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IBM Virtual Machine/System Product Installation Guide

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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.*

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Virtual Machine/System Product

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Installation Guide

Release 6

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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:

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

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.
	Running 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 2 of 2). Optional Feature Product Installation Overview

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

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 is the real address of the DASD volume.

```
rdev VARIED ONLINE
Ready;
```

attach *rdev* * *vdev*

rdev is the real address of the DASD volume. ***vdev*** is an available virtual address.

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

spool punch *
pun ipl fmt s (noheader

From the MAINT user ID, punch the "IPL FMT" file to your card reader.

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

order reader *nnnn*

nnnn is the number received in the previous system response.

```
0001 FILE ORDERED
Ready;
```

ipl 00c

IPL the card reader to start the FORMAT/ALLOCATE program.

```
VM/370 FORMAT/ALLOCATE PROGRAM - VM/SP
ENTER FORMAT OR ALLOCATE:
```

format

```
FORMAT FUNCTION SELECTED
ENTER DEVICE ADDRESS (CUU):
```

vdev

vdev is the virtual address of the DASD volume.

```
ENTER DEVICE TYPE:
```

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 START PAGE (XXXXX)|CYLINDER (XXX OR XXXX) OR "LABEL":
```

ENTER

```
ENTER END PAGE (XXXXX)|CYLINDER (XXX OR XXXX):
```

ENTER

```
ENTER DEVICE LABEL:
```

xxxxxx

xxxxxx is your label name, for example VMPK03.

```
FORMAT STARTED
FORMAT DONE
000 NO. PAGE RECORDS WITH READ-CHECK ERRORS
```

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.)

```
ENTER FORMAT OR ALLOCATE:
```

allocate

```
ALLOCATE FUNCTION SELECTED
ENTER DEVICE ADDRESS (CUU):
```

vdev — ***vdev*** is the virtual address of the DASD volume.

```
ENTER DEVICE TYPE:
```

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 PAGE|CYL CYL
```

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

DASD Type	Page or Cylinder Start	Page or Cylinder End
3350	000	554
3370	00002	69749
3370-2	00002	89093
3375	000	958
3380	000	884
3380-E4	000	1769
3380-K4	000	2654
9332-400	00002	45003
9332-600	00002	69349
9335	00002	100588

Then, using the correct values, invoke the following command:

perm *sssss eeeee*

sssss 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

```
ALLOCATION RESULTS
PERM   xxxxx  xxxxx
DEVICE vdev VOLUME xxxxxx ALLOCATION ENDED
ENTER FORMAT OR ALLOCATE:
```

Do not respond to this message.

