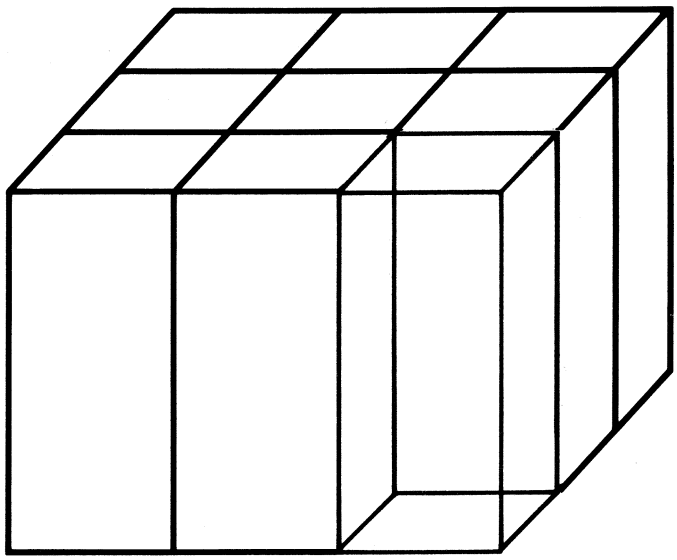
Installation
VSE/System Package



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VSE/System Package Installation

Version 2 Release 1

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Preface

This book describes installation tasks for VSE/System Package (VSE/SP) Version 2, Release 1. It is used by those who install VSE/SP and additional VSE program products and by those who apply IBM service. You should be familiar with basic VSE operations and hardware operations.

Chapter 1. Introduction should be read before you begin. It has information about:

- Initial installation considerations
- Interactive Interface
- VSE/SP user profiles
- VSE/SP Job Manager
- Additional VSE program product installation

Chapter 2. VSE/SP Initial Installation describes the tasks to install the initial VSE/SP system. These tasks are required for all users.

Chapter 3. Additional Installation Tasks describes the additional installation tasks of VSE/SP. These tasks are optional. They include:

- Installation of the VSE/SP Generation Feature
- Installation of VSE program products
- IBM service

Chapter 4. VM/VSE Interface describes the VM/VSE Interface which VSE/SP provides. This is a set of VSE phases and CMS modules which enable CMS users to operate VSE/SP systems concurrently. This chapter provides information on how you install the VM/VSE Interface.

Chapter 5. Starting and Stopping the System describes how you start and stop the system during and after VSE/SP initial installation. This includes IPLing the system and starting and stopping:

- CICS/DOS/VS
- ACF/VTAM
- VSE/POWER

How to Use This Book

Before you use this book to install VSE/SP, you should read Chapter 1, "Introduction." It contains information to help you before you begin installation.

To complete the tasks in this book, you enter information into the system in a number of ways. When you are instructed to **enter** a response, type in the data and then press the ENTER (END/ENTER) key. Depending on the task, you use either the:

- System console
- Interactive Interface

Using the System Console

For the initial installation of VSE/SP, you use the system console. These tasks show system messages in upper case. All messages may not be shown in this book. The book lists enough messages to let you check that the task is completing correctly. An example of how system messages are illustrated is:

```
BG 000 IESI0059D ENTER A 3270 ADDRESS (CUU) OR "END"
BG 000
```

The responses you enter are printed in this book in lower case. They are indented on the page and are in color. If a response has a variable, it is usually described to the right of the response. In some cases, variables are described before the response. An example of how responses are shown when you are using the console is:

```
0 cuu                                   (cuu - 3270 terminal address
                                              / or END)
```

Using the Interactive Interface

If you use the Interactive Interface, you must first access the appropriate dialog. You do this by entering the number for each selection on each panel in the panel hierarchy. VSE/SP ships three panel hierarchies which are models for:

- Administrator
- Programmer
- Operator

The selection panel hierarchies are shown in the foldout at the back of the book.

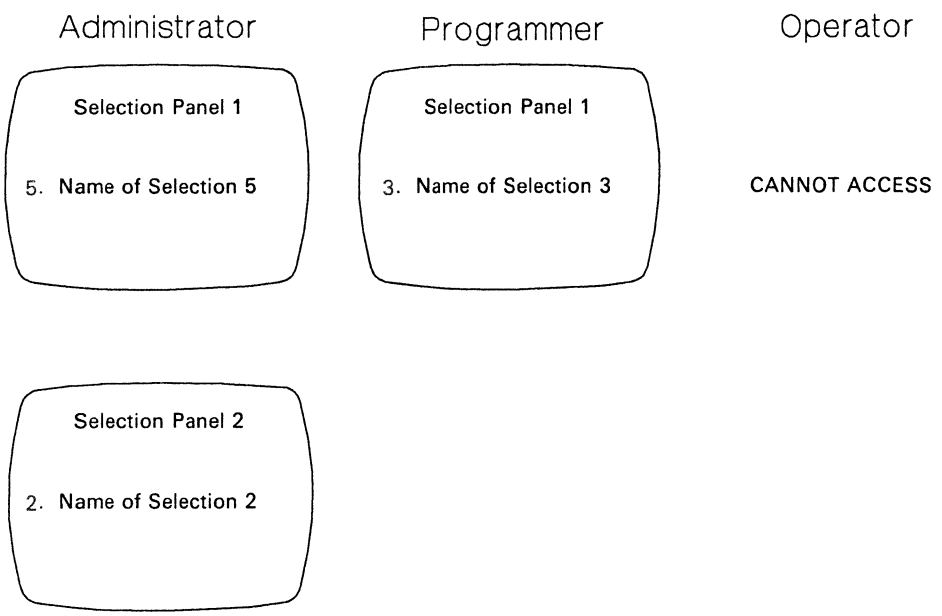
The hierarchies reflect different authorizations and correspond to three user-ids which VSE/SP provides:

- SYSA (administrator)

- PROG (programmer)
- OPER (operator)

Because the hierarchies have different authorization levels, not all the dialogs can be accessed by each one. In addition, the selection panels and numbers you enter may differ for the three hierarchies.

To help you access a dialog, this book uses *screens* which show the selection panel name and selection number you must enter to reach the dialog. An example is:



The *screens* show the dialog paths for each of the three hierarchies. They illustrate the selection number you must enter on each panel in the hierarchy to reach the dialog.

In the example, the dialog is not offered by the OPERATOR hierarchy. This is indicated by *CANNOT ACCESS*. So, for example, if you sign on with the OPER user-id, you cannot use this dialog.

The ADMINISTRATOR and PROGRAMMER hierarchies can access the dialog. However, the path is different for each one.

For the ADMINISTRATOR, you enter the following on the first selection panel (SELECTION PANEL 1):

```
5                                          (Administrator)
```

The system displays a second panel (SELECTION PANEL 2). On this panel, enter **2** to invoke the dialog.

For the PROGRAMMER, you enter **3** on the first selection panel. The dialog is invoked.

After you access a dialog, you enter data in specific fields on the panels. Sometimes, you use Program Function (PF) keys. The data you enter and the PF keys you use are shown in this book in color.

Exceptions and Additional Instructions

Sometimes, there are exceptions or additional instructions for particular users. These are shown in a box with an appropriate heading. An example is:

FBA Device Users

This is an example of additional instructions for users installing with FBA devices.

If the heading of the box applies to your system, follow the instructions in the box.

VSE/SP Library

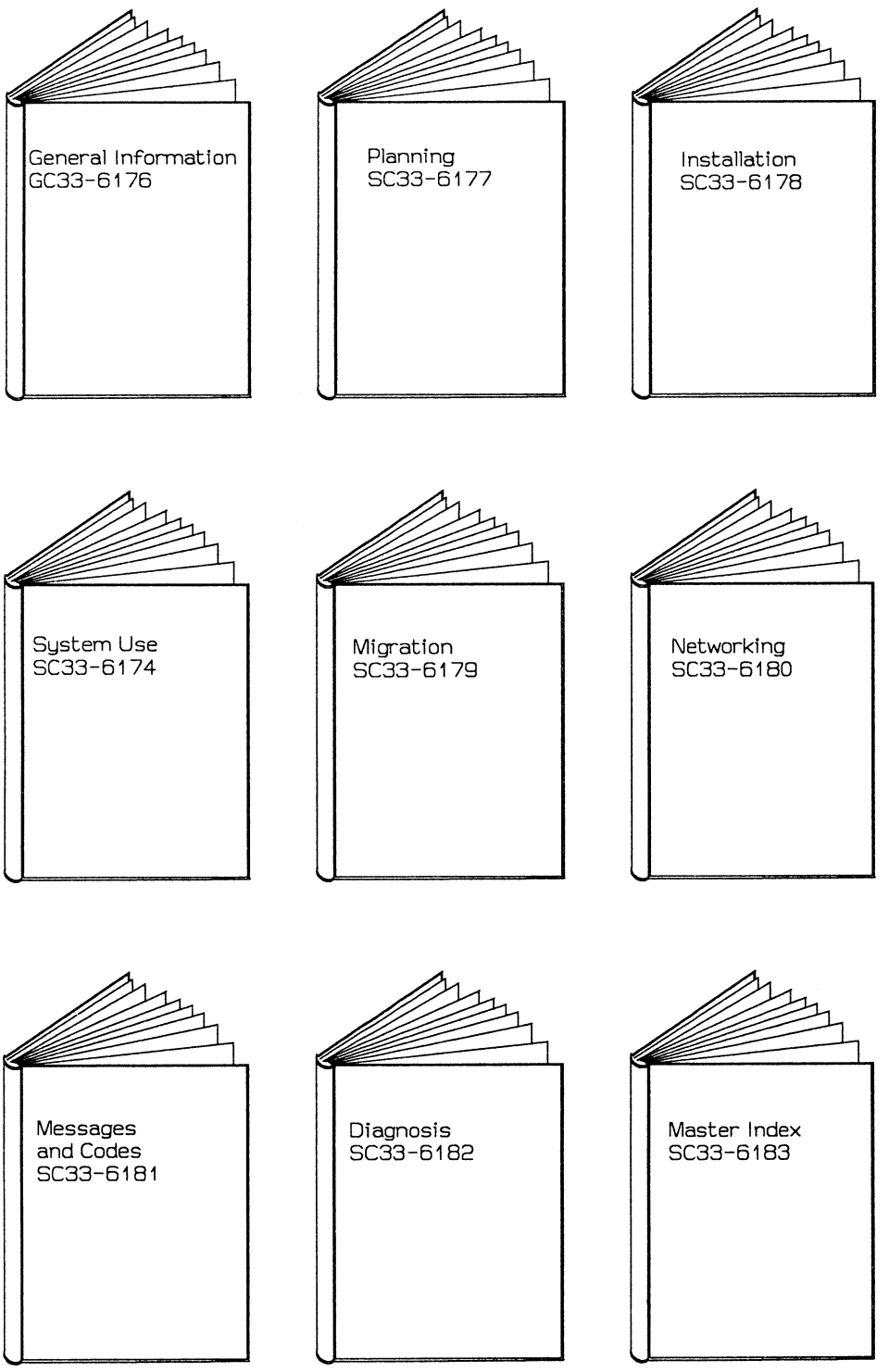


Figure 1. Overview of the VSE/SP Library

VSE/SP General Information — Introduces VSE/SP. It provides a general overview of the system, including:

- Why you should have VSE/SP.
- What functions VSE/SP offers.
- What types of VSE program products you can install.
- What hardware devices are supported.
- How you install and use VSE/SP.

VSE/SP Planning — Describes planning considerations for VSE/SP. The major sections of the book cover:

- Functions of VSE/SP.
- Functions of the component program products.
- Requirements for system installation.
- Overview of installation, operations, resource definition, programming, and diagnosis tasks.

VSE/SP Installation, *VSE/SP System Use*, and *VSE/SP Diagnosis* have detailed information for the specific tasks introduced in *VSE/SP Planning*. In addition, *VSE/SP Migration*, *VSE/SP Diagnosis*, and *VSE/SP Networking* contain planning information for their respective topics.

You will also sometimes need to use information in books for component program products to make a planning decision.

VSE/SP Installation — Detailed information for installing:

- VSE/SP.
- VSE/SP Generation Feature.
- VSE/SP optional programs and other VSE program products.
- IBM service.

VSE/SP System Use — Detailed information on how to do tasks like:

- Managing batch queues.
- Backing up and restoring data.
- Displaying system activity.
- Maintaining libraries and files.
- Tailoring the Interactive Interface.

VSE/SP Migration — Planning for migration to a VSE/SP system, with procedures and suggestions for actual migration. The book describes migration paths from several VSE-based systems and includes sample jobs.

VSE/SP Networking — Information on how to define remote devices and operate your system in a multiple-processor network. The book covers:

- Planning for networking.
- Using VSE/SP networking dialogs and skeletons.
- Network operation.

VSE/SP Diagnosis — Instructions for isolating the cause of operating problems and collecting data for further analysis. The book also describes utilities and aids for problem determination and resolution.

VSE/SP Messages and Codes — Messages which VSE/SP and the component program products issue and descriptions of what action, if any, you should take.

VSE/SP Master Index — An index for finding information in VSE/SP books and key publications for component program products. The entries in the index point to the books, not to specific page numbers. When you are referred to a book, you should use its more detailed index to locate page numbers.

Contents

Figures

Chapter 1. Introduction

Installation tasks are varied. Some you perform only once, like the initial installation of the VSE/SP system. Others can be performed periodically. For example, you may decide at a later time to install additional VSE program products. At certain times, it may be necessary to install service. The tasks which are related to IBM service activities are considered installation tasks. They are described in this book.

The installation tasks of VSE/SP include:

- Initial installation of VSE/SP.
  This is the only installation task which is required for all users.
- Installation of the VSE/SP Generation Feature.
- Installation of additional VSE program products.
- Installation tailoring.
- IBM service activities.
- Installation of the VM/VSE Interface.

This part of *VSE/SP Installation* outlines what you should consider before you begin initial installation. It also describes the functions provided by VSE/SP which make installation tasks easier to perform.

The Interactive Interface provides several dialogs to help you perform various installation tasks. The facilities of the Interactive Interface are outlined in this introduction.

The VSE/SP Job Manager manages:

- Initial installation.
- Installation of additional VSE program products.
- Various IBM service tasks.

A section about the Job Manager is included which describes how it operates.

There are several ways in which you can install additional VSE program products. An overview of these and considerations about the installation is also described in this introduction.

If you have ordered VSE/SP PRPQ - Partial Function (5799-BWH), you use this book to install the full function VSE/SP. You then use the instructions in VSE/SP PRPQ Deletion Instructions for assistance in deleting the component program products you do not want to use in your system.

Considerations Before You Begin Initial Installation

Before you begin to install VSE/SP, there are many aspects of VSE/SP you should consider which are not included in this book. You should review *VSE/SP Planning.*

VSE/SP Planning provides general planning considerations which include descriptions about:

- Functions provided by VSE/SP.
- Functions of VSE/SP component program products.
- Content and structure of VSE/SP.
- Considerations for VM users.
- System tuning information.

For initial installation purposes, it shows disk and other hardware requirements needed for VSE/SP.

VSE/SP Planning also contains information about the other installation tasks which you can perform.

The *Program Directory* shows disk layouts and additional current VSE/SP information.

Interactive Interface

The VSE/SP Interactive Interface makes it easier for you to interactively use the facilities of VSE/SP and its component program products. You select the task you want to perform from selection panels. A dialog requests input from you to complete the specific task.

Some dialogs perform interactively and display requested information on the terminal screen. Some dialogs create jobs which you submit to the system to complete the task.

Because the Interactive Interface handles many system functions internally, users do not need extensive training or knowledge about individual VSE program products in your system. You can also use the component program products in *native mode.*

VSE/SP User Profiles

VSE/SP provides four user profiles. A user profile defines a user to the Interactive Interface. It includes a user-id and password which you use to sign on to the system. The profile defines what is invoked after you sign on and the authorization you have to access different parts of the system.

One VSE/SP profile is used for special processing. The other three are defined to reflect different levels of authorization.

The user-ids and corresponding passwords are shown below.

User-id	Password	Function
POST	BASE	Complete initial installation (Reserved)
SYSA	SYSA	Model system administrator
PROG	PROG	Model programmer
OPER	OPER	Model operator

The user-id *POST* is a reserved user-id. It is defined to perform special processing and is used **only** to complete initial installation. You use the POST user-id when you complete the task described in "Complete Initial Installation" on page 61. **Do not** sign on to the system with it to do any other work.

The other three user profiles are model profiles for:

- System administrator
- Programmer
- Operator

You can use them as models to define your own user-ids for an administrator, programmer, and operator. It is recommended that you do not change the authorizations of SYSA, PROG, or OPER. They can be affected when you perform a Fast Service Upgrade. You should define and use your own user-ids after initial installation. You can use the *Maintain User Profiles* dialog which is described in *VSE/SP System Use.*

When you use the Interactive Interface to complete installation tasks, you must sign on with an administrator type user-id. User profiles are discussed in more detail in *VSE/SP System Use.*

Interactive Interface Hierarchy

VSE/SP provides three sets of selection panels for three user profiles it provides. The hierarchies are for:

- System administrator
- Programmer
- Operator

The three panel hierarchies are shown in the foldout at the back of this book.

Types of Interactive Interface Panels

The Interactive Interface uses several types of panels.

- **Selection panels**

  A selection panel displays up to nine options which you can select. The selections are numbered. You make your selection by entering the appropriate number at the bottom of the panel.

  After you enter the selection, either another selection panel is displayed or an application is invoked.

- **Data entry panels**

  The dialogs use data entry panels to obtain input about the task you are performing. You enter information in particular fields on the panel. For example, if you back up a library, you must enter the address of a tape unit.

- **Function Lists**

  A Function List (FULIST) displays a list of items which you can process. It also displays a list of functions you use to process the items.

  Each function corresponds to a particular number. When using a FULIST, you simply enter the number of the function next to the item you want to process. A FULIST allows you to use many system facilities without having to know specific commands.

  The dialogs which use FULIST panels are discussed in *VSE/SP System Use.*

- **HELP panels**

  From some panels, you can press **PF1** to display a HELP panel. This provides additional information about the FULIST, selection panel, or data entry panel and the task you are performing. This is known as the *Functional HELP.*

In some cases, the HELP panel provides information about a message that has been displayed on your terminal. For example, if you enter incorrect data, a message informs you of the error. If you then press PF1, the HELP panel may explain the error and how you can correct it.

Some HELP panels display a list of topics which you can select for more information.

Using the Fast Path Facility

The Interactive Interface has the *fast path* facility which allows you to go directly to a dialog without going through the entire panel hierarchy to reach the dialog. To use fast path, you enter all the numbers (on one selection panel) of the selections you would enter on the individual panels in the hierarchy.

An example is given below to show how fast path works. You can refer to the panel hierarchy for the system administrator when you review the example. The panel hierarchy is located in the foldout at the back of the book.

After signing on with an administrator user-id, the VSE/SP FUNCTION SELECTION panel is displayed. Suppose you want to access the *Install Fast Service Upgrade* dialog. To reach the dialog by going through the entire hierarchy, you would do the following:

1. Enter 1 (Installation) on the VSE/SP FUNCTION SELECTION panel.
2. Enter 4 (IBM Service) on the INSTALLATION panel.
3. Enter 5 (Install Fast Service Upgrade) on the IBM SERVICE panel. The dialog is invoked.

You can use the fast path method to go directly to the *Install Fast Service Upgrade* dialog. On the VSE/SP FUNCTION SELECTION panel, enter:

```
145
```

The dialog is invoked.

Signing on to the Interactive Interface

In order to use the Interactive Interface, you have to *sign on*. The sign on procedure identifies you to the system and accesses the Interactive Interface.

Before you can sign on, you need a user-id and password. The system administrator is usually responsible for creating user-ids.

The user-id is a 4 character name that identifies you to the system. The password is a 3 - 6 character confidential code associated with the user-id.

You sign on to the Interactive Interface from the VSE/SP ONLINE panel. An example of the panel is shown in Figure 2. Enter your user-id and password. The password is not displayed on the panel.

```
USER-ID....==>     xxxx              (xxxx     -   user-id)
PASSWORD...==>     yyyyyy            (yyyyyy   -   password)
```

The user-id and password are checked by the system. If they are correct, the selection panel or application defined for your user-id is accessed.

If you get a message informing you that your user-id or password is incorrect, type in the information again. You may have made a mistake the first time. If it does not work, contact the person responsible for defining user-ids.

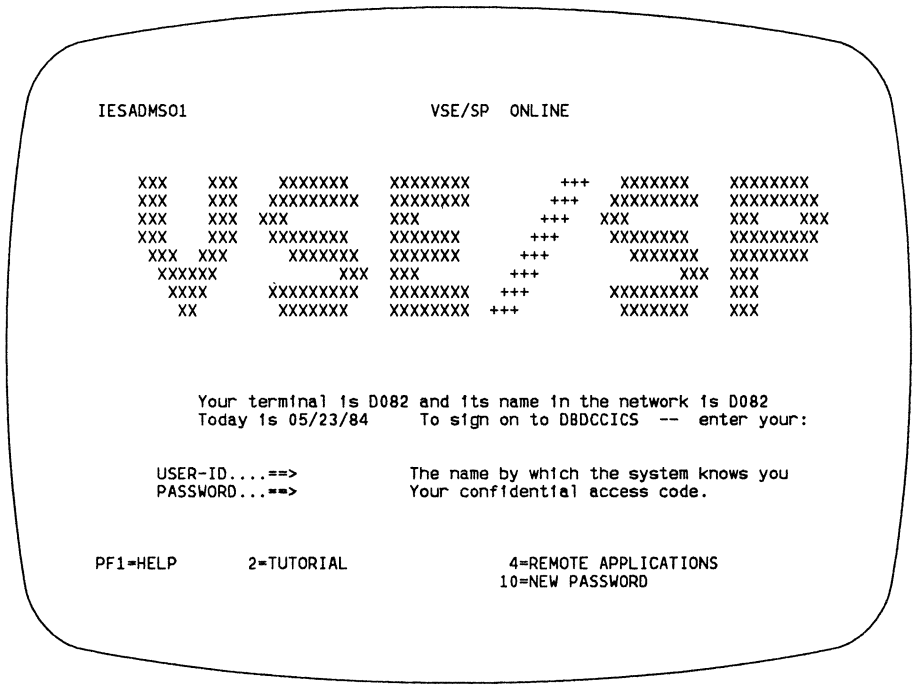


Figure 2. VSE/SP Online Panel

Using Program Function (PF) Keys

The Interactive Interface supports Program Function (PF) keys to perform various functions. PF keys and the function they represent are displayed at the bottom of each panel. To invoke the function for a particular PF key, you simply press the PF key on your terminal. You do not have to press ENTER.

Your terminal has either 12 or 24 PF keys depending on the model of the terminal. If you have 24 keys, PF13 - PF24 correspond to the same functions as PF1 - PF12.

Some PF keys used by the Interactive Interface have the same function from every panel that uses them. Other PF key functions differ for different dialogs. Each panel shows the PF keys you can use and the functions to which they correspond. When you use a PF key, review the panel you are working with to know which function the PF key represents.

The following information explains some PF keys which the Interactive Interface uses.

PF1 This invokes one or more HELP panels. The HELP explains the panel that is currently displayed (the panel from which you pressed PF1). This is known as the *Functional HELP*.

In some cases, other types of HELP panels are displayed. For information on HELP panels, refer to "Types of Interactive Interface Panels" on page 4.

PF3 PF3 is defined as *END*.

From a selection panel, PF3 returns you to the last selection panel that was displayed. If you press PF3 from the VSE/SP FUNCTION SELECTION panel, you sign off from the Interactive Interface.

From some FULISTs, PF3 ends the dialog and redisplays the selection panel, after your input is processed.

From data entry panels, PF3 ends the dialog and returns you either to the FULIST you were working with or to the selection panel from which you selected the dialog. Any input that you entered is **not** processed.

From HELP panels, PF3 returns you to the panel from which you selected HELP (PF1).

PF4 This returns you to the first selection panel in the hierarchy VSE/SP FUNCTION SELECTION.

PF5 This invokes various functions depending on the task you are performing. From many FULISTs, it means *REFRESH*. When you access the dialog, the FULIST displays the information as of the time you selected the dialog. If you press PF5, the FULIST is updated to display the most current information.

For other uses of PF5, review the HELP panel from the appropriate dialog.

PF6 This invokes various functions depending on the task you are performing.

From selection panels, PF6 is used to *escape* to CICS/DOS/VS. This allows you to leave the Interactive Interface and go into native CICS/DOS/VS. Your terminal input is automatically set to uppercase.

PF6 = ESCAPE(U) is displayed only if you have the escape authorization defined in your user profile.

From many data entry panels, PF6 means *PROCESS*. You type in the input required on the panel. When you are done, press PF6 to process the input. The information is processed by the system and the dialog continues.

For other uses of PF6, review the HELP panel from the appropriate dialog.

PF7 PF7 is used when there is too much information to display on one screen. You can then scroll (move) forward and backward through the panels to display all the information. PF7 is used to scroll backwards.

PF8 PF8 is used when there is too much information to display on one screen. You can then scroll (move) forward and backward through the panels to display all the information. PF8 is used to scroll forward.

PF9 PF9 is used on selection panels to *escape* to CICS/DOS/VS. This allows you to leave the Interactive Interface and go into native CICS/DOS/VS. Your terminal input can be in mixed case.

PF9 = Escape(m) is displayed only if you have this authorization defined in your user profile.

For other uses of PF9, review the HELP panel from the appropriate dialog.

PF10 PF10 is displayed on the VSE/SP ONLINE panel. It is used to change the password for your user-id. *VSE/SP System Use* has information about changing your password.

For other uses of PF10, review the HELP panel from the appropriate dialog.

Job Manager Overview

The Job Manager is a VSE/SP program that manages the running of certain job streams. Job Manager processing is used by the following installation tasks:

- Initial installation of VSE/SP.
- *Install Programs - (V1 Format)* dialog.
- *Install Programs - (V2 Format)* dialog.
- *Apply PTF* dialog.
- *Install Fast Service Upgrade* dialog.

At the beginning of the job stream, the Job Manager builds an ordered list of the jobs that should run. The Job Manager uses the list to selectively release the jobs from the VSE/POWER reader queue. The list is stored on disk for restart/recovery purposes.

When the Job Manager controls a job stream, do not cancel any jobs it is managing. Cancelling a job can lead to unpredictable results.

If problems occur when the Job Manager is running, a predefined abend job gets control. The operator is asked what to do. There are three options:

RESUME
The job that was running at the time of failure is restarted. If no job was running, the next job in the sequence runs.

RESET
If you choose RESET, another message asks you for the name of the job that should run next. This can be any job in the list. All jobs which follow the job in the list will run, even if they already ran.

EXIT
Job Manager processing is stopped. The job that abended is flagged as incomplete. This gives you the possibility to analyze and fix the problem.

