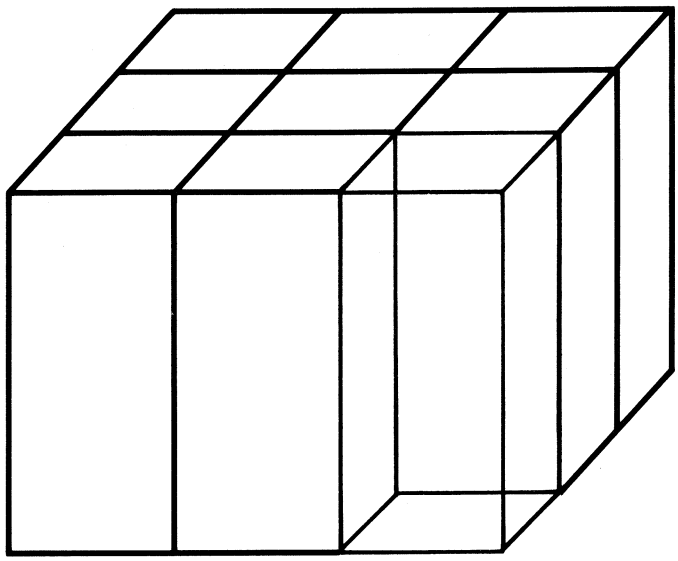
System Use
VSE/System Package



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VSE/System Package System Use

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Preface

Purpose

This book describes how to use VSE/System Package (VSE/SP) Version 2, Release 1.

VSE/SP provides the Interactive Interface and skeletons to help you perform a variety of tasks. This book describes how to use many dialogs of the Interactive Interface, the information you need to complete a task, and additional things you should consider which may affect the way in which your system operates. It also describes various VSE/SP skeletons and how you change them for your own requirements.

Audience

A variety of VSE/SP users can use this book:

- System administrators
- Programmers
- Operators
- Application end users

Contents

Part I. Introduction describes the Interactive Interface and the profiles which are shipped with VSE/SP. It contains information about:

- Selection panel hierarchy
- Types of panels
- *Fast path* facility
- Instructions for signing on
- Use of Program Function (PF) keys

Information about skeletons and how you can use them is also included.

Part II. Resource Definition Tasks describes the dialogs and VSE/SP skeletons you use for resource definition tasks.

These are tasks which define or modify the characteristics of your system. The definition of system resources includes many things, such as:

- Defining users to the system
- Creating system startup jobs
- Defining catalogs and files
- Defining hardware devices

Part III. Operations Tasks describes the dialogs you use and the tasks you perform to operate your system.

Operations tasks are usually associated with the system operator or the person who uses the system console. In VSE/SP, they are tasks which monitor and control operations on the system. Some operations tasks, like IPL, are done at the console. However, many different users can perform operations tasks from a display station. For instance, an application programmer can monitor and control compile and test jobs.

Some examples of operation tasks supported by the Interactive Interface include:

- Monitoring system activity
- Managing VSE/POWER batch queues
- Backing up a VSE library
- Sending a message to other users
- Using the IBM Personal Computer as an intelligent workstation

Part IV. Program Development Tasks describes the dialogs which help you perform program development tasks.

Application programmers perform many tasks which include resource definition and operations tasks. In VSE/SP, program development tasks include using VSE/ICCF libraries and members and designing and developing application programs.

How to Use This Book

Before you use this book, you should read "Part I. Introduction". It contains information about the Interactive Interface and skeletons which VSE/SP provides.

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 key. Information you enter and special keys you press (like PF keys) are highlighted in color. Depending on the task, you use either:

- The Interactive Interface
- A skeleton

Using the Interactive Interface

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

- Administrator
- Programmer
- Operator

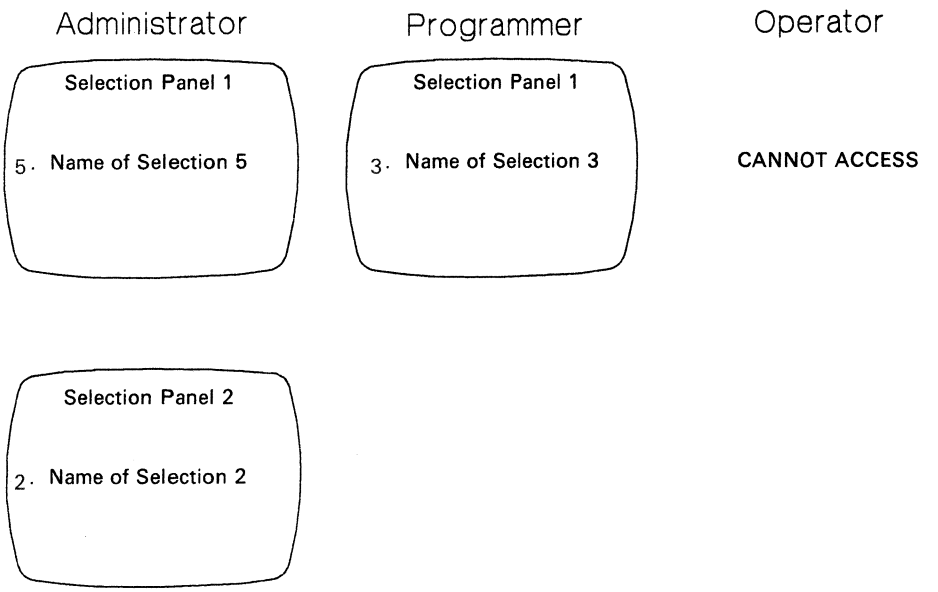
The selection panel hierarchies are shown in the foldout at the back of the book.

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 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
```

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.

Using a VSE/SP Skeleton

For some tasks, you use a VSE/SP skeleton. A skeleton is a partial job stream which contains variables that you should change. A skeleton is shipped in a VSE/ICCF library member.

This book provides samples of many skeletons and corresponding descriptions of the changes you can make. Any variables which you must change 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:

Sequential Files

This is an example of special instructions for users defining a sequential file.

If the heading of the box applies to the task you are doing, follow the instructions in the box.

VSE/SP Library

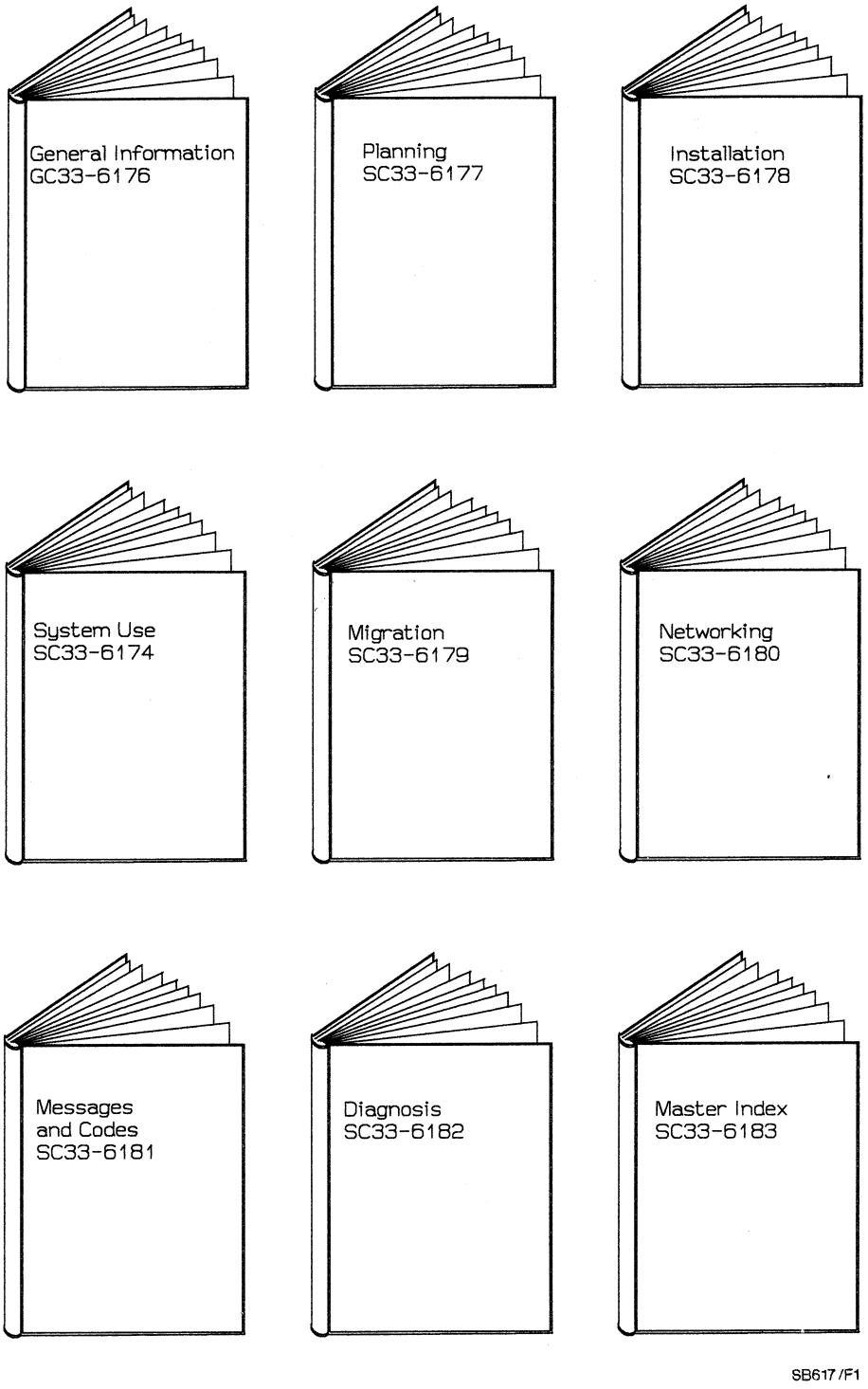


Figure 1. Overview of the VSE/SP Library

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

Part I. Introduction

This part of *VSE/SP System Use* describes the functions offered by VSE/SP.

The new Interactive Interface provides many dialogs which make it easier to maintain and use your system. This introduction outlines the facilities of the Interactive Interface.

VSE/SP also provides skeletons to help you perform tasks. This part also provides an overview of the skeletons and how you can use them.

Chapter 1. VSE/SP 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 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 user 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 which is defined to perform special processing. It is used **only** to complete initial installation which is described in *VSE/SP Installation.* 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. After initial installation, you should define and use your own user-ids. You can use the *Maintain User Profiles* dialog which is described in this book.

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 the book.

VSE/SP Application Profiles

VSE/SP provides application profiles for each dialog in the Interactive Interface. Additional application profiles are also shipped and can be included in the Interactive Interface.

VSE/SP has a feature known as *user interface tailoring.* This allows you to create your own selection panels and define a panel hierarchy which is more beneficial for your users. You can include the following in the Interactive Interface:

- Interactive Interface dialogs
- Additional applications which VSE/SP provides
- Your own CICS/DOS/VS applications

User interface tailoring is described in Chapter 3, "User Interface Tailoring" on page 15.

VSE/SP Planning lists the application profiles which are provided including the dialogs and additional applications.

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. The items could be:

  - VSE/ICCF library members
  - VSE/VSAM files
  - VSE/POWER queue entries

  It also displays a list of functions you use to process the items. Some functions could be:

  - Create
  - Display
  - Submit

  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.

- **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 which the system displays 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 system displays the VSE/SP FUNCTION SELECTION panel. Suppose you want to access the *Maintain User Profiles* dialog. To reach the dialog by going through the entire hierarchy, you would do the following:

1. Enter **2** (Resource Definition) on the VSE/SP FUNCTION SELECTION panel.
2. Enter **1** (User Interface Tailoring) on the RESOURCE DEFINITION panel.
3. Enter **1** (Maintain User Profiles) on the USER INTERFACE TAILORING panel. The dialog is invoked.

You can use the fast path method to go directly to the *Maintain User Profiles* dialog. On the VSE/SP FUNCTION SELECTION panel, enter:

211

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 four (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 system checks the user-id and password. If they are correct, it accesses the selection panel or application which is defined for your user-id.

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.

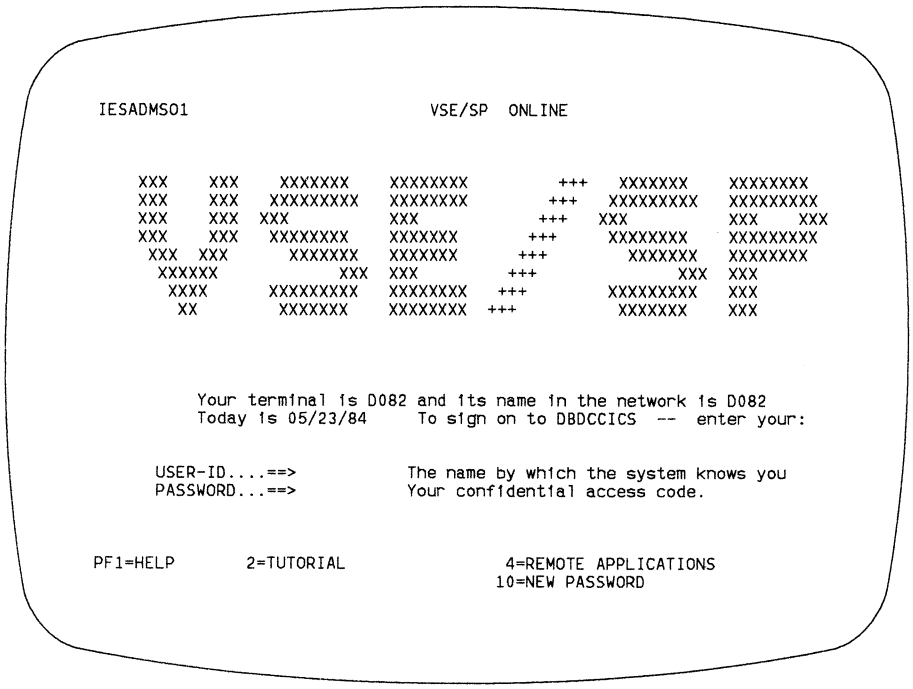


Figure 2. VSE/SP Online Panel

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 5.

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.

You can return to the Interactive Interface from CICS/DOS/VS by pressing either PF1 or PF3. If your terminal has twenty-four (24) PF keys, then PF13 - PF24 correspond to PF1 - PF12. Therefore, you can also use PF13 and PF15 to return to the Interactive Interface.

You can implement the escape facility by modifying the Interactive Interface sign-on panel. Refer to "Modify the Sign-on Panel" on page 147 for information.

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 system processes the information 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 forwards.

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.

You can return to the Interactive Interface from CICS/DOS/VS by pressing either PF1 or PF3. If your terminal has twenty-four (24) PF keys, then PF13 - PF24 correspond to PF1 - PF12. Therefore, you can also use PF13 and PF15 to return to the Interactive Interface.

You can implement the escape facility by modifying the Interactive Interface sign-on panel. Refer to "Modify the Sign-on Panel" on page 147 for information.

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. "Changing the Password for Your User-id" on page 37 has information on changing passwords.

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

Chapter 2. Overview of VSE/SP Skeletons

VSE/SP provides skeletons to help you complete a number of tasks. A skeleton is a member in a VSE/ICCF library. You use it to create a job which completes a task. It is not a complete job itself. It contains variables and parameters which you change to reflect your requirements. After you make the changes, you submit the completed skeleton (job) to the system to run.

VSE/SP ships most skeletons in VSE/ICCF library 59. They are intended to be used more than once. Therefore, you should copy them to another library before you edit and change them. Keep the original skeleton in the library it was shipped in for future use.

If the skeleton is affected by service, it is replaced when you perform a Fast Service Upgrade. Therefore, you should make sure you copy it to another library and change the copied member.

Copying VSE/SP Skeletons

The Interactive Interface provides the *Program Development Library* dialog which you can use to copy VSE/ICCF members between libraries. This section describes how you use the dialog to copy skeletons from the library in which they reside to your primary library. Refer to these instructions whenever you use a skeleton.

When you access the *Program Development Library* dialog, the panel displays your default primary library in the PRIMARY field. This is the library to which you will copy the skeleton. Access the library where the skeleton resides as the **secondary** library.

SECONDARY	**xx**	(xx - library number)
PREFIX	yyyyyyy	(yyyyyyy - skeleton name)
OPTION	2	

Note: Some skeleton names are eight characters. However, the PREFIX field only accepts up to seven characters. If the name of the skeleton is eight characters, enter the first seven characters of the name.

On the SECONDARY LIBRARY panel, locate the skeleton name. Copy the skeleton to your primary library by entering 4 in the OPT column. You can specify a new member name in the NEW NAME column.

Press PF3 to return to the PROGRAM DEVELOPMENT LIBRARY panel. Access your default primary library to edit the copied skeleton. On the panel, enter:

PRIMARY	xx	(xx - default primary library)
PREFIX	yyyyyyy	(yyyyyyy - new member name)
OPTION	1	

Turn to the task description for the skeleton for further instructions.

Part II. Resource Definition Tasks

Resource definition tasks are tasks which define the characteristics of the system. System resources can include user profiles, files, catalogs, and hardware devices.

This part describes the resource definition tasks which you can perform using the Interactive Interface. VSE/SP also provides many skeletons to:

- Create system startup jobs.
- Define, delete, and extend libraries in non-VSAM space.
- Generate VSE/POWER and VSE/ICCF.
- Define standard labels for your files and data sets.
- Format the VSE/ICCF DTSFILE.
- Modify the Interactive Interface sign-on panel.

This part also describes how you edit and change the skeletons.

Chapter 3. User Interface Tailoring

Each system is different. Individual users also do different types of work on a system. Because of these differences, a fixed panel hierarchy may not always benefit every system and every user. VSE/SP has a feature called *user interface tailoring.* This lets you change the Interactive Interface so it reflects your individual system and the way in which you use it. You can:

- Define what is displayed when a user signs on to the Interactive Interface and what functions can be used.
- Change the selections offered by the Interactive Interface panels.
- Include your own CICS/DOS/VS applications so you can access them from the Interactive Interface.

VSE/SP provides three dialogs to help you tailor the Interactive Interface for your system's needs. Each dialog is described in the following sections.

1. *Maintain User Profiles*
2. *Maintain Selection Panels*
3. *Maintain Application Profiles*

Before you change the Interactive Interface provided by VSE/SP, you should carefully plan how you want your system to look. Review the information in the following sections about the three dialogs. You should also refer to *VSE/SP Planning* which contains additional information and considerations about user interface tailoring.

VSE/SP Control File

User interface tailoring is done by maintaining records in the VSE/SP control file. The control file is a VSE/VSAM KSDS file. It contains four types of records.

1. User profile record

   A user profile record exists for every system user. The records are defined and maintained using the *Maintain User Profiles* dialog.

2. Selection panel record

   Selection panel records are used to build selection panels. VSE/SP ships records for all the selection panels in the Interactive Interface. You can create and maintain other records using the *Maintain Selection Panels* dialog.

3. Application profile record

   An application profile record contains execution information about a CICS/DOS/VS application. VSE/SP ships records for the Interactive Interface dialogs. These applications are called VSE/SP Function Processors.

   VSE/SP also provides additional application profiles which you can include in the Interactive Interface. *VSE/SP Planning* lists the dialogs and additional applications.

   You can create and maintain other application profile records using the *Maintain Application Profiles* dialog. This lets you incorporate your own CICS/DOS/VS applications into the Interactive Interface.

4. News record

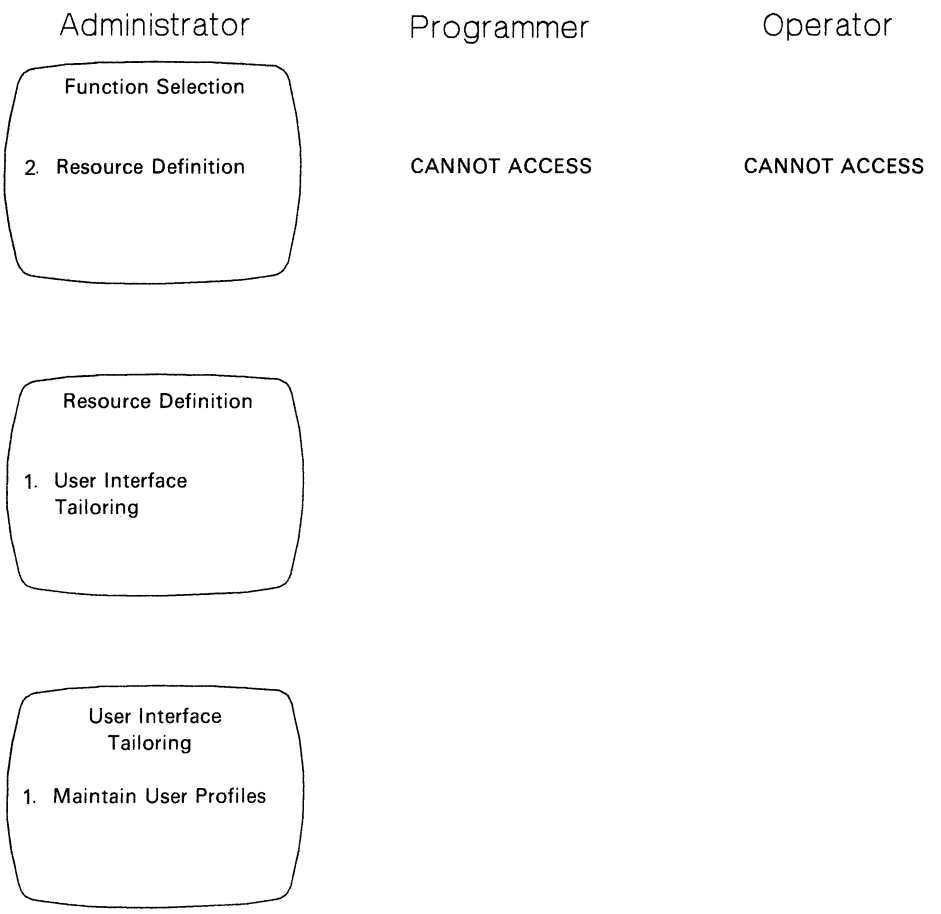
   A news record contains a *news item* which is a message that the system displays when a user signs on. You define these records using the *Enter News* dialog. The dialog is described in Chapter 18, "Enter News" on page 185.

Maintain User Profiles

Every user of the Interactive Interface is defined by a user profile. The profile includes a unique user-id and password which is used to sign on to the Interactive Interface. It also determines what is displayed after the user signs on. The system can display a selection panel or access an application directly. The authorization a user has to do certain tasks is also contained in the user profile.

The Interactive Interface provides the *Maintain User Profiles* dialog. You define, update, or delete user profiles using this dialog.

You can access the dialog as follows:



A FULIST displays the user-ids defined to the system. The options you can choose are shown at the top of the FULIST. Use **PF7** or **PF8** to scroll through the entries.

If you want to locate a particular user-id, enter the user-id in the LOCATE USERID field. The dialog searches for the user-id. If it is found, it is displayed with an * in the OPT column.

You can refresh the FULIST by pressing **PF5**. This updates the panel and displays the most current information.

Delete a User-id

To delete a user-id, enter **5** in the OPT column to the left of the user-id. The dialog deletes the user profile record from the VSE/SP control file.

Add or Update a User-id

To add a user-id, enter **1** in the OPT column next to a user-id that you want to use as a model. The model provides default values. "Additional Considerations" on page 25 has information on the default values.

To change a user-id, enter **2** in the OPT column to the left of the user-id.

The dialog displays the ADD OR CHANGE USER PROFILE panel. The panel is actually one of **four** panels you use to specify profile information. The first two panels define VSE/SP profile information. The third and fourth panels pertain to CICS/DOS/VS Sign On Table information.

After you enter the data on the first panel, press **PF8** to scroll to the next panel. After you enter all the information on each panel, press **PF5** to update the VSE/SP control file. This stores the profile information and the dialog continues.

Note: If you add a new profile or change a user profile, the dialog does **not** *update DTSECTAB.*

The VSE/SP profile information for the first two panels is described below.

USERID
The user-id which identifies the user to the Interactive Interface. It must be 4 alphanumeric characters or the special characters @, #, or $.

If you are **changing** a user-id, you **cannot** change this field on the panel.

USER TYPE
Enter one of the following:

- 1 (Administrator)
  This provides VSE/ICCF administrative authority.

- 2 (Programmer)
  This provides VSE/ICCF access, but not VSE/ICCF administrative authority.

- 3 (General)
  This does **not** provide VSE/ICCF access. It is used for application end users.

PASSWORD
This is the password associated with the user-id. Specify 3 - 6 alphanumeric characters or the special characters @, #, or $.

DAYS
The number of days before the password expires. Specify a number between 0 and 365. If you enter 0, the password will **not** expire.

Information about password expiration and how you can change your password is described in "Changing the Password for Your User-id" on page 37.

INITIAL NAME
The function that is invoked when the user signs on to the Interactive Interface.

NAME TYPE
This defines the type of function you specify in the INITIAL NAME field.

- 1 - Application
  The system invokes the application when the user signs on.

- 2 - Selection Panel
  The system displays the selection panel when the user signs on.

CATALOG NAME
The name of the user's default VSE/VSAM catalog.

For the following fields, enter:

1 - YES (the user does have authorization)
2 - NO (the user does not have authorization)

NEWS
The system displays *news items* to the user.

News items are messages which the system displays when a user signs on. It also displays the message to users already signed on to the system. You use the *Enter News* dialog to add, change, or delete news items.

ESCAPE

The user can *escape* to CICS/DOS/VS. This lets the user leave the Interactive Interface and go into native CICS/DOS/VS. If a user has this authorization, the selection panels display PF6 and PF9. These PF keys are used for the *escape* facility.

This facility lets you use the Interactive Interface with applications that have not been included in the VSE/SP system.

You can implement the escape facility by modifying the IESELOGO skeleton. This is described in "Modify the Sign-on Panel" on page 147.

VSAM FILES

The user can define VSE/VSAM files, libraries, alternate indexes, and alternate names. This authorization is **not** available for general user (type 3) profiles.

This lets the user select options 2, 3, and 4 from the *File and Catalog Management* dialog. These options are:

- Define a New File
- Define a Library
- Define an Alternate Index or Name

VSAM CATALOGS

The user can process VSE/VSAM catalogs. This authorization is **not** available for general user (type 3) profiles.

This lets the user select options 5 and 6 from the *File and Catalog Management* dialog. These options are:

- Process a Catalog, Space
- Define a New User Catalog

OLPD

The user can delete Online Problem Determination (OLPD) incident records from the system. This authorization is **not** available for general user (type 3) profiles.

COMMANDS

The user can enter system console commands from the *System Console* dialog. This authorization is **not** available for general user (type 3) profiles.

All type 1 and 2 users (administrator and programmer type profiles) can access the *System Console* dialog. However, they must have this authorization to enter console commands directly from the dialog panels.

APPLICATION PROFILES

This is only valid for administrator (type 1) profiles. It allows the user to create and maintain application profiles using the *Maintain Application Profiles* dialog.

SELECTION PANELS

This is only valid for administrator (type 1) profiles. It allows the user to create and maintain selection panels using the *Maintain Selection Panels* dialog.

USER PROFILES

This is only valid for administrator (type 1) profiles. It allows the user to create and maintain user profiles using the *Maintain User Profiles* dialog.

For the third and fourth panels, the CICS/DOS/VS profile information is described below. Refer to CICS/DOS/VS documentation for more details on the values you can specify.

OPERATOR ID

CICS/DOS/VS three character operator identification. The ID should be unique.

OPERATOR PRIORITY

The value which CICS/DOS/VS uses for the dispatching priorities of the user. Enter a number from 0 - 255.

EXTERNAL SECURITY

Enter 1 for YES, 2 for NO.

This indicates whether an external security facility is used instead of CICS/DOS/VS security facilities. If you specify **1** (YES), you must also specify EXTSEC=YES in DFHSIT.

CICS/DOS/VS SECURITY KEYS

You can specify from 1 to 64 keys.

OPERATOR CLASSES

Choose the operator classes from 1 - 24. This identifies the user to the CICS/DOS/VS system.

RESOURCE SECURITY CLASSES

Choose resource security classes from 1 - 24. You must define the same value for the RSL operand in the following macros:

DFHDCT	DFHPCT
DFHFCT	DFHPPT
DFHJCT	DFHTST

Sign On Table information is maintained as part of the VSE/SP user profile. Therefore, you can use CICS/DOS/VS authorization facilities without maintaining the SNT. The Interactive Interface does not maintain the actual SNT. It has its own SNT information.

The SNT is optional. However, if it **is** used, and the Interactive Interface finds a table entry for the user-id signing on, it uses the SNT values (except for the password) instead of the VSE/SP values. For the password, it uses the value in the VSE/SP user profile.

The Interactive Interface requires the use of CICS/DOS/VS security keys 1 and 61. If you use the CICS/DOS/VS Sign On Table (DFHSNT), these two security keys must be defined for every user.

After you enter VSE/SP and CICS/DOS/VS information on the four panels, press **PF5**. The dialog updates the VSE/SP control file for the user profile. The dialog continues and asks for VSE/ICCF information.

General User (Type 3) Profiles

If you are adding or changing a general user (type 3) profile, you are finished at this point. General user profiles do not have access to VSE/ICCF, so you do not enter VSE/ICCF information.

The dialog redisplays the FULIST of user-ids. You can process additional user-ids or press **PF3** to end the dialog.

Changing A User-id

If you are changing a user-id, the dialog displays the TRANSFER CONTROL panel. The dialog has updated user profile information for VSE/SP and CICS/DOS/VS in the VSE/SP control file. You now have the option of updating VSE/ICCF profile information. Press the appropriate **PF key**.

PF5 -	YES	(You want to update the VSE/ICCF profile.)
PF6 -	NO	(You do not want to update the VSE/ICCF profile.)

In general, the VSE/ICCF defaults are satisfactory.

If you press PF6 (NO), the update process is complete. The dialog redisplays the FULIST of user-ids.

The dialog displays the SPECIFY LIBRARY panel. In the LIBRARY field, enter the library number for the user's default primary library. You can accept the remaining VSE/SP defaults for VSE/ICCF information or change the defaults. In the DEFAULTS field, enter one of the following:

1 - YES (You do accept the defaults.)
2 - NO (You do not accept the defaults.)

If you enter 2 (NO), you are asked for additional VSE/ICCF information. In general, the default values are satisfactory.

The discussion of VSE/ICCF information below highlights the values you can use. It also recommends which defaults you should keep. You should carefully consider the recommended values and any changes that you make. This is to ensure that the Interactive Interface operates correctly. For more detailed information on VSE/ICCF options, refer to *VSE/ICCF Installation and Operations Reference.*

- MAXSTATE - The value **must** be greater than 100.
- OPTA, OPTB, OPTC

  The default option byte settings (OPTA, OPTB, and OPTC) are based on the VSE/SP user type.

  For administrator (type 1) profiles, the defaults are:

  OPTA - 01110001
  OPTB - 11111010
  OPTC - 01000000

For programmer (type 2) profiles, the defaults are:

```
OPTA - 00000100
OPTB - 10000000
OPTC - 01000000
```

The default settings are usually satisfactory for most users.

In the OPTA, OPTB, and OPTC bytes, you can change certain bits. The bits that you can change are described below and are shown by an asterisk (*). **You should only change the bits that are shown with the ***. If you change any other bits, the Interactive Interface may not work.

- User Type 1 (Administrator)

```
OPTA - *11*00*1  (You can only change bits 0,3,6)
OPTB - **111010  (You can only change bits 0,1)
OPTC - **000*0*  (You can only change bits 0,1,5,7)
```

- User Type 2 (Programmer)

```
OPTA - *00*01*0  (You can only change bits 0,3,6)
OPTB - **000000  (You can only change bits 0,1)
OPTC - **000*0*  (You can only change bits 0,1,5,7)
```

- TIMELIM: The value cannot be greater than 32,767.
- LOGONRTN: You should **not** change the default.
- TIMEOUT: You should **not** change the default.
- TIMEMAXEX: The value cannot be greater than 65,535.
- MAXPRINT: The value cannot be greater than 9999.
- DEL: You should **not** change the default.
- TAB: You should **not** change the default.
- BS: You should **not** change the default.
- ESC: You should **not** change the default.
- END: You should **not** change the default.
- HEX: You should **not** change the default.
- CLASS: Specify the default interactive partition (alphabetic).
- MAXPUNCH: The value cannot be greater than 9999.

- LINESIZE: A value from 1 - 80.

- Alternate ICCF Libraries
  Enter up to eight additional private VSE/ICCF libraries that the user can access. These are in addition to the primary library and public libraries.

- ICCF Security Keys
  You can enter from 1 - 32 keys.

Additional Considerations

Dialog Considerations

1. If you add a new profile or change a user profile, the dialog does **not** update DTSECTAB.

2. If you change a user profile which is currently being used on the system, any new options do **not** immediately take effect. The user must sign off and sign on again to take advantage of new or changed options.

3. When you add a new user, the user-id that you enter the option number next to is used as a model. The values defined for the model are used as defaults for the new profile you are defining.

   With this, you can add new profiles using the VSE/SP user profiles as models. If you do not need to change the defaults, you simply have to enter a new user-id and password.

   If some VSE/SP defaults are not satisfactory, define a new profile and enter your own values. You can then use the new profile as a model to define other users on the system.

   You should consider the following when you add or change a profile:

   - When you add a user, select a model profile which has the same profile type (1, 2, or 3) that you want for the new user-id.

   - For an administrator (type 1) profile, all options are defined. If you change a type 1 profile to a type 2 or 3, the options that do not apply to the new user type (2 or 3) are set to 0.

   - If you add or change a profile and you change the user type, you **must update** the VSE/ICCF information. On the SPECIFY LIBRARY panel, specify 2 (NO) indicating that you do not accept the defaults.

     If you do not do this, the defaults for the original user profile type (1, 2, or 3) are used as defaults for the new user-id. This could result in incorrect authorization values for the new user.

4. Only one user can access the *Maintain User Profiles* dialog at one time. Only one user should be authorized to maintain user-ids and profiles.

5. Any VSE/ICCF information you enter is saved until you leave the dialog. When you finish the dialog, it makes all updates to the VSE/ICCF DTSFILE at the same time. Because of this, you can maintain several user profiles at once without waiting for the system to make the DTSFILE updates one at a time. However, when you leave the dialog, you may notice a small delay while the dialog updates the DTSFILE.

Library Considerations

Programmer (type 2) profiles cannot access library 1. You should not define their default primary library as library 1. In addition, they have **read access** only to public libraries 50 - 69.

"Additional Considerations" on page 302 describes additional VSE/ICCF library considerations.

VSE/ICCF Considerations

The operation of the Interactive Interface depends on specific values in the VSE/ICCF option bytes. You should carefully consider any changes you make to VSE/ICCF profile characteristics. For information on VSE/ICCF option bytes, refer to *VSE/ICCF Installation and Operations Reference.*

CICS/DOS/VS Considerations

If you use the TCT OPERSEC option which lets you use a terminal without signing on, create a user profile using the CICS/DOS/VS terminal id as the user-id. The password can be any value because it is ignored. The terminal then displays the selection panel or activates the application specified for the user profile, instead of displaying the sign on panel.

You should carefully consider the use of this facility. Physical security of the terminal is the only thing that protects the functions associated with the user profile record.

DTSFILE Considerations

When the system updates the DTSFILE in an interactive partition, it uses the VSE/ICCF utility program DTSUTIL. Output from the job is put in VSE/ICCF library member U$xxxx.P (xxxx is your user-id). The member is in your default primary library. The system replaces the contents of U$xxxx.P each time you run this task.

If there is a power failure or other system interruptions before the dialog ends and updates the DTSFILE, the contents of the VSE/SP control file and the DTSFILE may not match. If you think that this has occurred, do the following:

1. Access the *Maintain User Profiles* dialog again.

2. Select the CHANGE option (2) for the user profile(s) you were working with.

3. You should request an **update** to the VSE/ICCF information. This is necessary to ensure that all profile information is consistent.

If you do these steps, the information in the DTSFILE and the VSE/SP control file will agree with each other.

Other Tasks to Consider

To complete user interface tailoring, two other dialogs are often used together with the *Maintain User Profiles* dialog.

1. *Maintain Application Profiles*
2. *Maintain Selection Panels*

Before you begin to tailor the Interactive Interface, you should carefully plan how you want your system defined. Review the sections in this book about maintaining user profiles, selection panels, and application profiles. *VSE/SP Planning* also describes additional considerations about user interface tailoring which you should review.

Maintain Selection Panels

VSE/SP lets you change the structure of the Interactive Interface. You can create your own selection panels and corresponding HELP panels. In this way, you can have many interactive panel hierarchies for different users of your system.

The *Maintain Selection Panels* dialog helps you create, change, or delete selection panels. You define the selections you want on the panel and specify what is invoked for each selection. Each selection can invoke:

1. Another selection panel. It can be a panel shipped by VSE/SP or one that you create.

2. An Interactive Interface dialog.

3. One of the additional application profiles which VSE/SP provides. In addition to the dialogs, VSE/SP provides several other application profiles. You can include these in the Interactive Interface hierarchy. *VSE/SP Planning* describes these applications.

4. One of your own CICS/DOS/VS applications. You must define your application to the system using the *Maintain Application Profiles* dialog.

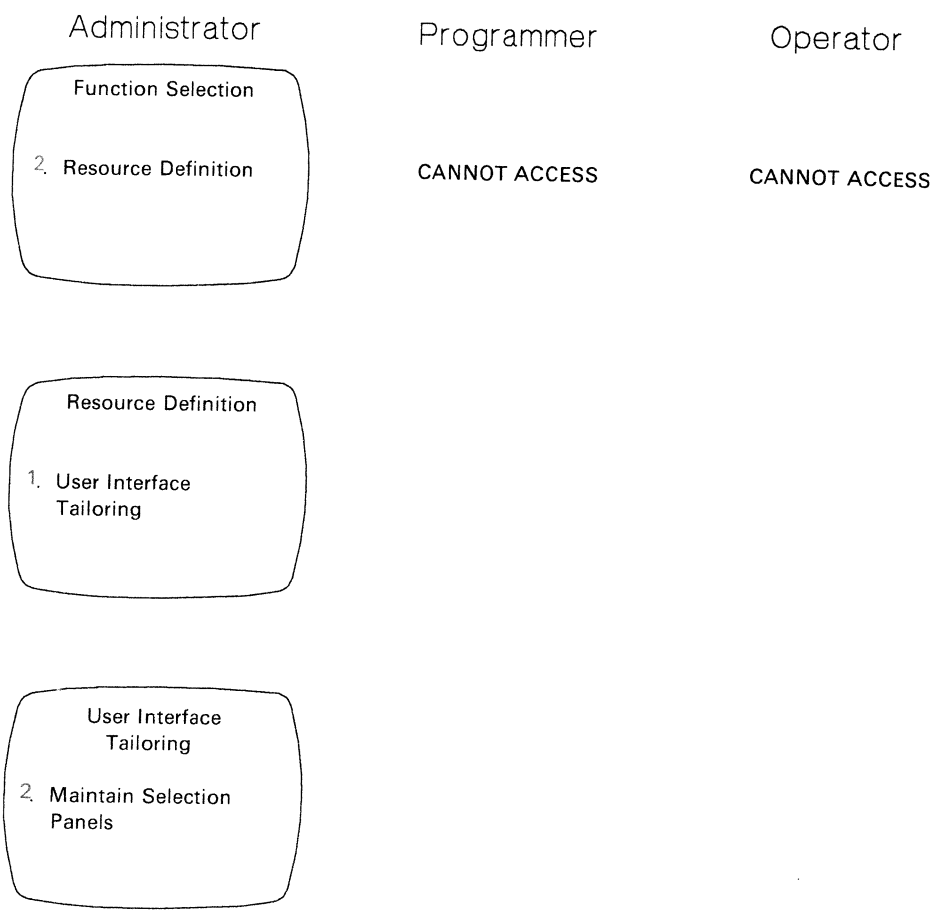
Each selection panel is defined by a selection panel record. The system stores the records in the VSE/SP control file.

You can also write your own HELP information for the selection panels you create. You use the *Maintain Selection Panels* dialog to process the HELP text. The system stores HELP text in the system's text file IESTRFL. You can use the dialog to add, update, or delete HELP information in the text file.

VSE/SP automatically manages the display of HELP panels that you create. It displays your HELP text whenever you press PF1 from a selection panel that you have created. VSE/SP automatically handles backward and forward scrolling. "Creating Your HELP Text" on page 32 describes how you create HELP panels.

Before you create selection panels, refer to *VSE/SP Planning* for additional information about user interface tailoring.

You can access the dialog as follows:



A FULIST displays the selection panels defined for the system. If you want to locate a particular entry, enter the selection panel name in the LOCATE NAME field.

The options you can choose are shown at the top of the FULIST. Enter an option number in the OPT column to the left of the panel you want to process.

The dialog processes HELP text whenever you select options:

- 1 (ADD)
- 6 (UPDATE HELP)
- 7 (DELETE HELP)

When you select one of these options, the dialog searches the following libraries for the VSE/ICCF library member which has the same name as your selection panel:

- Primary library
- Connected library
- Common library

It then either copies the member to the system text file or deletes it from the text file, depending on the option you selected.

Selection panel names that begin with the following characters are reserved:

- IES
- INW
- INF

You **cannot** change or delete them. You can use them as models to define your own panels.

Add or Change a Panel

If you add a new panel, the panel you enter the option number next to is used as a model. The model provides default values.

After you make your selection, the dialog displays an additional panel. You need the following information:

SELECTION PANEL NAME
Specify a unique name for the selection panel. The name cannot begin with the characters IES, INW, or INF. These prefixes are reserved by VSE/SP.

SEQ
The sequence numbers of the selections on the panel. You can specify the numbers 1 - 9, for up to nine options on the panel.

NAME
Enter a 1 - 8 character name indicating what is invoked when this selection is chosen. It can be:

- An application profile name.

  It can be a VSE/SP dialog or application or your own CICS/DOS/VS application which you have added using the *Maintain Application Profiles* dialog.

- The name of another selection panel.

  It can be a panel shipped with the system or one that you create.

VSE/SP Planning lists the dialogs and additional application profiles which VSE/SP provides.

TYPE
This indicates whether you entered an application profile or a selection panel name in the NAME field. Enter:

1 - Application profile
2 - Selection panel

SELECTION TEXT
This is the explanation text that is shown to the right of the sequence number on the selection panel.

After you type in your information, press ENTER. The dialog formats the information, checks for editing errors, and redisplays the panel. Check your entries and make any changes.

When you are done, press PF5 to update the VSE/SP control file and store the selection panel record.

If you are adding a new panel, the dialog also searches for corresponding HELP text. If it locates the VSE/ICCF library member, it formats the HELP text and adds it to the system text file. If you are changing a selection panel, the dialog does **not** process HELP text.

The dialog continues and redisplays the FULIST.

Delete a Panel

Option 5 (DELETE) deletes an existing selection panel record from the VSE/SP control file. If you have HELP text for the panel, the dialog also deletes it from the system text file. However, it does **not** delete the library member which contains the HELP text from the VSE/ICCF library.

Use option 7 to delete your HELP text in both the system text file and the VSE/ICCF library member.

Update HELP

Option 6 (UPDATE HELP) replaces the selection panel HELP text in the system text file with HELP text from the VSE/ICCF library member.

Delete HELP

Option 7 (DELETE HELP) deletes the selection panel HELP text from both the system text file and the VSE/ICCF library member that contains the HELP information.

The dialog does not check whether the VSE/ICCF member is found. If the correct library is not accessed, the member may not be deleted.

Rebuild Default Selection Panels

VSE/SP ships selection panels for three default hierarchies:

- System administrator
- Programmer
- Operator

"VSE/SP Profiles" on page 3 describes the default hierarchies.

If the default selection panel records are damaged, you can rebuild them. This can only be done using the default administrator user-id SYSA.

When user-id SYSA accesses the dialog, the FULIST displays PF6=SYSTEM. PF6 is only displayed for user-id SYSA. It rebuilds the shipped selection panel records for the three default hierarchies.

Creating Your HELP Text

You can create your own HELP text for the selection panels which you create. You simply create a VSE/ICCF library member with the same name as the name of your selection panel. For example, if you create a selection panel named USERSEL, create a VSE/ICCF library member named USERSEL for your HELP text.

You can use the *Program Development Library* dialog to create VSE/ICCF library members. Chapter 25, "Program Development Library" on page 295 describes the dialog.

After you create your library member, edit the member and type in your HELP text.

Each line cannot be longer than 68 characters. Lines which are longer than 68 characters are truncated. You can have blank lines, but trailing blanks are suppressed.

One panel (page) of HELP text consists of sixteen lines, including blank lines. The text can have a maximum of 4000 characters, not including blank lines or suppressed blanks. This is approximately 6 - 8 panels of text.

After you create the HELP text, you can incorporate it into the system using the *Maintain Selection Panels* dialog.

Additional Considerations

1. Do not use the following prefixes for the name of your selection panels:

   - IES
   - INW
   - INF

   These prefixes are reserved by VSE/SP.

2. If you create HELP text before you create your selection panel, the dialog automatically adds the HELP to the system text file when you add (option 1) the new selection panel.

   If you create the HELP text after you create your selection panel, you can add the HELP information to the text file using option 6 (UPDATE HELP).

3. When you use the following options, the correct VSE/ICCF libraries must be accessed for correct HELP text processing:

   - 1 (ADD)
   - 6 (UPDATE HELP)
   - 7 (DELETE HELP)

   When the dialog searches for the library member with the same name as the selection panel, it searches in the following order:

   - Primary library
   - Connected library
   - Common library

4. If you specify that one of your own CICS/DOS/VS applications is invoked from a selection panel, the application must be defined by an application profile record. You can define your own applications using the *Maintain Application Profiles* dialog.

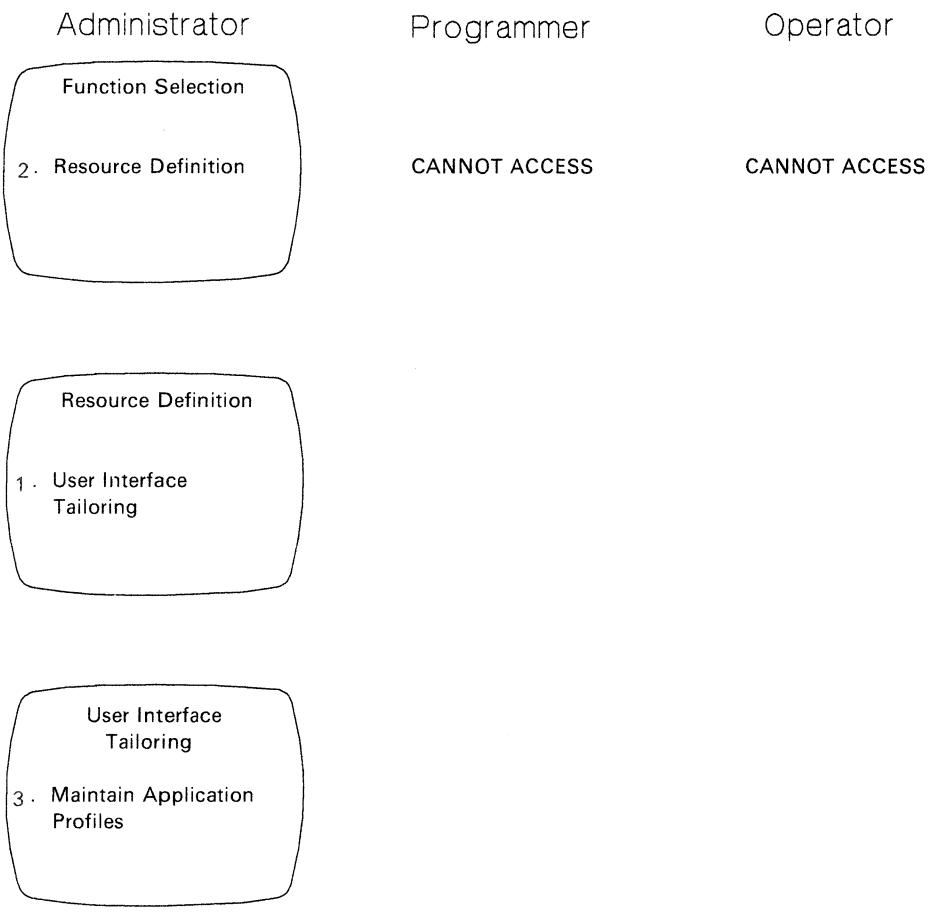
Maintain Application Profiles

You can include your own CICS/DOS/VS applications in the VSE/SP system and access them from the Interactive Interface. The application can be accessed from a selection panel or invoked directly when a user signs on.

The *Maintain Application Profiles* dialog helps you include your own applications in the Interactive Interface. Each application is defined by an application profile record. The record defines the name and characteristics of the application. The system stores application profile records in the VSE/SP control file.

Before you include an application, review *VSE/SP Planning* for information on user interface tailoring. There are many things to consider in terms of user profiles and selection panels before you change your system.

You can access the dialog as follows:



A FULIST displays the applications defined for the system. If you want to locate a particular entry, enter the application name in the LOCATE NAME field.

The options you can choose are shown at the top of the FULIST. Enter the appropriate option number in the OPT column to the left of the application you want to process.

Application names that begin with the prefix IES are reserved by the system. You **cannot** change or delete them. You can use them as models when you add your own application.

Add or Change an Application Profile

If you add a new application profile, the application you enter the option number next to is used as a model. The model provides default values.

After you make your selection, the dialog displays an additional panel. You need the following information:

NAME
Specify a unique application name of 1 - 8 characters. It identifies the application to the system.

CODE
Specify how the application is initiated.

- 1 (START trans ID)
- 2 (LINK to program)
- 3 (ATTACH NONCONVERSATIONAL trans ID with data)
- 4 (ATTACH CONVERSATIONAL trans ID with data)

Some VSE/SP application profiles use different codes besides the four listed above. You can only use one of these four codes. If you select a VSE/SP profile as a model and it is defined with another code, the dialog sets the CODE field to an underscore (_) when it displays the panel. Enter a code (1 - 4) for your own application.

ACTIVATE
Specify the name to activate the application.

If you enter 2 for CODE, this is a 1 - 8 character program name.

If you enter 1, 3, or 4 for CODE, this is a 1 - 4 character transaction ID.

CASE
Specify how the terminal input is passed to the application:

1 - Upper case only
2 - Upper and lower case

DATA
This field is optional. Enter any input data to be passed to the transaction or program.

SHOW
This field is used only if input data is specified (DATA). Specify whether the input data should be displayed on the user terminal.

1 - Data is displayed
2 - Data is not displayed

After you type in your information, press **ENTER**. The dialog formats the information and redisplays the panel. Check your entries and make any changes.

When you are done, press **PF5** to update the VSE/SP control file and store the information. The dialog continues and redisplays the FULIST.

Delete an Application Profile

This option deletes an existing application profile record from the VSE/SP control file. You cannot delete applications with the prefix IES.

Rebuild Default Application Profiles

VSE/SP ships application profile records for each Interactive Interface dialog. These applications are called VSE/SP Function Processors.

If any application profiles for the dialogs are damaged, you can rebuild them. This can only be done using the default administrator user-id SYSA.

When user-id SYSA accesses the dialog, the FULIST displays PF6=SYSTEM. PF6 is only displayed for user-id SYSA. It rebuilds the application profile records which VSE/SP provides for the Interactive Interface.

Additional Considerations

1. Do not use the IES prefix for the name of your application profiles. This prefix is reserved by VSE/SP. You cannot change or delete applications which begin with IES.

2. If you add your own CICS/DOS/VS applications, they must be invoked either from a selection panel, a user profile, or both. You can maintain selection panels and user profiles using the following dialogs:

   - *Maintain User Profiles*
   - *Maintain Selection Panels*

3. After you integrate an application, you may have to modify certain CICS/DOS/VS tables. *VSE/SP Planning* describes the CICS/DOS/VS tables which VSE/SP provides.

Chapter 4. Password Expiration

Some user-ids are defined with an expiration date for the password. You must change your password before it expires or you cannot sign on to the system with your user-id.

If your password expires in seven days or less and you sign on, the system displays the following message on the sign-on panel:

```
YOUR PASSWORD EXPIRES IN x DAYS
```

In the message, x specifies the number of days before your password expires.

You can ignore this message and simply press **ENTER** again to sign on. You can also change your password from the sign-on panel. For information, refer to "Changing the Password for Your User-id."

Changing the Password for Your User-id

There are two ways in which you can change the password for your user-id:

1. The person who is responsible for maintaining user profiles on your system can change your password using the *Maintain User Profiles* dialog. This is usually the system administrator.

2. You can change the password yourself from the sign-on panel. Follow the instructions below.

   a. On the sign-on panel, type in your user-id and current password. Press **PF10**.

   b. On the CHANGE PASSWORD panel, enter a new password. You cannot use a password that you have used before.

      Enter your new password in both fields. The system compares the two entries to verify that they are the same.

   c. If the entries are correct, the system updates your password and displays the VSE/SP FUNCTION SELECTION panel.

      Your old password is no longer valid. If you sign off and then sign on again, you must use your new password.

Additional Considerations

1. When you change your password, the system does **not** update DTSECTAB.

2. You should not use a password which you have used previously.

3. If your password expires and you cannot sign on to the system, contact the person responsible for maintaining user-ids.

Chapter 5. File and Catalog Management

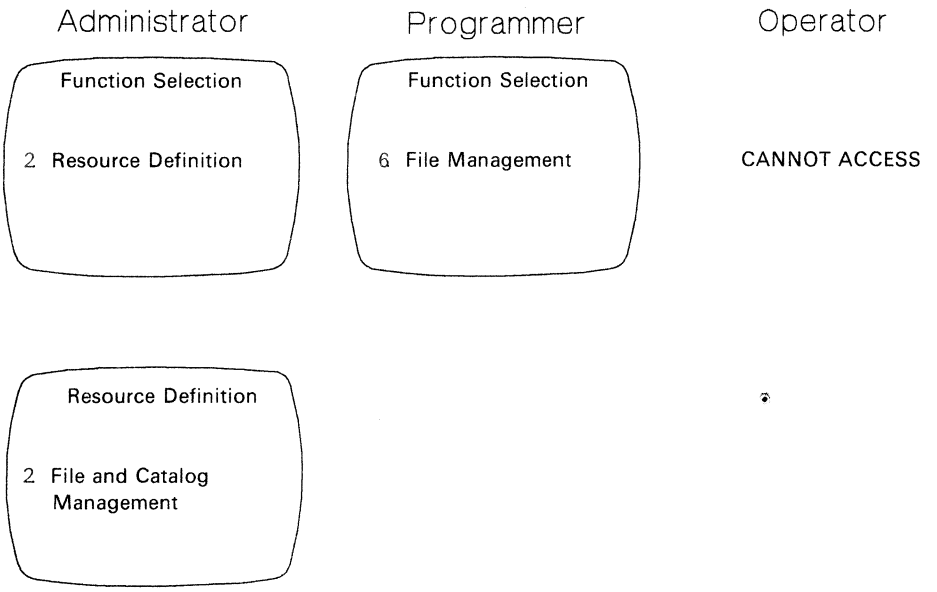
The *File and Catalog Management* dialog helps you create, delete, and use VSE/VSAM files and user catalogs. The tasks you can perform depend on the authority you have.

Some dialog tasks process the information immediately. Other tasks create a job. You can submit the job to run or store it as a VSE/ICCF library member in your default primary library.

For the default system administrator hierarchy, the Interactive Interface offers the *File and Catalog Management* dialog. This helps you create, delete, and use VSE/VSAM files and user catalogs.

For the default programmer hierarchy, the Interactive Interface offers the *File Management* dialog. This helps you create, delete, and use VSE/VSAM files, but not user catalogs.

You can access either dialog as follows:



A panel displays up to six tasks which you can select. The dialog does not display selections 5 or 6 for the default programmer user profile.

1. Display or Process a File
2. Define a New File

3. Define a Library
4. Define an Alternate Index or Name
5. Process a Catalog, Space
6. Define a New User Catalog

The dialog authorization for the VSE/SP administrator, programmer, and operator is based on a general authorization concept. You can have the authority to:

- Define/delete files.
- Define/delete/process catalogs.

This authorization is part of your user profile. When you define a user profile, you specify whether the user has the authority to define/delete files and the authority to define/delete/process catalogs. This does not depend on whether the user is an administrator, programmer, or operator.

Figure 3 illustrates the selections which the panel displays and which you can access based on the authorization you have. If the panel displays a selection which you cannot access and you enter that selection number, the dialog displays an error message.

Define/Delete Files	Define/Delete/ Process Catalogs	Selections Displayed and Accessed
YES	YES	All selections displayed. All selections can be accessed.
YES	NO	Selections 1 - 4 displayed. Selections 1 - 4 can be accessed.
NO	YES	Selections 1 - 6 displayed. Only selections 1, 5, and 6 can be accessed.
NO	NO	Selections 1 - 4 displayed. Only selection 1 can be accessed.

Figure 3. Relationship Between VSE/VSAM Authorization in User Profile and Dialog Selections

The panel also displays a default catalog name as defined in your user profile. You can change the catalog name.

Display or Process a File

A FULIST displays the file-ids and file names of all files in the catalog. Use **PF7** and **PF8** to scroll through the list. To locate a particular file, enter the file-id in the LOCATE FILE ID field.

The FILE TYPE field contains either the letter *A* or *B* to show the type of file.