At *first level*,

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

ipl cms

```
Ready;
```

detach *vdev*

vdev 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 $ALLOC$, $PAGE$, 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 minidisks 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 FEATURE$ 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 FEATURE$ 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 LFN*ame*, LFT*ype*, and LFM*ode* 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 FEATURE$ 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 LFN*ame*, LFT*ype*, and LFM*ode* 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 (EDIT
```

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 reinvoking 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]**

DFName fn DFType ft DFMode fm
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:

PASSMOD	**Logon** [*fn* [*ft* [*fm*]]] [**(options a** [**)**]] **Mdisk** [*fn* [*ft* [*fm*]]] [**(options b** [**)**]] **Print** [*fn* [*ft* [*fm*]]] **options:** **(a)** [**Random**] [**Userid** *userid* [**Newpw** *newpw*]] **(b)** [**Userid** *userid* **Cuu** *cuu*]

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:

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 I*prodid* MEMO*fc*, 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.

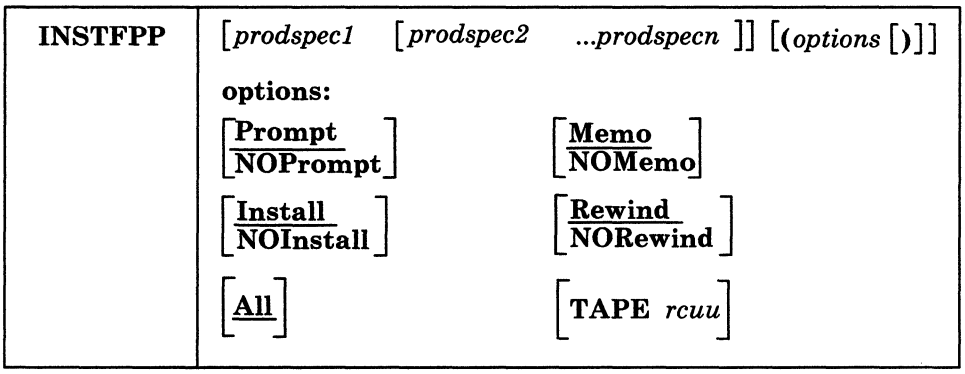
  Refer to the *VM/SP CP General User Command Reference* and the *VM/SP CMS Command Reference* for more information about these commands.
- Your virtual storage size is 16M unless otherwise specified by the product Memo to Users.

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:



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 FEATURE$ 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 *rcuu*
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 FEATURE$ 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.

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

Product	Abbreviation	Number	Level	Prerequisite
Display Management System for CMS	DMS/CMS	5748-XXB	1.2.0	
DisplayWrite/370	DW/370	5664-370	1.2.1	
Data Interfile Transfer, Testing and Operations Utility	DITTO	5688-052	3.1.0	
Document Composition Facility	DCF	5748-XX9	1.3.2	
Host Document Composition Program/VM	DCP/VM	5664-362	1.2.1	5664-361 5664-282
Data Extract Base Version 2	DXT	5668-788	2.3.0	5664-282 5664-285
Data Extract Feature Version 2	DXT Feature	5668-788 R	2.3.0	5668-788 5688-004
Distributed Support Samples and Examples[8]				
Emulation Program	EP	5735-XXB	1.6.0	5668-854 or 5668-738[6] 5664-289
Environmental Recording Editing and Printing Program	EREP	5654-260	3.3.0	
Environmental Recording Editing and Printing Program Feature 3	EREP Feature 3	5654-260 F3	3.3.0	5654-260
Font Library Service Facility	FLSF	5668-890	1.1.0	
File Transfer Program	FTP	5664-315	2.2.0	5664-280[7] 5746-AM2 5664-188 GCS[1]
Graphical Data Display Manager for VM/XA	GDDM/VMXA	5684-007	2.2.0	
GDDM-PCLK Feature[4]	GDDM/PCLKF	5684-007 VM	2.2.0	5684-007
Graphical Data Display Manager/ VM/XA National Language Feature	GDDM/VMXA NL	5684-007 NL	2.2.0	5684-007
Graphical Data Display Manager-Interactive Map Definition	GDDM-IMD	5668-801	2.1.0	5684-007
Graphical Data Display Manager-Presentation Graphics Function	GDDM-PGF	5668-812	2.1.0	5684-007
Graphical Data Display Manager-Presentation Graphics Function National Language Feature	GDDM-PGF NL	5668-812 NL	2.1.0	5684-007 NL 5668-812
IBM CMS Servers-Requesters, IBM CMS Servers[4]	IBM CMS Servers	5664-327 B	1.1.1	5664-282 5664-280[7]

Product	Abbreviation	Number	Level	Prerequisite
IBM CMS Servers-Requesters, IBM PC Requesters[4]	IBM PC Requesters	5664-327 F	1.1.1	5664-327 B 5664-281 5664-282
Interactive System Productivity Facility	ISPF	5664-282	2.2.1	
ISPF/Program Development Facility	ISPF/PDF	5664-285	2.2.1	5664-282
Kanji Object Font for 3820/VM	KANJIF/3820	5771-AEP	1.1.1	5664-198 B
NetView		5664-204	1.2.0	5664-280[7] 5746-AM2
NetView Distribution Manager	Netview DM	5684-017	1.1.0	5746-AM2 5664-282 5664-280[7]
NetView Network Definer Central Site[3]		5664-385 C	1.1.0	
NetView Network Definer Remote Site[3]		5664-385 R	1.1.0	5684-009
Office Support Program/VM	OFSP/VM	5664-361	1.2.1	5664-282 5664-309
PL/I Compiler, Library and Interactive Test Facility	PL/I	5668-909	2.1.0	
Overlay Generation Language/VM	OGL/VM	5664-293	1.1.0	
Page Printer Formatting Aid/VM	PPFA/VM	5664-199	1.1.0	
Print Services Access Facility/VM	PSAF/VM	5664-312	1.1.0	5664-198 R 5664-282
Print Services Facility/VM	PSF/VM	5664-198 B	1.2.0	
Print Services Facility/VM Fonts	PSF/VM Fonts	5664-198 F	1.2.0	5664-198 B 5664-198 P
Print Services Facility/VM Resources	PSF/VM Resources feature	5664-198 R	1.2.0	5664-198 F 5664-198 B 5664-198 P
Print Services Facility/VM 3800 Attachment Feature	PSF/VM 3800	5664-198 S	1.2.0	5664-198 F 5664-198 R 5664-198 P 5664-198 B
Print Services Facility/VM 3820/3812 Attachment Feature	PSF/VM 3820/3812	5664-198 V	1.2.0	5664-198 F 5664-198 R 5664-198 P 5664-198 B GCS[1]
Print Services Facility/VM Command	PSF/VM Command	5664-198 P	1.2.0	5664-198 F 5664-198 B
Print Services Facility/VM Group3 Attachment Feature	PSF/VM GRP3	5664-198 A	1.2.0	5664-198 F 5664-198 R 5664-198 P 5664-198 B

Product	Abbreviation	Number	Level	Prerequisite
Professional Office System	PROFS	5664-309	2.2.3	
Professional Office System Applications Support Feature	PROFS ASF	5664-309 PA	2.2.2	5664-309
Query Management Facility	QMF	5668-AAA	2.3.0	5664-282 5688-004 5668-812 5684-007
Remote Spooling Communications Subsystem Networking, Version 2	RSCS	5664-188	2.3.0	GCS[1]
VM/System Product Interpreter interface to SQL/Data System	RXSQL	5798-DXT	1.1.2	5688-004
Structured Query Language/ Data System	SQL/DS	5688-004	2.2.0	
SQL/DS Application Interface for VSAM		5688-004[9]	2.2.0	5688-004 5684-011 5746-AM2
Transmission Control Protocol/ Internal Protocol for VM	VM TCP/IP	5798-FAL	1.1.2	
Virtual Storage Extended/ Virtual Storage Access Method	VSE/VSAM	5746-AM2	1.3.0	
VMBACKUP Management System	VMBACKUP-MS	5664-291	1.5.1	
VM Batch Facility	VM Batch	5664-364	1.1.1	
VM Directory Maintenance	DIRMAINT	5748-XE4	1.3.0	
VM/Distributed Systems Node Executive	VM/DSNX	5684-009	1.2.0	5664-318
VM/Integrated System-Productivity Facility		5664-283	1.6.0	5664-282 5664-318
VM/Interactive Productivity Facility	VM/IPF	5664-318	2.3.0	
VM Monitor Analysis Program	VMMAP	5664-191	1.1.5	5668-909
VM/Pass-Through Facility	PVM	5748-RC1	1.4.0	
VMTAPE Management System	VMTAPE-MS	5664-292	1.4.1	
VM/370 Real Time Monitor	VM/RTM	5796-PNA	1.1.8	
VS COBOL II Compiler and Library	VS COBOL II	5668-958	1.3.0	
VS FORTRAN Compiler and Library	VS FORTRAN	5668-806	2.3.0	
VS Pascal Compiler and Library	VS Pascal	5668-767	1.1.0	
3270 Personal Computer File Transfer Program[4]	3270 PC File Transfer	5664-281	1.1.1	
5210 Printer Support	5210	5798-DTA	1.1.4	5664-280[7]

[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

Program Product	Product User IDs	Minidisks	Size (CMS 1K blocks unless otherwise stated)
ACF/NCP V4	MAINT	352	30324
	MAINT	353	4500
	MAINT	354	9000
	MAINT	355	40500
	MAINT	356	4500
	MAINT	348	300
ACF/NCP V5	MAINT	370	33480
	MAINT	371	4500
	MAINT	372	9000
	MAINT	373	43250
	MAINT	374	4500
	MAINT	348	300
ACF/SSP	MAINT	33F	22700
	MAINT	340	4500
	MAINT	341	9000
	MAINT	342	4500
	MAINT	343	22108
	MAINT	348	120
ACF/VTAM	MAINT	298	3900
	MAINT	299	12000
	MAINT	29A	8500
	MAINT	29B	4500
	MAINT	29C	2250
	MAINT	29D	9000
	MAINT	348	75
ACF/VTAM for VM/9370	MAINT	298	3900
	MAINT	299	12000
	MAINT	29A	8500
	MAINT	29B	4500
	MAINT	29C	2250
	MAINT	29D	9000
	MAINT	348	75
APL2	AP2SVP	191	150 blksz = 4K
	APL2PP	191	3600 blksz = 4K
	MAINT	19E	1250 blksz = 4K
AS	VMASSYS	191	1500 blksz = 4K
	VMASSYS	391	6500 blksz = 4K