At any later time, you can restart the Job Manager to finish the task by doing the following:

1. Release the appropriate abend job. Enter the following command, where *xxxxxxx* is the abend job name. The abend jobs for each particular task are shown in Figure 3.

   r rdr,xxxxxxx

2. Later on, you will be asked to select one of the three options described above.

   - RESUME
   - RESET
   - EXIT

TASK NAME	ABEND JOB NAME
VSE/SP Initial Installation	INSABEND
Apply PTF dialog	DTRPTFAB
Install Fast Service Upgrade dialog	DTRFSUAB
Install Programs - (V1 Format) dialog	DTRABxx[1]
Install Programs - (V2 Format) dialog	DTRABxx[1]

[1] In the job names DTRABxx, xx is generated internally by the system. The job stream for the particular dialog will tell you the name of the DTRABxx abend job.

Figure 3. Abend Job Names for Job Manager Processing

Special Considerations for the Dialogs

Four dialogs create job streams known as job managed sequences. When submitted, they run under the control of the Job Manager. The job sequence catalogs special library members which control the status of the task.

Only one job managed sequence can be active in the system at one time. That is, only one job stream from any of the four dialogs can run at one time. If a job sequence is currently active and another one is submitted, a message informs you of this. You have the following options:

1. Cancel the second job sequence. You can submit it when the current one has completed successfully.

2. Continue the second job sequence by destroying the current one running.

If a job does not complete successfully, a message explains the problem and what you should do. Under most circumstances, you would:

- EXIT from Job Manager processing and correct the problem.

- Release the appropriate abend job and RESUME.
  The installation process is restarted. The job that was running at the time of failure runs again.

If you **cannot** fix the problem and resume the job sequence, it is still flagged as active. This causes problems if you submit another job sequence because only one can be active at a time. To avoid the problem, you must delete certain library members. The "Additional Considerations" section of the individual dialog descriptions lists the members you must delete if the job stream does not complete successfully. The four dialogs are described in:

1. "Install Program Products in Version 1 Format" on page 77.

2. "Install Program Products in Version 2 Format" on page 69.

3. "Apply PTF" on page 89.

4. "Install Fast Service Upgrade" on page 103.

Overview of Additional VSE Program Products

Types of VSE Program Products

VSE/SP supports the installation of VSE program products that are shipped in two formats:

- Version 1 (V1)

  - Distributed in the librarian format of pre-Version 2 VSE/Advanced Functions.
  - One program product resides on a single tape.

- Version 2 (V2)

  - Distributed in new librarian format (VSE/Advanced Functions Version 2).
  - Tape can be scanned to determine the space needed by each program product on the tape.

There are two types of Version 2 format program products:

- VSE/SP optional programs

  These are a defined list of VSE program products supported by VSE/SP. The program products are stacked on a tape. A preliminary list of VSE/SP optional programs is provided in *VSE/SP Planning*. For the most current information, refer to the *Program Directory*.

- Other VSE program products

  There are additional VSE program products other than the VSE/SP optional programs which are also distributed in Version 2 format.

How to Install VSE Program Products

You can install all additional VSE program products in MSHP format using one of two dialogs:

1. *Install Programs - (V1 Format)*
   This dialog installs VSE program products in Version 1 format.

2. *Install Programs - (V2 Format)*
   This dialog installs VSE/SP optional programs and other VSE program products in Version 2 format.

You can also install VSE/SP optional programs automatically during VSE/SP initial installation. The characteristics of installing automatically or using the dialog are described below.

Installing VSE/SP Optional Programs Automatically

You can install VSE/SP optional programs automatically during initial installation. This is provided **only** for VSE/SP optional programs.

During initial installation, you are asked if you want to automatically install the optional programs.

Reply yes to install VSE/SP optional programs. The characteristics of the installation are:

- Optional programs are automatically installed during initial installation.

- All optional programs on a tape are installed.

- Optional programs are installed in library PRD2 and specific default sublibraries. *VSE/SP Planning* describes the default sublibraries.

- Installation terminates if problems occur.
  It is assumed that there is sufficient space in the default sublibraries. If there is not, the optional programs are not installed. You then use the dialog to install the tape.

Reply **no**, if you:

- Have no VSE/SP optional program tapes to install.
- Do not want to accept the default characteristics of automatic installation.
- Want to use the dialog to install for whatever reason.

If you answer **YES**, a job stream is built to install the VSE/SP optional program tapes. The job stream runs during initial installation.

Installing VSE/SP Optional Programs Using the Dialog

You can install VSE/SP optional programs using the *Install Programs - (V2 Format)* dialog, if you want to:

- Choose at which point in time the optional programs are installed.

  By using the dialog, you can install VSE/SP optional programs at any time after installing the initial VSE/SP system.
- Install only one or some (not all) optional programs on the tape.
- Install the optional programs into different libraries/sublibraries than the default ones.
- Extend the default library before installation.
- Define new libraries for the installation.

Chapter 2. VSE/SP Initial Installation

This part of *Installation* describes the initial installation of VSE/SP. Initial installation involves many tasks which are outlined below.

1. Load Device Support Facilities.

2. Initialize disks.

3. Restore SYSRES.

4. IPL VSE.

5. Installation job stream processing. The job stream gathers information about your configuration. You are asked for:

   - Tape address.
   - If you want to automatically install VSE/SP optional programs.
   - Telecommunications access method.
   - Terminal information.

6. The Job Manager now controls processing. It releases the appropriate jobs for the remaining initial installation.

7. You can create a FCB or UCB for your printer.

8. You start the VSE/POWER printer.

9. Various jobs run to define libraries, initialize files, and perform other tasks.

10. VSE/SP optional programs are installed, if you specified that you want them installed automatically.

11. CICS/ICCF are started. ACF/VTAM is started for ACF/VTAM users.

12. Installation processing under the Job Manager is completed.

You now complete initial installation using the Interactive Interface. This involves:

- Internal system processing.
- Specifying MSHP information.
- Verifying the hardware configuration.
- Completing VSE/SP optional programs installation.
- Changing the passwords of the VSE/SP user-ids.

Load Device Support Facilities

Mount the tape labelled *VSE/SP2.1.0.TAPE1.* **Do not reposition or dismount the tape until you are told to do so.**

Users Installing Under VM

It is recommended that you define 1 megabyte of storage for this part of the installation. This can result in better performance on your system.
In CP mode, enter:

```
def stor 1m
```

```
IPL cuu                                    (cuu - tape drive address)
```

Note: IPL is the initial program load procedure for your computer. For VM users, the IPL command is a CP command.

The system will enter the wait state. You should press END/ENTER.

```
(press END/ENTER)
```

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

```
console
```

```
CONSOLE
ICK006E DEFINE OUTPUT DEVICE, REPLY 'DDDD,CUU' OR 'CONSOLE'
ENTER INPUT/COMMAND:
```

```
console
```

```
CONSOLE
ICKDSF - SA DEVICE SUPPORT FACILITIES   7.0
      TIME: xx:xx:xx   xx/xx/xx   PAGE 1
```

Enter Date and Time

If the system displays the following messages, enter the date and time. You must enter two characters in each field.

ICK015E SUPPLY TODAY'S DATE, REPLY 'MM/DD/YY'
ENTER INPUT/COMMAND:

mm/dd/yy

(mm - month)
(dd - day)
(yy - year)

ICK016E SUPPLY TODAY'S TIME OF DAY, REPLY 'HH:MM:SS'
ENTER INPUT/COMMAND:

hh:mm:ss

(hh - hour)
(mm - minute)
(ss - second)

ENTER INPUT/COMMAND:

You should continue with "Initialize Disks" on page 18.

Initialize Disks

In the INIT commands, replace **cuu** with the disk address and **xxxxxx** with the volume ID.

Begin with volume DOSRES. Enter the command for your disk type.

In certain cases, additional parameters of the INIT command (VALIDATE, CHECK, DEVTYPE) are required to initialize your disks correctly. Otherwise, you may encounter problems later when you IPL the restored system. You should review the INIT command in detail, especially if:

- You are using VM and define an entire disk as a minidisk.
- The disks have never been initialized.
- The disks have been previously used on a system other than VSE.
- You are changing from emulation mode to disk native mode.

The INIT command is described in *Device Support Facilities User's Guide and Reference.*

For 3310:

init unit(cuu) nvfy nomap purge fbavtoc(125984,99,1024) volid(xxxxxx)

For 3330:

init unit(cuu) nvfy nomap purge dvtoc(403,0,19) volid(xxxxxx)

For 3340:

init unit(cuu) nvfy nomap purge dvtoc(695,0,12) volid(xxxxxx)

For 3350:

init unit(cuu) nvfy nomap purge dvtoc(554,0,30) volid(xxxxxx)

For 3370:

init unit(cuu) nvfy nomap purge fbavtoc(557938,99,1024) volid(xxxxxx)

For 3370-2:

init unit(cuu) nvfy nomap purge fbavtoc(712690,99,1024) volid(xxxxxx)

For 3375:

init unit(cuu) nvfy nomap purge dvtoc(958,0,12) volid(xxxxxx)

For 3380:

init unit(cuu) nvfy nomap purge dvtoc(884,0,15) volid(xxxxxx)

```
ICK00700I cuu BEING PROCESSED AS LOGICAL DEVICE = xxxx
      PHYSICAL DEVICE = xxxx

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

   u

ICK01313I VOLUME CONTAINS nn ALTERNATE TRACKS -- nn AVAILABLE.
ICK01314I VTOC IS LOCATED AT CCHH=X'nnnn nnnn' AND IS nn TRACKS.

ICK00001I FUNCTION COMPLETED, HIGHEST CONDITION CODE WAS nn
ENTER INPUT/COMMAND:
```

Return to the beginning of "Initialize Disks" on page 18. Repeat this step to initialize each system work volume that you need (SYSWK1 - SYSWKn).

The number of volumes needed depends on the disk type. Refer to *VSE/SP Planning* for information on disk storage requirements. The *Program Directory* shows disk layout information.

When you are done, continue with "Restore SYSRES" on page 20.

Restore SYSRES

Users Installing Under VM

If you have not already set ECMODE on, enter the following command in CP mode:

set ecmode on

Starting the Restore Again

If you start this step again and you get the following message (*xxxxxxx* is the file name),

4433D EQUAL FILE ID IN VTOC xxxxxxx ...

you should enter:

delete

This task restores SYSRES from tape. **Do not reposition or dismount the tape until you are told to do so.**

IPL the tape labelled *VSE/SP2.1.0.TAPE1.*

IPL cuu (cuu - tape drive address)

The system will enter the wait state. You should press END/ENTER.

(press END/ENTER)

***** STAND ALONE PROGRAMS LOADED *****
IF YOU WANT A LISTING,SPECIFY CUU OF PRINTER;
ELSE, OR IF PRINTER IS NOT OPERATIONAL, PRESS END/ENTER.

(press END/ENTER)

SPECIFY DATE MM/DD/YY

Two characters must be entered in each field for the date.

mm/dd/yy (mm - month)
(dd - day)
(yy - year)

SELECT ONE OF THE FOLLOWING PROGRAMS OR TYPE END
FASTCOPY, RESTORE, INITEM

restore

SPECIFY ADDRESS OF INPUT DEVICE CUU

cuu (cuu - tape address where VSE/SP tape is mounted)

SPECIFY TYPE OF INPUT DEVICE XXXXYY

xxxxyy (xxxxyy - tape device type)

The tape device type can be one of the following:

8809
3410t9
3420t9
3430

8809 Tape Devices

If you enter **8809** for your tape device type, you will get the following message. Enter the tape mode for your disk type:

S2001 SPECIFY TAPE MODE XX OR EOB. DEFAULT IS 90

For 3310:	**30**
For 3330:	**60**
For 3340:	**60**
For 3350:	**60**
For 3370:	**30**
For 3370-2:	**30**
For 3375:	**60**
For 3380:	**60**

SPECIFY ADDRESS OF SYSRES DISK CUU OR PRESS END/ENTER

cuu (cuu - address of DOSRES)

SPECIFY TYPE OF DISK XXXXYY

For 3310:	**fba**	
For 3330:	**3330**	
	3330b	(for 3330 Model 11)
For 3340:	**3340**	
	3340r	(if RPS feature is installed)
For 3350:	**3350**	
For 3370:	**fba**	
For 3370-2:	**fba**	
For 3375:	**3375**	
For 3380:	**3380**	

L302A ENTER YES TO RESTORE SYSRES FILE IJSYSR1 OR NO TO SKIP TO NEXT SYSRES

yes

L315I ORIGINAL FILE ID= VSE.SYSRES.LIBRARY
L316A ENTER YES TO KEEP OR NO TO RESPECIFY THE SYSRES FILE ID

yes

L30xI ORIGINAL ALLOCATION= xxxx ....
L310A ENTER YES TO KEEP OR NO TO RESPECIFY THE ALLOCATION

no

L31xI MINIMUM ALLOCATION= xxx ....
L30xI ENTER THE DESIRED ALLOCATION AS NUMBER OF ....
L313A ALLOC=

For 3310:	**55070**
For 3330:	**2507**
For 3340:	**3935**
For 3350:	**1859**
For 3370:	**55116**
For 3370-2:	**55116**
For 3375:	**1103**
For 3380:	**899**

L329A ENTER YES TO RESTORE ALL SUBLIBRARIES OR NO FOR SELECTIVE RESTORE

yes

```
L338I SUMMARY OF RESTORE PARAMETERS:
L318I FILE NAME = IJSYSR1
L319I FILE ID = VSE.SYSRES.LIBRARY
L32xI ALLOCATION= xxxx ....
L34xI START= ..... - END= ....
L327I RESTORE ALL SUBLIBRARIES
L322A ENTER YES IF THE SPECIFICATION IS CORRECT OR NO TO RESPECIFY

   yes
```

CKD Device Users

The system displays the following message:

```
L300I FORMATTING OF LIBRARY IJSYSR1 IN PROGRESS
```

```
L306I RESTORE OF LIBRARY IJSYSR1 IN PROGRESS
L325I RESTORE OF SUBLIBRARY IJSYSR1.SYSLIB IN PROGRESS
L326I RESTORE COMPLETE FOR LIBRARY IJSYSR1
*** END OF STAND ALONE PROCESSING ***
```

Users Installing Under VM

The system displays the following message:

```
CP DISABLE PSW'0000 ... '
```

Define 16 megabytes of storage. In CP mode, enter:

```
   def stor 16m
```

If you have not yet defined your BTAM-ES or ACF/VTAM terminals to VM (for example, in the directory entry), enter the following in CP mode:

```
   def graf cuu                    (cuu - terminal address)
```

Repeat this command for every terminal you want to define.

SYSRES is now restored. Continue with "IPL VSE From the Restored DOSRES Volume" on page 24.

Do not reposition the tape.

IPL VSE From the Restored DOSRES Volume

You now IPL VSE. This step uses a VSE/SP supplied IPL procedure. The correct IPL procedure is automatically chosen based on your disk type and CPU mode. The appropriate options for your system are selected by VSE/SP.

You do not usually have to add devices during this task. The IPL program for VSE/SP uses device sensing to automatically define the devices on the system. Because of this, you should power on the devices which you need defined during IPL. Power off any devices which you do not need.

Some devices do not support device sensing. If a device is needed for the minimum configuration and it cannot be sensed, you are asked to enter the IPL ADD command for the device. VSE/SP requires the following minimum configuration:

- Tape drive.
- Printer.
- CICS/DOS/VS terminal (327x).
- Disk devices.

The number of disks required depends on the disk type. *VSE/SP Planning* shows the requirements for each disk type.

3420 tape devices do not support device sensing. If you are using a 3420 to install VSE/SP, you are asked to enter the IPL ADD command for the tape. If you are running under VM/SP, you do not have to add the 3420.

For some devices, not all the necessary information can be sensed. You will be asked to define these devices when you complete the initial installation in "Complete Initial Installation" on page 61.

Do not delete addresses FEC, FED, FEE, FEF, FFA, FFC, FFD, and FFE. They are required by VSE/ICCF and VSE/SP VSE/POWER startup.

IPL cuu (cuu - address of DOSRES)

If the system enters the wait state, press END/ENTER.

(press END/ENTER)

```
0I04I IPLDEV=X'cuu',VOLSER=DOSRES,CPUID=xxxxxxxxxxxx
0J01I IPL=$IPLyxx ,JCL=$$JCLIxx,SUPVR=$$A$SUPn,P
0I30I DATE=xx/xx/xx,CLOCK=yy/yy/yy,ZONE=nnnn/00/00
    THE DATE VALUE FORMAT IS MM/DD/YY
```

```
0J47I CHANNEL x:  nn DEVICE(S) FOUND OPERATIONAL.
0J47I CHANNEL x:  nn DEVICE(S) FOUND OPERATIONAL.

   ...
   ...            (additional devices found operational)
   ...

ADD FEC,3505
ADD FFC,3505 ICCF DUMMY DEVICE DON'T DELETE

   ...
   ...            (additional devices added)
   ...
```

Insufficient System Configuration

If you get the following messages, follow these instructions.

IESI0101I INSUFFICIENT SYSTEM CONFIGURATION FOR
INITIAL INSTALLATION
IESI0102A PLEASE SPECIFY IPL ADD COMMAND FOR XXXX

The system checks whether the minimum hardware configuration for initial installation is available. If some devices are not sensed, the system displays these messages.

The second message (IESI0102A) is displayed for each required device that was not sensed. XXXX is the specific device type. It can be:

TAPE DEVICE
CICS TERMINAL/LOCAL SNA CONTROL UNIT
PRINTER
yy DASD DEVICE(S) - TYPE AS SYSRES

The *yy* is the number of disk devices that were not sensed, but are required. The disk types must be the same type as DOSRES.

Enter one IPL ADD command for **each** required device type that was not sensed (tape, terminal/control unit, printer, disks).

add cuu,device-type (cuu - device address)

As an example, suppose the system displays the following messages:

```
IESI0102A  PLEASE SPECIFY IPL ADD COMMAND FOR PRINTER
IESI0102A  PLEASE SPECIFY IPL ADD COMMAND FOR 2 DASD
           DEVICES - TYPE AS SYSRES
```

You would add the addresses of the printer and 2 disk devices. For instance, you might enter:

add 00e,prt1
add 253:254,fba

After you enter your ADD command(s), press END/ENTER to continue.

(press END/ENTER)

Users Not Installing Under VM

The system displays the following message. Follow these instructions.

```
IESI0104D IF YOU WANT TO USE A 3420 TAPE DRIVE FOR
          INSTALLATION, SPECIFY IPL ADD COMMAND, ELSE
          HIT ENTER TO CONTINUE.
```

The system **cannot** sense 3420 tape drives. If you want to use a 3420 to install VSE/SP, you must define it.

To use a 3420 for VSE/SP initial installation, enter:

add cuu,3420t9 (cuu - 3420 address)

Press END/ENTER to continue.

(press END/ENTER)

If you are using a different tape device for initial installation, press END/ENTER to continue.

(press END/ENTER)

Duplicate Volume Numbers Found

If you get the following message, follow these instructions.

IESI0120I VOLID xxxxxx FOUND ON FOLLOWING
ADDRESSES (CUU)
cuu1 cuu2 ...

The system checks the volume identifiers (VOLIDs) of all disks. This is to ensure that the VOLIDs for VSE/SP (DOSRES, SYSWK1 - SYSWKn) are unique. If two disks have the same VOLID, the system displays the above message, where *xxxxxx* is the VOLID that is duplicated. Following the message is a list of the disk addresses with the same VOLID (cuu1, cuu2).

For DOSRES, VSE/SP automatically uses the address of the disk that was IPLed as DOSRES. The system displays the following message:

IESI0123I DASD WITH ADDRESS xxx WILL BE USED AS DOSRES

For VOLIDs SYSWKx, the system displays the following message:

IESI0121D ENTER ADDRESS OF DASD TO BE USED AS
SYSWKx: CUU

Enter the address (cuu) of the disk device you are using for VSE/SP installation.

cuu	(cuu - disk address of SYSWKx)

All other disk devices with the same VOLID are set in *device down* status. The system displays the following message:

IESI0124I FOLLOWING DEVICE(S) WILL BE SET IN DEVICE DOWN
STATUS: cuu1 cuu2 ...

The message is followed by a list of the disk addresses that are set in *device down* status (cuu1, cuu2 ...).

DEF SYSCAT=DOSRES,SYSREC=SYSWKx
0J10I IPL RESTART POINT BYPASSED

Time-Of-Day Clock

If the TOD (time-of-day) clock is not set, the system displays the following messages:

```
0I18D ENTER SET CMD
THE DATE VALUE FORMAT IS MM/DD/YY
```

Enter the SET DATE command.
For DATE=: mm is month, dd is day, yy is year.
For CLOCK=: hh is hour, mm is minutes, ss is seconds.

SET DATE=mm/dd/yy,CLOCK=hh/mm/ss

```
0I19A ENABLE SETTING OF TOD CLOCK
```

Enable the setting of the TOD clock via the enable TOD switch, the hardware selection menu, or mode select option.

```
SYS JA=YES
DLA VOLID=DOSRES,YYY=xxx,NYYY=x,DSF=N,NAME=AREA1
0I52I LABEL AREA ON cuu:       LOW       HIGH
              .....      xxx  x    xxx  xx
```

Users Not Installing Under VM

The system also displays the following messages:

```
DPD VOLID=DOSRES,CYL=xxx,NCYL=x,DSF=N
0I52I PDS EXT ON cuu:       LOW       HIGH
            CC HH:     xxx  x    xxx  xx
```

```
SVA PSIZE=nnnK,SDL=nnn,GETVIS=nnK
0J24I DASD SHARING SUPPORT RESET
0I20I IPL COMPLETE FOR VSE/AF 5666-301 V2 R1.0 ECLEV=nnnn
    SUPVR USERID IS:  VSE.xxx.SUPx
```

Users Installing Under VM

The system displays the following message:

BG 000 VMCF13I CMS - VSE/SP CONSOLE INTERFACE ACTIVATED

BG 000 ALLOC BG=xxxxK,Fn=xxxxK

...
... (additional ALLOC, SIZE, and PRTY statements)
...

BG 000 STOP

F1 001 // JOB IPWPOWER

DATE xx/xx/xx,CLOCK yy/yy/yy
F1 001 4301I NO FORMAT 1 LABEL FOUND IJSYSRC SYSREC=xxx
SYSWKx
F1 001 1I81I RECORDER FILE OPEN FAILED, RF=CREATE FORCED
F1 001 1I93I RECORDER FILE IS n% FULL

Additional Messages

Some systems may also display the following messages:

F1 001 4301I NO FORMAT 1 LABEL FOUND IJSYSCN SYSREC=xxx
SYSWKx
F1 001 1I94I HARDCOPY FILE OPEN FAILED, HC=CREATE FORCED

FBA Device Users

The system displays the following messages:

F1 001 1Q0BI BLOCKGROUP SIZE CHANGED OR SET TO nnn
F1 001 1Q17I QUEUE FILE TOO SMALL

F1 001 1Q20I AUTOSTART IN PROGRESS

F1 001 1R75I BG AUTOSTARTED
F1 001 1R75I F2 AUTOSTARTED

```
F1 001 1R75I  F3 AUTOSTARTED
F1 001 1R75I  F4 AUTOSTARTED
F1 001 1R75I  F5 AUTOSTARTED

F1 001 1Q12I  VSE/POWER INITIATION COMPLETED

F1 001 1Q34I  F3 WAITING FOR WORK
F1 001 1Q34I  F2 WAITING FOR WORK
F1 001 1Q34I  F4 WAITING FOR WORK
F1 001 1Q34I  F5 WAITING FOR WORK


BG 000 // JOB BGINIT

DATE xx/xx/xx,CLOCK yy/yy/yy
BG 000 * = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
BG 000 *
BG 000 *   INSTALLATION OF VSE/SP . . .
BG 000 *
BG 000 * = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
F1 001 1Q47I  BG DTRIINIT xxxxx FROM LOCAL , TIME=xx:xx:xx
BG 000 EOJ BGINIT    MAX.RETURN CODE=xxxx

DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz
```

Load the VSE/POWER Reader Queue

The job DTRIINIT loads installation jobs into the VSE/POWER reader queue.

```
BG 000 // JOB DTRIINIT LOAD VSE/POWER READER QUEUE

DATE xx/xx/xx,CLOCK yy/yy/yy
BG 000 1S47I  PRELEASE RDR,INSTALL WAS ISSUED
BG 000 EOJ DTRIINIT  MAX.RETURN CODE=xxxx

DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz
F1 001 1R88I  OK
```

Installation Job Stream Overview

One of the first installation jobs gathers information about your hardware and software configuration. You are asked to enter information about your system.

Periodically, you are asked if you want to continue. Enter YES to continue. If you enter NO, you will return to the point where you last answered YES. If you enter NO the first time the question is asked, you will return to the beginning of the installation job stream.

You have the option of installing VSE/SP optional programs during this part of initial installation or later using the Interactive Interface. Carefully review "Overview of Additional VSE Program Products" on page 11 before making your decision.

The installation job stream initializes the Job Manager and starts the controlled Job Manager sequence. If you have problems when the Job Manager has control, refer to "Job Manager Overview" on page 9.

If the installation job stream (INSTALL) itself cancels, you can run it again. Enter the following:

```
r rdr,install
```

VSE/SP Messages and Codes lists the messages that the system may display when the jobs run.

Installation Job Stream Processing

VSE/SP Install Program

```
F1 001 1Q47I  BG INSTALL xxxxx FROM LOCAL , TIME = xx:xx:xx
BG 000 // JOB INSTALL VSE/SP INSTALL PROGRAM

DATE xx/xx/xx,CLOCK yy/yy/yy
BG 000 IESI0056D ENTER ADDRESS OF TAPE DRIVE WHERE INSTALL TAPE
            IS MOUNTED: CUU

BG-000

   0 cuu                                (cuu  -  tape address where
                                                 VSE/SP tape is
                                                 mounted)


BG 000 IESI0063D AUTOMATIC INSTALLATION OF OPTIONAL PROGRAMS
            REQUIRED ?  YES/NO
BG-000

   0 xxx                                (xxx - yes or no)
```

Specify whether or not you want VSE/SP optional programs installed automatically during initial installation. There are **restrictions** concerning the installation of VSE/SP optional programs. Carefully review "Overview of Additional VSE Program Products" on page 11 before you enter your response.

If you answer **yes**, job streams are built which later install the VSE/SP optional programs. The tapes are **not** installed at this point. The actual installation is described in "Automatic Installation of VSE/SP Optional Programs" on page 51.

BG 000 IESI0051D ENTER YOUR TP ACCESS METHOD: BTAM OR VTAM
BG-000

0 xxxx (xxxx - btam or vtam)

Note: You should carefully consider your response. The telecommunications access method you select cannot be easily changed after the system is installed. VSE/SP uses this information in later configuration steps.