```
A  -  Alternate index
B  -  Base file
```

The options you can choose are at the top of the FULIST. Enter an option number in the OPT column to the left of the file-id you want to process.

Show a File

This task displays details about the characteristics of the file or alternate index. There can be up to three panels of information. Use the PF keys for scrolling.

If you select an alternate index, the dialog displays a mixture of alternate index and base file information. If you select a base file, it displays base file information and a list of alternate indexes and alternate names.

Sort a File

This task sorts a VSE/VSAM file. You must have:

- The IBM Sort-Merge program product or a compatible product installed.
- Both input and output files already defined in the catalog.

The dialog displays several panels. You need the following information:

- File-id or file name of the second file
- Format
  Data representation within the sort field. You can have up to six sort fields.
- Start of the sort field
- Length of the sort field
- Sorting order: ascending or descending
- Sorted output: added or overwritten

Output File is a Work File

If the output file is a work file (reusable), you can:

- Overwrite the data in the work file.
  The output file is cleared before the sort output is written.
- Add the sorted output to the data in the work file.

You can *sort in place* by using reusable work files for both the input and output files.

On the JOB EXECUTION panel, select:

1 - Delayed, Submission is handled by user
2 - Immediate, Job is submitted

Option **1** stores the job control statements in a VSE/ICCF library member in your default primary library.

Option **2** submits the job to a VSE batch partition. It also stores it in a VSE/ICCF library member in your default primary library.

The default library member name is **F$xxxx**, where xxxx is your user-id. You can change the name on the panel.

Print a File

This task prints one or more records of a VSE/VSAM file on the system printer. You need the following information:

- PRINT FORMAT

  1 - Character
  2 - Hexadecimal
  3 - Character and hexadecimal

- PRINT ENTIRE FILE

  1 - Yes (Entire file)
  2 - No (Partial print)

Partial Print

If you choose *partial print*, specify where the printing starts and ends.

You can start printing with:

- Particular key (KSDS files only).
- Particular record number.

You can stop printing by specifying:

- Last key you want printed (KSDS files only).
- Number of records you want printed (last record number for RRDS files).

On the JOB EXECUTION panel, select:

1 - Delayed, Submission is handled by user
2 - Immediate, Job is submitted

Option **1** stores the job control statements in a VSE/ICCF library member in your default primary library.

Option **2** submits the job to a VSE batch partition. It also stores it in a VSE/ICCF library member in your default primary library.

The default library member name is **F$xxxx**, where xxxx is your user-id. You can change the name on the panel.

Copy a File

This task copies all or part of a file to another file. You can also copy a VSE/VSAM file to and from tape. You need the following information:

- File-id or file name of the second file (for a VSE/VSAM file).
- File-id of the second file (for a labeled tape file).
- Start and end positions for the copy.
- Start and end key (keyed file only).
  If the input file is a KSDS file, you can specify the start or end key for the copy.
- Start and end record specification.
  You can specify the start or end record, if the file is:
  - ESDS
  - KSDS
  - RRDS
  - Tape file

Tape Files

If either file is a **tape** file, you need the following information:

- Volume serial number (for labeled tape files only)
- Tape address
- Record format
- Block size
- Record size

On the JOB EXECUTION panel, select:

1 - Delayed, Submission is handled by user
2 - Immediate, Job is submitted

Option **1** stores the job control statements in a VSE/ICCF library member in your default primary library.

Option **2** submits the job to a VSE batch partition. It also stores it in a VSE/ICCF library member in your default primary library.

The default library member name is **F$xxxx**, where xxxx is your user-id. You can change the name on the panel.

Delete a File

This task deletes a VSE/VSAM file or an alternate index. You **cannot** delete system files. The dialog deletes the file and removes the label from the system standard label area and from the VSE/VSAM label procedure STDLABUP.

If you use DTSECTAB to protect STDLABUP, your user-id **must** be in DTSECTAB. If it is not, the job fails when it deletes label information.

Select the file-id you want to delete. The dialog displays the DELETE FILE panel. If the file has alternate names, specify what you want to delete:

1 - Delete file name only
2 - Delete actual file, including alternate names

Verify that the file is the correct one and press ENTER.

On the JOB EXECUTION panel, select:

1 - Delayed, Submission is handled by user
2 - Immediate, Job is executed

Option **1** stores the job control statements in a VSE/ICCF library member in your default primary library. The default member name is **F$xxxx**, where xxxx is your user-id. You can change the name on the panel.

Option **2** automatically runs the job online. The terminal is locked until the job finishes. It also stores the VSE/ICCF member **F$xxxx.P** (xxxx is your user-id) in your default primary library. If there are no errors, the member contains one record with an asterisk (*). If errors occurred, the control statements and AMS (Access Method Services) error messages are stored in this member. You are notified if you should review the contents of the library member.

Verify a File

This task writes an *end of file* record into the catalog. You **cannot** verify an alternate index.

Some VSE/VSAM open errors are caused by an abend or error condition which results in a file not being closed properly. If catalog damage is not severe, the VERIFY task may enable you to open and process the file successfully. You should determine the reasons for any open failures and correct them to avoid more serious problems.

You do not have to enter any information. On the JOB EXECUTION panel, select:

1 - Delayed, Submission is handled by user
2 - Immediate, Job is submitted

Option **1** stores the job control statements in a VSE/ICCF library member in your default primary library.

Option **2** submits the job to a VSE batch partition. It also stores it in a VSE/ICCF library member in your default primary library.

The default library member name is **F$xxxx**, where xxxx is your user-id. You can change the name on the panel.

Load a File

Select the LOAD option for a base file. The FILE TYPE field displays the letter *B* to indicate base files. The dialog loads a base file with data from a VSE/ICCF library member. You must create the VSE/ICCF member before you load a file.

You can load ESDS, KSDS, and RRDS files. You cannot load sequential SAM ESDS files.

You need the following information:

- INPUT MEMBER NAME
  The name of the VSE/ICCF library member that contains the data.

- PRINT
  Specify whether you want the file printed after it is loaded:

  1 - YES
  2 - NO

- RECORD LENGTH
  Specify **80** to load the VSE/VSAM file with 80 byte records (the record length of the VSE/ICCF library member).

  If the VSE/VSAM file will contain records of more than 80 bytes or the file should have variable length records, then you must segment the records in the VSE/ICCF member. You specify one VSE/VSAM record as a series of lines (in the library member) with 1 - 72 bytes each. You indicate the end of each record with the character string QQQ.

  The line length can be 1 - 72. For example, if you use a line length of 50, you enter your data in positions 1 - 50 and end the record with QQQ.

  1. Select a line length *X* from 1 - 72. Enter your data in the VSE/ICCF member from position 1 to position *X*. At the end of the data, enter **QQQ**.

You can put **QQQ** in any position within the line length or in the position:

LINE LENGTH + 1

2. You can put comments in any position to the right of the line length (at position X + 1). For example, if your line length is 50, you can put comments in positions 51 - 80.

3. For the RECORD LENGTH field, specify the **line length** you used.

The maximum record length for the file can be 2048 bytes.

As an example, suppose your record is 130 bytes. You can specify the line length as 50. Enter the data in positions 1 - 50 in the first two lines of the library member. In the third line, enter the remaining data in positions 1 - 30 and then enter **QQQ** to indicate the end of the record.

An example of segmenting the data in the VSE/ICCF library member is shown in Figure 4.

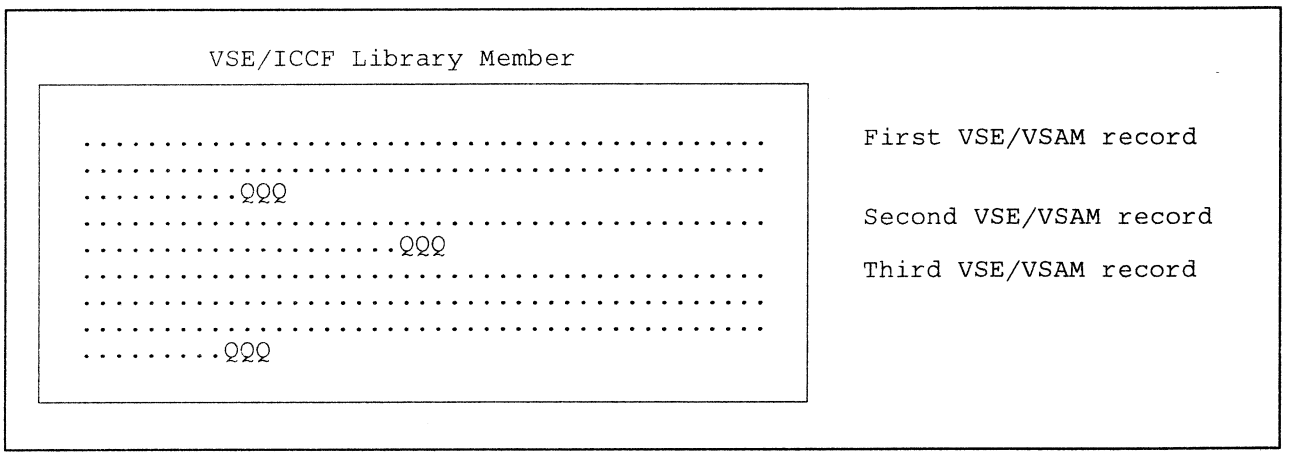


Figure 4. Illustration of Segmenting VSE/VSAM Records in VSE/ICCF Member

On the JOB EXECUTION panel, select:

1 - Delayed, Submission is handled by user
2 - Immediate, Job is submitted

Option **1** stores the job control statements in a VSE/ICCF library member in your default primary library.

Option **2** submits the job to a VSE batch partition. It also stores it in a VSE/ICCF library member in your default primary library.

The default library member name is **F$xxxx**, where xxxx is your user-id. You can change the name on the panel.

Load an Alternate Index

Select the LOAD option for an alternate index. The FILE TYPE field displays the letter *A* to indicate an alternate index. The dialog loads an alternate index from an existing base file (build index function).

You do not have to enter any information. On the JOB EXECUTION panel, select:

1 - Delayed, Submission is handled by user
2 - Immediate, Job is submitted

Option **1** stores the job control statements in a VSE/ICCF library member in your default primary library.

Option **2** submits the job to a VSE batch partition. It also stores it in a VSE/ICCF library member in your default primary library.

The default library member name is **F$xxxx**, where xxxx is your user-id. You can change the name on the panel.

Define a New File

This task defines a new VSE/VSAM file. It defines the new file in the catalog you specify when you access the dialog.

You must select the device type of the volumes where the file is defined, if:

- The catalog owns space on more than one volume

  AND

- The volumes are different device types

This ensures that a file does not allocate space (secondary allocations) on volumes of different device types.

The dialog defines the new file and adds a label to the system standard label area with the file name, file-id, and catalog name of the new file. It also adds label information to the VSE/VSAM label procedure STDLABUP in IJSYSRS.SYSLIB.

If you use DTSECTAB to protect STDLABUP, your user-id **must** be in DTSECTAB. If it is not, the job fails when it updates label information.

The dialog displays several panels. You need to enter different file characteristics, depending on the type of file you are defining.

FILE ID
Enter up to five segments for the file-id. You cannot enter more than 38 characters, including dots.

FILE NAME
Enter 1 - 7 alphameric characters.

FILE ORGANIZATION

1 - Non-keyed (ESDS)
2 - Keyed (KSDS)
3 - Numbered (RRDS)
4 - Sequential (SAM ESDS)

FILE ACCESS
For the VSE/VSAM Share option, specify:

1 - Multiple Read OR Single Write
2 - Multiple Read AND Single Write
3 - Multiple Read AND Write (No integrity)
4 - Multiple Read AND Write (With integrity)

FILE USAGE

1 - Data file (NOREUSE)
2 - Work file (REUSE)

EXPIRATION DATE
Enter two digits for the year, and three digits for the day of the year (**YYDDD**).

CKD Device Types

For CKD device types, specify the ALLOCATION UNIT:

1 - Cylinder
2 - Track

PRIMARY and SECONDARY ALLOCATION
The number of allocation units for the initial (primary) and subsequent (secondary) allocations.

AVERAGE and MAXIMUM RECORD SIZE
The average and maximum length of the data record, in bytes. For RRDS files, the average and maximum record sizes are the same. If you are defining a **sequential** file, you do **not** need this information.

Keyed (KSDS) Files

For keyed (KSDS) files, specify KEY LENGTH and POSITION.

Enter the key length from **1 - 255**. The key position is the offset of the key from the beginning of the record.

Sequential Files

If you define a sequential file, specify the following file characteristics:

RECORD FORMAT

1 - Fixed, unblocked
2 - Fixed, blocked
3 - Variable, unblocked
4 - Variable, blocked
5 - Undefined
6 - No control interval format

RECORD SIZE
Fixed record formats only (RECORD FORMAT options 1 and 2). Enter the record length.

BLOCK SIZE
Fixed, blocked format only (RECORD FORMAT option 2). Enter the block length.

AVERAGE RECORD SIZE
Variable length and undefined formats only (RECORD FORMAT options 3, 4, or 5). Enter the average length of the record.

MAXIMUM RECORD SIZE
Variable length and undefined formats only (RECORD FORMAT options 3, 4, or 5). Enter the maximum length of the record.

On the JOB EXECUTION panel, select:

1 - Delayed, Submission is handled by user
2 - Immediate, Job is executed

Option **1** stores the job control statements in a VSE/ICCF library member in your default primary library. The default member name is **F$xxxx**, where xxxx is your user-id. You can change the name on the panel.

Option **2** automatically runs the job online. The terminal is locked until the job finishes. It also stores the VSE/ICCF member **F$xxxx.P** (xxxx is your user-id) in your default primary library. If there are no errors, the member contains one record with an asterisk (*). If errors occurred, the control statements and AMS (Access Method Services) error messages are stored in this member. You are notified if you should review the contents of the library member.

Define a Library

This task defines a VSE library in VSAM managed space. You need the following information:

LIBRARY NAME
Specify the library file name. 'VSE.file name.LIBRARY' is the default for the file-id.

PRIMARY ALLOCATION
Enter the number of 1K library blocks. The same number is used for the secondary allocation.

You must select the device type of the volumes where the library is defined, if:

- The library owns space on more than one volume

  AND

- The volumes are different device types

This ensures that a library is not defined on volumes of different device types.

On the JOB EXECUTION panel, select:

1 - Delayed, Submission is handled by user
2 - Immediate, Job is executed

Option **1** stores the job control statements in a VSE/ICCF library member in your default primary library. The default member name is **F$xxxx**, where xxxx is your user-id. You can change the name on the panel.

Option **2** automatically runs the job online. The terminal is locked until the job finishes. It also stores the VSE/ICCF member **F$xxxx.P** (xxxx is your user-id) in your default primary library. If there are no errors, the member contains one record with an asterisk (*). If errors occurred, the control statements and AMS (Access Method Services) error messages are

stored in this member. You are notified if you should review the contents of the library member.

Define an Alternate Index or Name

This task defines either an alternate index or alternate name for an existing VSE/VSAM file. A FULIST displays the file-ids and names of the files in the catalog. Use **PF7** and **PF8** to scroll through the list.

To locate a particular file, enter the file-id in the LOCATE FILE ID field.

Alternate Index

This task defines an alternate index over an existing base file. When you define an alternate index, two things are defined:

1. The alternate index cluster.
2. The path.

The name and ID you specify become the *path* name and ID. The system generates the name of the alternate index cluster internally.

You need the following information:

ALTERNATE INDEX ID and NAME

KEY POSITION and LENGTH
Specify the position and length of the alternate key within the base record. The key length can be **1 - 255**.

KEYS
Specify the maximum number of non-unique keys in the alternate index. The dialog uses this value to calculate the maximum record length of the alternate index file.

The dialog adds a label to the system standard label area with the file name, file-id, and catalog name of the alternate index. It also adds label information to the VSE/VSAM label procedure STDLABUP.

If you use DTSECTAB to protect STDLABUP, your user-id **must** be in DTSECTAB. If it is not, the job fails when it updates label information.

On the JOB EXECUTION panel, select:

1 - Delayed, Submission is handled by user
2 - Immediate, Job is executed

Option **1** stores the job control statements in a VSE/ICCF library member in your default primary library. The default member name is **F$xxxx**, where xxxx is your user-id. You can change the name on the panel.

Option **2** automatically runs the job online. The terminal is locked until the job finishes. It also stores the VSE/ICCF member **F$xxxx.P** (xxxx is your user-id) in your default primary library. If there are no errors, the member contains one record with an asterisk (*). If errors occurred, the control statements and AMS (Access Method Services) error messages are stored in this member. You are notified if you should review the contents of the library member.

Alternate Name

This task defines an alternate name for the file. The dialog adds a label to the system standard label area with the file name, file-id, and catalog name of the alternate name. It also adds label information to the VSE/VSAM label procedure STDLABUP.

If you use DTSECTAB to protect STDLABUP, your user-id **must** be in DTSECTAB. If it is not, the job fails when it updates label information.

If a file does not have a file name (it has no label in the system standard label area), you can use this task to define the file name. You **should not** define alternate names for libraries.

You only need to specify the alternate file name.

On the JOB EXECUTION panel, select:

1 - Delayed, Submission is handled by user
2 - Immediate, Job is executed

Option **1** stores the job control statements in a VSE/ICCF library member in your default primary library. The default member name is **F$xxxx**, where xxxx is your user-id. You can change the name on the panel.

Option **2** automatically runs the job online. The terminal is locked until the job finishes.

Process a Catalog, Space

A FULIST displays the catalog-ids and names in the system. Use **PF7** and **PF8** to scroll through the list. You can select the following options:

- Show space
- Define alternate name
- Print catalog contents
- Define space
- Delete catalog
- Delete space

Show Space

This task displays details about the catalog space. A panel lists the volumes owned by the catalog. It displays the allocated, used, and free space on each volume.

Define Alternate Name

This task defines an alternate name for the catalog. The dialog defines the name and adds a label to the system standard label area with the alternate name. It also adds label information to the VSE/VSAM label procedure STDLABUP.

If you use DTSECTAB to protect STDLABUP, your user-id **must** be in DTSECTAB. If it is not, the job fails when it updates label information.

You should use alternate names for catalogs carefully. On the FILE AND CATALOG MANAGEMENT panel, if you:

- Select options 1 or 4

  AND

- Specify an alternate catalog name in the CATALOG NAME field

the FULIST only displays file names for files which are defined with the alternate catalog name. The FULIST displays *NONE* as the file name for files defined in the same catalog with a different catalog name.

You only need to specify the alternate catalog name.

On the JOB EXECUTION panel, select:

1 - Delayed, Submission is handled by user
2 - Immediate, Job is executed

Option **1** stores the job control statements in a VSE/ICCF library member in your default primary library. The default member name is **F$xxxx**, where xxxx is your user-id. You can change the name on the panel.

Option **2** automatically runs the job online. The terminal is locked until the job finishes.

Print Catalog Contents

This task creates a LISTCAT of the selected catalog. You do not have to specify any information. On the JOB EXECUTION panel, select:

1 - Delayed, Submission is handled by user
2 - Immediate, Job is submitted

Option **1** stores the job control statements in a VSE/ICCF library member in your default primary library.

Option **2** submits the job to a VSE batch partition. It also stores it in a VSE/ICCF library member in your default primary library.

The default library member name is **F$xxxx**, where xxxx is your user-id. You can change the name on the panel.

Define Space

This task defines VSAM space that is used for the allocation of files. It is recommended that you define space owned by a catalog on the same volume as the catalog. You need the following information:

VOLUME NAME
Enter the six character VOLID of the disk where the space should be defined.

ALL FREE SPACE
Specify whether you want all available space on the volume for VSE/VSAM:

1 - YES
2 - NO

If you specify 1 (YES), all free space (up to 16 extents) on the volume is dedicated to VSE/VSAM.

If you specify 2 (NO), a panel displays the free extents on the volume. Select one extent. Enter the beginning allocation and the amount of space to be allocated.

In some circumstances, VSE/VSAM rounds the specified values to a higher number. If the rounded extent exceeds the original one, the space definition fails. To avoid this, choose values which result in a smaller extent than the one shown.

SPACE AVAILABLE TO CURRENT FILES
Specify whether the files currently owned by the catalog can access the new space for secondary allocation:

1 - YES
2 - NO

If you specify 1 (YES), the dialog alters the catalog entries of the current files so new space can be used for secondary allocation. The dialog changes the catalog entries, if:

- The secondary allocation for the file is greater than 0.
- You define new space on the same disk type as the primary allocation for the files.

If a current file already accesses space on a volume, it keeps that access when you define new space on the same volume.

If you specify 2 (NO), current files **cannot** access the new space.

On the JOB EXECUTION panel, select:

1 - Delayed, Submission is handled by user
2 - Immediate, Job is executed

Option **1** stores the job control statements in a VSE/ICCF library member in your default primary library. The default member name is **F$xxxx**, where xxxx is your user-id. You can change the name on the panel.

Option **2** automatically runs the job online. The terminal is locked until the job finishes. It also stores the VSE/ICCF member **F$xxxx.P** (xxxx is your user-id) in your default primary library. If there are no errors, the member contains one record with an asterisk (*). If errors occurred, the control statements and AMS (Access Method Services) error messages are stored in this member. You are notified if you should review the contents of the library member.

Delete Catalog

This task deletes a VSE/VSAM catalog or alternate catalog name. The dialog removes the user catalog entry from the VSE/VSAM master catalog. Before you delete a catalog, you should do the following:

- Delete all files which the catalog owns.
- If the catalog owns space on more than one volume, first delete the space on the volumes other than the catalog volume.

The dialog deletes the catalog and removes the label from the system standard label area and the VSE/VSAM label procedure STDLABUP.

If you use DTSECTAB to protect STDLABUP, your user-id **must** be in DTSECTAB. If it is not, the job fails when it deletes the label information.

If the catalog has alternate names, specify what you want to delete:

1 - Delete catalog name only
2 - Delete actual catalog, including alternate names

Verify that the catalog is the one you want to delete.

On the JOB EXECUTION panel, select:

1 - Delayed, Submission is handled by user
2 - Immediate, Job is executed

Option **1** stores the job control statements in a VSE/ICCF library member in your default primary library. The default member name is **F$xxxx**, where xxxx is your user-id. You can change the name on the panel.

Option **2** automatically runs the job online. The terminal is locked until the job finishes. It also stores the VSE/ICCF member **F$xxxx.P** (xxxx is

your user-id) in your default primary library. If there are no errors, the member contains one record with an asterisk (*). If errors occurred, the control statements and AMS (Access Method Services) error messages are stored in this member. You are notified if you should review the contents of the library member.

Delete Space

This task deletes VSE/VSAM data spaces. A panel displays a list of the volumes owned by the catalog. It shows the allocated, used, and free space on each volume.

Enter **5** in the OPT column next to the volume you want to select.

On the JOB EXECUTION panel, select:

1 - Delayed, Submission is handled by user
2 - Immediate, Job is executed

Option **1** stores the job control statements in a VSE/ICCF library member in your default primary library. The default member name is **F$xxxx**, where xxxx is your user-id. You can change the name on the panel.

Option **2** automatically runs the job online. The terminal is locked until the job finishes. It also stores the VSE/ICCF member **F$xxxx.P** (xxxx is your user-id) in your default primary library. If there are no errors, the member contains one record with an asterisk (*). If errors occurred, the control statements and AMS (Access Method Services) error messages are stored in this member. You are notified if you should review the contents of the library member.

Define a New User Catalog

This task defines a new user catalog and, optionally, space for file allocation. The dialog adds a label to the system standard label area with the catalog name. It also adds label information to the VSE/VSAM label procedure STDLABUP.

If you use DTSECTAB to protect STDLABUP, your user-id **must** be in DTSECTAB. If it is not, the job will fail when it tries to process the label update information.

Space which belongs to a catalog should be on the same volume as the catalog itself. When you define the catalog, you can use only part of a volume and then use more of the volume later. However, it is better if you take as much space on the volume as you will need. Additional space may not be available later.

You need the following information:

USER CATALOG ID and NAME
For the new catalog, enter up to five segments for the file-id. You cannot enter more than 38 characters, including dots. For the name, enter **1 - 7** alphameric characters.

VOLUME NAME
Enter the six character volume number of the disk where the catalog will be defined.

ALL FREE SPACE
Specify whether you want all available space on the volume for VSE/VSAM:

1 - YES
2 - NO

If you specify 1 (YES), the dialog uses all free space (up to 16 extents) on the volume for both the catalog and files. VSE/VSAM determines the size of the space reserved for the catalog and for the files.

If you specify 2 (NO), you are defining space for the catalog only, not for file allocation. A panel displays the free extents on the volume. Select one extent. Enter the beginning allocation and the amount of space to be allocated.

In some circumstances, VSE/VSAM rounds the specified values to a higher number. If the rounded extent exceeds the original one, the space definition fails. To avoid this, choose values which result in a smaller extent than the one shown.

If you specify 2 (NO), you must define space for the files. Use selection 5 (*Process a Catalog, Space*) of the dialog. Refer to "Process a Catalog, Space" on page 52.

On the JOB EXECUTION panel, select:

1 - Delayed, Submission is handled by user
2 - Immediate, Job is executed

Option **1** stores the job control statements in a VSE/ICCF library member in your default primary library. The default member name is **F$xxxx**, where xxxx is your user-id. You can change the name on the panel.

Option **2** automatically runs the job online. The terminal is locked until the job finishes. It also stores the VSE/ICCF member **F$xxxx.P** (xxxx is your user-id) in your default primary library. If there are no errors, the member contains one record with an asterisk (*). If errors occurred, the control statements and AMS (Access Method Services) error messages are stored in this member. You are notified if you should review the contents of the library member.

Chapter 6. Display VTOC

The *Display VTOC* dialog interactively displays information about a volume table of contents. It shows:

- Resident files and extents
- Extents of free areas

You can access the dialog as follows:

Administrator	Programmer	Operator
Function Selection 2. Resource Definition	CANNOT ACCESS	CANNOT ACCESS

Resource Definition

3. Display VTOC

A FULIST displays the volumes on your system. It shows the following information for each volume:

VOLUME
This is the VOLID. If asterisks (******) are displayed, either the device is not available to the system or it is a diskette. You cannot display VTOC information for diskettes.

ADDRESS
This is the device address.

DEVICE TYPE
This is the type of device.

SHARED
This shows whether the disk is accessible by more than one CPU.

RESERVED
This indicates whether the device is currently unavailable.

Enter the option number next to the volume you want to display. The options you can select are:

1 - Display a list of free space extents
2 - Display a list of files

Chapter 7. Configuring Your Hardware

During VSE/SP initial installation, you completed the hardware configuration table when you signed on with the POST user-id. You can add, change, or delete devices on your system at any time. The Interactive Interface provides several dialogs to help you configure hardware devices.

The *Configure Hardware Addresses* dialog maintains the hardware configuration table. You use this dialog to add or delete hardware addresses and to specify some device characteristics.

The Interactive Interface also provides several terminal configuration dialogs. You use these to define specific terminal features. The dialogs are:

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

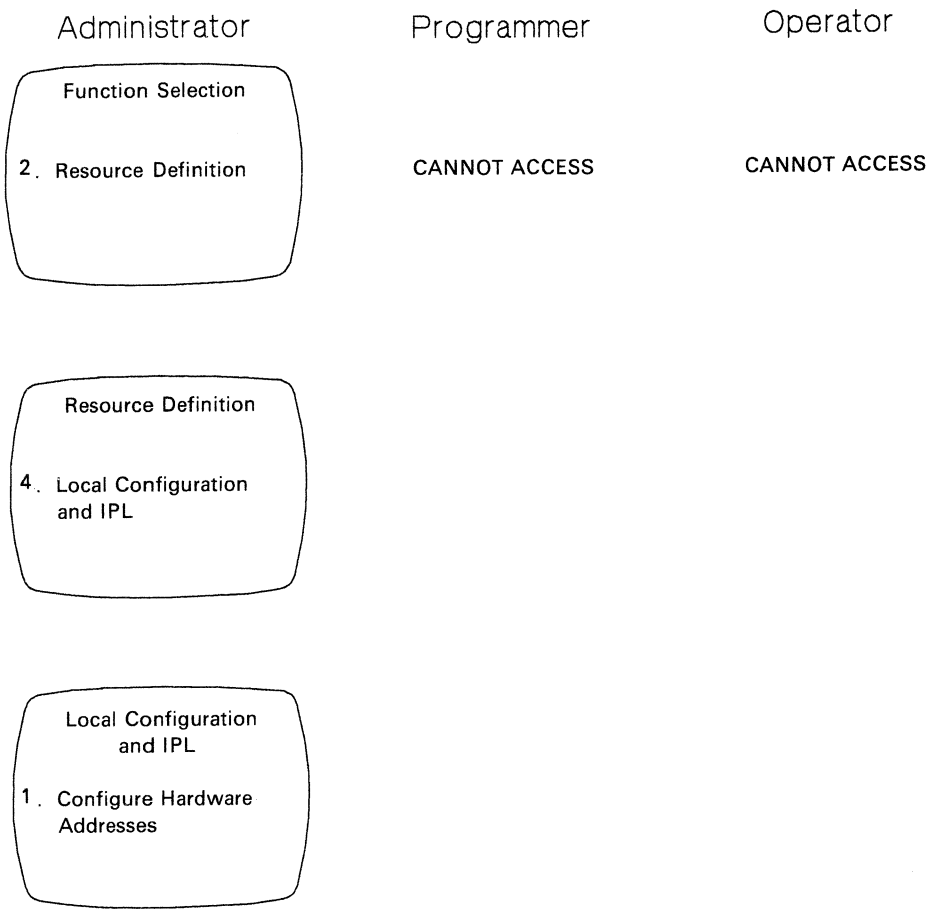
The two dialogs for local 3270 terminals are described in this chapter. *VSE/SP Networking* describes the remote configuration dialogs for ICA, NCP, and EP connected terminals.

Configure Hardware Addresses

You use the *Configure Hardware Addresses* dialog to add or delete a device, or to change the characteristics of devices on your system. The dialog maintains the hardware configuration table.

If you want to add a terminal, use this dialog to define the address. Afterwards, use the appropriate terminal configuration dialog to define the terminal to the online subsystems.

You can access the *Configure Hardware Addresses* dialog as follows:



A FULIST displays the address and characteristics of each device in your hardware configuration. Use **PF7** and **PF8** to scroll through the hardware table.

You can add and delete devices, or change the characteristics of a device. You cannot change nor delete the VSE/ICCF DUMMY devices (FFA, FFC, FFD, and FFE).

The device characteristics you can specify are shown 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/Advanced Functions System Control Statements*, where mode settings are also described.

If you define an ICA SDLC line (device type code of 3705), the panel displays a default mode of 01. You must change the mode to 10.

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) and the device type code.

The dialog redisplays the FULIST and shows the new device address(es). Type in any characteristics for the device(s).

Delete a Device

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

Change Device Characteristics

Type in the characteristics in the appropriate columns.

When you are done, press PF6 to process any changes. The dialog updates the hardware configuration table and redisplays the selection panel.

Additional Considerations

1. If you **add** a terminal, you must also use a terminal configuration dialog after you complete this dialog. *Configure Hardware Addresses* defines the terminal address and adds the device to the hardware configuration table. The terminal configuration dialog defines subsystem information for the terminal.

2. You cannot change nor delete the VSE/ICCF DUMMY devices. These are addresses FFA, FFC, FFD, and FFE.

3. After you complete your hardware definitions, you should use the *Create Startup Books* dialog. The hardware information you specify is **not** available to the system until you create the appropriate startup books.

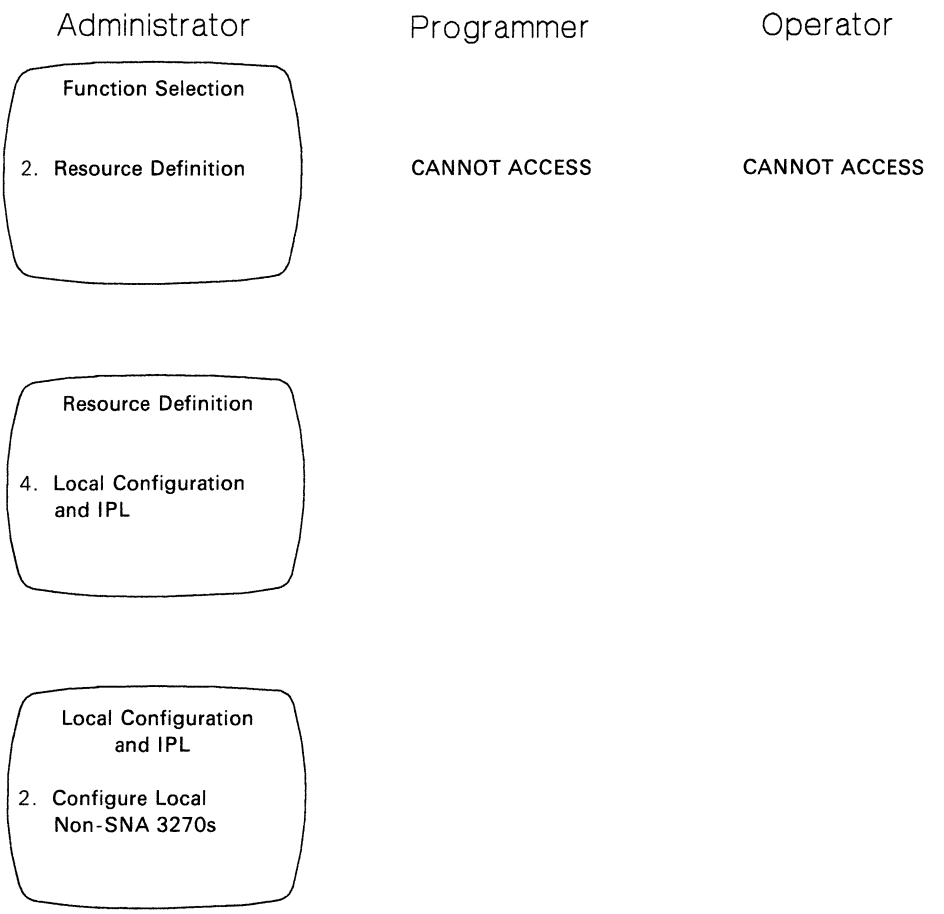
Configure Local Non-SNA 3270s

You use the *Configure Local Non-SNA 3270s* dialog to define and update your local non-SNA terminal configuration. The dialog is for both ACF/VTAM and BTAM-ES systems. The information you specify is for:

- CICS/DOS/VS Terminal Control Table (TCT).
- ACF/VTAM startup book.
- CICS/DOS/VS terminal assignments for BTAM-ES startup.

There are other tasks you have to complete before and after you use this dialog. Refer to "Additional Considerations" on page 68 for information.

You can access the dialog as follows:



A FULIST displays the addresses and characteristics of the terminals. These devices were defined in the hardware configuration table with device type codes 3277 or 3277B.

Note: The hardware configuration table is maintained by the Configure Hardware Addresses dialog.

The options you can select are at the top of the FULIST. Enter the option number in the OPT column to the left of the device you want to process. Option 6 is described in "Define Terminal Features" on page 68.

If you delete a terminal (option 5), the dialog also deletes the device address from the hardware configuration table.

After you update the definitions, press **PF6**. The dialog updates the terminal configuration and redisplays the selection panel.

You can change any terminal characteristic, except the address. Type in the characteristics in the appropriate column.

The terminal characteristics differ for ACF/VTAM and BTAM-ES. They depend on the telecommunications access method you selected during the initial installation of VSE/SP. The information you need is described below.

Input for ACF/VTAM and BTAM-ES Users

Both ACF/VTAM and BTAM-ES users need the following information:

MODEL

Enter the **real** model number for the terminal. If the terminal is a system console, you **must** enter **CONSOLE**. This is necessary because system console devices cannot be configured as a terminal to CICS/DOS/VS or ACF/VTAM.

If the device was sensed during initial installation, this field contains the model number. Verify that the number is correct.

In the *Configure Hardware Addresses* dialog, 327x and 328x devices had device type codes 3277 or 3277B. These were needed as the IPL device type. You must specify the real model number so the system can determine the correct terminal characteristics. Therefore, the MODEL field has a different value than the device code in the hardware configuration table.

TERM ID

This is the four character CICS/DOS/VS terminal-id. Initially, the dialog provides one of the following system generated terminal-ids:

- Dxxx - For display terminals that were sensed, and for other devices that could **not** be sensed.
- Pxxx - For printer terminals that were sensed.

The *xxx* is the address (cuu) of the terminal.

If you use a different naming convention, you can specify different terminal-ids. However, the names must be unique in the system. The dialog does not check whether you specify duplicate names.

FEATURE NAME
The name of the feature definition table.

The CICS/DOS/VS TCT contains various terminal and mapping characteristics. Instead of asking you to enter each value for each terminal, VSE/SP uses feature definition tables to store certain characteristics. The table can then be assigned to terminals which have the same characteristics.

VSE/SP ships twenty feature tables. Each table is used for a specific terminal device. The dialog automatically selects the table that matches the terminal type. You can use the default table or specify a different table if the ones provided do not match your terminal characteristics.

You can also modify the VSE/SP tables or create your own tables. Refer to "Define Terminal Features" on page 68.

VSE/SP Planning describes the VSE/SP default tables and features. Review these descriptions before you modify or create a feature table.

Additional Input for ACF/VTAM Users

If you selected ACF/VTAM as the telecommunications access method during VSE/SP initial installation, the following additional fields are shown on the CONFIGURE LOCAL NON-SNA 3270S panel:

NETNAME
A 1 - 8 character terminal identification. This is used for ACF/VTAM startup and by the CICS/DOS/VS TCT to relate the two subsystems.

The dialog provides a four character default value that is the same value as the terminal-id (TERM ID). If you have a single domain environment, you can use the default. If you have a networking environment, you **must** change the NETNAME to ensure that the names are unique in the network. Refer to *VSE/SP Networking* for more information.

The dialog does not check whether you specify duplicate names.

PRT ID
The four character terminal-id of a CICS/DOS/VS printer terminal which you defined using this dialog. CICS/DOS/VS uses the ID to print the screen image when the PA1 key is pressed.

Additional Input for BTAM-ES Users

If you selected BTAM-ES as the telecommunications access method during VSE/SP initial installation, the panel displays the LOGICAL UNIT field. Enter the programmer logical unit (**SYSxxx**) for each terminal. The lowest logical unit you can specify is SYS020.

Additional Considerations

1. You **cannot add** terminals with this dialog. If you want to add a new terminal, first use the *Configure Hardware Addresses* dialog. This defines the terminal address in the hardware configuration table. After you add the address, use this dialog to define the terminal characteristics.

2. If you **delete** a terminal, the dialog automatically deletes it from the hardware configuration table.

3. After you complete this dialog, use the *Create Startup Books* dialog to assemble and catalog the TCT and other required startup books.

   The information you specify is not available to the system in a useable form until you complete the *Create Startup Books* dialog.

Define Terminal Features

VSE/SP ships twenty terminal definition feature tables. *VSE/SP Planning* describes these tables.

You can modify the VSE/SP tables or define your own tables. Enter **6** in the OPT column on panel CONFIGURE LOCAL NON-SNA 3270S.

The DEFINE TERMINAL FEATURES panel displays the default tables and the tables you have created. You can:

- Add a new table
- Update an existing table
- Delete a table

Enter an option number in the OPT column to the right of the table you want to process. The terminal features and characteristics you can define are outlined in Figure 5 on page 69.

Screen Sizes	Terminal Features
BMS Paging Page sizes Screen sizes	Audible alarm Color Copy Extended data stream Extended highlight Print Programmed symbols Selector pen Text keyboard Transparency Typewriter keyboard

Figure 5. Features and Characteristics for Local Non-SNA 3270s

Refer to CICS/DOS/VS documentation for information about the features and characteristics.

Configure Local SNA 3270s

You use the *Configure Local SNA 3270s* dialog to define and update your local SNA terminal configuration. The dialog creates ACF/VTAM resource definitions.

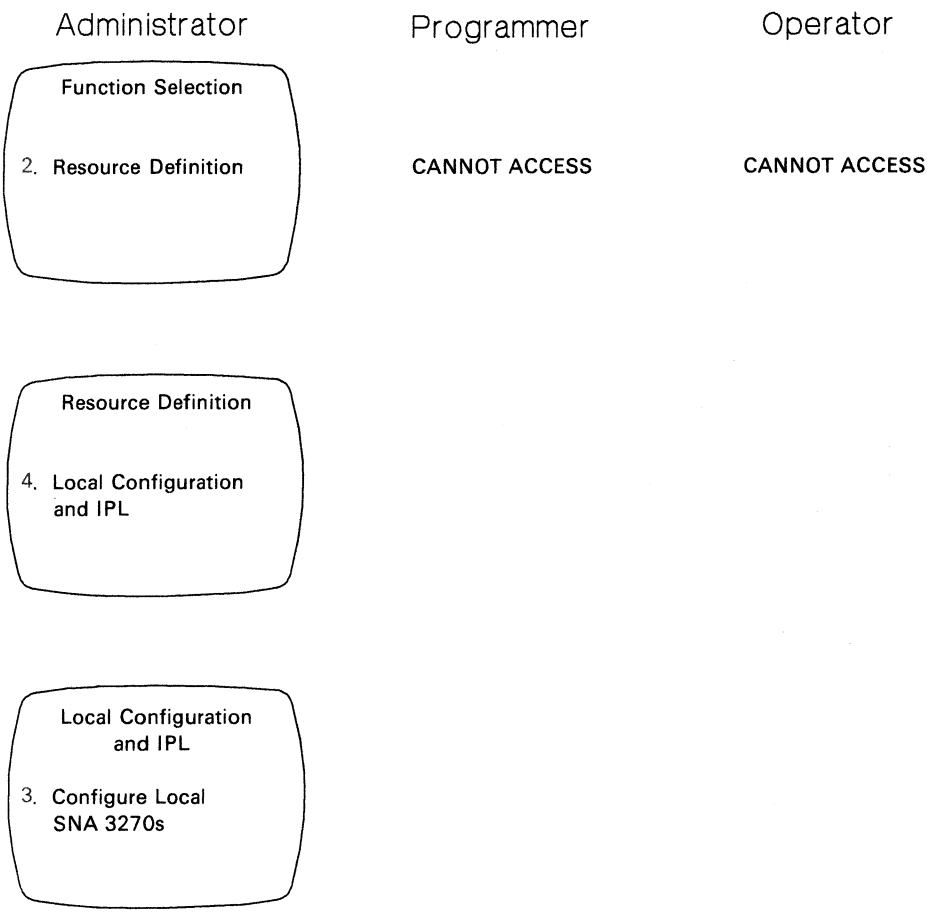
Before you use the dialog, you must define the hardware channel address for your 3274 local SNA control unit in the hardware configuration table. If you have not yet defined the channel address, do the following:

1. Access the *Configure Hardware Addresses* dialog. Refer to "Configure Hardware Addresses" on page 62.

2. Add the channel address for your 3274 local SNA control unit. Specify a device type code of **3791L**.

3. After you define the address, use the *Configure Local SNA 3270s* dialog to define the physical unit for the channel address and the logical units.

You can access the dialog as follows:



A FULIST displays the address of each 3274 control unit defined in the hardware configuration table with device type code 3791L. The options you

can select are at the top of the FULIST. Enter the option number in the OPT column to the left of the address you want to process.

You must define a physical unit (3274 controller model) for an address before you define any logical units.

After you define the physical and logical units, press **PF6** from the FULIST to process the information. The dialog creates a job with the default name VTAMDEFS. On the JOB DISPOSITION panel, you can submit the job to batch, file it in your default primary library, or both.

The job catalogs an ACF/VTAM major node definition for local SNA terminals. The major node name is VTMSNA.

Define Physical Unit

On the next panel, define the physical unit by selecting the 3274 controller model number. Enter one of the following:

1 - 3274-1A
2 - 3274-21A
3 - 3274-31A
4 - 3274-41A

The dialog redisplays the FULIST and shows the controller model number in the MODEL field.

Define Logical Units

The next panel displays the list of devices which the dialog supports. Enter the number for the device you want to select. The supported devices are shown in Figure 6.

Device	Models
3178 Display Station	---
3278 Display Station	2, 3, 4, 5
3279 Color Display Stations	S2A, S2B, S3A, S3B, S3G 2X, 3X
3290 Information Panel	---
3262 Line Printer	3, 13
3268 Printer	2
3287 Printer	1, 2, 1C, 2C
3289 Line Printer	1, 2
5210 Printer	G01, G02

Figure 6. Supported Devices and Models for Local SNA 3270s

On the next panel, specify each type A port which has the device you chose connected to it. The dialog then displays all ports and devices you have defined for the particular controller. On this panel, you have two choices:

1. Press **ENTER** to select additional devices and ports for the controller.

2. Press **PF6** to process the information.
   The dialog stores the information and redisplays the FULIST.

Display Logical Units

This option displays the devices for the particular controller at that link address.

Delete Physical Unit Definition

This option deletes the physical unit for the selected channel address. It also deletes all logical units.

The dialog does **not** delete the hardware channel address. You must use the *Configure Hardware Addresses* dialog to delete the address.

Adding a Terminal

If you want to add a terminal to your configuration, there are several tasks which you must perform.

You must first define the hardware address in the hardware configuration table. You use the *Configure Hardware Addresses* dialog which is described in "Configure Hardware Addresses" on page 62.

After you define the address, you use one of five terminal configuration dialogs. The dialog you use depends on the type of terminal you are defining and how it is connected.

For locally attached 3270 terminals, you can use:

- *Configure Local Non-SNA 3270s*
- *Configure Local SNA 3270s*

The two dialogs are described in "Configure Local Non-SNA 3270s" on page 65 and in "Configure Local SNA 3270s" on page 70.

For ICA, NCP, or EP connected terminals, you use one of three remote configuration dialogs. The dialogs are described in *VSE/SP Networking*.

After you define the hardware address and complete the appropriate terminal configuration dialog, you **must** access the *Create Startup Books* dialog. The information you specify **is not available** to the system until you complete the *Create Startup Books* dialog. The dialog creates the correct startup books, startup assignments, and CICS/DOS/VS TCT entries depending on what you have defined. Refer to Chapter 12, "Create Startup Books" on page 93 for more information.

Figure 7 on page 74 provides an overview of the tasks you must perform to add a terminal to your configuration.

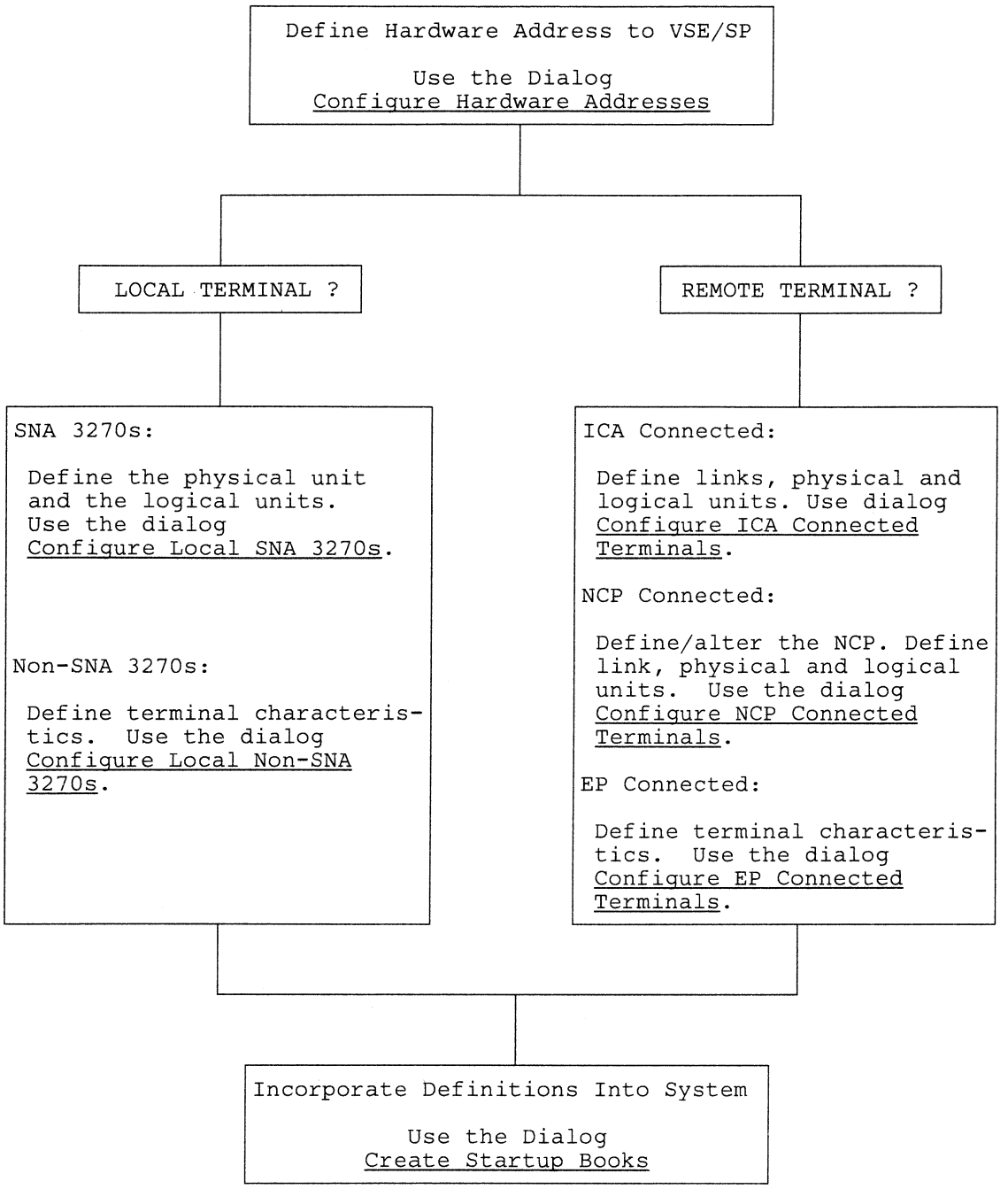


Figure 7. Tasks Needed to Add a Terminal to Your Configuration

Using Multiple Session Devices

Some devices which the terminal configuration dialogs support have only one attachment to a control unit. However, they are able to support more than one terminal session. An example is the IBM 3270 Personal Computer and the IBM 3290.

The hardware configuration dialogs only support the definition of one terminal session. This section outlines how you can define more than one session depending on how the device is attached.

Local Non-SNA Control Unit Attachment

If the device is locally attached at a non-SNA control unit, do the following to specify additional sessions:

1. Use the *Configure Hardware Addresses* dialog and define a hardware address **nnn** in the hardware configuration table. The address (nnn) is the address associated with the additional session during the customization of the control unit itself. For the device type code, specify 3277.

2. Use the *Configure Local Non-SNA 3270s* dialog. Specify the MODEL, TERM ID, and NETNAME for the new address (nnn). Enter the name of a terminal feature table (FEATURE NAME). You may need to create a new feature table for the session.

   The dialog creates two VSE/ICCF members in library 51:

   - VTMNSNA
     This contains an entry which defines the added session to ACF/VTAM. You can change this entry for your requirements.

   - DTRTCTL
     This contains an entry which defines the added session to CICS/DOS/VS. You can change this entry for your requirements.

3. You must now catalog the ACF/VTAM local non-SNA definitions and IPL procedures, and assemble the TCT. You should use the *Create Startup Books* dialog.

Local SNA Control Unit Attachment

If the device is locally attached at a SNA control unit, do the following to specify additional sessions:

1. Use the *Configure Local SNA 3270s* dialog to add the device itself. You should **file** the created job in the VSE/ICCF library.

2. The dialog creates two VSE/ICCF members in library 51:

- VTMSNA
  This contains an entry which defines the device to ACF/VTAM. For an additional terminal session, specify another LU entry with a unique LU name. Use a local address at the control unit which was assigned to the session during the setup or customization of the control unit.

- DTRTCTS
  This contains an entry for the device which defines one session to CICS/DOS/VS. For an additional terminal session, specify another entry with a unique CICS/DOS/VS TERMID. For NETNAME, use the specified LU name.

3. Submit the job which was created by the dialog.

4. Assemble the TCT using the *Create Startup Books* dialog.

Remote Control Unit or ICA Attachment

If the device is attached via a remote control unit or directly at the ICA, do the following to specify additional sessions:

1. Use the *Configure ICA Connected Terminals* dialog to add the device itself. You should **file** the created job in the VSE/ICCF library.

2. The dialog creates the following VSE/ICCF members in library 51:

   - VTMCA1 (for leased lines)
     This contains an entry which defines the device to ACF/VTAM. For an additional terminal session, specify another entry with a unique LU name. Use a local address at the control unit which was assigned to the session during the setup or customization of the control unit.

   - VTMSW1 (for switched lines)
     This contains an entry which defines the device to ACF/VTAM. For an additional terminal session, specify another entry with a unique LU name. Use a local address at the control unit which was assigned to the session during the setup or customization of the control unit.

   - DTRTCTR
     This contains an entry which defines the device to CICS/DOS/VS. For an additional terminal session, specify another entry with a unique CICS/DOS/VS TERMID. For NETNAME, use the specified LU name.

3. Submit the job which was created by the dialog.

4. Assemble the TCT using the *Create Startup Books* dialog.

IBM 37x5 With NCP Attachment

If the device is attached via an IBM 37x5 with NCP, do the following to specify additional sessions:

1. Use the *Configure NCP Connected Terminals* dialog to add the device itself. You should **file** the created job in the VSE/ICCF library.

2. The dialog creates two VSE/ICCF members in library 51.

   One of the member names is based on the value you specify in the dialog for NCPNAME. If your NCPNAME is *XXXXXXX*, then the member name is one of the following:

   - XXXXXXX (for leased lines)
     This contains an entry which defines the device to ACF/VTAM. For an additional terminal session, specify another entry with a unique LU name. Use a local address at the control unit which was assigned to the session during the setup or customization of the control unit.

   - XXXXXXXV (for switched lines)
     This contains an entry which defines the device to ACF/VTAM. For an additional terminal session, specify another entry with a unique LU name. Use a local address at the control unit which was assigned to the session during the setup or customization of the control unit.

   The second member is:

   - DTRTCTN
     This contains an entry which defines the device to CICS/DOS/VS. For an additional terminal session, specify another entry with a unique CICS/DOS/VS TERMID. For NETNAME, use the specified LU name.

3. Submit the job which was created by the dialog.

4. Assemble the TCT using the *Create Startup Books* dialog.

Chapter 8. Tailor IPL Procedure

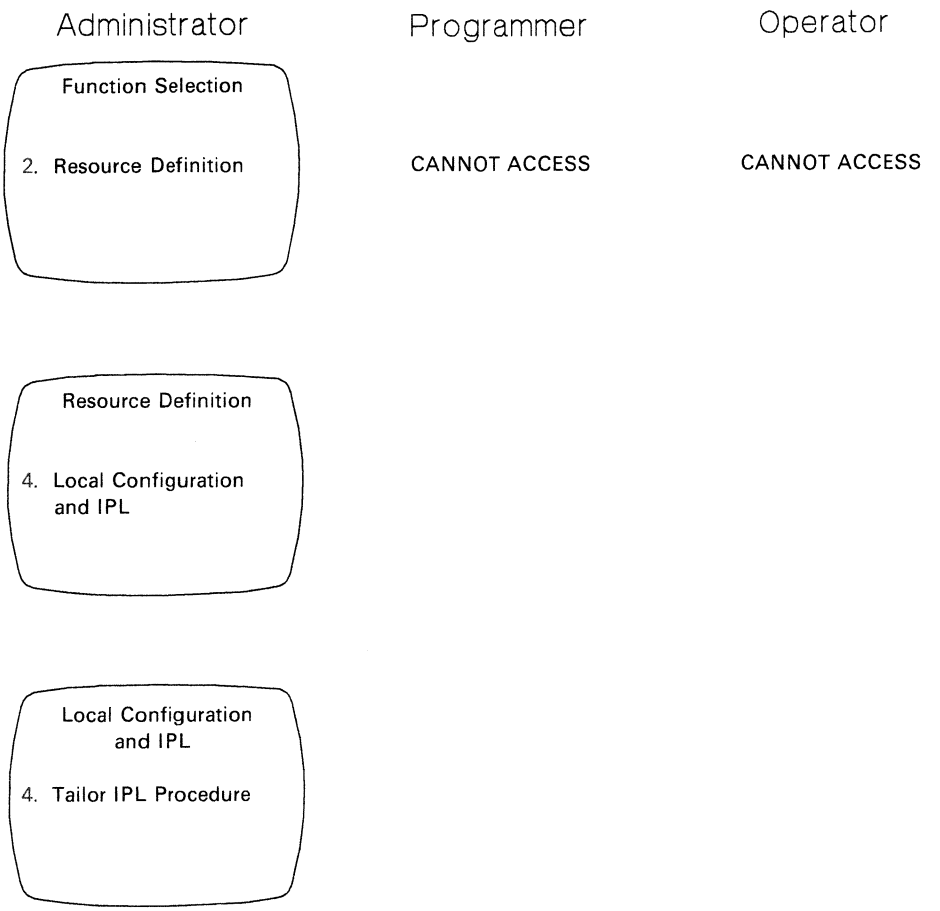
You use the *Tailor IPL Procedure* dialog to define, change, or delete Initial Program Load (IPL) procedures. An IPL procedure defines certain system values which are used at IPL to start up your system.

VSE/SP automatically creates an IPL procedure based on activities you do during initial installation. You may want to define your own procedure to implement VAE or disk sharing.

When you tailor an IPL procedure, the disk layouts are useful. They show page data set extents and free space. The disk layouts are documented in both *VSE/SP Planning* and in the *Program Directory*.

After you complete this dialog, you have to create your startup books. Refer to "Additional Considerations" on page 81 for information on other tasks you should perform.

You can access the dialog as follows:



A FULIST displays the IPL procedures defined for your system. The options you can select are shown at the top of the FULIST. Enter the option number in the OPT column next to the procedure you want to process.

Add or Alter a Procedure

If you add a procedure, you must specify a new procedure name. Enter the name that the procedure will be cataloged under when you complete the *Create Startup Books* dialog.

The procedure that you enter the option number next to is used as a model. The values defined for the model are used as defaults for the new procedure.

The next panel lists eight parameters that you can modify. Enter 1 to the left of the parameters you want to change. The parameters correspond to certain IPL statements. Refer to *VSE/Advanced Functions System Control Statements* for additional information on IPL statements.

1. SUPERVISOR
   Change definitions for supervisor name and paging, console, and virtual storage options.

2. SYS
   Modify various system definitions. For example, you would use this statement to implement security checking.

3. DLA
   Define or reference the label information area.

4. DPD
   Define page data set extents. For example, if you implement VAE, you should change this statement.

5. DLF
   Define or reference the cross system lock file. If you are sharing disk devices, this statement is required.

6. DEF
   Assign a physical device for the System Recorder File (SYSREC) and the VSE/VSAM master catalog (SYSCAT).

7. ZONE
   Define the East/West direction and the number of hours from Greenwich, England.

8. SVA
   Allocate space to the Shared Virtual Area. For example, if you implement VAE, you should change this statement.

Additional Considerations

1. VSE/SP provides many skeletons for system startup procedures. Refer to Chapter 13, "System Tailoring" on page 95 to review the skeletons that you may need.

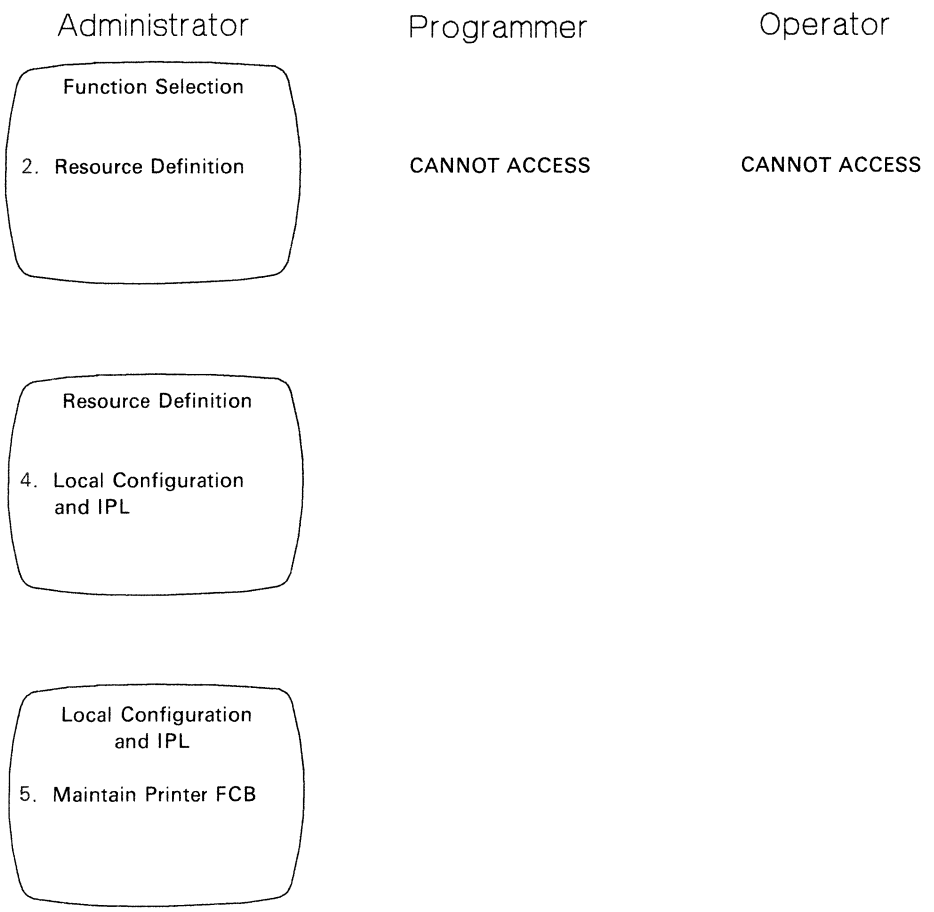
2. After you complete this dialog, use the *Create Startup Books* dialog. This creates a job which places the IPL procedure in the library.

   The information you specify is not available to the system in a useable form until you complete the *Create Startup Books* dialog.

Chapter 9. Maintain Printer FCB

You use the *Maintain Printer FCB* dialog to define and maintain printer forms control buffers (FCBs).

You can access the dialog as follows:



A FULIST displays the FCBs currently defined. You can scroll through the entries using **PF7** and **PF8**. The options you can select are at the top of the FULIST. Enter an option number in the OPT column to the left of the FCB name you want to process.

When you are finished, press **PF6**. The dialog processes the information and redisplays the selection panel.

The options you can select are:

- ADD: Define a new FCB.
- ALTER: Change the FCB.
- DISPLAY: Display the FCB.

  Even though you can change the values, the dialog does **not** update the FCB. If you want to change a FCB, select ALTER.
- DELETE: Delete the FCB.
- CATALOG: Catalog the FCB.

  The dialog creates a job which catalogs the FCB in the IJSYSRS.SYSLIB library. You do not have to enter any information. On the JOB DISPOSITION panel, you can submit the job to batch, file it in your default VSE/ICCF primary library, or both.

Add or Change an FCB

If you add (ADD) or change (ALTER) an FCB, you need the following information:

FCB NAME
If you add an FCB, enter the new FCB name. If you alter an FCB, you can change the name.

The name identifies the FCB to the Interactive Interface. It is **not** the phase name. You can use the same name that you use for the phase name. The FCB name must be unique.

DEVICE TYPE
Enter **3203, 3211, 3262, 3289**, or **4245**.

PHASE NAME
The library phase name. You use this name either in the LFCB command or in a VSE/POWER LST control statement to load the FCB.

The system automatically loads one FCB at IPL. The phase name is fixed for each printer type. Unless an FCB has the standard name for the printer type, it must be loaded by the operator or by VSE/POWER JECL.

LINES PER INCH
Enter either **6** or **8** for the number of lines per inch.

FORM LENGTH
Enter the page length, in inches. For example; 11, 12, and 8.5 are acceptable.

3211 INDEXING
Specify the following information for IBM 3211 printers with the indexing feature:

- SHIFT DIRECTION

  0 - No indexing
  1 - Right
  2 - Left

- SHIFT NUMBER
  The number of positions to be shifted (**1 - 31**). For no indexing, enter **0**.

CHANNEL POSITIONS
Enter the print line position for channels 1 - 12. If the channel is not used, enter **0**.

Channel 1 **cannot** be 0.

VERIFICATION MESSAGE
Enter a message that is printed on SYSLST when the FCB is loaded. The message is printed after the following header (where xxxxxxxx is the phase name).

xxxxxxxx LOADED

The dialog creates a job which catalogs the new or changed FCB in the IJSYSRS.SYSLIB library. On the JOB DISPOSITION panel, you can submit the job to batch, file it in your default VSE/ICCF primary library, or both.

Additional Considerations

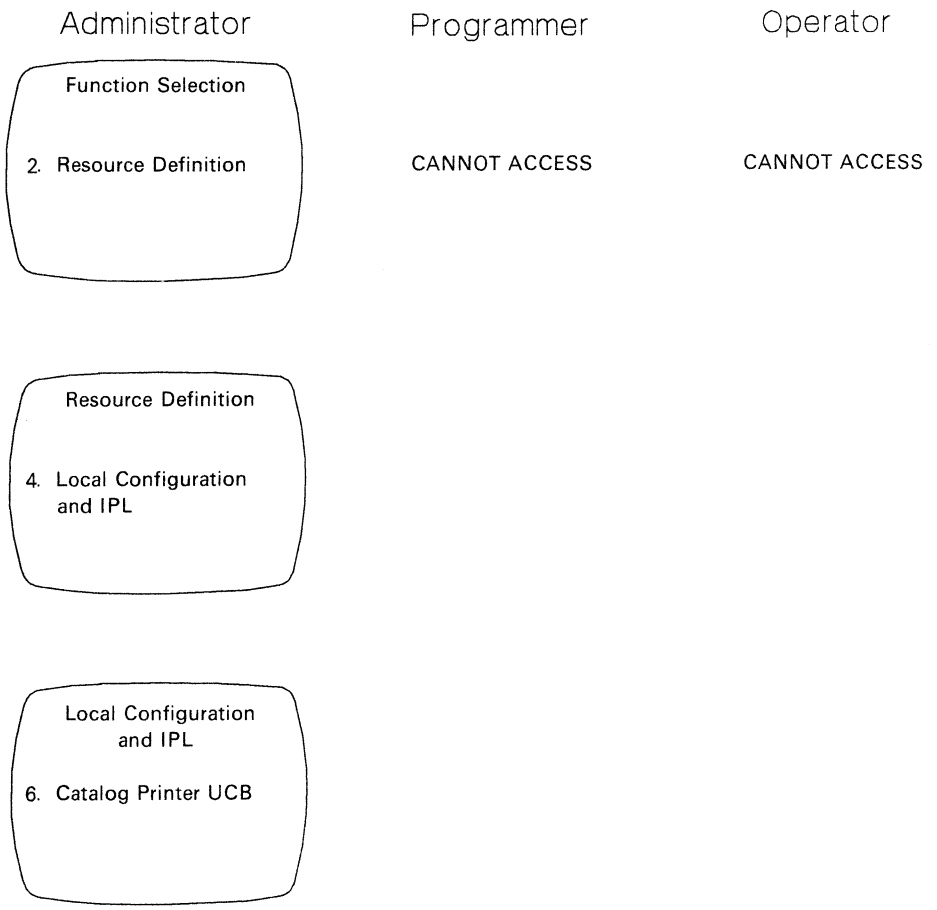
If you want to use an FCB that you create, you must load it into the printer. If the FCB is not loaded at IPL, the operator (or VSE/POWER JECL) must load it using the LFCB command.

Chapter 10. Catalog Printer UCB

You use the *Catalog Printer UCB* dialog to catalog a universal character set buffer (UCB).

A UCB converts bit patterns sent to the printer into specific locations on the print train. By using a UCB, you can take advantage of options such as different print trains, and upper and lower case printing.

The dialog creates a job to catalog a standard UCB or to assemble and catalog a non-standard UCB. You can access the dialog as follows:



A panel displays three selections:

1. Catalog IPL Loaded Standard Train

   Select this option to define a new UCB that is automatically loaded at IPL. The new UCB replaces the current UCB that is loaded at IPL.

2. Catalog User Loaded Standard Train

   Select this option if you want to define a new UCB, but you do **not** want to replace the current UCB loaded at IPL. The new UCB is assigned a name that can be used when a program is run.

3. Catalog User Loaded Non-Standard Train

   Select this option if you want to define your own load phase. The source for the phase is in a VSE/ICCF library member. The dialog helps you assemble and catalog the non-standard UCB. The current UCB is still loaded at IPL.

After you make your selection, the dialog displays various panels. The input you need depends on the type of UCB you catalog (standard or non-standard). Review the descriptions below.

Standard UCB

If you select option 1 or 2 (standard train), you need the following information:

PRINTER TYPE
Select the printer type: 1403U, 3203, 3211, 3262, or 3289.

PRINT TRAIN
Select the print train type for the printer you are using.

BUFFER NAME
This is the phase name that is assigned to the UCB in the VSE library. The name **cannot** be:

- ALL
- S
- ROOT

You are asked for the buffer name, only if you are cataloging a user loaded standard train (option 2 on the selection panel).

On the JOB DISPOSITION panel, you can submit the job to batch, file it in your VSE/ICCF primary library, or both.

Non-Standard UCB

If you select option 3 (non-standard train), you need the following information:

MEMBER NAME
The name of the VSE/ICCF library member that contains the source for the UCB you create.

PASSWORD
The password for the VSE/ICCF member. This is needed, if the member is password protected.

LIBRARY NUMBER
The number of the library that contains the VSE/ICCF member.

BUFFER NAME
The phase name that is assigned to the UCB in the VSE library. The name **cannot** be:

- ALL
- S
- ROOT

On the JOB DISPOSITION panel, you can submit the job to batch, file it in your VSE/ICCF primary library, or both.

Additional Considerations

1. If you select option 1 (Catalog IPL Loaded Standard Train), the dialog catalogs the UCB in the system library with a standard name. The system automatically loads it into the printer at IPL.

2. If you select option 2 (Catalog User Loaded Standard Train), you define the UCB with a phase name. The operator has to load it into the printer before you can use it.

3. If you select option 3 (Catalog User Loaded Non-Standard Train), you must create a VSE/ICCF library member that contains the source for the UCB phase. The operator has to load the UCB into the printer.

Chapter 11. Change ACF/VTAM Application Name/Subarea Number

You use the *Change VTAM Application Name and/or Subarea Number* dialog to change your ACF/VTAM parameters. You must also use the *Create Startup Books* dialog to create your startup books.

You can access the dialog as follows:

Administrator	Programmer	Operator
Function Selection 2. Resource Definition	CANNOT ACCESS	CANNOT ACCESS

Resource Definition

6. Change VTAM Appl Name/Subarea Number

You can specify the following information:

CICS APPLID
Enter the applid for the CICS/DOS/VS subsystem.

PNET APPLID
Specify the same name that you use for the APPLID= operand for the PNET network definition table.

RJE APPLID
Specify the same name that you use for the SNA= operand for your VSE/POWER generation.

MAXSUBA

Enter an integer value from 3 - 255. This specifies the highest subarea value that can be used throughout the network.

HOSTSA

Specify an integer value from 1 to the value you enter for MAXSUBA. This is the host subarea number.

Refer to *VSE/SP Networking* for more information on the dialog and ACF/VTAM parameters.

Chapter 12. Create Startup Books

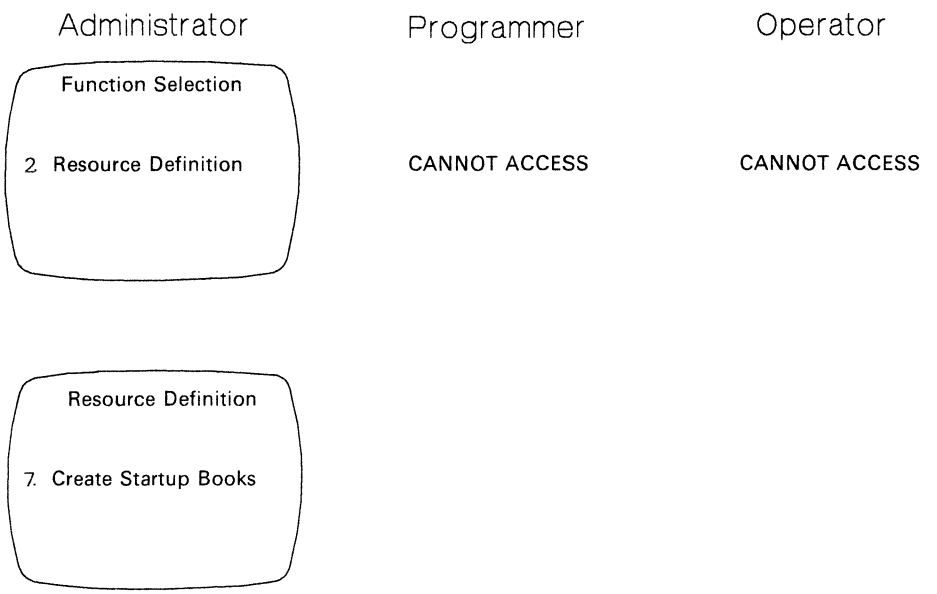
You use the *Create Startup Books* dialog to include the output from the following dialogs into the system:

- *Configure Hardware Addresses*
- *Configure Local Non-SNA 3270s*
- *Tailor IPL Procedure*
- *Change VTAM Application Name and/or Subarea Number*

The information you specify when you use these dialogs is **not** available to the system in useable form **until** you complete the *Create Startup Books* dialog. This dialog creates startup books for:

- ACF/VTAM startup
- BTAM-ES startup assignments
- CICS/DOS/VS Terminal Control Table (TCT)
- IPL procedures
  The dialog processes **all** IPL procedures that you have tailored on your system.

You can access the dialog as follows:



A panel lists the objects you can create. If you completed one of the tasks described above, the panel displays an *X* for the required startup books.

Enter an **x** to the left of each object you want to create. The dialog creates the correct startup books depending on:

1. What you select
2. The telecommunications access method you are using.

You do not have to enter any additional information.

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

Chapter 13. System Tailoring

This chapter describes how you change VSE/SP skeletons to define various resources on your system. This includes skeletons for:

- System startup procedures
- Non-VSAM libraries
- VSE/ICCF DTSFILE
- VSE/POWER and VSE/ICCF generation
- VSE/SP sign-on panel
- Standard labels

VSE/SP Networking describes additional skeletons for networking functions.

VSE/SP Planning describes the CICS/DOS/VS tables which VSE/SP provides.

The chapter also provides information about:

- Setting up VAE on the system.
- What you can do if your own transaction ID names conflict with the ones provided by VSE/SP.
- The CICS/DOS/VS Resource Definition Online function.

BG ASI Procedure for 370 Mode Including VAE

The ASI0VAE skeleton creates a BG ASI procedure for a system running in 370 mode. You also use this skeleton to implement Virtual Addressability Extension (VAE). The skeleton contains job control statements to define the ALLOC, ALLOCR, and SIZE statements. It also contains VSE/POWER JECL and JCL statements to catalog the procedure in the system library and LIBR JCL to copy it to PRD2.SAVE.

The skeleton is shipped in library 59. First copy it to your primary library and edit the copied file. Refer to "Copying VSE/SP Skeletons" on page 11 for information on copying skeletons.

Note: If your system is running in **VM** *or* **E** *mode, you should tailor the ASI0 skeleton. "BG ASI Procedure for VM or E Mode" on page 103 describes ASI0.*

For ASI0VAE, the system startup has the characteristics shown in Figure 8. VSE/POWER autostarts all partitions, except partition F1.

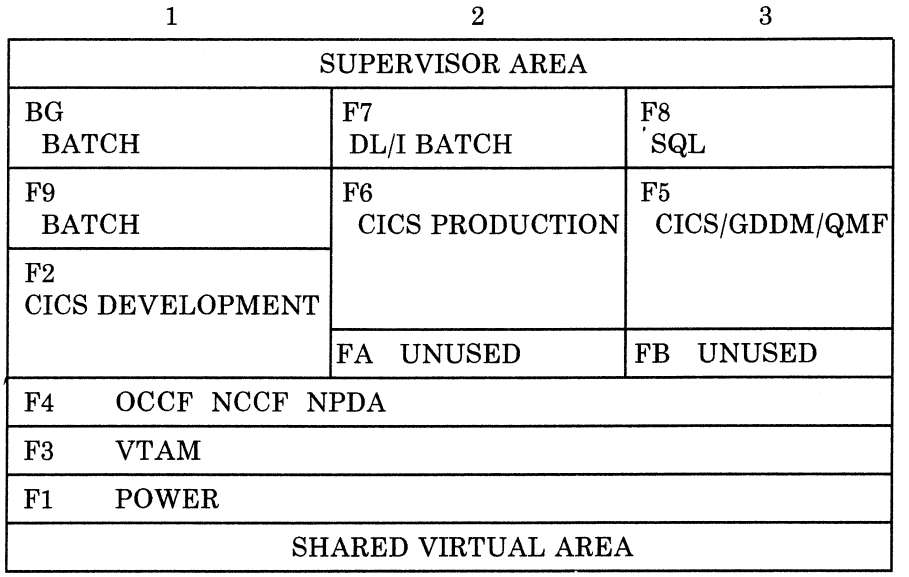


Figure 8. System Startup for ASI0VAE Skeleton

Figure 9 shows the skeleton. Each section of the skeleton is shown in separate parts of the figure. The values you should change are highlighted in color. A description of the job statements and changes follows each part of the figure. You can also change, add, or delete statements or parameters.