	VMASSYS	392	3000 blksz = 4K
	VMASSYS	393	3000 blksz = 4K
	VMASSYS	348	300 blksz = 4K
	VMASMON	191	200 blksz = 4K
APF	ASAPF	191	1800 blksz = 4K

Table 10-1 (Page 2 of 8). Product Directory Information

Program Product	Product User IDs	Minidisks	Size (CMS 1K blocks unless otherwise stated)
AS NL	VMASSYS	191	250 blksz = 4K
	VMASSYS	391	4500 blksz = 4K
Assembler H	MAINT	376	750 blksz = 4K
	MAINT	19E	150 blksz = 4K
CFSearch/370	MAINT	360	7000
CICS/VM	MAINT	36B	1250 blksz = 4K
	MAINT	36C	750 blksz = 4K
	MAINT	36D	1250 blksz = 4K
	MAINT	378	150 blksz = 4K
	MAINT	379	3255
	CICSSERV	191	150 blksz = 4K
	CICSSERV	195	600 blksz = 4K
	CICSSERV	198	600 blksz = 4K
COBOL II	MAINT	19E	1346 blksz = 4K
CSP/AD	CSPUSER	191	6975
	CSPUSER	193	1200 blksz = 4K
	CSPUSER	195	1800 blksz = 4K
CSP/AE	CSPUSER	191	2790
	CSPUSER	193	450 blksz = 4K
	CSPUSER	195	450 blksz = 4K
	CSPUSER	502	12090
	CSPUSER	503	9405
CSP/Q	CSPUSER	191	4185
	CSPUSER	193	600 blksz = 4K
	CSPUSER	195	750 blksz = 4K
CVIEW	CVIEW	191	450 blksz = 4K
DCF	MAINT	19E	1920 blksz = 4K
	MAINT	375	3456 blksz = 4K
DCP	OFSADMIN	191	3000 blksz = 4K
	OFSADMIN	192	4500 blksz = 4K
	OFSADMIN	193	13400
DFSORT	MAINT	19E	1800 blksz = 4K
DIRMAINT	DIRMAINT	191	2100
	DIRMAINT	193	3876
	DIRMAINT	195	3900
	DATAMOVE	191	1100
	MAINT	19E	700 blksz = 4K
DisplayWrite/370	MAINT	361	3500 blksz = 4K
	MAINT	362	6500 blksz = 4K
DITTO	MAINT	19E	970 blksz = 4K

Table 10-1 (Page 3 of 8). Product Directory Information

Program Product	Product User IDs	Minidisks	Size (CMS 1K blocks unless otherwise stated)
DMS/CMS	MAINT	19E	250 blksz = 4K
DXT	MAINT	369	4650
	MAINT	36A	9300
Distributed Support Samples and Examples	MAINT	36F	1895
EP	MAINT	370	1500
	MAINT	371	150
	MAINT	372	325
	MAINT	373	1500
	MAINT	374	150
	MAINT	348	75
EREP	EREP	191	456
	MAINT	201	10260
EREP Feature 3[3]	EREP	191	0
	MAINT	201	0
FLSF	MAINT	363	3200
FORTRAN	MAINT	19E	2325 blksz = 4K
FTP	MAINT	19E	250 blksz = 4K
GDDM-IMD	MAINT	19E	800 blksz = 4K
GDDM-PGF	MAINT	19E	950 blksz = 4K
GDDM-PGF NL	MAINT	19E	200 blksz = 4K
GDDM/VMXA	MAINT	19E	3500 blksz = 4K
	GRAPHPRT	191	700
GDDM/VMXA NL	MAINT	19E	25 blksz = 4K
GDDM/VMXA PCLKF	MAINT	19E	350 blksz = 4K
IBM CMS SERVERS	MAINT	349	4180
		19E	550
	MAINT	193	25 blksz = 2K
IBM PC REQUESTERS	MAINT	34E	3700
	MAINT	34F	600
ISPF	ISPVM	191	750 blksz = 4K
	ISPVM	192	1350 blksz = 4K
ISPF/PDF	ISPVM	192	13485 blksz = 4K
KANJI FONTS/3820	PSFMAINT	194	11000

Table 10-1 (Page 4 of 8). Product Directory Information

Program Product	Product User IDs	Minidisks	Size (CMS 1K blocks unless otherwise stated)
NDM/VM	MAINT	348	70
	MAINT	399	16200
	MAINT	39A	16200
	MAINT	39B	4800
	MAINT	39C	960
	MAINT	39D	4800
	MAINT	499	4800
	MAINT	49A	4800
	MAINT	49B	2400
	MAINT	49C	960
	MAINT	49D	2400
	NDMADMIN	191	2400
	NDMADMIN	200	36000
	NDMADMIN	201	2250
	NDMBATCH	191	2400
	NDMBATCH	291	4800
	NDMJOBS	191	2400
	NDMTCP	191	2400
NetView Network Definer - Central Site	NNDDEF	191	3000 blksz = 4K
	NNDDEF	192	3000 blksz = 4K
	MAINT	35C	1400 blksz = 4K
NetView Network Definer - Remote Site	MAINT	35C	200 blksz = 4K
	OPERATOR	35D	700 blksz = 4K
NetView with DCO[1]	MAINT	298	1150
	MAINT	330	22000
	MAINT	331	10000
	MAINT	332	8000
	MAINT	333	2350
	MAINT	334	19500
	MAINT	348	400
	NETVIEW	198	15750
NetView without DCO[1]	MAINT	298	1150
	MAINT	330	48000
	MAINT	331	10000
	MAINT	332	8000
	MAINT	333	2350
	MAINT	334	70200
	MAINT	348	400
	NETVIEW	198	15750

Table 10-1 (Page 5 of 8). Product Directory Information

Program Product	Product User IDs	Minidisks	Size (CMS 1K blocks unless otherwise stated)
OFSP	OFSADMIN	191	1500 blksz = 4K
	OFSADMIN	192	1500 blksz = 4K
	OFSADMIN	193	4600
	OFSDLGT	191	1500 blksz = 4K
	OFSDISC	191	3000 blksz = 4K
	OFSUSER1	191	2300
	OFSUSER2	191	2300
OGL/VM	MAINT	19E	100 blksz = 4K
	MAINT	363	1640
PL/I Compiler/Library/PLITEST	MAINT	19E	4050 blksz = 4K
PPFA/VM	MAINT	19E	33 blksz = 4K
	MAINT	363	577
PROFS	PRODBM	161	1200 blksz = 4K
	PRODBM	191	2880
	PRODBM	5FD	2880 blksz = 4K
	PRODBM	5FE	2880 blksz = 4K
	PRODBM	5FF	2880 blksz = 4K
	PROMAIL	151	720 blksz = 4K
	PROMAIL	191	3150
	PROCAL	191	1350
	PROCAL	5FB	2880 blksz = 4K
	PROCAL	5FC	2880 blksz = 4K
	PROCAL	5FD	2880 blksz = 4K
	PROCAL	5FE	2880 blksz = 4K
	PROCAL	5FF	2880 blksz = 4K
	SYSADMIN	191	4500
	SYSADMIN	298	3150 blksz = 4K
	SYSADMIN	398	8100
	SYSADMIN	399	3410 blksz = 4K
PROFS ASF		298	925
	SYSADMIN	396	900
		397	225
	SYSADMIN	398	450
		399	813
PSAF/VM	MAINT	19E	710 blksz = 4K
PSF/VM Command	MAINT	19E	33 blksz = 4K
	PSFMAINT	191	470
	PSFMAINT	193	270
PSF/VM Fonts	PSFMAINT	194	5115
PSF/VM Group3 PDM Feature	PDM0490	191	2325
	PSFMAINT	191	940
	PSFMAINT	193	270

Table 10-1 (Page 6 of 8). Product Directory Information

Program Product	Product User IDs	Minidisks	Size (CMS 1K blocks unless otherwise stated)
PSF/VM Print Services Feature	SFCM1	191	9300
	PSFMAINT	191	3290
	PSFMAINT	193	270
PSF/VM Resources	PSFMAINT	191	470
	PSFMAINT	193	940
PSF/VM 3800 Attachment Feature	PDM470	191	2325
	PSFMAINT	191	940
	PSFMAINT	193	270
PSF/VM 3820 Attachment Feature	PDMREM1	191	2325
	PSFMAINT	191	1410
	PSFMAINT	193	270
PVM	MAINT	193	80 blksz = 2K
	MAINT	19E	125 blksz = 4K
	MAINT	29E	2800
	MAINT	36E	2790
	MAINT	39E	14500
	MAINT	49E	3255
QMF	MAINT	347	11625
	MAINT	346	6510
RSCS V2	MAINT	193	50 blksz = 2K
	MAINT	19D	1395
	MAINT	19E	150 blksz = 4K
	MAINT	300	930
	MAINT	310	1395
	MAINT	29F	150 blksz = 4K
	MAINT	39F	4800 blksz = 4K
	MAINT	49F	600 blksz = 4K
	MAINT	59F	450 blksz = 4K
RXSQL	MAINT	19E	750 blksz = 4K
SQL/DS Application Interface for VSAM	SQLDBA	196	2250 blksz = 4K
	SQLDBA	197	1500 blksz = 4K
SQL/DS Full Product[2]	SQLDBA	191	4650
	SQLDBA	193	23250
	SQLDBA	195	1800 blksz = 4K
	SQLDBA	200	15000
	SQLDBA	201	1200 blksz = 4K
	SQLDBA	202	11550 blksz = 4K
	SQLUSER	191	1395
SQL/DS User Facility Subset[2]	SQLSERV	191	2325
	SQLSERV	193	5580
	SQLSERV	195	1200 blksz = 4K
	SQLUSERR	191	450 blksz = 4K

Table 10-1 (Page 7 of 8). Product Directory Information

Program Product	Product User IDs	Minidisks	Size (CMS 1K blocks unless otherwise stated)
VM Batch Facility	MAINT	19E	530 blksz = 4K
	MAINT	326	300 blksz = 4K
	BATCH	191	540 blksz = 2K
	BATCH	193	2700 blksz = 2K
	BATCH	194	540 blksz = 2K
	BATCH	195	270 blksz = 2K
	BATCH	199	500 blksz = 2K
	BATCH1	191	1080 blksz = 2K
	BATCH2	191	1080 blksz = 2K
VM TCP/IP	TCPMAINT	191	750 blksz = 4K
	TCPMAINT	2C0	7500 blksz = 4K
	TCPMAINT	5C3	4500 blksz = 4K
	TCPMAINT	592	4500 blksz = 4K
	TCPIP	191	600 blksz = 4K
	FTPSERVE	191	300 blksz = 4K
	SMTP	191	4500 blksz = 4K
	NAMESRV	191	450 blksz = 4K
	REXECD	191	300 blksz = 4K
	REXECD	195	600 blksz = 4K
	SNALNKA	191	300 blksz = 4K
VM/DSNX	DSNXSERV	191	810 blksz = 2K
	DSNXSERV	192	270 blksz = 2K
	DSNXSERV	193	810 blksz = 2K
	DSNXSERV	194	810 blksz = 2K
	WORKER1	191	540 blksz = 2K
	WORKER1	192	270 blksz = 2K
	WORKER2	191	270 blksz = 2K
VM/IPF	ADMIN	191	200
	SYSDUMP1	191	200
	MAINT	19E	4135 blksz = 4K
	MAINT	300	9300
	MAINT	310	10230
	MAINT	3A0	418
	DISKACNT	191	168
	CPRM	191	100
	CPRM	192	3000
	CPRM	291	340
	OP1	191	200
	VMUTIL	191	200
	IPFSERV	191	465
	AUDITOR	191	1860
	IPFAPPL	191	4650
	IPFAPPL	195	4650
	IPFAPPL	196	1860
	IPFSFS	191	2325

Table 10-1 (Page 8 of 8). Product Directory Information

Program Product	Product User IDs	Minidisks	Size (CMS 1K blocks unless otherwise stated)
VM/IS-Productivity Facility	MAINT	19E	3000 blksz = 4K
	MAINT	322	4200
	MAINT	326	4650
	DEMO1	191	1395
	DEMO2	191	1395
	DEMO3	191	1395
	DEMO4	191	1395
VM/RTM	MAINT	19E	15 blksz = 4K
	SMART	191	1484 blksz = 4K
VMBACKUP-MS	VMARCH	191	500
	VMARCH	192	1500
	VMARCH	1B0	2000
	VMARCH	1C0	500 blksz = 4K
	VMARCH	1C1	500 blksz = 4K
	VMARCH	1E0	250 blksz = 4K
	VMBACKUP	191	500
	VMBACKUP	192	5000
	VMBACKUP	193	3000
	VMBACKUP	194	3000
	VMBACKUP	1B0	10000
	VMBACKUP	1C0	500
	VMBACKUP	1D0	930
	VMBACKUP	1E0	500