BG 000 IESI0062D CHECK YOUR ANSWERS. MAY WE CONTINUE ?
YES/NO
BG-000

0 xxx (xxx - yes or no)

BTAM-ES users turn to "Define BTAM-ES User Terminals" on page 35.

ACF/VTAM users turn to "Define ACF/VTAM User Terminals" on page 36.

Define BTAM-ES User Terminals

If you chose BTAM-ES for your TP access method, follow these instructions.

This step defines at least one, but not more than three, 3270 display terminals.

```
BG 000 IESI0058I TO START CICS/VS, YOU MAY DEFINE UP TO
               3 3270 TERMINALS
BG 000 IESI0059D ENTER A 3270 ADDRESS (CUU) OR "END"
BG-000

   0 cuu                                  (cuu - 3270 terminal address)

BG 000 IESI0059D ENTER A 3270 ADDRESS (CUU) OR "END"
BG 000

   0 cuu                                  (cuu - 3270 terminal address
                                               or END)

BG 000 IESI0059D ENTER A 3270 ADDRESS (CUU) OR "END"
BG-000

   0 cuu                                  (cuu - 3270 terminal address
                                               or END)
```

If you enter a third 3270 address, the terminal definition session ends.

```
BG 000 IESI0062D CHECK YOUR ANSWERS. MAY WE CONTINUE ? YES/NO
BG-000

   0 xxx                                  (xxx - yes or no)

BG 000 EOJ INSTALL   MAX.RETURN CODE=xxxx

DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz
```

BTAM-ES users turn to "Catalog Hardware Information" on page 39.

Define ACF/VTAM User Terminals

If you chose ACF/VTAM as your TP access method, follow these instructions. You enter information about your 3270 terminals and control unit.

If you have a SNA control unit installed, you should respond **yes** to the first message below.

Review *VSE/SP Networking* for more information about System Network Architecture.

```
BG 000 IESI0065D IS THE LOCAL CONTROL UNIT AN SNA CU ? YES/NO
BG-000

   0 xxx                                    (xxx - yes or no)
```

If you enter **yes**, turn to "Local SNA ACF/VTAM Users" on page 37.

If you enter **no**, continue with "Local Non-SNA ACF/VTAM Users."

Local Non-SNA ACF/VTAM Users

Local non-SNA ACF/VTAM users must define at least one, but not more than three, local ACF/VTAM display terminals.

```
BG 000 IESI0104I DEFINE UP TO 3 LOCAL ACF/VTAM TERMINALS
BG 000 IESI0109D ENTER A 3270 ADDRESS (CUU) OR "END"
BG-000

   0 cuu                                    (cuu - 3270 terminal address)
```

```
BG 000 IESI0059D ENTER A 3270 ADDRESS (CUU) OR "END"
BG-000

   0 cuu                                    (cuu - 3270 terminal address
                                                   or END)
```

```
BG 000 IESI0059D ENTER A 3270 ADDRESS (CUU) OR "END"
BG-000

   0 cuu                                    (cuu - 3270 terminal address
                                                   or END)
```

If you enter a third 3270 address, the terminal definition session ends.

BG 000 IESI0062D CHECK YOUR ANSWERS. MAY WE CONTINUE ? YES/NO
BG-000

0 xxx (xxx - yes or no)

BG 000 EOJ INSTALL MAX.RETURN CODE = xxxx

DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz

Turn to "Catalog Hardware Information" on page 39.

Local SNA ACF/VTAM Users

You have selected ACF/VTAM with a local SNA control unit. You will define your control unit and at least one, but not more than three, local 3270 display terminals.

BG 000 IESI0071D ENTER ADDRESS OF 3270 CONTROL UNIT: CUU

0 cuu (cuu - control unit address)

BG 000 IESI0066I DEFINE TERMINAL TYPE ATTACHED TO THIS
CONTROL UNIT
BG 000 IESI0067D ENTER 3277-2, 3278-2, 3278-3, 3278-4,
3279-2 OR 3279
BG-000

0 327x-y (327x-y - display terminal type)

BG 000 IESI0064I DEFINE UP TO 3 LOCAL ACF/VTAM TERMINALS
BG 000 IESI0073D ENTER PORT NUMBER OF A 3270 TERMINAL
(0 TO 31) OR "END"
BG-000

0 xxx (xxx - port number)
(0 to 31)

BG 000 IESI0073D ENTER PORT NUMBER OF A 3270 TERMINAL
(0 TO 31) OR "END"
BG-000

0 xxx (xxx - port number)
(0 to 31 or **END**)

BG 000 IESI0073D ENTER PORT NUMBER OF A 3270 TERMINAL
(0 TO 31) OR "END"
BG-000

0 xxx (xxx - port number)
(0 to 31 or **END**)

If you enter a third 3270 address, the terminal definition session ends.

BG 000 IESI0062D CHECK YOUR ANSWERS. MAY WE CONTINUE ?
YES/NO
BG-000

0 xxx (xxx - yes or no)

BG 000 EOJ INSTALL MAX.RETURN CODE = **xxxx**

DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz

Catalog Hardware Information

The job DTRIHARD catalogs hardware information from the IPL procedure.

```
F1 001 1Q47I  BG DTRIHARD 000xx FROM LOCAL , TIME=xx:xx:xx
BG 000 // JOB DTRIHARD CATALOG HARDWARE RELATED INFORMATION

DATE xx/xx/xx,CLOCK yy/yy/yy
BG 000 EOJ DTRIHARD  MAX.RETURN CODE=xxxx

DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz
```

Catalog ASI IPL Procedure

The job DTRIASI catalogs the ASI IPL procedure.

Under some circumstances, the job may complete with a return code of 8. This is **not** an error.

```
F1 001 1Q47I  BG DTRIASI 000xx FROM LOCAL , TIME=xx:xx:xx
BG 000 // JOB DTRIASI CATALOG ASI IPL PROCEDURE

DATE xx/xx/xx,CLOCK yy/yy/yy
BG 000 EOJ DTRIASI  MAX.RETURN CODE=xxxx

DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz
```

Assign BTAM-ES Terminals

The job DTRIBTAM runs for **BTAM-ES users** only. It assigns the terminals for CICS/DOS/VS startup.

```
F1 001 1Q47I  BG DTRIBTAM 000xx FROM LOCAL , TIME=xx:xx:xx
BG 000 // JOB DTRIBTAM CREATE BTAM STARTUP ASSIGNMENTS

DATE xx/xx/xx,CLOCK xx/xx/xx
BG 000 EOJ DTRIBTAM  MAX.RETURN CODE=xxxx

DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz
```

Catalog ACF/VTAM Startup Information

The job DTRIVTAM runs for **ACF/VTAM users** only. It catalogs ACF/VTAM startup information.

```
F1 001 1Q47I  BG DTRIVTAM 000xx FROM LOCAL , TIME = xx:xx:xx
BG 000 // JOB DTRIVTAM CREATE VTAM STARTUP BOOK  ...

DATE xx/xx/xx,CLOCK yy/yy/yy
BG 000 EOJ DTRIVTAM  MAX.RETURN CODE = xxxx

DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz
```

Build List of Jobs

The job DTRIJBLD builds the list of jobs that will run.

```
F1 001 1Q47I  BG DTRIJBLD 000xx FROM LOCAL , TIME = xx:xx:xx
BG 000 // JOB DTRIJBLD BUILD ORDERED JOB LIST

DATE xx/xx/xx,CLOCK yy/yy/yy
BG 000 EOJ DTRIJBLD  MAX.RETURN CODE = xxxx

DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz
```

Job Manager Processing

A number of jobs now run. The Job Manager automatically releases the jobs. Most jobs do not require any user responses.

Do **not** cancel any of the jobs that are running. If you do, Job Manager processing is interrupted. Refer to "Job Manager Overview" on page 9 for information about the VSE/SP Job Manager.

Create Print Buffers

The job LFCBLINK creates a forms control buffer (FCB) and universal character set buffer (UCB) for your printer. You also have the option of not creating either an FCB or a UCB.

> **Users Installing Under VM**
>
> If you have a dedicated real printer, you **must** create a UCB.
> If your physical print device is **not** dedicated, you can create an FCB, but you **cannot** create a UCB.

```
F1 001 1Q47I  BG LFCBLINK 000xx FROM LOCAL , TIME = xx:xx:xx
BG 000 // JOB LFCBLINK
DATE xx/xx/xx,CLOCK yy/yy/yy

BG 000 *  EXECUTE THE PROCEDURE FOR THE FORMS CONTROL BUFFER
          THAT
BG 000 *  YOU WANT LOADED INTO YOUR PRINTER OR IF NOT REQUIRED
BG 000 *  EXECUTE THE PROCEDURE FOR THE CHARACTER SET BUFFER
          YOU
BG 000 *  WANT LOADED INTO YOUR PRINTER. IF NEITHER IS REQUIRED
BG 000 *  REPLY "0 (END/ENTER)".
BG 000 // PAUSE
BG 000
```

You can enter a FCB **or** UCB procedure name. The names are shown in Figure 4 on page 42 and Figure 5 on page 42. You have three choices:

1. If you want to create an FCB, enter the FCB procedure name. After creating the FCB, you have the option of also creating a UCB.

2. If you do not want an FCB, but you want to create a UCB, enter the UCB procedure name.

3. If you do not want either, enter **0** .

0 exec proc = xxxxxxxx (xxxxxxxx - procedure name)

OR

0 (no FCB or UCB created)

The following two figures list the procedure names for the FCBs and UCBs.

*Note: The lower case letter "**l**" looks like the numeral **1**. Because of this, the letter **l** is capitalized **L** in the procedure names in this step to avoid confusion. You do not have to enter an upper case **L**.*

	6 LPI 11 inch page	6 LPI 12 inch page	8 LPI 8.5 inch page
3211	Lfcb611a	Lfcb612a	Lfcb885a
3203-4/5	Lfcb611c	Lfcb612c	Lfcb885c
3262	Lfcb611e	Lfcb612e	Lfcb885e
3289-4	Lfcb611f	Lfcb612f	Lfcb885f
4245	Lfcb611g	Lfcb612g	Lfcb885g
1403U	No Entry Required	No Entry Required	No Entry Required

Figure 4. Procedure Names for FCBs

PRINTER		UCB PROCEDURE NAME
3211	(P11 Train)	Lucbp11a
3203-4/5	(PN Train)	Lucbpnc
3262	(48 Character Belt)	Lucb48e
3262	(63 Character Belt)	Lucb63p
3262	(96 Character Belt)	Lucb96e
3289-4	(48 Character Belt)	Lucb48f
1403U	(PN Train)	Lucbpng
4245		No Entry Required

Figure 5. Procedure Names for UCBs

FCB Procedure

If you enter an FCB procedure name, the system displays:

```
BG 000 * THIS PROC WILL ASSEMBLE, LINK, AND CATALOG
         $$BFCBxx FCB PHASE FOR
BG 000 * xx INCH LONG PAPER WITH A LINE DENSITY OF
         x LINES PER INCH
BG 000 * FOR THE PRINTER TYPE : xxxx
BG 000 *
BG 000 * EXECUTE THE PROCEDURE FOR THE CHARACTER SET
         BUFFER YOU WANT
BG 000 * LOADED INTO YOUR PRINTER OR REPLY
          "0 (END/ENTER)" IF NONE
BG 000 * IS REQUIRED.
BG 000 EOP LFCBxxxx
BG-000
```

If you want to create a UCB now, enter the UCB procedure name for your printer type. The names are shown in Figure 5.

0 exec proc=Lucbyyyy (Lucbyyyy - UCB procedure name

If you **do not** want a UCB, enter:

0

UCB Procedure

If you enter a UCB procedure name, the system displays:

```
BG 000 * THIS PROC WILL LINK, AND CATALOG THE UCB PHASE:
       $$BUCBxx
BG 000 * FOR A PRINTER TYPE : xxxx WITH A xx-YYYYYYY YYYYY
BG 000 *
BG 000 * ENTER THE LUCB ATTENTION COMMAND TO LOAD
       YOUR CHARACTER SET
BG 000 * BUFFER INTO THE PRINTER. ONCE THAT IS COMPLETED
       REPLY
BG 000 *  "0 (END/ENTER)" TO CONTINUE.
BG 000 EOP LUCBxxxx
BG-000
```

Enter the LUCB attention command for your printer type. The commands are shown below in Figure 6. Replace **cuu** with the address of your real printer.

```
Lucb cuu,$$bucbxx,nochk,yyyy


AR 015 1I40I READY
BG-000

0
```

PRINTER	LUCB ATTENTION COMMAND
3211	Lucb cuu,$$bucb,nochk,fold
3203-4/5	Lucb cuu,$$bucb00,nochk,fold
3262 (48 character)	Lucb cuu,$$bucb22,nochk,fold
3262 (63 character)	Lucb cuu,$$bucb22,nochk
3262 (96 character)	Lucb cuu,$$bucb22,nochk
3289-4	Lucb cuu,$$bucb10,nochk,fold
1403U	Lucb cuu,$$bucb4,nochk,fold
4245	Not Applicable

Figure 6. LUCB Attention Commands

```
BG 000 EOJ LFCBLINK  MAX.RETURN CODE=xxxx
DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz
```

Start VSE/POWER Printer

The address (cuu) you use to start a VSE/POWER printer must either be a real physical device address or, for VM users, a virtual device.

If you have not loaded the correct FCB and/or UCB for the printer (cuu), then you **should not** start the printer at this time.

Start your printer by entering:

```
s lst,cuu,a                                    (cuu - device address)
```

F1 001 1Q34I LST WAITING FOR WORK ON cuu

Users Installing Under VM

You can use the following command to start the printer:

```
s lst,cuu,a,,vm                                (cuu - device address)
```

This starts a list-writer task to print spooled list output to the virtual printer with address cuu. The *vm* operand tells VSE/POWER that the device is a virtual device owned by VM. If you do not specify *vm*, output is not available to VM until the VSE operator issues a *CP CLOSE* for the device.

VSE/POWER Installation and Operations Guide describes the PSTART command in detail.

The operands in the *S LST* command are positional. You **must** insert the two commas (,,) between the *a* and *vm*.

Review the following information about the printer:

1. If the printer has an FCB, the system displays the following message:

   F1 016 1B19I X'cuu' LFCB WITH PHASE nnnnn EXECUTED

2. If you do not start the printer as a VM writer task, the system displays the following message when the first job with printer output ends:

   F1 001 1Q40A ON cuu FORMS NEEDED FOR nnnnnnnn nnnnn

   When this message is displayed, enter the PGO command:

   ```
   g cuu                          (cuu - real VSE/POWER
                                  printer address)
   ```

3. If your real printer address is a different device type than PRT1, the system displays the following message whenever a print job is sent to the printer:

   1Q41I WRONG PRINTER/PUNCH FOR XXX YYY, cuu

   You can avoid this message by ensuring that the dummy POWER printer device FEE has the same device type as your:

   - Real printer.
   - VM virtual printer.

Restore System History File

The job HISTREST restores the system history file.

```
F1 001 1Q47I   BG HISTREST 000xx FROM LOCAL , TIME=xx:xx:xx
BG 000 // JOB HISTREST RESTORE SYSTEM HISTORY FILE

DATE xx/xx/xx,CLOCK yy/yy/yy
BG 000 EOJ HISTREST  MAX.RETURN CODE=xxxx

DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz
```

Define VSAM Catalogs, Space, and Clusters

The job VSAMDEFS defines the VSAM master catalog, a VSAM user catalog, VSAM space, and clusters. The error message and a return code of 8 are expected.

```
F1 001 1Q47I   BG VSAMDEFS 000xx FROM LOCAL , TIME=xx:xx:xx
BG 000 // JOB VSAMDEFS - DEFINE VSAM MCAT, UCAT SPACE
                                AND CLUSTERS

DATE xx/xx/xx,CLOCK yy/yy/yy

BG 000 * THIS JOB WILL DEFINE THE VSAM MASTER CATALOG, A USER
BG 000 * CATALOG, VSAM DATA SPACE, AND VSAM CLUSTERS.
           FIRST TIME
BG 000 * EXECUTION WILL RESULT IN A VSAM OPEN ERROR X'B4' (180)
BG 000 * ON FILE IJSYSCT AND A RETURN CODE OF 8, WHICH CAN BE
BG 000 * IGNORED.

BG 000 4228I FILE IJSYSCT    OPEN  ERROR X'B4'(180)
BG 000 EOJ VSAMDEFS  MAX.RETURN CODE=0008

DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz
```

Define Libraries and Sublibraries

The job LIBRDEFS defines the necessary libraries and sublibraries for VSE/SP.

```
F1 001 1Q47I  BG LIBRDEFS 000xx FROM LOCAL , TIME = xx:xx:xx
BG 000 // JOB LIBRDEFS DEFINE LIBRARIES AND SUBLIBRARIES

DATE xx/xx/xx,CLOCK yy/yy/yy
BG 000 EOJ LIBRDEFS  MAX.RETURN CODE = xxxx

DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz
```

Dismount the first VSE/SP tape labelled *VSE/SP2.1.0.TAPE1.*

Mount and ready the second VSE/SP tape labelled *VSE/SP2.1.0.TAPE2* **on the same tape drive.**

Restore VSE/SP DTSFILE

The job ICCFREST restores the VSE/SP supplied ICCF DTSFILE.

```
F1 001  1Q47I  BG ICCFREST 000xx FROM LOCAL , TIME = xx:xx:xx
BG 000 // JOB ICCFREST RESTORE THE VSE/SP ICCF DTSFILE

DATE xx/xx/xx,CLOCK yy/yy/yy

BG 000 *  PLEASE MOUNT THE TAPE LABELLED "VSESP2.1.0.TAPE2"
BG 000 *  ON TAPE DRIVE CUU
BG 000 // PAUSE  WHEN READY, REPLY "0 (END/ENTER)"
BG-000
```

0

```
BG 000 * PLEASE REPLY "0 GO" TO MESSAGE K238D
BG 000 K237I LIBRARY REALLOCATION FROM nnnn TO mmmm
BG 000 K236I USER REALLOCATION FROM xxxx TO yyyy
BG 000 K235I RESTORE FROM BACKUP OF mm/dd/yy hh.mm.ss
BG 000 K238D RESPOND 'GO' TO RESTORE /  'NOGO' TO IGNORE
BG-000
```

0 go

```
BG 000 EOJ ICCFREST  MAX.RETURN CODE = xxxx

DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz
```

Punch Install Information to DTSFILE

The job ICCFLOAD adds required VSE/SP information to the VSE/SP supplied ICCF DTSFILE.

```
F1 001 1Q47I  BG ICCFLOAD 000xx FROM LOCAL , TIME = xx:xx:xx
BG 000 // JOB ICCFLOAD PUNCH INSTALL INFO TO ICCF LIBRARY

DATE xx/xx/xx,CLOCK yy/yy/yy
BG 000 K246I AT LEAST ONE DTSUTIL COMMAND FAILED
BG 000 EOJ ICCFLOAD  MAX.RETURN CODE = xxxx

DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz
```

Install VSE/SP Library

The job BASEREST installs the VSE/SP sublibrary PRD1.BASE.

```
F1 001 1Q47I  BG BASEREST 000xx FROM LOCAL , TIME = xx:xx:xx
BG 000 // JOB BASEREST - RESTORE SUB-LIBRARY PRD1.BASE

DATE xx/xx/xx,CLOCK yy/yy/yy
BG 000 EOJ BASEREST  MAX.RETURN CODE = xxxx

DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz
```

Initialize and Load VSAM Files

The job VSAMINIT initializes and loads VSAM files needed by VSE/SP.

Under some circumstances, the job may complete with a return code of 8. This is **not** an error.

```
F1 001 1Q47I  BG VSAMINIT 000xx FROM LOCAL , TIME = xx:xx:xx
BG 000 // JOB VSAMINIT INITIALIZE AND LOAD VSAM FILES

DATE xx/xx/xx,CLOCK yy/yy/yy
BG 000 EOJ VSAMINIT  MAX.RETURN CODE = xxxx

DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz
```

Initialize Work File

The job DUMPINIT initializes the Info/Analysis work files.

```
F1 001 1Q47I  BG DUMPINIT 000xx FROM LOCAL , TIME=xx:xx:xx
BG 000 // JOB DUMPINIT - INITIALIZE INFO/ ANALYSIS WORK FILES
DATE xx/xx/xx,CLOCK yy/yy/yy

BG 000 EOJ DUMPINIT  MAX.RETURN CODE=xxxx
DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz
```

Catalog Members Into VSE/SP Libraries

The job SAVEMEMB catalogs members into PRD2.CONFIG and PRD2.SAVE.

Under some circumstances, the job may complete with a return code of 4. This is **not** an error.

```
F1 001 1Q47I  BG SAVEMEMB 000xx FROM LOCAL , TIME=xx:xx:xx
BG 000 // JOB SAVEMEMB CATALOG MEMBERS INTO PRD2.CONFIG AND
       PRD2.SAVE

DATE xx/xx/xx,CLOCK yy/yy/yy
BG 000 EOJ SAVEMEMB  MAX.RETURN CODE=xxxx

DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz
```

Dismount the second VSE/SP tape labelled *VSE/SP2.1.0.TAPE2*

Overview of Remaining Initial Installation Processing

The remaining initial installation tasks are different depending on whether or not you are installing VSE/SP optional programs during initial installation. You were asked about installing VSE/SP optional programs in "VSE/SP Install Program" on page 33.

If you answered **no**, turn to "Telecommunications Access Method and CICS/ICCF Startup" on page 57 to continue.

If you answered **yes**, two things now occur **at the same time** on the system.

1. The job TPSTART runs. This starts ACF/VTAM (for ACF/VTAM users), CICS/DOS/VS, and VSE/ICCF.

2. The job OPTSCAN runs. It scans VSE/SP optional program tapes and creates the jobs which install the optional programs.

Because these two jobs run at the same time, the messages from the different partitions appear together on the console. It is recommended that you review the information for TPSTART in "Telecommunications Access Method and CICS/ICCF Startup" on page 57. However, you should carefully follow the instructions for the OPTSCAN job in "Automatic Installation of VSE/SP Optional Programs" on page 51. TPSTART does not require any user response, but the task to install the VSE/SP optional programs asks you to mount tapes and answer system messages.

Turn to "Automatic Installation of VSE/SP Optional Programs" on page 51 to install the optional programs. Review the terminal screen carefully to see the messages and required responses for the job.

Automatic Installation of VSE/SP Optional Programs

The job OPTSCAN scans the tape and creates jobs which install the VSE/SP optional programs. You may have only one tape to install or several tapes. The job automatically installs any number of tapes.

The flow of the installation process is:

1. You are asked to mount the first VSE/SP optional program tape.
2. The tape is scanned. The job stream makes sure the tape format is correct and that there is enough space in library PRD2.

   Note: If there is a problem with the tape format **or** *there is* **not** *enough space, a message is displayed informing you of this. The optional programs are* **not** *installed and the job stream ends. Use the dialog Install Programs - (V2 Format) to install the tape.*
3. You are asked if you will have another tape to install after this one.
4. Jobs for the installation are built.
5. VSE/SP optional programs on the current tape are installed.
6. If you have another tape, the current tape is unloaded. You are asked to mount the next tape. The installation continues with step 2 above.
7. When the last tape is processed, two jobs run for cleanup activities.

Mount the first tape *VSE/SP2.1.0.OPTPROG NUMBER 1.* Use the **same** tape drive you used for the other VSE/SP tapes. **Do not reposition or dismount the tape until you are told to do so.**

```
F1 001 1Q47I  BG OPTSCAN 000xx FROM LOCAL , TIME = xx:xx:xx
BG 000 // JOB OPTSCAN SCAN THE OPTIONAL PROGRAM TAPE

DATE xx/xx/xx,CLOCK yy/yy/yy

BG 000 *  PLEASE MOUNT THE TAPE LABELED "VSE/SP2.1.0.OPTPROG
       NUMBER X"
BG 000 *  ON TAPE DRIVE CUU
BG 000 // PAUSE  WHEN READY, REPLY "0 (END/ENTER)"
BG-000
```

When the tape is ready, enter:

```
0
```

Scan the Tape

The job scans the tape. It checks if the tape has the correct format. It also makes sure there is enough space in the PRD2 library to install all the optional programs on the tape.

Automatic Install Terminated

If the system displays any of the following messages, follow these instructions.

IESI0089I UNSUPPORTED BACKUP TAPE FORMAT

IESI0088I INSUFFICIENT LIBRARY SPACE TO INSTALL ALL PRODUCTS ON TAPE

IESI0094I AUTOMATIC INSTALL TERMINATED. INSTALL VIA VSE/SP DIALOGS.

There is either a problem with the tape format or there is not enough space in library PRD2. This is not a problem. Install the tape after initial installation is complete using the *Install Programs - (V2 Format)* dialog. This is described in "Install Additional VSE Program Products" on page 69.

The OPTSCAN job now ends with a return code that is **not** equal 0.

BG 000 EOJ OPTSCAN MAX.RETURN CODE=xxxx
DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz

The TPSTART job was running at the same time as the OPTSCAN job. If VSE/ICCF, ACF/VTAM (for ACF/VTAM users), and CICS/DOS/VS are started, you can continue with "Complete Initial Installation" on page 61.

If the scan completes successfully, the system displays the following message. The job is still processing the tape that is mounted. However, it needs to know if you will install an additional tape after this one.

```
BG 000 IESI0190A ARE THERE ANY MORE OPTIONAL PROGRAM TAPES ? YES/NO
BG-000
```

If you **will** install another tape, enter:

```
yes
```

If you **will not** install another tape, enter:

```
no
```

You Will Install Another Tape

If you answered YES, the system displays the following message:

```
IESI0095I YOU WILL BE ASKED FOR TAPE MOUNT IF CURRENT
      TAPE IS INSTALLED
```

```
BG 000 EOJ OPTSCAN  MAX.RETURN CODE=xxxx
DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz
```

Build List of Installation Jobs

The job OPTIBLDx builds the list of jobs that install the VSE/SP optional programs. In the job name, *x* is the number of the tape that is being installed.

```
F1 001 1Q47I  BG OPTIBLDx 000xx FROM LOCAL , TIME=xx:xx:xx
BG 000 // JOB OPTIBLDx BUILD JOB MANAGER LIST

DATE xx/xx/xx,CLOCK yy/yy/yy
BG 000 EOJ OPTIBLDx  MAX.RETURN CODE=xxxx

DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz
```

Install Each VSE/SP Optional Program

The job OPTINxyy installs each VSE/SP optional program. In the job name, *x* is the number of the tape and *yy* is the number of the optional program on the tape.

As an example, OPTIN102 means that the second (02) optional program on the first tape (1) is being installed.

If you install a VSE/SP optional program which contains a generation sublibrary, the system displays the messages:

- M235I
- M089D

Enter ***GO*** to continue with the installation.