```
* $$ JOB JNM=CATALOG,DISP=D,CLASS=0
// JOB CATALOG
// EXEC LIBR,PARM='MSHP'
ACC S=IJSYSRS.SYSLIB
CATALOG $0JCL370.PROC  DATA=YES      REPLACE=YES
```

Figure 9 (Part 1 of 8). BG ASI Procedure for 370 Mode (ASI0VAE Skeleton)

For ASI0VAE, SYSLST must be assigned for LIBR.

In the CATALOG statement, change $0JCL370. Enter the name used to catalog the procedure in the sublibrary IJSYSRS.SYSLIB. The name must start with $N, where N is the partition number. You must specify the name either in the $ASIPROC procedure or during VSE IPL.

Use the same name for the COPY statement in Part 8 of the figure.

```
ALLOC  1, BG=2048K,F9=0512K,F2=6144K
ALLOC  2, F7=1024K,F6=5056K,FA=0512K
ALLOC  3, F8=4096K,F5=4096K,FB=0512K
ALLOC  S, F4=0256K,F3=2560K,F1=0768K
```

Figure 9 (Part 2 of 8). BG ASI Procedure for 370 Mode (ASI0VAE Skeleton)

The space identifier for the ALLOC statements can be 1, 2, or 3 for address spaces 1, 2, or 3. It can also be S for a shared partition or R for real space allocations.

Some program products such as ACF/VTAM and VSE/POWER need shared address spaces.

Define the virtual size for each partition. It should be a multiple of 64K. If it is not, the system rounds the value to the next multiple of 64K.

```
ALLOC   R, BG=0128K,F9=0064K,F2=0256K
ALLOC   R, FA=0064K,FB=0064K
ALLOC   R, F7=0128K,F6=0128K
ALLOC   R, F8=0128K,F5=0256K
ALLOC   R, F4=0064K,F3=0200K,F1=0064K
```

Figure 9 (Part 3 of 8). BG ASI Procedure for 370 Mode (ASI0VAE Skeleton)

The space identifier for the four ALLOC statements must be R. Define the real size for each partition.

```
SIZE        BG=1792K,F9=0256K,F2=5120K
SIZE        F7=0832K,F6=4096K
SIZE        F8=3264K,F5=3584K
SIZE        F4=0128K,F3=900K,F1=512K

PRTY BG=FB=FA=F9=F7=F6=F8,F5,F2,F4,F3,F1

NPGR BG=100,F1=25,F2=60,F3=200,F4=60,F5=60
NPGR F6=60,F7=60,F8=60,F9=60,FA=60,FB=60
```

Figure 9 (Part 4 of 8). BG ASI Procedure for 370 Mode (ASI0VAE Skeleton)

For each SIZE statement, define the size for each partition. If you define the size, the value must be at least 80K.

In the PRTY statement, enter the priority of execution for each individual partition. From left to right, the priority is lowest to highest. In the skeleton, F1 has the highest priority. The partitions F6, F7, F8, F9, FA, FB, and BG have equal priority.

Note: The partition you use to run VSE/ICCF should have a higher priority than the partitions defined with equal priority.

For each partition, enter the number of programmer logical units (NPGR). The number can be from 10 to 255. However, the **sum** of all the units cannot be more than 3060. This is the available system capacity.

```
STDOPT ALIGN=YES,ACANCEL=NO,CHARSET=48C,DATE=MDY,DECK=YES,DUMP=YES
STDOPT EDECK=NO,ERRS=YES,LINES=56,LIST=YES,LISTX=NO,LOG=YES
STDOPT RLD=NO,SXREF=NO,SYM=NO,SYSDMP=YES,TERM=NO,XREF=YES
STDOPT JCANCEL=NO

// EXEC PROC=STDLABEL
// EXEC PROC=SETSDL

START F1                                  START POWER
STOP                                      WAIT UNTIL POWER IS UP
// JOB BGINIT - INITIALIZE THE BG PARTITION UNDER POWER
// PWR PRELEASE RDR,YYYYYYYY
```

Figure 9 (Part 5 of 8). BG ASI Procedure for 370 Mode (ASI0VAE Skeleton)

Define the standard options (STDOPT) for your system.

The two EXEC statements specify:

1. The procedure which contains the standard labels for your system. The default is STDLABEL.

2. The procedure which contains the list of members that are placed in the system directory list. The default is SETSDL.

ACF/VTAM Users

Replace the Y string in the // PWR statement. Enter the name of your startup job for ACF/VTAM.

The VSE/SP skeleton for ACF/VTAM startup is VTAMSTRT. However, you may have used a different file name when you copied VTAMSTRT from library 59 to tailor it. Enter the name you used.

BTAM-ES Users

Delete the // PWR statement.

```
// EXEC IESWAIT,PARM='02'
// PWR PRELEASE RDR,YYYYYYYY           RELEASE CICS/ICCF STARTUP JOB

// EXEC PROC=DTRSYSWK

ASSGN SYSLST,FEE
ASSGN SYSPCH,FED
ASSGN SYSIN,FEC
```

Figure 9 (Part 6 of 8). BG ASI Procedure for 370 Mode (ASI0VAE Skeleton)

Replace the Y string in the // PWR statement. Enter the name of your startup job for VSE/ICCF and CICS/DOS/VS.

The // EXEC PROC statement specifies the VSE/SP default procedure DTRSYSWK. This procedure defines the volume numbers of the disks that contain the assembler work files.

The ASSGN statements assign unit record devices to the units defined in the VSE/POWER AUTOSTART statements.

ACF/VTAM Users

The // EXEC IESWAIT statement causes a **2** second wait between the start of ACF/VTAM and the start of CICS/ICCF. You can change the value (02) for your own system requirements.

BTAM-ES Users

Delete the // EXEC IESWAIT statement.

```
// LIBDEF  PHASE,SEARCH=(YYYYYYYY.YYYYYYYY,
              YYYYYYYY.YYYYYYYY,YYYYYYYY.YYYYYYYY,YYYYYYYY.YYYYYYYY,
              PRD2.CONFIG,PRD1.BASE),
              CATALOG=YYYYYYYY.YYYYYYYY,PERM

// LIBDEF    OBJ,SEARCH=(YYYYYYYY.YYYYYYYY,
              YYYYYYYY.YYYYYYYY,YYYYYYYY.YYYYYYYY,YYYYYYYY.YYYYYYYY,
              PRD2.CONFIG,PRD1.BASE),PERM

// LIBDEF SOURCE,SEARCH=(YYYYYYYY.YYYYYYYY,
              YYYYYYYY.YYYYYYYY,YYYYYYYY.YYYYYYYY,YYYYYYYY.YYYYYYYY,
              PRD2.CONFIG,PRD1.BASE),PERM
```

Figure 9 (Part 7 of 8). BG ASI Procedure for 370 Mode (ASI0VAE Skeleton)

Replace the Y strings in each SEARCH chain. The three LIBDEF statements define the permanent sublibrary search chains for the following type members:

- Phase
- Object
- Source

You should also include the sublibraries used by the system. If you do not, some functions of the Interactive Interface may not run correctly.

In the PHASE search chain, replace the Y string in **CATALOG=**. Specify the sublibrary that the linkage editor will use to catalog phases within the catalog entry above.

```
// LIBDEF   DUMP,CATALOG=SYSDUMP.BG,PERM
CONNECT S=IJSYSRS.SYSLIB:PRD2.SAVE

COPY $0JCL370.PROC  REPLACE=YES
/*
/&
* $$ EOJ
```

Figure 9 (Part 8 of 8). BG ASI Procedure for 370 Mode (ASI0VAE Skeleton)

The // LIBDEF statement defines the permanent sublibrary for DUMP type members. You must specify CATALOG=SYSDUMP.xx, where 'xx' is the partition.

In the COPY statement, change $0JCL370. Use the same name you used in the CATALOG statement in Part 1 of the figure.

After you make the changes, run the DTRSEXIT macro. This macro deletes all the comments from the file. The comments are defined by the letter C in column 71. You should do this before you file the skeleton and run it.

On the command line, enter:

```
@DTRSEXIT
```

After the macro runs, file the job. You can then submit it to the VSE system.

BG ASI Procedure for VM or E Mode

The ASI0 skeleton creates a BG ASI procedure for a system running in VM or E mode. It contains job control statements to define the ALLOC, ALLOCR, and SIZE statements. It also has VSE/POWER JECL and JCL statements to catalog the procedure in the system library.

The skeleton is shipped in library 59. First copy it to your primary library and edit the copied file. Refer to "Copying VSE/SP Skeletons" on page 11 for information on copying skeletons.

For ASI0, the system startup has the characteristics shown in Figure 10. VSE/POWER autostarts all partitions, except partitions F1, FA, and FB.

F1	VSE/POWER
F2	CICS/ICCF
F3	ACF/VTAM
F4	OCCF/NCCF/NPDA
F5	BATCH PARTITION
F6	BATCH PARTITION
F7	BATCH PARTITION
F8	BATCH PARTITION
F9	BATCH PARTITION
FA	UNUSED
FB	UNUSED
BG	BATCH PARTITION

Figure 10. System Startup for ASI0 Skeleton

Figure 11 shows the skeleton. Each section of the skeleton is shown in separate parts of the figure. The values you should change are highlighted in color. A description of the job statements and changes follows each part of the figure. You can also change, add, or delete statements or parameters.

```
* $$ JOB JNM=CATALOG,DISP=D,CLASS=0
// JOB CATALOG  REMOVE .. BEFORE YOU RUN THIS JOB
// EXEC LIBR,PARM='MSHP'
ACC S=IJSYSRS.SYSLIB
CATALOG $0JCLYYY.PROC  DATA=YES      REPLACE=YES
```

Figure 11 (Part 1 of 8). BG ASI Procedure for VM and E Mode (ASI0 Skeleton)

For ASI0, SYSLST must be assigned for LIBR.

In the CATALOG statement, change $0JCLYYY. Enter the name used to catalog the procedure in the sublibrary IJSYSRS.SYSLIB. The name must start with $N, where N is the partition number. You must specify the name either in the $ASIPROC procedure or during VSE IPL.

Use the same name for the COPY statement in Part 8 of the figure.

```
ALLOC  1, BG=2048K,FB=0000K,FA=0000K
ALLOC  1, F9=0000K,F8=0512K,F7=0512K
ALLOC  1, F6=0512K,F5=0512K,F2=5888K
ALLOC  X, F4=1024K,F3=2048K,F1=0768K
```

Figure 11 (Part 2 of 8). BG ASI Procedure for VM and E Mode (ASI0 Skeleton)

Define the virtual size for each partition. It should be a multiple of 64K. If it is not, the system rounds the value to the next multiple of 64K.

For the first three ALLOC statements, the space identifier can be 1 for partition allocations or R for real space allocations. In the fourth ALLOC statement, replace X by 1 for VM mode or E mode.

```
ALLOC   R, BG=0000K,FB=0000K,FA=0000K
ALLOC   R, F9=0000K,F8=0000K,F7=0000K
ALLOC   R, F6=0000K,F5=0000K,F4=0000K
ALLOC   R, F3=0200K,F2=0142K,F1=0064K
```

Figure 11 (Part 3 of 8). BG ASI Procedure for VM and E Mode (ASI0 Skeleton)

The space identifier for the four ALLOC statements must be R. Define the real size for each partition.

```
SIZE        BG=1792K
SIZE        F8=0384K,F7=0384K
SIZE        F6=0384K,F5=0384K,F4=0768K
SIZE        F3=900K,F2=5120K,F1=0512K

PRTY BG=FB=FA=F9=F8=F7=F6=F5=F4,F3,F2,F1

NPGR BG=100,F1=25,F2=200,F3=60,F4=60,F5=60
NPGR F6=60,F7=60,F8=60,F9=60,FA=60,FB=60
```

Figure 11 (Part 4 of 8). BG ASI Procedure for VM and E Mode (ASI0 Skeleton)

For each SIZE statement, define the size for each partition. If you define the size, the value must be at least 80K.

In the PRTY statement, enter the priority of execution for each individual partition. From left to right, the priority is lowest to highest. In the skeleton, F1 has the highest priority. The partitions F4 - F9, FA, FB, and BG have equal priority.

Note: The partition you use to run VSE/ICCF should have a higher priority than the partitions defined with equal priority.

For each partition, enter the number of programmer logical units (NPGR). The number can be from 10 to 255. However, the **sum** of all the units cannot be more than 3060. This is the available system capacity.

```
STDOPT ALIGN=YES,ACANCEL=NO,CHARSET=48C,DATE=MDY,DECK=YES,DUMP=YES
STDOPT EDECK=NO,ERRS=YES,LINES=56,LIST=YES,LISTX=NO,LOG=YES
STDOPT RLD=NO,SXREF=NO,SYM=NO,SYSDMP=YES,TERM=NO,XREF=YES
STDOPT JCANCEL=NO

// EXEC PROC=STDLABEL
// EXEC PROC=SETSDL

START F1                                START POWER
STOP                                    WAIT UNTIL POWER IS UP
// JOB BGINIT - INITIALIZE THE BG PARTITION UNDER POWER
// PWR PRELEASE RDR,YYYYYYYY
```

Figure 11 (Part 5 of 8). BG ASI Procedure for VM and E Mode (ASI0 Skeleton)

Define the standard options (STDOPT) for your system.

The two EXEC statements specify:

1. The procedure which contains the standard labels for your system. The default is STDLABEL.
2. The procedure which contains the list of members that are placed in the system directory list. The default is SETSDL.

ACF/VTAM Users

Replace the Y string in the // PWR statement. Enter the name of your startup job for ACF/VTAM.

The VSE/SP skeleton for ACF/VTAM startup is VTAMSTRT. However, you may have used a different file name when you copied VTAMSTRT from library 59 to tailor it. Enter the name you used.

BTAM-ES Users

Delete the // PWR statement.

```
// EXEC IESWAIT,PARM='02'
// PWR PRELEASE RDR,YYYYYYYY          RELEASE CICS/ICCF STARTUP JOB

// EXEC PROC=DTRSYSWK

ASSGN SYSLST,FEE
ASSGN SYSPCH,FED
ASSGN SYSIN,FEC
```

Figure 11 (Part 6 of 8). BG ASI Procedure for VM and E Mode (ASI0 Skeleton)

Replace the Y string in the // PWR statement. Enter the name of your startup job for VSE/ICCF and CICS/DOS/VS.

The // EXEC PROC statement specifies the VSE/SP default procedure DTRSYSWK. This procedure defines the volume numbers of the disks that contain the assembler work files.

The ASSGN statements assign unit record devices to the units defined in the VSE/POWER AUTOSTART statements.

ACF/VTAM Users

The // EXEC IESWAIT statement causes a **2** second wait between the start of ACF/VTAM and the start of CICS/ICCF. You can change the value (02) for your own system requirements.

BTAM-ES Users

Delete the // EXEC IESWAIT statement.

```
// LIBDEF  PHASE,SEARCH=
              (YYYYYYY.YYYYYYYY,YYYYYYY.YYYYYYYY,YYYYYYY.YYYYYYYY,
              YYYYYYY.YYYYYYYY,YYYYYYY.YYYYYYYY,YYYYYYY.YYYYYYYY,
              PRD2.CONFIG,PRD1.BASE),
              CATALOG=YYYYYYY.YYYYYYYY,PERM

// LIBDEF    OBJ,SEARCH=
              (YYYYYYY.YYYYYYYY,YYYYYYY.YYYYYYYY,YYYYYYY.YYYYYYYY,
              YYYYYYY.YYYYYYYY,YYYYYYY.YYYYYYYY,YYYYYYY.YYYYYYYY,
              PRD2.CONFIG,PRD1.BASE),PERM

// LIBDEF SOURCE,SEARCH=
              (YYYYYYY.YYYYYYYY,YYYYYYY.YYYYYYYY,YYYYYYY.YYYYYYYY,
              YYYYYYY.YYYYYYYY,YYYYYYY.YYYYYYYY,YYYYYYY.YYYYYYYY,
              PRD2.CONFIG,PRD1.BASE),PERM
```

Figure 11 (Part 7 of 8). BG ASI Procedure for VM and E Mode (ASI0 Skeleton)

Replace the Y strings in each SEARCH chain. The three LIBDEF statements define the permanent sublibrary search chains for the following type members:

- Phase
- Object
- Source

You should also include the sublibraries used by the system. If you do not, some functions of the Interactive Interface may not run correctly.

In the PHASE search chain, replace the Y string in **CATALOG=**. Specify the sublibrary that the linkage editor will use to catalog phases within the catalog entry above.

```
// LIBDEF   DUMP,CATALOG=SYSDUMP.BG,PERM
CONNECT S=IJSYSRS.SYSLIB:PRD2.SAVE

COPY $0JCLYYY.PROC  REPLACE=YES
/*
/&
* $$ EOJ
```

Figure 11 (Part 8 of 8). BG ASI Procedure for VM and E Mode (ASI0 Skeleton)

The // LIBDEF DUMP statement defines the permanent sublibrary for DUMP type members. You must specify CATALOG=SYSDUMP.xx, where 'xx' is the partition.

In the COPY statement, change $0JCLYYY. Use the same name you used in the CATALOG statement in Part 1 of the figure.

After you make the changes, run the DTRSEXIT macro. This macro deletes all the comments from the file. The comments are defined by the letter C in column 71. You should do this before you file the skeleton and run it.

On the command line, enter:

```
@DTRSEXIT
```

After the macro runs, file the job. You can then submit it to the VSE system.

ASI Procedure for VSE/POWER Partition

The ASI1 skeleton creates a system ASI procedure for the VSE/POWER partition in F1. It contains VSE/POWER JECL and JCL statements to catalog the procedure in the system library.

The skeleton is shipped in library 59. First copy it to your primary library and edit the copied file. Refer to "Copying VSE/SP Skeletons" on page 11 for information on copying skeletons.

Figure 12 shows the skeleton. Each section of the skeleton is shown in separate parts of the figure. The values you should change are highlighted in color. A description of the job statements and changes follow each part of the figure. You can also change, add, or delete statements or parameters.

```
* $$ JOB JNM=CATALOG,DISP=D,CLASS=0
// JOB CATALOG
// EXEC LIBR,PARM='MSHP'
ACC S=IJSYSRS.SYSLIB
CATALOG $1JCLYYY .PROC  DATA=YES      REPLACE=YES
```

Figure 12 (Part 1 of 7). ASI Procedure for VSE/POWER Partition (ASI1 Skeleton)

For ASI1, SYSLST must be assigned for LIBR.

In the CATALOG statement, change**$1JCLYYY** . Enter the name used to catalog the procedure in the sublibrary IJSYSRS.SYSLIB. The name must start with**$1** . You must specify the name either in the $ASIPROC procedure or during VSE IPL.

Use the same name for the COPY statement in Part 7 of the figure.

```
// JOB IPWPOWER - START POWER
// EXEC PROC=DTRPOWR
// EXEC PROC=DTRICCF            GET DTSFILE ASSGN/S

// LIBDEF  PHASE,SEARCH=
              (YYYYYYY.YYYYYYYY,YYYYYYY.YYYYYYYY,YYYYYYY.YYYYYYYY,
              YYYYYYY.YYYYYYYY,YYYYYYY.YYYYYYYY,YYYYYYY.YYYYYYYY,
              PRD2.CONFIG,PRD1.BASE),PERM

// LIBDEF    OBJ,SEARCH=
              (YYYYYYY.YYYYYYYY,YYYYYYY.YYYYYYYY,YYYYYYY.YYYYYYYY,
              YYYYYYY.YYYYYYYY,YYYYYYY.YYYYYYYY,YYYYYYY.YYYYYYYY,
              PRD2.CONFIG,PRD1.BASE),PERM

// LIBDEF SOURCE,SEARCH=
              (YYYYYYY.YYYYYYYY,YYYYYYY.YYYYYYYY,YYYYYYY.YYYYYYYY,
              YYYYYYY.YYYYYYYY,YYYYYYY.YYYYYYYY,YYYYYYY.YYYYYYYY,
              PRD2.CONFIG,PRD1.BASE),PERM
```

Figure 12 (Part 2 of 7). ASI Procedure for VSE/POWER Partition (ASI1 Skeleton)

The two EXEC statements specify:

1. The procedure which contains the assignments for the VSE/POWER files. The default is DTRPOWR.

2. The procedure which contains the assignment for the DTSFILE. The default is DTRICCF.

Replace the Y strings in each SEARCH chain. The three LIBDEF statements define the permanent sublibrary search chains for the following type members:

- Phase
- Object
- Source

You should also include the sublibraries used by the system. If you do not, some functions of the Interactive Interface may not run correctly.

```
// LIBDEF   DUMP,CATALOG=SYSDUMP.F1,PERM

// EXEC IPWPOWER

SET SYSID=Y
SET PNET=YYYYYYYY
FORMAT=NO
```

Figure 12 (Part 3 of 7). ASI Procedure for VSE/POWER Partition (ASI1 Skeleton)

The // LIBDEF DUMP statement defines the permanent sublibrary for DUMP type members. You must specify CATALOG=SYSDUMP.xx, where 'xx' is the partition.

The // EXEC statement specifies the pregenerated VSE/POWER phase IPWPOWER. If you generate your own VSE/POWER phase, enter your own name. "VSE/POWER Generation" on page 140 describes the VSE/POWER generation skeleton.

The SET SYSID and SET PNET statements are optional. They are for shared spooling or networking environments. If you do not need them, delete them. If you do use the two SET statements, they must immediately follow the // EXEC statement. SYSID must be a single digit from 1 - 9.

All statements following the // EXEC IPWPOWER statement are either AUTOSTART statements or VSE/POWER operator commands.

```
PSTART BG,A0I
READER=FEC
PRINTERS=FEE
PUNCHES=FED
```

Figure 12 (Part 4 of 7). ASI Procedure for VSE/POWER Partition (ASI1 Skeleton)

For each VSE/POWER controlled partition, specify a SET for the four commands. This defines partition operating characteristics and the spooled device configuration for the respective partitions.

You can use any device address. However, the device must be defined in the hardware configuration table. This was done either during VSE/SP initial installation by device sensing or using the *Configure Hardware Addresses* dialog.

Any partition running IWS should have printers FEE and FEF to correspond with the ASSGN SYS015,FEF statement in the CICS/DOS/VS startup.

```
PSTART F2,J2
READER=FEC
PRINTERS=FEE,FEF
PUNCHES=FED
PSTART F3,K3
READER=FEC
PRINTERS=FEE
PUNCHES=FED
PSTART F4,L4
READER=FEC
PRINTERS=FEE
PUNCHES=FED
PSTART F5,M5
READER=FEC
PRINTERS=FEE
PUNCHES=FED
PSTART F6,N6
READER=FEC
PRINTERS=FEE
PUNCHES=FED
PSTART F7,O7
READER=FEC
PRINTERS=FEE
PUNCHES=FED
PSTART F8,P8
READER=FEC
PRINTERS=FEE
PUNCHES=FED
PSTART F9,Q9
READER=FEC
PRINTERS=FEE
PUNCHES=FED
PSTART FA,R
READER=FEC
PRINTERS=FEE
PUNCHES=FED
PSTART FB,S
READER=FEC
PRINTERS=FEE
PUNCHES=FED
```

Figure 12 (Part 5 of 7). ASI Procedure for VSE/POWER Partition (ASI1 Skeleton)

The skeleton PSTARTs the individual partitions.

```
PSTART RDR,YYY,YYY
PSTART PUN,YYY,YYY,,VM
PSTART LST,YYY,YYY,Y,VM
/*
```

Figure 12 (Part 6 of 7). ASI Procedure for VSE/POWER Partition (ASI1 Skeleton)

Replace the Y strings in the three PSTART statements.

The **first YYY** parameter string defines the unit record device address. This is the address to which the individual tasks are connected.

The **second YYY** parameter string is optional. It specifies the classes for the individual task. You can have up to four different classes.

The **third Y** parameter string is optional. In the skeleton, it is only shown for the PSTART LST statement. In the PSTART PUN statement, it is indicated by a comma (,). It specifies the number of buffers that are used for a LST task.

The **fourth** parameter string (VM) is shown in the PSTART PUN and PSTART LST statements. Specify it if you are using a spooled VM printer.

The parameters are positional parameters. If you do **not** use an optional parameter and you use other parameters after it, you **must** insert a comma (,) in that position.

You can also include the following operator commands as AUTOSTART commands. Insert these commands before the /* statement.

- PSTART
- PHOLD
- PRELEASE
- PALTER
- PACT

```
CONNECT S=IJSYSRS.SYSLIB:PRD2.SAVE
COPY $1JCLYYY.PROC  REPLACE=YES
/*
/&
* $$ EOJ
```

Figure 12 (Part 7 of 7). ASI Procedure for VSE/POWER Partition (ASI1 Skeleton)

In the COPY statement, change $1JCLYYY. Use the same name you used in the CATALOG statement in Part 1 of the figure.

After you make the changes, run the DTRSEXIT macro. This macro deletes all the comments from the file. The comments are defined by the letter C in column 71. You should do this before you file the skeleton and run it.

On the command line, enter:

```
@DTRSEXIT
```

After the macro runs, file the job. You can then submit it to the VSE system.

Definitions for VSE/POWER Controlled Partitions

The ASIBATCH skeleton defines the search chains and assignments for the VSE/POWER controlled partitions. The ASIN skeleton includes ASIBATCH. ASIN defines and catalogs a batch ASI procedure. It is described in "ASI JCL Procedure for VSE/POWER Batch Partitions" on page 119.

ASIBATCH is shipped in library 59. First copy it to your primary library and edit the copied file. Refer to "Copying VSE/SP Skeletons" on page 11 for information on copying skeletons.

You should tailor both this skeleton and ASIN to catalog a batch ASI procedure.

Figure 13 on page 117 shows the ASIBATCH skeleton. The values you should change are highlighted in color. A description of the job statements and changes follows the figure. You can also change, add, or delete statements or parameters.

```
// LIBDEF  PHASE,SEARCH=
              (YYYYYYYY.YYYYYYYY,YYYYYYYY.YYYYYYYY,YYYYYYYY.YYYYYYYY,
              YYYYYYYY.YYYYYYYY,YYYYYYYY.YYYYYYYY,YYYYYYYY.YYYYYYYY,
              PRD2.CONFIG,PRD1.BASE),
              CATALOG=YYYYYYYY.YYYYYYYY,PERM

// LIBDEF    OBJ,SEARCH=
              (YYYYYYYY.YYYYYYYY,YYYYYYYY.YYYYYYYY,YYYYYYYY.YYYYYYYY,
              YYYYYYYY.YYYYYYYY,YYYYYYYY.YYYYYYYY,YYYYYYYY.YYYYYYYY,
              PRD2.CONFIG,PRD1.BASE),PERM

// LIBDEF SOURCE,SEARCH=
              (YYYYYYYY.YYYYYYYY,YYYYYYYY.YYYYYYYY,YYYYYYYY.YYYYYYYY,
              YYYYYYYY.YYYYYYYY,YYYYYYYY.YYYYYYYY,YYYYYYYY.YYYYYYYY,
              PRD2.CONFIG,PRD1.BASE),PERM

ASSGN SYSLST,FEE
ASSGN SYSPCH,FED
ASSGN SYSIN,FEC
```

Figure 13. VSE/POWER Controlled Partitions Definitions (ASIBATCH Skeleton)

Replace the Y strings in each SEARCH chain. The three LIBDEF statements define the permanent sublibrary search chains for the following type members:

- Phase
- Object
- Source

You should also include the sublibraries used by the system. If you do not, some functions of the Interactive Interface may not run correctly.

In the PHASE search chain, replace the Y string in **CATALOG=**. Specify the sublibrary that the linkage editor will use to catalog phases within the catalog entry above.

The ASSGN statements assign unit record devices to the units defined in the VSE/POWER AUTOSTART statements.

In this part of the skeleton, you can insert any permanent assignments that you need.

After you make the changes, run the DTRSEXIT macro. This macro deletes all the comments from the file. The comments are defined by the letter C in column 71. You should do this before you file the skeleton and run it.

On the command line, enter:

```
@DTRSEXIT
```

After the macro runs, file the job. You can then submit it to the VSE system.

ASI JCL Procedure for VSE/POWER Batch Partitions

The ASIN skeleton catalogs an ASI JCL procedure for VSE/POWER controlled batch partitions. It contains VSE/POWER JECL and JCL statements to catalog the procedure in the system library.

The skeleton is shipped in library 59. First copy it to your primary library and edit the copied file. Refer to "Copying VSE/SP Skeletons" on page 11 for information on copying skeletons.

Figure 14 shows the skeleton. Each section of the skeleton is shown in separate parts of the figure. The values you should change are highlighted in color. A description of the job statements and changes follows each part of the figure. You can change, add, or delete statements or parameters.

```
* $$ JOB JNM=CATALOG,DISP=D,CLASS=0
// JOB CATALOG BATCH ASI PROCEDURES
// EXEC LIBR,PARM='MSHP'
ACC S=IJSYSRS.SYSLIB
```

Figure 14 (Part 1 of 3). ASI JCL Procedure for VSE/POWER Batch Partitions (ASIN Skeleton)

For ASIN, SYSLST must be assigned for LIBR.

```
CATALOG $2JCLYYY.PROC  DATA=YES REPLACE=YES
// LIBDEF DUMP,CATALOG=SYSDUMP.F2,PERM   ASSIGN SYSDUMP FOR F2
/INCLUDE ASIBATCH

CATALOG $3JCLYYY.PROC  DATA=YES REPLACE=YES
// LIBDEF DUMP,CATALOG=SYSDUMP.F3,PERM   ASSIGN SYSDUMP FOR F3
/INCLUDE ASIBATCH

CATALOG $4JCLYYY.PROC  DATA=YES REPLACE=YES
// LIBDEF DUMP,CATALOG=SYSDUMP.F4,PERM   ASSIGN SYSDUMP FOR F4
/INCLUDE ASIBATCH

CATALOG $5JCLYYY.PROC  DATA=YES REPLACE=YES
// LIBDEF DUMP,CATALOG=SYSDUMP.F5,PERM   ASSIGN SYSDUMP FOR F5
/INCLUDE ASIBATCH

CATALOG $6JCLYYY.PROC  DATA=YES REPLACE=YES
// LIBDEF DUMP,CATALOG=SYSDUMP.F6,PERM   ASSIGN SYSDUMP FOR F6
/INCLUDE ASIBATCH

CATALOG $7JCLYYY.PROC  DATA=YES REPLACE=YES
// LIBDEF DUMP,CATALOG=SYSDUMP.F7,PERM   ASSIGN SYSDUMP FOR F7
/INCLUDE ASIBATCH

CATALOG $8JCLYYY.PROC  DATA=YES REPLACE=YES
// LIBDEF DUMP,CATALOG=SYSDUMP.F8,PERM   ASSIGN SYSDUMP FOR F8
/INCLUDE ASIBATCH

CATALOG $9JCLYYY.PROC  DATA=YES REPLACE=YES
// LIBDEF DUMP,CATALOG=SYSDUMP.F9,PERM   ASSIGN SYSDUMP FOR F9
/INCLUDE ASIBATCH

CATALOG $AJCLYYY.PROC  DATA=YES REPLACE=YES
// LIBDEF DUMP,CATALOG=SYSDUMP.FA,PERM    ASSIGN SYSDUMP FOR FA
/INCLUDE ASIBATCH

CATALOG $BJCLYYY.PROC  DATA=YES REPLACE=YES
// LIBDEF DUMP,CATALOG=SYSDUMP.FB,PERM    ASSIGN SYSDUMP FOR FB
/INCLUDE ASIBATCH
```

Figure 14 (Part 2 of 3). ASI JCL Procedure for VSE/POWER Batch Partitions (ASIN Skeleton)

In **each** CATALOG statement, change $xJCLYYY. Specify the name used to catalog the procedure in sublibrary IJSYSRS.SYSLIB. The name must start with $N, where N is the partition number. You must specify the name either in the $ASIPROC procedure or during VSE IPL. Use the same names for the COPY statements in Part 3 of the figure.

The LIBDEF DUMP statements must specify CATALOG=SYSDUMP.xx, where 'xx' is the partition.