	VMBACKUP	1F0	125 blksz = 4K
VMMAP	VMMAP	191	3000 blksz = 4K
	VMMAP	192	3000 blksz = 4K
VMTAPE	VMTAPE	191	1000
	VMTAPE	192	2000
	VMTAPE	1B0	1000
	VMTAPE	1D0	1000
	VMTLIBR	191	1000
	VMTLIBR	192	2500
VS Pascal Compiler and Library	MAINT	19E	563 blksz = 4K
VSE/VSAM	MAINT	19E	250 blksz = 4K
3270 PCFT	MAINT	19E	17 blksz = 4K
5210	VDCA	191	2000
	VDCA	291	4000
	VDCA	391	4000
	VDCA	491	2000

[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.

- AUTOLOG1

  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.

- OP1 (IPF) and OPERATOR

  The operator uses the OPERATOR and OP1 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 OP1 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.

Product	Saved System or DCSS	Page Number	Saved Segment Number	Overlaps Product	DCSS
ACF/VTAM	VTAM	2048-2191	128-136	CSP/AD	DCAAPP02,DCAAPP05,DCAAPP06,DCAAPP07, DCAITF01,DCAITF02,DCAITF05,DCAPPR31, DCAPPR33,DCAPPR35,DCBPSG04,DCAGEN00, DCAGEN32,DCAGEN62,DCAMAP00,DCAMAP03, DCAMAP04,DCAMAP10,DCAMPP06,DCAMPP09, DCAMPP11,DCADAT00,DCADAT10,DCADAT20, DCADAT30,DCADAT40,DCADAT50,DCAUTY01, DCAUTY02,DCAUTY03,DCAUTY04,DCAINQ00, DCAINQ10,DCAAPP40,DCACMT00,DCASQL92, DCAPSB10,DCAINT06,DCASRC01,DCATAB30, DCATAB40,DCATAG00,DCATAG10
				CSP/Q	DQNINIT
				PROFS	OFSSEG
				VM/SP	NLSUCENG,NLSGER,NLSFRANC,NLSKANJI, NLSPORTG,NLSESPAN,NLSHANZI,
APL2	AP2R30S1	1264-1519	79-94		GCS
				APL2	AP2R30E1
				AS	DAS2V151
				CFSearch/370	DUASEG
				CICS/VM	CICSVM
				DisplayWrite/370	DW370R21
				OFSP/VM	FEDSEG
				QMF	QMF230E,QMF230F,QMF230D
				SAIV	SQLVSAM
	AP2R30E1	1264-1519	79-94		GCS
				APL2	AP2R30S1
				AS	DAS2V151
				CFSearch/370	DUASEG
				CICS/VM	CICSVM
				DisplayWrite/370	DW370R21
				OFSP/VM	FEDSEG
				QMF	QMF230E,QMF230F,QMF230D
				SAIV	SQLVSAM
	AP2SM3	1520-1647	95-102	CFSearch/370	DUASEG
				CICS/VM	CICSVM
				OFSP/VM	FEDSEG
					FEDSEG1
				SQL/DS	SQLSQLDS
AS	DAS2V151	1184-1487	74-92		GCS
				APL2	AP2R30S1,AP2R30E1
				DisplayWrite/370	DW370R21
				OFSP/VM	FEDSEG
				QMF	QMF230E,QMF230F,QMF230D
				SAIV	SQLVSAM
AS	DAS1V151	1024-1183	64-73		GCS
				CSP/AD	DCASVT00,DCASQL00,DCADLI00
				CSP/AE	DCBSQL00,DCBDZMOD
				DisplayWrite/370	DW370R21,DDDCL121
				QMF	QMF230E,QMF230F,QMF230D
CFSearch/370	DUASEG	1488-1679	93-104	APL2	AP2R30S1,AP2R30E1,AP2SM3
				CICS/VM	CICSVM
				ISPF	ISPDCSS
				OFSP/VM	FEDSEG,FEDSEG1
				SQL/DS	SQLSQLDS
CICS/VM	CICSVM	1488-1663	93-103	APL2	AP2R30S1,AP2R30E1,AP2SM3
				CFSearch/370	DUASEG
				OFSP/VM	FEDSEG,FEDSEG1
				SQL/DS	SQLSQLDS
CSP/AD	DCBPMS00	1952-1983	122,123	OFSP/VM	FEDCAL
				PROFS	OFSSEG
	DCALIS00	1984-2015	124,125	PROFS	OFSSEG

Table 10-2 (Page 2 of 11). SNT Planning Input.

Product	Saved System or DCSS	Page Number	Saved Segment Number	Overlaps Product	DCSS
	DCAAPP02	2080-2095	130	ACF/VTAM	VTAM
				CSP/AD	DCAITF01,DCAITF02,DCAITF05,DCAPPR33, DCAGEN32,DCAMAP03,DCAMPP09,DCADAT20, DCAUTY01,DCAUTY03,DCAAPP40,DCAINT06, DCATAB40
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCAAPP05	2096-2111	131	ACF/VTAM	VTAM
				CSP/AD	DCAITF01,DCAITF02,DCAITF05,DCAPPR35, DCAGEN32,DCAMAP04,DCAMPP11,DCADAT30, DCAUTY01,DCAUTY04,DCACMT00,DCASRC01, DCATAG00
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCAAPP06	2112-2127	132	ACF/VTAM	VTAM
				CSP/AD	DCAITF01,DCAITF02,DCAPPR31,DCBPSG04, DCAGEN62,DCAMAP10,DCADAT00,DCADAT40, DCAUTY01,DCAINQ00,DCASQL92,DCASRC01, DCATAG10
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCAAPP07	2128-2143	133	ACF/VTAM	VTAM
				CSP/AD	DCAITF02,DCAPPR31,DCAGEN00,DCAMAP00, DCAMPP06,DCADAT10,DCADAT50,DCAUTY02, DCAINQ10,DCAPSB10,DCATAB30
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCAAPP09	1920-1935	120	OFSP/VM	FEDCAL
				PROFS	OFSSEG
	DCAITF01	2080-2127	130-132	ACF/VTAM	VTAM
				CSP/AD	DCAAPP02,DCAAPP05,DCAAPP06,DCAITF02, DCAITF05,DCAPPR31,DCAPPR33,DCAPPR35, DCBPSG04,DCAGEN32,DCAGEN62,DCAMAP03, DCAMAP04,DCAMAP10,DCAMPP09,DCAMPP11, DCADAT00,DCADAT20,DCADAT30,DCADAT40, DCAUTY01,DCAUTY03,DCAUTY04,DCAINQ00, DCAAPP40,DCACMT00,DCASQL92,DCAINT06, DCASRC01,DCATAB40,DCATAG00,DCATAG10
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCAITF02	2080-2143	130-133	ACF/VTAM	VTAM
				CSP/AD	DCAAPP02,DCAAPP05,DCAAPP06,DCAAPP07, DCAITF01,DCAITF05,DCAPPR31,DCAPPR33, DCAPPR35,DCBPSG04,DCAGEN00,DCAGEN32, DCAGEN62,DCAMAP00,DCAMAP03,DCAMAP04, DCAMAP10,DCAMPP06,DCAMPP09,DCAMPP11, DCADAT00,DCADAT10,DCADAT20,DCADAT30, DCADAT40,DCADAT50,DCAUTY01,DCAUTY02, DCAUTY03,DCAUTY04,DCAINQ00,DCAINQ10, DCAAPP40,DCACMT00,DCASQL92,DCAPSB10, DCAINT06,DCASRC01,DCATAB30,DCATAB40, DCATAG00,DCATAG10
				CSP/Q	DQNINIT
				PROFS	OFSSEG

Table 10-2 (Page 3 of 11). SNT Planning Input.

Product	Saved System or DCSS	Page Number	Saved Segment Number	Overlaps Product	DCSS
	DCAITF05	2080-2111	130,131	ACF/VTAM	VTAM
				CSP/AD	DCAAPP02,DCAAPP05,DCAITF01,DCAITF02, DCAPPR33,DCAPPR35,DCAGEN32,DCAMAP03, DCAMAP04,DCAMPP09,DCAMPP11,DCADAT20, DCADAT30,DCAUTY01,DCAUTY03,DCAUTY04, DCAAPP40,DCACMT00,DCAINT06,DCASRC01, DCATAB40,DCATAG00
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCAPPR31	2112-2143	132,133	ACF/VTAM	VTAM
				CSP/AD	DCAAPP06,DCAAPP07,DCAITF01,DCAITF02, DCBPSG04,DCAGEN00,DCAGEN62,DCAMAP00, DCAMAP10,DCAMPP06,DCADAT00,DCADAT10, DCADAT40,DCADAT50,DCAUTY01,DCAUTY02, DCAINQ00,DCAINQ10,DCASQL92,DCAPSB10, DCASRC01,DCATAB30,DCATAG10
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCAPPR33	2080-2095	130	ACF/VTAM	VTAM
				CSP/AD	DCAAPP02,DCAITF01,DCAITF02,DCAITF05, DCAGEN32,DCAMAP03,DCAMPP09,DCADAT20, DCAUTY01,DCAUTY03,DCAAPP40,DCAINT06, DCATAB40
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCAPPR35	2096-2111	131	ACF/VTAM	VTAM
				CSP/AD	DCAAPP05,DCAITF01,DCAITF02,DCAITF05, DCAGEN32,DCAMAP04,DCAMPP11,DCADAT30, DCAUTY01,DCAUTY04,DCACMT00,DCASRC01, DCATAG00
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCBPSG04	2112-2127	132	ACF/VTAM	VTAM
				CSP/AD	DCAAPP06,DCAITF01,DCAITF02,DCAPPR31, DCAGEN62,DCAMAP10,DCADAT00,DCADAT40, DCAUTY01,DCAINQ00,DCASQL92,DCASRC01, DCATAG10
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCAGEN00	2128-2143	133	ACF/VTAM	VTAM
				CSP/AD	DCAAPP07,DCAITF02,DCAPPR31,DCAMAP00, DCAMPP06,DCADAT10,DCADAT50,DCAUTY02, DCAINQ10,DCAPSB10,DCATAB30
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCAGEN32	2080-2111	130,131	ACF/VTAM	VTAM
				CSP/AD	DCAAPP02,DCAAPP05,DCAITF01,DCAITF02, DCAITF05,DCAPPR33,DCAPPR35,DCAMAP03, DCAMAP04,DCAMPP09,DCAMPP11,DCADAT20, DCADAT30,DCAUTY01,DCAUTY03,DCAUTY04, DCAAPP40,DCACMT00,DCAINT06,DCASRC01, DCATAB40,DCATAG00
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCAGEN62	2112-2127	132	ACF/VTAM	VTAM
				CSP/AD	DCAAPP06,DCAITF01,DCAITF02,DCAPPR31, DCBPSG04,DCAMAP10,DCADAT00,DCADAT40, DCAUTY01,DCAINQ00,DCASQL92,DCASRC01, DCATAG10
				CSP/Q	DQNINIT
				PROFS	OFSSEG

Table 10-2 (Page 4 of 11). SNT Planning Input.

Product	Saved System or DCSS	Page Number	Saved Segment Number	Overlaps Product	DCSS
	DCAMAP00	2128-2143	133	ACF/VTAM	VTAM
				CSP/AD	DCAAPP07,DCAITF02,DCAPPR31,DCAGEN00, DCAMPP06,DCADAT10,DCADAT50,DCAUTY02, DCAINQ10,DCAPSB10,DCATAB30
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCAMAP03	2080-2095	130	ACF/VTAM	VTAM
				CSP/AD	DCAAPP02,DCAITF01,DCAITF02,DCAITF05, DCAPPR33,DCAGEN32,DCAMPP09,DCADAT20, DCAUTY01,DCAUTY03,DCAAPP40,DCAINT06, DCATAB40
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCAMAP04	2096-2111	131	ACF/VTAM	VTAM
				CSP/AD	DCAAPP05,DCAITF01,DCAITF02,DCAITF05, DCAPPR35,DCAGEN32,DCAMPP11,DCADAT30, DCAUTY01,DCAUTY04,DCACMT00,DCASRC01, DCATAG00
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCAMAP10	2112-2127	132	ACF/VTAM	VTAM
				CSP/AD	DCAAPP06,DCAITF01,DCAITF02,DCAPPR31, DCBPSG04,DCAGEN62,DCADAT00,DCADAT40, DCAUTY01,DCAINQ00,DCASQL92,DCASRC01, DCATAG10
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCAMPP06	2128-2143	133	ACF/VTAM	VTAM
