>
</tr>
<tr>
<td>AUTOLOGI</td>
<td>191</td>
<td>RAUTOLOG</td>
<td>WAUTOLOG</td>
<td>MAUTOLOG</td>
<td>.......</td>
<td>.......</td>
<td>.......</td>
</tr>
<tr>
<td>AVSYM</td>
<td>191</td>
<td>RAYSYM</td>
<td>WAYSYM</td>
<td>MAYSYM</td>
<td>.......</td>
<td>.......</td>
<td>.......</td>
</tr>
<tr>
<td>CMSBATCH</td>
<td>195</td>
<td>RCMSBATC</td>
<td>WCMSBATC</td>
<td>MCMSBATC</td>
<td>.......</td>
<td>.......</td>
<td>.......</td>
</tr>
<tr>
<td>CMSUSER</td>
<td>191</td>
<td>RCMSUSER</td>
<td>WCMSUSER</td>
<td>MCMSUSER</td>
<td>.......</td>
<td>.......</td>
<td>.......</td>
</tr>
<tr>
<td>CPROM</td>
<td>191</td>
<td>RCPRM</td>
<td>WCPRM</td>
<td>MCPRM</td>
<td>.......</td>
<td>.......</td>
<td>.......</td>
</tr>
<tr>
<td>192</td>
<td>ALL</td>
<td>WCPRM</td>
<td>MCPRM</td>
<td>.......</td>
<td>.......</td>
<td>.......</td>
<td>.......</td>
</tr>
<tr>
<td>291</td>
<td>RCPRM</td>
<td>WCPRM</td>
<td>MCPRM</td>
<td>.......</td>
<td>.......</td>
<td>.......</td>
<td>.......</td>
</tr>
</tbody>
</table>

PF1=Help  2=Print  3=Quit  4=Random  5=Execute  6=PF7= 8=Forward  9=  10=Sort(userid) 11=  12=Cursor

**Figure 11-3. PASSMOD Minidisk Panel**

**Note:** Additional user IDs and minidisks may also be displayed depending on the content of the input CP directory.
Figure 11-4. INSTFPP Panel 1
Figure 11-5. INSTFPP Panel 2

Note: All other products included on the tape are displayed on additional panels, if necessary.
Summary of Changes

How to Obtain Previous Editions of This Book: You can obtain previous editions of this book by using the pseudo order numbers listed in the VM/SP Library Guide and Master Index.

Summary of Changes for SN24-5765-00 for VM/IS 6

Deleted:

- Application Prototype Environment (APE)
- Composition Utility Version 2 (CU2)
- DB EDIT
- Extended Math Library PRPQ (EML)
- FORTRAN Utilities
- Graphical Data Display Manager for VM (GDDM/VM)
- Graphical Display and Query Facility (GDQF)
- Host-Displaywriter Document Interchange (HDDI)
- IBM BASIC/VM (IBM BASIC)
- IBM High-Accuracy Arithmetic Subroutine Library (ACRITH)
- IBM 3277 Graphics Attachment Support Programming RPQ (GASP)
- IBM 3812 Pageprinter VM Support (VM3812)
- Info Center/I (IC/I)
- OS PL/I Resident Library (PL/I Resident Lib)
- OS PL/I Transient Library (PL/I Transient Lib)
- PROFS Note Maintenance Facility
- Remote Spooling Communications Subsystem Networking, Ver. 1 (RSCS v1)
- VM File Storage Facility (VMFSF)
- VM/Personal Computer Host Server (VM/PC Host Server)

Added:

- The GROW option has been added to the DIRECGEN exec.
- The DIRECGRO exec has been added.
- PASSMOD now allows you to change minidisk passwords as well as logon passwords.
- New messages issued by the installation tools have been added.
- New products are:
  - ACF/Network Control Program, Version 5 (ACF/NCP)
  - ACF/Virtual Telecommunications Access Method for VM/9370
  - Application Preparation Feature (APF)
  - Application System National Language Feature (AS NL)
  - Assembler H (HASM)
  - DFSORT/CMS (DFSORT/CMS)
  - Data Interfile Transfer, Testing and Operations Utility (DITTO)
  - Host Document Composition Program/VM (DCP/VM)
  - File Transfer Program (FTP)
  - GDDM-PCLK Feature (GDDM/PCLKF)
  - Kanji Object Font for 3820/VM (KANJIF/3820)
  - NetView Distribution Manager (Netview DM)
  - NetView Network Definer Central Site
  - NetView Network Definer Remote Site
  - Office Support Program/VM (OFSP/VM)
  - PL/I Compiler, Library and Interactive Test Facility (PL/I)
  - Print Services Facility/VM Command (PSF/VM Command)
  - Print Services Facility/VM Group3 Attachment Feature (PSF/VM GRP3)
  - SQL/DS Application Interface for VSAM
  - 5210 Printer Support (5210)
Changed (Upleveled Products):

- ACF/Network Control Program, Version 4 (ACF/NCP)
- ACF/System Support Program (ACF/SSP)
- ACF/Virtual Telecommunications Access Method (ACF/VTAM)
- APL2 (APL2 V1R3)
- Customer Information Control System/VM (CICS/VM)
- Contextual File Search/370 for VM/CMS (CFSearch/370)
- Cross System Product/Application Development (CSP/AD)
- Cross System Product/Application Execution (CSP/AE)
- DisplayWrite/370 (DW/370)
- Document Composition Facility (DCF)
- Data Extract Base Version 2 (DXT)
- Data Extract Feature Version 2 (DXT Feature)
- Distributed Support Samples and Examples
- Emulation Program (EP)
- Environmental Recording Editing and Printing Program (EREP)
- Environmental Recording Editing and Printing Program Feature 3 (EREP Feature 3)
- Graphical Data Display Manager for VM/XA (GDDM/VMXA)
- Graphical Data Display Manager/VM/XA National Language Feature (GDDM/VMXA NL)
- IBM CMS Servers-Requesters, IBM CMS Servers (IBM CMS Servers)
- IBM CMS Servers-Requesters, IBM PC Requesters (IBM PC Requesters)
- Interactive System Productivity (ISPF)
- ISPF/Program Development Facility (ISPF/PDF)
- Print Services Facility/VM (PSF/VM)
- Print Services Facility/VM Fonts (PSF/VM Fonts)
- Print Services Facility/VM Resources (PSF/VM Resources feature)
- Print Services Facility/VM 3800 Attachment Feature (PSF/VM 3800)
- Print Services Facility/VM 3820/3812 Attachment Feature (PSF/VM 3820/3812)
- Professional Office System (PROFS)
- Professional Office System Applications Support Feature (PROFS ASF)
- Query Management Facility (QMFP)
- Remote Spooling Communications Subsystem Networking, Version 2 (RSCS)
- VM/System Product Interpreter Interface to SQL/Data System (RXSQL)
- Structured Query Language/Data System (SQL/DS)
- Transmission Control Protocol/Internal Protocol for VM (VM TCP/IP)
- VMBACKUP Management System (VMBACKUP-MS)
- VM Directory Maintenance (DIRMAINT)
- VM/Distributed Systems Node Executive (VM/DSNX)
- VM/Integrated System Productivity Facility
- VM/Interactive Productivity Facility (VM/IPF)
- VM Monitor Analysis Program (VMMAP)
- VM/Pass-Through Facility (PVM)
- VMTAPE Management System (VMTAPE-MS)
- VS COBOL II Compiler and Library (VS COBOL II)
- VS FORTRAN Compiler and Library (VS FORTRAN)
- 3270 Personal Computer File Transfer Program (3270 PC File Transfer)
Summary of Changes for SC24-5237-04 for VM/SP Release 6.0

Integration of Between-Release Support Information to VM/SP Release 6:

• VM/SP VM/VTAM and NetView™ Enhancements, GC24-5310
• VM/SP 9370 Processors, 9332 and 9335 Direct Access Storage Devices, and 9347 Tape Drive, GC24-5315
• VM IBM 3380 Direct Access Storage Models AJ4/BJ4 and AK4/BK4, GC24-5371
• VM IBM 3990 Storage Controls Models 1 and 2 and IBM 3380 Direct Access Storage Direct Channel Attach Model CJ2, GC24-5372.