```
CONNECT S=IJSYSRS.SYSLIB:PRD2.SAVE

COPY $2JCLYYY.PROC  REPLACE=YES
COPY $3JCLYYY.PROC  REPLACE=YES
COPY $4JCLYYY.PROC  REPLACE=YES
COPY $5JCLYYY.PROC  REPLACE=YES
COPY $6JCLYYY.PROC  REPLACE=YES
COPY $7JCLYYY.PROC  REPLACE=YES
COPY $8JCLYYY.PROC  REPLACE=YES
COPY $9JCLYYY.PROC  REPLACE=YES
COPY $AJCLYYY.PROC  REPLACE=YES
COPY $BJCLYYY.PROC  REPLACE=YES
/*
/&
* $$ EOJ
```

Figure 14 (Part 3 of 3). ASI JCL Procedure for VSE/POWER Batch Partitions (ASIN Skeleton)

In each COPY statement, change the $xJCLYYY variables. Use the same names you used for each CATALOG statement in Part 2 of the figure.

After you make the changes, run the DTRSEXIT macro. This macro deletes all the comments from the file. The comments are defined by the letter C in column 71. You should do this before you file the skeleton and run it.

On the command line, enter:

```
@DTRSEXIT
```

After the macro runs, file the job. You can then submit it to the VSE system.

ACF/VTAM Startup Job

The VTAMSTRT skeleton creates a startup job for ACF/VTAM. It starts ACF/VTAM in a partition controlled by VSE/POWER.

The skeleton is shipped in library 59. First copy it to your primary library and edit the copied file. Refer to "Copying VSE/SP Skeletons" on page 11 for information on copying skeletons.

Figure 15 shows the skeleton. Each section of the skeleton is shown in separate parts of the figure. The values you should change are highlighted in color. A description of the job statements and changes follows each part of the figure. You can also add, delete, or change statements or parameters.

```
* $$ JOB JNM=VTAMSTRT,DISP=L,CLASS=3
// JOB VTMSTRT START VTAM
// ASSGN SYS000,UA

// ASSGN SYS001,DISK,VOL=SYSWK1,SHR          TRACE FILE ASSIGNMENT
// ASSGN SYS004,DISK,VOL=SYSWK1,SHR          TRACE FILE ASSIGNMENT
// ASSGN SYS008,DISK,VOL=SYSWK1,SHR          NCP LOAD FILE ASSIGNMENT
// ASSGN SYS012,DISK,VOL=SYSWK1,SHR          NCP DIAGN FILE ASSIGNMENT
```

Figure 15 (Part 1 of 2). ACF/VTAM Startup (VTAMSTRT Skeleton)

For CLASS, specify the number of the partition where ACF/VTAM is running. The partition should be large enough to run ACF/VTAM. Partition sizes are defined in the ASI0VAE and ASI0 skeletons. Refer to "BG ASI Procedure for VM or E Mode" on page 103 for information about ASI0. "BG ASI Procedure for 370 Mode Including VAE" on page 96 describes ASI0VAE.

For the // ASSGN statements, specify the VOLIDs of the disks where each file resides. SYS000 **must** be unassigned (UA) because ACF/VTAM uses it internally.

The TRACE program addresses the TRACE file as SYS001. The TPRINT program addresses it as SYS004.

```
// LIBDEF  PHASE,SEARCH=(YYYYYYYY.YYYYYYYY,
                         YYYYYYYY.YYYYYYYY,YYYYYYYY.YYYYYYYY,YYYYYYYY.YYYYYYYY,
                         PRD2.COMM,PRD2.CONFIG,PRD1.BASE),PERM

// LIBDEF    OBJ,SEARCH=(YYYYYYYY.YYYYYYYY,
                         YYYYYYYY.YYYYYYYY,YYYYYYYY.YYYYYYYY,YYYYYYYY.YYYYYYYY,
                         PRD2.COMM,PRD2.CONFIG,PRD1.BASE),PERM

// LIBDEF SOURCE,SEARCH=(YYYYYYYY.YYYYYYYY,
                         YYYYYYYY.YYYYYYYY,YYYYYYYY.YYYYYYYY,YYYYYYYY.YYYYYYYY,
                         PRD2.COMM,PRD2.CONFIG,PRD1.BASE),PERM

// LIBDEF   DUMP,CATALOG=SYSDUMP.YYYYYYYY,PERM
// EXEC ISTINCVT
/&
* $$ EOJ
```

Figure 15 (Part 2 of 2). ACF/VTAM Startup (VTAMSTRT Skeleton)

Replace the Y strings in each SEARCH chain. The LIBDEF statements define the permanent sublibrary search chains for the following type members.

- Phase
- Object
- Source
- Dump

After you make the changes, run the DTRSEXIT macro. This macro deletes all the comments from the file. The comments are defined by the letter C in column 71. You should do this before you file the skeleton and run it.

On the command line, enter:

```
@DTRSEXIT
```

After the macro runs, file the job. You can then submit it to the VSE system.

System Startup - ACF/VTAM not Controlled by VSE/POWER

The ASIVTPWR skeleton starts a system where ACF/VTAM is **not** controlled by VSE/POWER. The skeleton is shipped in library 59. First copy it to your primary library and edit the copied file. Refer to "Copying VSE/SP Skeletons" on page 11 for information on copying skeletons.

Figure 16 shows the skeleton. Each section of the skeleton is shown in separate parts of the figure. The values you should change are highlighted in color. A description of the job statements and changes follows each part of the figure. You can also change, add, or delete statements or parameters.

```
* $$ JOB JNM=CATALOG,DISP=D,CLASS=0
// JOB CATALOG BATCH ASI PROCEDURES  REMOVE .. BEFORE RUNNING THIS JOB
// EXEC LIBR,PARM='MSHP'
ACC S=IJSYSRS.SYSLIB
```

Figure 16 (Part 1 of 7). System Startup - ACF/VTAM Not Controlled by VSE/POWER (ASIVTPWR Skeleton)

```
CATALOG $2JCLYYY.PROC  DATA=YES REPLACE=YES
// LIBDEF DUMP,CATALOG=SYSDUMP.F2,PERM   ASSIGN SYSDUMP FOR F2
/INCLUDE ASIBATCH

CATALOG $3JCLYYY.PROC  DATA=YES REPLACE=YES
// LIBDEF DUMP,CATALOG=SYSDUMP.F3,PERM   ASSIGN SYSDUMP FOR F3
// ASSGN SYSLST,IGN
// EXEC PROC=VTAMPROC   START VTAM IN F3 (NOT CONTROLLED BY POWER)

CATALOG $4JCLYYY.PROC  DATA=YES REPLACE=YES
// LIBDEF DUMP,CATALOG=SYSDUMP.F4,PERM   ASSIGN SYSDUMP FOR F4
/INCLUDE ASIBATCH

CATALOG $5JCLYYY.PROC  DATA=YES REPLACE=YES
// LIBDEF DUMP,CATALOG=SYSDUMP.F5,PERM   ASSIGN SYSDUMP FOR F5
/INCLUDE ASIBATCH

CATALOG $6JCLYYY.PROC  DATA=YES REPLACE=YES
// LIBDEF DUMP,CATALOG=SYSDUMP.F6,PERM   ASSIGN SYSDUMP FOR F6
/INCLUDE ASIBATCH

CATALOG $7JCLYYY.PROC  DATA=YES REPLACE=YES
// LIBDEF DUMP,CATALOG=SYSDUMP.F7,PERM   ASSIGN SYSDUMP FOR F7
/INCLUDE ASIBATCH

CATALOG $8JCLYYY.PROC  DATA=YES REPLACE=YES
// LIBDEF DUMP,CATALOG=SYSDUMP.F8,PERM   ASSIGN SYSDUMP FOR F8
/INCLUDE ASIBATCH

CATALOG $9JCLYYY.PROC  DATA=YES REPLACE=YES
// LIBDEF DUMP,CATALOG=SYSDUMP.F9,PERM   ASSIGN SYSDUMP FOR F9
/INCLUDE ASIBATCH

CATALOG $AJCLYYY.PROC  DATA=YES REPLACE=YES
// LIBDEF DUMP,CATALOG=SYSDUMP.FA,PERM    ASSIGN SYSDUMP FOR FA
/INCLUDE ASIBATCH

CATALOG $BJCLYYY.PROC  DATA=YES REPLACE=YES
// LIBDEF DUMP,CATALOG=SYSDUMP.FB,PERM    ASSIGN SYSDUMP FOR FB
/INCLUDE ASIBATCH
```

Figure 16 (Part 2 of 7). System Startup - ACF/VTAM Not Controlled by VSE/POWER (ASIVTPWR Skeleton)

Change the variable **$xJCLYYY** in each CATALOG statement. This is the name used to catalog the procedure in IJSYSRS.SYSLIB. It must start with **$N**, where N is the partition number. You must also specify the name either in the $ASIPROC or during VSE IPL.

Use the same names for the COPY statements in Part 3 of the figure.

The LIBDEF DUMP statements must specify CATALOG=SYSDUMP.**xx**, where 'xx' is the partition.

```
CONNECT S=IJSYSRS.SYSLIB:PRD2.SAVE
COPY $2JCLYYY.PROC  REPLACE=YES
COPY $3JCLYYY.PROC  REPLACE=YES
COPY $4JCLYYY.PROC  REPLACE=YES
COPY $5JCLYYY.PROC  REPLACE=YES
COPY $6JCLYYY.PROC  REPLACE=YES
COPY $7JCLYYY.PROC  REPLACE=YES
COPY $8JCLYYY.PROC  REPLACE=YES
COPY $9JCLYYY.PROC  REPLACE=YES
COPY $AJCLYYY.PROC  REPLACE=YES
COPY $BJCLYYY.PROC  REPLACE=YES
/*
/&
* $$ EOJ

* $$ JOB JNM=CATALOG,DISP=D,CLASS=0
// JOB CATALOG   BG-ASI AND SYSTEM ALLOCATIONS   REMOVE ..
// EXEC LIBR,PARM='MSHP'
ACC S=IJSYSRS.SYSLIB
CATALOG $0JCLYYY.PROC  DATA=YES     REPLACE=YES
ALLOC  1, BG=1536K,FB=0128K,FA=0128K
ALLOC  1, F9=0512K,F8=0512K,F7=0512K
ALLOC  1, F6=0512K,F5=1024K,F4=0768K
ALLOC  1, F3=2048K,F2=5120K,F1=0768K
ALLOC  R, BG=0128K,FB=0000K,FA=0000K
ALLOC  R, F9=0000K,F8=0000K,F7=0000K
ALLOC  R, F6=0000K,F5=0000K,F4=0176K
ALLOC  R, F3=0200K,F2=0128K,F1=0064K
SIZE      BG=0512K
SIZE      F9=0384K,F8=0384K,F7=0384K
SIZE      F6=0384K,F5=0896K,F4=0512K
SIZE      F3=0960K,F2=4608K,F1=0512K
```

Figure 16 (Part 3 of 7). System Startup - ACF/VTAM Not Controlled by VSE/POWER (ASIVTPWR Skeleton)

Change the variable $xJCLYYY in each COPY statement. Use the same names you used for the CATALOG statements in Part 2 of the figure.

Change $0JCLYYY in the CATALOG statement. This is the name used to catalog the procedure in IJSYSRS.SYSLIB. It must start with $N, where N is the partition number. You must also specify the name in either the $ASIPROC or during VSE IPL. Use the same name for the COPY statement in Part 4 of the figure.

```
PRTY BG=FB=FA=F9=F8=F7=F6=F5,F4,F2,F1,F3
NPGR BG=100,F1=25,F2=200,F3=60,F4=60,F5=60
NPGR F6=60,F7=60,F8=60,F9=60,FA=60,FB=60
STDOPT ALIGN=YES,ACANCEL=NO,CHARSET=48C,DATE=MDY,DECK=YES,DUMP=YES
STDOPT EDECK=NO,ERRS=YES,LINES=56,LIST=YES,LISTX=NO,LOG=YES
STDOPT RLD=NO,SXREF=NO,SYM=NO,SYSDMP=YES,TERM=NO,XREF=YES
STDOPT JCANCEL=NO
// EXEC PROC=STDLABEL
// EXEC PROC=SETSDL
START F1                                    START POWER
START F3                                    START VTAM
STOP                                        WAIT UNTIL POWER IS UP
// JOB BGINIT - INITIALIZE THE BG PARTITION UNDER POWER REMOVE ..
// PWR PRELEASE RDR,CICSICCF
// EXEC PROC=DTRSYSWK
ASSGN SYSLST,FEE
ASSGN SYSPCH,FED
ASSGN SYSIN,FEC
// LIBDEF  PHASE,SEARCH=(PRD2.CONFIG,PRD1.BASE),
              CATALOG=PRD2.CONFIG,PERM
// LIBDEF    OBJ,SEARCH=(PRD2.CONFIG,PRD1.BASE),PERM
// LIBDEF SOURCE,SEARCH=(PRD2.CONFIG,PRD1.BASE),PERM
// LIBDEF   DUMP,CATALOG=SYSDUMP.BG,PERM
CONNECT S=IJSYSRS.SYSLIB:PRD2.SAVE
COPY $0JCLYYY.PROC  REPLACE=YES
/*
/&
* $$ EOJ
```

Figure 16 (Part 4 of 7). System Startup - ACF/VTAM Not Controlled by VSE/POWER (ASIVTPWR Skeleton)

Change the variable $0JCLYYY in the COPY statement. Use the same name you used for the CATALOG statement in Part 3 of the figure.

The statement

```
// PWR PRELEASE RDR,CICSICCF
```

specifies the VSE/SP skeleton CICSICCF. This is the startup job for CICS/DOS/VS and VSE/ICCF. It is shown in "Sample Startup for CICS-ICCF Partition in F2" on page 131.

In the // LIBDEF DUMP statement, you should specify CATALOG=SYSDUMP.xx, where 'xx' is the partition.

```
* $$ JOB JNM=CATALOG,DISP=D,CLASS=0
// JOB CATALOG      F1-ASI POWER INIT        REMOVE  ..
// EXEC LIBR,PARM='MSHP'
ACC S=IJSYSRS.SYSLIB
CATALOG $1JCLYYY.PROC  DATA=YES     REPLACE=YES
// JOB IPWPOWER - START POWER     REMOVE  ..
// EXEC PROC=DTRPOWR
// EXEC PROC=DTRICCF            GET DTSFILE ASSGN/S
// LIBDEF  PHASE,SEARCH=(PRD2.CONFIG,PRD1.BASE),PERM
// LIBDEF    OBJ,SEARCH=(PRD2.CONFIG,PRD1.BASE),PERM
// LIBDEF SOURCE,SEARCH=(PRD2.CONFIG,PRD1.BASE),PERM
// LIBDEF   DUMP,CATALOG=SYSDUMP.F1,PERM
// EXEC IPWPOWER
FORMAT=NO
PSTART BG,A0I
READER=FEC
PRINTERS=FEE
PUNCHES=FED
PSTART F2,J2
READER=FEC
PRINTERS=FEE,FEF
PUNCHES=FED
PSTART F4,L4
READER=FEC
PRINTERS=FEE
PUNCHES=FED
PSTART F5,M5
READER=FEC
PRINTERS=FEE
PUNCHES=FED
```

Figure 16 (Part 5 of 7). System Startup - ACF/VTAM Not Controlled by VSE/POWER (ASIVTPWR Skeleton)

Change $1JCLYYY in the CATALOG statement. This is the name used to catalog the procedure in IJSYSRS.SYSLIB. It must start with $N, where N is the partition number. You must also specify the name in either the $ASIPROC or during VSE IPL.

The statement

```
// EXEC IPWPOWER
```

specifies the pregenerated VSE/POWER phase IPWPOWER. If you generate your own VSE/POWER phase, specify your own name.

In the // LIBDEF DUMP statement, you should specify CATALOG=SYSDUMPxx, where 'xx' is the partition.

```
PSTART F6,N6
READER=FEC
PRINTERS=FEE
PUNCHES=FED
PSTART F7,O7
READER=FEC
PRINTERS=FEE
PUNCHES=FED
PSTART F8,P8
READER=FEC
PRINTERS=FEE
PUNCHES=FED
PSTART F9,Q9
READER=FEC
PRINTERS=FEE
PUNCHES=FED
PSTART FA,R
READER=FEC
PRINTERS=FEE
PUNCHES=FED
PSTART FB,S
READER=FEC
PRINTERS=FEE
PUNCHES=FED

PSTART RDR,00C      ===>  REPLACE BY THE ACTUAL
PSTART PUN,00D      ===>  DEVICE ADDRESSES
PSTART LST,00E      ===>  YOU WILL USE
/&
```

Figure 16 (Part 6 of 7). System Startup - ACF/VTAM Not Controlled by VSE/POWER (ASIVTPWR Skeleton)

In the last three PSTART statements, specify your own address for:

- **00C** (RDR)
- **00D** (PUN)
- **00E** (LST)

```
CONNECT S=IJSYSRS.SYSLIB:PRD2.SAVE
COPY $3JCLYYY.PROC  REPLACE=YES
/*
/&
* $$ EOJ

* $$ JOB JNM=VTAMPROC,DISP=D,CLASS=0
// JOB CATALOG        VTAM PROC FOR THE F3            REMOVE  ..
// EXEC LIBR,PARM='MSHP'
ACC S=IJSYSRS.SYSLIB
   CATALOG VTAMPROC.PROC  DATA=YES  REPLACE=YES
// JOB VTAMSTRT  START OF VTAM  **NOT** CONTROLLED BY POWER  REMOVE  ..
// ASSGN SYS000,UA
// ASSGN SYS001,DISK,VOL=DOSRES,SHR     TRACE FILE ASSIGNMENT
// ASSGN SYS004,DISK,VOL=DOSRES,SHR     TRACE FILE ASSIGNMENT
*  ASSGN SYS008,DISK,VOL=YYYYYY,SHR     NCP LOAD FILE ASSIGNMENT
*  ASSGN SYS012,DISK,VOL=YYYYYY,SHR     NCP DIAGN FILE ASSIGNMENT
// LIBDEF  PHASE,SEARCH=(PRD2.CONFIG,PRD1.BASE),PERM
// LIBDEF    OBJ,SEARCH=(PRD2.CONFIG,PRD1.BASE),PERM
// LIBDEF SOURCE,SEARCH=(PRD2.CONFIG,PRD1.BASE),PERM
// LIBDEF   DUMP,CATALOG=SYSDUMP.F3,PERM
// EXEC ISTINCVT,SIZE=900K
/*
/&
/&
* $$ EOJ
```

Figure 16 (Part 7 of 7). System Startup - ACF/VTAM Not Controlled by VSE/POWER (ASIVTPWR Skeleton)

Change $3JCLYYY in the COPY statement.

For the assignments for the NCP load file and diagn file:

1. Replace the asterisk (*) in column 1 of the ASSGN statement with //.
2. Replace the YYYYYY variables with the disk volume number.

In the // LIBDEF DUMP statement, you should specify CATALOG=SYSDUMP.xx, where 'xx' is the partition.

Sample Startup for CICS-ICCF Partition in F2

Figure 17 shows the ICCFCICS skeleton. This is a sample startup job which VSE/SP provides for the startup of CICS/DOS/VS and VSE/ICCF in partition F2.

The skeleton is shipped in library 59. If you want to create your own startup job, you can use the skeleton as an example. First copy it to your primary library and edit the copied file. Refer to "Copying VSE/SP Skeletons" on page 11 for information on copying skeletons.

```
* $$ JOB JNM=ICCFCICS,DISP=L,CLASS=2
* $$ LST CLASS=A,DISP=D
// JOB ICCFCICS CICS/ICCF STARTUP
*
*   DESCRIPTION:
*       THIS SAMPLE JOB PROVIDES THE START-UP FOR THE CICS-ICCF
*       PARTITION IN F2; OVERRIDES FROM SYSIPT.
*
// UPSI 00011000 CONSOLE RESPONSES FROM SYSIPT
// LIBDEF *,SEARCH=(PRD2.CONFIG,PRD1.BASE,PRD2.PROD,PRD2.DBASE)
// LIBDEF DUMP,CATALOG=SYSDUMP.F2
// SETPARM TPMODE=''
// EXEC PROC=DTRIPARM,TPMODE            SET TPMODE
// EXEC PROC=DTRCICST                   ASSGNS FOR CICS FILES
// EXEC PROC=DTRINFOA                   ASSGNS FOR INFO ANAL FILES
// EXEC PROC=DTRICCF                    ASSGN FOR DTSFILE
// ASSGN SYS005,UA
// ASSGN SYS006,UA
// ASSGN SYS007,UA
// ASSGN SYS008,UA
// ASSGN SYS009,SYSLOG
// ASSGN SYS013,UA
// ASSGN SYS015,FEF                     ASSGN PRINTER FOR IWS FUNCTION
// EXEC DTSANALS                        RECOVER IF DTSFILE DESTROYED
RECOVER OPT
/*
```

Figure 17 (Part 1 of 2). CICS-ICCF Sample Startup (ICCFCICS Skeleton)

```
// EXEC IDCAMS,SIZE=AUTO
   VERIFY FILE(DFHNTRA)
   VERIFY FILE(DFHTEMP)
   VERIFY FILE(DFHSTM)
   VERIFY FILE(DFHSTN)
   VERIFY FILE(IESCNTL)
   VERIFY FILE(IESTRFL)
   VERIFY FILE(IESMSGS)
   VERIFY FILE(IESPRB)
/*
// IF TPMODE=B THEN
// GOTO BTAM
// EXEC IESWAITT                          WAIT FOR VTAM ACB TO OPEN
// GOTO START
/. BTAM
// ASSGN SYS023,IGN
// ASSGN SYS024,IGN
// ASSGN SYS025,IGN
// ASSGN SYS026,IGN
// ASSGN SYS027,IGN
// EXEC PROC=DTRIBTAM                     ASSGN BTAM TERMINALS
* AT THIS POINT, YOU MAY OPTIONALLY ASSIGN SYS027 TO
* A 3270 PRINTER SUPPORTED AS A 3286. ENTER:
* "// ASSGN SYS027,CUU"  WHERE CUU IS THE PRINTER ADDRESS
// PAUSE
/. START
// EXEC DTSINIT,SIZE=5120K,PARM='SIT=SP,$END'
NO
NO
YES
00,2.0,0,T
01,256,0,A
02,256,0,A
03,512,0,BA
04,512,0,BA
05,512,0,IBA


NO

/*
/. EXIT
/&
* $$ EOJ
```

Figure 17 (Part 2 of 2). CICS-ICCF Sample Startup (ICCFCICS Skeleton)

Define Library in Non-VSAM Managed Space

The SKLIBDEF skeleton defines a library in non-VSAM managed space. The skeleton has two major steps:

1. Add standard label for the new library.
2. Create the library.

The skeleton is shipped in library 59. First copy it to your primary library and edit the copied file. Refer to "Copying VSE/SP Skeletons" on page 11 for information on copying skeletons.

Figure 18 on page 134 shows the skeleton. The variables you should change are highlighted in color. They are described below the figure to help you make the correct changes.

After you make the changes, update the standard label skeleton STDLABUS. Add the label for the library which SKLIBDEF defines. Refer to "Standard Labels for Files and Data Sets" on page 154 for information about STDLABUS.

```
* $$ JOB JNM=DEFLIBR,CLASS=0,DISP=D
// JOB DEFLIBR DEFINE LIBRARY IN NON VSAM SPACE
// OPTION STDLABEL=ADD

// DLBL --V001--,'--V002--',99/365,SD
// EXTENT ,--V101--,1,--V102--,--V103--,--V104--
// EXTENT ,--V101--,1,--V102--,--V103--,--V104--
/*
// EXEC LIBR
 /* DEFINE THE LIBRARY                */
DEFINE LIB=--V001-- R=Y
/*
/&
* $$ EOJ
```

Figure 18. Define Library in Non-VSAM Managed Space (SKLIBDEF Skeleton)

Change the --Vxxx- variables in the DLBL, EXTENT, and DEFINE LIB statements.

--V001--
This is the file name. Specify **1 - 7** alphanumeric characters.

Note: Change --V001-- in both the DLBL and DEFINE LIB statements.

--V002--
This is the file identification. Specify **1 - 44** alphanumeric characters. Do **not** delete the single quotes (' ') around the variable.

--V101--
The volume number where the library will reside. It must be **6** characters.

--V102--
This is the number of extents (**0 - 14**). You can have up to fifteen extents defined on several disks. The disks must be the same type.

--V103--
This is the start location of the library in tracks or blocks.

--V104--
This is the extension to be allocated for the library on the first volume. Specify the value in tracks or blocks.

Delete Library in Non-VSAM Managed Space

The SKLIBDEL skeleton deletes a library in non-VSAM managed space. The skeleton has two major steps:

1. Delete the library.
2. Delete the standard label for the library.

The skeleton is shipped in library 59. First copy it to your primary library and edit the copied file. Refer to "Copying VSE/SP Skeletons" on page 11 for information on copying skeletons.

Figure 19 shows the skeleton. The variable you should change is highlighted in color. It is described below the figure to help you make the correct changes.

After you make the changes, update the standard label skeleton STDLABUS. Delete the label for the library which SKLIBDEL deletes. Refer to "Standard Labels for Files and Data Sets" on page 154 for information about STDLABUS.

```
* $$ JOB JNM=DELLIBR,CLASS=0,DISP=D
// JOB DELLIBR DELETE LIBRARY IN NON VSAM SPACE
// EXEC LIBR
 /* DELETE THE LIBRARY              */
DELETE LIB=--V001--
/*
// OPTION STDLABEL=DELETE
--V001--
/*
/&
* $$ EOJ
```

Figure 19. Delete Library in Non-VSAM Managed Space (SKLIBDEL Skeleton)

Change the --V001-- variable in the DELETE LIB statement and following the OPTION statement. --V001-- is the file name. Specify **1 - 7** alphanumeric characters.

Extend Library in Non-VSAM Managed Space

The SKLIBEXT skeleton extends a library in non-VSAM managed space. The skeleton has five major steps:

1. Back up the library to tape.
2. Delete the library.
3. Delete standard label for the library.
4. Add new standard label for the extended library.
   The library is automatically created.
5. Restore the library from tape.

The skeleton is shipped in library 59. First copy it to your primary library and edit the copied file. Refer to "Copying VSE/SP Skeletons" on page 11 for information on copying skeletons.

Figure 20 on page 137 shows the skeleton. Each section of the skeleton is shown in separate parts of the figure. The variables you should change are highlighted in color. A description of the changes follows each part of the figure.

After you make the changes, update the standard label skeleton STDLABUS. Change the label for the library which SKLIBEXT updates. Refer to "Standard Labels for Files and Data Sets" on page 154 for information about STDLABUS.

```
* $$ JOB JNM=EXTLIBR,CLASS=0,DISP=D
// JOB EXTLIBR EXTEND LIBRARY IN NON VSAM SPACE

* THIS FUNCTION USES A TAPE FOR OUTPUT
* MOUNT TAPE REEL --V004-- WITH UNLABELED TAPE ON DEVICE --V003--
* THEN CONTINUE. IF NOT POSSIBLE CANCEL THIS JOB.
* WARNING: EXISTING TAPE LABEL WILL BE OVERRIDDEN

// PAUSE
// MTC REW,--V003--
// ASSGN SYS005,--V003--
// EXEC LIBR
   BACKUP LIB = --V001--
          RESTORE = ONLINE
          TAPE = SYS005
/*
// MTC REW,--V003--

// EXEC LIBR
 /* DELETE THE LIBRARY              */
DELETE LIB=--V001--
/*
// OPTION STDLABEL=DELETE
--V001--
/*
```

Figure 20 (Part 1 of 3). Extend Library in Non-VSAM Managed Space (SKLIBEXT Skeleton)

Change the --Vxxx--variables in the comments, the MTC REW, ASSGN, BACKUP LIB, and DELETE LIB statements, and in the statement following the OPTION statement.

--V001--
This is the file name. Specify **1 - 7** alphanumeric characters.

--V003--
The tape address (**cuu**) used for the backup.

--V004--
The volume number of the backup/restore tape. It must be **6** characters.

```
// OPTION STDLABEL=ADD
// DLBL --V001--,'--V002--',99/365,SD

// EXTENT ,--V101--,1,--V102--,--V103--,--V104--
// EXTENT ,--V101--,1,--V102--,--V103--,--V104--
// EXTENT ,--V101--,1,--V102--,--V103--,--V104--
/*
```

Figure 20 (Part 2 of 3). Extend Library in Non-VSAM Managed Space (SKLIBEXT Skeleton)

Change the --Vxxx-- variables in the DLBL and EXTENT statements.

--V001--
This is the file name. Specify **1 - 7** alphanumeric characters.

--V002--
This is the file identification. Specify **1 - 44** alphanumeric characters. Do **not** delete the single quotes (' ') around the variable.

--V101--
The volume number where the library will reside. It must be **6** characters.

--V102--
This is the number of extents (**0 - 14**). You can have up to fifteen extents defined on several disks. The disks must be the same type.

--V103--
This is the start location of the library in tracks or blocks.

--V104--
This is the extension to be allocated for the library on the first volume. Specify the value in tracks or blocks.

```
* THIS FUNCTION USES AN EXISTING TAPE FOR INPUT
* MOUNT TAPE REEL --V004-- ON DEVICE --V003-- (THE TAPE IS UNLABELED)
* THEN CONTINUE. IF NOT POSSIBLE CANCEL THIS JOB.
* REPLY 'DELETE' TO MESSAGE 4433D 'EQUAL FILE ID IN VTOC ...'

// PAUSE
// MTC REW,--V003--
// ASSGN SYS005,--V003--
// EXEC LIBR
   RESTORE LIB = --V001--
           LIST  = YES
           REPLACE = YES
           TAPE = SYS005
/*
// MTC RUN,--V003--
/&
* $$ EOJ
```

Figure 20 (Part 3 of 3). Extend Library in Non-VSAM Managed Space (SKLIBEXT Skeleton)

Change the --Vxxx-- variables in the comments and the MTC REW, ASSGN, RESTORE LIB, and MTC RUN statements.

--V001--
This is the file name. Specify **1 - 7** alphanumeric characters.

--V003--
The tape address (**cuu**) used to restore the library.

--V004--
The volume number of the backup/restore tape. It must be **6** characters.

When you run the job, use the same tape and tape drive you specify in the skeleton.

VSE/POWER Generation

The SKPWRGEN skeleton defines the options for VSE/POWER generation. It reflects the values which are used to generate the VSE/SP supplied VSE/POWER phase IPWPOWER.

The skeleton is shipped in library 59. First copy it to your primary library and edit the copied file. Refer to "Copying VSE/SP Skeletons" on page 11 for information on copying skeletons.

Figure 21 on page 141 shows the skeleton. Each section of the skeleton is shown in separate parts of the figure. The variables you should change are highlighted in color. A description of the job statements and changes follows each part of the figure. You can also change the operands of the POWER macro. Refer to *VSE/POWER Installation and Operation Guide* for a description of the POWER macro and operands.

In the skeleton, each operand is on a separate line. When you edit the file, **do not delete the continuation characters * in column 72.**

```
* $$ JOB JNM=POWERGEN,CLASS=0,DISP=D
* $$ LST CLASS=Q
// JOB POWER GENERATION
LIBDEF PHASE,CATALOG=PRD2.CONFIG
// OPTION CATAL
// EXEC ASSEMBLY
PWR      TITLE 'VSE/POWER - IPWPOWER  GENERATION '

*********************************************************************
*                                                                   *
*                          COMMENTS                                 *
*                                                                   *
*********************************************************************
         EJECT
*********************************************************************
*                                                                   *
*                          COMMENTS                                 *
*                                                                   *
*********************************************************************
         PRINT NOGEN
         SPACE 3
--V100-- POWER
```

Figure 21 (Part 1 of 3). VSE/POWER Generation (SKPWRGEN Skeleton)

In the POWER statement, replace --V100--. Specify your own VSE/POWER phase name.

VSE/SP uses the pregenerated VSE/POWER phase IPWPOWER. You should specify a different phase name. Do **not** use IPWPOWER. IPWPOWER is serviced together with the VSE/POWER program product.

The ASI1 skeleton executes IPWPOWER. If you create your own VSE/POWER generation, you must tailor ASI1 and specify your VSE/POWER generation phase. In ASI1, change the statement:

// EXEC PROC=IPWPOWER

Replace IPWPOWER with the name you specified for --V100--. For information on tailoring ASI1, refer to "ASI Procedure for VSE/POWER Partition" on page 110.

```
ACCOUNT=YES,                                                    *
BLOCKGP=0,                                                      *
CLRPRT=YES,                                                     *
COPYSEP=YES,                                                    *
DBLK=0,                                                         *
FEED=NO,                                                        *
JLOG=YES,                                                       *
JSEP=(0,0),                                                     *
LTAB=(10,00,05,10,15,20,25,30,35,40,45,50,56),                  *
MEMTYPE=P                                                       *
MRKFRM=YES,                                                     *
MULT12=NO,                                                      *
NTFYMSG=100,                                                    *
PAUSE=NO,                                                       *
PRI=3,                                                          *
RBS=(0,0),                                                      *
RDREXIT=NO,                                                     *
SHARED=NO,                                                      *
STDCARD=(0,0),                                                  *
STDLINE=(0,0),                                                  *
SPOOL=YES,                                                      *
TRACKGP=0
```

Figure 21 (Part 2 of 3). VSE/POWER Generation (SKPWRGEN Skeleton)

If you want to activate VSE/POWER PNET, add the following parameter in the skeleton.

```
PNET=--V101--              *    (Continuation character)
```

The variable **--V101--** is the name of your PNET phase. This is the name of the network definition table as specified for the first PNODE macro with LOCAL=YES.

If you have SNA workstations attached to your system, add the following parameter in the skeleton.

```
SNA=YES                    *    (Continuation character)
```

For the connection between VSE/POWER and ACF/VTAM, the ACF/VTAM APPLID *POWER* is provided in the ACF/VTAM application startup book. The same APPLID is used, if you add **SNA=YES** to the skeleton.

If you use either the PNET or SNA parameter, make sure you put a continuation character (*) in column 72. If you do not, the assembly will not run successfully.

```
         EJECT
*************************************************************************
*                                COMMENTS                               *
*************************************************************************
*
*/INCLUDE SKPWRBSC
*
*************************************************************************
*                                                                       *
*                                COMMENTS                               *
*                                                                       *
*************************************************************************
*
*/INCLUDE SKPWRSNA
*
         END
/*
// EXEC LNKEDT,PARM='MSHP'
/&
* $$ EOJ
```

Figure 21 (Part 3 of 3). VSE/POWER Generation (SKPWRGEN Skeleton)

If you have VSE/POWER RJE definitions for **BSC** workstations, you should include the skeleton SKPWRBSC. Remove the asterisk (*) in front of the statement:

```
*/INCLUDE SKPWRBSC
```

You must also tailor the SKPWRBSC skeleton. This is described in *VSE/SP Networking*.

If you used the remote configuration dialogs to define **SNA** workstations, you should include the skeleton SKPWRSNA. Remove the asterisk (*) in front of the statement:

```
*/INCLUDE SKPWRSNA
```

SKPWRSNA contains a predefined set of SNA workstations which can be configured with the remote configuration dialogs. The dialog generates the ACF/VTAM line, PU, and LU definitions. *VSE/SP Networking* describes the SKPWRSNA skeleton and the remote configuration dialogs.

Formatting the VSE/ICCF DTSFILE

The SKICFFMT skeleton is an example of how to format the VSE/ICCF DTSFILE.

The skeleton is shipped in library 59. If you use it, first copy it to your primary library and edit the copied file. Refer to "Copying VSE/SP Skeletons" on page 11 for information on copying skeletons.

Figure 22 shows the skeleton. Each section of the skeleton is shown in separate parts of the figure. A description of the job statements follows each part of the figure.

The sample has only one variable, **-V001-**. It is highlighted in color. You can also change, add, or delete statements or parameters.

```
* $$ JOB JNM=SKICFFMT,DISP=D,CLASS=0
// JOB SKICFFMT

// ASSGN SYS010,DISK,VOL=-V001-,SHR
// EXEC DTSUTIL
FORMAT LIBRARIES(99) USERS(40)
```

Figure 22 (Part 1 of 5). Sample for Formatting the VSE/ICCF DTSFILE (SKICFFMT Skeleton)

In the ASSGN statement, replace the variable -V001-. Specify the volume number of the disk where the DTSFILE resides.

```
*  ADD LIBRARY 1  . . .
ADD LIBRARY FREESPACE(40) DATE

*  ADD LIBRARY 2  . . .
ADD LIBRARY FREESPACE(10) DATE

*  ADD LIBRARIES 3,4,5, AND 6  . . .
ADD LIBRARY MAXDIR(200) FREESPACE(25) DATE NOCOMMON PUBLIC
ADD LIBRARY MAXDIR(200) FREESPACE(25) DATE NOCOMMON PUBLIC
ADD LIBRARY MAXDIR(200) FREESPACE(25) DATE NOCOMMON PUBLIC
ADD LIBRARY MAXDIR(200) FREESPACE(25) DATE NOCOMMON PUBLIC
```

Figure 22 (Part 2 of 5). Sample for Formatting the VSE/ICCF DTSFILE (SKICFFMT Skeleton)

The skeleton adds the following libraries:

- 1 : For system administrator
- 2 : Common library
- 3 - 6 : Public libraries

```
*  ADD LIBRARIES 7 THRU 49  . . .

ADD LIBRARY MAXDIR(200) FREESPACE(25) DATE
ADD LIBRARY MAXDIR(200) FREESPACE(25) DATE

               . . .
               . . .        (Additional ADD LIBRARY statements)
               . . .

ADD LIBRARY MAXDIR(200) FREESPACE(25) DATE
ADD LIBRARY MAXDIR(200) FREESPACE(25) DATE
```

Figure 22 (Part 3 of 5). Sample for Formatting the VSE/ICCF DTSFILE (SKICFFMT Skeleton)

The skeleton adds libraries 7 - 49. These are for user private libraries.

```
*  ADD LIBRARIES 50 THRU 68  . . .

ADD LIBRARY DATE NOCOMMON PUBLIC
ADD LIBRARY DATE NOCOMMON PUBLIC

            . . .
            . . .          (Additional ADD LIBRARY statements)
            . . .

ADD LIBRARY DATE NOCOMMON PUBLIC
ADD LIBRARY DATE NOCOMMON PUBLIC
```

Figure 22 (Part 4 of 5). Sample for Formatting the VSE/ICCF DTSFILE (SKICFFMT Skeleton)

The skeleton adds libraries 50 - 68. These are used by the Interactive Interface.

```
*  ADD LIBRARIES 69 THROUGH 99

ADD LIBRARY MAXDIR(200) FREESPACE(25) DATE
ADD LIBRARY MAXDIR(200) FREESPACE(25) DATE

            . . .
            . . .          (Additional ADD LIBRARY statements)
            . . .

ADD LIBRARY MAXDIR(200) FREESPACE(25) DATE
ADD LIBRARY MAXDIR(200) FREESPACE(25) DATE

DSERV ALL COMMON SORTED
END
/*
/&
* $$ EOJ
```

Figure 22 (Part 5 of 5). Sample for Formatting the VSE/ICCF DTSFILE (SKICFFMT Skeleton)

The skeleton adds libraries 69 - 99.

Modify the Sign-on Panel

The IESELOGO skeleton allows you to modify the Interactive Interface sign-on panel VSE/SP ONLINE. An example of the sign-on panel is shown in Figure 2 on page 7.

Using IESELOGO, you can:

1. Change the *logo* that is displayed on the panel.

   You can implement your own design for the panel display.

2. Allow CICS/DOS/VS users to *escape* to CICS/DOS/VS from the panel without signing on to the Interactive Interface.

   You can specify that PF6 and PF9 are displayed on the sign-on panel. These PF keys are used for the escape facility.

   You can also specify a 1 - 4 character string for the escape facility. A user can then enter this character string from the sign-on panel to escape to CICS/DOS/VS.

The skeleton is shipped in library 59. First copy it to your primary library and edit the copied file. Refer to "Copying VSE/SP Skeletons" on page 11 for information on copying skeletons.

Figure 23 on page 148 shows the skeleton. Each section of the skeleton is shown in separate parts of the figure. The values you can change are highlighted in color. A description of the statements and changes follows each part of the figure.

```
* $$ JOB JNM=IESELOGO,CLASS=A,DISP=D,NTFY=YES
* $$ LST CLASS=Q,DISP=H
// JOB IESELOGO ASSEMBLE USER LOGON TEXT
// OPTION CATAL,LIST
// EXEC ASSEMBLY,SIZE=128K
         PUNCH ' PHASE  IESELOGO,S'
LOGO     TITLE 'VSE/SP  --  USER CHANGABLE LOGO PHASE'
IESELOGO CSECT
         DC    CL8'IESLOGO'        MODULE IDENTIFIER
         DC    X'11'               VSE/SP . . .
         DC    AL1(LOGOLINS)       NUMBER OF LINES OF LOGO TEXT
         DC    H'0'                ...  RESERVED  ...
         DC    A(LOGOBA)           ADDRESS OF THE LOGO TEXT
         DC    A(ESCAPESW)         ADDRESS OF THE ESCAPE SWITCH
         DC    F'0'                ...  RESERVED  ...
         DC    A(UCESCSTR)         ADDRESS OF THE UPPER CASE ESCAPE
*                                     CHARACTER STRING
         DC    A(MCESCSTR)         ADDRESS OF THE UPPER CASE ESCAPE
*                                     CHARACTER STRING
*-------------------------------------------------------------------*
*          THE LINES ABOVE THIS BOX MUST NOT BE CHANGED             *
*-------------------------------------------------------------------*
         SPACE 2
*-------------------------------------------------------------------*
*                                                                   *
*                      C O M M E N T S                              *
*                                                                   *
*-------------------------------------------------------------------*
         SPACE 2
L        EQU   70                          FIXED LENGTH OF EACH LINE
         SPACE 2
*-------------------------------------------------------------------*
*                      C O M M E N T S                              *
*-------------------------------------------------------------------*
         SPACE 2
```

Figure 23 (Part 1 of 3). Modify the VSE/SP Sign-on Panel (IESELOGO Skeleton)

Do **not** change the statements in this part of the skeleton.

```
LOGOBA   EQU   *                    THIS LABEL MUST PRECEDE YOUR LOGO TEXT
*-------------------------------------------------------------------*
LOGOSKEL EQU   *                    THE SKELETON LOGO BEGINS HERE
*DC CL(L)'??????????????????????????????????????????????????????????*
         ?????????'
*DC CL(L)'?????????YOU CAN REPLACE THE AREA FILLED WITH QUESTION MARKS?*
         ?????????'
*DC CL(L)'??????????????????????????????????????????????????????????*
         ?????????'
*DC CL(L)'????????????????????WITH YOUR OWN LOGO TEXT???????????????????*
         ?????????'
*DC CL(L)'??????EACH DC INSTRUCTION GIVES ONE LINE ON THE DISPLAY??????*
         ?????????'
*DC CL(L)'??????????????????????????????????????????????????????????*
         ?????????'
*DC CL(L)'??????????????????????????????????????????????????????????*
         ?????????'
*DC CL(L)'??????????????????????????????????????????????????????????*
         ?????????'
*DC CL(L)'??????????????????????????????????????????????????????????*
         ?????????'
*DC CL(L)'??????????????????????????????????????????????????????????*
         ?????????'
*-------------------------------------------------------------------*
LOGOEND  EQU   *                    THIS LABEL MUST FOLLOW YOUR LOGO TEXT
```

Figure 23 (Part 2 of 3). Modify the VSE/SP Sign-on Panel (IESELOGO Skeleton)

You use this section of the skeleton to change the logo design.

The LOGOBA EQU label **must** be before the logo text and should **not** be changed.

In the *DC CL(L) statements:

- Replace the question marks (?) with your own logo design.
- Remove the asterisks (*) from column 1 of each DC statement that you use.

You can replace the question marks with text, block letters, or blank lines. Do **not** change the format of the skeleton; that is, the beginning and ending columns of the lines. The format follows the rules of Assembler language coding. If you change the format, there may be assembly errors or the sign-on program itself may not work correctly.

The LOGOEND EQU label **must** follow the logo text.

```
LOGOLINS EQU   (LOGOEND-LOGOBA)/L  NUMBER OF LOGO TEXT LINES
         SPACE 2
         END   ,                  NOTE --> NO LABEL ON END CARD
/*
// EXEC LNKEDT
/*
/&
         SPACE 3
*-------------------------------------------------------------------*
*                                                                   *
*                       C O M M E N T S                             *
*                                                                   *
*-------------------------------------------------------------------*

ESCAPESW DC    C'N'                ESCAPE SWITCH
*-------------------------------------------------------------------*
*             THE ESCAPE SWITCH IS ABOVE THIS BOX                   *
*-------------------------------------------------------------------*
* $$ EOJ
*-------------------------------------------------------------------*
*                                                                   *
*                       C O M M E N T S                             *
*                                                                   *
*-------------------------------------------------------------------*
*         THE ESCAPE CHARACTER STRINGS ARE BELOW THIS BOX            *
*-------------------------------------------------------------------*
UCESCSTR DC    CL4'    '           THIS IS THE CHARACTER STRING THE
*              TERMINAL OPERATOR SHOULD KEY INTO  . . .
*
*
MCESCSTR DC    CL4'    '           THIS IS THE CHARACTER STRING THE
*              TERMINAL OPERATOR SHOULD KEY INTO  . . .
*
*
*-------------------------------------------------------------------*
*         THE ESCAPE CHARACTER STRINGS ARE ABOVE THIS BOX           *
*-------------------------------------------------------------------*
         SPACE 2
*-------------------------------------------------------------------*
```

Figure 23 (Part 3 of 3). Modify the VSE/SP Sign-on Panel (IESELOGO Skeleton)

You use this part of the skeleton to control the CICS/DOS/VS escape facility.

The ESCAPESW DC C'N' label controls whether PF6 and PF9 are displayed on the sign-on panel. These two PF keys are used for the CICS/DOS/VS escape facility. A user can press PF6 or PF9 to escape to native CICS/DOS/VS without signing on to the Interactive Interface. In this case, security values for VSE/SP and CICS/DOS/VS are **not** established.

If you want to have the escape facility with the PF keys, change the N value in the ESCAPESW label to Y.

If you have terminals which do not have PF6 and PF9, you can specify a 1 - 4 character string for the escape facility. You would do the following:

1. Change the N value in the ESCAPESW statement to Y.

2. In the following statements, insert a 1 - 4 character string between the single quotes (' '):

   - UCESCSTR DC CL4' '
   - MCESCSTR DC CL4' '

   The UCESCSTR statement is for escape with upper case. The MCESCSTR statement is for escape with mixed case.

   You can use special characters, but you cannot specify lower case letters. If your character string is shorter than four characters, it must be padded with blanks on the right.

After you make your changes and file the skeleton, do the following to implement your logo or the escape facility:

1. Submit the completed skeleton to the system.
   The skeleton assembles and catalogs the logo module.

2. Check for any errors in the assembly. Correct any errors before proceeding.

3. Using the master terminal transaction (CEMT), load a new copy of the module.

4. Sign off from the system and sign on again. The new sign-on panel is displayed.

VSE/ICCF Generation

The SKICFGEN skeleton defines the options for VSE/ICCF generation. You can use it to generate your own options for VSE/ICCF.

The skeleton is shipped in library 59. First copy it to your primary library and edit the copied file. Refer to "Copying VSE/SP Skeletons" on page 11 for information on copying skeletons.

Figure 24 shows the skeleton. You can edit and change the generation operands for the DTSOPTNS macro. *VSE/ICCF Installation and Operation Reference* describes the DTSOPTNS macro and operands.

In the skeleton, each operand is on a separate line. When you edit the skeleton, **do not delete the continuation characters X in column 72.**

You can also change, add, or delete statements and operands, if required.

You should **not** change the following operands. These are required for VSE/SP.

- ALTSEC
- COMLIB
- CRJE=

```
* $$ JOB JNM=ICCFGEN,CLASS=0,DISP=D
* $$ LST CLASS=Q
// JOB ICCF GENERATION
LIBDEF PHASE,CATALOG=PRD2.CONFIG
// OPTION CATAL
   PHASE DTSIGEN,*
// EXEC ASSEMBLY
*************************************************************************
*                                                                       *
*   I C C F    G E N E R A T I O N    S K E L E T O N                   *
*                                                                       *
*************************************************************************
```

Figure 24 (Part 1 of 2). VSE/ICCF Generation (SKICFGEN Skeleton)

```
         DTSOPTNS ALTSEC=NO,                                          X
               ATN2741=YES,                                           X
               CANKEY=PA2,                                            X
               CISIZE=2048,                                           X
               COMLIB=2,                                              X
               CRJE=(YES,Q,A,D),                                      X
               DISPKEY=PA3,                                           X
               EDFLAG=73,                                             X
               EDEND=72,                                              X
               HCLINE=132,                                            X
               INTCOMP=YES,                                           X
               INTRVAL=1,                                             X
               LOADPRT=YES,                                           X
               NBUFS=20,                                              X
               NRECS=22,                                              X
               NUSRS=30,                                              X
               NPARTS=5,                                              X
               NTASKS=4,                                              X
               PGMRINP=5,                                             X
               PGMRLST=6,                                             X
               PGMRPCH=7,                                             X
               PGMRPIN=8,                                             X
               PGMRLOG=9,                                             X
               PSIZE=256,                                             X
               PARTN=(0,2048,0,T,                                     X
               1,256,4,A,                                             X
               2,256,4,A,                                             X
               3,512,4,BA,                                            X
               4,512,4,BA,                                            X
               5,512,4,IBA),                                          X
               RDR=FFC,                                               X
               RDR2=FFA,                                              X
               PCH=FFD,                                               X
               PRT=FFE,                                               X
               SPOOL=250,                                             X
               TCUPSI=11100000,                                       X
               TIOA40=600,                                            X
               TIOA00=600,                                            X
               TCTOFS=8
         DTSIGEN
         END
/*
// EXEC LNKEDT,PARM='MSHP'
/&
* $$ EOJ
```

Figure 24 (Part 2 of 2). VSE/ICCF Generation (SKICFGEN Skeleton)

Standard Labels for Files and Data Sets

You use the STDLABUS skeleton to create the standard labels for your files and data sets. It contains VSE/POWER JECL and JCL statements to catalog the procedure in the system library.

The skeleton is shipped in library 59. First copy it to your primary library and edit the copied file. Refer to "Copying VSE/SP Skeletons" on page 11 for information on copying skeletons.

The name of the member **must** be STDLABUS because the system standard label procedure STDLABEL calls STDLABUS to load your standard labels. Therefore, when you copy the skeleton, specify STDLABUS as the new member name in your primary library.

Figure 25 on page 156 shows the skeleton. Each section of the skeleton is shown in separate parts of the figure. The values you should change are highlighted in color.

The skeleton contains samples for defining labels for the following types of disk files:

- Sequential
- Direct access
- Index sequential

Each sample is enclosed within asterisks (*) and is noted by a heading. DLBL and EXTENT statements follow each sample. Use these statements to define your labels for that particular type of disk file.

The DLBL and EXTENT statements contain variables which you replace. The variables are basically the same for each disk file type. They are described below. Differences for specific types of disk files are noted.

The variables you should change in the DLBL statements are:

YYYYYYY
This is the file name. Specify 1 - 7 characters.

FFFFFFFF
This is the file-id. Specify 1 - 44 characters.

YYYY/DDD
The retention period of the file where YYYY is the year and DDD is the day:

The variables you should change in the EXTENT statements are:

YYYYYY
The SYS number of the file.

VVVVVV
Volume number of the disk where the file resides.

T
File type code. This value differs depending on the type of file. For direct access files, you **must** specify 1.

For sequential disk files, specify:

1 - Prime data
8 - Prime data with split cylinder (not FBA)

For index sequential disk files, specify:

1 - Prime data
2 - Overflow
4 - Index

S
The file sequence number. This value starts with 0.

BBBBBBBB
Starting track or block for the extent of the file.

NNNNNNNN
Number of tracks or blocks for this extent.

PP
You need this value for sequential disk files only. Specify the split cylinder start track (for split cylinder only).

The skeleton does not contain samples or instructions for VSAM clusters. You can define them using the *File and Catalog Management* dialog. Chapter 5, "File and Catalog Management" on page 39 describes the dialog.

You can also use STDLABUS to add your partition standard labels.

```
* $$ JOB JNM=CATALOG,DISP=D,CLASS=0
// JOB CATALOG
// EXEC LIBR,PARM='MSHP'
ACC S=IJSYSRS.SYSLIB
CATALOG STDLABUS.PROC  DATA=YES      REPLACE=YES
```

Figure 25 (Part 1 of 5). Create Standard Labels (STDLABUS Skeleton)

For STDLABUS, SYSLST must be assigned for LIBR.

In the CATALOG statement, the procedure name **must** be STDLABUS. The system standard label procedure STDLABEL calls STDLABUS to load your standard labels.

```
                    SEQUENTIAL DISK FILE SAMPLES


                      SINGLE EXTENT SD FILE
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
* // DLBL SAMPSD1,'SAMPLE.SEQUENTL.DISK.FILE.ONE',1999/365,SD
* // EXTENT SYS004,SAMP01,1,0,2400,1200
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *


    TWO SINGLE EXTENT SD FILES USING SPLIT CYLINDER ON 3340
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
* // DLBL SAMPSD2,'SAMPLE.SEQUENTL.DISK.FILE.TWO',1999/365,SD
* // EXTENT SYS004,SAMP01,8,0,2400,1200,5
* // DLBL SAMPSD3,'SAMPLE.SEQUENTL.DISK.FILE.THREE',1999/365,SD
* // EXTENT SYS004,SAMP01,8,0,2406,1200,11
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *


                      MULTI-EXTENT SD FILE
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
* // DLBL SAMPSD4,'SAMPLE.SEQUENTL.DISK.FILE.FOUR',1999/365,SD
* // EXTENT SYS004,SAMP01,1,0,2400,600
* // EXTENT SYS004,SAMP01,1,1,2400,600
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *


// DLBL YYYYYYY,'FFFFFFFF.FFFFFFFF.FFFFFFFF.FFFFFFFF',YYYY/DDD,SD
// EXTENT YYYYYY,VVVVVV,T,S,BBBBBBBB,NNNNNNNN,PP
```

Figure 25 (Part 2 of 5). Create Standard Labels (STDLABUS Skeleton)

The three samples are enclosed within asterisks. They are for the following types of sequential disk files:

- Single extent
- Two single extent using split cylinder on an IBM 3340
- Multi-extent

Use the DLBL and EXTENT statements following the three samples to define the labels for your sequential disk files. If you do not use these statements, delete them.