				CSP/AD	DCAAPP07,DCAITF02,DCAPPR31,DCAGEN00, DCAMAP00,DCADAT10,DCADAT50,DCAUTY02, DCAINQ10,DCAPSB10,DCATAB30
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCAMPP09	2080-2095	130	ACF/VTAM	VTAM
				CSP/AD	DCAAPP02,DCAITF01,DCAITF02,DCAITF05, DCAPPR33,DCAGEN32,DCAMAP03,DCADAT20, DCAUTY01,DCAUTY03,DCAAPP40,DCAINT06, DCATAB40
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCAMPP11	2096-2111	131	ACF/VTAM	VTAM
				CSP/AD	DCAAPP05,DCAITF01,DCAITF02,DCAITF05, DCAPPR35,DCAGEN32,DCAMAP04,DCADAT30, DCAUTY01,DCAUTY04,DCACMT00,DCASRC01, DCATAG00
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCADAT00	2112-2127	132	ACF/VTAM	VTAM
				CSP/AD	DCAAPP06,DCAITF01,DCAITF02,DCAPPR31, DCBPSG04,DCAGEN62,DCAMAP10,DCADAT40, DCAUTY01,DCAINQ00,DCASQL92,DCASRC01, DCATAG10
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCADAT10	2128-2143	133	ACF/VTAM	VTAM
				CSP/AD	DCAAPP07,DCAITF02,DCAPPR31,DCAGEN00, DCAMAP00,DCAMPP06,DCADAT50,DCAUTY02, DCAINQ10,DCAPSB10,DCATAB30
				CSP/Q	DQNINIT
				PROFS	OFSSEG

Table 10-2 (Page 5 of 11). SNT Planning Input.

Product	Saved System or DCSS	Page Number	Saved Segment Number	Overlaps Product	DCSS
	DCADAT20	2080-2095	130	ACF/VTAM	VTAM
				CSP/AD	DCAAPP02,DCAITF01,DCAITF02,DCAITF05, DCAPPR33,DCAGEN32,DCAMAP03,DCAMPP09, DCAUTY01,DCAUTY03,DCAAPP40,DCAINT06, DCATAB40
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCADAT30	2096-2111	131	ACF/VTAM	VTAM
				CSP/AD	DCAAPP05,DCAITF01,DCAITF02,DCAITF05, DCAPPR35,DCAGEN32,DCAMAP04,DCAMPP11, DCAUTY01,DCAUTY04,DCACMT00,DCASRC01, DCATAG00
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCADAT40	2112-2127	132	ACF/VTAM	VTAM
				CSP/AD	DCAAPP06,DCAITF01,DCAITF02,DCAPPR31, DCBPSG04,DCAGEN62,DCAMAP10,DCADAT00, DCAUTY01,DCAINQ00,DCASQL92,DCASRC01, DCATAG10
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCADAT50	2128-2143	133	ACF/VTAM	VTAM
				CSP/AD	DCAAPP07,DCAITF02,DCAPPR31,DCAGEN00, DCAMAP00,DCAMPP06,DCADAT10,DCAUTY02, DCAINQ10,DCAPSB10,DCATAB30
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCAUTY01	2080-2127	130-132	ACF/VTAM	VTAM
				CSP/AD	DCAAPP02,DCAAPP05,DCAAPP06,DCAITF01, DCAITF02,DCAITF05,DCAPPR31,DCAPPR33, DCAPPR35,DCBPSG04,DCAGEN32,DCAGEN62, DCAMAP03,DCAMAP04,DCAMAP10,DCAMPP09, DCAMPP11,DCADAT00,DCADAT20,DCADAT30, DCADAT40,DCAUTY03,DCAUTY04,DCAINQ00, DCAAPP40,DCACMT00,DCASQL92,DCAINT06, DCASRC01,DCATAB40,DCATAG00,DCATAG10
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCAUTY02	2128-2143	133	ACF/VTAM	VTAM
				CSP/AD	DCAAPP07,DCAITF02,DCAPPR31,DCAGEN00, DCAMAP00,DCAMPP06,DCADAT10,DCADAT50, DCAINQ10,DCAPSB10,DCATAB30
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCAUTY03	2080-2095	130	ACF/VTAM	VTAM
				CSP/AD	DCAAPP02,DCAITF01,DCAITF02,DCAITF05, DCAPPR33,DCAGEN32,DCAMAP03,DCAMPP09, DCADAT20,DCAUTY01,DCAAPP40,DCAINT06, DCATAB40
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCAUTY04	2096-2111	131	ACF/VTAM	VTAM
				CSP/AD	DCAAPP05,DCAITF01,DCAITF02,DCAITF05, DCAPPR35,DCAGEN32,DCAMAP04,DCAMPP11, DCADAT30,DCAUTY01,DCACMT00,DCASRC01, DCATAG00
				CSP/Q	DQNINIT
				PROFS	OFSSEG

Table 10-2 (Page 6 of 11). SNT Planning Input.

Product	Saved System or DCSS	Page Number	Saved Segment Number	Overlaps Product	DCSS
	DCAINQ00	2112-2127	132	ACF/VTAM	VTAM
				CSP/AD	DCAAPP06,DCAITF01,DCAITF02,DCAPPR31, DCBPSG04,DCAGEN62,DCAMAP10,DCADAT00, DCADAT40,DCAUTY01,DCASQL92,DCASRC01, DCATAG10
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCAINQ10	2128-2143	133	ACF/VTAM	VTAM
				CSP/AD	DCAAPP07,DCAITF02,DCAPPR31,DCAGEN00, DCAMAP00,DCAMPP06,DCADAT10,DCADAT50, DCAUTY02,DCAPSB10,DCATAB30
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCASVT00	1040-1055	65		GCS
				AS	DAS1V151
				DisplayWrite/370	DDDCL121
	DCASQL00	1056-1071	66		GCS
				AS	DAS1V151
				DisplayWrite/370	DDDCL121
				QMF	QMF230E,QMF230F,QMF230D
	DCADLI00	1024-1039	64		GCS
				AS	DAS1V151
				DisplayWrite/370	DDDCL121
	DCAAPP40	2080-2095	130	ACF/VTAM	VTAM
				CSP/AD	DCAAPP02,DCAITF01,DCAITF02,DCAITF05, DCAPPR33,DCAGEN32,DCAMAP03,DCAMPP09, DCADAT20,DCAUTY01,DCAUTY03,DCAINT06, DCATAB40
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCACMT00	2096-2111	131	ACF/VTAM	VTAM
				CSP/AD	DCAAPP05,DCAITF01,DCAITF02,DCAITF05, DCAPPR35,DCAGEN32,DCAMAP04,DCAMPP11, DCADAT30,DCAUTY01,DCAUTY04,DCASRC01, DCATAG00
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCASQL92	2112-2127	132	ACF/VTAM	VTAM
				CSP/AD	DCAAPP06,DCAITF01,DCAITF02,DCAPPR31, DCBPSG04,DCAGEN62,DCAMAP10,DCADAT00, DCADAT40,DCAUTY01,DCAINQ00,DCASRC01, DCATAG10
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCAPSB10	2128-2143	133	ACF/VTAM	VTAM
				CSP/AD	DCAAPP07,DCAITF02,DCAPPR31,DCAGEN00, DCAMAP00,DCAMPP06,DCADAT10,DCADAT50, DCAUTY02,DCAINQ10,DCATAB30
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCAINT06	2080-2095	130	ACF/VTAM	VTAM
				CSP/AD	DCAAPP02,DCAITF01,DCAITF02,DCAITF05, DCAPPR33,DCAGEN32,DCAMAP03,DCAMPP09, DCADAT20,DCAUTY01,DCAUTY03,DCAAPP40, DCATAB40
				CSP/Q	DQNINIT
				PROFS	OFSSEG

Table 10-2 (Page 7 of 11). SNT Planning Input.

Product	Saved System or DCSS	Page Number	Saved Segment Number	Overlaps Product	DCSS
	DCASRC01	2096-2127	131,132	ACF/VTAM	VTAM
				CSP/AD	DCAAPP05,DCAAPP06,DCAITF01,DCAITF02, DCAITF05,DCAPPR31,DCAPPR35,DCBPSG04, DCAGEN32,DCAGEN62,DCAMAP04,DCAMAP10, DCAMPP11,DCADAT00,DCADAT30,DCADAT40, DCAUTY01,DCAUTY04,DCAINQ00,DCACMT00, DCASQL92,DCATAG00,DCATAG10
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCATAB30	2128-2143	133	ACF/VTAM	VTAM
				CSP/AD	DCAAPP07,DCAITF02,DCAPPR31,DCAGEN00, DCAMAP00,DCAMPP06,DCADAT10,DCADAT50, DCAUTY02,DCAINQ10,DCAPSB10
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCATAB40	2080-2095	130	ACF/VTAM	VTAM
				CSP/AD	DCAAPP02,DCAITF01,DCAITF02,DCAITF05, DCAPPR33,DCAGEN32,DCAMAP03,DCAMPP09, DCADAT20,DCAUTY01,DCAUTY03,DCAAPP40, DCAINT06
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCATAG00	2096-2111	131	ACF/VTAM	VTAM
				CSP/AD	DCAAPP05,DCAITF01,DCAITF02,DCAITF05, DCAPPR35,DCAGEN32,DCAMAP04,DCAMPP11, DCADAT30,DCAUTY01,DCAUTY04,DCACMT00, DCASRC01
				CSP/Q	DQNINIT
				PROFS	OFSSEG
	DCATAG10	2112-2127	132	ACF/VTAM	VTAM
				CSP/AD	DCAAPP06,DCAITF01,DCAITF02,DCAPPR31, DCBPSG04,DCAGEN62,DCAMAP10,DCADAT00, DCADAT40,DCAUTY01,DCAINQ00,DCASQL92, DCASRC01
				CSP/Q	DQNINIT
				PROFS	OFSSEG
CSP/AE	DCFMODS	1872-1919	117-119	OFSP/VM	FEDCAL
				PROFS	OFSSEG
	DCBMIX99	1936-1951	121	OFSP/VM	FEDCAL
				PROFS	OFSSEG
	DCBSQL00	1072-1087	67		GCS
				AS	DAS1V151
				DisplayWrite/370	DDDCL121
				QMF	QMF230E,QMF230F,QMF230D
	DCBDZMOD	1088-1135	68-70		GCS
				AS	DAS1V151
				DisplayWrite/370	DDDCL121
				QMF	QMF230E,QMF230F,QMF230D
CSP/Q	DQNINIT	2016-2143	126-133	ACF/VTAM	VTAM
				CSP/AD	DCAAPP02,DCAAPP05,DCAAPP06,DCAAPP07, DCAITF01,DCAITF02,DCAITF05,DCAPPR31, DCAPPR33,DCAPPR35,DCBPSG04,DCAGEN00, DCAGEN32,DCAGEN62,DCAMAP00,DCAMAP03, DCAMAP04,DCAMAP10,DCAMPP06,DCAMPP09, DCAMPP11,DCADAT00,DCADAT10,DCADAT20, DCADAT30,DCADAT40,DCADAT50,DCAUTY01, DCAUTY02,DCAUTY03,DCAUTY04,DCAINQ00, DCAINQ10,DCAAPP40,DCACMT00,DCASQL92, DCAPSB10,DCAINT06,DCASRC01,DCATAB30, DCATAB40,DCATAG00,DCATAG10
				PROFS	OFSSEG

Table 10-2 (Page 8 of 11). SNT Planning Input.

Product	Saved System or DCSS	Page Number	Saved Segment Number	Overlaps Product	DCSS
DCF	DSMSEG3	2432-2559	152-159	GDDM/XA	ADMXSS00
				SQL/DS	SQLXRDS
				VM/SP	CMSFILES
				VS FORTRAN	DSSVFORT
DCP/VM	INNMSEG	2896-3087	181-192	DCP/VM	JDCSEGT,INNFSEG
				GDDM-PGF	ADMPG000
				ISPF/PDF	ISRDCSS
				VSE/VSAM	CMSBAM,CMSVSAM,CMSAMS
	JDCSEGF	3088-3135	193-195	DCP/VM	JDCSEGB
				GDDM-PGF	ADMPG000
				ISPF/PDF	ISRDCSS
				OFSP/VM	FEDSEGE
				VSE/VSAM	CMSBAM
	JDCSEGB	3088-3167	193-197	DCP/VM	JDCSEGF
				GDDM-PGF	ADMPG000
				ISPF/PDF	ISRDCSS
				OFSP/VM	FEDSEGE
				VSE/VSAM	CMSBAM
	JDCSEGT	2896-3087	181-192	DCP/VM	INNMSEG,INNFSEG,
				GDDM-PGF	ADMPG000
				ISPF/PDF	ISRDCSS
				VSE/VSAM	CMSBAM,CMSVSAM,CMSAMS