You can determine whether a particular VSE program product contains a generation sublibrary by reviewing the documentation which is shipped with the program product.

```
F1 001 1Q47I  BG OPTINxyy 000xx FROM LOCAL , TIME=xx:xx:xx
BG 000 // JOB OPTINxyy INSTALLS 'optional program name'
DATE xx/xx/xx,CLOCK yy/yy/yy

BG 000 * *
BG 000 * *   THIS IS JOB yy OF TAPE NUMBER x
BG 000 * *   INSTALLING 'optional program name'
BG 000 * *

BG 000 EOJ OPTINxyy  MAX.RETURN CODE=xxxx

DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz
```

Install Additional Tape

If you have another tape to install, the job OPTISCNx runs. The job rewinds and unloads the current tape and asks you to mount the next tape.

In the job name OPTISCNx, *x* is the number of the next tape that will be installed.

```
F1 001 1Q47I  BG OPTISCNx 000xx FROM LOCAL , TIME = xx:xx:xx
BG 000 // JOB OPTISCNx HANDLE NEXT OPTIONAL PROGRAM
       TAPE

DATE xx/xx/xx,CLOCK yy/yy/yy

BG 000 * *
BG 000 * *   ALL PROGRAMS FROM TAPE x
BG 000 * *   ARE SUCCESSFULLY INSTALLED NOW
BG 000 * *
BG 000 *** PLEASE MOUNT THE TAPE LABELED
       "VSE/SP2.1.0.OPTPROG NUMBER X"
BG 000 *** ON TAPE DRIVE cuu
BG 000 * *
```

Dismount the tape on the drive. Mount the next VSE/SP optional program tape. Use the **same** tape drive.

```
BG 000 EOJ OPTISCNx  MAX.RETURN CODE = xxxx
DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz
```

The installation of the next tape begins. Return to "Scan the Tape" on page 52 to follow the job flow for this tape.

After all VSE/SP optional program tapes are installed, two jobs run.

In the job name OPTINx99, *x* is the number of the last tape that was installed.

Note: During the task "Complete Initial Installation" on page 61, you must complete VSE/SP optional program installation using a dialog. This is described in "Complete VSE/SP Optional Program Installation" on page 64.

```
F1 001 1Q47I  BG OPTINx99 000xx FROM LOCAL , TIME=xx:xx:xx
BG 000 // JOB OPTINx99 FINAL ACTIVITIES

DATE xx/xx/xx,CLOCK yy/yy/yy
BG 000 EOJ OPTINx99  MAX.RETURN CODE=xxxx

DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz
```

```
F1 001 1Q47I  BG OPTCLNUP 000xx FROM LOCAL , TIME=xx:xx:xx
BG 000 // JOB OPTCLNUP CLEANUP OF OPTIONAL PROGRAM INSTALL

DATE xx/xx/xx,CLOCK yy/yy/yy

BG 000 * *
BG 000 * *  ALL OPTIONAL PROGRAM TAPES ARE SUCCESSFULLY
            INSTALLED
BG 000 * *  INITIAL INSTALLATION IS NOW FINISHED
BG 000 * *  TO COMPLETE INSTALL PROCESS USE VSE/SP DIALOGS
BG 000 * *

BG 000 EOJ OPTCLNUP  MAX.RETURN CODE=xxxx
DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz
```

The job TPSTART to start VSE/ICCF, ACF/VTAM (for ACF/VTAM users), and CICS/DOS/VS should have also completed. This is described in "Telecommunications Access Method and CICS/ICCF Startup" on page 57.

To continue, turn to "Complete Initial Installation" on page 61.

Telecommunications Access Method and CICS/ICCF Startup

Several things occur at the same time during this task. Messages from different partitions are displayed on the console. Review the console screen carefully to see the various messages.

The job TPSTART runs. It has several steps. For ACF/VTAM users, it releases the job VTAMSTRT which starts an ACF/VTAM partition. The partition controls the ACF/VTAM terminals defined earlier in the installation. VTAMSTRT does not run for BTAM-ES users.

TPSTART also releases the job CICSICCF. This job runs for all users. It starts up CICS/DOS/VS and VSE/ICCF.

If you **did not** install VSE/SP optional programs during initial installation, the job CLEANUP runs. It completes initial installation processing.

Note: The messages for this task may appear on your screen in a different order than what is shown in this book.

```
F1 001 1Q47I  BG TPSTART 000xx FROM LOCAL , TIME=xx:xx:xx
BG 000 // JOB TPSTART START ICCF, CICS AND VTAM (IF APPLICABLE)

DATE xx/xx/xx,CLOCK yy/yy/yy
```

ACF/VTAM Users

The system displays the following messages:

```
BG 000 1S47I  PRELEASE RDR,VTAMSTRT WAS ISSUED
F1 001 1R88I  OK

F1 001 1Q47I  F3 VTAMSTRT 000xx FROM LOCAL, TIME=xx:xx:xx
F3 003 // JOB VTAMSTRT START UP VTAM

DATE xx/xx/xx,CLOCK yy/yy/yy
F1 001 1R88I  OK
```

```
BG 000 1S47I  PRELEASE RDR,CICSICCF WAS ISSUED
F1 001 1Q47I  F2 CICSICCF 000xx FROM LOCAL , TIME=xx:xx:xx

F2 002 // JOB CICSICCF CICS/ICCF STARTUP

DATE xx/xx/xx,CLOCK yy/yy/yy
BG 000 EOJ TPSTART   MAX.RETURN CODE=xxxx

DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz
```

ACF/VTAM Users

The system displays the following messages:

```
F3 018 5A17I UNABLE TO LOAD PHASE ISTEXCVR
F3 018 5A17I UNABLE TO LOAD PHASE ISTSDCOS

F3 018 5D15I VTAM INTERNAL TRACE ACTIVE - MODE = INT,
         SIZE = 002, OPTIONS = API PIU MSG
F3 018 5A93I VTMAPPL ACTIVE
F3 018 5A93I VTMSNA ACTIVE
F3 018 5A93I VTMNSNA ACTIVE

F3 018 5D42I SLU D72xxxx HAS CONTROLLING PLU DBDCCICS -
         NO SESSION - CODE = 12

F3 018 5A93I VTMCA1 ACTIVE
F3 018 5A93I VTMCA2 ACTIVE
F3 018 5A93I VTMCA3 ACTIVE
F3 018 5A93I VTMPATH ACTIVE
F3 018 5A93I VTMCDRM ACTIVE
F3 018 5A93I VTMCDRS ACTIVE
F3 018 5A93I VTMSW1 ACTIVE

F3 018 5A20I VTAM INITIALIZATION COMPLETE

F3 018 5C64I SESSION SETUP FOR PLU = DBDCCICS
         SLU = D72xxxx FAILED - REQUIRED RESOURCE
         D72xxxx UNDEFINED

   ...
   ...   (additional SESSION SETUP messages may be
   ...    displayed)


F3 018 5C64I SESSION SETUP FOR PLU = DBDCCICS
         SLU = P42xxxx FAILED - REQUIRED RESOURCE
         P42xxxx UNDEFINED
```

Completing the Job Manager

The job CLEANUP completes initial installation processing. Messages from job CLEANUP may be displayed with messages from the CICS/ICCF startup job.

If you successfully installed at least one VSE/SP optional program tape, CLEANUP does not run. Instead, the job OPTCLNUP ran to complete initial installation processing.

```
F1 001 1Q47I  BG CLEANUP 000xx FROM LOCAL , TIME = xx:xx:xx
BG 000 // JOB CLEANUP

DATE xx/xx/xx,CLOCK yy/yy/yy

BG 000 *  INITIAL INSTALL PROCESSING IS NOW FINISHED.
BG 000 *  COMPLETION OF THE
BG 000 *  INSTALL PROCESS MUST BE PERFORMED USING THE
          VSE/SP DIALOGS.

BG 000 EOJ CLEANUP   MAX.RETURN CODE = xxxx

DATE xx/xx/xx,CLOCK yy/yy/yy,DURATION zz/zz/zz
```

```
F2 002 K002I  BEGIN ICCF INITIALIZATION FOR TERMINAL SYSTEM
F2 002 K006I  INITIALIZATION OF DTSFILE PARAMETERS IN PROGRESS
F2 002 K481I  DYNAMIC FILE SPACE INITIALIZATION BYPASSED


F2 002 K001I  DEVICE TYPE IS xxxx
F2 002 K088I  HI FILE RECORDS =  xxx,yyy (zz%)
F2 023 K029I  ICCF INITIALIZED, NEXT MESSAGES FROM TERMINAL CONTROL


F2 023 DFH1500 - CICS/DOS/VS VERSION 1.6, START-UP IS IN PROGRESS.
F2 023 DFH1501 - DFHSITSP IS BEING LOADED
F2 023 DFH1500 - LOADING CICS NUCLEUS
F2 023 DFH1500 - CICS START-UP IS COLD


F2 023 DFH1500 - OPENING INTRAPARTITION ACB
F2 023 DFH1500 - INITIALIZING INTRAPARTITION STORAGE
F2 023 DFH1500 - TRANSIENT DATA SETS ARE BEING OPENED
F2 023 DFH1500 - DATA BASE DATA SETS ARE BEING OPENED
```

```
F2 023 DFH1500 - TERMINAL DATA SETS ARE BEING OPENED
F2 023 DFH1500 - DUMP DATA SET IS BEING OPENED
F2 023 DFH1500 - INITIALIZING TEMPORARY STORAGE
F2 023 DFH1500 - SUBPOOL SIZE BEFORE LOADING RESIDENT
                 PROGRAMS IS  xxxxK

F2 023 DFH1500 - CPU-TERMINAL SUPPORT AVAILABLE
F2 023 DFH1500 - STXIT MACROS ARE BEING ISSUED
F2 023 DFH1500 - PROCESSING RESIDENT PROGRAMS
F2 023 DFH1500 - SUBPOOL SIZE FOR THIS START-UP IS  xxxxK
F2 023 DFH1500 - CONTROL IS BEING GIVEN TO CICS
```

When control has been given to CICS/DOS/VS, the system is available. This is indicated by the message:

```
F2 023 DFH1500 - CONTROL IS BEING GIVEN TO CICS
```

Turn to "Complete Initial Installation" on page 61 to continue.

Complete Initial Installation

You now complete VSE/SP initial installation. This must be performed before you do any optional installation tasks or use the VSE/SP system. If you do not complete this task, your system may not operate properly.

For this task, you use the Interactive Interface. VSE/SP has a special user-id and password that is used **only** for this task.

The one, two, or three terminals which you specified during initial installation will display the VSE/SP sign-on panel, if they were powered on during system startup.

Sign on to the Interactive Interface with the POST user-id. On the VSE/SP ONLINE panel, enter:

```
USER-ID.... = = >    post
PASSWORD... = = >    base
```

Note: When you start up the system after initial installation, all terminals which are powered on will display the sign-on panel. If you are using BTAM-ES and a terminal is powered on **after** *CICS/DOS/VS is started, you must press* ENTER *to display the sign-on panel.*

When you sign on, the system internally loads VSE/SP files and defines system tables. This processing takes several minutes. You do not have to enter any information. The tables are needed for Interactive Interface processing and for completing the hardware configuration.

Enter Personalized Information

The dialog now asks you to enter unique installation data. The information you type in on the panels must be enclosed in single quotes.

On the first panel, enter your name:

```
'xxx'                          (xxx - customer name)
```

On the second panel, enter your address:

```
'xxx'                          (xxx - customer address)
```

On the third panel, enter your telephone number:

```
'xxx'                          (xxx - telephone number)
```

Enter the name of the person who is responsible for maintaining the system. This is usually the system administrator. On the fourth panel, enter:

```
'xxx'                          (xxx - programmer name)
```

The dialog creates a job with the name FIRSTUSE. The job is automatically submitted to the VSE system. The system displays the following message:

JOB HAS BEEN SUBMITTED AND FILED AS FIRSTUSE

The dialog now processes information about your hardware configuration. Follow the instructions below in "Complete the Hardware Table."

Note: The Interactive Interface has the Personalize History File dialog to update MSHP data. If you need to change any MSHP information after this task, use this dialog. "Additional Considerations" on page 64 has more information.

Complete the Hardware Table

During the initial installation process, the IPL program sensed and defined the devices on your system. These definitions were used to create a hardware configuration table. The hardware configuration table contains information about your devices and is used by other Interactive Interface dialogs.

In this step, you are asked to define the devices which could not be sensed during IPL. You should also verify that your devices are defined correctly in the hardware table.

Missing Device Types

In some cases, the system cannot sense a particular device during VSE/SP initial installation. Whenever this happens, a panel is displayed which lists the addresses of the devices which could not be sensed. The DEVICE TYPE field contains a question mark (?). You must define these devices to VSE/SP. Enter the correct VSE device type for each address.

When the devices are defined, the dialog continues.

A FULIST displays the address and characteristics of each device in your hardware configuration. Use **PF7** and **PF8** to scroll through the hardware table. **Verify** that all devices are defined and that each device is defined correctly.

You can change device characteristics, and add or delete devices. However, you **cannot** change or delete any of the VSE/ICCF DUMMY devices. These are addresses FFA, FFC, FFD, and FFE.

Device characteristics are described below. Any entries that you make must follow the requirements of the IPL ADD statement.

- TYPE
  The device type code that corresponds to the device address.

- MODE
  Some devices require a *mode* specification of two, four, or six digits. For information, refer to the descriptions of the ADD and ASSGN statements in *VSE System Control Statements* where mode settings are also described.

  The dialog does not display default modes for most device types.

- SWITCH
  Enter an **X** if the device can be physically attached (switched) to two adjacent channels. Specify the lower of the two channels.

- SHARE
  Enter an **X** for disk devices that can be shared across systems. This is only valid for the following disks:

  - 3330
  - 3340
  - 3350
  - 3370
  - 3370-2
  - 3375
  - 3380

  The disk that contains the lock file must **not** have the **switch** option.

Add a Device

Enter **1** in the OPT column. On the next panel, enter the address or address range of the new device(s). Specify the device type code for the device(s) you are defining.

The dialog redisplays the FULIST with the device address(es) you added. Type in any special characteristics for the device(s).

Delete a Device

Enter **5** in the OPT column to the left of any device you want to delete.

Change Device Characteristics

Type in the characteristics in the appropriate columns.

When you finish reviewing and changing the information, press **PF6**. **You must press PF6, even if you did not make any changes**. This tells the dialog to update the hardware table.

The dialog updates internal system files which are used by other dialogs. However, it does not catalog the information into the system. After you complete your system tailoring tasks, you **must** use the *Create Startup Books* dialog. This creates the final startup books for the hardware devices. *VSE/SP System Use* describes the *Create Startup Books* dialog.

After you press PF6, the system displays an information panel. Press PF3 to display the VSE/SP sign on panel. You should now sign on to the Interactive Interface. You can use the SYSA user-id for the remaining installation tasks. After you finish, you can define your own administrator user-id using SYSA as a model. *VSE/SP System Use* describes the *Maintain User Profiles* dialog which you use to define user-ids. You should not change the authorizations of SYSA because it can be affected by Fast Service Upgrade. It is recommended that you define and use your own administrator user-id after installation.

Note: If you want to update your hardware configuration table after this task, you can use the Configure Hardware Addresses dialog. The dialog is described in VSE/SP System Use.

Additional Considerations

1. The user-id POST is **reserved**. It is only used to complete initial VSE/SP installation. The profile for the POST user-id is set up to do special processing. Do **not** use it to sign on to the system after you complete this step.

   If you need to update the hardware table or MSHP personalized data after this task is completed, there are two dialogs you can use:

   a. *Configure Hardware Addresses*
   b. *Personalize History File*

   Do **not** use the POST user-id to update this information.

2. When you complete this task, you should change the password of the user-id POST.

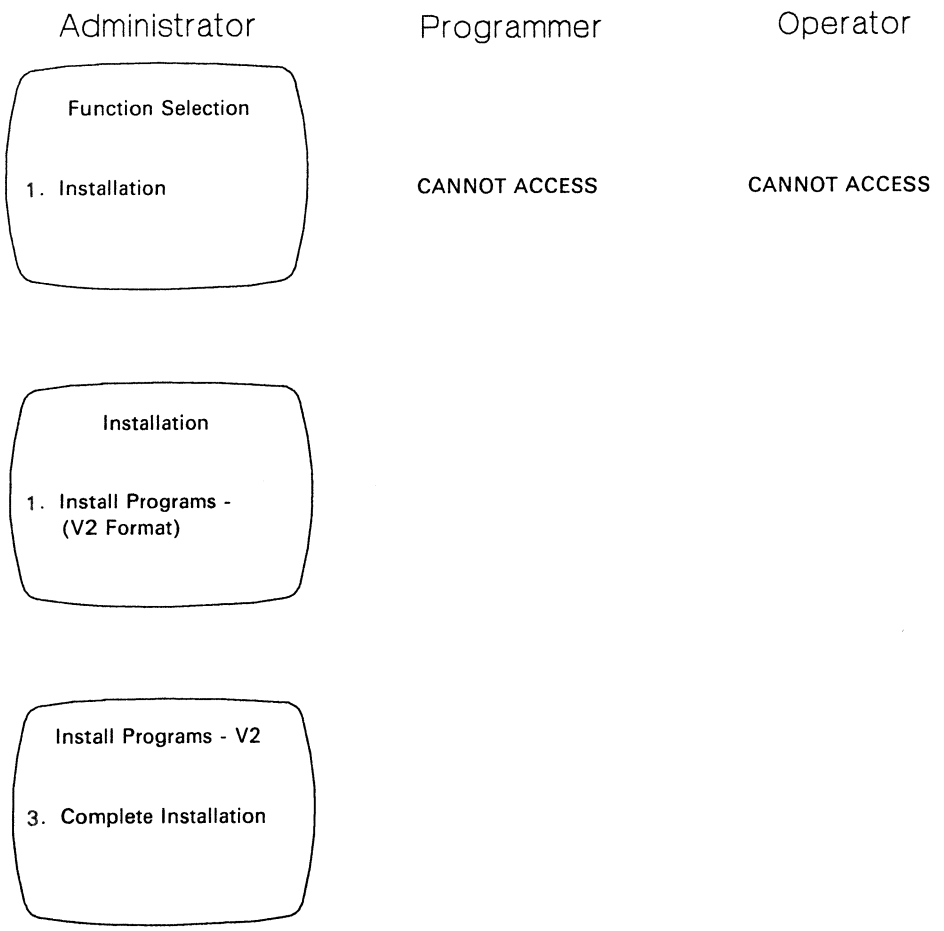
3. After you complete installation, you should use the *Create Startup Books* dialog. This creates the final startup books for the hardware devices.

4. The *Configure Hardware Addresses* dialog has several HELP panels for information about device type codes. If you are not sure of the type for the device you are using, press PF1 for more information.

Complete VSE/SP Optional Program Installation

If you automatically installed VSE/SP optional programs during initial installation, you must now complete the installation. This step is required. It updates important system information which is needed for the system to operate correctly.

You access the *Install Programs - (V2 Format)* dialog and select task 3 *Complete Installation*. You can access the dialog as follows:



When you select option **3** (Complete Installation), the dialog updates system files internally. You **do not** have to enter any information. When the dialog is done, it redisplays the selection panel.

Change Passwords for VSE/SP User-ids

You should now change the passwords of the four VSE/SP user-ids. It is recommended that you do this to help ensure that unauthorized users do not sign on with these user-ids. The user-ids and passwords are described in "VSE/SP User Profiles" on page 3.

You can change the passwords from the Interactive Interface sign-on panel VSE/SP ONLINE. You use the PF10 (NEW PASSWORD) key. On the panel, type in the following and press **PF10**:

```
USER-ID.... = = >    sysa
PASSWORD... = = > sysa
```

The system displays the CHANGE PASSWORD panel. Enter a new password in both fields on the panel. The password can be 3 - 6 alphanumeric characters or the special characters @, #, $. The system compares the two entries for accuracy.

After you enter the new password, you are signed on to the Interactive Interface. Press **PF3** to sign off and redisplay the sign-on panel (VSE/SP ONLINE). Follow these instructions again to change the passwords of the other three user-ids:

1. PROG
2. OPER
3. POST

The passwords of the four VSE/SP user-ids are defined with no expiration date. If you want to specify an expiration date, you can use the *Maintain User Profiles* dialog. The dialog is described in *VSE/SP System Use.*

You have now completed VSE/SP initial installation. You can continue with other installation tasks which include:

- Install VSE/SP Generation Feature.
- Install additional VSE program products.
- Installation tailoring.

Chapter 3. Additional Installation Tasks

Install VSE/SP Generation Feature

The Interactive Interface provides the *Install Generation Feature* dialog to install the VSE/SP Generation Feature. This optional feature of VSE/SP provides generation capability for the VSE/Advanced Functions supervisor and certain CICS/DOS/VS control programs. *VSE/SP Planning* has information on the contents of the Generation Feature for VSE/SP.

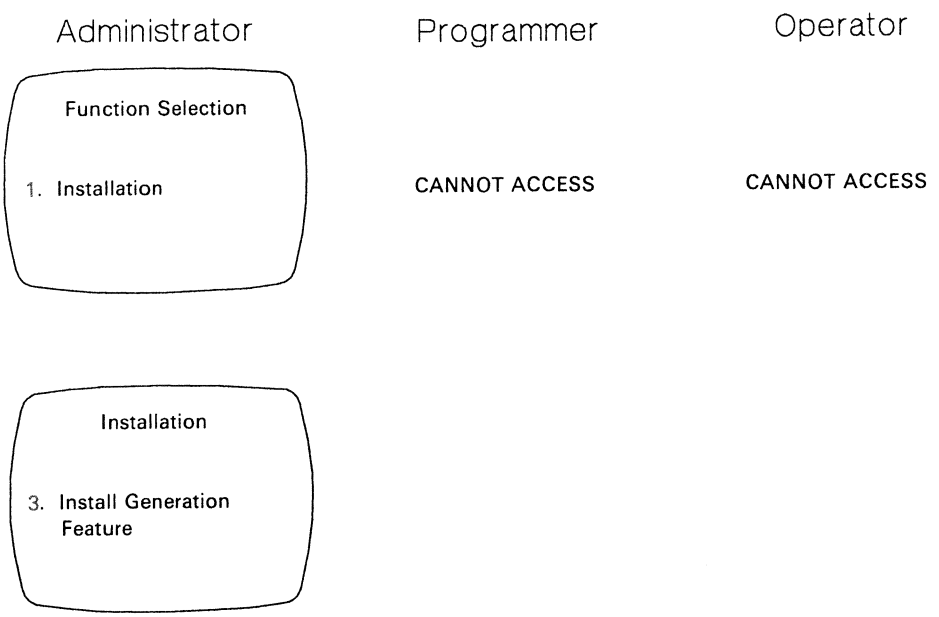
The Generation Feature is usually installed at the same time as the initial VSE/SP system. **This is the recommended way to install it.**

However, you can install the Generation Feature at a later time. If you have installed service to either VSE/Advanced Functions or CICS/DOS/VS, there are additional tasks that you must do **before** using this dialog. Review the information in "Installing the Generation Feature After Service Has Been Installed" on page 68 before you continue.

The *Install Generation Feature* dialog creates a job which installs the Generation Feature in library PRD2.GEN1. It also updates the system history file for the installation. This is needed if service is installed that affects the Generation Feature.

VSE/SP Program Directory has information on space requirements for the Generation Feature. You should review this carefully. Check the space requirements with the available space in the library, before you start the installation.

You can access the dialog as follows:



You are asked only for the tape address, **cuu** The dialog creates a job with the default name INSGEN. On the JOB DISPOSITION panel, you can submit the job to batch, file it in your default ICCF primary library, or both.

When you are ready to install, submit the job to the VSE system. The job asks you to mount the Generation Feature tape, *VSE/SP2.1.0.GENFEAT*. Use the **same** tape unit you specified in the dialog.

Installing the Generation Feature After Service Has Been Installed

If you want to install the Generation Feature after you have installed either VSE/Advanced Functions or CICS/DOS/VS service, you must do additional tasks before using the *Install Generation Feature* dialog. There are two ways to complete the installation.

1. Order VSE/SP tapes from IBM that are at a **higher** service level than the initial VSE/SP system you installed. Install the tapes using the *Install Fast Service Upgrade* dialog. The dialog is described in "Install Fast Service Upgrade" on page 103.

   After the tapes are installed, use this dialog (*Install Generation Feature*) to install the Generation Feature. Use the Generation Feature tape that came with the new service level distribution tapes.

2. If the available distribution tapes are at the **same** service level as the VSE/SP system you initially installed, do the following:

   - Install the original distribution tapes using the *Install Fast Service Upgrade* dialog.

- Use the *Install Generation Feature* dialog to install the Generation Feature. Use the Generation Feature tape that came with the original VSE/SP distribution tapes.

- Re-install any service that you have installed on the system since initial VSE/SP installation.

You must follow one of these two procedures to ensure that your system operates correctly. If you do not, you may have mixed service levels that affect the operation of the system.

Additional Considerations

The Generation Feature does not have to be resident on disk at all times. You can back it up and keep it on tape when it is not in use. It must be online whenever you do generation or service tasks that require it.

Install Additional VSE Program Products

VSE/SP supports the installation of VSE program products that are shipped in two formats:

- Version 1
- Version 2

You can install VSE program products in MSHP format using one of two dialogs:

- *Install Programs - (V1 Format)*

  Use this dialog to install VSE program products shipped in Version 1 format.

- *Install Programs - (V2 Format)*

  Use this dialog to install VSE/SP optional programs or other VSE program products shipped in Version 2 format.

The two formats and the ways in which you can install VSE program products are outlined in "Overview of Additional VSE Program Products" on page 11. Review this section for information.

Install Program Products in Version 2 Format

The *Install Programs - (V2 Format)* dialog installs VSE/SP optional programs or other VSE program products distributed in the new librarian format of VSE/Advanced Functions Version 2.

The new librarian format enables distribution of more than one program product on a single distribution tape. With this format, a facility of the librarian scans the tape and gathers information about it. It provides

information such as the library space required to install each program product. You can install one, several, or all program products on the tape at one time.

The dialog creates job streams which use the Job Manager to manage the installation. "Additional Considerations" on page 74 describes Job Manager processing for the dialog.

The dialog consists of three separate tasks:

1. *Prepare for Installation*

   This scans the distribution tape and gathers statistics about it. It prints a report on SYSLST and builds a list of the program products you can selectively install from the tape.

2. *Install Product(s) from Tape*

   This creates the job stream to install the program products you select into the appropriate library.