```
                    DIRECT ACCESS FILE SAMPLE

* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
* // DLBL SAMPDA,'SAMPLE.DIRECT.ACCESS.FILE.A',1999/365,DA
* // EXTENT SYS002,SAMP01,1,0,100,1200
* // EXTENT SYS002,SAMP01,1,1,1300,1200
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *


// DLBL YYYYYYY,'FFFFFFFF.FFFFFFFF.FFFFFFFF.FFFFFFFF',YYYY/DDD,DA
// EXTENT YYYYYY,VVVVVV,T,S,BBBBBBBB,NNNNNNNN
```

Figure 25 (Part 3 of 5). Create Standard Labels (STDLABUS Skeleton)

A sample is enclosed within asterisks for direct access disk files. Use the DLBL and EXTENT statements following the sample to define the labels for your direct access files. If you do not use these statements, delete them.

```
            INDEX SEQUENTIAL FILE (CREATE) SAMPLE
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
* // DLBL SAMPISC,'SAMPLE.INDEX.SEQUENTL.FILE.ONE',1999/365,ISC
* // EXTENT SYS005,SAMP01,4,0,3700,1200
* // EXTENT SYS005,SAMP01,4,1,4900,1200
* // EXTENT SYS005,SAMP01,1,2,6100,1200
* // EXTENT SYS005,SAMP01,1,3,7300,1200
* // EXTENT SYS005,SAMP01,2,4,8500,1200
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

// DLBL YYYYYYY,'FFFFFFFF.FFFFFFFF.FFFFFFFF.FFFFFFFF',YYYY/DDD ,DA
// EXTENT YYYYYY,VVVVVV,T,S,BBBBBBBB,NNNNNNNN


            INDEX SEQUENTIAL (EXTENSION) FILE SAMPLE
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
* // DLBL SAMPISE,'SAMPLE.INDEX.SEQUENTL.FILE.TWO',1999/365,ISE
* // EXTENT SYS006,SAMP01,4,0,9700,1200
* // EXTENT SYS006,SAMP01,4,1,10900,1200
* // EXTENT SYS006,SAMP01,1,2,12100,1200
* // EXTENT SYS006,SAMP01,1,3,13300,1200
* // EXTENT SYS006,SAMP01,2,4,14500,1200
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

// DLBL YYYYYYY,'FFFFFFFF.FFFFFFFF.FFFFFFFF.FFFFFFFF',YYYY/DDD ,DA
// EXTENT YYYYYY,VVVVVV,T,S,BBBBBBBB,NNNNNNNN
```

Figure 25 (Part 4 of 5). Create Standard Labels (STDLABUS Skeleton)

Two samples are enclosed within asterisks for index sequential files (create and extension). Use the DLBL and EXTENT statements following each sample to define the labels for your index sequential (create or extension) files. If you do not use these statements, delete them.

```
// OPTION PARSTD
// OPTION PARSTD=F1
// OPTION PARSTD=F2
// OPTION PARSTD=F3
// OPTION PARSTD=F4
// OPTION PARSTD=F5
// OPTION PARSTD=F6
// OPTION PARSTD=F7
// OPTION PARSTD=F8
// OPTION PARSTD=F9
// OPTION PARSTD=FA
// OPTION PARSTD=FB
/*
/&
* $$ EOJ
```

Figure 25 (Part 5 of 5). Create Standard Labels (STDLABUS Skeleton)

After **each** // OPTION statement, add yourpartition standard labels for that partition. If you do not specify labels for a partition, the area is cleared.

For example, if you want to specify partition standard labels for partition F6, enter them as follows.

// OPTION PARSTD=F6

****** Enter partition standard labels for F6 ******

// OPTION PARSTD=F7

After you make the changes, run the DTRSEXIT macro. This macro deletes all the comments from the file. The comments are defined by the letter C in column 71. You should do this before you file the skeleton.

On the command line, enter:

@DTRSEXIT

After the macro runs, file the job. You can then submit it to the VSE system.

Implementing VAE on the System

Virtual Addressability Extension (VAE) supports 40 megabytes of storage in the 370 mode environment. In order to implement VAE on your system, there are several tasks you must perform.

1. Create an IPL procedure.

   You can use the *Tailor IPL Procedure* dialog. The parameters you should specify are:

   - Supervisor
     Specify thename of your 370 mode supervisor .

   - Mode
     Specify370 .

   - Virtual storage
     You can specifyup to 40 megabytes .

   - Page Data Set
     You can specifyup to 40 megabytes , depending on the virtual storage size.

   The dialog is described in Chapter 8, "Tailor IPL Procedure" on page 79.

2. Tailor a BG ASI procedure

   You should use the ASI0VAE skeleton for VAE. Refer to "BG ASI Procedure for 370 Mode Including VAE" on page 96.

3. You should also tailor the following VSE/SP skeletons:

   - ASI1
     Refer to "ASI Procedure for VSE/POWER Partition" on page 110.

   - ASIN
     Refer to "ASI JCL Procedure for VSE/POWER Batch Partitions" on page 119.

   - ASIBATCH
     Refer to "Definitions for VSE/POWER Controlled Partitions" on page 116.

4. Create startup books

   When you finish tailoring your IPL and system startup procedures, you should create the final startup books. You can use the *Create Startup Books* dialog which is described in Chapter 12, "Create Startup Books" on page 93.

Handling Duplicate Transaction IDs

VSE/SP provides several transaction IDs which may conflict with your own transaction ID names. If you want to use your own transaction IDs, you can override the following VSE/SP ID names.

- PF1
- PF3
- PF13
- PF15
- HELP
- OLPD
- USER

If you want to allocate any of these transaction ID names for your own use, you can do one of the following:

1. If you use CEDA (Resource Definition Online), you can delete the VSE/SP definition of the transaction ID.

2. If you use DFHPCT to define transaction IDs, you can:

   - Edit DFHPCTSP in VSE/ICCF library 59.

   - Insertyour transaction ID definitions **before** the COPY statement for IESZPCT.

   - Assemble and link DFHPCTSP.

   - Restart CICS/DOS/VS.

VSE/SP also provides additional transaction IDs with the following names:

- Names beginning with the prefix IE
- CSGM

CSGM is a CICS/DOS/VS transaction. VSE/SP uses CSGM, but replaces the program to which it points. Instead, VSE/SP points to IESIES01 which displays the sign-on panel VSE/SP ONLINE.

You **should not** override these transaction names in order to use your own transaction IDs. If you do, the Interactive Interface may not work correctly and any functions which you use could have unpredictable results.

CICS/DOS/VS Resource Definition Online

This section highlights some considerations for the CICS/DOS/VS Resource Definition Online function.

During initial installation, VSE/SP creates and initializes a CICS/DOS/VS System Definition (CSD) file. This file is the repository for the online resource definitions.

The CSD file contains the DFHPPTSP and DFHPCTSP entries. The entries are placed into group VSESPG which can be manipulated by the CICS/DOS/VS CEDA transaction. *VSE/SP Planning* shows the JCL which is used to create the CSD file.

The transaction CEDA initiates the Resource Definition Online function. VSE/SP provides an application profile which calls the CEDA transaction. The application profile name is IESCEDA. You can incorporate the application in the Interactive Interface by creating a selection panel and including IESCEDA as a selection. You can then determine who can use the Resource Definition Online function and update their user profiles. For details on using the *user interface tailoring* feature, refer to *VSE/SP Planning* and the following dialog descriptions in this book.

1. "Maintain User Profiles" on page 17.
2. "Maintain Selection Panels" on page 28.
3. "Maintain Application Profiles" on page 34.

The following example illustrates one possible way you can implement the IESCEDA application.

Suppose you add the application to the VSE/SP FUNCTION SELECTION panel in the default administrator hierarchy. You would:

1. Create a selection panel using the VSE/SP FUNCTION SELECTION panel (IESEADM) as a model.

   In the *Maintain Selection Panels* dialog, specify:

   - SELECTION PANEL NAME
     Enter a unique name for your panel.
   - SEQ
     You can use sequence number 7 for your new selection.
   - NAME
     Enter IESCEDA.
   - TYPE
     Enter I for an application.
   - SELECTION TEXT
     Enter an explanation for the selection.

2. Determine which users are allowed access to the new selection. Change their user profiles using the *Maintain User Profiles* dialog. You only have to change two fields:

   - INITIAL NAME
     Enter the name of the new selection panelyou created.

   - NAME TYPE
     Enter 2to indicate selection panel.

When the user signs on to the Interactive Interface, the new selection panel is displayed with the IESCEDA application.

For information about using Resource Definition Online and the functions which is offers, refer to *CICS/VS Resource Definition Guide.*

Part III. Operations Tasks

You probably associate operations tasks with either the system operator or the person using the console. VSE/SP defines operations tasks as tasks which monitor or control the operation of your system. Many different individuals can perform operations tasks from their display terminals. For example, an application programmer can monitor compile and test jobs.

The Interactive Interface provides many dialogs to help you with:

- Using the remote system console facility.
- Managing the batch queues.
- Displaying CICS/DOS/VS users.
- Sending and receiving messages to and from other users.
- Entering system news items.
- Displaying messages sent from the system.
- Monitoring system and device activity.
- Using CICS/DOS/VS master terminal commands.
- Entering VSE/ICCF command mode.
- Backing up and restoring data.
- Using IBM Personal Computers as intelligent workstations (IWS).

The Interactive Interface provides three dialogs which help you transfer files and jobs to another system. These dialogs are:

1. *Transfer Files to Another System*
2. *Retrieve Files from Another System*
3. *Submit a Job to Another System*

They are described in *VSE/SP Networking*.

The Interactive Interface also has a set of four *Problem Handling* dialogs which help you with diagnosis tasks. The dialogs are:

1. *Online Problem Determination*
   This helps you retrieve information about CICS/DOS/VS program abends.

2. *Inspect Message Log*
   You use this dialog to view the contents of the message log.

3. *Storage Dump Management*
   This prints selected storage dump information.

4. *Inspect Dump Management Output*
   This interactively displays selected dump information.

VSE/SP Diagnosis describes the four dialogs and how you handle problems on your system.

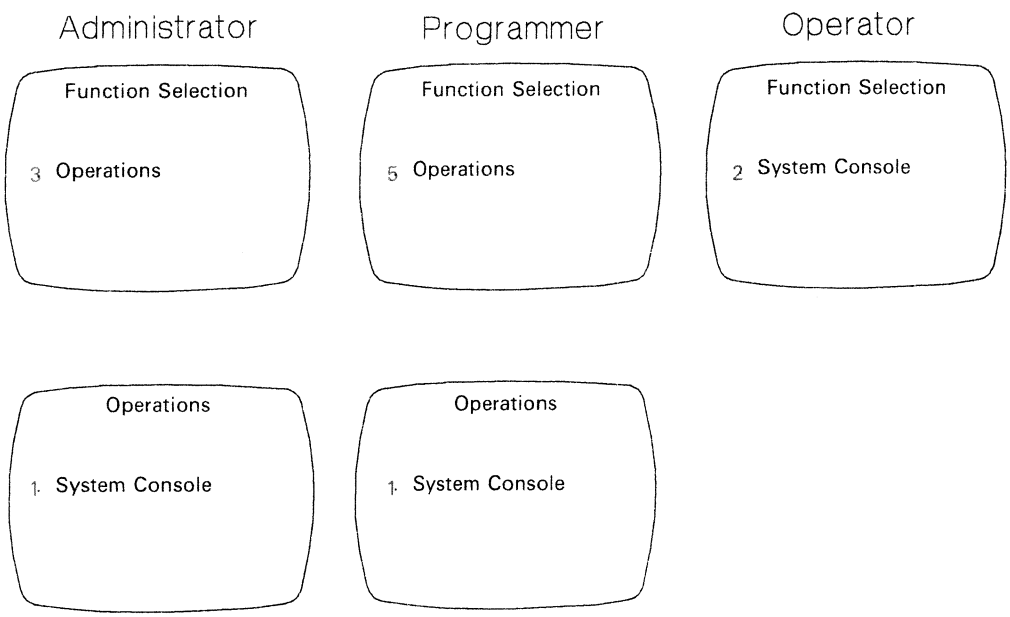
Chapter 14. Using the Remote System Console Facility

The *System Console* dialog allows you to display the system console from a display terminal. Using the dialog, you can:

- Display messages currently on the system console.
- Display previous console messages that were written to the VSE/SP hardcopy file.
- Ask for an explanation of VSE/SP messages online. These are the messages which are documented in *VSE/SP Messages and Codes*.

  This facility uses the VSE/SP online message file IESMSGS.
- Enter certain console commands.
- Reply to console messages.

You can access the dialog as follows:



The VSE/SP CONSOLE DISPLAY panel displays current console messages (as displayed at the real system console).

Note: If the real console is in redisplay mode or 1050 mode, the panel which the dialog displays may be different. Refer to "Additional Considerations" on page 172 for more information.

Figure 26 shows an example of the VSE/SP CONSOLE DISPLAY panel. The panel has two fields for you to enter specific information. The fields are noted to the left of the figure. The two fields are:

- Console field

  If you have authorization to enter console commands, the panel displays the console field. This authorization is part of your user profile. The field is at the left of the panel immediately above PF1=HELP. It is indicated by an underscore (_).

  You use the console field to enter VSE/SP commands as at the real console.

- Command field

  The command field is displayed for **all** users. It is at the bottom left of the panel and is indicated by ==>.

  You use the command field to enter input which controls dialog operations.

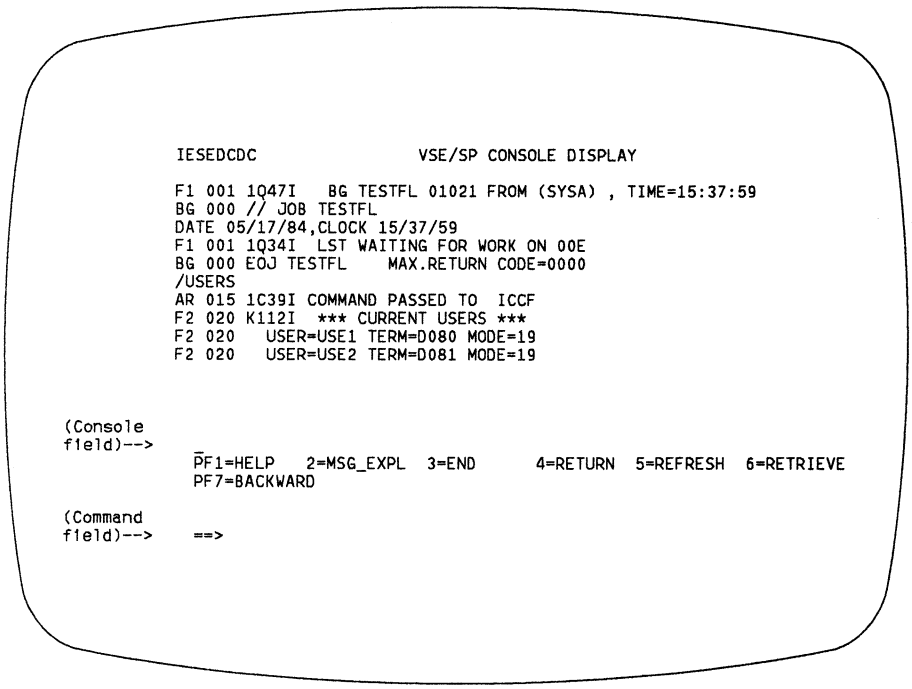


Figure 26. Example Display of VSE/SP Console Display Panel

Review Messages and Hardcopy File

When you access the dialog, the panel displays console messages as at the real console. You can press PF5 to refresh the display and see any new messages.

You can scroll through the hardcopy file and display previous console messages. Use PF7 and PF8 to scroll backward and forward. You are now in redisplay mode. You can return to the current console display by pressing PF3

You can also selectively scroll through the hardcopy file. Type in one of the following in the command field (==>). Press either PF7 or PF8 for backward or forward scrolling.

- xx - partition ID (BG, F1 - FB)
  For example, if you type in F4, the dialog displays only the messages for the F4 partition.

- FX
  This resets the display and shows messages from all partitions.

- AR
  This displays the attention routines that have been entered and the replies.

- h - Scroll half screen

- p - Scroll full screen

- nnn - Scroll nnn lines (maximum of 999)

Enter Console Commands

You must have authorization to enter console commands. If you have the authorization in your user profile, the console field (_) is displayed at the left of the panel.

Move the cursor to the console field (_), type in a command and press ENTER The command is sent to the VSE/SP system. The dialog displays a message which asks you to press PF5 to update the console display.

You can use PF6 to retrieve commands that were previously entered from the dialog.

You **cannot** use the following commands from the dialog:

/CICS	/TC
/DISC	/TTF
HALT	QEND
PEND	Z

You **cannot** use the following commands for the partitions where VSE/ICCF, ACF/VTAM, and VSE/POWER are running:

CANCEL
F
PFLUSH

The command ***D*** to enter or control redisplay mode is sent to the system. However, it is rejected. You can only use it from the real console.

The dialog has information about commands that are frequently used for VSE, VSE/ICCF, VSE/POWER, and ACF/VTAM. You can display this information in one of two ways:

1. Press **PF1** for a selection panel. Select one of the options or use PF8 to scroll through the information sequentially.

2. In the command field (= = >), type in one of the following, and press **PF1**. This provides information on the commands for the specific subsystem.

   - **VSE** (For VSE commands)
   - **ICCF** (For VSE/ICCF commands)
   - **POWER** (For VSE/POWER commands)
   - **VTAM** (For ACF/VTAM commands)

The dialog provides a list of predefined commands you can enter with an abbreviation. There are two types of commands:

1. Immediate: The command is sent directly to VSE.

2. Non-immediate: The command requires additional input.

   After you enter the abbreviation, the command is displayed in the console field. Enter the remaining input and press ENTER.

The commands and their corresponding abbreviations are shown in Figure 27 on page 171. In the figure, non-immediate commands are followed by an underscore (_). This indicates that additional input is required.

VSE/SP stores the commands and abbreviations in the VSE/ICCF library member IESDCREF. The member is in library 2. You can change the commands and abbreviations for your own needs. IESDCREF can have up to twenty records. From the dialog, you can display the list of predefined commands. Type in ? in the console field and press ENTER.

Command	Abbreviation
D NET,ID = _	DI
D LST _	L
D NET,TERMS	DT
D XMT _	X
D NET,APPLS	DA
00 IGNORE	I
D NET,PENDING	DP
/SEND ALL _	S
D NET,CDRMS	DM
/USER	U
D NET,CDRSCS	DR
VOLUME	V
D NET,BFRUSE	DB
V NET,ACT,ID = _	VA
V NET,INACT,ID = _	VI
D RDR _	R

Figure 27. Abbreviations for Predefined Console Commands

Message Explanation

You can request an explanation of a message online from either the VSE/SP CONSOLE DISPLAY panel or any HELP panel in the dialog. This function accesses the online message file of VSE/SP. There are two ways you can request an explanation:

1. Move the cursor to the message line you want explained. Press **PF2** .

   If a message references another message number, you can display information about this message number. Move the cursor to the message number (in the message line). Press **PF2** .

2. Type in the message number in the command field (= = >). Press PF2 .

   You can also display message information about VSE/VSAM return codes. Enter one of the following in the command field (= = >). Press PF2 .

   VSAMOPEN
   VSAMCLOSE
   VSAMREQU
   VSAMXXCB

   Note: If you enter a message number which is incorrect or which cannot be found, the dialog will do one of two things:

a. *Display information about a message number which closely matches the one you entered.*

b. *Display a message telling you that the number cannot be found.*

Carefully check the panel display. Make sure that the message number you wanted is the one that the dialog displays.

Additional Considerations

1. The dialog displays the same messages which are currently displayed at the real console. The person using the real console should note this.

   If the real console is in **redisplay mode**, the system console is also. Because of this, the person using the system console may expect to see current messages, but the latest messages are not displayed.

   A person using the dialog may enter VSE commands, but will not see the system's reply. When the real console enters the condition described by

   0D05D MESSAGE WAITING

   a person using the dialog **cannot** enter VSE commands. The dialog informs the user that the real console is busy.

2. If the real console is in **1050** mode, anyone using the system console can **only** request explanations of messages. They **cannot** use the following dialog functions:

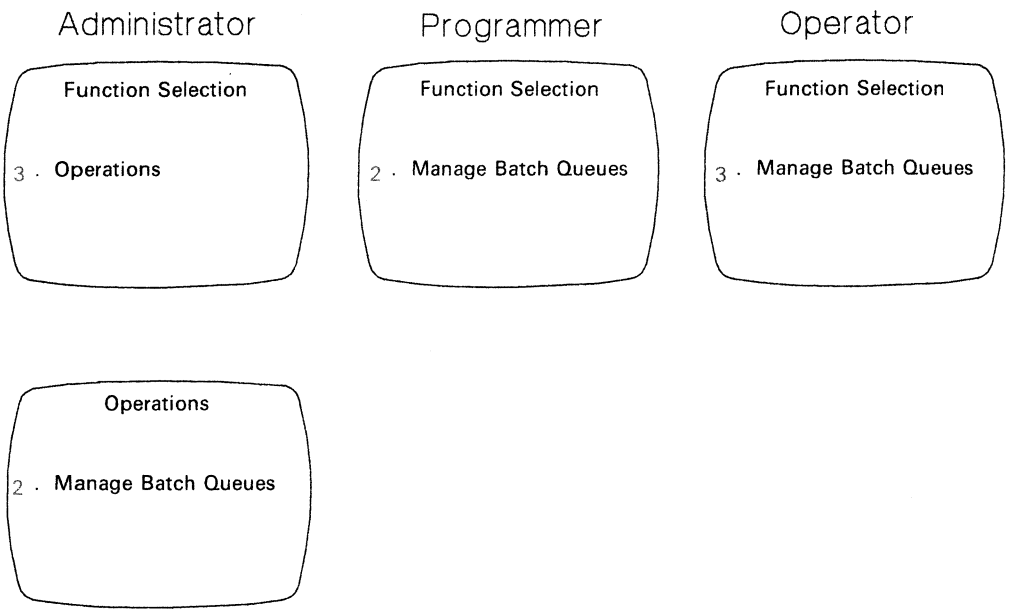
   - Enter VSE commands.
   - View the system console.
   - Scroll through the hardcopy file.

3. Each person using the *System Console* dialog ties up an interactive partition. Through experience, you will know if you have to increase the number of partitions for using the dialog. The partition class and size requirements for the *System Console* dialog are shown in *VSE/SP Planning.*

Chapter 15. Managing the Batch Queues

The *Manage Batch Queues* dialog helps you display and process entries in the VSE/POWER list, reader, punch, and transmit queues. The dialog interactively displays the entries using a FULIST.

You can access the dialog as follows:



On the next panel, enter the number for the queue you want to display:

1	(List Queue)
2	(Reader Queue)
3	(Punch Queue)
4	(Transmit Queue)

You do not have to display the entire queue. You can display entries that:

- Begin with certain characters.
  Enter the *prefix* in the PREFIX field.
- Are in a certain class.
  Enter the *class* in the CLASS field.

A FULIST displays the entries in the queue as of the time you made your selection. Press PF5 to refresh the panel. This updates the FULIST and displays the most current information.

If you want to locate a particular queue entry, enter the job name in the LOCATE JOBNAME field. The dialog searches the queue. If the entry is found, it is displayed with an * in the OPT column. If it is not in the queue, the dialog displays a message.

Note: To locate a particular entry, enter the entire name of the job. You cannot just enter a prefix.

The options you can select are shown at the top of the FULIST. The options which the FULIST displays depend on the type of user profile you have. For more information, refer to "Additional Considerations" on page 177.

List Queue

Enter the option number in the OPT column to the left of the entry you want to process.

Display

The DISPLAY option displays the list output of the job on the terminal screen. The PF keys have specific settings which are shown in Figure 28 on page 175.

You can locate a particular character string. Type in the character string xxxxxxxx and press either PF5 (search columns 1 - 9) or PF6 (search all columns).

If the character string has imbedded blanks, you must enter a slash (/) before and after the string. For example, to locate the character string *ABC DEF*, type in:

```
/ABC DEF/
```

Press PF5 or PF6 .

You can only display the list output of jobs that have the same system ID of the system at which you are working.

PF Key	PF Key Setting
PF1	Not used
PF2	Redisplay current page
PF3	End
PF4	End
PF5	Locate the character string entered. Search columns 1 - 9 only.
PF6	Locate the character string entered. Search all columns.
PF7	Scroll backward
PF8	Scroll forward
PF9	Top
PF10	Shift left
PF11	Shift right
PF12	Bottom

Figure 28. PF Key Settings for DISPLAY Option in List Queue

Note: The settings for the PF13 - PF24 keys correspond to the settings for PF1 - PF12.

Change

The CHANGE option allows you to change the priority, disposition, class, or number of copies. Enter the option number, key over the value of the characteristic you want to change (PRI, DIS, CLASS, or CC), and press **ENTER**.

Print

The PRINT option makes the list output available for printing on the local system printer. The following attributes are changed when you select PRINT:

Class - Changed to class A
Disposition - Changed to disposition D
To user-id - Changed to Local

The operator should have started a class A printer for this task.

Delete

The DELETE option deletes the entry from the queue.

Reader Queue

Enter the option number in the OPT column to the left of the job you want to process.

Change

The CHANGE option allows you to change the priority, disposition, or class. Enter the option number, key over the value of the characteristic you want to change (PRI, DISP, or CLASS), and press ENTER.

Copy to Primary Library

The COPY TO PRIMARY LIBRARY option copies the job to your default primary library (as specified in your user profile). The dialog does **not** delete the job from the reader queue. The library member name is the same name as the job name in the queue.

You can only copy jobs that have the same system ID of the system at which you are working. If the job is currently active, you cannot copy it.

Delete

The DELETE option deletes the job from the queue.

Punch Queue

Enter the option number in the OPT column to the left of the entry you want to process.

Change

The CHANGE option allows you to change the priority, disposition, class, or number of copies. Enter the option number, key over the value of the characteristic you want to change (PRI, DIS, CLASS, or CC), and press ENTER.

Copy to Primary Library

The COPY TO PRIMARY LIBRARY option copies the punch output to your default primary library (as specified in your user profile). The dialog does **not** delete the entry from the punch queue. The library member name is the same name as the job name in the queue.

You can only copy entries that have the same system ID of the system at which you are working.

Punch

The PUNCH option makes the punch output available for punching at the local system. The following attributes are changed when you select PUNCH:

Class - Changed to class A
Disposition - Changed to disposition D
To user-id - Changed to Local

Delete

The DELETE option deletes the entry from the queue.

Transmit Queue

Enter the option number in the OPT column to the left of the entry you want to process.

Hold

The HOLD option holds the job, list output, or punch output in your local queue. It is not forwarded to its final destination.

Release

The RELEASE option makes the job, list output, or punch output eligible to be forwarded to its destination.

Additional Considerations

1. A user with administrator (type 1) authorization can select all the functions to process entries in all the queues.

2. A user with programmer (type 2) authorization is not allowed to use the following options. The dialog does not display these options on the panels.

   - CHANGE option of the list, reader, and punch queues.

   - HOLD and RELEASE options of the transmit queue.

   In general, if you have a programmer type profile, you can only 'access' entries which you own or which have been sent to you.

3. All segments of segmented output have the same name and number. Because of this, the dialog cannot recognize individual segments.

If you display segmented output in the list queue, the dialog displays the first available segment. If you select the following options from any queue, the dialog processes all segments:

- Change
- Print
- Punch
- Delete
- Release
- Hold

After you choose one of these options, the FULIST may not be current. Press **PF5** to refresh the display.

Chapter 16. Display CICS/DOS/VS Users

There are two ways in which you can display the users signed on to CICS/DOS/VS. You can use the:

1. VSE/SP provided transaction USER from the real console.
2. *Display Active Users/Send Message* dialog.

Using the VSE/SP Transaction USER

VSE/SP provides the transaction called USER. This displays the users who are signed on to CICS/DOS/VS. You can only use this transaction from the real (actual) console. You can do the following from the console:

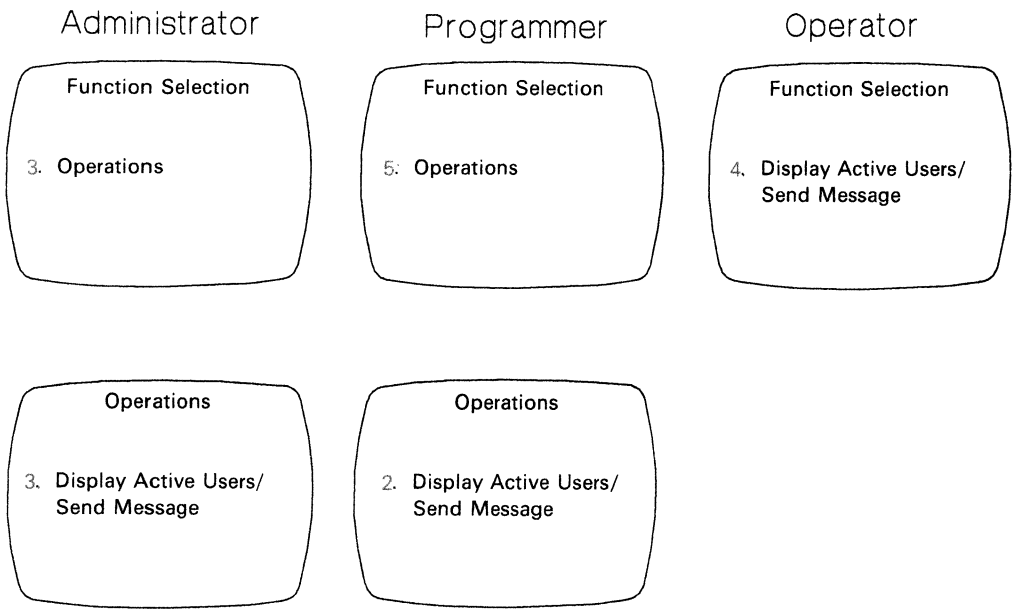
- Create an external interrupt to the CICS/DOS/VS partition.
- Enter the transaction name:

```
user
```

Using the Display Active Users/Send Message Dialog

The *Display Active Users/Send Message* dialog displays the users signed on to CICS/DOS/VS. From the dialog, you can send a message to selected users or to all users who are signed on.

You can access the dialog as follows:



A panel displays the users who are signed on at the time you accessed the dialog. You can press PF5 to refresh the panel and display the most current information.

The following information is displayed for each user:

USER — This is either the user-id of the user signed on or the operator-id of the operator.

TERM — Terminal-id.

TRANS — The name of the transaction the user is currently running or is about to run.

INPUTS — The number of input messages received from the user's terminal.

OUTPUTS — The number of output messages sent to the user's terminal.

STATUS — The following status numbers may be shown:

1 - The terminal is out of service.
2 - /DISCONNECT or sign off was issued for the user/terminal.
3 - The user was selected to receive a message.

How to Send a Message

You can send a message by pressing PF6. On the next panel, type in your message. When you are done, press PF5. This tells the system you have finished typing the message.

The dialog redisplays the first panel with an additional column (OPT) to the left of the user-ids. You can use this column to select the users who will receive the message.

If you want to send the message to all users signed on, press PF10.

If you want to select the users who will receive the message, enter

```
3
```

in the OPT column to the left of each user-id. When you are done, press PF10 to send the message to the selected users.

When your message is sent, the dialog displays the following message:

```
MESSAGE # x WAS SCHEDULED FOR y DESTINATION(S)
```

Signing Off a User

If you have an administrator (type 1) profile, the FULIST displays option 2 (SIGN OFF A USER). You can select this option to sign off particular users from the system. You cannot use this if the terminal has a status of 1 (out of service).

If a user is logged on to VSE/ICCF, you should use the /DISCONNECT command from the system console.

Additional Considerations

You can only send a message to 3270 compatible displays. The dialog will not send a message to a user who does not have one of these displays.

Chapter 17. Receiving a Message From Another User

Sometimes, another user who is signed on to CICS/DOS/VS will send you a message. If the message is sent by the *Display Active Users/Send Message* dialog, the system displays the MESSAGE DELIVERY panel on your terminal. The panel shows the message and the user-id of the person who sent the message.

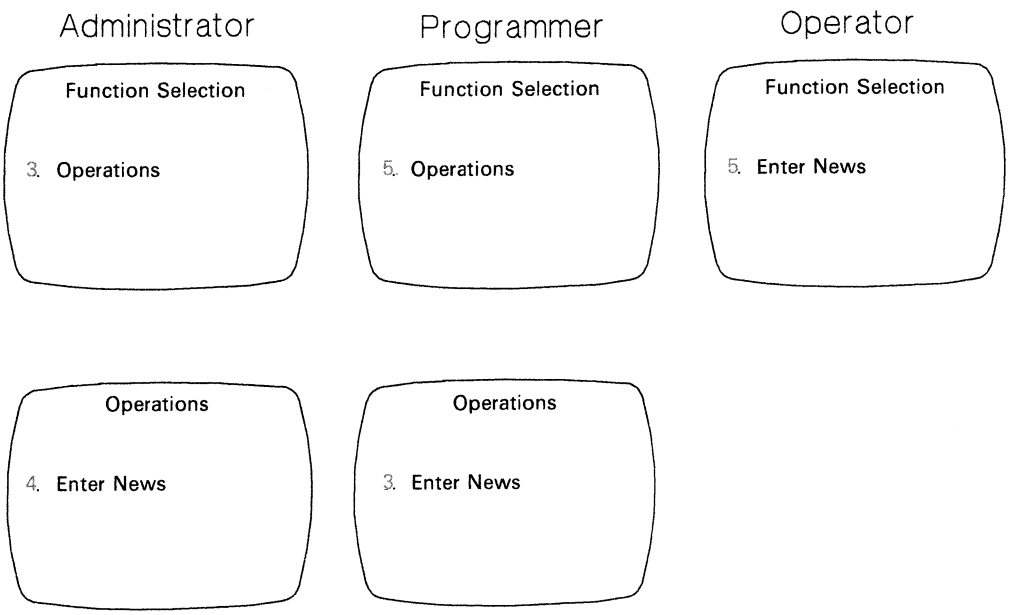
You can send a reply to the user. Type in your reply on the panel and press **PF10**. The system sends the reply to the user.

You do not have to send a reply. Press **PF3** (NO REPLY) and the system returns you to the task you were doing.

Chapter 18. Enter News

You use the *Enter News* dialog to enter a *news item*. This is a message that is displayed to users when they sign on to the Interactive Interface. The news is also displayed to users already signed on to the system. You can add, change, or delete news items.

You can access the dialog as follows:



The ENTER NEWS panel displays the current news entry. You can have up to four lines of information. On the panel, you can:

1. Add a line
   Type in the information on a blank line.

2. Change a current line
   Type over the current information.

3. Delete a line
   Use the space bar and blank out the line or use the ERASE EOF key to erase the line.

After you add or change a line, press **ENTER**. The dialog formats the information and redisplays the panel. You can then check your news entry and make any changes.

When you are done, press **PF5**. The dialog files the news information in the VSE/SP control file and makes it available to other users.

Chapter 19. Retrieve Message

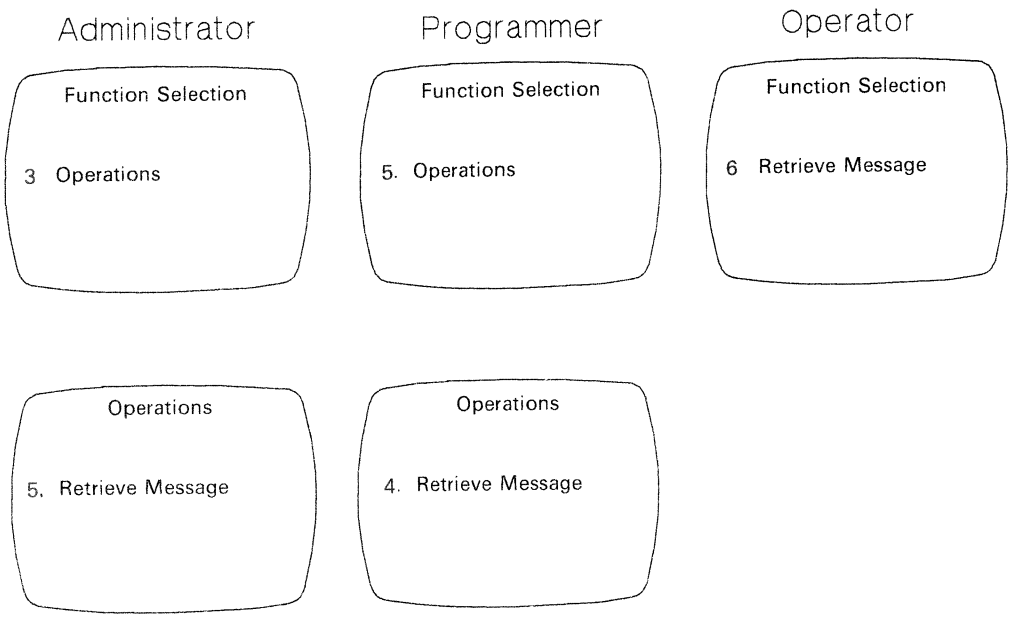
The *Retrieve Message* dialog displays messages that the system has sent you.

The messages are held in a queue. When you access the dialog, it displays the messages in the queue on your terminal screen. The queue is deleted whenever the Interactive Interface system is shut down.

If you access the dialog and no messages have been sent to you, the system displays the following message on the selection panel:

```
THERE ARE NO MESSAGES AVAILABLE
```

You can access the dialog as follows:



The RETRIEVE MESSAGE panel displays the messages. Use the appropriate **PF keys** to scroll forward, backward, left, or right. The PF keys are described at the bottom of the panel.

You can delete individual message lines. Use the ERASE EOF key or blank out the line using the space bar and then press **ENTER**.

If you want to delete all messages in the queue, press **PF5**.

While you review the panel, it is possible that the system sends you new messages. You can update the panel display to see any new messages by pressing PF9. If the system has not sent you any new messages, it displays the following:

```
NO NEW MESSAGES WERE RETURNED
```

You can end the dialog by pressing PF3.

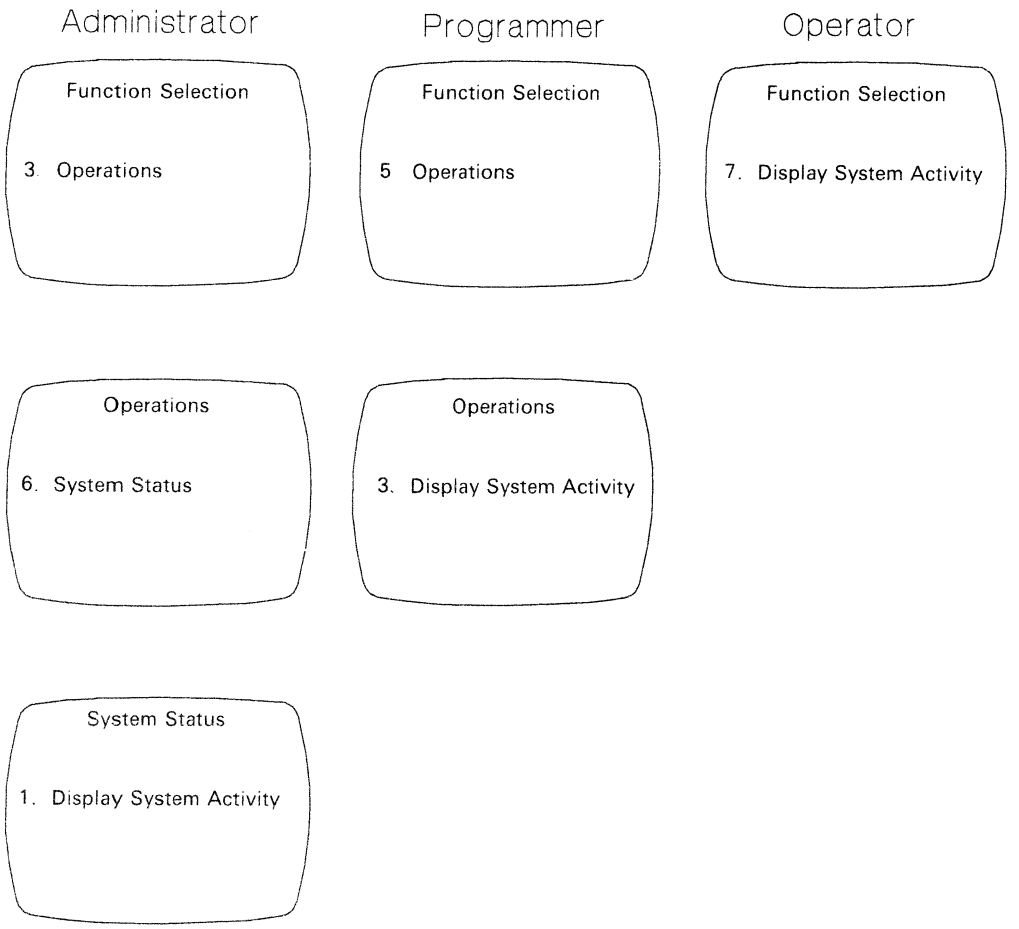
Chapter 20. System Status

Display System Activity

The *Display System Activity* dialog displays an interactive picture of the system's activity. You can use the dialog for summary information about the performance of your system. It can highlight areas where performance tools like CICS/PARS or VSE/PT could be used.

"Overview of Displaying System Status" on page 201 describes how you can use this dialog and the *Display Channel and Device Activity* dialog to understand system activity.

You can access the dialog as follows:



The DISPLAY SYSTEM ACTIVITY panel shows current system activity. An example of the panel is shown in Figure 29 on page 191.

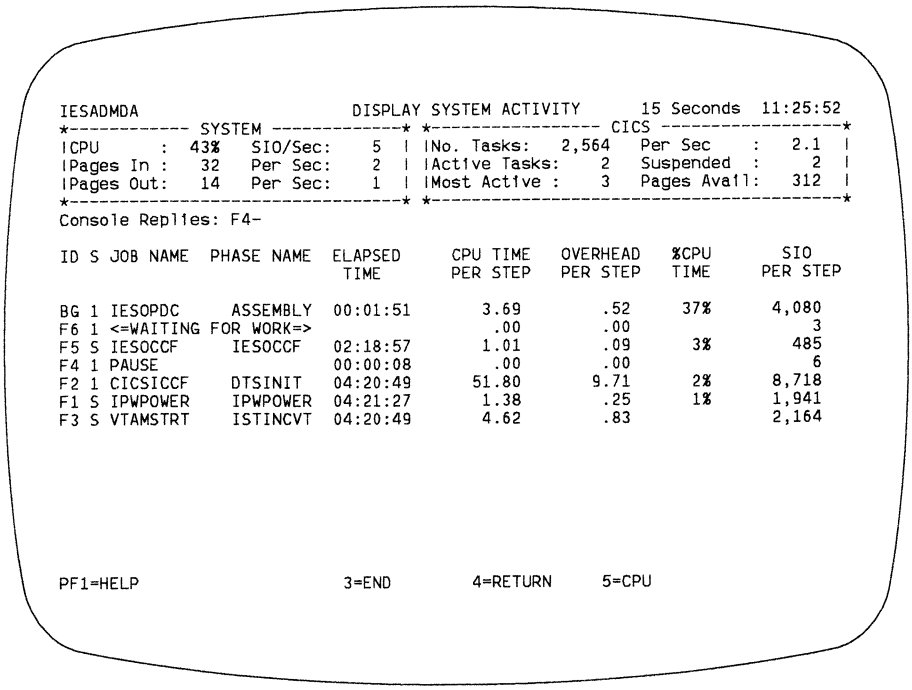


Figure 29. Example Display of System Activity

Note: Figure 29 shows the S column. This is only displayed for non-VM systems to show any address spaces (1 - 3 or S).

The dialog interactively updates the information on your terminal screen at fifteen second intervals. You can change the interval time. The dialog can also be changed to update the display only when you press ENTER. See "Additional Considerations" on page 194 for information.

The panel shows the activity which has taken place since the last display of the screen.

Notes:

1. *The calculations are done only for the current time interval and are rounded to whole numbers. The values are only indicators of system use. They should not be used to measure the actual performance of the system.*

2. *An asterisk (*) or zero appears in fields that either cannot be calculated or that have no significance (for example, the Pages In/Out value for a system running with VM).*

3. *If a numeric calculation overflows, the field is filled with nines (9).*

The information below describes the entries on the panel. You can refer to Figure 29 when you review this information.

The top line of the panel shows two important values at the right of the screen:

1. The interval (in seconds) which the calculations are based upon. This is the elapsed time since the panel was last displayed.

2. The current display time in hours:minutes:seconds.

In Figure 29, the interval is 15 seconds and the time is 11:25:52.

SYSTEM Section

The SYSTEM section is at the upper left of the panel. It shows summary information about system use.

- The percentage of CPU use is only an indicator of the overall system load. If any partitions cross job boundaries, the panel displays a zero percentage.

- The start I/O (SIO) rate is given for the total system.

  For VM users, the SIO/Sec rate may seem unusually high. The dialog calculates the total I/O rate on the system. Therefore, this rate includes unit record virtual I/O. You can specifically monitor disk or tape device activity using the *Display Channel and Device Activity* dialog.

- Paging values are for the total system. They are displayed for non-VM systems only.

CICS Section

The CICS section is at the upper right of the panel. It shows summary information for the following:

- The number of CICS/DOS/VS tasks that have been attached since system startup (No. Tasks). The number is reset to zero after 100,000.

- The number of CICS/DOS/VS tasks attached during the current interval (Per Sec). This is the task rate.

- The number of CICS/DOS/VS tasks active (Active Tasks) and suspended (Suspended).

- The maximum length of the active chain for the day (Most Active).

- The number of pages of memory (Pages Avail) before CICS/DOS/VS goes Short-on-Storage (SOS).

PARTITION Section

Information about the individual partitions is shown below the SYSTEM and CICS sections.

The Console Replies field shows any partition ID(s) that have a console reply pending. The field is only displayed for a user with administration (type 1) authority. The information below describes the remaining fields:

ID and S
The ID field shows the VSE partition identifications. They are displayed in ascending, dispatching order; low to high.

For non-VM systems, any address space (numbers 1 - 3 or the letter S) is displayed next to the partition ID in the S column. The numbers 1 - 3 represent the address space in which the partitions are allocated. The letter S identifies partitions in the shared area.

JOB/PHASE NAME
This is the VSE job name and phase name. If no job is running in the partition, the dialog displays one of the following under these two columns. The panel does not display partitions which are not in use.

- WAITING
  Not under VSE/POWER and inactive.

- WAITING FOR WORK
  Under VSE/POWER and inactive.

- DEACTIVATED
  Temporarily deactivated.

  A partition is temporarily deactivated because the system cannot implement a paging request.

ELAPSED TIME
The elapsed time is shown in hours:minutes:seconds (HH:MM:SS).

CPU TIME and OVERHEAD PER STEP
These values are shown in hundredths of a second.

% CPU TIME
This is only an indicator of each partition's use of system resources. Because of the rounding of values and the time intervals, the sum of the percentages can be more than 100%.

SIO PER STEP
The total number of start I/O's (SIO) for the job step.

You can display CPU use only by pressing PF5. A second panel interactively displays information about CPU use for the total system and for the partitions. The dialog automatically updates the panel display at 15 second intervals.

The panel may display no percentages, if the dialog records no activity for the system or the partitions. If any partition crosses job boundaries, the panel displays a zero percentage. This is because inactive or total CPU percentage cannot be calculated.

Additional Considerations

1. The *Display System Activity* dialog automatically redisplays current system activity every 15 seconds. You can change the interval time or have the display updated only when the user presses ENTER. The information below outlines what you do to make the changes.

   a. Use the *Maintain Application Profiles* dialog and locate the application profile for this dialog. The application profile name is **IESDA**.

   b. Create a new application profile. Use the VSE/SP profile IESDA as a model. You cannot change the IESDA application profile itself.

   c. In the DATA field, enter the value you want for the time interval:

      0 : The ENTER key is used to refresh the display.
      10 - 60 : The number of seconds in the time interval.

      If you do not enter a value or you enter an incorrect one, the dialog does not display an error message. It uses 15 as the default.

   d. You must include the new profile either in a user profile, a selection panel, or both. You can use the following dialogs:

      - *Maintain User Profiles*
      - *Maintain Selection Panels*

2. The dialog calculates information using VSE job accounting tables and other system control blocks. Therefore, VSE job accounting must be active in the system (SYS JA = YES at IPL time). If job accounting is not active, you cannot access the dialog. In this case, if you try to access the dialog, the system displays an information message on the selection panel.

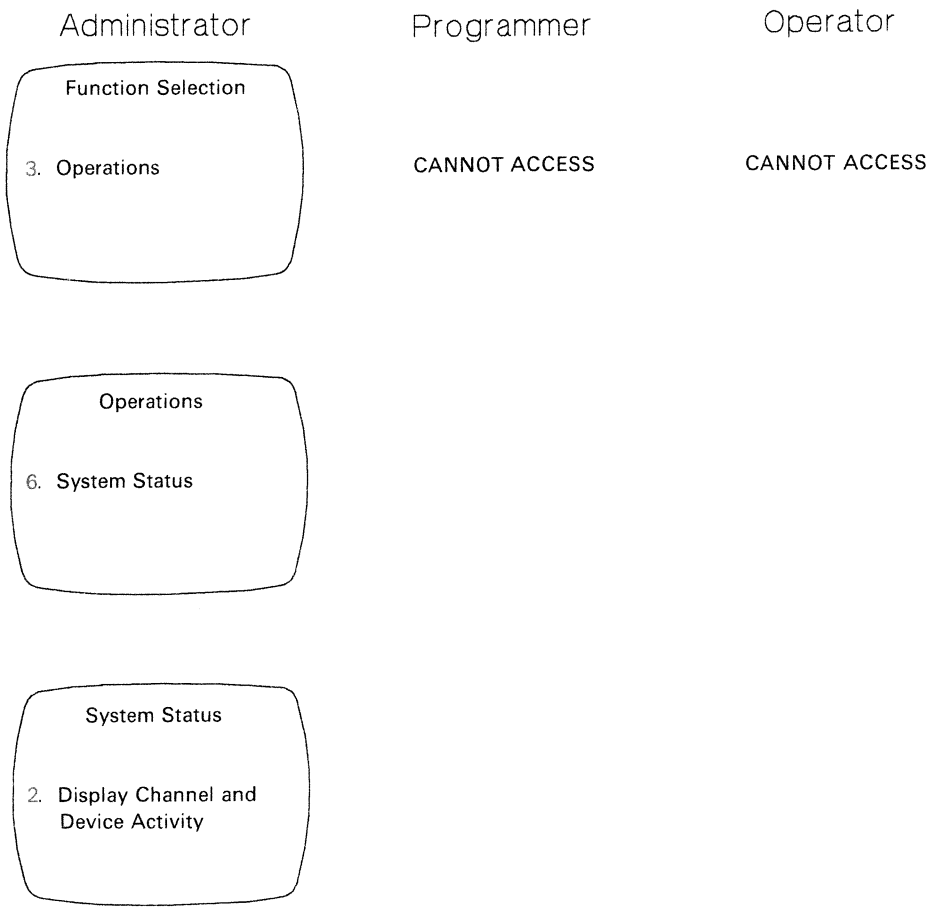
3. All jobs should include // JOB and /& statements for correct job accounting and a more accurate display of system activity. This includes startup jobs and jobs that are initiated through ASI procedures.

Display Channel and Device Activity

The *Display Channel and Device Activity* dialog lets you monitor the use of I/O devices. You can select information about single devices, control units, or channels. Like the *Display System Activity* dialog, it can highlight areas where performance tools like CICS/PARS or VSE/PT may be used.

"Overview of Displaying System Status" on page 201 describes how you can use this dialog and the *Display System Activity* dialog to understand system activity.

You can access the dialog as follows:



The DISPLAY CHANNEL AND DEVICE ACTIVITY panel shows current device activity. An example of the panel is shown in Figure 30 on page 196.

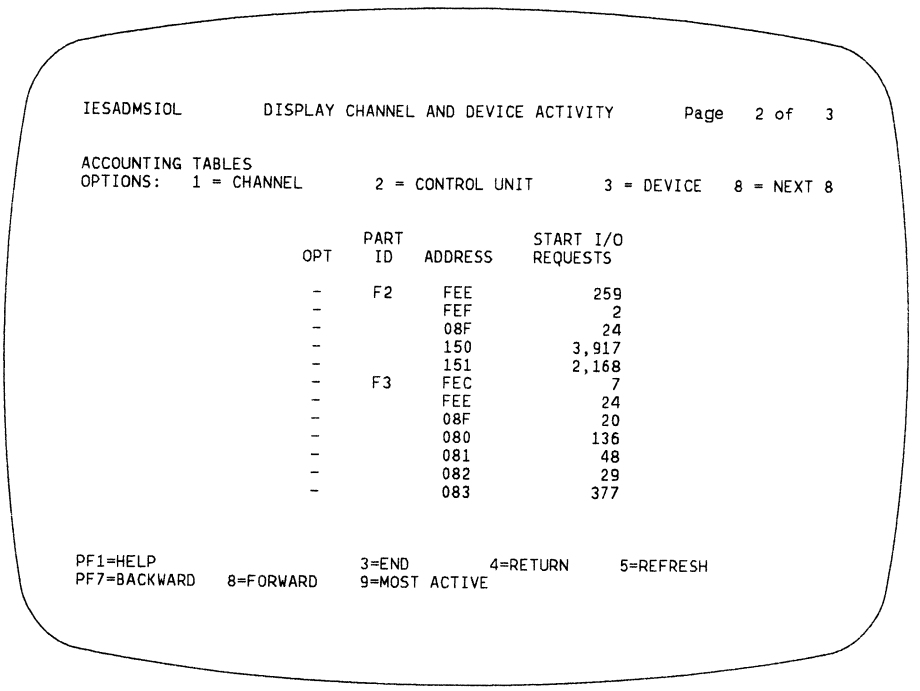


Figure 30. Example of Display Channel and Device Activity Panel

The panel displays information as of the time you selected the dialog. You can refresh the panel by pressing **PF5**. This updates the display to show the most current information. To browse through the entries, use **PF7** and **PF8**.

On the panel, select the device(s) you wish to monitor. Enter an option number in the OPT column to the left of the desired entry. The selection is based upon the address (cuu) shown in the ADDRESS column.

There are four option numbers:

1 CHANNEL
All devices on the selected channel are monitored.

2 CONTROL UNIT
Up to sixteen devices on the selected control unit are monitored.

3 DEVICE
The selected device is monitored.

8 NEXT EIGHT
The next eight devices in the accounting tables are monitored, beginning with the selected device. This is helpful, if you want to monitor a string of disk devices.

You can also use **PF9** to monitor up to eight of the most active devices as recorded in the system tables at the time you press PF9. Because of this, you may always select devices which are used by jobs running for long periods of time. In this case, use **PF5** (REFRESH) to determine which devices to select, and enter one of the four options described above.

Depending on the selection you make, the dialog displays different panels. "Monitor a Selected Channel, Control Unit, or Device" describes the panel display for the options:

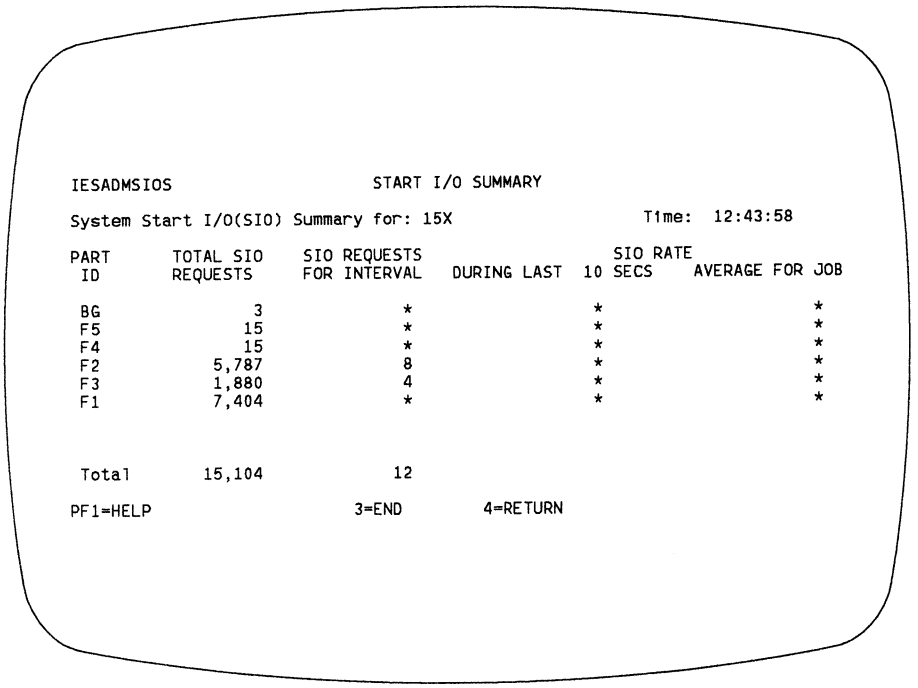
1 - Monitor channel
2 - Monitor control unit
3 - Monitor device

If you select option 8 or use PF9 to display the most active devices, turn to "Monitor Eight Devices on the System" on page 198 for information on the next panel display.

Monitor a Selected Channel, Control Unit, or Device

If you enter option 1, 2, or 3, the dialog displays the panel shown in Figure 31.

An asterisk (*) or zero appears in fields that either cannot be calculated or that have no significance. If a numeric calculation overflows, the field is filled with nines (9).