	INNFSEG	2896-2959	181-184	DCP/VM	INNMSEG,JDCSEGT
				GDDM-PGF	ADMPG000
				ISPF/PDF	ISRDCSS
				VSE/VSAM	CMSAMS
DisplayWrite/370	DW370R21	1152-1471	72-91		GCS
				APL2	AP2R30S1,AP2R30E1
				AS	DAS2V151,DAS1V151
				OFSP/VM	FEDSEG
				QMF	QMF230E,QMF230F,QMF230D
				SAIV	SQLVSAM
	DDDCL121	1024-1151	64-71		GCS
				AS	DAS1V151
				CSP/AD	DCASVT00,DCASQL00,DCADLI00
				CSP/AE	DCBSQL00,DCBDZMOD
				QMF	QMF230E,QMF230F,QMF230D
GDDM-IMD	ADMIM000	3200-3295	200-205	GDDM-PGF	ADMPG000
GDDM-PGF	ADMPG000	2896-3295	181-205	DCP/VM	INNMSEG,JDCSEGF,JDCSEGB,JDCSEGT, INNFSEG
				GDDM-IMD	ADMIM000
				ISPF/PDF	ISRDCSS
				OFSP/VM	FEDSEGE
				VSE/VSAM	CMSBAM,CMSVSAM,CMSAMS
GDDM/XA	ADMXSS00	2240-2895	140-180	DCF	DSMSEG3
				IBM CMS Servers	DWXECF01
				PSAF/VM	PSAFDCSS
				PSF/VM	APRPSFC1,APRSFCM1,DCKVTBL1,APRCALL1, APRGRP31
				SQL/DS	SQLS001,SQLXRDS
				VM/SP	CMSFILES,CMSVMLIB
				VS FORTRAN	DSSVFORT,FTNLIB10
				VSE/VSAM	CMSAMS
IBM CMS Servers	DWXECF01	2560-2735	160-170	GDDM/XA	ADMXSS00
				PSF/VM	APRCALL1,APRGRP31
				SQL/DS	SQLS001,SQLXRDS
				VM/SP	CMSFILES
				VS FORTRAN	DSSVFORT,FTNLIB10
ISPF	ISPDCSS	1664-1839	104-114	CFSearch/370	DUASEG
				SQL/DS	SQLSQLDS

Table 10-2 (Page 9 of 11). SNT Planning Input.

Product	Saved System or DCSS	Page Number	Saved Segment Number	Overlaps Product	DCSS
ISPF/PDF	ISRDCSS	2896-3151	181-196	DCP/VM	INNMSEG,JDCSEGF,JDCSEGB,JDCSEGT, INNFSEG
				GDDM-PGF	ADMPG000
				OFSP/VM	FEDSEGE
				VSE/VSAM	CMSBAM,CMSVSAM,CMSAMS
OFSP/VM	FEDSEGE	3088-3167	193-197	DCP/VM	JDCSEGF,JDCSEGB
				GDDM-PGF	ADMPG000
				ISPF/PDF	ISRDCSS
				VSE/VSAM	CMSBAM
	FEDCAL	1872-1967	117-121	CSP/AD	DCBPMS00,DCAAPP09
				CSP/AE	DCFMODS,DCBMIX99
				PROFS	OFSSEG
	FEDSEG	1424-1535	89-95	APL2	AP2R30S1,AP2R30E1,AP2SM3
				AS	DAS2V151
				CFSearch/370	DUASEG
				CICS/VM	CICSVM
				DisplayWrite/370	DW370R21
				QMF	QMF230E,QMF230F,QMF230D
				SAIV	SQLVSAM
	FEDSEG1	1536-1663	96-103	APL2	AP2SM3
				CFSearch/370	DUASEG
				CICS/VM	CICSVM
				SQL/DS	SQLSQLDS
PROFS	OFSSEG	1872-2143	117-131	ACF/VTAM	VTAM
				CSP/AD	DCBPMS00,DCALIS00,DCAAPP02,DCAAPP05, DCAAPP06,DCAAPP07,DCAAPP09,DCAITF01, DCAITF02,DCAITF05,DCAPPR31,DCAPPR33, DCAPPR35,DCBPSG04,DCAGEN00,DCAGEN32, DCAGEN62,DCAMAP00,DCAMAP03,DCAMAP04, DCAMAP10,DCAMPP06,DCAMPP09,DCAMPP11, DCADAT00,DCADAT10,DCADAT20,DCADAT30, DCADAT40,DCADAT50,DCAUTY01,DCAUTY02, DCAUTY03,DCAUTY04,DCAINQ00,DCAINQ10, DCAAPP40,DCACMT00,DCASQL92,DCAPSB10, DCAINT06,DCASRC01,DCATAB30,DCATAB40, DCATAG00,DCATAG10
				CSP/AE	DCFMODS,DCBMIX99
				CSP/Q	DQNINIT
				OFSP/VM	FEDCAL
PSAF/VM	PSAFDCSS	2256-2335	141-145	GDDM/XA	ADMXSS00
				VS FORTRAN	DSSVFORT
PSF/VM	APRPSFC1	2336-2351	146	GDDM/XA	ADMXSS00
				VS FORTRAN	DSSVFORT
	APRSFCM1	2352-2399	147-149	GDDM/XA	ADMXSS00
				VS FORTRAN	DSSVFORT
	DCKVTBL1	2400-2415	150	GDDM/XA	ADMXSS00
				SQL/DS	SQLXRDS
				VS FORTRAN	DSSVFORT
	APRCALL1	2560-2623	160-163	GDDM/XA	ADMXSS00
				IBM CMS Servers	DWXECF01
				PSF/VM	APRGRP31
				SQL/DS	SQLXRDS
				VM/SP	CMSFILES
				VS FORTRAN	DSSVFORT,FTNLIB10
	APRGRP31	2608-2687	163-167	GDDM/XA	ADMXSS00
				IBM CMS Servers	DWXECF01
				PSF/VM	APRCALL1
				SQL/DS	SQLXRDS
				VM/SP	CMSFILES
				VS FORTRAN	FTNLIB10

Table 10-2 (Page 10 of 11). SNT Planning Input.

Product	Saved System or DCSS	Page Number	Saved Segment Number	Overlaps Product	DCSS
QMF	QMF230E	1056-1487	66-92		GCS
				APL2	AP2R30S1,AP2R30E1
				AS	DAS2V151,DAS1V151
				CSP/AD	DCASQL00
				CSP/AE	DCBSQL00,DCBDZMOD
				DisplayWrite/370	DW370R21,DDDCL121
				OFSP/VM	FEDSEG
				QMF	QMF230F,QMF230D
				SAIV	SQLVSAM
	QMF230F	1056-1487	66-92		GCS
				APL2	AP2R30S1,AP2R30E1
				AS	DAS2V151,DAS1V151
				CSP/AD	DCASQL00
				CSP/AE	DCBSQL00,DCBDZMOD
				DisplayWrite/370	DW370R21,DDDCL121
				OFSP/VM	FEDSEG
				QMF	QMF230E,QMF230D
				SAIV	SQLVSAM
	QMF230D	1056-1487	66-92		GCS
				APL2	AP2R30S1,AP2R30E1
				AS	DAS2V151,DAS1V151
				CSP/AD	DCASQL00
				CSP/AE	DCBSQL00,DCBDZMOD
				DisplayWrite/370	DW370R21,DDDCL121
				OFSP/VM	FEDSEG
				QMF	QMF230E,QMF230F
				SAIV	SQLVSAM
SAIV	SQLVSAM	1440-1487	90-92	APL2	AP2R30S1,AP2R30E1
				AS	DAS2V151
				DisplayWrite/370	DW370R21
				OFSP/VM	FEDSEG
				QMF	QMF230E,QMF230F,QMF230D
SQL/DS	SQLRMGR	1840-1871	115,116		
	SQLS001	2688-2735	168-170	GDDM/XA	ADMXSS00
				IBM CMS Servers	DWXECF01
				VM/SP	CMSFILES
	SQLISQL	928-1023	58-63	5210	VDCASEG
	SQLSQLDS	1600-1839	100-114	APL2	AP2SM3
				CFSearch/370	DUASEG
				CICS/VM	CICSVM
				ISPF	ISPDCSS
				OFSP/VM	FEDSEG1
	SQLXRDS	2400-2687	150-167	DCF	DSMSEG3
				GDDM/XA	ADMXSS00
				IBM CMS Servers	DWXECF01
				PSF/VM	DCKVTBL1,APRCALL1APRGRP31
				VM/SP	CMSFILES
				VS FORTRAN	DSSVFORT,FTNLIB10
VM/SP	CMSFILES	2496-2752	156-171	DCF	DSMSEG3
				GDDM/XA	ADMXSS00
				IBM CMS Servers	DWXECF01
				PSF/VM	APRCALL1,APRGRP31
				SQL/DS	SQLS001,SQLXRDS
				VM/SP	CMSVMLIB
				VS FORTRAN	DSSVFORT,FTNLIB10
	CMSVMLIB	2752-2815	172-175	GDDM/XA	ADMXSS00
				VM/SP	CMSFILES

Table 10-2 (Page 11 of 11). SNT Planning Input.

Product	Saved System or DCSS	Page Number	Saved Segment Number	Overlaps Product	DCSS
VS FORTRAN	DSSVFORT	2240-2607	140-162	DCF	DSMSEG3
				GDDM/XA	ADMXSS00
				IBM CMS Servers	DWXECF01
				PSAF/VM	PSAFDCSS
				PSF/VM	APRPSFC1,APRSFCM1,DCKVTBL1,APRCALL1
				SQL/DS	SQLXRDS
				VM/SP	CMSFILES
	FTNLIB10	2608-2639	163,164	GDDM/XA	ADMXSS00
				IBM CMS Servers	DWXECF01
				PSF/VM	APRCALL1,APRGRP31
				SQL/DS	SQLXRDS
				VM/SP	CMSFILES
VSE/VSAM	CMSDOS	3296-3311	206		
	CMSBAM	3072-3119	192-194	DCP/VM	INNMSEG,JDCSEGF,JDCSEGB,JDCSEGT
				GDDM-PGF	ADMPG000
				ISPF/PDF	ISRDCSS
				OFSP/VM	FEDSEGE
	CMSVSAM	2960-3071	185-190	DCP/VM	INNMSEG
					JDCSEGT
				GDDM-PGF	ADMPG000
				ISPF/PDF	ISRDCSS
	CMSAMS	2816-2959	176-181	DCP/VM	INNMSEG,JDCSEGT,INNFSEG
				GDDM-PGF	ADMPG000
				GDDM/XA	ADMXSS00
				ISPF/PDF	ISRDCSS
5210	VDCASEG	1008-1023	63	SQL/DS	SQLISQL

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 fileid 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 FEATURE$ 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
Command execution continues.

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/IS products listed in the FEATURE$ PRODUCTS file. *prodnum* is an invalid product or is not a System Offering product.

System Action: RC=8
Command execution stops.

User Response: Refer to the FEATURE$ PRODUCTS file for a list of valid VM/IS 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
Command execution stops.

User Response: Refer to the FEATURE$ PRODUCTS file for a list of valid 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
Command execution stops.

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.

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

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
Command execution stops.

User Response: Make sure the PROGPROD PARMLIST and the FEATURE$ 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 FEATURE$ 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
Command execution stops.

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.

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

Explanation: The file *fn ft* 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) *user ID 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 ft* 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.

1011E **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.

1012E **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.

1013E **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.

1014E **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.

1015E **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.

1016E **EXECIO error *rc* writing file *fn ft fm* on disk**

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

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 EXECIO command.

1017W