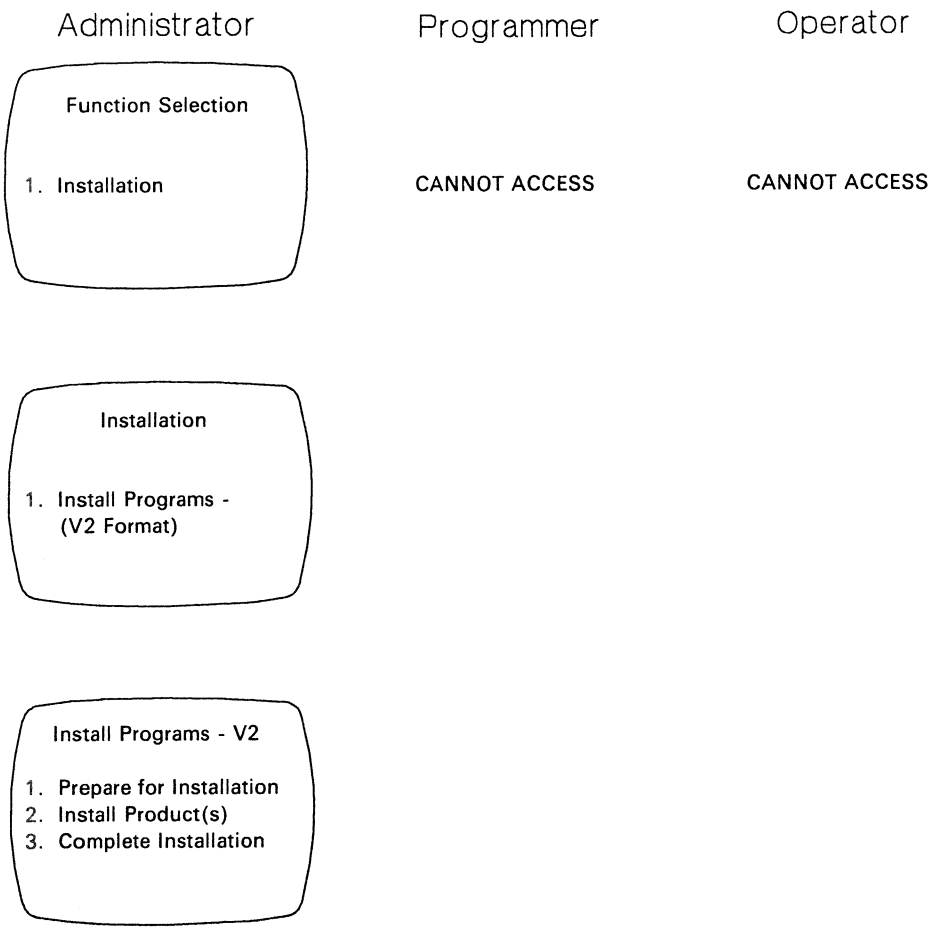
3. *Complete Installation*

   This **must** be done after the job stream from task 2 (*Install Product(s) from Tape*) completes successfully. It updates important system information that is needed by the Interactive Interface.

If you are using the dialog for the first time, you should complete the installation in this order (1, 2, and 3).

If you have used the dialog before, you may have a program list saved and not need to perform *Prepare for Installation.* The sections below describe the dialog process in more detail.

You can access the dialog as follows:



Select each of the three tasks in order (1, 2, and 3).

Prepare for Installation

Prepare for Installation creates a job which:

- Scans one or more distribution tapes.
- Gathers program product statistics.

The job prints a *scan report* on the system printer. It also creates an internal list of all program products on each tape. The list is displayed when you use *Install Product(s) from Tape.*

A program list saved from a previous installation is replaced, whenever you perform *Prepare for Installation.*

You only need to enter the tape address. On the JOB DISPOSITION panel, you can submit the job to batch, file it in your ICCF primary library, or both.

When you submit the job, you are asked to mount the first tape. Use the **same** tape drive that you specified in the dialog. You are prompted to mount any additional tapes sequentially.

When the job completes, review the scan report that it printed. Before you install any program products, decide if you want to do any of the following:

- Change the library or sublibrary defaults for the installation.
- Increase library space.

  If you want to extend a library/sublibrary, you can use the:

  1. *File and Catalog Management* dialog for VSAM libraries.
  2. Skeleton SKLIBEXT in ICCF library 59 for non-VSAM libraries.

  VSE/SP System Use describes the dialog and skeleton.

- Install some or all program products on a tape at this time.

Review the scan report for library space requirements.

If a VSE program product contains a generation sublibrary, the scan report shows two entries for the program product. The second entry is for the generation sublibrary. If you install the program product, both entries will be installed. During installation, the system displays the messages:

- M235I
- M089D

Enter GO to continue with the installation.

When you are ready to install, continue with *Install Product(s) from Tape.*

Install Products from Tape

Install Product(s) from Tape installs some or all program products on the distribution tape.

A FULIST displays the program products on the tape. The list was created during the *Prepare for Installation* task.

Note: If you **did not** *use Prepare for Installation and you* **do not** *have a list saved from a previous installation, refer to "Additional Considerations" on page 74 for more information about the dialog and the values you can specify.*

On the FULIST, indicate which program products you want to install. In the OPT column, enter:

1 - Install
2 - Skip installation

The FULIST displays the following information:

IDENTIFIER
This identifies the program product on the tape.

LIBRARY and SUBLIBRARY NAME
This is the default library/sublibrary where the program product is installed. You can change the library or sublibrary name.

If a program product has a production and generation part, both are installed in the same library. The sublibrary is used only for the production part.

For the generation part, the program product provides a default sublibrary name for the installation. This default sublibrary **cannot** be changed using the dialog.

SEQUENCE NUMBER
This shows the sequence of the program product on the tape. This is helpful if you want to check your entries with the program product documentation.

You **cannot** change this value.

TAPE NUMBER
This shows the tape number where the program product resides. This is helpful if you want to check your entries with the program product documentation.

You **cannot** change this value.

Select the program products you want to install. Press **PF6** to process the information.

You also need the following information:

KEEP PRODUCT LIST
Specify whether you want to save or erase the list of program products.

1 - Save the list
2 - Erase the list

If you save the list, it is displayed the next time you access the dialog. If you decide to install some program products now and others later (from the same tape), the list is available. You do not have to perform *Prepare for Installation* again.

If you erase the list, you can create a new one by using *Prepare for Installation.*

TAPE ADDRESS
Specify the tape address (cuu) for the installation.

A job sequence is created. On the JOB DISPOSITION panel, you can submit the job to batch, file it in your ICCF primary library, or both.

When you submit the job, mount the first tape. Use the **same** tape drive that you specified in the dialog. Do **not** reposition or dismount the tape until you are told to do so. The Job Manager manages the jobs which complete the installation. Refer to "Additional Considerations" for information. If you have more than one tape, you are asked to mount the next tape.

If you install a VSE program product which contains a generation sublibrary, the system displays the messages:

- M235I
- M089D

Enter **GO** to continue with the installation.

You can determine whether a program product contains a generation sublibrary by reviewing either the:

- Scan report.
- Documentation that is shipped with the program product itself.

When the job stream finishes, you **must** perform *Complete Installation.*

Complete Installation

Complete Installation is **required.** It must be performed after the job stream from *Install Product(s) From Tape* completes successfully.

This task updates system information that is needed by other dialogs. If you do not complete this task, the Interactive Interface may not work correctly.

Complete Installation updates system files internally. You do not have to enter any information.

Additional Considerations

1. Before you install a program product, you should ensure there is sufficient space in the library/sublibrary. Review the scan report for space requirements.

2. If you save the program list for a tape, you can use the list again by starting with *Install Product(s) from Tape.*

3. *Prepare for Installation* replaces any lists that were previously saved.

4. If you use the Access Control Table DTSECTAB to protect your libraries, make sure that the user-id you use to perform the *Install*

Programs - (V2 Format) dialog has the ALTER authorization for IJSYSRS.SYSLIB.

5. If you have problems installing a feature for an IBM program product, you may need a compatible statement for MSHP. Refer to *VSE/Advanced Functions Maintain System History Program Reference* for information about this MSHP statement.

Job Manager Processing

The dialog creates a job stream which runs under the control of the Job Manager. You should **not** cancel any of the jobs in the sequence. This interrupts Job Manager processing.

"Job Manager Overview" on page 9 describes the Job Manager and what you should do if problems occur. Refer to this section for general information and whenever a job does not complete successfully.

If a job does not complete successfully and you **cannot** resume the Job Manager because of a special situation, you **must delete** the following members from the specified libraries. By doing this, you can avoid problems when you use the dialog again.

Member Name	Library Name
DTRCJMG.PROC	PRD2.CONFIG.
DTRAPIST.Z	PRD2.SAVE
DTRAPIST.Z	IJSYSRS.SYSLIB

Installing Without a Program List

You can perform *Install Product(s) from Tape* without having a program list. You would not have a list if you did not:

1. Use *Prepare for Installation.*

   and

2. Save a list from a previous installation.

You can install program products without a list. However, you do not have the information about the tape contents that is provided by the scan report. If you install without a program list, there are special considerations for the entries you specify in *Install Product(s) from Tape.* These are described below.

The FULIST displays an additional option (5=DELETE). If you enter information on a particular line and make an error, you can enter 5 in the OPT column to delete the entry.

IDENTIFIER

You must enter the name that identifies the program product. This is identical to the *backup ID*. The identifier must be unique.

Check the program product documentation for the correct value. If you specify an incorrect identifier, the program product cannot be located on the tape.

If the program product has a production and generation part, you must do the following.

1. Specify **two** entries with the **same** identifier.

2. For the generation part, enter ***GEN** for the library name.

You can disregard the sequence number.

LIBRARY and SUBLIBRARY NAME

If a program product has a production and generation part, you must specify **two** entries with the **same** identifier. For the generation part, enter ***GEN** for the library name. The sublibrary is only used for the production part. For the generation part, the program product provides a default sublibrary name for the installation. You can disregard the sequence number.

TAPE NUMBER

This shows the tape number where the program product resides. The numbers you specify must be in ascending order.

Reinstallation

You can use the *Install Programs - (V2 Format)* dialog to reinstall a program product. If you specify a different sublibrary than where the program product was originally installed, the dialog displays an additional panel. The panel shows the:

- Backup ID of the program product.
- Sublibrary it is presently installed in.
- New sublibrary you want to reinstall it in.

You can only install a program product in one sublibrary. Therefore, you must specify the sublibrary you want to use:

1 - Install in new sublibrary
2 - Install in original sublibrary

If you install to the new sublibrary, the dialog updates the system history file. However, the program product is **still** in the original sublibrary. You must **delete** it from the original sublibrary. Review the documentation for the individual program product to determine the names of the library members you must delete from the particular sublibrary.

Install Program Products in Version 1 Format

The *Install Programs - (V1 Format)* dialog installs one or more MSHP formatted VSE program products that are distributed in the librarian format of pre-Version 2 VSE/Advanced Functions. In VSE/SP, this is referred to as Version 1 format.

VSE program products distributed in Version 1 format differ from Version 2 format in two ways:

1. Only one program product resides on a single tape.
2. The tape cannot be scanned to gather program statistics.

The dialog creates a job stream which installs the program products under MSHP control, based on the sequence you specify in the dialog. Each program product is installed from a single tape. The job stream requests that the next tape in the sequence is mounted.

The job stream runs under the control of the Job Manager. "Additional Considerations" on page 80 has information about Job Manager processing for the dialog.

The dialog consists of two separate tasks:

1. *Install Product(s) from Tape(s)*

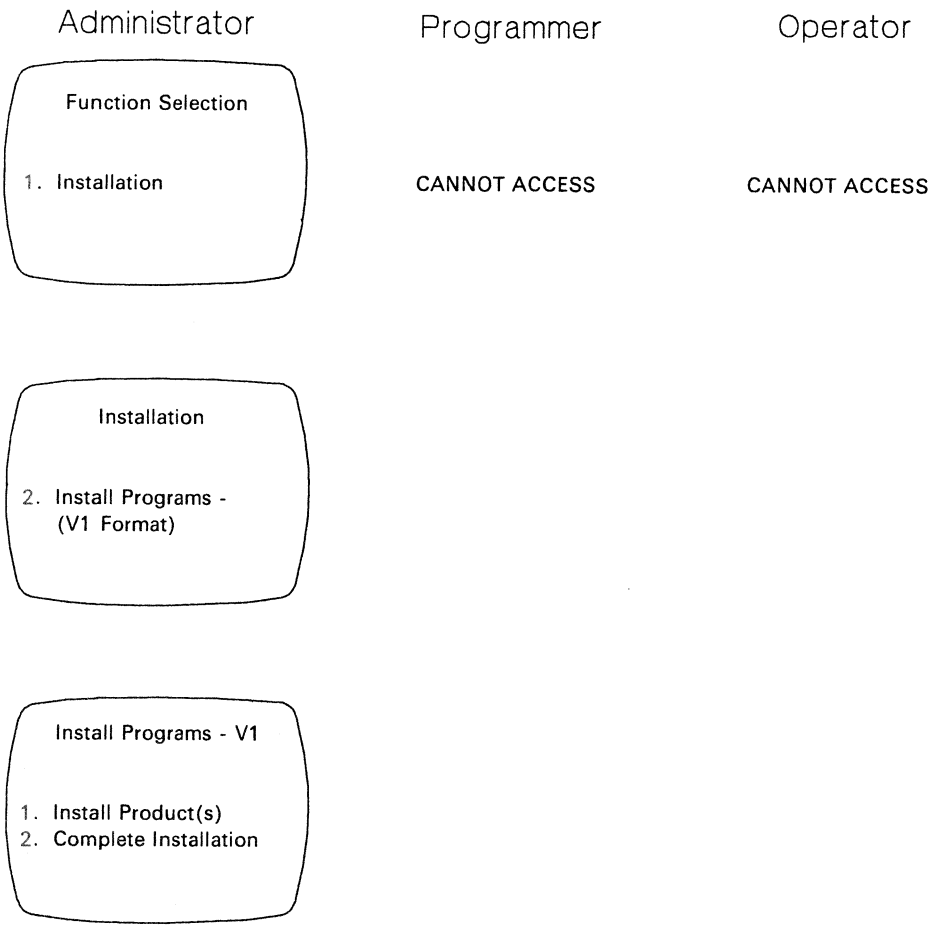
   This creates a job stream which installs each program product from a single tape into the appropriate library.

2. *Complete Installation*

   This **must** be done after the job stream from task 1 (*Install Product(s) from Tape(s)*) completes successfully. It updates system information that is needed by the Interactive Interface.

You should complete the installation in this order (1 and 2).

You can access the dialog as follows:



Select each of the two tasks in order (1 and 2).

Install Products from Tape

You need the following information:

TAPE NUMBER
This shows the sequence in which the program product tapes are mounted. You **cannot** change this value.

You should sort the tapes themselves in the order that they are to be installed. This helps to ensure that the correct tape in the sequence is available when the job stream requests the tape mount. The dialog or job stream **cannot** check that the correct tape is mounted. Therefore, it is important that you have the tapes physically sorted in the sequence used in the dialog.

TAPE LABEL

Enter a tape label for each program product you want to install. This is an external label to help you identify the tape. The label is displayed in the mount request when the job stream runs.

You can enter up to sixteen characters. For each particular installation, the label name must be unique.

LIBRARY and SUBLIBRARY NAME

Enter the library/sublibrary where you want the program product installed. The dialog displays a default library of PRD2 and sublibrary PROD.

Review the documentation that was shipped with the distribution tape. Determine the space that is required for the program product. Decide which library/sublibrary you want to use. This is important because you do not have a scan report to provide library space information. You must make sure that the library you use has adequate space available.

If a program product has a production and generation part, both are installed in the same sublibrary.

TAPE ADDRESS

Enter the address of the tape unit to be used for the installation.

Enter information for **each** program product you want to install. On the JOB DISPOSITION panel, you can submit the job to batch, file it in your ICCF primary library, or both.

When you submit the job, you are asked to mount the first tape in the sequence. Use the **same** tape drive that you specified in the dialog. Do **not** reposition or dismount the tape until you are told to do so.

The job stream prompts the operator to mount each tape using the sequence specified in the dialog.

When the job stream finishes, you **must** perform *Complete Installation.*

Complete Installation

Complete Installation is **required.** It must be performed after the job stream from *Install Product(s) From Tape(s)* completes successfully.

This task updates system information that is needed by other dialogs. If you do not complete this task, the Interactive Interface may not work correctly.

Complete Installation updates system files internally. You do not have to enter any information.

1. Before you install a program product, you should ensure there is sufficient free space in the library/sublibrary.

   Review the appropriate documentation that is shipped with the distribution tape. It has the latest available information about the space requirements for the program product.

2. The job stream installs each program product in the sequence used in the dialog. No checking can be done to make sure that the tape you have mounted contains the correct program product. You should physically sort the tapes in the correct sequence. This can help ensure that the right tape is available when a mount is requested.

3. If you have problems installing a feature for an IBM program product, you may need a compatible statement for MSHP. Refer to *VSE/Advanced Functions Maintain System History Program Reference* for information about this MSHP statement.

Job Manager Processing: The dialog creates a job stream which runs under the control of the Job Manager. You should **not** cancel any of the jobs in the sequence. This interrupts Job Manager processing.

"Job Manager Overview" on page 9 describes the Job Manager and what you should do if problems occur. Refer to this section for general information and whenever a job does not complete successfully.

If a job does not complete successfully and you **cannot** resume the Job Manager because of a special situation, you **must delete** the following members from the specified libraries. By doing this, you can avoid problems when you use the dialog again.

Member Name	Library Name
DTRCJMG.PROC	PRD2.CONFIG.
DTRAPIST.Z	PRD2.SAVE
DTRAPIST.Z	IJSYSRS.SYSLIB

Installation Tailoring

After you complete VSE/SP initial installation, you can start tailoring your system. Many tasks are supported by the Interactive Interface. Other tasks are completed using VSE/SP skeletons.

Tailoring tasks basically define the characteristics of your system. You do not perform these tasks only when you first install VSE/SP. You can perform them on a day to day basis. These tasks define or modify a resource which the system uses. In VSE/SP, they are known as *resource definition* tasks.

VSE/SP System Use describes the resource definition tasks for VSE/SP. You should use this book to tailor your system.

This chapter outlines many resource definition tasks. It provides a description of the task and the dialogs and/or skeletons you use to complete them. Refer to *VSE/SP System Use* for more detailed information.

Define Users to the System

VSE/SP provides the *Maintain User Profiles* dialog to help you define Interactive Interface users.

Define Libraries, User Catalogs, and Files

The *File and Catalog Management* dialog helps you define VSE/VSAM libraries, files, and user catalogs.

VSE/SP provides the SKLIBDEF skeleton to define a library in non-VSAM managed space.

Configure Hardware

You can also add or delete devices or change the characteristics of devices. There are several dialogs to help you with hardware configuration:

1. *Configure Hardware Addresses*
2. *Configure Local Non-SNA 3270s*
3. *Configure Local SNA 3270s*
4. *Configure ICA Connected Terminals*
5. *Configure NCP Connected Terminals*
6. *Configure EP Connected Terminals*

VSE/SP System Use describes the first three dialogs.

VSE/SP Networking provides information about your network definitions. It includes descriptions about the other three dialogs for ICA, NCP, and EP connected terminals.

Tailor IPL Procedure

You can use the *Tailor IPL Procedure* dialog to define your own IPL values for system startup.

Create Printer FCBs or UCBs

VSE/SP provides two dialogs to create Forms Control Buffers (FCBs) and Universal Character Set Buffers (UCBs):

1. *Maintain Printer FCB*
2. *Catalog Printer UCB*

Create Startup Books

After you complete specific resource definition tasks, you can create startup books. The *Create Startup Books* dialog allows you to automatically include the following during system startup:

- ACF/VTAM startup books
- BTAM-ES startup assignments
- IPL procedure
- CICS/DOS/VS TCT

Tailor System Startup Jobs

VSE/SP provides many skeletons to tailor ASI and system startup procedures.

- BG ASI procedures

  VSE/SP provides two skeletons to create a BG ASI procedure for:

  - 370 mode
    You use this skeleton to implement Virtual Addressability Extension (VAE).

  - VM mode and E mode

- Procedures for VSE/POWER partitions

  - ASI procedure for POWER partition in F1.
  - Definitions for POWER controlled partitions.
  - ASI JCL procedure for POWER controlled batch partitions.

- ACF/VTAM startup

  The VTAMSTRT skeleton starts ACF/VTAM in a VSE/POWER controlled partition. The ASIVTPWR skeleton starts ACF/VTAM in a system where ACF/VTAM is not controlled by VSE/POWER.

- ICCF/CICS startup

  VSE/SP provides the ICCFCICS skeleton which is a sample startup job for CICS/DOS/VS and VSE/ICCF.

Generate VSE/POWER Options

You can use the SKPWRGEN skeleton to define your own VSE/POWER operands. You can also include PNET and RJE support.

VSE/SP Networking describes PNET and RJE definitions.

ICCF DTSFILE

The SKICFFMT skeleton is an example of how the ICCF DTSFILE is formatted for VSE/SP.

Modify the Sign-On Panel for CICS/DOS/VS Users

You use the IESELOGO skeleton to modify the Interactive Interface sign-on panel. You can implement:

- Your own *logo design* on the panel.
- The *escape* function.

  This allows users to escape to native CICS/DOS/VS without signing on to the Interactive Interface.

Generate VSE/ICCF Options

VSE/SP provides the SKICFGEN skeleton which helps you define your own ICCF generation options.

Create Standard Labels

You use the STDLABUS skeleton to create standard labels for your files and data sets.

Set Up a VAE System

You implement VAE using both dialogs and skeletons. You would:

- Tailor your own IPL procedure.
- Create a BG ASI procedure for 370 mode.
- Create procedures for VSE/POWER partitions.
  - ASI procedure for VSE/POWER partition in F1.
  - Definitions for VSE/POWER controlled partitions.
  - ASI JCL procedure for VSE/POWER controlled batch partitions.
- Create startup books for IPL.

Set Up IBM Personal Computer as Intelligent Workstation

VSE/SP supports the IBM 3270 Personal Computer and the IBM Personal Computer with the 3278/3279 Emulation Adapter. You can use these IBM Personal Computers as intelligent workstations (IWS) and exchange data between the IBM Personal Computer and VSE/SP.

VSE/SP System Use describes the functions which VSE/SP provides for IWS support.

There are additional tasks you can perform for your network configuration. *VSE/SP Networking* describes the information in detail.

IBM Service

The Interactive Interface provides many dialogs which help you with service activity:

- *Print Service Documents*
  This prints different types of service documentation from the service tape.

- *Apply PTF*
  This applies PTFs from one or more service tapes.

- *Alter Phase, Module, or Source*
  This applies an APAR or local fix.

- *Undo Phase or Module*
  This removes either an APAR or local fix.

- *Install Fast Service Upgrade*
  This installs a new upgraded VSE/SP system on top of an existing VSE/SP system.

- *Retrace History File*
  This prints information from the system history file.

- *Remove History Record*
  This removes information about service that you have applied.

- *Personalize History File*
  This allows you to update personalized information in the system history file.

Most of the dialogs create jobs which use MSHP to maintain service on your system. For more information about using MSHP functions, refer to *VSE/Advanced Functions, Maintain System History Program, Reference.*

Preventive Service

System Refresh

VSE/SP includes an improved service process. The VSE/SP system libraries are periodically upgraded with the latest level of maintenance. This is known as a *system refresh.*

Fast Service Upgrade

If you have initially installed VSE/SP, you can install a refresh using the Fast Service Upgrade (FSU) process. The *Install Fast Service Upgrade* dialog creates a job stream which simply replaces the VSE/SP information. It **does not** change or delete your own user libraries or installation unique information.

With the Fast Service Upgrade application of a refresh, there is no longer a Program Update Tape (PUT) for VSE.

For more information about problems in IBM program products, refer to "Corrective Service."

Corrective Service

Corrective service refers to an APAR fix, PTF, bypass, or circumvention which you apply to the system to correct a problem in an IBM program product.

A PTF (Program Temporary Fix) is an IBM fix in response to an APAR (Authorized Program Analysis Report). An APAR is written and submitted when a problem is reported in an IBM program product.

An APAR fix is also a correction in response to an APAR. However, the fix has not been made available as a PTF.

A circumvention or bypass is generally supplied to correct the immediate problem after an APAR is submitted.

Indirect Service Application for PTFs

Indirect service application means that the PTF is applied to a copy of SYSRES, rather than to the SYSRES in use at the time of service application. Some PTFs require this form of application and the MSHP statements force this technique **without your intervention.**

You can force indirect application for all SYSRES service which you apply. You specify this in the *Apply PTF* dialog. However, MSHP control statements force indirect application automatically, when necessary.

When indirect service is applied, the following occurs:

1. A new SYSRES is created on a different volume than where the current SYSRES resides. Members from the service tape and unserviced members from the current SYSRES are moved to the new SYSRES.

2. The operator is requested to perform an IPL from the new SYSRES.

3. The contents of the new SYSRES are moved to the old SYSRES.

4. The operator is requested to perform an IPL from the old SYSRES.

Service for ICCF Members

If service affects ICCF members provided by VSE/SP, the member is simply replaced. If you modify any members, such as the SUBMIT procedure, you should rename them or copy them to another ICCF library.

If you use a VSE/SP skeleton, you should copy it to another library before you make your changes. If you do not do this, the member will be replaced if it is affected by service.

Service Affecting VSE/SP Generation Feature

Any service which affects either VSE/Advanced Functions or CICS/DOS/VS contains two parts. One part corresponds to the pregenerated system. The second part is for the VSE/SP Generation Feature.

If you **do not** have the VSE/SP Generation Feature installed, only service for the pregenerated system is installed.

If you have the Generation Feature installed, both parts for the pregenerated system and the Generation Feature are automatically applied.

If you installed the Generation Feature, but you keep it offline, you must restore it before you apply service which affects either VSE/Advanced Functions or CICS/DOS/VS.

Fast Service Upgrade

During FSU, the dialog asks you if you want to reinstall the VSE/SP Generation Feature. You can choose not to reinstall it. In this case, the entry for the Generation Feature is removed from the system history file and the sublibrary where the Generation Feature resides is reinitialized.

Print Service Documents

The *Print Service Documents* dialog prints various types of service documentation from the service tape on SYSLST. Using the dialog, you can print:

- Service tape document
  This contains information about installing corrective or preventive service from the service tape.