```
IESADMSIOS                    START I/O SUMMARY

System Start I/O(SIO) Summary for: 15X                Time:  12:43:58

PART      TOTAL SIO    SIO REQUESTS                    SIO RATE
 ID       REQUESTS     FOR INTERVAL   DURING LAST  10 SECS    AVERAGE FOR JOB

 BG              3              *                 *                      *
 F5             15              *                 *                      *
 F4             15              *                 *                      *
 F2          5,787              8                 *                      *
 F3          1,880              4                 *                      *
 F1          7,404              *                 *                      *


 Total      15,104             12

PF1=HELP                    3=END        4=RETURN
```

Figure 31. Example of Panel Display for Options 1, 2, or 3

The information below describes the panel shown in Figure 31.

The channel, control unit, or device being monitored is shown at the top of the screen in the field:

`System Start I/O(SIO) Summary for:` **`xxx`**

The example shows *15X* for the control unit 15. The X indicates that all devices on the particular control unit are being monitored.

The dialog automatically updates the display at specific intervals. The interval (nn) is shown in the field:

```
DURING LAST nn SECONDS
```

The fields on the panel are described below.

PART ID	VSE partition ID. They are shown in dispatching order; low to high.
TOTAL SIO REQUESTS	For each partition, this is the accumulated start I/O requests for the current job step.
SIO REQUESTS FOR INTERVAL	For each partition, this is the start I/O requests for the current job step during this time interval.
SIO RATE	
DURING LAST xx SECONDS	This is the approximate start I/O rate during the time interval.
AVERAGE FOR JOB	This is the approximate start I/O rate since the beginning of the job. This value is less accurate for jobs which run for long periods of time.

The Total columns at the bottom of the panel show the total requests for the interval.

Monitor Eight Devices on the System

If you enter option 8, or use PF9 to display the most active devices, the dialog displays the panel shown in Figure 32 on page 199.

An asterisk (*) or zero appears in fields that either cannot be calculated or that have no significance. If a numeric calculation overflows, the field is filled with nines (9).

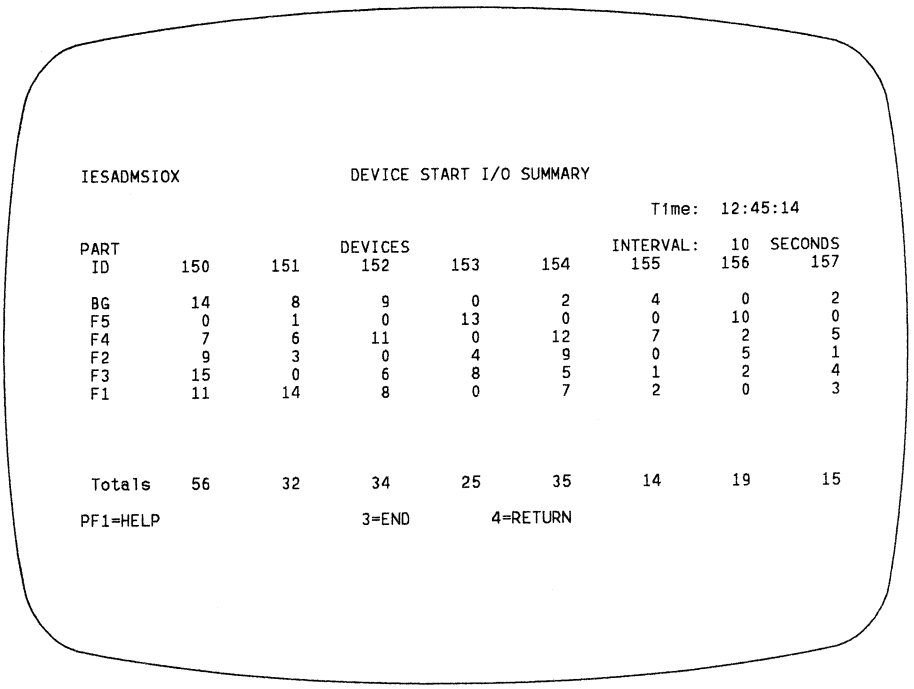


Figure 32. Example of Panel Display for Option 8 or PF9 Key

The information below describes the panel shown in Figure 32.

The panel displays start I/O activity for up to eight devices. The dialog automatically updates the display at specific intervals. The interval, in seconds, is shown at the right of the panel in the field:

INTERVAL: **nn** SECONDS

The fields on the panel are described below.

PART ID — VSE partition ID. They are shown in dispatching order; low to high.

DEVICES — For each partition, this is the start I/O requests for the current job step. This value is for the particular time interval.

The Totals columns at the bottom of the panel show system totals for each device during the specified interval.

Additional Considerations

1. The *Display Channel and Device Activity* dialog automatically redisplays specific channel, control unit, or device information approximately every 10 seconds. You can change the interval time or have the display updated only when the user presses ENTER. The information below outlines what you do to make the changes.

   Note: The dialog does **not** *automatically update the first panel (*DISPLAY CHANNEL AND DEVICE ACTIVITY*). You can only refresh this panel by pressing* **PF5**.

   a. Use the *Maintain Application Profiles* dialog and locate the application profile for this dialog. The application profile name is **IESDS**.

   b. Create a new application profile. Use the VSE/SP profile IESDS as a model. You cannot change the the IESDS application profile itself.

   c. In the DATA field, enter the value you want for the time interval:

      0 : The ENTER key is used to refresh the display.
      10 - 60 : The number of seconds in the time interval.

      If you do not enter a value or you enter an incorrect one, the dialog does not display an error message. It uses 10 as the default.

   d. You must include the new profile either in a user profile, a selection panel, or both. You can use the following dialogs:

      - *Maintain User Profiles*
      - *Maintain Selection Panels*

2. The values displayed by the dialog are reset on job and job step boundaries. For a more accurate display, you should use // JOB and /& statements in all your jobs.

Overview of Displaying System Status

This chapter outlines the use of the dialogs:

- *Display System Activity*
- *Display Channel and Device Activity*

The dialogs allow you to see and understand what is happening in the system. Each dialog interactively displays general information about current system activity. This includes such things as:

- CPU use
- Paging
- I/O activity
- Status of CICS/DOS/VS tasks

This section describes general considerations about how the dialogs work and how you might use them. It outlines various things you should consider when using the data. Special information for VM users is also discussed.

For information about using each dialog, refer to:

- "Display System Activity" on page 189.
- "Display Channel and Device Activity" on page 195.

Uses for Displaying System Information

Many different types of users can use the two dialogs either individually or together. You can use the information to:

- Observe and understand system behavior.

  By studying information at the system level, you understand the internal operations. The data shows:

  - How much CPU and I/O resources are used by CICS/DOS/VS compared to batch activity.
  - How well disk I/O activity is balanced.
  - How rapidly each partition is progressing.

- Diagnose initial problems or performance.

  The information may indicate high paging or that the CPU is being used too heavily.

  When the system has poor response times and paging and CPU use are relatively low, the *Display Channel and Device Activity* dialog may show where I/O problems are located.

An application programmer could use the data to initially diagnose a problem in a program, such as a loop.

- Understand the effect of tuning actions.

  For example, you may use the PRTY command to:

  - Modify partition priorities.
  - Activate/deactivate the *partition balancing*.

  You can then monitor the new resource distribution.

- Determine the profile of a batch application.

  You can review I/O activity and CPU use on a job basis to approximate the resources you need.

- Consider CICS/DOS/VS load to prevent Short-on-Storage (SOS) conditions at another time.

- Follow the progress of test runs for application programs.

- Follow the progress of important batch appplications.

- Observe what the system is doing.

  The *Display System Activity* dialog provides summary information for questions like:

  - What jobs are active?

  - Are any replies outstanding?

  - What is the current priority order of the partitions?

Considerations When Using the Dialogs

Relative Values

Because the calculations are rounded and based on a short time interval, the values should be considered *indicators* of system use. They should not be used as a precise source of measurement. However, they do give you a good idea of what the system is doing.

Misinterpreting the Data

You should not misinterpret very high or low values. They may be displayed because the time interval is very small. Before you make any decisions, monitor the system for longer periods of time. You should also consider other aspects, such as:

- System response time
- Types of activities in various partitions

For example, if the panel displays CPU use of 100% or more, this does not always mean that the CPU is used too heavily. A batch job may be using large amounts of CPU resources when CICS/DOS/VS does not need it.

Similar situations may also cause very low figures to be displayed.

For VM users, the SIO/Sec rate which the *Display System Activity* dialog calculates may seem unusually high. The dialog calculates the total I/O rate on the system, including unit record virtual I/O. You can specifically monitor disk or tape device activity using the *Display Channel and Device Activity* dialog.

Comparing Similar Workloads

If you compare similar workloads, the values for each may be different. Even if you monitor the same environment twice, the time intervals may be slightly different and display different data.

Effect on the System

When you display system or device information, the dialog itself is using system resources. If there is no other activity on the system, the resources which the dialog is using are shown for the CICS/DOS/VS partition.

If you use a short time interval, the system interaction significantly increases. By using a longer interval (for example, 60 seconds), the interaction is almost negligible and the dialog uses less system resources.

The two dialogs should not be considered as replacements for performance monitoring tools. The type of data which the dialogs display is different. For example, they do not provide:

- Reporting
- Percentage of channel or device use
- SEEK information
- Average time to complete I/O operation
- Average queuing time

The dialogs only help you determine where some problems are. They cannot perform system tuning.

Changing the Display Interval Time

The two dialogs automatically update current activity at specific intervals. You may create new application profiles using the VSE/SP ones as models and:

- Change the default time interval.
- Have the display updated only when ENTER is used.

The "Additional Considerations" section of each dialog description outlines how you change the intervals. If you do this, there are certain things you should consider.

A small interval (15 - 20 seconds) uses more system resources. This affects total system performance. By using a longer time interval (50 - 60 seconds), the dialog uses less resources. The effect on overall performance is low.

If you define the interval as 0, the dialog updates the display only when you press ENTER. In this case, you select each individual time interval. You can press ENTER every minute or every five minutes. The system internally keeps track of system activity from one interval to the next; that is, from the time you first press ENTER until the time you press ENTER again. The dialogs base the calculations on this time interval.

By using ENTER and selecting your own interval, you can monitor a particular job more easily. However, you should be aware that several things may have happened on the system during that time. The next display depends on when you press ENTER. If the interval is long (for example, 10 minutes), several jobs may have completed in various partitions, but this information is not displayed. The beginning and ending values may no longer be valid for all jobs. This can result in invalid calculations and values.

Consider how you want to use the two dialogs before you decide to change the default intervals. Select an interval which is appropriate for your system.

Special Considerations for VM Users

When using the dialogs, VSE accounting support is used. This implies some privileged instruction simulations by VM. However, the data gives you a better overview of the VSE guest virtual machine.

All data is valid, except for data displayed as the number of events per second (for example, SIO/Sec).

The information only describes VSE activity.

- The percentage of CPU use shows what the guest virtual machine (VTIME) used. It does **not** include the time used by CP to service VSE (TTIME-VTIME).

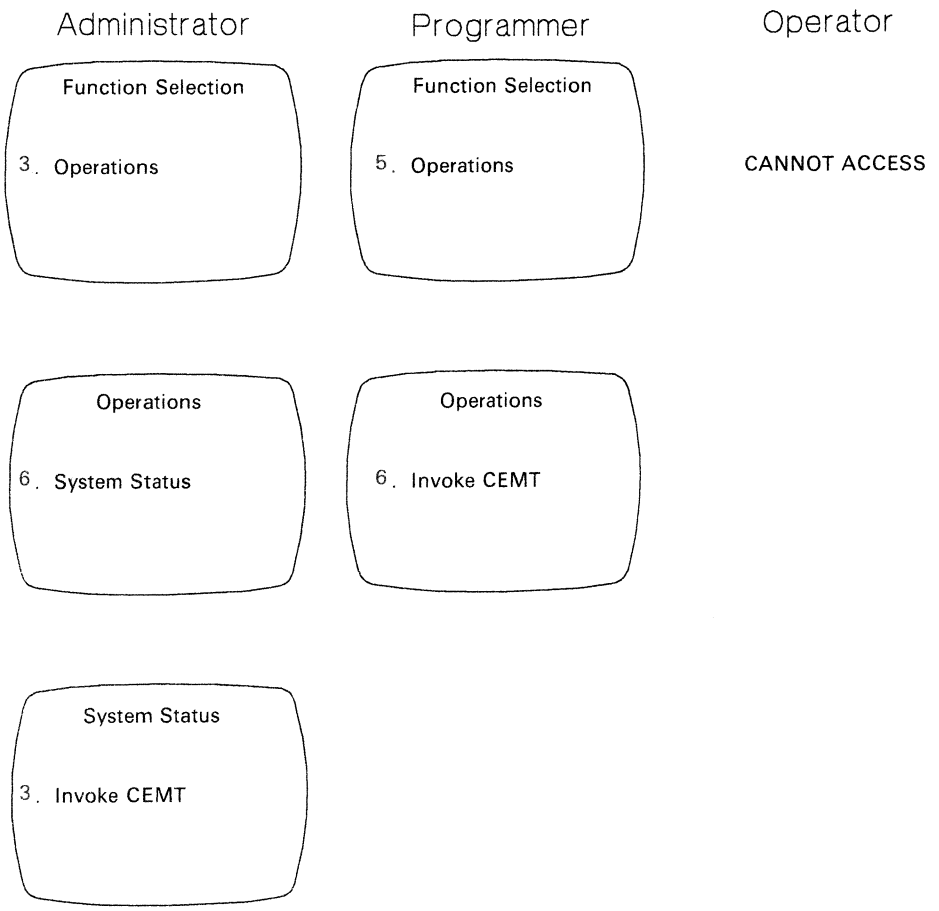
- If the guest VSE virtual machine is in 'V=V' mode of operation, the dialog displays zeros for paging activity. This reflects that only VM handles paging.

Note: When more than one address space is used, it is recommended to set up a VSE production system in 'V=R' mode (part of the machine real storage is dedicated to VSE). In this case, the paging activity data reflects VSE paging.

Invoke CEMT

The *Invoke CEMT* dialog lets you use CICS/DOS/VS master terminal commands from your display terminal. With these commands, you can handle online resources running under the control of CICS/DOS/VS. The resources include online files and programs, display terminals, and terminal printers.

You can access the dialog as follows:



You can enter one of the following:

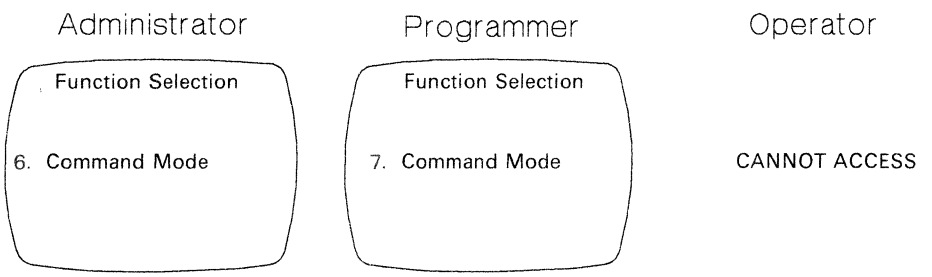
- Add
- Inquire
- Perform
- Remove
- Set

Refer to *CICS/VS Operator's Guide* for information on master terminal commands.

Chapter 21. Command Mode

The *Command Mode* dialog lets you enter VSE/ICCF command mode. It displays a screen and you can enter VSE/ICCF commands.

You can access the dialog as follows:



Enter **/RETURN** to return to the Interactive Interface. You can also return by pressing either **PF3** or **PF4**. These PF keys are set to /RETURN when you enter VSE/ICCF command mode. Using /RETURN gives you better performance.

If you change PF key settings or user profile options while in command mode, you **must** enter **/LOGOFF** to return to the Interactive Interface. If you do not, the Interactive Interface may not operate correctly.

Chapter 22. Backup/Restore

When you *back up* data, you save a copy of the data on magnetic tape. If the data is later damaged on your system, you can *restore* the data to the system by reading the copy from the tape.

At various times, you should back up all or part of your system.

Backing Up the Entire System

You should first back up the entire system immediately after you install VSE/SP. You should also perform a backup before you extend space that is reserved for VSE/VSAM.

Backing Up Parts of the System

Periodically, you should back up different parts of the system. How often you should perform any backups depends on how you use the system and the frequency in which you perform updates. By frequently backing up your data, you can minimize the impact of lost or damaged data.

You should consider backing up the system libraries at various intervals. You should also frequently back up:

- VSE/VSAM files
- VSE/ICCF libraries
- User libraries

If data is lost or damaged, you should restore the libraries and/or files using the backup tapes. After the restore is complete, you can re-enter any changes which were made since the backup was done.

When you back up data, you should carefully label the backup tape. You should destroy any *old* backup copies which you no longer need. This helps ensure that you do not restore an incorrect version of your data.

VSE/SP Files

Besides additional data, there are four VSE/SP files which you should back up.

1. VSE/SP Control File
   You should back up the VSE/SP control file immediately after initial installation and at frequent intervals. The frequency of your backups depends on how much you update user profiles, selection panels, and application profiles using the *User Interface Tailoring* dialogs.

   You can back up the control file in one of three ways:

   - Using the *Backup VSAM File* dialog.
   - Using the *Backup from Disk to Tape* dialog.
   - Using the *File and Catalog Management* dialog.

     In the dialog, you would access selection 1 (*Display or Process a File*). Choose the COPY option.

2. Message File
   You should back up the message file IESMSGS after initial installation. You can back up the file in the same way as the VSE/SP control file.

3. System Text File
   You should back up the system text file IESTRFL after initial installation and at frequent intervals. The file contains Interactive Interface messages and HELP information. It also contains any HELP text which you write and include in the system. How often you back up the file depends on the amount of HELP text you create.

   You can back up the file in the same way as the VSE/SP control file and message file.

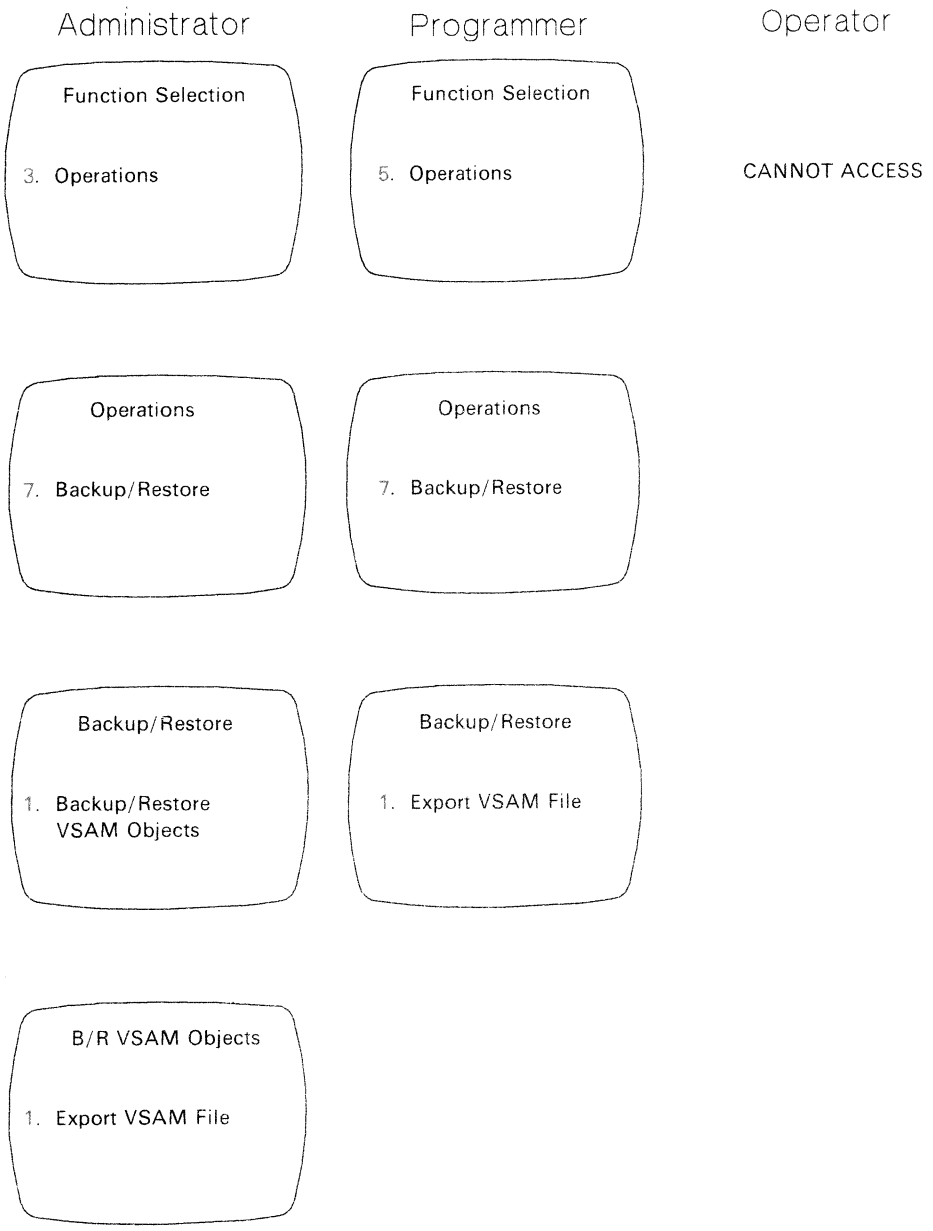
4. VSE/ICCF DTSFILE
   You should back up the DTSFILE after initial installation and at regular intervals. The frequency of backups depends on your system's VSE/ICCF activity.

   You can back up the DTSFILE in one of two ways:

   - Using the *Backup ICCF Library* dialog.
   - Using the *Backup from Disk to Tape* dialog.

Export VSE/VSAM File

The *Export VSAM File* dialog exports VSE/VSAM files. You can access the dialog as follows:



The information you need depends on whether you export a file to disk or tape. The information in "Input for Exporting to Disk or Tape" on page 212 is for both types of export. Following this section is the additional input for exporting to disk or tape.

Input for Exporting to Disk or Tape

If you export a VSE/VSAM file to disk or tape, you need the following information:

IDENTIFICATION
The identification of the VSE/VSAM file you are exporting.

OUTPUT DEVICE TYPE
The type of device to which the file is exported. Specify either the disk type (for example, 3350) or TAPE, if you export to tape.

CATALOG TYPE
Specify where the file is defined.

- MASTER
- USER

If you specify USER, enter the identification of the user catalog which owns the cluster.

READ ONLY ORIGINAL
Specify whether the original VSE/VSAM file should have read access only, after it is exported.

1 - YES (Original is read only)
2 - NO (Original can be accessed for any operation)

READ ONLY COPY
Specify whether the exported copy should have read access only, after it is imported.

1 - YES (Imported copy is read only)
2 - NO (Imported copy can be accessed for any operation)

If you export a file to disk, continue with "Additional Input for Exporting to Disk" on page 213.

If you export a file to tape, continue with "Additional Input for Exporting to Tape" on page 214.

Additional Input for Exporting to Disk

If you export a file to disk, you also need the following information:

STARTING POINT and LENGTH
The starting track (block) and the number of tracks (blocks) for the output file.

The values must be numeric and **cannot** be 0. Figure 33 shows the valid starting points and lengths for each device type.

DEVICE TYPE	VALID STARTING POINTS	VALID LENGTHS
3310	32, 33, ... , 126015	1 - 126015
3330	1, 2, 3, ... , 7675	1 - 7675
3330-11	1, 2, 3, ... , 15351	1 - 15351
3340	1, 2, 3, ... , 8351	1 - 8351
3350	1, 2, 3, ... , 16649	1 - 16649
3370	62, 63, ... , 557999	1 - 557999
3370-2	62, 63, ... , 712751	1 - 712751
3375	1, 2, 3, ... , 11508	1 - 11508
3380	1, 2, 3, ... , 13274	1 - 13274

Figure 33. Valid Starting Points and Lengths for Export to Disk

OUTPUT VOLUME NUMBER
The six character volume number.

RETENTION PERIOD
The number of days (0 - 9999) you want to keep the output file.

FILE IDENTIFICATION
The identification of the output file where you export the VSE/VSAM file.

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

Additional Input for Exporting to Tape

If you export a file to tape, you also need the following information:

ADDRESS
The address (**cuu**) of the tape.

LABEL PROCESS
Specify the type of label processing.

- SLBL (standard labeled)
- NLBL (unlabeled)

VSE/VSAM does not write a tapemark as the first record. If you use an unlabeled tape, you must position the tape where you want the file copied.

REWIND OPTION
Specify:

- REW (Rewind at EOJ)
- NREW (No rewind)
- UNLD (Rewind and unload)

LABEL CHECK
If you enter SLBL for the tape label processing, specify whether you want label checking.

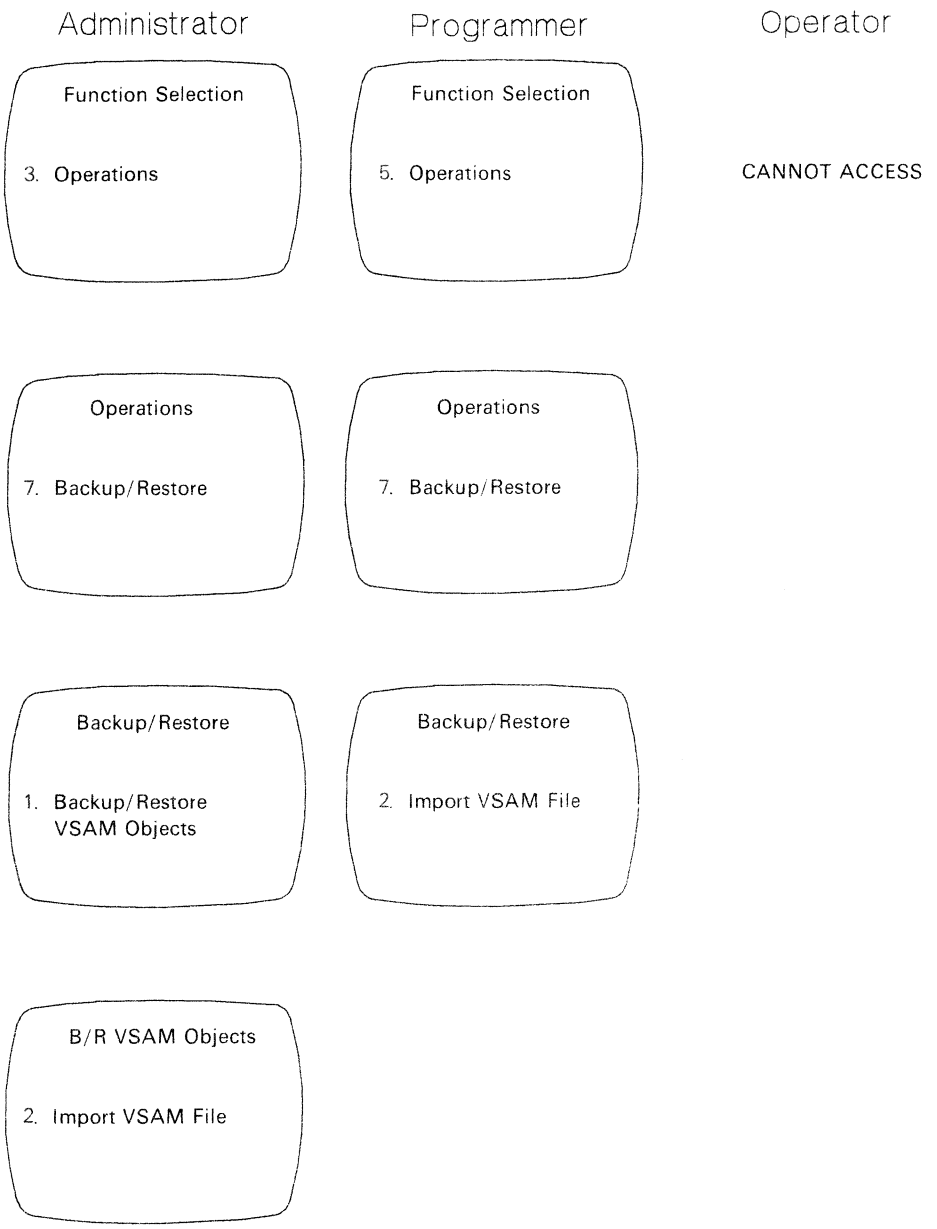
1 - YES (Label is checked)
2 - NO (Label is not checked)

The dialog creates a job with the default name EXPORT. 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 tape. Use the **same** tape address you specify in the dialog.

Import VSE/VSAM File

The *Import VSAM File* dialog imports VSE/VSAM files. You can access the dialog as follows:



The information you need depends on whether you import a file from disk or tape. The information in "Input for Importing from Disk or Tape" on page 216 is for both types of import. Following this section is the additional input for importing from disk or tape.

Input for Importing from Disk or Tape

If you import a VSE/VSAM file from disk or tape, you need the following information:

IDENTIFICATION
The identification of the import file. Specify the same value you used when you exported the file.

FILE TYPE
Specify the type of file:

- KSDS
- ESDS
- RRDS

OUTPUT VOLUME SERIAL
The volume number of the disk where you import the file.

INPUT DEVICE TYPE
Specify:

- Disk
- Tape

NEW CATALOG TYPE
Specify where you are importing the file.

- MASTER
- USER

If you specify USER, enter the identification of the user catalog which owns the cluster.

TYPE OF IMPORT
Specify:

1 - Import with new name
2 - Import with same name (conditional purge)
3 - Import with same name (unconditional purge)

If you enter 1 (import with new name), you need a new file identification.

If you import a file from disk, continue with "Additional Input for Importing from Disk" on page 217.

If you import a file from tape, continue with "Additional Input for Importing from Tape" on page 217.

Additional Input for Importing from Disk

If you import a file from disk, you also need the following information:

IDENTIFICATION
Identification of the disk file where the VSE/VSAM file was exported.

VOLUME SERIAL
Six character volume number of the disk.

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

Additional Input for Importing from Tape

If you import a file from tape, you also need the following information:

ADDRESS
The address (**cuu**) of the tape.

LABEL PROCESS
Specify the type of label processing.

- SLBL (Standard labeled)
- NLBL (Unlabeled)

VSE/VSAM does not write a tapemark as the first record. If you use an unlabeled tape, you must position the tape to where the file is located.

REWIND OPTION
Specify:

- REW (Rewind at EOJ)
- NREW (No rewind)
- UNLD (Rewind and unload)

LABEL CHECK
If you entered SLBL for the type of label processing, specify whether you want label checking.

1 - YES (Label is checked)
2 - NO (Label is not checked)

TAPE VOLUME SERIAL
Six character tape volume number.

TAPE FILE IDENTIFIER
The name of the tape file for the TLBL statement.

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

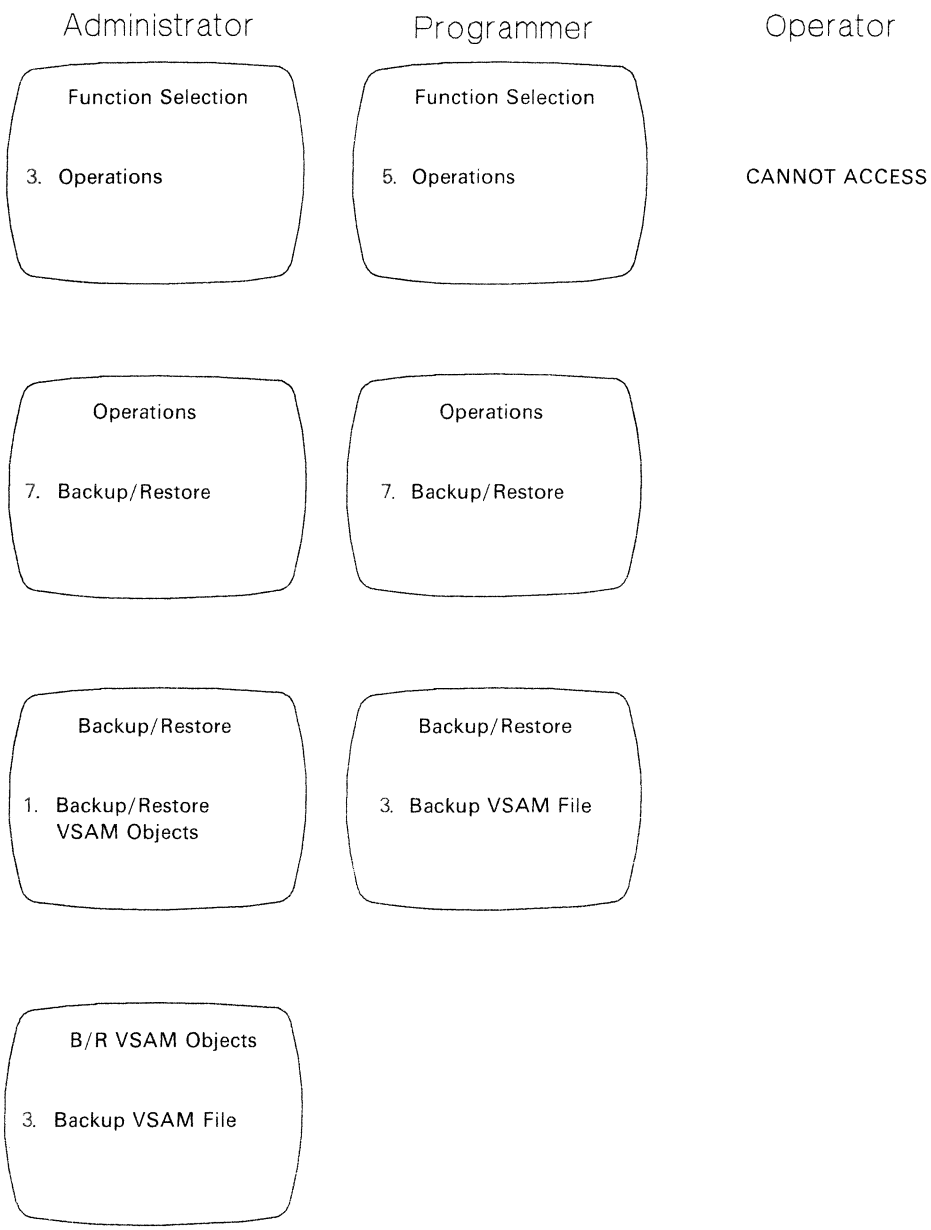
When you submit the job, mount the tape. Use the **same** tape address you specify in the dialog.

Back Up VSE/VSAM File

The *Backup VSAM File* dialog backs up VSE/VSAM files. You can back up all files in a catalog or select the files you want to back up.

You cannot use the VSE/VSAM backup utility to back up a file in VSAM managed space with the record format NOCIFORMAT. Use the *Backup VSE Library on Tape* dialog to back up a library. Refer to "Backup VSE Library" on page 233.

You can access the dialog as follows:



You need the following information:

CATALOG TYPE
Specify where the files are defined:

- MASTER
- USER

If you specify USER, enter the identification of the user catalog.

BACKUP WHOLE CATALOG

Specify whether you want to back up all files or selected files in the catalog.

1 - Back up all files
2 - Back up selected files

If you enter 2, the dialog displays an additional panel. Specify the identification of the individual files you want to back up. You can also enter a generic identification to back up groups of files.

After you specify all your files, enter 2 in the MORE FILES field. The dialog continues.

TAPE ADDRESS

The address (**cuu**) of the tape unit used for the backup.

DENSITY/MODE

For 8809 tape units, enter the mode. For other tape units, specify the density.

TAPE FILE IDENTIFIER

Specify the tape file-id which matches the TLBL statement.

RETENTION PERIOD

The number of days (**0 - 9999**) you want the backup file protected.

VOLUME NUMBER

Specify a volume number for the tape, if one has not been written on the tape.

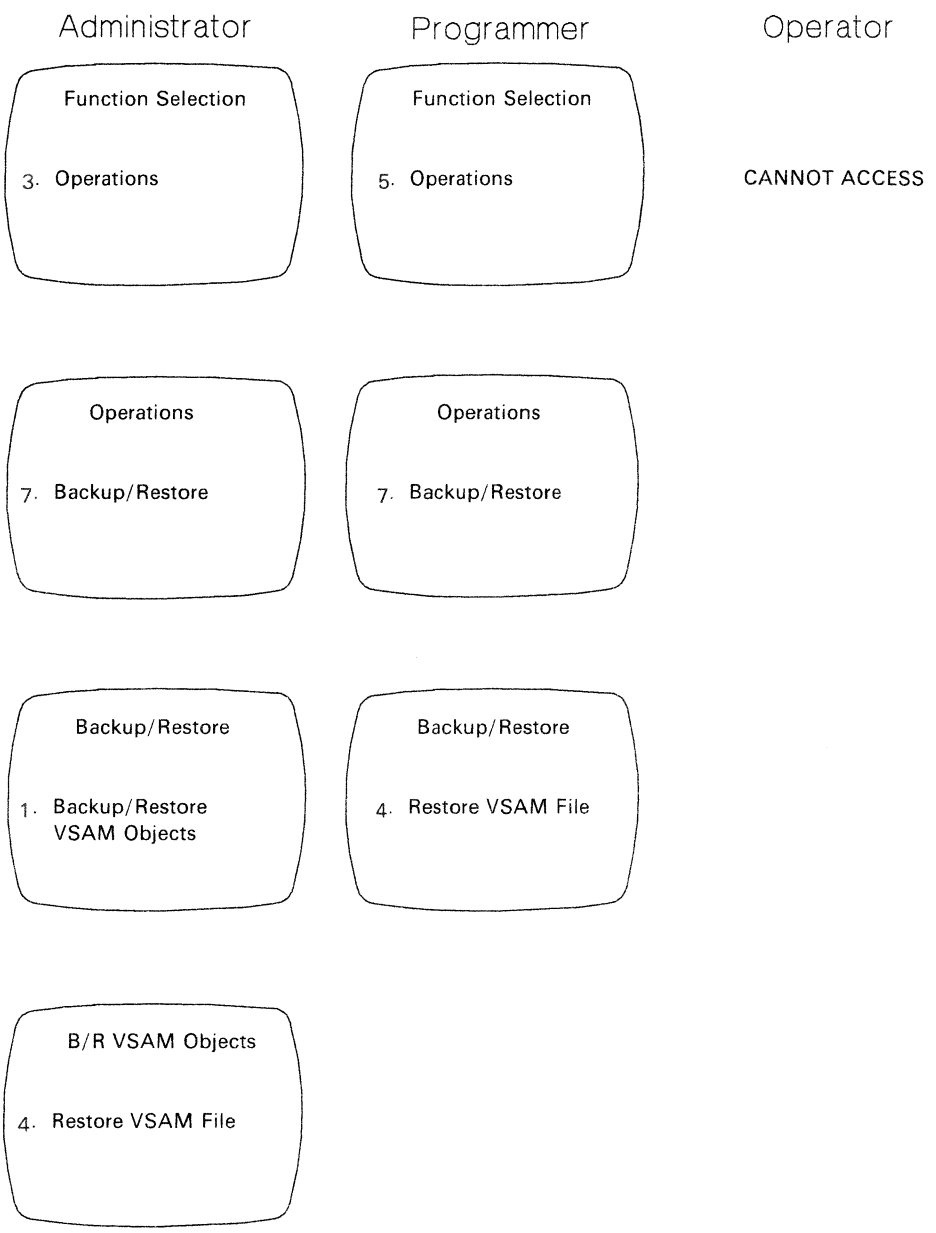
The dialog creates a job with the default name VSAMBKUP. On the JOB DISPOSITION panel, you can submit the job to batch, file it in your default primary library, or both.

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

Restore VSE/VSAM File

The *Restore VSAM File* dialog restores VSE/VSAM files from tape. You can restore all files or select the files you want to restore. You can also restore some or all files to a different volume than the volume from which they were backed up.

You can access the dialog as follows:



The dialog displays different panels depending on the values you specify. For all types of restore, you need the information in "Input for All Types of Restores" on page 222. Following this section is the additional input for restoring all files or selected files.

Input for All Types of Restores

Regardless of whether you restore all or some files or whether you restore files to different volumes, you need the following information:

CATALOG TYPE
Specify where the files will be defined.

- MASTER
- USER

If you specify USER, enter the identification of the user catalog.

TAPE ADDRESS
The address (**cuu**) of the tape unit used for the restore.

DENSITY/MODE
For 8809 tape units, enter the mode. For other tape units, specify the density.

TAPE REEL
This field is optional. Specify the six character external tape label.

TAPE FILE IDENTIFIER
Specify the name corresponding to the file-id on the TLBL statement.

RESTORE ALL
Specify whether you want to restore all files on the tape or you want to select the files.

- **1** - Restore all files
  Refer to "Additional Input for Restoring All Files."

- **2** - Restore selected files
  Refer to "Additional Input for Restoring Selected Files" on page 223.

Additional Input for Restoring All Files

If you restore all files, specify the volume number of the disk where all the files will be restored. If you do not specify this, the dialog restores each file to the disk it resided in when it was backed up.

The dialog creates a job with the default name VSMREST. 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 tape. Use the **same** tape address you specify in the dialog.

Additional Input for Restoring Selected Files

If you select the files, you can restore some or all files to different volumes. A panel displays the CHANGE VOLUME field. You have three choices.

1. Press ENTER.

   The dialog restores each file you select to the same volume it resided in when it was backed up.

   Specify the identification of each individual file or the generic identification for a group of files.

2. Enter 1.

   You can specify the volume where **all** files you select are restored. You need:

   - VOLUME NUMBER
   - IDENTIFICATION
     Identification of each file or generic identification for a group of files you want restored.

3. Enter 2.

   If you choose this option, you can:

   a. Restore **some** files to a different volume.

   b. Move a file's data component to a different volume than the index component.

   Specify the files you want restored. Enter individual file-ids or a generic identification for a group of files. Indicate whether you want separate volumes for the data and index components. This is valid for key sequenced data sets (KSDS) or alternate indexes (AIX). The panel is redisplayed until you indicate you have no more files to restore.

   Enter the new volume number(s) for the files.

The dialog creates a job with the default name VSMREST. 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 tape. Use the **same** tape address you specify in the dialog.

Transport Catalog

The *Transport Catalog* dialog:

- Exports a catalog to another system.
- Imports a catalog from another system.

You can access the dialog as follows:

Administrator	Programmer	Operator
Function Selection 3. Operations	CANNOT ACCESS	CANNOT ACCESS

Operations

7. Backup/Restore

Backup/Restore

1. Backup/Restore VSAM Objects

B/R VSAM Objects

5. Transport Catalog

A panel displays two selections:

1. Export Disconnect a User Catalog

   You only need the identification of the user catalog you want to export.

2. Import Connect a User Catalog

   You need the following information:

   - VOLUME NUMBER
     Six character volume number of the disk where the catalog resides.

   - DEVICE TYPE
     Specify 3310, 3330, 3330-11, 3340, 3350, 3370, 3370-2, 3375, or 3380.

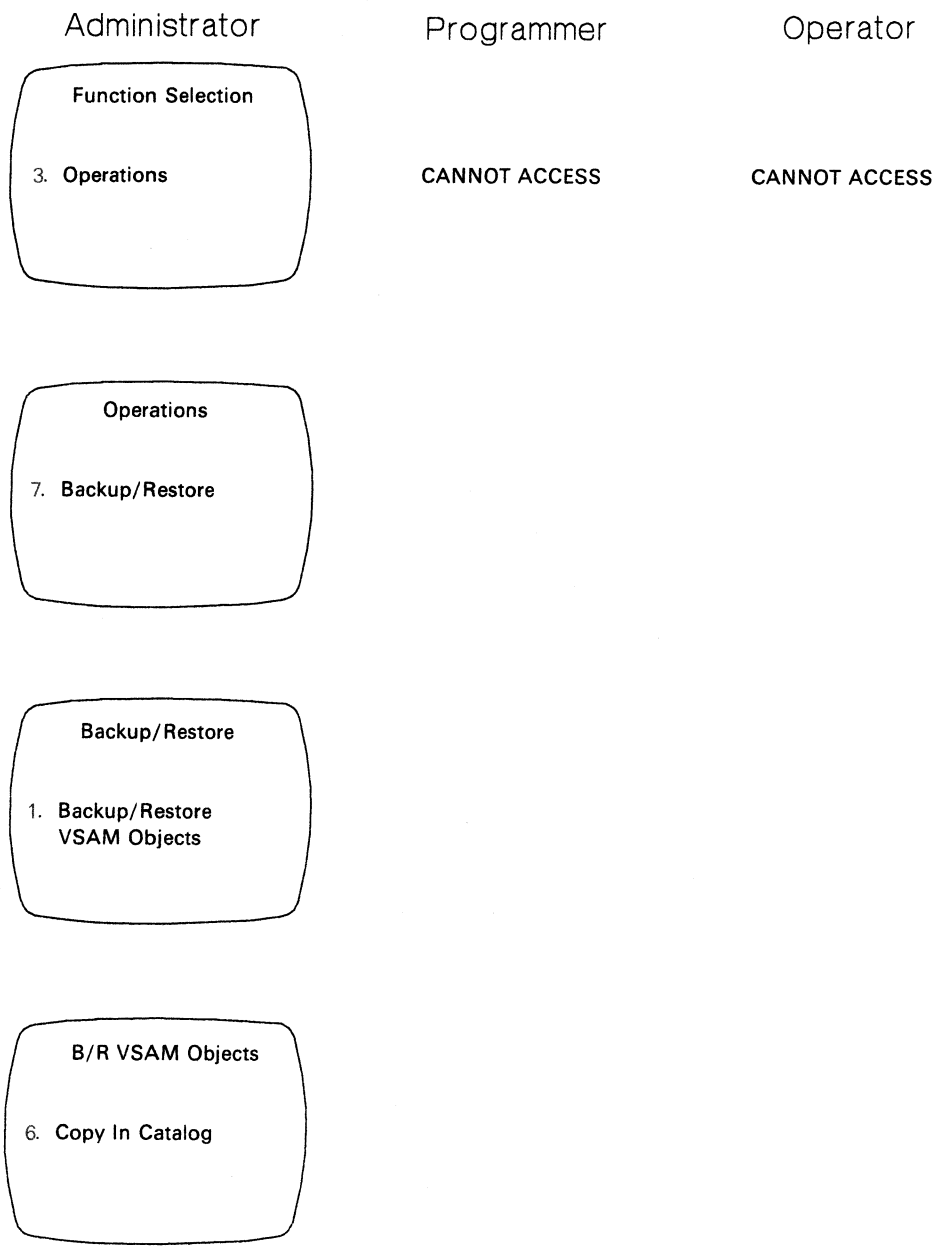
     For 3333-1 devices, specify **3330**. For 3333-11 devices, specify **3330-11**. For each logical volume of the 3344 device, specify **3340**.

   - CATALOG IDENTIFICATION

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

Copy In Catalog

The *Copy In Catalog* dialog restores either the master catalog or a user catalog from tape or disk. You can access the dialog as follows:



A panel displays four selections:

1. Restore the master catalog from tape
2. Restore the master catalog from disk
3. Restore an user catalog from tape
4. Restore an user catalog from disk

The input you need differs depending on whether you are restoring the catalog from disk or tape. The two methods are described below.

Restore Master or User Catalog from Tape

If you restore the master catalog or a user catalog from tape (selections 1 or 3), you need the following information:

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

LABEL PROCESS
Specify the type of label processing.

- SLBL (Standard labeled)
- NLBL (Unlabeled)

REWIND OPTION
Specify:

- REW (Rewind at beginning and end of job)
- NREW (No rewinding at either beginning or end of job)
- UNLD (Rewind at beginning, rewind and unload at end of job)

If VSE Access Control is installed, you must specify REW for unlabeled tapes.

LABEL CHECK
If you enter SLBL for the tape label processing, specify whether you want label checking.

1 - YES (Label is checked)
2 - NO (Label is not checked)

VOLUME NUMBER
The six character volume number of the tape.

TAPE FILE IDENTIFIER
Specify the name of the tape output file.

CATALOG IDENTIFICATION
You need this if you restore a user catalog. Specify the identification of the user catalog.

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

Restore Master or User Catalog from Disk

If you restore the master catalog or a user catalog from disk (selections 2 or 4), you need the following information:

VOLUME NUMBER
The six character volume number of the disk where the backup copy of the catalog resides.

FILE ID
Identification of the disk file which contains the backup copy.

CATALOG IDENTIFICATION
You need this if you restore a user catalog. Specify the identification of the user catalog.

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

Copy Out Catalog

The *Copy Out Catalog* dialog backs up either the master catalog or a user catalog to tape or disk. You can access the dialog as follows:

Administrator	Programmer	Operator
Function Selection 3. Operations	CANNOT ACCESS	CANNOT ACCESS

Operations

7. Backup/Restore

Backup/Restore

1. Backup/Restore VSAM Objects

B/R VSAM Objects

7. Copy Out Catalog

A panel displays four selections:

1. Backup the master catalog to tape
2. Backup the master catalog to disk
3. Backup an user catalog to tape
4. Backup an user catalog to disk

The input you need differs depending on whether you back up the catalog to disk or tape. The two methods are described below.

Back Up Master or User Catalog to Tape

If you back up the master catalog or a user catalog to tape (selections 1 or 3), you need the following information:

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

LABEL PROCESS
Specify the type of label processing.

- SLBL (Standard labeled)
- NLBL (Unlabeled)

AMS does not write a tapemark as the first record. A data record is written where the tape is positioned.

REWIND OPTION
Specify:

- REW (Rewind at EOJ)
- NREW (No rewind)
- UNLD (Rewind and unload)

If VSE Access Control is installed, you must specify **REW** for unlabeled tapes.

LABEL CHECK
If you enter SLBL for the tape label processing, specify whether you want label checking.

1 - YES (Label is checked)
2 - NO (Label is not checked)

VOLUME NUMBER
The six character volume number of the tape.

TAPE FILE IDENTIFIER
Specify the name of the tape output file.

CATALOG IDENTIFICATION
You need this if you back up a user catalog. Specify the identification of the user catalog.

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

Back Up Master or User Catalog to Disk

If you back up the master catalog or a user catalog to disk (selections 2 or 4), you need the following information:

OUTPUT VOLUME NUMBER
The six character volume number of the disk where the backup copy will reside.

DEVICE TYPE
Specify 3310, 3330, 3330-11, 3340, 3350, 3370, 3370-2, 3375, or 3380.

For 3333-1 devices, specify **3330**. For 3333-11 devices, specify **3330-11**. For each logical volume of the 3344 device, specify **3340**.

STARTING POINT and LENGTH
The starting track (block) and the number of tracks (blocks) to be allocated for the catalog. Figure 34 shows the valid starting points and lengths for each device type.

DEVICE TYPE	VALID STARTING POINTS	VALID LENGTHS
3310	352, 704, 1056, ... , 125664	1 - 125664
3330	19, 38, 57, ... , 7657	1 - 403
3330-11	19, 38, 57, ... , 15333	1 - 807
3340	12, 24, 36, ... , 8340	1 - 695
3350	30, 60, 90, ... , 16620	1 - 554
3370	744, 1488, 2232, ... , 557256	1 - 557256
3370-2	744, 1488, 2232, ... , 712008	1 - 712008
3375	12, 24, 36, ... , 11496	1 - 958
3380	15, 30, 45, ... , 13260	1 - 884

Figure 34. Valid Starting Points and Lengths for Copying Out Catalog

RETENTION PERIOD
Specify the number of days (**0 - 9999**) or the expiration date. For expiration date, the format is **YY/DDD**, where YY is the year and DDD is the day of the year.

FILE ID
Identification of the disk output file.

CATALOG IDENTIFICATION
You need this if you back up a user catalog. Specify the identification of the user catalog.

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

Backup VSE Library

The *Backup VSE Library on Tape* dialog backs up VSE libraries from disk to tape. You can back up either libraries or sublibraries.

You can access the dialog as follows:

Administrator	Programmer	Operator
Function Selection 3. Operations	CANNOT ACCESS	CANNOT ACCESS

Operations
7. Backup/Restore

Backup/Restore
2. Backup/Restore Library Objects

B/R Library Objects
1. Backup VSE Library on Tape

Specify the library (sublibrary) you want to back up. You can back up several libraries or sublibraries in the same step. Type in the name(s) and press **ENTER**. The dialog stores the information and redisplays the panel. Specify the next entry.

When you finish, press **PF6** to process the information. The dialog continues and displays the next panel.

For a single backup task, you can specify several libraries or sublibraries. However, you **cannot** mix them. You have to back up either entire libraries **or** sublibraries.

You need the following information:

LIBRARY NAME
The name of the library you want to back up. If you back up a sublibrary, this is the first qualification level.

SUBLIBRARY NAME
The name of the sublibrary you want to back up. If you leave this field blank, the dialog backs up the entire library.

IDENTIFICATION
This is the *mnemonic ID*. It identifies the backup when it is restored. The restore process checks for the ID, if you specify it.

TAPE ADDRESS
The address (**cuu**) of the tape unit used for the backup.

DENSITY/MODE
For 8809 tape units, enter the mode. For other tape units, specify the density.

TAPE REEL
This identifies the tape. The job has comments and a PAUSE statement requesting that the tape with this ID is mounted. The tape must be unlabeled.

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

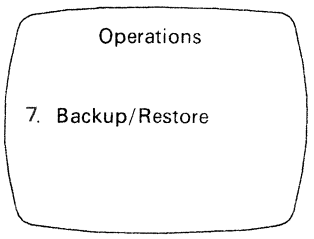
When you submit the job, mount the backup tape. Use the **same** tape address you specify in the dialog.

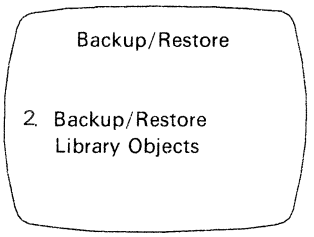
Restore VSE Library

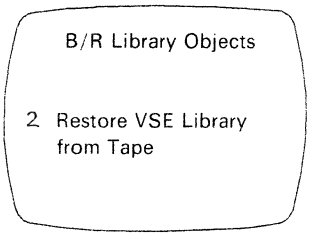
The *Restore VSE Library from Tape* dialog restores VSE libraries from tape to disk. You can restore libraries, sublibraries, or members.

You can access the dialog as follows:

Administrator	Programmer	Operator
Function Selection 3. Operations	CANNOT ACCESS	CANNOT ACCESS







Specify the library (sublibrary or member) you want to restore. You can restore several libraries, sublibraries, or members in the same step. Type in the name(s) and press **ENTER**. The dialog stores the information and redisplays the panel. Specify the next entry.

When you finish, press **PF6** to process the information. The dialog continues and displays the next panel.

For a single restore task, you can specify several libraries, sublibraries, or members. However, you **cannot** mix them. You have to restore either entire libraries, sublibraries, **or** members only.

You need the following information:

LIBRARY NAME
The name of the library you want to restore. If you restore a sublibrary or members, this is the first qualification level.

If you enter an asterisk (*), the dialog restores all libraries or sublibraries on the backup tape. In this case, you cannot specify sublibrary or member names.

If you enter 1 (YES) in the OLD FORMAT field, you can **only** enter a library name on the panel. The OLD FORMAT field is described below.

If the library does not exist, it will be created if a label exists for the library.

SUBLIBRARY NAME
The name of the sublibrary you want to restore. If you leave this field blank, the dialog restores the entire library.

If you restore a sublibrary with the same name as an existing sublibrary, the existing sublibrary is overwritten.

If the sublibrary does not exist, it will be created if the library exists.

MEMBER NAME/MEMBER TYPE
This identifies the member you want to restore. It is qualified by the library and sublibrary names. If you leave this field blank, the dialog restores the entire sublibrary (library).

IDENTIFICATION
This is the *mnemonic ID* that identified the library when it was backed up. The restore process checks for the ID, if it was specified.

If you enter 1 (YES) in the OLD FORMAT field, you **cannot** enter a value in this field. The OLD FORMAT field is described below.

NEWNAME
Specify whether you want to restore the library and/or sublibrary under a new name.

1 - YES
2 - NO

If you specify 1 (YES), the dialog displays a second panel. Enter the new name for the library (sublibrary). If you only specify a library name on the first panel, you **cannot** enter a new sublibrary name on the second panel.

If you enter 1 (YES) in the OLD FORMAT field, you **cannot** enter 1 (YES) in this field. The OLD FORMAT field is described below.

LIST

Specify whether you want a listing of the restored library, sublibrary, or member(s).

1 - YES
2 - NO

OLD FORMAT

If the tape you restore was created using the BACKUP function (pre-Version 2 VSE/Advanced Functions), you **must** enter 1 (YES). Otherwise, enter 2 (NO).

If you enter 1 (YES), consider the following:

1. You can only enter a library name on the panel. Do **not** enter a sublibrary or member name.

2. You **cannot** specify a value for the IDENTIFICATION field on the panel.

3. You **cannot** enter 1 (YES) for the NEWNAME field. You must enter 2 (NO).

4. You must specify a new library structure. The dialog displays a second panel. You **must** enter a sublibrary name. You cannot change the name of the library.

TAPE ADDRESS

The address (**cuu**) of the tape unit used for the restore.

TAPE REEL

This identifies the tape. Specify the same value that was used when the library was backed up. The job has comments and a PAUSE statement requesting that you mount the tape with this ID.

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

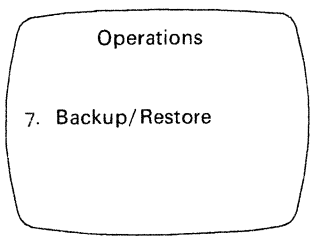
When you submit the job, mount the backup tape. Use the **same** tape address you specify in the dialog.

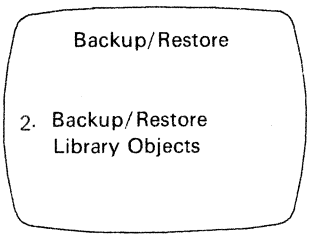
Scan VSE Library Backup Tape

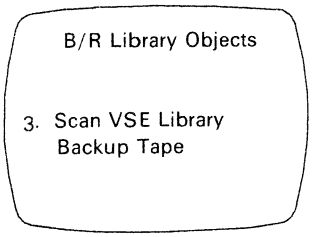
The *Scan VSE Library Backup Tape* dialog scans a tape containing the backup of a VSE library. It prints information about the contents of the tape on the system printer.

You can access the dialog as follows:

Administrator	Programmer	Operator
Function Selection 3. Operations	CANNOT ACCESS	CANNOT ACCESS







Specify the library (sublibrary or member) you want to scan. You can scan several libraries, sublibraries, or members in the same step. Type in the name(s) and press **ENTER**. The dialog stores the information and redisplays the panel. Specify the next entry.

When you finish, press PF6 to process the information. The dialog continues and displays the next panel.

For a single scan task, you can specify several libraries, sublibraries, or members. However, you **cannot** mix them. You can scan either entire libraries, sublibraries, **or** members only.

You need the following information:

LIBRARY NAME
The name of the library you want to scan. If you scan a sublibrary or members, this is the first qualification level.

If you enter an asterisk (*), the dialog scans all libraries and sublibraries on the backup tape. In this case, you cannot specify sublibrary or member names.

If you enter 1 (YES) in the OLD FORMAT field, you can **only** enter a library name on the panel. The OLD FORMAT field is described below.

SUBLIBRARY NAME
The name of the sublibrary you want to scan. If you leave this field blank, the dialog scans the entire library.

MEMBER NAME/MEMBER TYPE
This identifies the member you want to scan. It is qualified by the library and sublibrary names. If you leave this field blank, the dialog scans the entire sublibrary (library).

IDENTIFICATION
This is the *mnemonic ID* that identified the library when it was backed up. The scan process checks for the ID, if it was specified.

If you enter 1 (YES) in the OLD FORMAT field, you **cannot** enter a value in this field. The OLD FORMAT field is described below.

OLD FORMAT
If the tape you scan was created using the BACKUP function (pre-Version 2 VSE/Advanced Functions), you **must** enter 1 (YES). Otherwise, enter 2 (NO).

If you enter 1 (YES), consider the following:

1. You can only enter a library name on the panel. Do **not** enter a sublibrary or member name.

2. You **cannot** specify a value for the IDENTIFICATION field on the panel.

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

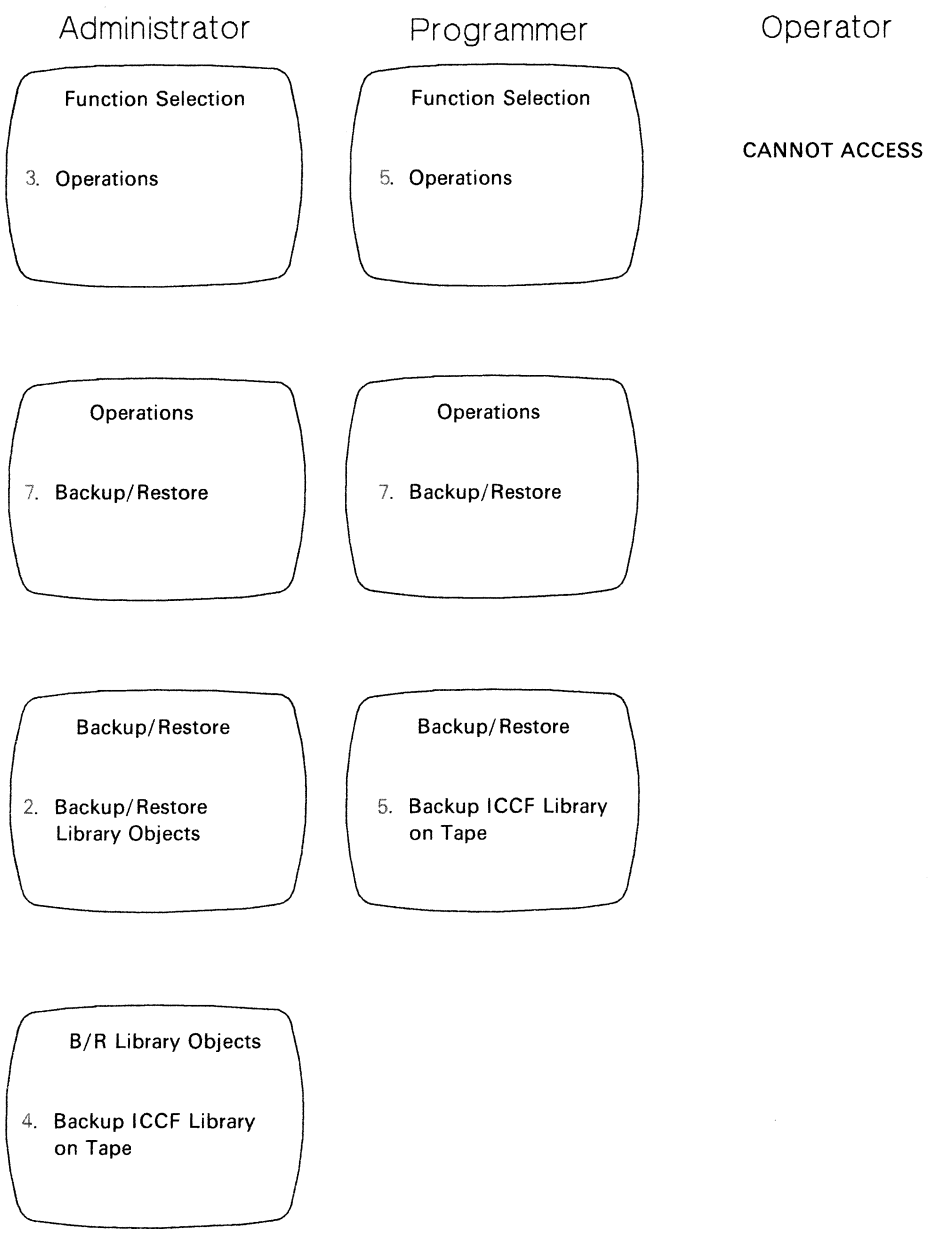
TAPE REEL
This identifies the tape. Specify the same value that was used when the library was backed up. The job has comments and a PAUSE statement requesting that you mount the tape with this ID.

The dialog creates a job with the default name LIBSCN. 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 backup tape you want to scan. Use the **same** tape address you specify in the dialog.

Backup VSE/ICCF Library

The *Backup ICCF Library on Tape* dialog backs up VSE/ICCF libraries from disk to tape. You can access the dialog as follows:



A panel displays three selections:

- Backup all ICCF libraries on tape
- Archive all ICCF libraries on tape
- Export library members on tape

Back Up All VSE/ICCF Libraries on Tape

This task backs up an entire VSE/ICCF library to tape. The job that the dialog creates can only run when VSE/ICCF is **not** active. The job contains a PAUSE statement to let you disconnect the DTSFILE.

You need the following information:

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

DENSITY/MODE
For 8809 tape units, enter the mode. For other tape units, specify the density.

TAPE VOLUME ID
The label that is written on the tape. It uniquely identifies the tape and provides protection. When the job runs, it checks the label to make sure you mounted the correct tape.

You should write the ID on the tape reel itself, so you can easily locate it. The job has comments and a PAUSE statement requesting that you mount the tape with this ID.

You should also write down the ID you use. You need to know it, when you restore the tape.

TAPE FILE ID
This is an optional name associated with the tape file. It can protect the file from being overwritten and helps ensure that the correct file is processed.

You should write down the ID that you enter. You need to know it, when the file is processed.

The dialog creates a job with the default name ICFSAV. 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 backup tape. Use the **same** tape address you specify in the dialog.

The job can only run when VSE/ICCF is **not** active. The job has a PAUSE statement so that you can disconnect the DTSFILE.

Archive All VSE/ICCF Libraries on Tape

This task is a different form of a backup task. It merges an entire VSE/ICCF library with members on a previous backup tape that are not in the VSE/ICCF library to a new backup tape. The new backup tape is an updated version of the previous backup.

By using this dialog, you can keep copies of inactive VSE/ICCF members on a backup tape, when you do not need them online. This can help save library space. You can restore members from the tape using the *Restore ICCF Library from Tape* dialog.

You need two tape units for this task; one for the input tape and another unit for the output tape. The input tape is the tape that contains the previous backup. The output tape is the new backup tape which the dialog creates.

The dialog displays two panels for you to enter information about the tapes. On the DEFINE INPUT TAPE panel, enter the values for the input tape. On the DEFINE OUTPUT TAPE panel, specify the values for the output tape.

The job can only run when VSE/ICCF is **not** active. The job contains a PAUSE statement to let you disconnect the DTSFILE.

You need the following information:

TAPE ADDRESS
The address (**cuu**) of both tape units for the input and output tapes.

DENSITY/MODE
Enter the density or mode for both tape units.

For 8809 tape units, enter the mode. For other tape units, specify the density.

TAPE VOLUME ID
Enter the tape label for both the input and output tapes.

For the input tape, this is the label that was written on the tape when it was backed up.

For the output tape, this specifies the label that is written on the new backup tape. It uniquely identifies the tape and provides protection. It is recommended that you write the ID on the tape reel itself, so you can easily locate it. You should also write down the ID you use. You need to know it, when you restore the tape.

The job has comments and a PAUSE statement requesting that you mount the tapes with these IDs. It checks both labels to make sure you mounted the correct tapes.

TAPE FILE ID
This is an optional name associated with the tape file.

For the input tape, enter the name that was used when the tape was backed up, if one was specified.

For the output tape, you can specify an ID. It can protect the file from being overwritten and helps ensure that the correct file is processed. It is recommended that you write down the ID that you enter. You need to know it, when the file is processed.

The dialog creates a job with the default name ICFSAV. 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 both tapes. Use the **same** tape addresses you specify in the dialog.

The job can only run when VSE/ICCF is **not** active. The job has a PAUSE statement so that you can disconnect the DTSFILE.

Export Library Members on Tape

This task backs up VSE/ICCF library members on tape so you can *import* them into another system.

It writes control statements on the tape which identifies the members and the VSE/ICCF library in which they reside. You can only use one reel of tape for this task.

The output data includes the library name(s), member names, and member data. Because this information is available on the tape, you do not have to specify it when you import the members. When you import them into another system, you could have problems with imported and existing library members having the same name. One way to avoid members being overwritten is to use a specific library in each system to temporarily store all members that are being moved from one system to another.

On the first panel, enter the following information:

TAPE ADDRESS
The address (**cuu**) of the tape unit used for the export.

DENSITY/MODE
For 8809 tape units, enter the mode. For other tape units, specify the density.

TAPE REEL IDENTIFIER
Specify an identifier that recognizes the tape reel that is processed. This value is **not** related to the tape label. A tape label is **not** used for this task.

It is recommended that you write the ID on the outside of the tape reel. This helps the operator locate the correct tape. The job has comments and a PAUSE statement requesting that you mount the tape with this ID.

You should also write down the name you use. You need to know it when you import the members into another system.

On the second panel, specify the VSE/ICCF library and the names of up to ten members you want to export. Enter your data and press ENTER. The dialog redisplays the panel. You can specify additional member names in the same library or in a different library.

When you finish, leave the fields for the member names **blank** and press ENTER. The dialog then continues.

You need the following information:

LIBRARY NUMBER
The number of the library where the members are stored.

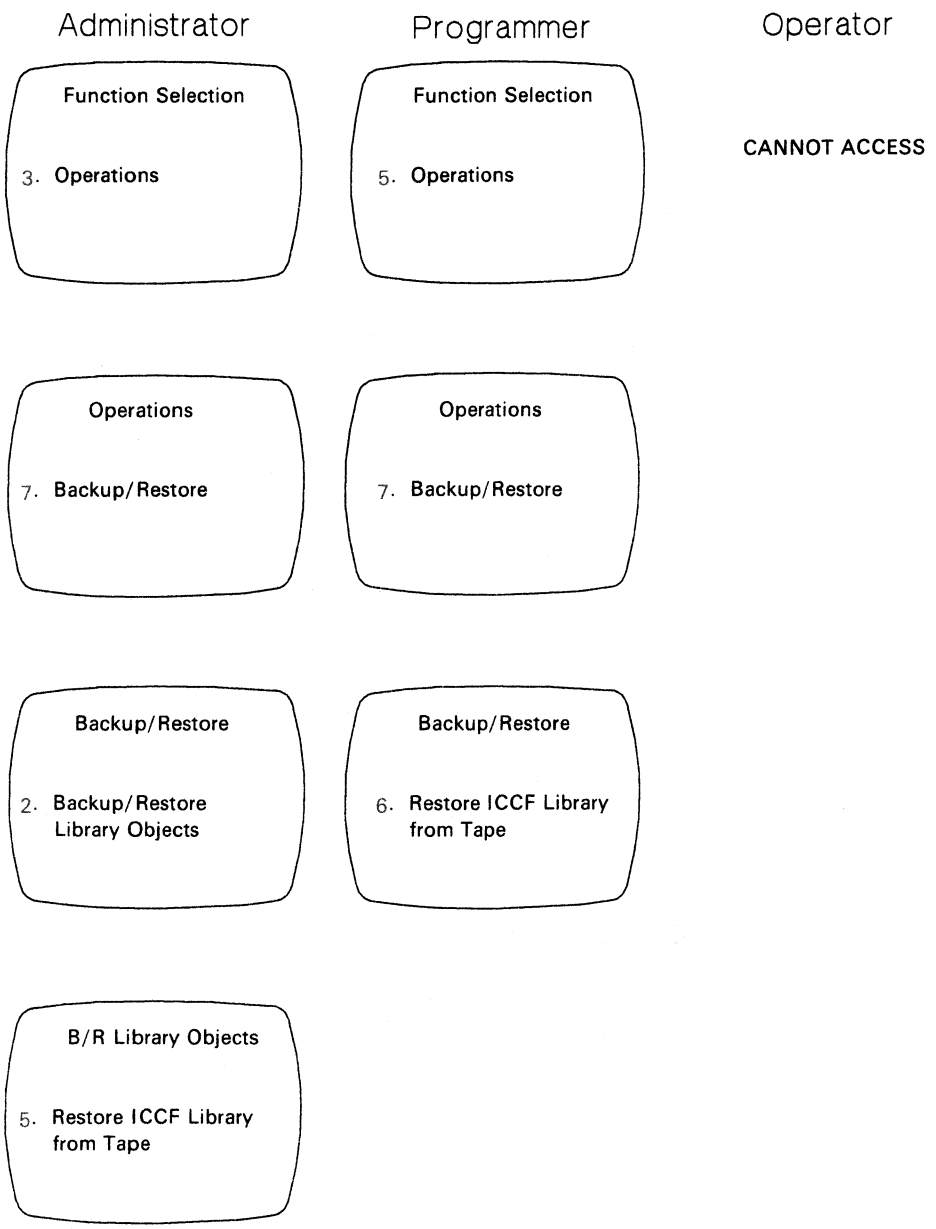
MEMBER NAME
There are ten fields at the bottom of the panel. Enter up to ten names of the members you want to export.

The dialog creates a job with the default name ICFSAV. 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 tape. Use the **same** tape address you specify in the dialog.

Restore VSE/ICCF Library

The *Restore ICCF Library from Tape* dialog restores VSE/ICCF libraries from tape to disk. You can access the dialog as follows:



A panel displays four selections:

1. Restore the DTSFILE (all ICCF libraries)
2. Restore one ICCF library
3. Restore a member of an ICCF library
4. Import library members from an "export" tape

Restore the DTSFILE (All VSE/ICCF Libraries)

This task restores all VSE/ICCF libraries from a backup tape (the DTSFILE). The job that the dialog creates can only run when VSE/ICCF is **not** active. The job contains a PAUSE statement to let you disconnect the DTSFILE.

You need the following information:

TAPE ADDRESS
The address (**cuu**) of the tape unit used for the restore.

TAPE VOLUME ID
The label that was written on the tape when it was backed up. The job has comments and a PAUSE statement requesting that you mount the tape with this ID. It checks the label to make sure you mounted the correct tape.

TAPE FILE ID
This is an optional name associated with the tape file. Enter the name that was used when the tape was backed up, if one was specified.

The dialog creates a job with the default name ICFRES. 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 backup tape. Use the **same** tape address you specify in the dialog.

The job can only run when VSE/ICCF is **not** active. The job has a PAUSE statement so that you can disconnect the DTSFILE.

Restore One VSE/ICCF Library

This task restores an entire VSE/ICCF library from a backup tape. The dialog creates a job that can only run when VSE/ICCF is **not** active. The job contains a PAUSE statement to let you disconnect the DTSFILE.

If the tape you restore was created using the *Archive* function, it contains both active and inactive copies of library members.

Inactive copies are members that were **not** resident in the VSE/ICCF library when the archiving was done. They were copied from the previous backup tape.

Active copies are members that **were** resident in the VSE/ICCF library when the archiving was done. They were copied directly from the VSE/ICCF library.

This task restores the active VSE/ICCF members **only**. You can restore inactive members using selection number 3 (*Restore a Member of an ICCF Library*) of the *Restore ICCF Library from Tape* dialog.

You need the following information:

TAPE ADDRESS
The address (**cuu**) of the tape unit used for the restore.

TAPE VOLUME ID
The label that was written on the tape when it was backed up. The job has comments and a PAUSE statement requesting that you mount the tape with this ID. It checks the label to make sure you mounted the correct tape.

TAPE FILE ID
This is an optional name associated with the tape file. Enter the name that was used when the tape was backed up, if one was specified.

LIBRARY ON TAPE
Enter the number of the library you want restored from the tape.

RECEIVING LIBRARY
Enter the number of the library into which the data is to be restored. If you leave this field blank, the dialog restores the data into the library specified in the LIBRARY ON TAPE field.

The dialog creates a job with the default name ICFRES. 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 backup tape. Use the **same** tape address you specify in the dialog.

The job can only run when VSE/ICCF is **not** active. The job has a PAUSE statement so that you can disconnect the DTSFILE.

Restore a Member of a VSE/ICCF Library

This task restores a VSE/ICCF member from a backup tape. The dialog creates a job that can only run when VSE/ICCF is **not** active. It contains a PAUSE statement to let you disconnect the DTSFILE.

You need the following information:

TAPE ADDRESS
The address (**cuu**) of the tape unit used for the restore.

TAPE VOLUME ID
The label that was written on the tape when it was backed up. The job has comments and a PAUSE statement requesting that you mount the tape with this ID. It checks the label to make sure you mounted the correct tape.

TAPE FILE ID
This is an optional name associated with the tape file. Enter the name that was used when the tape was backed up, if one was specified.

MEMBER NAME
Enter the name of the member you want restored from the tape.

RECEIVING LIBRARY
Enter the number of the library into which the member is to be restored.

If you leave this field blank, the dialog restores the member into the library it was in when it was backed up. If the library does **not** exist anymore, you **must** specify the receiving library.

The dialog creates a job with the default name ICFRES. 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 backup tape. Use the **same** tape address you specify in the dialog.

The job can only run when VSE/ICCF is **not** active. It has a PAUSE statement so that you can disconnect the DTSFILE.

Import Library Members from an Export Tape

This task loads VSE/ICCF library members that were written on tape using the *Export* function. You can load the members into one or more VSE/ICCF libraries. The dialog creates a job that can only run when VSE/ICCF is **not** active. It has a PAUSE statement to let you disconnect the DTSFILE.

The export tape includes data that identifies the library and member names. The dialog loads them with the same names they had in the original system. You should make sure that any existing VSE/ICCF members are not overwritten. One way to avoid problems is to use a specific library in the system to temporarily store all members that are being moved from one system to another.

You need the following information:

TAPE ADDRESS
The address (**cuu**) of the tape unit used for the import.

TAPE VOLUME NUMBER
Specify the identifier that was used when the tape was exported.

This identifier recognizes the tape reel that is processed. This value is **not** related to the tape label. A tape label is **not** used for this task.

The volume number helps the operator locate the correct tape. The job has comments and a PAUSE statement requesting that you mount the tape with this ID.

The dialog creates a job with the default name ICFRES. 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 tape. Use the **same** tape address you specify in the dialog.

The job can only run when VSE/ICCF is **not** active. It has a PAUSE statement so that you can disconnect the DTSFILE.

Back Up or Restore History File

The Interactive Interface has two dialogs to backup or restore the system history file:

1. *Backup History File*
2. *Restore History File*

You can access the dialogs as follows:

Administrator	Programmer	Operator
Function Selection 3. Operations	CANNOT ACCESS	CANNOT ACCESS

Operations

7. Backup/Restore

Backup/Restore

3. Backup History File
4. Restore History File

For either dialog, you only have to enter the tape unit address (**cuu**).

The backup dialog creates a job with the default name BACKUP. The restore dialog creates a job with the default name RESTORE.

On the JOB DISPOSITION panel, you can submit the job to batch, file it in your default primary library, or both.

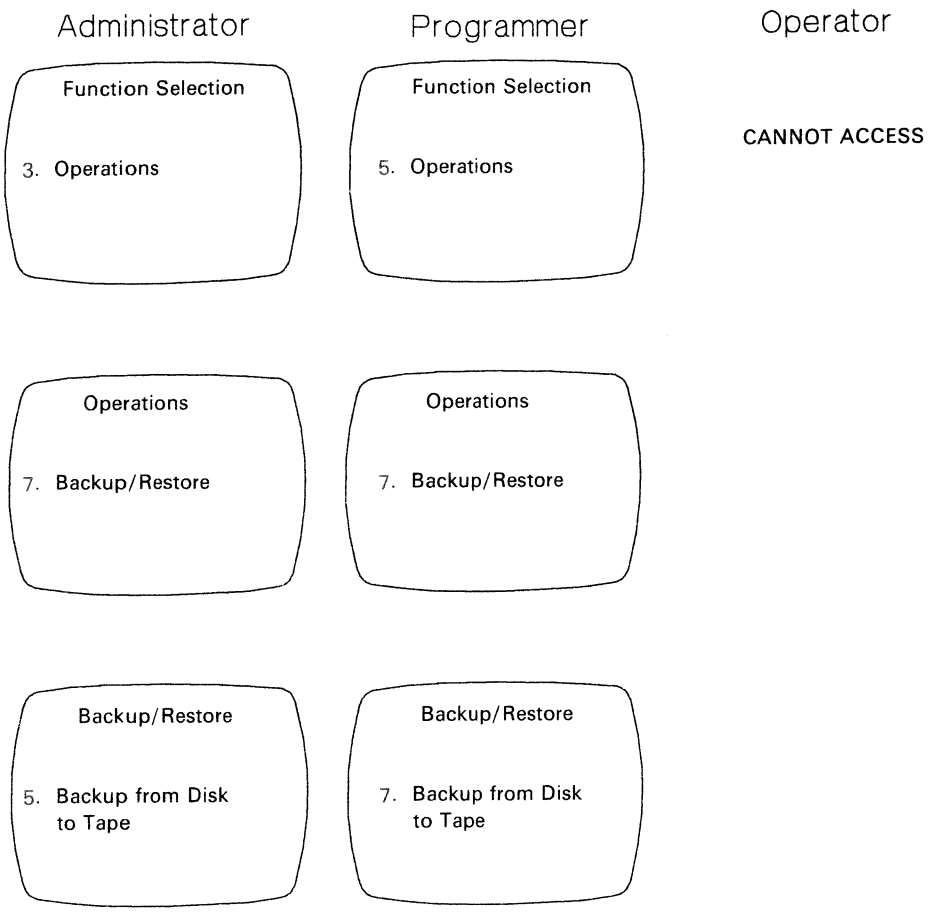
When you submit the job, mount the appropriate tape (backup or restore tape). Use the **same** tape address you specify in the dialog.

Backup from Disk to Tape

The *Backup from Disk to Tape* dialog backs up:

- An entire volume
- Part of a volume
- An individual file

You can access the dialog as follows:



A panel displays two selections:

1. Backup a volume

   This creates a Fast Copy job which backs up an entire volume or part of a volume. For VSE/VSAM integrity purposes, you can only process all VSE/VSAM files or no VSE/VSAM files.

2. Backup a file

   This creates a Fast Copy job which backs up a single file.

Input for Backing Up a Volume or File

If you back up either a volume or a file, you need the following information:

- DISK ADDRESS
- VOLUME SERIAL
- TAPE UNIT ADDRESS (**cuu**)
- ALTERNATE TAPE (**cuu**)
  You can use an alternate tape unit, if the backup needs more than one tape reel.
- DENSITY/MODE
  For 8809 tape units, enter the mode. For other tape units, specify the density.
- LABEL TAPE
  Specify whether the tape should have a standard label.

  1 - YES
  2 - NO

Additional Input for Backing Up a Volume

If you back up a volume, you also need the following information. For the four fields described below, enter one of the following:

1 - YES
2 - NO

- LIST
  Specify whether you want the dialog to print extent information on the system printer.
- NOVSAM
  Specify whether you want to exclude all VSE/VSAM files from the backup.
- EXCLUDE
  Specify whether you want to exclude some non-VSAM files from the backup.

  If you specify 1 (YES), enter the file-ids of the disk files you want to exclude.
- NOEXPIRED
  Specify whether you want to exclude all expired files from the backup.

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

Additional Input for Backing Up a File

If you back up a file, the dialog also needs the disk file-id .

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

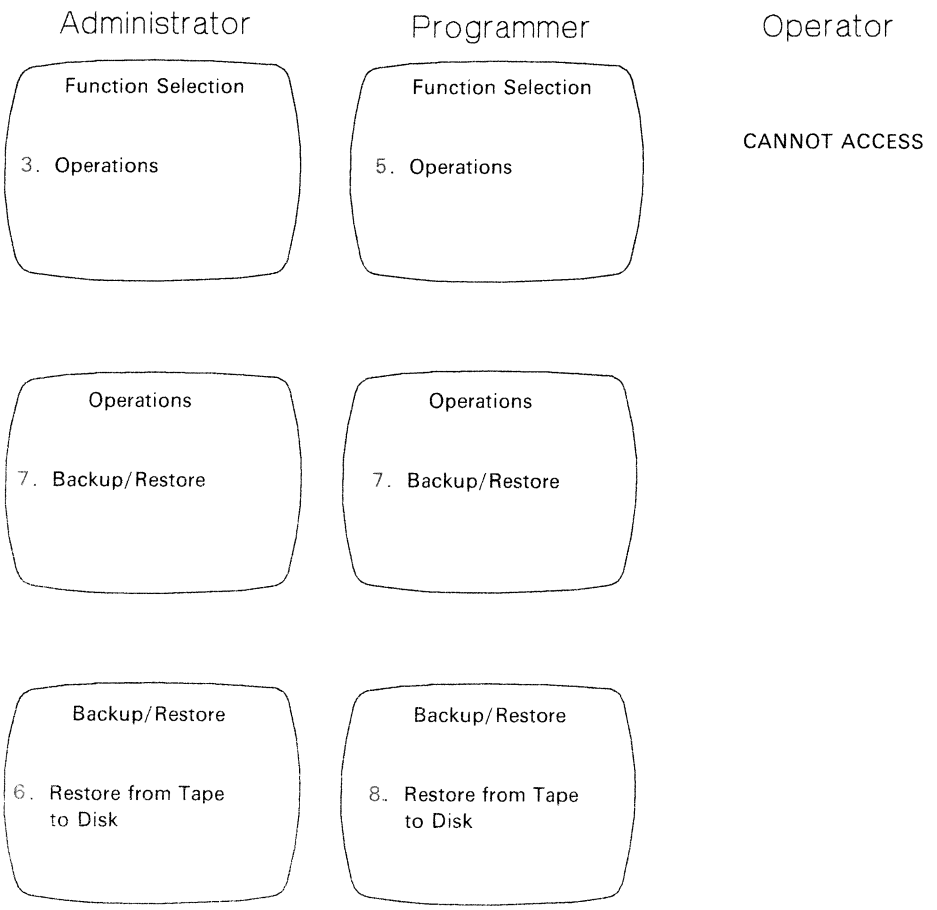
When you submit the job, mount the backup tape. Use the **same** tape address you specify in the dialog.

Restore from Tape to Disk

The *Restore From Tape to Disk* dialog restores:

- An entire volume
- Part of a volume
- An individual file

You can access the dialog as follows:



A panel displays two selections:

1. Restore a volume

   This creates a Fast Copy job that restores an entire volume or part of a volume. For VSE/VSAM integrity purposes, you can only process all VSE/VSAM files or no VSE/VSAM files.

2. Restore a file

   This creates a Fast Copy job that restores a single file. You can:

   - Restore the file to the same extents it resided in when it was backed up.
   - Relocate the file on the disk.

Input for Restoring a Volume or File

If you restore either a volume or a file, you need the following information:

- DISK ADDRESS
- LIST
  Specify whether you want the dialog to print extent information on the system printer.

  1 - YES
  2 - NO

- OUTPUT VOLUME SERIAL
- TAPE UNIT ADDRESS (**cuu**)
- ALTERNATE TAPE (**cuu**)
  You can use an alternate tape unit, if the restore needs more than one tape reel.
- LABEL TAPE
  Specify whether the tape has a standard label.

  1 - YES
  2 - NO

Additional Input for Restoring a Volume

If you restore a volume, you also need the following information:

- DENSITY/MODE
  For 8809 tape units, enter the mode. For other tape units, specify the density.
- NEW VOLUME SERIAL

The dialog creates a job with the default name DUMPREST. 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 restore tape. Use the **same** tape address you specify in the dialog.

Additional Input for Restoring a File

If you restore a file, you also need the following information:

- FILE ID
  The file-id of the disk file you are restoring.

- RELOCATE
  Specify whether you want to relocate the file on the disk.

  1 - YES
  2 - NO

  If you specify 1 (YES), you need the following information about the **relocated** disk file.

  FILE ID
  The file-id for the relocated disk file.

  SEQUENTIAL ACCESS
  Specify either sequential or direct access.

  DATE
  Enter the retention period of **1 - 4** digits or the Julian date in the form **YY/DDD**.

  LOGICAL UNIT NUMBER
  Enter a three digit number from **000 - 254**.

  VOLUME SERIAL
  This is the six characters which identifies the disk.

  START
  Specify the starting block or track for the file.

  FILE LENGTH
  Enter the size of the file in blocks or tracks.

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

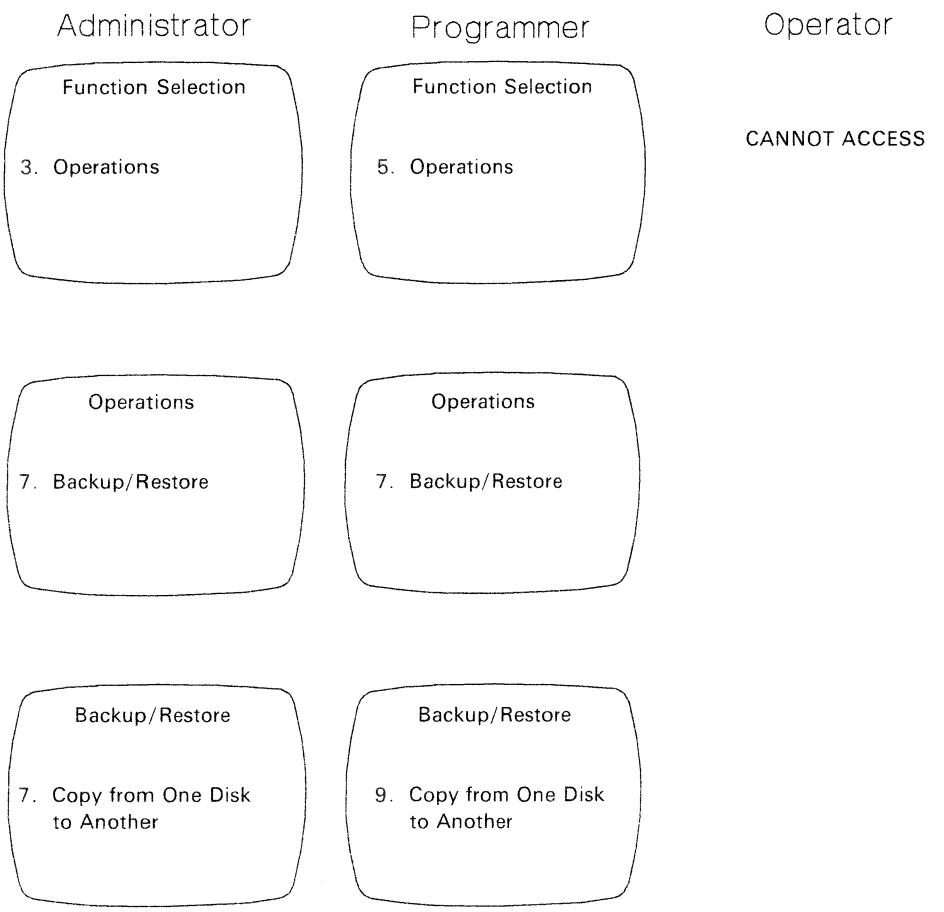
When you submit the job, mount the restore tape. Use the **same** tape address you specify in the dialog.

Copy from One Disk to Another

The *Copy From One Disk to Another* dialog copies the following from one disk to another disk:

- An entire volume
- Part of a volume
- An individual file

You can access the dialog as follows:



A panel displays two selections:

1. Copy a volume

   This creates a Fast Copy job. The job copies an entire volume or part of a volume from one disk to another disk. The disks must be the same device type. For VSE/VSAM integrity purposes, you can only process all VSE/VSAM files or no VSE/VSAM files.

2. Copy a file

   This creates a Fast Copy job. The job copies a single file from one disk to another disk. The disks must be the same device type. You can:

   - Copy the file to the same extents.
   - Relocate the file on the second disk.

Input for Copying a Volume or File

If you copy either a volume or a file, you need the following information:

- INPUT DISK ADDRESS
- OUTPUT DISK ADDRESS
- LIST
  Specify whether you want the dialog to print extent information on the system printer.

  1 - YES
  2 - NO

- INPUT VOLUME SERIAL
- OUTPUT VOLUME SERIAL

Additional Input for Copying a Volume

If you copy a volume, you also need the following information:

- NEW VOLUME SERIAL
  If you want to exclude files, you must specify this value.
- NOVSAM
  Specify whether you want to exclude all VSE/VSAM files from the copy.

  1 - YES
  2 - NO

- EXCLUDE
  Specify whether you want to exclude certain non-VSAM files from the copy.

  1 - YES
  2 - NO

  If you specify 1 (YES), enter the file-ids of the disk files you want to exclude.

- NOEXPIRED
  Specify whether you want to exclude expired files from the copy.

  1 - YES
  2 - NO

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

Additional Input for Copying a File

If you copy a file, you also need the following information:

- FILE ID
  Specify the ID of the file (input source file).

- RELOCATE
  Specify whether you want to relocate the file on the target disk.

  1 - YES
  2 - NO

  If you specify 1 (YES), you need the following information:

  FILE ID
  The file-id for the **relocated** disk file.

  Note: The information below is for both the file you want to copy and for the new file on the second disk.

  SEQUENTIAL ACCESS
  Specify either sequential or direct access.

  DATE
  Enter the retention period of 1 - 4 digits or the Julian date in the form **YY/DDD**.

  LOGICAL UNIT NUMBER
  Enter a three digit number from **000 - 254**.

  VOLUME SERIAL
  This is the six characters which identifies the disk.

  START
  Specify the starting block or track for the file.

  FILE LENGTH
  Enter the size of the file in blocks or tracks.

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

Chapter 23. Using IBM Personal Computers as Intelligent Workstations

VSE/SP supports the IBM 3270 Personal Computer and IBM Personal Computer with the 3278/79 Emulation Adapter. You can use these devices as:

- Display stations
- Intelligent workstations (IWS)

Note: This book uses the following terms to refer to IBM 3270 Personal Computers and IBM Personal Computers with a 3278/79 Emulation Adapter:

- *IBM Personal Computer*
- *Personal Computer*
- *PC*

You can use a Personal Computer and work interactively with your system as you would from a 317x or 327x display station. This includes accessing installed applications or VSE/SP dialogs.

You can also use the Personal Computer to retrieve data from the main system and store it on Personal Computer diskettes or disks. You can then work with this data, independent of the rest of the system. You can send updated data back to the main system at any time. VSE/SP supports IBM Personal Computers as intelligent workstations by providing:

- Function for a *Host Transfer File.*

  The Host Transfer File is a VSE/VSAM file. It serves as a *holding area* for data that is sent to and from IBM Personal Computers.

  When you send VSE/VSAM files or VSE/ICCF members to a Personal Computer, the data must first be moved from disk storage to the Host Transfer File. Similarly, when you send data from a Personal Computer, it must be stored temporarily in the Host Transfer File.

- The *Personal Computer Move Utilities* dialog which moves:

  - VSE/VSAM files and VSE/ICCF library members to the Host Transfer File.

  - Entries in the Host Transfer File to VSE/VSAM files and VSE/ICCF library members.

Notes:

1. *The dialog actually moves copies of data to and from the Host Transfer File.*

2. *The Move Utilities dialog also supports exit routines that you create. Using these routines, you can modify data as it is moved.*

- Support for *SEND* and *RECEIVE* commands that you enter from a Personal Computer.

  By using these commands, you can send data to or receive data from the Host Transfer File.

Figure 35 on page 263 shows how VSE/SP IWS support manages the flow of data to and from IBM Personal Computers.

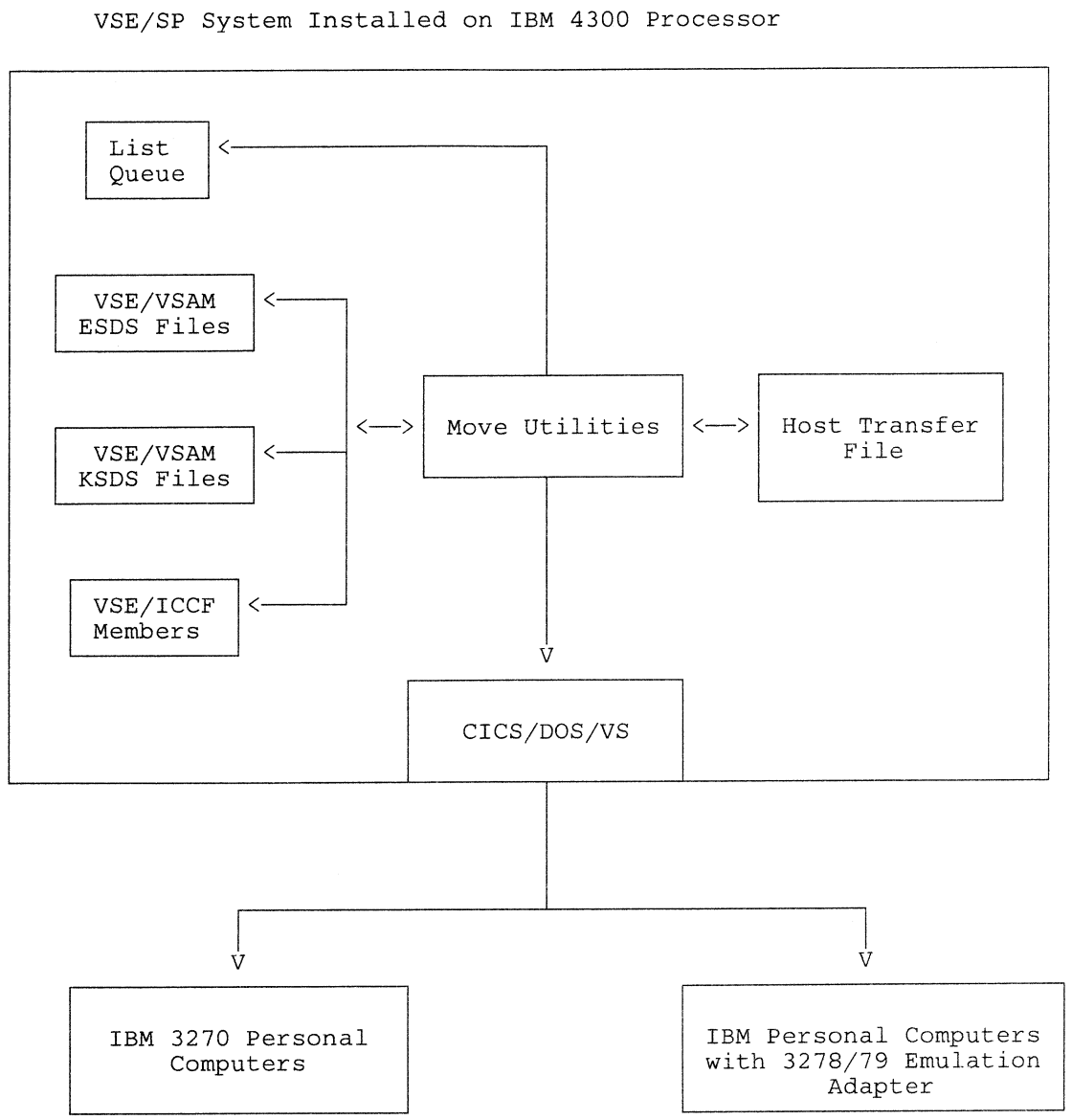


Figure 35. Intelligent Workstation Support -- Data Flow

Setting Up the IBM Personal Computer

Before you use a Personal Computer as either a display terminal or an intelligent workstation, there are several things you have to do.

If you want to use a PC just as a display terminal, you simply have to define it to VSE/SP as an IBM 3278-2 terminal.

If you want to use a PC as an intelligent workstation, you must:

1. Define it to VSE/SP.
2. Create a Host Transfer File.
3. Generate an FCT entry for IWS support.
4. Test the SEND and RECEIVE commands.

After you complete these tasks, you can use the *Move Utilities* dialog and SEND and RECEIVE commands to transfer data. The following sections describe these four tasks.

Configuring Local Personal Computers

This section describes how to define local Personal Computers to your system. For information about attaching IBM Personal Computers remotely, refer to Chapter 3: Installing Your Network, "Single Domain-Remote SNA Display Product," in *VSE/SP Networking*.

You can attach IBM 3270 Personal Computers or IBM Personal Computers with a 3278/79 Emulation Adapter locally using one of the following:

- A processor display/printer or workstation adapter.
- A 3274 control unit.

You must first define the terminal address or hardware channel address for the 3274 local SNA control unit in the hardware configuration table. To do this, access the *Configure Hardware Addresses* dialog. Define the address and device type code. "Configure Hardware Addresses" on page 62 describes the dialog. If you are using a PC only as a display terminal, define it as a 3278 model 2.

After you define the address, use one of the following dialogs to define the terminal configuration:

- *Configure Local Non-SNA 3270s*
- *Configure Local SNA 3270s*

You must identify all local IBM Personal Computers that are attached by a workstation adapter or 3274 control units. The device types or device code you specify depend on how the Personal Computer is defined.

- CUT: Control Unit Terminal

  With CUT attachment, IBM Personal Computers are defined as 3278-2 or 3279-2A display stations.

  All IBM Personal Computers with 3278/79 Emulation Adapters and all IBM Personal Computers attached by a workstation adapter are defined using CUT terminal codes.

- DFT: Distributed Function Terminal

  IBM 3270 Personal Computers can be either CUT or DFT attached. DFT attachment lets you define them as 3278/79 display stations, including optional features such as Extended Data Stream (EDS) and Programmed Symbols.

  The decision of how to define the PC depends on the host application you want to run. For example, if your host application makes use of the Extended Color feature and a screen size of 32 lines, you should define the IBM 3270 Personal Computer as a 3279-3B.

  The terminal definitions you use must match the values you specify when you customize the IBM 3270 Personal Computer. For the above example, the PC must be customized with Extended Data Stream and a screen size of 32.

For more information about CUT and DFT attachment, refer to *IBM 3270 Personal Computer Control Program User's Guide and Reference* (1837434).

Host Transfer File

The Host Transfer File is a VSE/VSAM file. It serves as a *holding area* for data that is sent to and from IBM Personal Computers.

VSE/VSAM files and VSE/ICCF library members must first be moved from disk storage to the Host Transfer File. Similarly, all data received from Personal Computers is temporarily stored in the Host Transfer File.

The Host Transfer File can contain more than one entry at the same time. An entry can be one of three file types:

- Private: The user who created the entry can only access the data.
- Shared: A limited number of users can access the entry.
- Public: All users can access the entry.

"List and Process User Files in Host Transfer File" on page 269 has more information about defining entries as private, public, or shared.

VSE/SP does not automatically define the Host Transfer File or allocate space for it during initial installation. VSE/SP provides the SKIWSTF skeleton which defines the Host Transfer File. "Creating the Host Transfer File" on page 266 describes the skeleton and how you use it.

Creating the Host Transfer File

The SKIWSTF skeleton creates the Host Transfer File for IWS support. It automatically adds the label for the file to standard labels.

The skeleton is shipped in library 59. First copy it to your primary library and edit the copied file. Refer to "Copying VSE/SP Skeletons" on page 11 for information on copying skeletons.

Figure 36 shows the skeleton. You must change the **-V001-** variable. Specify the volume or volumes which have available VSE/VSAM space for the Host Transfer File.