```
******************************************************
* Logon and minidisk passwords have been printed;    *
* please secure listing to avoid a security exposure *
******************************************************
```

Explanation: A list of the logon and passwords has been sent to the printer. If the printer is not in a secure area, the list of passwords is a security hazard.

System Action: Command execution continues.

User Response: Make sure the listing is secure.

1018I ***nn* userid(s) still have/has the logon password NOLOG**

Explanation: A user ID with the logon password NOLOG cannot be used until you change the password.

System Action: Command execution continues.

User Response: Invoke the command to change any remaining NOLOG user IDs.

1019I **The directory source file has been updated with new passwords; use the CMS DIRECT command to place these changes online**

Explanation: A new CP directory file has been created. This directory takes effect when you invoke the CMS DIRECT command.

System Action: Command execution continues.

User Response: Invoke the DIRECT command to activate the new directory.

1020R **The last logon password in the list has been updated; please enter EXECUTE to place the passwords in the CP directory file or enter QUIT to exit without updating the directory**

Explanation: You are using PASSMOD on a line-mode terminal. You have had a chance to update the logon password for each user ID in the CP directory file. The new passwords you entered have not been written to the CP directory. They will be written if you enter EXECUTE on the command line.

System Action: The system waits for a response.

User Response: Enter either EXECUTE or QUIT on the command line, but do not abbreviate them.

1021W **Passwords will not be saved; press PF3 to quit anyway**

Explanation: A request has been made to cancel all changes entered.

System Action: The system waits for user input from the data entry panel.

User Response: Press PF3 (QUIT) again to exit without updating the CP directory. Any other action lets password modification continue.

1022W **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.

1023R **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.

1024W **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.

1025E **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.

1026W **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.

1027E **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.

1028E **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.

1029E **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.

1030R **Userid *userid* [for product *prodnum*] 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.

1031I **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.

1032I **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.

1033R **Random logon password *password* has been generated for userid *userid* [for product *prodnum*]; 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
Command execution stops.

User Response: Invoke the command with a valid product specification code. Refer to the FEATURE$ PRODUCTS file, Program Directory, or Memo to Users to obtain the 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 for the optional feature product being processed has been spooled to the virtual printer.

System Action: Command execution continues.

User Response: Retrieve the printed file from the real printer if the appropriate spooling options are in effect.

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
Command execution continues.

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
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 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
Command execution stops.

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
Command execution stops.

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
Command execution stops.

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
Command execution stops.

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
Command execution stops.

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.

1044R **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.

1045E **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.

1046I **Virtual device *vdev1* has been redefined 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 redefined. Command execution continues.

User Response: No user action is required.

1047I **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.

1048E **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 user ID, and invoke the command again.

1049E **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.

1050E **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.

1051I **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.

1052R **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.

1053R **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.

1054I **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.

1056I **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.

1057I 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. Type the real address on the data entry panel and press ENTER.

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.

1405I 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.

1406E 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.

1407R 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.

1408E 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.

1409E No minidisk {read|write|multi} password exists to be deleted

1409E 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.

1410I 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.

1411R Minidisk *vdev* accessed by user ID *userid* has current {read|write|multi} password *password*; enter a new password, or press < ENTER > to retain the current password:

1411R 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.

1412E 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 with this message.

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

1413E Invalid format *lrecf lrecl* for file *fn ft fm*

1413E 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 lrecfm = F and lrecl = 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.

1414E Error occurred copying all files from < source MINIDISK > to < target minidisk >

1414E Error occurred copying file < source file > as < target file >

1414E 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 EXLUSIVE 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**
1429I **DIRECGRO failed. To restart, run DIRECGRO again**

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 PROGPROG 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.

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