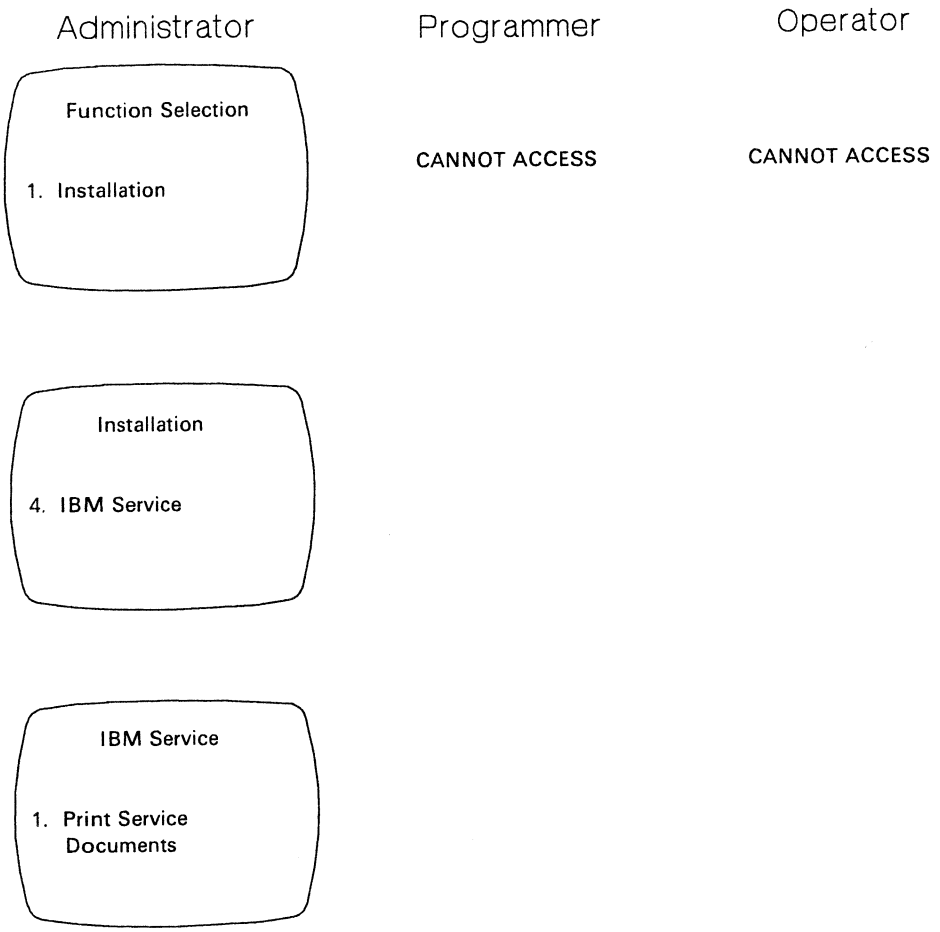
- Cross reference list
  This provides a cross reference of all PTFs on the service tape.

- PTF cover letters
  The dialog prints the following information for each PTF cover letter on the service tape:

  - Job control statements
  - MSHP control statements

- MAINT control statements
- LNKEDT control statements

You can access the dialog as follows:



You need the following information:

TAPE UNIT ADDRESS
The address (cuu) of the tape unit used for the service tape.

Specify whether or not you want the following three types of documentation printed. For each type, specify:

1 - YES (print documentation)
2 - NO (do not print documentation)

PRINT DOCUMENT
Print service tape document.

PRINT CROSS-REF LIST
Print cross reference of all PTFs.

PRINT COVER LETTERS

Print all or selected PTF cover letters.

If you print PTF cover letters, you can print all cover letters on the tape or select the ones you want to print. You can also start the printing of each cover letter on a new page. You need the following information:

- ALL PTFS
  Specify one of the following:

  1 - Print all cover letters
  2 - Select the cover letters you want printed

  If you specify **2**, enter the numbers of the PTFs whose cover letters you want to print. The dialog redisplays the panel until the last field on the panel is left blank.

- CONTINUOUS
  Specify one of the following:

  1 - Do not start at a new page for each cover letter
  2 - Start at a new page for each cover letter

The dialog creates a job with the default name PRINTDOC. On the JOB DISPOSITION panel, you can submit the job to batch, file it in your default primary library, or both.

When you submit the job, mount the service tape. Use the **same** tape address you specified in the dialog.

Apply PTF

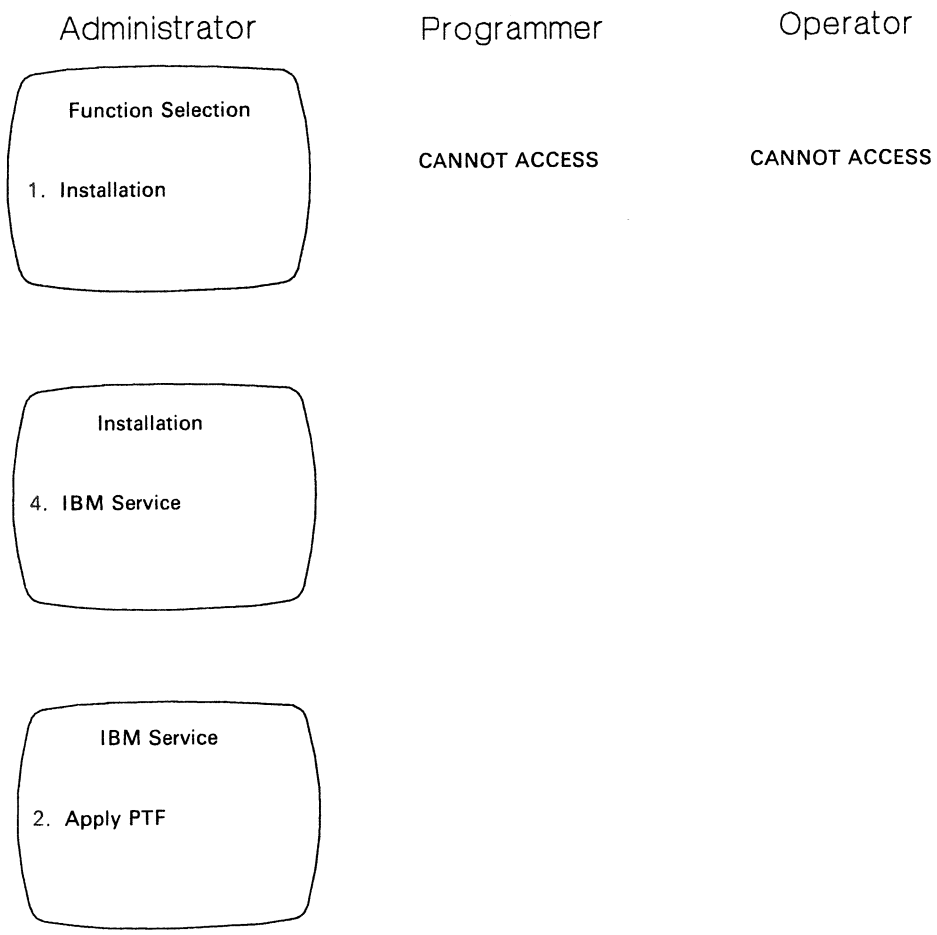
The *Apply PTF* dialog applies PTFs from one or more service tapes. You can apply all or selected PTFs. You can also apply PTFs by:

- Library
- Product
- Component

The dialog creates a job sequence which is managed by the Job Manager. "Additional Considerations" on page 93 has information about Job Manager processing and other dialog considerations.

Note: You can use the dialog to apply PTFs for a number of program products from different PTF tapes. You should note that with the Fast Service Upgrade application of a refresh, there is no longer a Program Update Tape (PUT) for VSE.

You can access the dialog as follows:



A panel displays five selections:

1. Apply Selected PTFs
   You select the numbers of the PTFs you want applied.

2. Mass Apply PTFs by Library
   You select the library used as a base to apply the PTFs. The dialog displays the program products in the library which you can service. You can also exclude individual PTFs or components.

3. Mass Apply PTFs by Product
   You choose the program products you want to service. You can also exclude individual PTFs or components.

4. Mass Apply PTFs by Component
   You choose the components you want to service. You can also exclude individual PTFs.

5. Apply All PTFs
   This selection applies all PTFs on the service tape. You can exclude individual PTFs, components, or program products.

The input you need depends on the selection you choose. The information in "Input For All Selections to Apply PTFs" below is needed for each of the five selections. Following this section, the additional input for each individual selection is described.

Input For All Selections to Apply PTFs

You need the following information for all five selections:

TAPE UNIT ADDRESS
Specify the address (**cuu**) of the tape drive.

TAPE QUANTITY
Specify the number of service tapes you have for the PTFs.

BACKUP
Specify whether you want the sublibraries affected by service application backed up.

1 - YES (Backup taken)
2 - NO (Backup is not taken)

FORCE INDIRECT
For program products in library IJSYSRS, there are two types of PTFs:

- Direct
  PTFs are directly merged in the running system.

- Indirect
  PTFs are applied to a new SYSRES file.

PTFs for program products **not** residing in library IJSYSRS are applied directly.

The type of application for each PTF on the service tape is predetermined. You can accept the predetermined application or apply **all** PTFs indirectly. Specify one of the following:

1 - YES (All PTFs applied indirectly)
2 - NO (PTFs applied according to predetermined type)

You should accept the predetermined application by entering **2** (NO).

Note: For IJSYSRS program products, if one PTF is applied indirectly, all PTFs will be applied indirectly.

Additional Input for Applying Selected PTFs

If you select the PTFs to be applied (selection 1), specify:

- PTF number
- Component ID for the PTF

Enter as many PTFs as you want. The dialog redisplays the panel until the last entry (field) is blank.

The dialog creates a job with the default name PTFSELE. On the JOB DISPOSITION panel, you can submit the job to batch, file it in your default primary library, or both.

Additional Input for Mass Applying PTFs by Library

If you apply PTFs by library (selection 2), a panel displays a list of libraries. Enter a non-blank character next to each library you want to use as a base for the PTF application.

The panel only displays production libraries. It does not show generation libraries. If service also affects a generation library, it is automatically included. You **do not** have to specify it. All generation libraries affected by service must be online.

The dialog lists all program products in each library you select. Indicate the program products you want to service by entering **X** in the REPLY column for the program product.

The name in the NAME column identifies the program product. You can change the name by entering a new one in the NEWNAME column. The dialog gets the name from the system history file. If it is not unique or contains characters which are not comprehensible, specify a new name. Use the product ID to determine what the program product is so you correctly identify it.

You can exclude individual PTFs or components. Specify:

- PTF numbers you do not want applied.
- Component IDs you do not want serviced.

The dialog creates a job with the default name PTFPROD. On the JOB DISPOSITION panel, you can submit the job to batch, file it in your default primary library, or both.

Additional Input for Mass Applying PTFs by Product

If you apply PTFs by product (selection 3), specify the product IDs of the program products you want to service.

You can exclude individual PTFs or components. Specify:

- PTF numbers you do not want applied
- Component IDs you do not want serviced

The dialog creates a job with the default name PTFPROD. On the JOB DISPOSITION panel, you can submit the job to batch, file it in your default primary library, or both.

Additional Input for Mass Applying PTFs by Component

If you apply PTFs by component (selection 4), specify the IDs of the components you want to service.

You can exclude individual PTFs. Specify the PTF numbers you do not want applied

The dialog creates a job with the default name PTFCOMP. On the JOB DISPOSITION panel, you can submit the job to batch, file it in your default primary library, or both.

Additional Input for Applying All PTFs

If you apply all PTFs (selection 5), you can exclude the following:

PTFS
Enter the PTF numbers you do not want applied.

COMPONENTS
Enter the component IDs you do not want serviced.

PRODUCTS
Enter the product IDs of the program products you do not want serviced.

The dialog creates a job with the default name PTFPROD. On the JOB DISPOSITION panel, you can submit the job to batch, file it in your default primary library, or both.

Additional Considerations

1. The dialog creates a job sequence which runs under the control of the Job Manager. For information on Job Manager processing, refer to "Job Manager Overview" on page 9.

   If a problem occurs and you **cannot** resume, delete the following jobs in the VSE/POWER reader queue:

   - DTRSTPTF
   - DTRCLPTF
   - All jobs beginning with the prefix DTRPTF.

   If you do not do this, the Job Manager may not work correctly at a later time.

2. The job sequence runs in the background partition (BG). You should start BG with CLASS=0.

3. Only one job sequence from this dialog can be in the reader queue at one time.

4. If service affects a generation library, the library must be online. If it is not, the job fails. You would then have to exit from Job Manager processing, restore the generation library, and resume the Job Manager.

5. You should have a current backup of your system available, if service application is not successful. If you do not have one, specify 1 (YES) in the BACKUP field.

Overview of PTF Application

The following information outlines the process of PTF application.

For all PTFs, the job sequence:

1. Backs up affected sublibraries, if requested.

2. Copies system history file to work history file.

3. Applies service.

4. Handles VSE/ICCF members.
   The job asks you to either:

   - Stop VSE/ICCF
   - Disconnect the DTSFILE

The remaining processing depends on whether the PTFs are applied directly or indirectly.

- PTFs applied directly:

  1. Service is merged directly into the system.
  2. The work history file is copied back to the system history file.
  3. Service application is complete.

- PTFs applied indirectly:

  1. IJSYSR1 is created to store members.
  2. The job sequence instructs you to shut down your system.
  3. IPL from IJSYSR1.

  You should now test the service application. After testing, you can merge the service into your system. However, if you have problems, you do **not** have to merge the service. You can return to your original system. Decide what you want to do. Follow the appropriate steps below.

  Merge Service
  If testing was successful, do the following to continue PTF application:

  - Run the DTRMRG procedure:

    EXEC DTRMRG.PROC

    The DTRMRG procedure:

    - Merges service into IJSYSRS.
    - Copies work history file to system history file.

  - IPL from IJSYSRS.

  Do Not Merge Service
  If you have problems when testing, you do not have to merge the service. Do the following:

  - Shut down the system.
  - IPL from IJSYSRS (your old SYSRES).
  - Restore all libraries affected by service application.
    If you do not do this, you may have mixed service levels in the different libraries on your system.

    You do **not** have to restore IJSYSRS. In addition, the system history file has not yet been changed by service application.

Your system is at its original service level; the level before you started PTF application.

Dialog Problem Checking

The job sequence checks that **indirect** PTFs from a **previous** PTF application have been merged, before it installs new PTFs.

The job sequence checks for an internal indicator. When PTFs are applied indirectly into IJSYSR1, the indicator is set, showing that:

1. PTFs are installed in IJSYSR1.
2. PTFs have **not** yet been merged.

When the DTRMRG procedure merges the PTFs, service application is completed. DTRMRG deletes the internal indicator. However, if DTRMRG is **not** run, the indicator is still set.

If the indicator is set when a job sequence starts, the job stops and displays a message. The message:

- Informs you that indirect service application was not finished successfully.
- Asks you to do one of the following:
  - Cancel the job.
  - Continue with the job.

The message **does not** necessarily mean there is a problem. It simply indicates that the DTRMRG procedure was **not** run during a **previous** PTF application. You may not have run DTRMRG for two reasons:

1. Prior PTF testing was **not** successful and you did **not** want to merge the service.

   In this case, you did not want service applied, so you did not run DTRMRG. Therefore, the internal indicator is still set. This is **not** a problem. You can simply continue with the current (new) PTF application.

   Before you reply to the message, make sure you restored the affected sublibraries with the status before the **previous** PTF application. Continue as follows:

   - Affected sublibraries restored.

     Type in **0** and press **ENTER**. The current PTF application continues.

   - Affected sublibraries **not** restored.
     - Cancel the current PTF job.
     - Restore sublibraries.

- Release the job DTRSTPTF from the reader queue.
  The new PTF application continues.

  If you do not do this, you may have mixed service levels in the different libraries on your system.

2. Prior PTF testing **was** successful, but you did **not** run DTRMRG to complete PTF application.

   Perhaps, you overlooked the information about running DTRMRG. Service has been installed, but it has not been merged.

   You should cancel the current job and complete the previous PTF application. Do the following:

   - Cancel the current PTF job.
   - IPL from IJSYSR1.
   - Run the DTRMRG procedure:

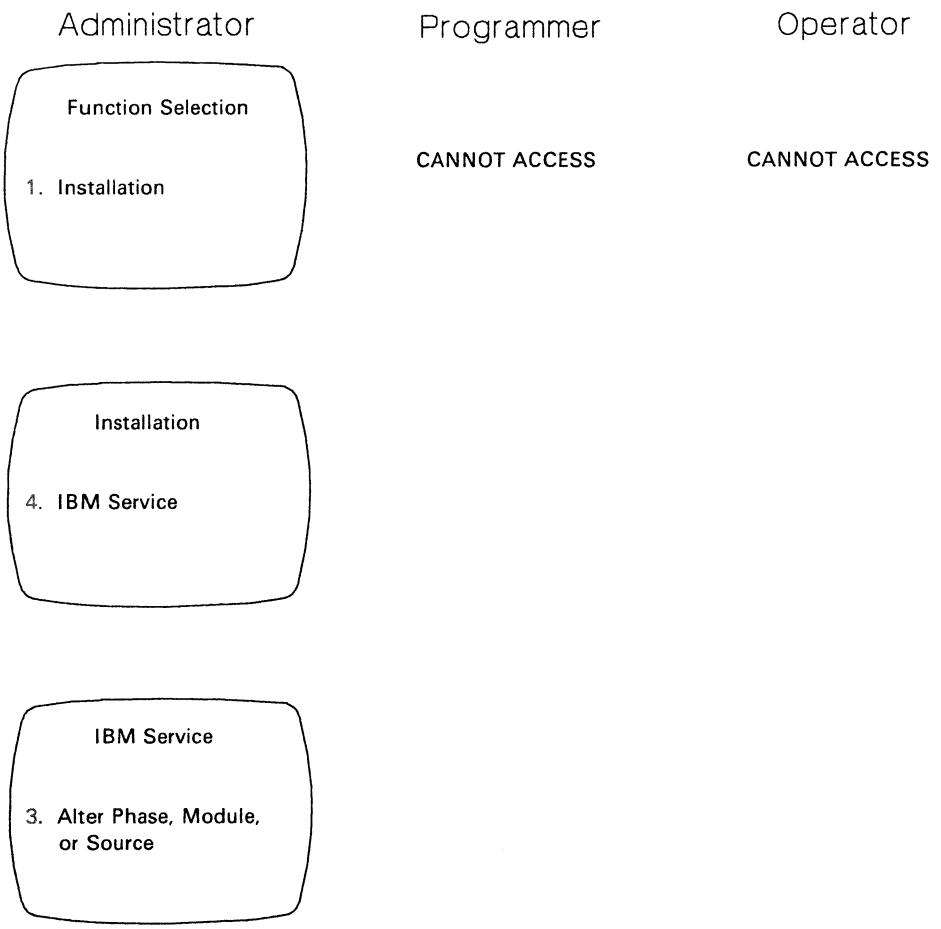
     ```
     EXEC DTRMRG.PROC
     ```

     Previous service is merged into your system.
   - IPL from IJSYSRS.
   - Release the job **DTRSTPTF** from the reader queue.
     The new PTF application continues.

   If you **do not** do this, you may have mixed service levels in the different libraries on the system.

Alter Phase, Module, or Source

The *Alter Phase, Module, or Source* dialog applies an APAR or local fix to your system. You can access the dialog as follows:



A panel displays three selections. Choose the type of member you want to change:

1. Alter Phase
2. Alter Module
3. Alter Source Member

The input you need depends on the selection you choose. The information in "Input For All Selections" on page 98 is needed for each of the three selections. Following this section, additional information is described for altering either a phase, module, or source member.

Input For All Selections

You need the following information for all three selections which the dialog offers:

APAR/LOCAL NUMBER
APAR number in the format XXYYYYY, where XX is:

- Alphabetic for a formal APAR fix.
- The character '#' for a local fix.

BACKUP
Specify whether you want the libraries (sublibraries) affected by the service backed up.

1 - YES (Back up libraries)
2 - NO (Do not back up libraries)

REVOKABLE
Specify whether the fix can be removed at a later time.

1 - YES (Fix can be removed)
2 - NO (Fix cannot be removed)

The Interactive Interface provides the *Undo Phase or Module* dialog which removes a fix to a phase or module. The dialog is described in "Undo Phase or Module" on page 101.

If a fix for a source member is revokable, the dialog punches a job to SYSPCH. The job is used to remove the fix. Refer to "Undo Source Member" on page 102 for information about removing a source fix.

TAPE ADDRESS
The address (**cuu**) of the tape unit used for this task.

AFFECTED COMPONENT
Specify the ID of the affected component.

AFFECTED MEMBER
The phase, module, or macro affected by the fix, depending on whether you are altering a phase, module, or source member.

Additional Input For Altering a Phase

If you alter a phase, a fix for self-relocatable phases can be expanded. This provides a patch area at the end. Specify a 1 - 6 digit decimal number (additional bytes) for the patch area.

You have the following options:

1. SCAN PHASE
   This allows you to:

   a. Scan by address (look at contents).
   b. Scan for content (look for address).

   Using both options allows you to verify the phase.

2. ALTER PHASE
   With this option, you can alter a phase.

3. CONTINUE
   Specify whether you have additional phases for the APAR fix. When you are done, you can include a comment in the system history file about the change. This is optional. The comment **must** be enclosed in single quotes.

The dialog creates a job with the default name SRV. On the JOB DISPOSITION panel, you can submit the job to batch, file it in your default primary library, or both.

Additional Input For Altering a Module

If you alter a module, you also need the following information:

EXPAND LENGTH
Fixes to modules can be expanded. This provides a patch area at the end. Specify a 1 - 6 digit decimal number (additional bytes) for the patch area.

CSECT ID
Specify 1 - 3 hexadecimal characters. This is used for the CSECT number to which the change in the module is applied.

RELATIVE ADDRESS
Specify the address where the text is replaced. This is the address from the start of the module.

VERIFY OLD TEXT
Enter the hexadecimal data which is presently at the relative address.

REPLACEMENT NEW TEXT
Enter the hexadecimal data which replaces the old data. The length must be the same as the length of the old data (VERIFY OLD TEXT).

ADDITIONAL MODULE
Specify whether you want to change additional modules. When you are done, the dialog continues.

INCLUDE LINK BOOK
Specify the name of the book that will link edit the fix into the library. If this is not required, press ENTER.

You can include a comment in the system history file about the change. This is optional. The comment must be enclosed in single quotes.

The dialog creates a job with the default name SRV. On the JOB DISPOSITION panel, you can submit the job to batch, file it in your default primary library, or both.

Additional Input For Altering a Source Member

If you alter a source member, you also need the following information:

SYSPCH ASSIGNMENT
You must assign SYSPCH (cuu) if the fix is revokable.

MACRO TYPE
Specify the type of macro affected by the fix.

You have the following options:

1. VERIFY
   This is only valid for 'E' type macros. You can check that the existing data in the macro is correct.

2. INSERT
   This allows you to insert new lines of data.

3. REPLACE
   You can replace statements with new data.

4. DELETE
   You can delete statements.

5. RESTART
   This allows you to restart line numbering.

6. ADDITIONAL MACRO
   You can process an additional macro for the fix.

7. CONTINUE
   Processing for the fix is completed.
   You can include a comment in the system history file about the change. This is optional. The comment must be enclosed in single quotes.

The dialog creates a job with the default name SRV. On the JOB DISPOSITION panel, you can submit the job to batch, file it in your default primary library, or both.

Undo Phase or Module

The *Undo Phase or Module* dialog removes either an APAR or a local fix which has been applied. You can access the dialog as follows:

Administrator	Programmer	Operator
Function Selection 1. Installation	CANNOT ACCESS	CANNOT ACCESS

Installation

4. IBM Service

IBM Service

4. Undo Phase or Module

A panel displays two selections. Select the type of member for the fix you want to remove:

1. Undo Phase
2. Undo Module

For either selection, specify the component and fix number:

- APAR/LOCAL NUMBER
- COMPONENT ID

The dialog creates a job with the default name UNDO. On the JOB DISPOSITION panel, you can submit the job to batch, file it in your default primary library, or both.

Undo Source Member

The *Alter Phase, Module, or Source* dialog applies an APAR or local fix. If a fix affecting a source member is applied revokably, the dialog punches a job to SYSPCH. This job is used to remove the fix.

To remove the fix, do the following:

- Release a PAUSE job for the BG partition.
  The PAUSE job is in the reader queue.

- Temporarily assign SYSIN to the same device you used as SYSPCH (cuu) when you applied the fix.

  //ASSGN SYSIN,cuu

The job runs and removes the fix.

Install Fast Service Upgrade

The VSE/SP system libraries are periodically upgraded with the latest level of maintenance. This is known as a *system refresh*.

After you install VSE/SP, you can install a refresh using the Fast Service Upgrade (FSU) process. The FSU simply replaces the VSE/SP information. It **does not** change or delete your own libraries or installation information.

The *Install Fast Service Upgrade* dialog creates a job sequence to install the refresh. The job sequence is managed by the Job Manager. "Additional Considerations" on page 104 has information about Job Manager processing and other dialog considerations.

You can access the dialog as follows:

Administrator	Programmer	Operator
Function Selection 1. Installation	CANNOT ACCESS	CANNOT ACCESS
Installation 4. IBM Service		
IBM Service 5. Install Fast Service Upgrade		

You need the following information:

TAPE UNIT ADDRESS
The address (cuu) of the tape unit used for the FSU.

NAME OF ASIPROC

Specify the name of the JCL procedure you will use to IPL from IJSYSR1. The name must begin with $$.

GEN-LIB INSTALL

If you have the VSE/SP Generation Feature installed, specify whether you want to reinstall the generation library during Fast Service Upgrade.

1 - YES (Reinstall)
2 - NO (Do not reinstall)

If you enter **2** (NO), the entry for the generation library is removed from the system history file. The sublibrary where the feature resides (PRD2.GEN1) is reinitialized. After FSU, the history file reflects that you do not have the VSE/SP Generation Feature installed.

BACKUP LIBRARIES

Specify whether you want the sublibraries IJSYSRS.SYSLIB and PRD1.BASE backed up.

1 - YES (Back up sublibraries)
2 - NO (Do not back up sublibraries)

BACKUP DTSFILE

Specify whether you want to back up the DTSFILE.

1 - YES (Back up DTSFILE)
2 - NO (Do not back up DTSFILE)

The dialog creates a job with the default name DTRFSU. On the JOB DISPOSITION panel, you can submit the job to batch, file it in your default primary library, or both.

Additional Considerations

1. The job sequence runs in the background partition (BG). You should start BG with CLASS=0.

2. Only one job sequence from this dialog can be in the reader queue at one time.

3. Fast Service Upgrade checks where CICS/DOS/VS and ACF/VTAM are running (F1 - FB). When the job sequences runs, it starts CICS/ICCF and ACF/VTAM (for ACF/VTAM users) in the same partitions in which they were running.

4. You should have a current backup of your system available, in case service application is not successful.

   If you do not have one, specify 1 (YES) in the BACKUP field.

5. If service affects an ICCF library member, the ICCF member is replaced.

   If you modify any ICCF members, such as the SUBMIT procedure, you should also save them in another library. *VSE/ICCF Installation and Operations Reference* lists the ICCF members which can be replaced.

   When you use a VSE/SP skeleton, you should first copy it to another ICCF library before you change it.