Deleted:

• All service information (formerly Chapters 11-14 and Appendixes K-N) has been deleted. Service information is now located in a new book, the VM/SP Service Guide, SC24-5389.
• All EXEC and command descriptions formerly in Chapter 15 (except ITASK, SPLOAD, VMFDOS, and VSEVSAM) have been moved to the VM/SP Service Guide.
• The Starter System version for the 3330-11 DASD has been deleted.
• The appendix describing the procedure for “Installing the 3704/3705 Control Program” has been dropped. However, the descriptions of the ASM3705, GEN3705, and SAVENCP commands have been retained in Chapter 8, “Tools.”

Added:

• FBA Starter System versions have been added for the 9313/9332 and 9335/3370 DASD.
• Planning and installation information has been added for the APPC/VM VTAM Support (AVS) component.
• The ITASK EXEC has new operands for:
  – Specifying the component (CP or CMS) of a file to be assembled
  – Building an attached processor or multiprocessor CP nucleus
  – Building a system file pool and a user file pool
  – Loading AVS code.
• Steps have been added to the Starter System procedure and existing VM/SP system procedure for:
  – Building an SFS system file pool
  – Building an SFS user file pool
  – Loading AVS code.
• Delta and apply service code for all components is supplied on the product tape and loaded to minidisks and SFS directories during the installation procedure.
• Installation procedures have been added for two new saved segments:
  – CMSVMLIB contains the VMLIB callable services library.
  – CMSFILES contains SFS server code.
• A table identifying the SFS directories assigned to MAINT has been added to Appendix A.
• Appendix I, “Considerations for Placement of the DOS-Related Saved Segments,” contains information about installing CMSDOS, CMSBAM, CMSVSAM, and CMSAMS at locations other than those defined in the supplied DMKSNT file.

Changed:

• The VM/SP product parameter file (5664167E SPPF) has replaced SPGEN PROFILE as the repository of system generation parameters.
• VMFBLD EXEC has replaced SPGEN EXEC as the nucleus build tool invoked by ITASK EXEC.

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• System Product Interpreter code has been separated from CMS and GCS as a new component called Procedures Language/VM; the component identifier is IXX. Tape files for this component on the VM/SP Product Tape have the file name REXX.

• Object code and source code for GCS and TSAF is loaded to SFS directories.

• The procedures for installing CP options (Small CF, CP FRET Trap, and Virtual = Real) when using the existing VM system procedure to install VM/SP now use product parameter override files.

Summary of Changes
for SC24-5237-03
for VM/SP Release 5.0

Deleted:

• Co-requisite manual, VM/SP System Definition Files
• Starter System installation procedure for 3310, 3330 Models 1 and 2, and 3340 DASD
• Non-Merged Product Tape installation procedure
• CMSL nucleus option, due to revised DMKSNT layout.

Added and Changed:

• Starter System Tape, VM/SP Product Tape, and feature tapes available in 18-track 38K bpi cartridge format.

• Transparent Services Access Facility (TSAF) component added to installation procedure.

• “Introduction to VM/SP Installation” includes the following additional information:
  - Pre-installation checklist
  - Overview of VM/SP, including descriptions of system components
  - Definitions of real and virtual machines
  - Descriptions of new tools and profiles for installation and system generation
  - Expanded definitions of first level installation and second level installation.

• Chapter 2, “Planning Your VM/SP Installation” is new, and outlines areas that may require planning (with pointers to other documentation for detailed information), such as:
  - Selecting the installation procedure
  - Migrating spool files
  - Identifying DASD requirements
  - Defining the starter system configuration
  - Planning for the Group Control System (GCS)
  - Planning for the Transparent Services Access Facility (TSAF)
  - Tailoring SPGEN PROFILE
  - Tailoring the system definition files
  - Installing national languages.

• Chapter 3, “Installing VM/SP Using the Starter System” describes the new starter system installation procedure:
  - Steps within the procedure have been reorganized.
  - New tools and profiles for installation and system generation replace GENERATE EXEC and PREP EXEC.
  - GROUP EXEC panels for GCS installation are included. This information was previously contained in the VM/SP Group Control System Guide.