```
 DMSWDGP01              PRODUCT SELECTION PANEL            Line 9 of 113
--------------------------------------------------------------------------------

         Type an X next to the product(s) you wish to include or
         next to the SELECT ALL entry.  When your selection
         is complete, press PF5 to begin processing.


   Product   Feat   Description
      Id      Id
_  5664285          Interactive System Productivity Facility/PDF
_  5746AM2          Virtual Storage Extended/Virtual Storage Access Method
_  5684007          Graphical Data Display Manager Base/VMXA
_  5684007    NL    Graphical Data Display Manager Base/VMXA NLS feature
_  5668812          Graphical Data Display Manager/Presentation Graphics Facili
_  5668812    NL    GDDM/VMXA Presentation Graphics Facility NLS feature
_  5668801          Graphical Data Display Manager/Interactive Map Definition
_  5684007    PC    Graphical Data Display Manager Base  PCLK Feature
_  5748XXB          Display Management System for CMS
--------------------------------------------------------------------------------
 PF1=Help     2=         3=Quit          4=              5=Execute  6=
 PF7=Backward 8=Forward  9=Sort(prodid) 10=Sort(desc)   11=Sort(X) 12=Cursor

====>
```

Figure 11-1. DIRECGEN Panel

Note: All other products included in this offering are displayed on additional panels.

PASSMOD Logon Panel

```
DMSPASP01          LOGON PASSWORD MODIFICATION PANEL            Page 2 of 6

-------------------------------------------------------------------------------
        Type the new password for the userid(s) that you wish to
        change in the 'New pw' field.  Press the PF5 key to update
        the passwords in the CP directory file.

Userid     Current pw  New pw     Prodid    Description

DEMO2      DEMO2       ........   5664283   VM/IS-Productivity Facility sample
DEMO3      DEMO3       ........   5664283   VM/IS-Productivity Facility sample
DEMO4      DEMO4       ........   5664283   VM/IS-Productivity Facility sample
DIRMAINT   DIRM        ........   5748XE4   DIRMAINT
DISKACNT   ACNT        ........   5664318   VM/IPF
EREP       IBMCE       ........
GCS        GCS         ........
IPFAPPL    IPFAPPL     ........   5664318   VM/IPF
IPFSERV    IPFSERV     ........   5664318   VM/IPF
-------------------------------------------------------------------------------
PF1=Help     2=Print    3=Quit          4=Random       5=Execute 6=
PF7=Backward 8=Forward  9=Sort(prodid) 10=Sort(userid) 11=       12=Cursor

====>
```

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

```
DMSPASP02       MINIDISK PASSWORD MODIFICATION PANEL          Page 1 of 16

-------------------------------------------------------------------------------
         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.

 Userid    Cuu    rpw       wpw       mpw         New rpw   New wpw   New mpw

 ADMIN     191    RADMIN    WADMIN    MADMIN      ........  ........  ........
 AUDITOR   191    RAUDITOR  WAUDITOR  MAUDITOR    ........  ........  ........
 AUTOLOG1  191    RAUTOLOG  WAUTOLOG  MAUTOLOG    ........  ........  ........
 AVSVM     191    RAVSVM    WAVSVM    MAVSVM      ........  ........  ........
 CMSBATCH  195    RCMSBATC  WCMSBATC  MCMSBATC    ........  ........  ........
 CMSUSER   191    RCMSUSER  WCMSUSER  MCMSUSER    ........  ........  ........
 CPRM      191    RCPRM     WCPRM     MCPRM       ........  ........  ........
           192    ALL       WCPRM     MCPRM       ........  ........  ........
           291    RCPRM     WCPRM     MCPRM       ........  ........  ........
-------------------------------------------------------------------------------
 PF1=Help     2=Print    3=Quit          4=Random        5=Execute 6=
 PF7=         8=Forward  9=            10=Sort(userid) 11=       12=Cursor
DMSWPM1024W PASSMOD must not be used if DIRMAINT is operational
====>
```

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.

INSTFPP Panels

```
DMSINSP01          INSTFPP INSTALLATION OPTIONS
------------------------------------------------------------------------------

If appropriate, change any defaults and then press the ENTER key.

      Real tape address (will be attached as 181):                ____
      Process all products on the tape (Y/N)?                      Y
      Be prompted before each product is processed (Y/N)?          Y

      Alternatives:
            (1) Install the product(s) and print the memo(s)
            (2) Only print the product memo(s)
            (3) Only install the product(s)
                                        Enter (1, 2, or 3):    1

------------------------------------------------------------------------------
 PF1=Help      2=          3=Quit        4=            5=          6=
 PF7=          8=          9=           10=           11=         12=Cursor

====>
```

Figure 11-4. INSTFPP Panel 1

```
DMSINSP02          INSTFPP PRODUCT SELECTION PANEL            Line 14 of 112
--------------------------------------------------------------------------------
        Type an X next to the product(s) you want to install.
        When you have  finished,  press the PF5 key to begin
        the installation process.

_  5668801          Graphical Data Display Manager/Interactive Map Definition
_  5684007    PC    Graphical Data Display Manager Base  PCLK Feature
_  5748XXB          Display Management System for CMS
_  5688004    DS    Structured Query Language/Data System Full Product
_  5688004    US    Structured Query Language/Data System User Facility Subset
_  5688004          Structured Query Language/Data System
_  5688004    NL    Structured Query Language/Data System (VM/IS BASE NLS)
_  5688004          Structured Query Language/Data System (VM/IS BASE NLS)
_  5668962          Assembler H
_  5668909          PL/I Optimizing Compiler, Library and PLITEST Facility
_  5668958          VS COBOL II
_  5664318          Virtual Machine/Interactive Productivity Facility
_  5664318    KA    VM/Interactive Productivity Facility (VM/IS BASE KANJI)
--------------------------------------------------------------------------------
 PF1=Help     2=          3=Quit          4=Return      5=Execute   6=
 PF7=Backward 8=Forward   9=Sort(prodid) 10=Sort(desc) 11=Sort(X)  12=Cursor

====>
```

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/1 (IC/1)
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 (QMF)
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 $PPF) 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 CP, 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 RPWLIST 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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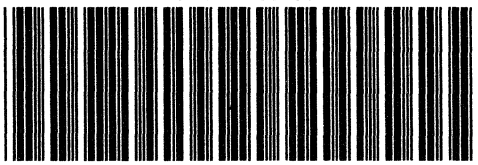

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