6. All members which you catalog to IJSYSRS should also be cataloged to PRD2.SAVE, so they are saved.

   For example, if you use a $ASIPROC.PROC member for IPL, save a copy in PRD2.SAVE. Your $xJCL procedures should also be saved in PRD2.SAVE.

7. It is recommended that your VSE/POWER startup reformats the VSE/POWER queues.

8. Do not have your own information in the following libraries. These libraries are replaced.

   - IJSYSRS
   - PRD2.GEN1
   - PRD1.BASE

9. If the Generation Feature is installed:

   - It must reside in library PRD2.GEN1.

   - The generation library must be online. If it is not, the job fails. You would then have to exit from Job Manager processing, restore the library, and resume the Job Manager.

10. In Stage 2, Fast Service Upgrade defines a work file for the Text Repository file. The work file is defined in VSAM space. You should make sure that your system has sufficient VSAM space for the definition of this work file. You can estimate the required space by looking at the space which your current Text Repository file uses.

11. After Fast Service Upgrade, regenerate any CICS/DOS/VS tables you have modified.

    - Terminal Control Table (TCT)
      Use the *Create Startup Books* dialog. Select the TCT. The dialog is described in *VSE/SP System Use*.

    - User modified tables
      Submit your own jobs for any tables you use as you already did in your system before FSU.

12. If you upgrade your system to a higher service level, you should consider installing your VSE/SP optional programs and other VSE

program products after you complete FSU. This ensures that there are matching service levels for all program products.

13. You should have jobs in the VSE/POWER queue to restore your original:

    - DTSFILE.
    - PRD1.BASE sublibrary.
    - Generation Feature sublibrary.

    This is needed if there are problems during FSU and you have to restore these.

Overview of Fast Service Upgrade Processing

The following information outlines Fast Service Upgrade. There are two stages; Stage 1 and Stage 2.

Stage 1

In Stage 1, the job sequence:

1. Backs up libraries and history file, if specified.

2. Backs up DTSFILE.
   The job asks you to either:

   - Stop VSE/ICCF
   - Disconnect DTSFILE

   Before you continue, check the list output to make sure the backup is complete.

3. Copies system history file to work history file.

4. Installs FSU for SYSRES to SYS.NEW.RES.
   MSHP lists downlevel service information. After FSU, reapply any service you had installed which is missing in the FSU.

5. Copies members and procedures to IJSYSR1.SYSLIB.

6. Reinstalls Generation Feature, if specified.
   This is done only if the feature is already installed.

7. Stores IJSYSR1 IPL procedure and jobs needed for Stage 2.

At this point, there is a user exit. You should do the following:

- Regenerate any SYSRES phases and relink them to IJSYSR1 (for example, supervisor or POWER phase).

- Make sure that your LIBDEF chains point to IJSYSR1 instead of IJSYSRS. This is needed to:

  - Use the new code.
  - Catalog to IJSYSR1.

- Shut down all partitions, except the POWER partition.

- Empty the POWER queues.

  - Mount tape.
  - Back up queues.
  - Delete jobs in reader, list, and punch queues.

- Shut down your system.

- IPL from IJSYSR1. Use your IPL procedure with the JCL procedure specified in the dialog.

  To reformat the POWER queues, reply DELETE to message '4733D'.

Stage 2

In Stage 2, the job sequence:

1. Selectively restores FSU DTSUTIL file.

2. Installs FSU for PRD1.BASE.
   MSHP lists downlevel service information. After FSU, reapply any service you had installed which is missing in the FSU.

3. Restores message files.

4. Backs up and restores DTSFILE.
   This reorganizes the DTSFILE for better ICCF performance.

5. Copies IJSYSR1 to IJSYSRS and renames system procedures.

6. Updates work history file residencies.

7. Copies work history file to system history file.

   Note: Code replacement is completed. The job sequence now processes startup information.

8. Generates *base* startup for CICS/DOS/VS.

   Note: You can regenerate your own CICS/DOS/VS tables and options later.

During this step, you have to respond to certain messages. You need to define the following:

- TP access method: VTAM or BTAM
- BTAM-ES users must define up to three 3270 terminal addresses (cuu).
- VTAM users must specify whether the local control unit is a SNA control unit (YES/NO).

  If you reply YES, define:

  - Control unit address (cuu).
  - Terminal type (327x-y).
  - Up to three local ACF/VTAM terminals (port number).

  If you reply NO, define up to three local ACF/VTAM terminals (cuu).

9. Starts CICS/ICCF and ACF/VTAM (for ACF/VTAM users).
10. Completes cleanup.

You can now generate your own CICS/DOS/VS tables and options. When you are done, do the following:

- Load your POWER queue files.
- Shut down the system.
- IPL from IJSYSRS.

Problem Handling

The dialog creates a job sequence which runs under the control of the Job Manager. Job Manager processing is described in "Job Manager Overview" on page 9.

If a problem occurs and you cannot resume, delete the following jobs in the VSE/POWER reader queue:

- DTRSTFSU
- DTRCLFSU
- All jobs beginning with the prefix DTRFSU.

If you do not do this, the Job Manager may not work correctly at a later time.

If you cannot resume, there are other things you should also do. This depends on whether you exit during Stage 1 or Stage 2 of the FSU process.

- Stage 1

  Your system has not been changed up to the installation of the Generation Feature (for Generation Feature users only). If you exit either during or after this job step, you must restore your old generation library, if it was online.

- Stage 2

  If you exit and cannot resume during Stage 2, do the following:

  - Load the VSE/POWER queues.
  - Shut down your system.
  - IPL from IJSYSRS.
  - Restore the following:
    - Old DTSFILE
    - Old PRD1.BASE library
    - Old generation library

Problems Bringing Up Your Own CICS/DOS/VS

If you have problems bringing up your own CICS/DOS/VS after Fast Service Upgrade, you can start up the 'FSU CICS' and correct any problems you have. VSE/SP provides two jobs in the reader queue to start CICS/DOS/VS after FSU.

1. FSUCICS
2. FSUVTAM

The job(s) you should use depend on the telecommunications access method you are using; ACF/VTAM or BTAM-ES.

ACF/VTAM Users
Release the following two jobs:

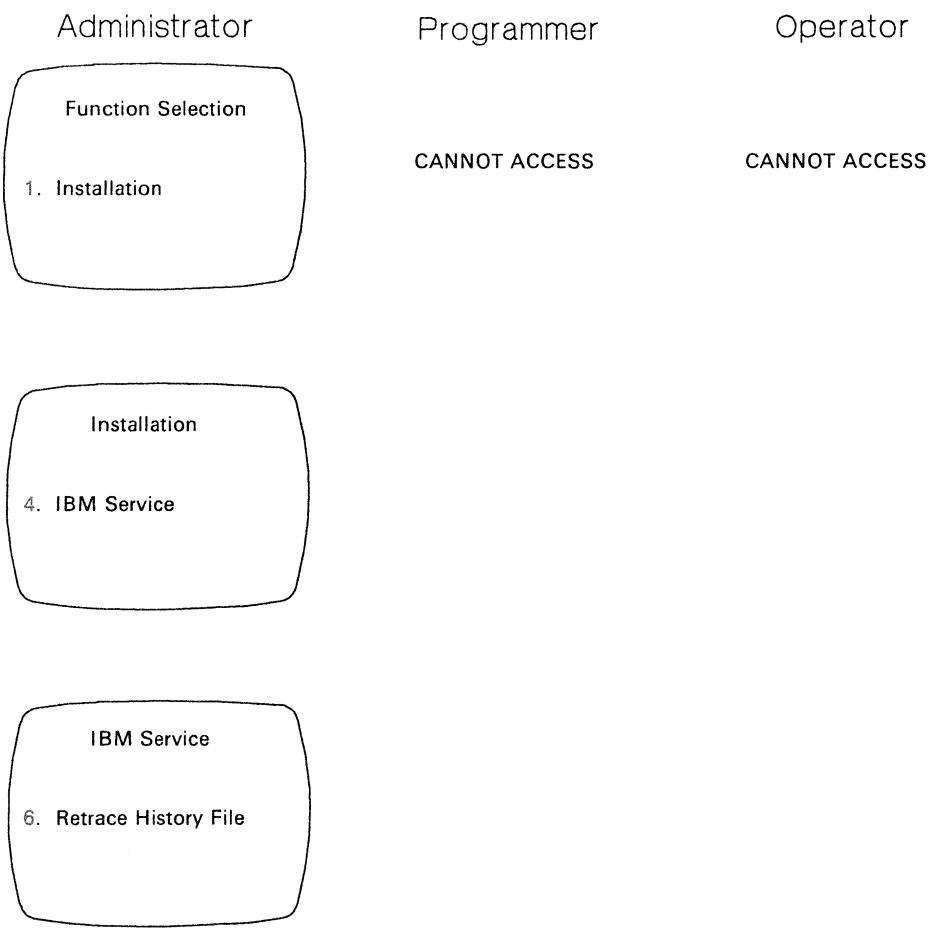
- FSUCICS - Start CICS/DOS/VS
- FSUVTAM - Start ACF/VTAM

BTAM-ES Users
Release the FSUCICS job to start CICS/DOS/VS.

You now have a running CICS system. You can submit jobs to correct any problems. After you correct the problems, you can shut down the 'FSU CICS' system and start up your own CICS/DOS/VS system again.

Retrace History File

The *Retrace History File* dialog prints selected information from the system history file. You can access the dialog as follows:



A panel displays five selections. Select the type of information you want printed.

1. Retrace Components

   This option prints information about component records. You can print information about a particular component by entering the component ID. Otherwise, the dialog retraces all component IDs.

   The dialog prints the following information for each component:

   - Component ID
   - Release level
   - Installation date
   - List of PTFs and APARs applied

2. Retrace Products

   The dialog prints the following information for each product:

   - Installation date
   - Components within the product
   - Comments

3. Retrace PTFs

   All applied PTFs are printed by sequence number. For each PTF number, the dialog provides the following information:

   - Indication if PTF was revoked
   - Component to which PTF applies
   - Affected modules
   - Resolved APARs
   - Prerequisites and corequisites
   - Negative prerequisites
   - PTFs which supersede the PTF
   - PTFs which are superseded by the PTF

4. Retrace APARs

   All APARs which have been fixed by either a PTF or APAR fix are printed. For each APAR number, the dialog provides the following information:

   - Affected component
   - PTF number (for PTF fix)
   - Application date
   - Affected modules (for APAR fix)

5. Retrace Members

   All phases, relocatable modules, and macros which are affected by a PTF or an APAR fix are printed. The dialog provides the following information:

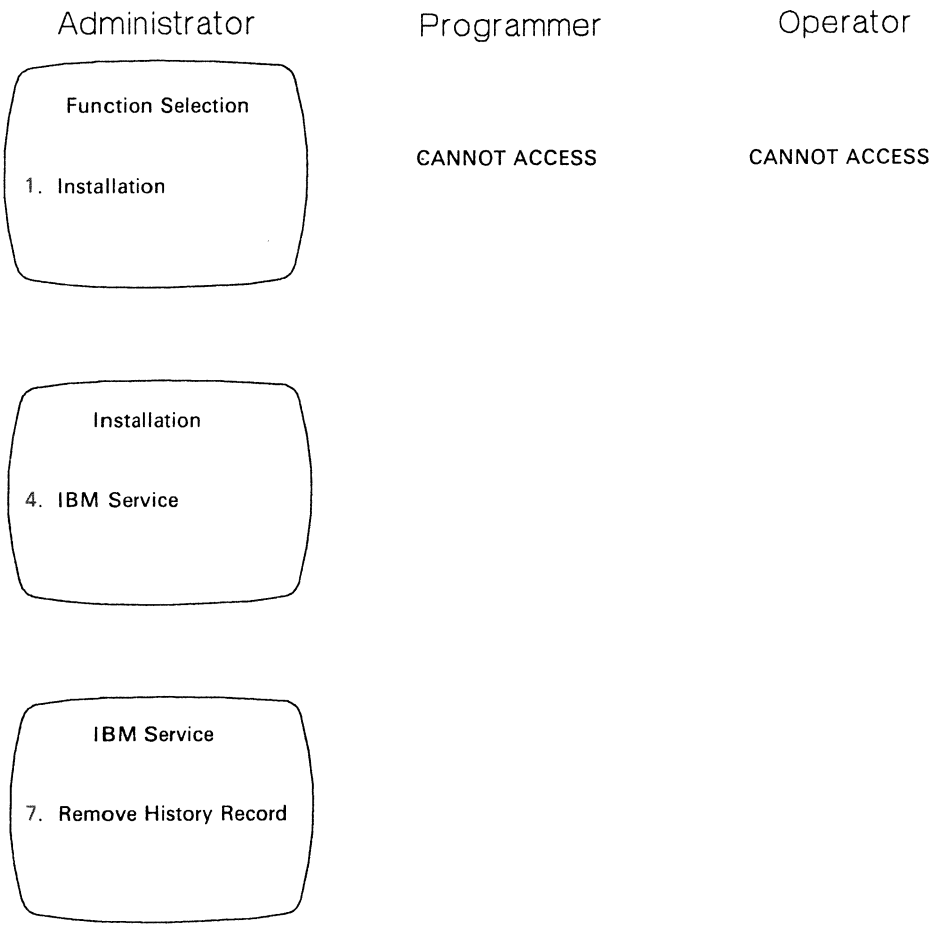
   - Module name
   - Component to which a module belongs
   - Application date of PTF/APAR fix
   - PTF/APAR number affecting a module

The dialog creates a job with the default name RETRACE. On the JOB DISPOSITION panel, you can submit the job to batch, file it in your default primary library, or both.

Remove History Record

The *Remove History Record* dialog removes information about service which has been applied to your system. It removes the PTF or APAR entry from the system history file.

You can access the dialog as follows:



You need the following information:

COMPONENT ID
Specify the ID of the component which is affected by the PTF or APAR entry you want to remove.

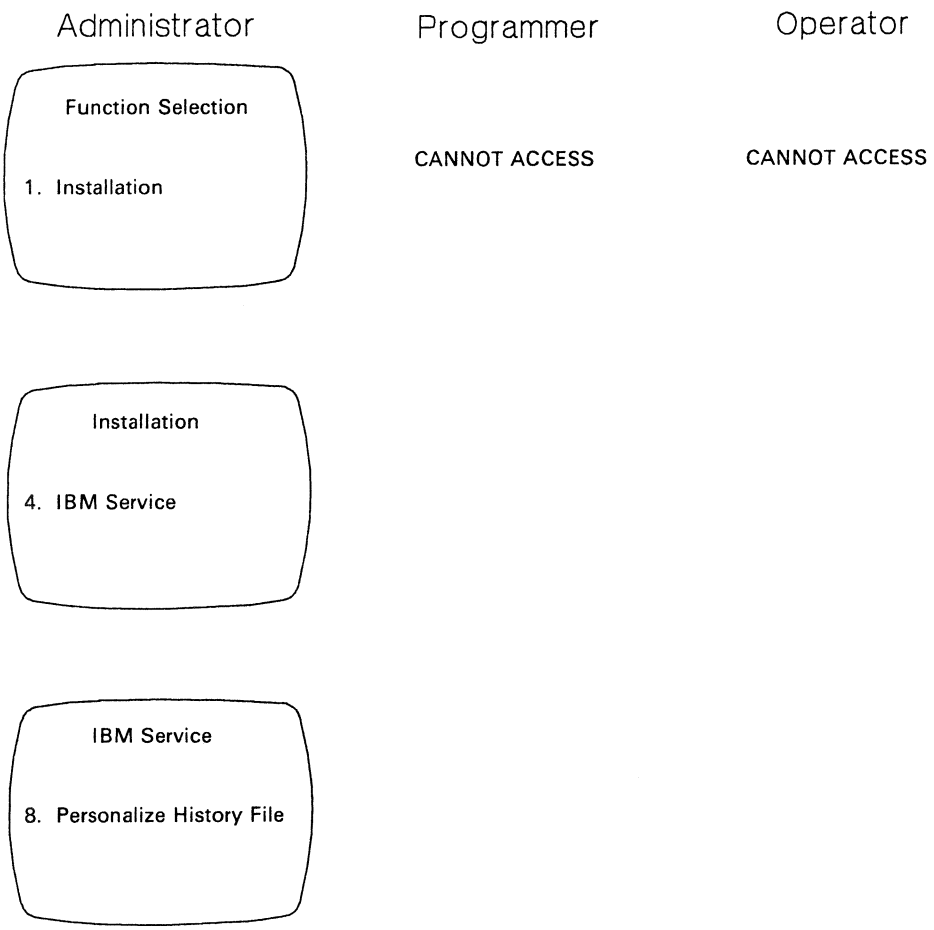
PTF or APAR NUMBER
Enter either the PTF or APAR number for the entry you want to remove. You cannot specify both entries.

The dialog creates a job with the default name REMOVE. On the JOB DISPOSITION panel, you can submit the job to batch, file it in your default primary library, or both.

Personalize History File

The *Personalize History File* dialog updates personalized information for the system history file. You first entered MSHP information when you completed the initial installation of VSE/SP. You should use this dialog whenever you want to update the information.

You can access the dialog as follows:



On the next several panels, enter your unique data for MSHP. The information you type in on the panels must be enclosed in single quotes.

- Customer name
- Customer address
- Telephone number
- Programmer name
  This is the name of the person who is responsible for maintaining the system. It is usually the system administrator.

How to Fix Non-IBM Programs

The PDZAP function of previous VSE releases is not available with VSE/SP. Instead, fixes are installed using MSHP. By using MSHP, you:

- Have all information about every fix in the system history file. Whenever you need it, you can extract information from the history file using the MSHP RETRACE function.
- Can easily remove a fix using the MSHP UNDO function.

There are different tasks you perform to apply any fix to your system depending on whether the affected program is an IBM program product or not.

1. To correct *IBM program products* (phase, module or source), use the IBM service dialogs which are described in this chapter.
2. To correct *non-IBM programs*, do the following:
   a. Archive a dummy entry in the history file.
   b. Apply the fix (referring to dummy entry).

VSE/SP provides three skeletons in ICCF library 59 which you can use to fix non-IBM programs. The skeletons are:

- SKARCHIV
- SKCORREC
- SKUNDO

The skeletons are shown in the following three figures.

```
* $$ JOB JNM=ARCHIVE,CLASS=0,DISP=D,PRI=8,LDEST=*
// JOB ARCHIVE
*
* THIS JOB CREATES AN USER PRODUCT-ID AND COMPONENT-ID ENTRY
* INTO SYSTEM HISTORY FILE
*
// EXEC MSHP
 ARCHIVE ZAPUSE                    /*  USER PRODUCT-ID ENTRY  */
 COMPRISES 9999-ZAP-IT
 RESOLVE 'ENTRY FOR USER/OEM PROGRAM CORRECTIONS'
 ARCHIVE 9999-ZAP-IT-USE           /*  USER COMPONENT-ID ENTRY  */
/*
/&
* $$ EOJ
```

Figure 7. VSE/SP Skeleton SKARCHIV

```
* $$ JOB JNM=CORRECT,CLASS=0,DISP=D,PRI=8,LDEST=*
// JOB CORRECT
* ********************************************************************
*             THIS JOB CORRECTS A USER PROGRAM
*     ------------------------------------------------------
*
*    THE FOLLOWING VARIABLE ARE USED IN THE JOB STREAM
*
*   ---V1--- LIB.SUBLIB   INDICATES THAT THE PHASE TO BE ALTERED
*             IS IN THE NAMED LIBRARY.SUBLIBRARY.
*
*   ---V2--- APAR NUMBER -US00001-  THE NUMERIC PART OF APAR NO.
*             MUST BE INCREASED EVERY TIME A NEW CORRECTION IS
*             APPLIED.EX:US00002,US00003...US00009...US00199 AND SO ON.
*
*   ---V3--- MEMBER-NAME  IS THE NAME OF THE PHASE TO BE ALTERED.
*
*
*   ---V4--- ADDRESS (1 TO 6 HEX.DIGITS, LEADING ZEROS MAY BE OMITTED)
*             SPECIFIES THE (RELATIVE) ADDRESS WHERE THE 'NEW-TEXT'
*             WILL SUBSTITUTE THE 'OLD-TEXT'
*
*   ---V5--- OLD-TEXT  SPECIFIES THE TEXT THAT WILL BE SUBSTITUTED.
*
*   ---V6--- NEW-TEXT  SPECIFIES THE TEXT THAT WILL SUBSTITUTE THE
*                        TEXT AT THE SPECIFIED ADDRESS
*
*   ---V7--- COMMENT   SPECIFIES 35 CHARACTER STRING ENCLOSED IN QUOTES
*
*            RESIDENCE PRODUCT=ZAPUSE PRODUCTION=PRD2.USER1
*            CORRECT 9999-ZAP-IT-USE : US00001
*            AFFECTS PHASE=USEPHASE
*            ALTER 00A0 41F08AB0 : 41F088A8
*            RESOLVES 'USER PROGRAM CORRECTION'
*
* ********************************************************************
*
// EXEC MSHP
 RESIDENCE PRODUCT=ZAPUSE PRODUCTION=---V1---
 CORRECT 9999-ZAP-IT-USE : ---V2---
 AFFECTS PHASE=---V3---
 ALTER ---V4--- ---V5--- : ---V6---
 RESOLVES '---V7---'
/*
/&
* $$ EOJ
```

Figure 8. VSE/SP Skeleton SKCORREC

```
* $$ JOB JNM=UNDO,CLASS=0,DISP=D,PRI=8,LDEST=*
// JOB UNDO
*
*. THIS JOB RE-ESTABLISH THE STATUS OF THE LIBRARY MEMBER (PHASE)
*  AS IT EXISTED BEFORE USER CORRECTION.
*
// EXEC MSHP
 UNDO 9999-ZAP-IT-USE : US00001
       /* US00001 IS THE UNIQUE IDENTIFICATION (APAR NUMBER) OF THE  */
      /*  CORRECTION TO BE REMOVED                                   */
/*
/&
* $$ EOJ
```

Figure 9. VSE/SP Skeleton SKUNDO

Chapter 4. VM/VSE Interface

VSE/SP provides the VM/VSE Interface which is a set of VSE phases and CMS modules. The VM/VSE Interface routines enable CMS users to operate VSE/SP systems concurrently. Operating a VSE/SP system means the ability to:

- Submit jobs from a CMS terminal to a virtual VSE machine and have none, some, or all messages from the job be echoed to a specified job owner (CMS user-id).
- Execute CP commands within JCL statements and have the resulting CP messages routed to the CMS job owner.
- Retrieve up to twenty of the most recent messages from a virtual VSE machine.
- Reply to messages resulting from the execution of a job. The job must have a unique job owner-id (CMS user-id).
- Issue VSE/SP commands to a virtual VSE machine and have the resulting AR (Attention Routine) messages echoed to the CMS user.
- Issue CP commands for execution in the virtual machine and have the resulting CP messages routed to the CMS job owner.

The VM/VSE Interface routines are distributed in IJSYSRS.SYSLIB. You must obtain the routines from the library and install them onto a CMS minidisk.

Installing the VM/VSE Interface

Before you can use the VM/VSE Interface, you must distribute the following CMS modules and the related EXPLAIN files to all CMS users who are authorized to use the appropriate function.

- VSEREP (reply to outstanding messages)
- VSEMSG (retrieve messages)
- VSECMD (issue VSE/SP commands)

- VSECP (issue CP commands)
- SUBVSE (submit a job to VSE (CMS EXEC2 file))

The use of VSECMD and VSECP should be carefully controlled. VSEREP, VSEMSG, and the CMS EXEC2 file SUBVSE can be loaded onto a disk to which all CMS users have access. However, VSECMD and VSECP are mainly intended for the system administrator.

VSE/SP provides the SKVMVSE skeleton in ICCF library 59. You use this skeleton to punch the MODULES, EXPLAINS, and EXECs from the VSE machine to the VM machine MAINT. The skeleton is shown in Figure 10.

```
* $$ JOB JNM=PUNVMVSE,CLASS=0,DISP=D
* $$ PUN CLASS=A,DISP=D,DEST=(,-V001-)
// JOB PUNVMVSE    PUNCH VM/VSE MODULES FOR INSTALLATION
* ********************************************************************
* *                                                                  *
* * - - - - - -   INSTALL VM/VSE FEATURE       - - - - - - - - - - - *
* *                                                                  *
* *  THIS JOB PUNCHES DIFFERENT CMS MODULES AND EXPLAIN PANELS       *
* *  OF THE VM/VSE FEATURE TO A DEFINED VM USERID.                   *
* *  AT THIS USER-ID, THE MODULES/PANELS ARE INSTALLED VIA THE CMS   *
* *  'DISK LOAD' COMMAND (NO OTHER ACTION REQUIRED).                 *
* *                                                                  *
* *                                                                  *
* *  THE FOLLOWING VARIABLE IS USED AND HAS TO BE CHANGED:           *
* *                                                                  *
* *     -V001-  VSE/POWER DESTINATION PARAMETER FOR PUNCH OUTPUT.    *
* *              IDENTICAL TO THE NAME OF THE VM USERID AT WHICH     *
* *              THE VM/VSE FEATURE WILL BE INSTALLED, E.G. 'MAINT'  *
* *                                                                  *
* ********************************************************************
*
// LIBDEF *,SEARCH=(IJSYSRS.SYSLIB)
// ASSGN SYSPCH,PUNCH
// UPSI 1
// EXEC DITTO
$$DITTO  SET   PUNCLOSE=NOBLANK
$$DITTO  SET   EOD=)))))))
$$DITTO  CC
* $$ SLI MEM=VSECP.Z
* $$ SLI MEM=VSECMD.Z
* $$ SLI MEM=VSEMSG.Z
* $$ SLI MEM=VSEREP.Z
* $$ SLI MEM=EXPCP.Z
* $$ SLI MEM=EXPCMD.Z
* $$ SLI MEM=EXPMSG.Z
* $$ SLI MEM=EXPREP.Z
* $$ SLI MEM=SUBVSE.Z
))))))
$$DITTO  EOJ
/*
// RESET SYSPCH
/*
/&
* $$ EOJ
```

Figure 10. VSE/SP Skeleton SKVMVSE

You should first copy the skeleton SKVMVSE from library 59 to your primary library. You can use the *Program Development Library* dialog to copy ICCF library members. The dialog is described in *VSE/SP System Use.*

Edit the copy of the skeleton. Replace the -V001- variable with the VSE/POWER destination parameter for punch output. This is the same name as the VM user-id where you want the VM/VSE Interface installed.

When you submit the job, the members are placed in MAINT's reader queue. You should access the CMS minidisk where the routines will be loaded. (The default is the first accessed R/W minidisk). The minidisk can be:

1. MAINT 319 for general access.

2. A specific minidisk (for example, 301).

Figure 11 on page 120 shows the interrelationship between the CMS modules and the phases as cataloged within the VSE/SP system library and the function.