• Chapter 4, “Installing VM/SP Using an Existing VM/SP System” describes the new non-starter system migration procedure:
  - Steps within the procedure have been reorganized.
  - New tools and profiles for installation and system generation replace GENERATE EXEC and PREP EXEC.
GROUP EXEC panels for GCS installation are included. This information was previously contained in the *VM/SP Group Control System Guide*.

• Chapter 6, “Installing Saved Segments” includes a new procedure to install a CMSINST segment. The CMSINST segment is designed to hold frequently-used EXECs and System Product Editor macros, so that multiple users can share the same executing copies.

• Chapter 7, “Installing a New System National Language” is new. VM/SP is supplied with American English as the system national language. This chapter describes the procedure to install a new system national language to replace American English.

• Chapter 11, “Introduction to VM/SP Service” contains more details about general service concepts for VM/SP. It contains descriptions of:
  - Types of service (corrective, preventive, and local updates)
  - MAINT virtual machine
  - Service minidisks defaults
  - Disk Access Profiles

• Chapter 12, “Servicing Source Maintained VM/SP Products” contains new information and information previously contained in Chapters 6, 7, and 8. In addition to the examples using VMFMAC, VMFASM, and VMFLOAD, three new sections have been added.
  - “Using PSPACE to Determine Maximum Module Size”
  - “Using VMFTXT to Create Text Libraries”
  - “Using VMFNLS to Update National Language Source Files.”

• Chapter 13, “Servicing Object Maintained VM/SP Products” is new. This chapter describes how to apply corrective and preventive service to the VM/SP components which are object code maintained (i.e. GCS, TSAF, and part of CMS).

• Chapter 14, “Updating Service Programs, Modules, and Shared Segments” is new but the only new information is the section “Updating Interactive Problem Control System (IPCS).” This information was previously contained in the *VM/SP IPCS User’s Guide*, which has been deleted.

• Chapter 15, “EXEC and Command Procedures” includes the following new installation, system generation, and service EXECs:
  - GENTSF EXEC
  - ITASK EXEC
  - SPLOAD EXEC
  - SPGEN EXEC
  - UTILITY EXEC
  - VMFNLS EXEC
  - VMFREMOV EXEC
  - VMFTXT EXEC

In addition, descriptions of the following existing EXECs and commands are now included in this chapter:
  - DIRECT MODULE
  - VMSERV EXEC
  - ZAP MODULE
  - ZAPTEXT EXEC

Note that all EXECs (and messages issued by those EXECs) used during the installation and service procedures are contained in this chapter.

• Appendix A, “Minidisks Reserved for the MAINT Userid” is new, and provides information about the address, size, and contents of the minidisks defined for the MAINT userid in the base CP directory.
• Appendix B, "Restricted Logon Passwords" is new, and contains information about the ADRP (Auto-Deactivation of Restricted Passwords) feature, including a list of the restricted passwords contained in the RPWLISI DATA file.

• Appendix C, "Sample Installation/System Generation Profiles" is new, and contains samples of SPLOAD PROFILE, SPGEN PROFILE, and the CMS nucleus generation profile (DMSNGP ASSEMBLE).

• Appendix E, "Migrating Spool Files Using SHUTDOWN/WARM IPL" is new, and provides a procedure for migrating spool files from a VM/SP Release 3 or Release 4 system to a Release 5 system.

• Appendix K, "Building CP and CMS Nuclei Using SPGEN" contains information previously contained in Chapter 8. The information has been revised and reorganized to make use of the new SPGEN EXEC functions.

• Appendix L, "Control File Identifiers" is new; however, the information contained in the appendix was previously in Chapter 7.

• Appendix M, "Regenerating CP/CMS/IPCS Modules/Segments" has the following information added:
  - Creating CMS disk resident modules
  - Loading CMS disk resident modules
  - Modules to Regenerate from IPCS Text Files

• Appendix N, "Servicing Systems Network Architecture (SNA) Products," previously Appendix J. (with a different chapter title), includes the following new information:
  - Reqby Log
  - Remove List
  - Examples of how to merge service
  - Examples of how to remove service
  - Different procedure for removing a fix-in-error
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    Starter System procedure 3-43