CMS File Name (fn)	CMS File Type (ft)	VSE Library Book Name	Function
		$VMCF.PHASE	VM/VSE Interface processing routines.
		$VMCFOPN.PHASE	VM/VSE Interface initialization routines.
VSEREP	MODULE	VSEREP.Z	Reply to outstanding messages.
VSEMSG	MODULE	VSEMSG.Z	Retrieve messages from VSE system.
VSECMD	MODULE	VSECMD.Z	Execute VSE commands on virtual VSE system.
VSECP	MODULE	VSECP.Z	Execute CP commands on virtual VSE system.
VSEREP	EXPLAIN	EXPREP.Z	VSEREP command HELP panel.
VSEMSG	EXPLAIN	EXPMSG.Z	VSEMSG command HELP panel.
VSECMD	EXPLAIN	EXPCMD.Z	VSECMD command HELP panel.
VSECP	EXPLAIN	EXPCP.Z	VSECP command HELP panel.
SUBVSE	EXEC	SUBVSE.Z	Submit a job for execution on a virtual VSE system.

Figure 11. Module Interrelationship for VM/VSE Interface

Note: SUBVSE requires the IOS3270 module.

Chapter 5. Starting and Stopping the System

This section provides information on how you start and stop the system during and after initial installation. This includes IPL and starting and stopping:

- CICS/DOS/VS
- ACF/VTAM
- VSE/POWER

IPL

When you IPL VSE/SP, the IPL is performed **automatically**. VSE/SP uses different procedures depending on whether you IPL before or after VSE/SP initial installation.

If you IPL before initial installation is complete, VSE/SP uses the initial VSE/SP procedures.

If you IPL after you complete initial installation, VSE/SP uses the following procedures. The procedures are dynamically created during initial installation.

- 370 mode and VM mode
  - $IPL370
  - $xJCL370

  In the procedure name $xJCL370, *x* can be 0 - 5.

- E mode
  - $IPLE
  - $xJCLE

  In the procedure name $xJCLE, *x* can be 0 - 5.

The $IPL370 and $IPLE procedures contain all the hardware which was sensed during initial installation.

CICS/DOS/VS

- Shutdown
  Enter the following commands to shut down CICS/DOS/VS. In the 'cemt' command, the *i* (immediate) is optional. It causes an immediate shutdown of CICS/DOS/VS.

  ```
  /tc

  xx cemt p shut,i                    (xx - the replid)
  ```

- Startup
  You can release the CICSICCF job to start CICS/DOS/VS. Enter:

  ```
  r rdr,cicsiccf
  ```

ACF/VTAM

- Shutdown
  Enter the following command to shut down ACF/VTAM. In the command, *quick* is optional. It causes an immediate shutdown of ACF/VTAM.

  ```
  z net,quick
  ```

- Startup
  You can release the VTAMSTRT job to start ACF/VTAM. Enter:

  ```
  r rdr,vtamstrt
  ```

VSE/POWER

You can shut down VSE/POWER by entering the command:

```
pend
```

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CICS/DOS/VS Release Guide, GC33-0130

CICS/VS Application Programmer's Reference Manual (RPGII), SC33-0085

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Glossary

This glossary defines terms as they are used in this book. If you do not find the term you are looking for, refer to the index or to the book *Vocabulary for Data Processing, Telecommunications, and Office Systems.*

The glossary includes definitions published in the:

- *American National Dictionary for Information Processing*, copyright 1977 by the Computer and Business Equipment Manufacturers Association. Copies may be purchased from the American National Standards Institute, 1430 Broadway, New York, New York, 10018.
- *ISO Vocabulary of Data Processing*, developed by the International Standards Organization, Technical Committee 97, Subcommittee 1.

Definitions from draft proposals and working papers under development by the ISO subcommittee also have been used.

A definition included from one of the above sources is marked by an asterisk.

abend. Short for abnormal end of task. Termination of a CICS/DOS/VS task before its completion because of an error condition that cannot be handled by automatic recovery facilities.

access method. A program for moving data between virtual storage and input/output devices.

ACF/VTAM. (Advanced Communication Function for Virtual Telecommunications Access Method) A Systems Network Architecture (SNA) access method that controls communication between resources of a single or multiple-processor network.

*** address.** See device address.

application program. A program written for or by a user; a program that applies to the user's own work. Often shortened in this book to just application.

See also batch application and online application.

backup copy. A copy of a file or set of files that is kept for reference for the case that the original file or set of files is destroyed. In a VSE-based system, backup copies normally are done from disk to tape devices.

batch application. A set of programs that normally processes data without user interaction (an application to print a company payroll, for example). Such an application uses a device, a data file, or the processor intensively for a longer time than online applications.

*** batch processing.** (1) Loosely, the processing of computer programs serially. (2) Pertaining to the technique of processing a set of computer programs such that each is completed before the next program of the set is started. (3) In real-time systems, the processing of related transactions that have been grouped together.

BSC. (Binary Synchronous Communication) A communication line discipline that uses a standard set of control characters and control character sequences to transmit binary-coded data between stations.

BTAM-ES. (Basic Telecommunication Access Method Extended Storage) An IBM-supplied telecommunication access method. It permits read and write communication with remote devices.

channel. A functional unit, controlled by the processor, that handles the transfer of data between processor storage and local peripheral equipment.

CICS/DOS/VS. (Customer Information Control System/Disk Operating System/Virtual Storage) A general-purpose program product that controls online communication between terminal users and a data base.

CKD disk device. (Count-Key-Data disk device) A disk storage device on which storage is allocated by tracks and cylinders. Contrast with FBA disk device.

communication controller. A control unit whose operations are controlled by one or more programs stored and executed in the unit (an IBM 3705 Communications Controller, for example). A communication controller manages details of line control and the routing of data through a network.

communication control unit. A communication device that controls the transmission of data over lines in a network. Communication control units include transmission control units such as the IBM 2702 Transmission Control Unit and communication controllers such as the IBM 3705 Communications Controller.

configuration. (1) The arrangement of a computer system or network as defined by the nature, number, and the chief characteristics of its functional units. More specifically, the term may refer to a hardware configuration or a software configuration. (2) The devices and programs that make up a system, subsystem, or network.

*** control program.** A computer program designed to schedule and to supervise the processing of programs of a computer system.

control unit. A device that controls input/output operations at one or more devices.

data entry panel. A panel in which the user communicates with the system by filling in one or more fields. See also panel and selection panel.

data management. A major function of the operating system. It involves organizing, storing, locating, and retrieving data.

data processing system. A set of hardware and software that performs five functions--input, processing, storage, output, and control.

For a local data processing system, all five functions are done at the same location.

For a remote data processing system, certain portions of the input and output functions are at different places and are connected by transmission facilities.

device address. The identification of an input/output device by its channel and unit number.

Device Support Facilities. A utility program for performing operations on disk volumes so that they can be accessed by programs running under VSE. Examples of these operations are initializing a disk volume and assigning an alternate track.

dialog. For VSE/SP, a set of panels that can be used to complete a specific data processing task (defining a file, for example).

*** direct access.** The facility to obtain data from a storage device, or to enter data into a storage device in such a way that the process depends only on the location of that data and not on a reference to data previously accessed.

See also sequential access.

disk device. A storage device in which the access time is effectively independent of the location of the data. Direct Access Storage Device (DASD) is often used synonymously for disk device.

display station. See terminal.

distribution tape. A magnetic tape that contains an IBM program product like VSE/SP. This tape is shipped to the customer for program installation.

DITTO. See VSE/DITTO.

domain. (1) In a network, the resources that are under control of one or more associated host processors. (2) The network resources that are under the control of a particular system services control point (SSCP).

DOS/VS. (Disk Operating System/Virtual Storage) See VSE.

*** dump.** (1) Data that has been dumped. (2) To write the contents of a storage, or of part of a storage, usually from an internal storage to an external medium, for a specific purpose, such as to allow other use of the storage, as a safeguard against faults or errors, or in connection with debugging.

EREP. (Environmental Recording, Editing and Printing Program) A service aid of VSE/Advanced Functions.

Whenever a hardware error occurs, VSE/SP writes information about the error into a system recorder file. Through EREP, both summarized and detailed reports about this file's contents can be printed.

external storage. Storage that is not part of the processing unit (storage on disk, for example).

FBA disk device. (Fixed Block Architecture disk device) A disk storage device on which storage is allocated by blocks of fixed size. Contrast with CKD disk device.

FCOPY. See VSE/FCOPY.

*** file.** (1) A set of related records that are treated as a unit. (2) Also known as a data set.

*** hardware.** Physical equipment used in data processing, as opposed to computer programs, procedures, rules, and associated documentation. Contrast with software.

host processor. (1) In a network, the processor in which the access method for the network resides. (2) In an SNA network, the processor that contains a system services control point (SSCP).

ICA. (Integrated Communication Adapter) A hardware feature of IBM 4300 processors that permits telecommunication lines to be attached to these processors.

ICCF. See VSE/ICCF.

interactive. Pertaining to an application in which each entry causes a response from a system or program, as in an inquiry system or an airline reservation system. An interactive system may be conversational, implying a continuous dialog between the user and the system.

*** I/O.** (Input/Output) (1) Pertaining to a device or to a channel that may be involved in an input process, and, at a different time, in an output process. (2) Pertaining to a device whose parts can be performing an input process and an output process at the same time. (3) Pertaining to either input or output, or both.

*** I/O device.** A device in a data processing system by which data may be entered into the system, received from the system, or both.

IPL. (Initial Program Load) (1) The initialization procedure that causes an operating system to begin operation. (2) The process by which a configuration image is loaded into storage at the beginning of a work day or after a system malfunction.

JCL. (Job Control Language) A control language that can be used to: (a) identify a job to an operating system and (b) describe that job's requirements.

JES. (Job Entry Subsystem) A subsystem for use under OS/VS1 or MVS/SP.

job. (1) A set of data that completely defines a unit of work for a computer. A job usually includes all necessary computer programs, linkages, files, and instructions to the operating system. (2) The actual processing of a unit of work by a computer.

*** job stream.** The sequence of representations of jobs to be submitted to an operating system. Synonymous with input stream and run stream.

library. A collection of data elements on disk to which the system has quick access. These elements (programs or dumps, for example) are maintained by system services.

VSE/SP has two main types of libraries, VSE libraries and ICCF libraries.

licensed program. Any separately priced program that bears an IBM copyright and is offered to customers under the terms and conditions of the Agreement for IBM Licensed Programs. Includes Program Products (PPs), Industry Application Programs (IAPs), Field-Developed Programs (FDPs), Installed User Programs (IUPs), and Programming RPQs (PRPQs).

line. See link connection.

link connection. A communication line is the physical medium of transmission (a telephone line, for example). A link connection includes the physical medium of transmission, the protocol, and associated devices and programming. It is both physical and logical.

megabyte. Roughly equal to 1 million bytes. A byte is the space required to represent one character.

member. A named set of one or more records in a library.

MSHP. (Maintain System History Program) A program used for automating and controlling various installation, tailoring, and service activities for a VSE system.

MVS/SP. (Multiple Virtual Storage/System Product) A program product that is an extension of OS/VS2.

network. (1) * An interconnected group of nodes. (2) The assembly of equipment through which connections are made between data stations.

node. In SNA, a junction point in a network that is represented by a physical unit. A node contains network addressable units.

object module. A program unit that is the output of an assembler or a compiler and is suitable for input to the linkage editor. Contrast with source program.

OLTEP. See VSE/OLTEP.

online. (1) Pertaining to a user's ability to interact with a computer. (2) Pertaining to a user's access to a computer via a display station. (3) * Pertaining to the operation of a functional unit that is under the continual control of a computer. The term is also used to describe a user's access to a computer via a display station.

online application. A set of programs that normally is used by people at display stations (an application that processes airline reservations, for example).

When an online application is active, it waits for data to be sent to it. Once input arrives, it processes it and sends a response to the display station or to another device.

online processing. Processing by which the input data enters the computer directly from a display station and the output data is transmitted directly to the display station.

*** operating system.** Software that controls the processing of computer programs and that may provide scheduling, debugging, input/output control, accounting, compilation, storage assignment, data management, and related services.

operator console. See system console.

*** output.** (1) Pertaining to a device, process, or channel involved in an output process, or to the data or states involved in an output process. (2) See I/O.

panel. In VSE/SP, the complete set of information that currently is shown on a display station screen. Each panel of the VSE/SP Interactive Interface is like a different page in a book; that is, you go backward and forward through panels, just like you do when turning a book's pages. See also selection panel and data entry panel.

partition. A division of the address space that is available for program execution. The supervisor control program, however, does not run in this space.

password. (1) A unique string of characters that a program, computer operator, or user must supply to meet security requirements before gaining access to data. (2) In VSE also a 3 to 6 character symbol that the user is required to supply at the time he logs on to the system. The password is confidential, as opposed to the user identification.

phase. The smallest unit of executable code that can be referred to in a program library.

POWER. See VSE/POWER.

pregenerated operating system. An operating system like VSE/SP which is shipped by IBM mainly in object code. In such a system, definitions for key functions such as:

- Size of the main control program,
- Organization and size of libraries, and
- Required system areas on disk

are done by IBM, not the customer. Because of this, the customer does not need the source code necessary to generate an operating system.

printer. A device that writes output data from a system on paper or similar media.

processing. The performance of logical operations and calculations on data, including the temporary retention of data in processor storage while the data is being operated upon.

processor storage. The storage contained in a processing unit. Synonymous with real storage.

program. (1) * To design, write, and test programs. (2) A set of instructions that a machine can interpret and execute.

program product. A licensed IBM program that performs a function or set of functions for the user. It interacts with and relies upon either the hardware or other program products of IBM.

PTF. (Program Temporary Fix) A temporary solution or by-pass of a problem caused by a defect in a current, unaltered release of an IBM program.

queue. (1) A line or list formed by items in a system that are waiting for service (for example, tasks to be performed or messages to be transmitted in a message-switching system). (2) To arrange in, or form, a queue.

*** read.** To acquire or interpret data from a storage device, from a data medium, or from another source.

real storage. See processor storage.

*** record.** A collection of related data or words, treated as a unit (for example, in stock control, each invoice could constitute one record).

restore. To load a copy of: (a) an operating system or (b) user data into storage. The copy can be a backup copy that replaces destroyed data, or it can be a newly acquired copy that replaces outdated data.

RJE. (Remote Job Entry) Submission of jobs through an input unit that has access to a computer through a data link.

RSCS. (Remote Spooling Communications Subsystem) The component of VM/SP that transfers spool files between users, remote stations, and local and remote batch systems.

*** run.** (1) A single performance of one or more jobs. (2) A single, continuous performance of a computer program or routine.

SDLC. (Synchronous Data Link Control) A discipline for managing synchronous, code-transparent, serial-by-bit information transfer over a link connection. Transmission exchanges may be duplex or half-duplex over switched or non-switched links. The configuration of the link connection may be point-to-point, multipoint, or loop.

selection panel. A displayed list of functions (options) that are available for doing work. A display station user can select an option from a selection panel to do a specific task. See also panel and data entry panel.

sequential access. An access mode in which records are read from or written into a file in such a way that each successive access to the file refers to the next record in the file.

shared spooling. A function of VSE/POWER that permits sharing of the VSE/POWER account file, data file, and queue file among systems with VSE/POWER.

SNA. (Systems Network Architecture) A method for formally defining the responsibilities of components of an IBM communications network.

SNA network. The part of a user-application network that conforms to the formats and protocols of Systems Network Architecture. It enables reliable transfer of data among end users and provides protocols for controlling the resources of various network configurations. The SNA network consists of network addressable units (NAUs), boundary function components, and the path control network.

*** software.** Programs, procedures, rules, and associated documentation for the operation of a computer system. Contrast with hardware.

*** source program.** A computer program expressed in a source language. Contrast with object module.

spooling. (1) * The use of external storage as buffer storage to reduce processing delays when transferring data between peripheral equipment and a processor. (2) The reading of input data streams and the writing of output data streams on external storage devices (concurrently with job processing) in a format convenient for later processing or output operations.

*** storage.** (1) The action of entering data into a storage device. (2) The retention of data in a storage device. (3) A device, or part of a device, that can retain data. (4) A storage device.

*** storage device.** A functional unit into which data can be entered, in which it can be retained, and from which it can be retrieved.

subsystem. A secondary or subordinate system or programming support, usually capable of operating either independently of or together with the operating system.

supervisor control program. In a VSE-based system, the program that coordinates the use of resources and maintains the flow of processor operations.

SVA. (Shared Virtual Area) An area located in the high address range of virtual storage. It contains, primarily, phases that can be shared between partitions.

*** system console.** A functional unit containing devices that are used for communication between a computer operator and a data processing system.

System IPO/E. (System Installation Productivity Option/Extended) For VSE, a set of products and a series of optional features designed to aid in system installation and maintenance.

system libraries. In VSE/SP, a set of libraries in which the various parts of the operating system are stored.

telecommunication. The transmission of data between computer systems and between such a system and remote devices.

terminal. (1) * A point in a system or communication network at which data can either enter or leave. (2) A device, usually equipped with a keyboard and a screen,

capable of sending and receiving information over a communication channel.

Display stations and display terminals are terminals with a keyboard and screen.

transaction. In CICS/DOS/VS, an application program (or programs) that can be used by a display station operator. A given transaction can be used concurrently by one or more operators.

A task is the execution of a transaction for a particular operator. A given task can relate only to one operator.

utility program. (1) A program that assists in the use of a computing system without contributing directly to the control of the system or the production of results. (2) A program that performs an everyday task such as copying data from one storage device to another. (3) * Synonym for service program.

virtual address. An address that refers to a location in virtual storage. It is translated by the system to a processor storage address when the information stored at the virtual address is to be used.

*** virtual storage.** The notation of storage space that may be regarded as addressable main storage by the user of a computer system in which virtual addresses are mapped into real addresses. The size of virtual storage is limited by the addressing scheme of the computer system and by the amount of available external storage, not by the actual size of processor storage.

VM/SP. (Virtual Machine/System Product) A program product that manages the resources of a single computer so that multiple computing systems appear to exist. Each virtual machine is the functional equivalent of a "real" machine.

volume. A disk pack, tape reel, or diskette (pack).

VSAM. See VSE/VSAM.

VSE. (Virtual Storage Extended) An operating system that is an extension of Disk Operating System/Virtual Storage.

A VSE system consists of: (a) licensed VSE/Advanced Functions support and (b) any IBM-supplied and user-written programs that are required to meet an installation's data processing needs. VSE and the hardware controlled by it form a complete computing facility.

VSE/Advanced Functions. The basic operating system support needed at a VSE-controlled installation.

VSE/DITTO. (VSE/Data Interfile Transfer, Testing and Operations Utility) An IBM program product that provides file-to-file services for card I/O, magnetic tape, and disk devices.

VSE/FCOPY. (VSE/Fast Copy Data Set Program) This program is designed for: (a) fast copy data operations from disk to disk and (b) dump/restore operations via an intermediate dump file on magnetic tape or disk.

VSE/ICCF. (VSE/Interactive Computing and Control Facility) An IBM program product that makes the services of a VSE-controlled computing system available to authorized display station users. Availability of services is on a time-shared basis, and display stations must be linked to the system's central processor.

VSE/OLTEP. (VSE/Online Test Executive Program) An IBM program for managing the online tests that are available for device preventive maintenance and service. Normally, only IBM service personnel use this program.

VSE/POWER. (VSE/Priority Output Writers, Execution Processors, and Input Readers) An IBM program product primarily used for the spooling of input and output. VSE/POWER's networking functions enable a VSE/SP system to exchange files with or run jobs on another remote processor.

VSE/VSAM. (VSE/Virtual Storage Access Method) An access method for indexed or sequential processing of fixed and variable length records on direct access devices.

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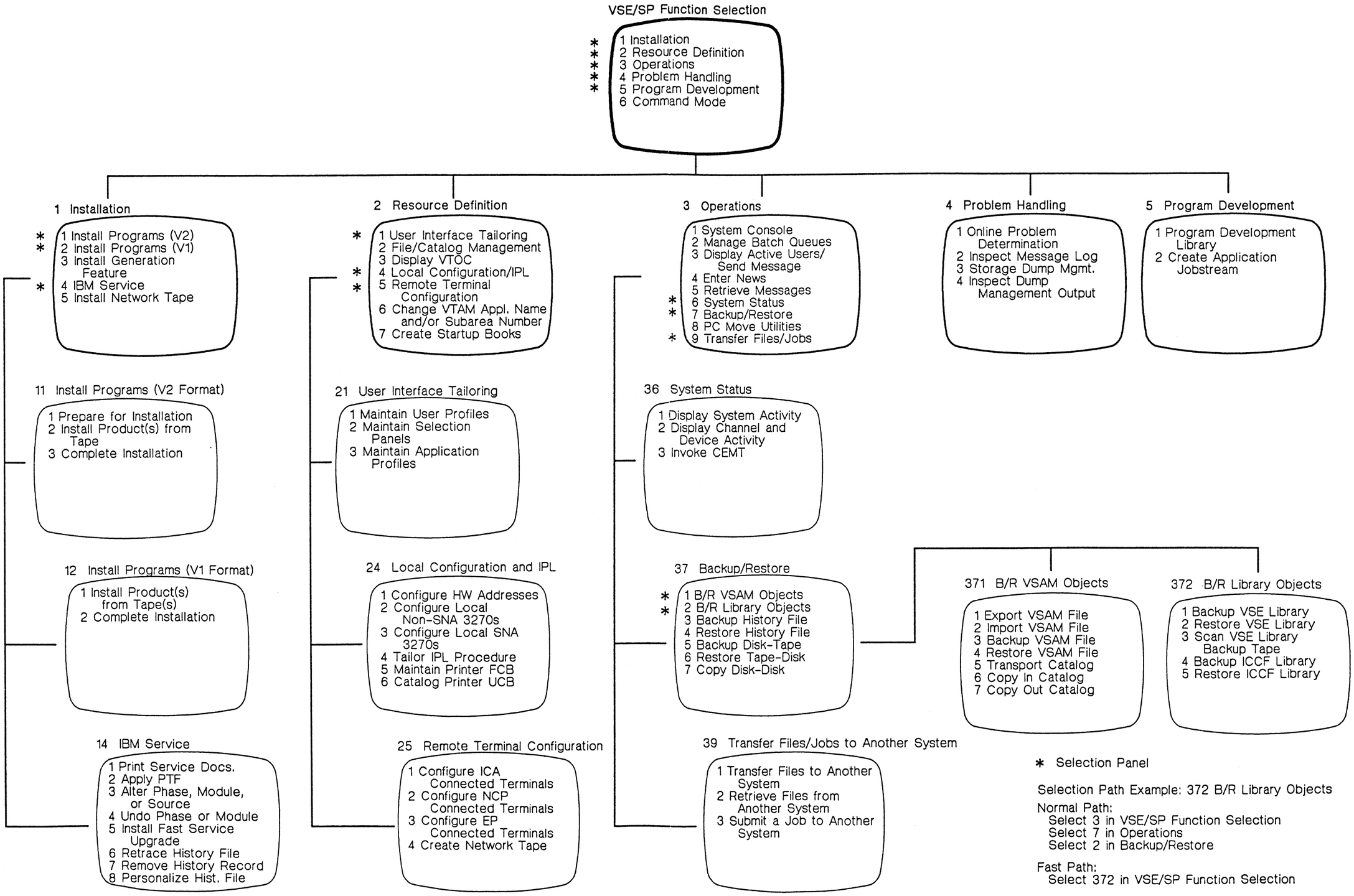
Default Selection Panel Hierarchy for System Administrator



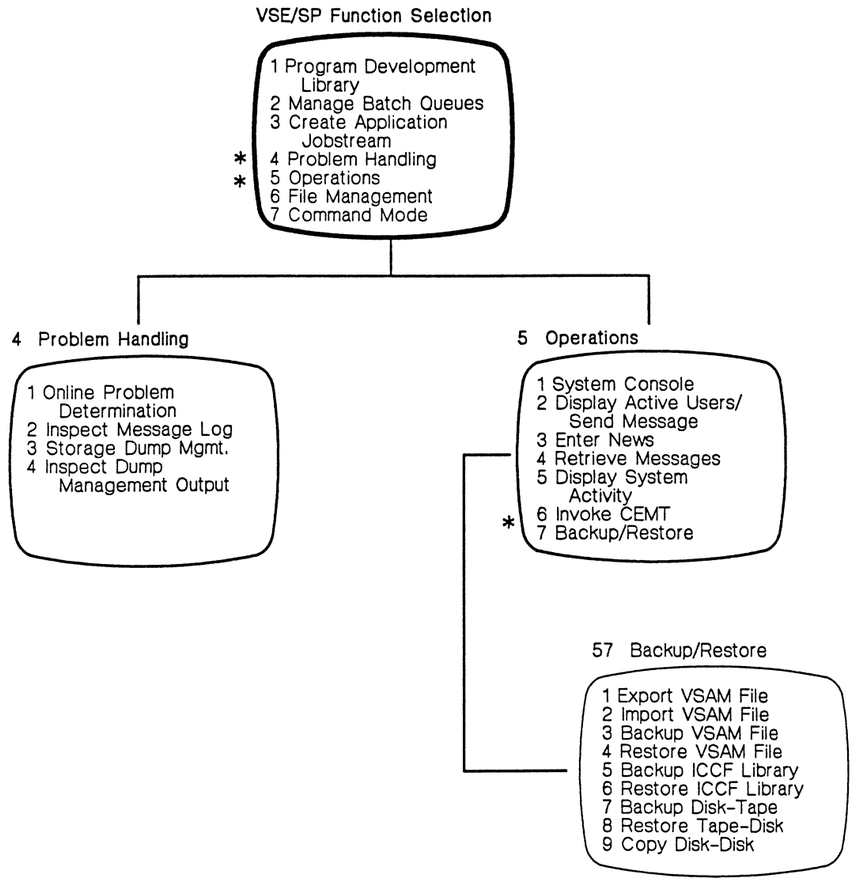
* Selection Panel

Selection Path Example: 372 B/R Library Objects

Normal Path:
Select 3 in VSE/SP Function Selection
Select 7 in Operations
Select 2 in Backup/Restore

Fast Path:
Select 372 in VSE/SP Function Selection

Default Selection Panel Hierarchy for Programmer



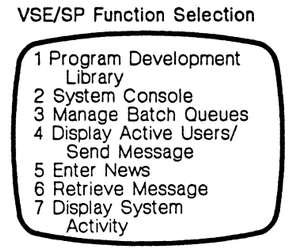
* Selection Panel

Selection Path Example: 57 Backup/Restore

Normal Path:
Select 5 in VSE/SP Function Selection
Select 7 in Operations

Fast Path:
Select 57 in VSE/SP Function Selection

Default Selection Panel for Operator



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