```
* $$ JOB JNM=IWSTRFL,CLASS=0,DISP=D
// JOB IWSTRFL     CREATE PC HOST TRANSFER FILE
// EXEC IDCAMS,SIZE=AUTO
   DELETE (PC.HOST.TRANSFER.FILE) PURGE CL -
          CATALOG(VSESP.USER.CATALOG)
   DEFINE CLUSTER (NAME(PC.HOST.TRANSFER.FILE) -
          RECORDS (4000 4000) -
          TO (99365) -
          SHAREOPTIONS (4) -
          INDEXED -
          KEYS (16 0) -
          RECORDSIZE (100 32761) -
          USECLASS (0) -
          VOLUMES (-V001-)) -
          DATA (NAME(PC.HOST.TRANSFER.FILE.DATA) -
          SPANNED -
          CISZ (1024)) -
          INDEX (NAME(PC.HOST.TRANSFER.FILE.INDEX)) -
          CATALOG (VSESP.USER.CATALOG)
/*
// OPTION STDLABEL=DELETE
INWFILE
/*
// OPTION STDLABEL=ADD
// DLBL INWFILE,'PC.HOST.TRANSFER.FILE',99/365,VSAM,CAT=VSESPUC
/*
// EXEC IESVCLUP,SIZE=AUTO              ADD LABEL TO STDLABUP PROC
D                                               INWFILE
A PC.HOST.TRANSFER.FILE                         INWFILE VSESPUC
/*
// EXEC IESVSMLD,SIZE=AUTO              LOAD DUMMY RECORD INTO INWFILE
80,K,INWFILE
99999999999999999999999999999999999999999999999999
/*
/&
* $$ EOJ
```

Figure 36. Create Host Transfer File (SKIWSTF Skeleton)

Replace **-V001-** with the volume or volumes which have available VSE/VSAM space for the Host Transfer File.

Generate FCT Entry for IWS Support

VSE/SP provides DFHFCTSP in VSE/ICCF library 59 which you can use to generate an entry in the FCT for IWS support. First copy DFHFCTSP to your primary library and edit the copied file.

DFHFCTSP contains comments to help you with the changes. Locate the following statement:

```
*          COPY   IESWFCT         - ENTRY FOR INTELLIGENT WORK STATION
```

This statement adds the data set which is required for IWS support. Remove the asterisk (*) from column 1 in the COPY IESWFCT statement. After you do this, compile the library member.

Testing the Send/Receive Function

After you create the Host Transfer File, you should test whether you can exchange data properly. Do the following:

1. Sign on to the Interactive Interface.
2. Press **PF6** to *escape* to CICS/DOS/VS.
3. Use the appropriate key(s) to switch to native PC operating mode.
4. Enter the command:

   SEND AUTOEXEC.BAT TEST

   The command sends a copy of the file AUTOEXEC.BAT to the Host Transfer File and creates an entry for it with the name TEST. All command defaults are used.

5. When you get a message that the send is complete, enter the command:

   RECEIVE TEST.BAT TEST

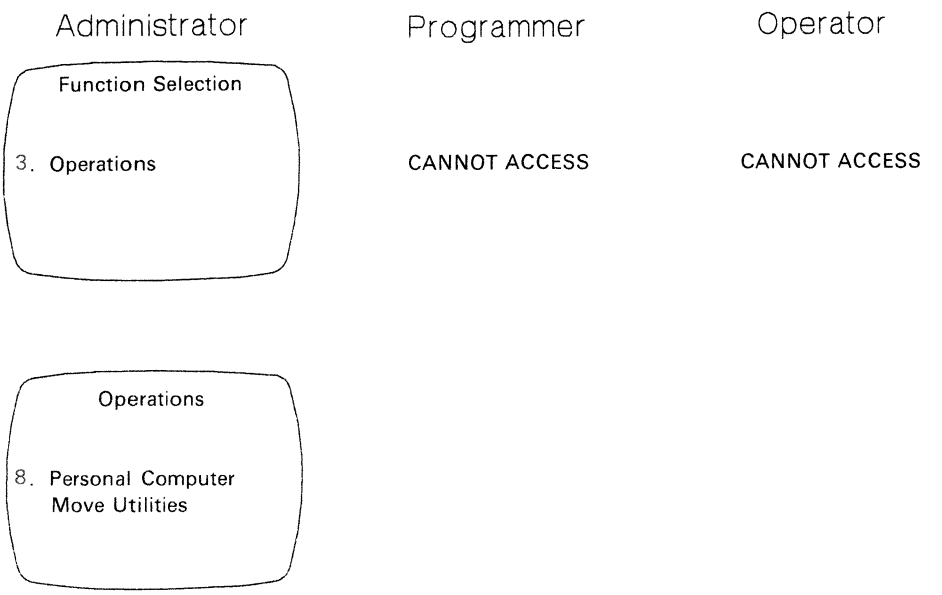
   This command copies the entry TEST in the Host Transfer File and stores it at your PC under the name TEST.BAT. All command defaults are again used.

6. Once you get a message that the receive is complete, compare your original file (AUTOEXEC.BAT) with TEST.BAT. Make sure they are identical.

Personal Computer Move Utilities

The *Personal Computer Move Utilities* dialog moves VSE/VSAM files and VSE/ICCF library members to and from the Host Transfer File. You can also use the dialog to display files owned by different users and process your own files.

You can access the dialog as follows:



A panel displays six selections:

1. List and process user files in Host Transfer File

   This lists all files in the Host Transfer File that you own or that are shared with you by another user. You can choose the following options for a file:

   - Move to VSAM
   - Move to ICCF
   - Print
   - Copy
   - Erase
   - Change
   - Share

2. Move VSAM files to Host Transfer File

3. Move files from Host Transfer File to VSAM

4. Move ICCF members to Host Transfer File

5. Move files from Host Transfer File to ICCF

6. List all defined user-ids

Options 2 - 5 give you the possibility to invoke user-written exit routines. You can use exit routines to convert records or fields of a file or library member during a move. "Creating User Exits" on page 289 has more information about exit routines.

The panel also displays PF6. PF6 interrupts dialog processing so that CICS/DOS/VS accepts SEND and RECEIVE commands. At the Personal Computer, you can then press the appropriate key(s) to switch from *host* operating mode (using the device as a display station) to native *PC* operating mode (using the device as an intelligent workstation). After you do this, you can enter SEND and RECEIVE commands to exchange data with the Host Transfer File.

The following sections describe each of the six dialog choices.

Note: Each person who uses the Move Utilities is responsible for the integrity and security of the data associated with their own user-id.

List and Process User Files in Host Transfer File

This option (1) displays the panel shown in Figure 37.

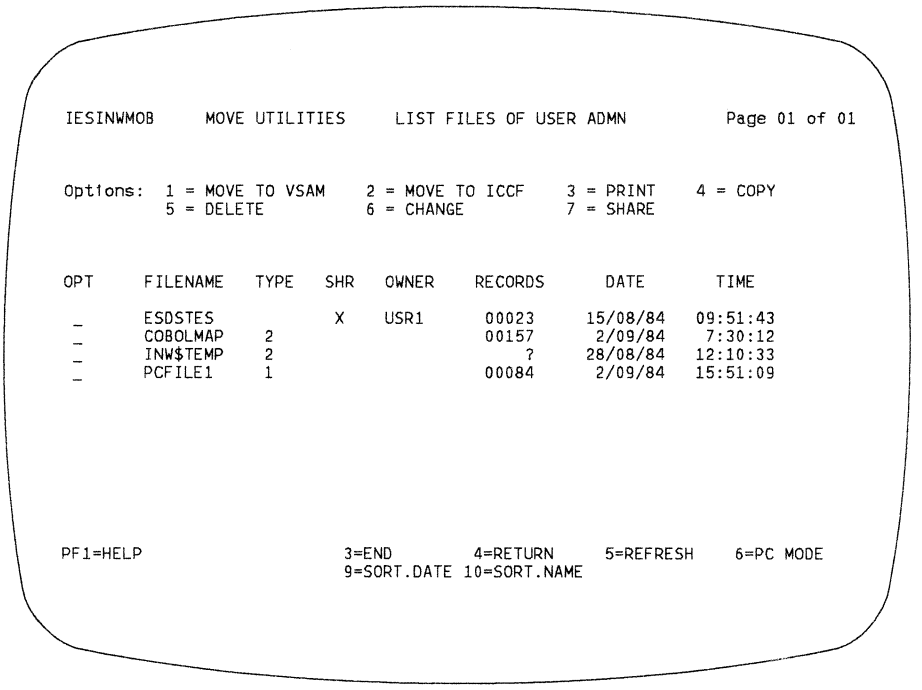


Figure 37. Panel to List and Process Entries in the Host Transfer File

The FULIST lists the files in the Host Transfer File which are associated with your user-id. These can be private, public, and shared entries that you own and files that other users have shared with you.

Whenever you move a file or library member to the Host Transfer File, you become the *owner* of that entry. As the owner, you must indicate whether the entry is:

- Private
  You are the only user which has read/write access to the entry.

- Public
  This allows read access to all other users.

Once a file or library member is in the Host Transfer File, its owner can also choose to *share* it with one or more users. The owner is still the only user who has read/write access to the entry. The users who *share* the entry have read access.

The following information describes some entries on the sample panel in Figure 37 on page 269.

- The figure shows the entries for user ADMN. This is noted at the top of the panel in the title LIST FILES OF USER ADMN.

- The file ESDSTES does not belong to user ADMN. The owner is USR1, as shown in the OWNER field. The X in the SHR column indicates that it is a shared file.

  USR1 shares this entry with user ADMN. ADMN has read access to it. The panel always displays shared files first.

- The third entry INW$TEMP has a question mark (?) in the RECORDS field. This indicates that an error occurred as data was being moved. Because of the error, you should try moving the data again. The file INW$TEMP is not usable. It will automatically be deleted when the next SEND command is issued.

  Note: When you move data to or from the Host Transfer File, it is first temporarily stored under the internal name INW$TEMP. After it is successfully moved, INW$TEMP is renamed to the file name you specify on the dialog panel or in the PC SEND command. In case of a system or line breakdown, an existing file with the same name is not destroyed before the new file is written.

- For the TYPE field,

  - **1** indicates a private entry that the user owns. In the figure, the file PCFILE1 is private and is owned by ADMN.

  - **2** indicates a public entry which belongs to the user. In the figure, the file COBOLMAP is public and belongs to user ADMN.

The panel displays PF keys at the bottom of the FULIST. Some PF key options are:

PF5 The FULIST shows entries as of the time you selected the dialog. You can refresh the panel by pressing **PF5**. This updates the list and displays the most current information.

PF6 This interrupts dialog processing. The host screen is ready for file transfer commands (SEND and RECEIVE) from the Personal Computer. You should press **PF6** before you switch to the PC session.

PF9 This refreshes the FULIST and sorts the entries by date in descending order.

PF10 This refreshes the FULIST and sorts the entries by name in alphabetical order.

The options you can choose are at the top of the FULIST. Enter the option number in the OPT column to the left of the file you want to process.

MOVE TO VSAM
This moves the file from the Host Transfer File to a VSE/VSAM data set.

MOVE TO ICCF
This moves the file from the Host Transfer File to a VSE/ICCF library member.

PRINT
This produces a listing of the file in the VSE/POWER LST queue. The system does not inform you when printing is complete.

The listing has the name CICSICCF. The LST queue entry may look like:

```
CICSICCF 00034  H  Q  15  1   TO=(ADMN)
```

There can be more than one CICSICCF listing in the queue. You can use the *Manage Batch Queues* dialog to display the list queue. The dialog is described in Chapter 15, "Managing the Batch Queues" on page 173.

COPY
This copies the file within the Host Transfer File.

DELETE
This deletes the file from the Host Transfer File.

If you delete a file that you own, the dialog deletes it from the Host Transfer File. If you delete a file that is shared with you (another user owns it), the dialog only deletes the shared entry so that you can no

longer access it. The file itself is not deleted. Only the owner can do that.

CHANGE
You can change the name of a file or make a private file public. You cannot use this option to change a shared file.

SHARE
This option displays the user-ids of all system users. You can share a file that you own with other users.

Move VSAM Files to Host Transfer File

This option (2) moves entry-sequenced (ESDS) or key-sequenced (KSDS) VSE/VSAM files to the Host Transfer File. Before you do this, make sure the file is:

1. Known to CICS/DOS/VS (defined in the File Control Table DFHFCT). The service request (SERVREQ) definition should at least allow for read access.

2. Open and enabled.

You need the following information:

SOURCE FILENAME
The name of the file you want to move.

TARGET FILENAME
Specify the name for the file in the Host Transfer File. If you do not enter a name, the dialog uses the source file name.

FILETYPE
Specify whether the file should be private or public in the Host Transfer File.

1 - Private
2 - Public

REPLACE TARGET
If a file exists in the Host Transfer File with the **same** TARGET FILENAME, specify whether you want it replaced.

1 - YES (Replace)
2 - NO (Do not replace)

EXIT ROUTINE
This is optional. It specifies a set of user-written code that is called before each record is moved to the Host Transfer File. You can use an exit routine to modify or delete records.

DESCRIPTOR RECORD
This is optional. It identifies a user-written record that the exit routine uses as a model for altering the records of a file. The descriptor record must exist in the Host Transfer File and you must be the owner.

"Creating User Exits" on page 289 has more information about exit routines.

Move Files from Host Transfer File to VSAM

This option (3) moves a file from the Host Transfer File to an existing VSE/VSAM file. The VSAM file must be:

1. Known to CICS/DOS/VS in the File Control Table (DFHFCT). The service request (SERVREQ) definition should at least allow for updating.

2. Open and enabled.

You need the following information:

SOURCE FILENAME
The file in the Host Transfer File you want to move.

TARGET FILENAME
The name of the existing VSE/VSAM file which receives the data.

USERID
For public or shared entries which you do **not** own, enter the user-id of the owner.

DELETE SOURCE FILE
Specify whether the dialog should delete the file from the Host Transfer File after it is moved.

1 - YES (Delete)
2 - NO (Do not delete)

If you enter 1 (YES) for a shared file that another user owns, the dialog only deletes the shared entry so that you can no longer access it. The file itself is not deleted.

EXIT ROUTINE
This is optional. It specifies a set of user-written code that is called before each record is moved to the target file. You can use an exit routine to modify or delete records.

DESCRIPTOR RECORD
This is optional. It identifies a user-written record that the exit routine uses as a model for altering the records of a file. The descriptor record must exist in the Host Transfer File and you must be the owner.

"Creating User Exits" on page 289 has more information about exit routines.

After you enter your data, the dialog checks the information. It displays an additional panel. You need to:

1. Enter the name of the target file again.

   This is a security measure. It helps prevent an incorrect update of an existing file.

2. For KSDS files, specify whether the new data should replace or update data already in the target file.

   - Replace

     The dialog first deletes the existing records. It then loads the new records into the file. The DFHFCT entry for the target file must specify **DELETE** for SERVREQ.

   - Update

     The dialog adds the new records to the existing target file. If it finds a duplicate key, the existing record is replaced with the new record.

   This information is **only** for key-sequenced files. For entry-sequenced files, the dialog ignores any input. For ESDS files, there is no replace. The dialog adds new records to the end of the target file.

Move ICCF Members to Host Transfer File

This option (4) moves an ICCF member to the Host Transfer File.

Before you move the member, edit it to make sure it contains human-readable text data. If you move binary data, the results will be unpredictable.

You need the following information:

SOURCE FILENAME
The name of the VSE/ICCF member you want to move.

TARGET FILENAME
Specify the name given to the entry in the Host Transfer File. If you do not enter a name, the system uses the source file name.

ICCF LIB.-NUMBER
The number of the VSE/ICCF library that contains the member.

FILETYPE
Specify whether the file should be private or public in the Host Transfer File.

1 - Private
2 - Public

PASSWORD
If the member is password protected, enter the password.

REPLACE TARGET
If a file exists in the Host Transfer File with the **same** TARGET FILENAME, specify whether you want it replaced.

1 - YES (Replace)
2 - NO (Do not replace)

EXIT ROUTINE
This is optional. It specifies a set of user-written code that is called before each record is moved to the Host Transfer File. You can use an exit routine to modify or delete records.

DESCRIPTOR RECORD
This is optional. It identifies a user-written record that the exit routine uses as a model for altering the records of a file. This descriptor record must exist in the Host Transfer File and you must be the owner. "Creating User Exits" on page 289 has more information about exit routines.

Note: The PC Move Utilities dialog stores copies of VSE/ICCF library members in the Host Transfer File as 80 byte VSE/VSAM files.

Move Files from Host Transfer File to ICCF

This option (5) moves a file in the Host Transfer File to a VSE/ICCF library member. The file must contain human-readable text data. If you move binary data, the results will be unpredictable.

Source records which are:

- Shorter than 80 characters are padded with blanks on the right.
- Longer than 80 characters are truncated.

You need the following information:

SOURCE FILENAME
The name of the file in the Host Transfer File you want to move.

TARGET FILENAME
Specify the member name given to the file when it is moved to the VSE/ICCF library. If you do not enter a name, the dialog uses the source file name.

NEW PASSWORD
This is optional. Specify a password for the new member.

ICCF LIB.-NUMBER
The number of the library that will contain the member. If you do not enter a number, the dialog moves the file to your primary library.

USERID
This identifies the owner of a public or shared file that you do not own.

REPLACE ICCF MEMBER
Specify whether the dialog should delete an existing member in the library with the same name.

1 - YES (Delete)
2 - NO (Do not delete)

OLD PASSWORD
If you want to replace an existing VSE/ICCF member and it is password protected, you must enter the password.

DELETE SOURCE FILE
Specify whether the dialog should delete the file from the Host Transfer File after it is moved.

1 - YES (Delete)
2 - NO (Do not delete)

If you enter 1 (YES) for a shared file that another user owns, the dialog only deletes the shared entry so that you can no longer access it. The file itself is not deleted.

EXIT ROUTINE
This is optional. It specifies a set of user-written code that is called before each record is moved to the target file. You can use an exit routine to modify or delete records.

DESCRIPTOR RECORD
This is optional. It identifies a user-written record that the exit routine uses as a model for altering the records of a file. The descriptor record must exist in the Host Transfer File and you must be the owner.

"Creating User Exits" on page 289 has more information about exit routines.

List All Defined User-ids

This option (6) lists the user-ids of all system users. From the list, you can display entries in the Host Transfer File that are associated with a user-id. Type a non-blank character to the right of the user-id and press **ENTER**. The dialog displays a panel which is similar to the one shown in Figure 37 on page 269. The panel, however:

- Only shows the user's public entries and the entries which the user shares with you. It does not list the user's private entries.
- Does not have options for deleting, redefining, or sharing the listed entries.

Sending and Receiving Data

You always exchange data between an IBM Personal Computer and the Host Transfer File from the IBM Personal Computer. You use the SEND and RECEIVE commands to exchange data.

Before you can use these commands, you must first sign on to the Interactive Interface and set CICS/DOS/VS in a mode to accept the commands. The steps you use to send and receive data are described in two sections below.

Note: VSE/SP also has function for data entry panels for the SEND/RECEIVE commands. "Activating Panels for SEND/RECEIVE Commands" on page 286 describes what you do in order to use these panels.

Sending Data from an IBM Personal Computer

To send a PC file to the Host Transfer File, do the following from the Personal Computer:

1. Sign on to the Interactive Interface.
2. Press **PF6** to *escape* to CICS/DOS/VS.
3. Use the appropriate key(s) to switch to native PC operating mode.
4. Enter a **SEND** command for the PC file.

When data transfer completes, you can:

- Switch back to host operating mode.
- Access the *Move Utilities* dialog.
- Move the data to a VSE/VSAM file or VSE/ICCF member.

The SEND command transfers data from PC diskette or disk storage to an entry in the Host Transfer File. Besides identifying the PC file you want to send and the name of the file in the Host Transfer File, the command has options for specifying:

- The format for the data in the entry.
- Whether the entry should be private, shared, or public.
- Whether the data in an existing file with the same name is to be replaced by this data.

SEND Command Format

The format for the SEND command is:

[a:]SEND PC-filename host-filename [(options]

The following information describes the command:

a:
The drive specifier for the diskette or disk that contains the SEND/RECEIVE commands (for example, A: or B:).

This parameter is only required if the diskette with these commands is not in the default drive.

PC-filename
The PC file to be sent to the host.

This parameter has the format:

[d:][path]filename[.ext]

where:

- **d:** - The drive specifier for the diskette or disk that contains the file. If you do not specify this, the default drive is used.

- **path** - An optional DOS directory search order for searching through directories.

- **filename** - The 1 - 8 character name of the PC file you want to send. This name is a required positional parameter.

- **.ext** - The PC file extension. This is required if the name of the PC file has an extension. An extension starts with a period, has one to three characters, and follows immediately after the filename.

  For instance, in the example

  ```
  82PRICES.AUG
  ```

  .AUG is the extension.

  Note: No spaces (blanks) should separate the various parts of the PC-filename (drive specifier, path, filename, and extension). Refer to the IBM Personal Computer Disk Operating System 2.0 manual for more information on the filename format.

host-filename
The name under which the PC data is stored in the Host Transfer File. This has the format

[id:]filename

where:

- **id:** - The host session identifier.
- **filename** - The 1 - 8 character file name.

options
One or more of the following optional keyword parameters separated by one or more blanks:

- **ASCII|BINARY**

  ASCII is the default. It means that the data in the PC file is encoded in ASCII character codes. BINARY means that the data is binary data.

  Before data using ASCII character codes is stored in a file, it is translated to EBCDIC character codes. It is assumed that the PC file contains logical records delimited by carriage return and line feed (CR/LF) characters. These characters are used to determine where the logical record boundaries are and to break up the data into individual logical records. The CR/LF characters are removed before the data is stored in the Host Transfer File.

Binary data is not translated to EBCDIC. It is copied unaltered into the Host Transfer File. The PC file does not consist of logical records delimited by CR/LF characters. No deletion of CR/LF characters is done.

Note: You should be careful to send text files with the ASCII (default) option and binary files with the BINARY option. If you do not do this, these files may not be usable on the host or when they are retrieved on the PC.

- **PRIVATE|PUBLIC**

  PRIVATE indicates that this is a private file which can only be accessed by its originator. PRIVATE is the default.

  PUBLIC makes the file available to everyone in the system.

- **FOR=usid1[,usid2,...,usid8]**

  This option allows you to share a file with up to eight other users. The shared file can only be accessed by these users.

  Each **usidn** is a four character user-id. User-ids must be separated by commas. Imbedded blanks are not allowed.

  Note: Using the display function of the Move Utilities dialog, users who receive a shared file are informed that it has been sent. If a command has both the FOR= and PUBLIC options, the file can be accessed by all users. However, only a selected group of users receives a message that it has been sent.

- **NOREPLACE|REPLACE**

  NOREPLACE indicates that if an entry with the same name exists in the Host Transfer File, the data will **not** be replaced by the PC data that is sent. In this case, a message is issued and file transfer is stopped. NOREPLACE is the default.

  REPLACE replaces an existing file.

The following options are mutually exclusive:

ASCII and BINARY
PRIVATE and PUBLIC
REPLACE and NOREPLACE

If you specify the following, the system issues an error message and stops file transfer:

- Two of the mutually exclusive options
- Invalid options
- Invalid user-ids

If you specify more than eight user-ids in the FOR= option, the first eight are accepted and the remaining ones are ignored.

If you do not specify any options, the following defaults are used:

ASCII PRIVATE NOREPLACE

For example, if you specify the BINARY option, the options then are:

BINARY PRIVATE NOREPLACE

Files sent to the host are temporarily stored in the Host Transfer File with the internal name **INW$TEMP**. After they are successfully moved, INW$TEMP is renamed to the host file name you specify in the SEND command. If there is a system or line breakdown, an existing file with the same name is not destroyed before the new file is written.

Examples of SEND Commands

Two examples of using the SEND command are shown below.

Example 1

The command

SEND PCPROG HOSTPROG

sends a copy of file PCPPROG on a diskette in the default drive and stores it in the Host Transfer File under the name HOSTPROG.

The command uses the defaults ASCII, PRIVATE, and NOREPLACE. This means:

1. The file is translated from ASCII to EBCDIC. Carriage return and line feed characters are deleted to make the file readable on the host.

2. Only the user who sent the file can access it in the Host Transfer File.

3. If an earlier version of HOSTPROG exists, the system issues a message and terminates file transfer.

Example 2

The command

SEND PROGA.BAS G:SAVPROGA (REPLACE BINARY

sends a copy of PROGA.BAS on a diskette in the default drive to host session G and stores it in the Host Transfer File with the name SAVPROGA.

The default option PRIVATE is used. REPLACE indicates that if an earlier version of SAVPROGA exists, it is replaced by the new one. BINARY means that the file is not translated to EBCDIC and carriage return and line feed characters are not removed.

Receiving Data at an IBM Personal Computer

To transfer a VSE/VSAM file or VSE/ICCF member to an IBM Personal Computer, do the following from the Personal Computer:

1. Sign on to the Interactive Interface.
2. Access the *Move Utilities* dialog.
3. Move the file or member to the Host Transfer File.
4. Press **PF6** to interrupt dialog processing.
5. Use the appropriate key(s) to switch to native PC operating mode.
6. Enter a **RECEIVE** command to transfer the data from the Host Transfer File to diskette storage.

The RECEIVE command transfers data in a Host Transfer File entry to a PC file. Besides identifying the Host Transfer File entry and the PC file to receive the data, the command has options for specifying:

- The format for the data.
- Whether the received data is appended to data already in the PC file.
- Whether the entry from the Host Transfer File is deleted after it is moved.
- The owner of a public or shared file.

RECEIVE Command Format

The format for the RECEIVE command is:

[a:]RECEIVE PC-filename host-filename [(options]

The following information describes the command:

a:

The drive specifier for the diskette or disk that contains the SEND/RECEIVE commands (for example, A: or B:).

This parameter is only required if the diskette with these commands is not in the default drive.

PC-filename
The PC file that is to receive the data sent from the host.

This parameter has the format:

[d:][path]filename[.ext]

where:

- **d:** - The drive specifier for the diskette or disk that contains the PC file. If you do not specify this, the default drive is used.

- **path** - An optional DOS directory search order for searching through directories.

- **filename** - The 1 - 8 character name of the PC file which receives the data. This name is a required positional parameter.

- **.ext** - The PC file extension. This is required if the name of the PC file has an extension. An extension starts with a period, has one to three characters, and follows immediately after the filename.

  For instance, in the example

  ```
  82PRICES.AUG
  ```

  .AUG is the extension.

  Note: No spaces (blanks) should separate the various parts of the PC-filename (drive specifier, path, filename, and extension). Refer to the IBM Personal Computer Disk Operating System 2.0 manual for more information on the filename format.

host-filename
The name of the file to be moved from the Host Transfer File. This has the format

[id:]filename

where:

- **id:** - The host session identifier.
- **filename** - The 1 - 8 character file name.

options
One or more of the following optional keyword parameters separated by one or more blanks:

- **ASCII|BINARY**

  ASCII is the default. If you use it, a file encoded in EBCDIC character codes is translated to ASCII when it is copied. Logical records of the entry are also delimited by adding carriage return and line feed (CR/LF) characters at the end of each data record.

Note: Using ASCII does **not** *alter the original file.*

BINARY means that the data is binary data. It is sent to the PC in blocks of 2048 bytes and concatenated in the PC file into a single data string. No translation or insertion of CR/LF characters is done.

You should use the default (ASCII) whenever you are not sure whether a file is in ASCII or BINARY format. If the data was sent earlier from a PC to the host with the BINARY option, BINARY is forced by the RECEIVE command. If the file was created at the host, it must be translated to ASCII to be usable on the PC.

If you explicitly specify ASCII, it takes effect regardless of whether the file was created as ASCII or BINARY.

- **DELETE|KEEP**

  When you receive a file which you own, DELETE erases the file from the Host Transfer File after it is successfully copied into the PC file. KEEP does not delete the file. DELETE is the default.

  Note: Files which you receive from other users with the FROM= option are not deleted from the Host Transfer File. FROM= is described below.

- **REPLACE|APPEND**

  If the file from the host has the same name as an existing PC file, REPLACE automatically replaces the existing PC file. REPLACE is the default.

  APPEND lets you attach the new file to the end of an existing PC file.

- **FROM=usid**

  This option retrieves a PUBLIC or a SHARED file.

  usid is the user-id of the owner of the file.

  Note: You can use the display function of the Personal Computer Move Utilities dialog and check current PUBLIC and SHARED files.

The following options are mutually exclusive:

ASCII and BINARY
DELETE and KEEP
DELETE and FROM=
REPLACE and APPEND

If you specify the following, the system issues an error message and stops file transfer:

- Two of the mutually exclusive options
- Invalid options
- Invalid user-ids

If you do not specify any options, the following defaults are used:

ASCII PRIVATE DELETE REPLACE

For example, if you specify the option FROM=usid, the options then are:

ASCII KEEP REPLACE FROM=

Since another user owns the file, it is not deleted from the Host Transfer File.

Examples of RECEIVE Commands

Two examples of using the RECEIVE command are shown below.

Example 1

The command

RECEIVE PCPROG HOSTPROG

retrieves a copy of file HOSTPROG from the Host Transfer File and stores it under the name PCPROG on the diskette in the default drive.

This command uses the defaults ASCII, DELETE, and REPLACE. This means:

1. The file is translated to ASCII when it is retrieved. Carriage return and line feed characters are also inserted before it is stored on the diskette.
2. HOSTPROG is automatically deleted from the Host Transfer File.
3. An existing PC file with the name PCPROG is replaced by the retrieved data.

Example 2

The command

RECEIVE PROGA.BAS G:SAVPROGA (BINARY

retrieves a copy of the file SAVPROGA from host session G and stores it under the name PROGA.BAS on the diskette in the default drive.

BINARY means that translation is not done and that carriage return and line feed characters remain unchanged. The DELETE and REPLACE defaults are used.

Activating Panels for SEND/RECEIVE Commands

You may want to use data entry panels like those available with the Interactive Interface to enter the SEND and RECEIVE commands. These panels help you enter the correct data for the commands.

VSE/SP ships functions you can use to create data entry panels for the commands. You can do this yourself. Your system administrator does not have to update or maintain any special profiles.

To implement data entry panels for the SEND and RECEIVE commands, follow the steps below from your PC. For more information on Personal Computer related commands, refer to the appropriate IBM Personal Computer documentation.

1. Sign on to the Interactive Interface.
2. Access the *Personal Computer Move Utilities* dialog.
3. Select option 4 (Move ICCF members to Host Transfer File).
4. On the data entry panel, enter the following data for these fields:

   SOURCE FILENAME: Enter **INWPROM**.

   TARGET FILENAME: Enter **INWPROM**.

   ICCF LIB.-NUMBER: Enter 68.

   FILETYPE: Enter 2 for public.

   The VSE/ICCF library member INWPROM contains precoded skeletons for the SEND and RECEIVE command panels. The member does not have a password. You can use **either** 1 or 2 for the REPLACE TARGET field.

   Do **not** use an exit routine for the move.

5. When the move is complete, press **PF6**.
6. Switch to PC operating mode.
7. Enter the command:

   RECEIVE PCCOM003.BAS INWPROM

The command transfers a copy of INWPROM to diskette. This example assumes that the RECEIVE command is stored on drive A.

You can use any name (PCCOM003) for this PC file. However, in step 9, you must specify the name you use here.

8. When the transfer is complete, create a new PC file. Use a file name which relates to the SEND and RECEIVE commands so you can easily remember it.

   The file **must** have the extension **BAT**. For example, you could use the name EXCHANGE.BAT.

   Do **not** use the name TRANSFER.BAT.

9. Enter the following two statements in the file. Do **not** enter any other statements. This assumes that the file BASICA.COM is on the diskette in the default drive.

   ```
   BASICA PCCOM003

   SENDRECE.BAT
   ```

   If you specified a different name for PCCOM003 in step 7, you would specify that name in the BASICA statement.

10. Save the file.

After you follow these steps, you can use the data entry panels for the SEND and RECEIVE commands. You simply enter the name (without the extension) of the second new file in the command line.

For instance, in the example above the file name was EXCHANGE.BAT. You would then enter the name **EXCHANGE**.

After you enter the name, the system displays the panel shown in Figure 38 on page 288.

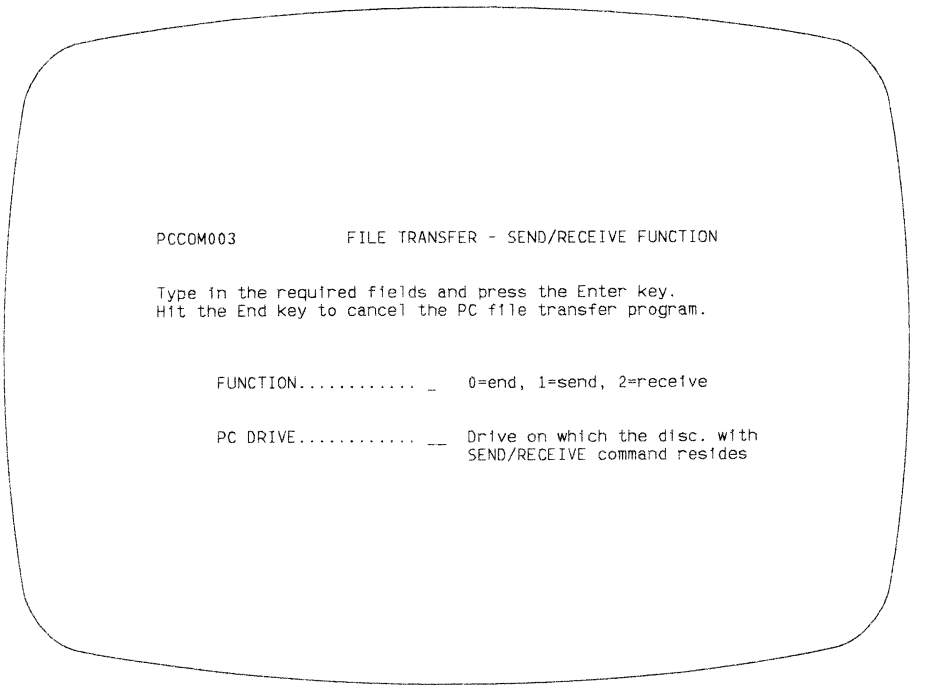


Figure 38. Initial Panel for SEND/RECEIVE Commands

From this panel, select whether you want to send or receive a file.

SEND

To send a file, enter **1** in the FUNCTION field. The system displays another panel which asks you for the following input. The information you enter follows the structure of input in the SEND and RECEIVE commands. Refer to the IBM Personal Computer documentation for details.

- PC FILENAME (SOURCE)
- HOST FILENAME (TARGET)
- USER IDENTIFIERS
  The input should contain no blanks and should be separated by commas.
- OPTIONS:
  - ASCII/BINARY
  - PRIVATE/PUBLIC
  - NOREPLACE/REPLACE

RECEIVE

To receive a file, enter **2** in the FUNCTION field. The system displays another panel which asks you for the following:

- PC FILENAME (TARGET)
- HOST FILENAME (SOURCE)

- USER IDENTIFIER
- OPTIONS:
  - ASCII/BINARY
  - DELETE/KEEP
  - REPLACE/APPEND

Creating User Exits

VSE/SP supports user-written exit routines and descriptor records for the *Personal Computer Move Utilities* dialog.

An exit routine is a CICS/DOS/VS application program. It converts or selects specified records or fields of VSE/VSAM files and VSE/ICCF members when you move them to or from the Host Transfer File.

A descriptor record is an entry in the Host Transfer File that serves as a model for an exit routine. You use a descriptor record to show an exit routine how you want it to convert or select records or fields during a move.

You should create a descriptor record as a VSE/ICCF library member and then move it into the Host Transfer File.

In general, when the system moves a file for which you have specified an exit routine and descriptor record, it:

1. Reads the first record of the file or member you are moving.
2. Reads the descriptor record.
3. Sends the address and length of the descriptor record to the exit routine.
4. Sends the address and length of the data record it read to the exit routine.
5. Waits for the exit routine to process the record.
6. Moves the altered record to the target file you specified.

This pattern of reading and moving single records continues until the exit routine processes all records of the file or member.

Note: If an exit routine returns a record length of 0, the record is **not** *written to the Host Transfer File.*

VSE/SP ships samples which contain comments to help you create exit routines and descriptor records. The samples are in VSE/ICCF library 68. VSE/SP provides both COBOL and Assembler samples.

Chapter 24. Starting and Stopping the System

This chapter provides an overview on how you start and stop the system 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 the following procedures which were 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

Part IV. Program Development Tasks

Application programmers are not the only system users who perform program development tasks. Like operations tasks, many different individuals can use the program development dialogs which the Interactive Interface offers. These tasks include:

- Accessing VSE/ICCF libraries and processing individual members.

  The dialog offers the following processing for members:

  - Edit
  - Display
  - Copy
  - Print
  - Submit
  - Compile
  - Change characteristics
  - Delete
  - Rename

- Creating an application job stream.

Chapter 25. Program Development Library

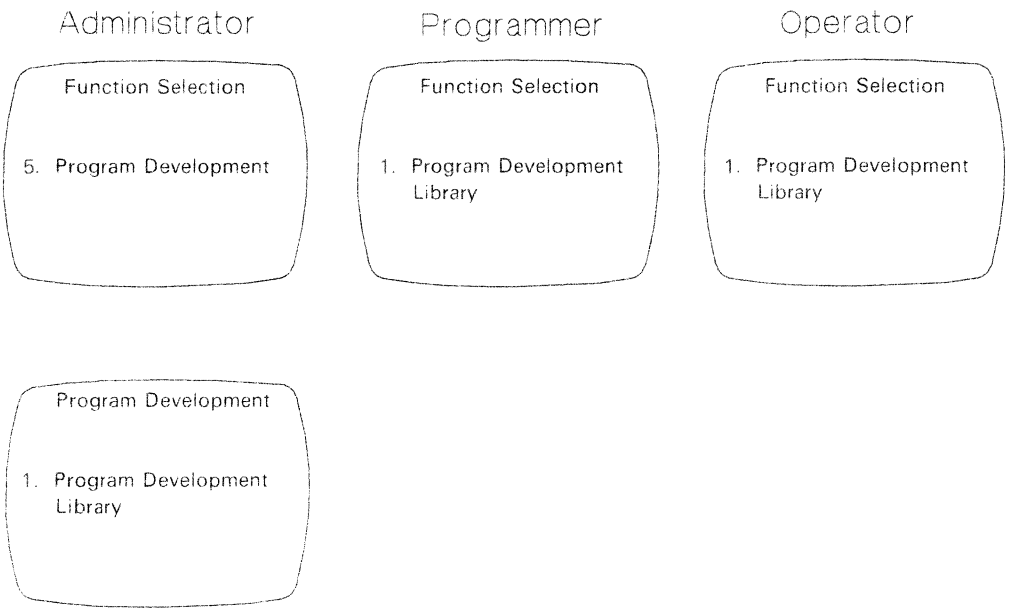
The *Program Development Library* dialog accesses a set of libraries that VSE/ICCF manages. You can display either primary or secondary libraries. The primary library is read/write. The secondary library is read only.

You can access any library to which you have write access as a primary library. You can access any library to which you have at least read access as a secondary library.

The common library is always implicitly accessed as the last library in the search chain.

The dialog uses a FULIST to display the library members. From the FULIST, you select the member you want to process.

You can access the dialog as follows:



The PROGRAM DEVELOPMENT LIBRARY panel shows your default primary library (as defined in your user profile) in the PRIMARY field.

You can access a library as either a primary or secondary library in your search chain. Enter the number of the primary library, and optionally a

secondary library. Select which library you want to display by entering the appropriate number in the OPTION field:

1 - Primary library
2 - Secondary library

You can also display members that only begin with certain characters. Enter the prefix in the PREFIX field.

Note: Users with a programmer (type 2) profile can access libraries that are defined in their user profile and public libraries. Access to some public libraries is read only. For information on library access, refer to "Additional Considerations" on page 302.

Accessing a Primary Library That is Empty

If you access a library as a primary library and the library is empty, the system displays the following message:

YOUR PRIMARY LIBRARY IS EMPTY-USE PF6 TO CREATE THE FIRST MEMBER

The panel now displays PF6 (ADD MEMBER). Press **PF6** to create the first member in the library. On the CREATE NEW MEMBER panel, enter the member name and optionally a password.

The dialog invokes the VSE/ICCF editor. Enter your data in the new member. If you do not add any data, you automatically get a member with one blank line.

After you file the member, the dialog redisplays the CREATE NEW MEMBER panel. You can do one of two things:

1. Create another library member.

   Enter a new member name and optionally a password. The dialog invokes the VSE/ICCF editor again and you can edit the new member.

2. End the create process.

   Press **PF3**. The dialog redisplays the PROGRAM DEVELOPMENT LIBRARY panel. Select the library you want to display.

After you select the library you want to access, a FULIST displays the library members. The FULIST sorts the members by date in descending order. Members with the same date appear by name in alphabetical order.

Besides the member name, the panel shows the following attributes for each member:

- LAST CHANGED: This shows the latest date when the member was edited.
- OWNER: This is the user-id of the owner of the member. For users with programmer (type 2) profiles, the user-id is displayed only for the user's own members.
- PASSW: If the member is password protected, an asterisk (*) is displayed.
- PRIVATE: If the member has the private attribute, an asterisk (*) is displayed.

You can locate a particular member by entering the member name in the LOCATE MEMBER field. If the member is found, it is displayed with an * in the OPT column.

If the FULIST is sorted in alphabetical order, you can enter a prefix in the LOCATE MEMBER field. The dialog displays the panel which has the first member starting with the prefix. If the FULIST is not sorted alphabetically, you must enter the entire name of the member. You cannot just enter a prefix.

PF keys are displayed at the bottom of the FULIST. Some PF key options are:

PF1

This displays HELP information about the panel.

PF2

This invokes the *Manage Batch Queues* dialog and displays a FULIST of the jobs in the VSE/POWER list queue. You can return to the *Program Development Library* dialog by pressing PF3.

PF5

The FULIST displays library information as of the time you selected the library. You can refresh the panel by pressing PF5. This updates the FULIST and displays the most current information.

PF6

PF6 is only displayed for primary libraries. Press PF6 to add a new member to the library.

On the CREATE NEW MEMBER panel, enter the member name and optionally a password. The dialog invokes the VSE/ICCF editor. Enter your data in the new member. If you do not add any data, you automatically get a member with one blank line.

After you file the member, the dialog redisplays the CREATE NEW MEMBER panel. You can do one of two things:

1. Create another library member.

   Enter a new member name and optionally a password. The dialog invokes the VSE/ICCF editor again and you can edit the new member.

2. End the create process.

   Press **PF3**. You return to the FULIST. The FULIST does **not** display the new member(s). Press **PF5** to refresh the panel and display the new member name(s).

PF9
This refreshes the FULIST and sorts the entries by date in descending order.

PF10
This refreshes the FULIST and sorts the entries by name in alphabetical order.

The options you can choose are at the top of the FULIST. Enter the option number in the OPT column to the left of the member you want to process. The options differ for primary and secondary libraries. They are described below.

Note: If you have a programmer (type 2) profile and a member is password protected, you must enter the password to process the member. You can either:

1. *Enter the password in the PASSWORD column on the FULIST.*

2. *Enter the password on the next panel.*

Edit a Member

You can edit a member in a primary library only, if you have write access to the member.

A member is displayed, rather than edited, if:

1. It is a *print type* member. For print type members, the last characters of the member name end in *.P*).

2. You have read access only to the member.

   You have read access only to a member, if:

   - You have a programmer (type 2) profile

AND

- The member is private and another user owns it

Display a Member

You can display members in a secondary library only. The member is displayed on the screen. The PF keys have specific settings which are shown in Figure 39.

PF Key	PF Key Setting
PF1	Not used
PF2	Redisplay current page
PF3	End
PF4	End
PF5	Not used
PF6	Not used
PF7	Scroll backward
PF8	Scroll forward
PF9	Top
PF10	Shift left 20 columns
PF11	Shift right 20 columns
PF12	Bottom

Figure 39. PF Keys for DISPLAY Option in Secondary Library

Note: The settings for PF13 - PF24 correspond to the settings for PF1 - PF12.

Change a Member

You can only change a member in a primary library. You can change the following characteristics:

- OWNER: Enter the new user-id.
- PASSW: Enter a password for password protection or key over the asterisk (*) to remove password protection.
- PRIVATE: Add or remove the asterisk (*). An asterisk indicates that the member is private.

Enter the option number, key in (over) the value you want to change, and press ENTER.

If you have a programmer (type 2) profile, you cannot change a member that another user owns.

Print a Member

You can print a member in a primary or secondary library. The dialog prints the member on the system printer with the job name P$xxxx (xxxx is your user-id).

If you print a member and edit it **before** it has printed, the dialog prints the edited (updated) version of the member.

Copy a Member

PRIMARY LIBRARY

From a primary library, you can copy members to a library to which you have write access. Specify the new member name in the NEW NAME column. In the NEW LIB column, enter the library number to where you want to copy the member.

If you want to use the same member name, enter = in the NEW NAME column.

To copy a member to the same library, leave the NEW LIB field blank or enter = .

SECONDARY LIBRARY

From a secondary library, you can copy a member to the primary library. Specify the new member name in the NEW NAME column. If you want to use the same member name, enter = in the NEW NAME column.

The member is copied to the library you specified as the primary library when you selected the dialog. The library number is displayed at the top of the FULIST.

Delete a Member

You can only delete members from a primary library. If you have a programmer (type 2) profile, you cannot delete a member which another user owns.

Rename a Member

You can only rename members in a primary library. Specify the new member name in the NEW NAME column. If you have a programmer (type 2) profile, you cannot rename a member which another user owns.

Submit a Member

You can submit a member to the VSE/POWER reader queue from either the primary or secondary library.

The Interactive Interface supplies a VSE/POWER JOB statement, if one is not found in the first sixteen records of the member. It also includes an EOJ (End-of-Job) statement. However, it assumes the member has proper VSE job control statements.

Note: The VSE/SP submit function is not the same as the VSE/ICCF submit function. VSE/SP does not do any checking for the skeletons.

Compile a Member

You can submit a primary or secondary library member for assembly or compilation. Before you use this option, you must tailor the compile skeletons. See "Tailoring the Compile Skeletons" on page 305 for information.

On the next panel, enter the following information:

- SOURCE TYPE

  1 - Online program
  2 - Batch program
  3 - Map definition
  4 - Batch subroutine

  An online program is a program which uses the CICS/DOS/VS command level application programming interface.

- LANGUAGE

  1 - COBOL
  2 - PL/I
  3 - ASSEMBLER
  4 - RPG-II
  5 - FORTRAN (batch only)

- CATALOG

  0 - Compile only
  1 - Compile and catalog

The compile skeleton which you tailored specifies the sublibrary for cataloging.

- JOBNAME
- OUTPUT MEMBER

  Specify a member name, if you want to store the job stream in your primary library. You can then edit the job stream before you submit it.

  If you want the job stream submitted immediately, leave the OUTPUT MEMBER field blank.

- PASSWORD

  If you enter an OUTPUT MEMBER name, the member that is created can be password protected.

You should consider the following:

1. Before you use the COMPILE option, you must tailor the compile skeletons. Refer to "Tailoring the Compile Skeletons" on page 305 for information about the skeletons.

2. The assembler is part of VSE/SP. However, you must have the selected compiler installed:

   - COBOL
   - PL/I
   - RPG-II
   - FORTRAN

   The compiler must be in a library in the search chain for the partition where the compile job runs.

3. For the compile, it is assumed that the following are set up for the partition(s) used by the compile jobs:

   - Work files defined and assigned.
   - Library search chain includes the compiler used.

Additional Considerations

User Profile Library Information

A user profile defines each user of the Interactive Interface to the system. The profile specifies your default primary library. It also defines up to eight additional private libraries that you can access. These libraries are called *alternate libraries*.

There are also *public libraries* and a *common library*. All users can access public libraries. However, you can only access the common library if you have an administrator (type 1) profile.

Library members have an owner and can be password protected. Members can be public or private.

Access Authority for Libraries and Members

The Interactive Interface limits the use of VSE/ICCF libraries and library members for certain types of users. The user type is defined as part of the user profile record.

An administrator (type 1) profile can access and modify members in any library, except for some system members in library 1.

A programmer (type 2) profile can access the following VSE/ICCF libraries:

- Default primary library as defined in the user profile.
- Alternate private libraries as defined in the user profile.
- All public libraries. (Access to libraries 50 - 69 is read only).

A programmer (type 2) profile has the following access for library members:

- Read access to all members in libraries that the user can access. If the member is password protected, you must specify the password.

  With read access, you have the following options:

  - Print
  - Display
  - Copy
  - Submit
  - Compile

- Write access to members the user owns and to all public members. If the member is password protected, you must specify the password. With write access, you can also use the **edit** option, in addition to any read access options.

- Change access to all members the user owns. If the member is password protected, you must specify the password.

  With change access, you have the following additional options:

  - Change
  - Rename
  - Delete

General Library Considerations

The following information outlines general library considerations:

1. If you secure DTSUTIL (for example, in DTSECTAB), certain unauthorized users **cannot** use the PRINT option from the dialog.

2. Only users with administration authority (type 1) can access library 1. The *Maintain User Profiles* dialog does not allow users with programmer (type 2) profiles to access library 1.

3. Libraries 50 - 69 are public libraries. They are read only for programmer profiles.

4. Member names with **$** as the second character are reserved for use by the system.

5. For VSE/SP, you must define VSE/ICCF libraries with the DATE option.

6. You should not change the following operands in the VSE/ICCF generation skeleton SKICFGEN:

   - ALTSEC
   - COMLIB
   - CRJE

7. If you move or extend the DTSFILE, you should make the appropriate updates to the procedures STDLABEL and DTRICCF.

Tailoring the Compile Skeletons

Before you use the *Compile a Member* option, you must tailor the compile skeletons. The system administrator should change them for your requirements.

The compile skeletons are in VSE/ICCF library 2. The skeleton names are:

C$$xxyyy

The **xx** is:

- CO for COBOL
- PL for PL/I
- AS for ASSEMBLER
- RP for RPG-II
- FO for FORTRAN

The **yyy** is:

- ONL for online program
- BAT for batch program
- SUB for batch subroutine
- MAP for BMS map definition

Before you tailor the skeletons, you should consider who will use them and how they will be used.

1. You can give the skeletons to all or some application programmers. Copy them from library 2 to a library to which the programmer has write access. The programmer can then tailor the skeletons.

2. You can tailor the skeletons for the entire system. In this way, you can establish certain standards for compile jobs and have every programmer use the same skeletons. For this method, tailor the skeleton files and leave them in library 2.

When a user selects the COMPILE option in the *Program Development Library* dialog, the system searches for the compile skeleton in the following order:

1. User's primary library
2. User's current secondary library (if any)
3. Common library (VSE/ICCF library 2)

Figure 40 on page 306 shows the skeleton for an Assembler batch program. Figure 41 on page 307 shows the skeleton for an Assembler online program. In the figures, the statements you should change are highlighted in color. A description of the changes follows the two figures.

VSE/SP has eighteen other compile skeletons which are similar. You should also tailor these. Use the information for the two examples when tailoring the other compile skeletons.

```
* $$ JOB JNM=&JOBNAME,DISP=D,CLASS=A,NTFY=YES
* $$ LST DISP=D,CLASS=Q,PRI=3
// JOB &JOBNAME COMPILE PROGRAM &PROGNAME
// SETPARM CATALOG=&CATALOG
// IF CATALOG = 0 THEN
// GOTO NOCAT
// LIBDEF PHASE,CATALOG=lib.sublib
// OPTION ERRS,SXREF,SYM,NODECK,CATAL
// IF CATALOG = C THEN
// GOTO ENDCAT
   PHASE &PROGNAME,*
// GOTO ENDCAT
/. NOCAT
// OPTION ERRS,SXREF,SYM,LIST,NODECK
/. ENDCAT
// EXEC ASSEMBLY,SIZE=256K
* $$ SLI ICCF=(&PROGNAME,&PASSWORD),LIB=&LIBNO
/*
// IF CATALOG EQ 0 THEN
// GOTO NOLNK
// EXEC LNKEDT,SIZE=256K
/. NOLNK
/&
* $$ EOJ
```

Figure 40. Compile Skeleton for Batch Assembler Programs

```
* $$ JOB JNM=&JOBNAME,DISP=D,CLASS=A,NTFY=YES
* $$ LST DISP=D,CLASS=Q,PRI=3
* $$ PUN DISP=I,PRI=9,CLASS=A                          First part of JOB 1.
// JOB &JOBNAME TRANSLATE PROGRAM &PROGNAME
// ASSGN SYS005,SYSRDR
// EXEC IESINSRT

$ $$ LST DISP=D,CLASS=Q,PRI=3
// JOB &JOBNAME COMPILE PROGRAM &PROGNAME
// SETPARM CATALOG=&CATALOG
// IF CATALOG = 1 THEN
// GOTO CAT                                          Data for JOB 1.
// OPTION ERRS,SXREF,SYM,LIST,NODECK
// GOTO ENDCAT                                       First part of JOB 2.
/. CAT
// LIBDEF PHASE,CATALOG=lib.sublib
// OPTION ERRS,SXREF,SYM,CATAL,NODECK
   PHASE &PROGNAME,*
   INCLUDE DFHEAI
/. ENDCAT
// EXEC ASSEMBLY,SIZE=256K

* $$ END
// ON $CANCEL OR $ABEND GOTO ENDJ2
// OPTION NOLIST,NODUMP,DECK
// EXEC DFHEAP1$,SIZE=256K
*ASM XOPTS(CICS)                                     Second part of JOB 1.
* $$ SLI ICCF=(&PROGNAME,&PASSWORD),LIB=&LIBNO
/*
/. ENDJ2
// EXEC IESINSRT

/*
// IF CATALOG NE 1 THEN
// GOTO NOLNK                                        Data for JOB 1.
// EXEC LNKEDT,SIZE=256K
/. NOLNK                                             Second part of JOB 2.
#&
$ $$ EOJ

* $$ END
/&                                                   Last part of JOB 1.
* $$ EOJ
```

Figure 41. Compile Skeleton for Online Assembler Programs

ONLINE SKELETON INFORMATION

The following information describes the online compile skeleton in Figure 41.

- In the first part of JOB 1, IESINSRT reads the job statements until the * $$ END statement. It translates (in column 1):
  - $ to *
  - # to /

IESINSRT also punches the information to the VSE/POWER reader queue.

- The second part of JOB 1 contains the statement:

```
// EXEC DFHEAP1$,SIZE=256K
```

The CICS/DOS/VS preprocessor for Assembler programs punches the preprocessed source code as the second part of JOB 2.

BATCH AND ONLINE SKELETON INFORMATION

The following information describes **both** the batch and online compile skeletons.

Parameters beginning with & are replaced with information the user enters when using the COMPILE option.

Consider the following changes:

1. Change the LIBDEF statement. Replace the variable lib.sublib with the library and sublibrary name you want to use.

2. Review and consider changing:

   - Job class and disposition in the * $$ JOB statement.

     ```
     DISP=D
     CLASS=A
     ```

   - Print class and disposition in the * $$ LST statement.

     ```
     DISP=D
     CLASS=Q
     ```

   - COBOL options in the OPTION statements.
   - CICS/DOS/VS preprocessor options (online program).
   - SLI statement.

     New VSE/POWER and VSE/ICCF features allow you to include a VSE/ICCF member at **execution** time. This reduces submit time and uses disk space more efficiently. The member does not have to be transferred from the VSE/ICCF library to the VSE/POWER reader queue.

     When you plan for the tailoring of the compile skeletons, consider the following about these new features:

     a. You should **not** change the VSE/ICCF member until the job completes

        OR

        if you need to change it, replace the SLI statement with a /INCLUDEstatement. This will put the member in the reader queue at submit time.

b. If the compile job stream runs on another system, a correctly named VSE/ICCF member must be available at the remote system

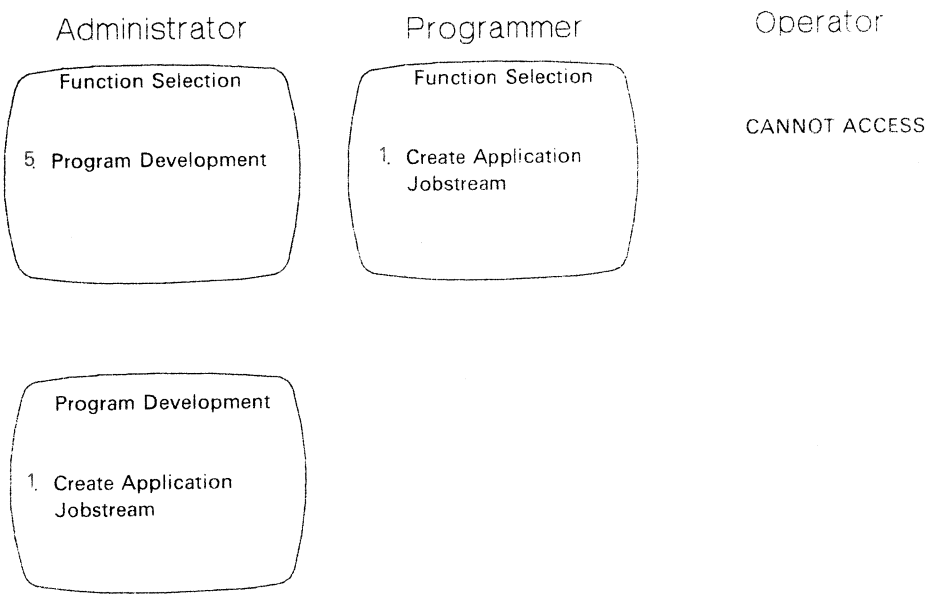
OR

if you want a member at your system compiled at another system, replace the SLI statement with a /INCLUDE statement.

Chapter 26. Create Application Job Stream

The *Create Application Jobstream* dialog helps you create job streams. You can save the input parameters that you specify in a VSE/ICCF library member for future use. If you create another job stream with similar parameters, you can use the saved input for default values.

You can access the dialog as follows:



The dialog displays the CREATE OR MODIFY panel.

If you used the dialog before and saved your input parameters, you can use them as defaults. This is helpful if you are creating a job stream with parameters that are similar to ones in a previous job stream. The input was saved in a VSE/ICCF library member. Specify the name of the member on the panel.

If you are creating a new job stream, simply press **ENTER**. You are asked to define new parameters.

On the next panel, specify the following:

PROGRAM NAME
Enter the **name of the program**. The name cannot be:

- ALL
- ROOT
- S

LIBRARY and SUBLIBRARY NAME
Specify the **library and sublibrary** where the program resides. The dialog searches for the program in this library and sublibrary.

If the sublibrary is defined in the LIBDEF PHASE,SEARCH = statement for the partition where the job runs, you can leave these fields blank.

From the SELECT FUNCTIONS panel, select any optional functions for your job stream. If your program uses any Input/Output (I/O) devices, other than disk, you can provide specifications for individual devices. Enter:

1 - YES (Provide specifications)
2 - NO (Do not provide specifications)

If you specify 1 (YES), the dialog displays additional panels. The options you can specify are described in the following sections, beginning with "Printer Specifications" on page 313.

When you finish entering your options (or choose not to specify any), you can do one of two things:

1. Return to the beginning of the dialog to review and possibly change the options.

   The dialog redisplays the SELECT FUNCTIONS panel. Again, indicate the options you want to review or specify.

2. Continue with the dialog.

After you continue, you are asked whether you want to save the parameters. If you want to save them, enter the **name of a VSE/ICCF library member**. The dialog stores the parameters in the member in your default primary library.

If you do not want to save the values, just press **ENTER**.

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

Printer Specifications

You can define the following requirements for up to three printouts:

- Printer address
- Logical unit
  Specify SYSLST or SYS000 - SYS254.
- Output class
- Number of copies
- Form number
  This specifies that a special form is used for the output.
- Forms control buffer
- Train image buffer

Reader or Punch Specifications

You can specify the following units to be used by your program:

- Reader logical unit
  If your program has card input from a reader other than SYSRDR, specify the logical unit (SYS000 - SYS254).
- Punch or punch to tape
  - Logical unit
    If your program does not write to SYSPCH, specify the logical unit (SYS000 - SYS254).
  - Tape address
    If your program punches to tape, enter the physical tape address.

Tape Specifications

You can define the following tape I/O specifications for up to four tapes:

- Tape address
- Logical unit
  Specify the logical unit which your program uses to reference the tape (SYS000 - SYS254).
- Tape volume ID
  If you specify an ID, write down the value you use. You will need to know it later, if you use the tape for input.

You should have comments and a PAUSE statement in the job stream for tape mount instructions.

- File name
  This is the **name which your program uses to reference the tape file** .

- File-id
  Specify an **optional name** that is associated with the file on the tape. If you enter a file-id, write down the value you specify. You will need to know it later when you process the file.

- File date
  For output tapes, this is the **expiration date**. For input tapes, it is the **creation date**.

  The date format is **YY/DDD**, where YY is the year and DDD is the day of the year.

Diskette Specifications

You can define the following diskette I/O specifications:

- Logical unit
  Specify the logical unit which your program uses to reference the diskette (**SYS000 - SYS254**).

- **Volume identifier**
  This is used to check that the correct volume is mounted.

- File name
  This is the **name** which your program uses **to reference the diskette file** .

- **File-id**

- Expiration date
  For output files, this is the **date through which the file is kept** . This field is not used for input files.

  The date format is **YY/DDD**, where YY is the year and DDD is the day of the year.

Data Specifications

You can choose how data is included in your job stream:

1. From a VSE/ICCF library member when the job stream runs.

   You are asked for the **name** of the library member that contains the data. Specify the **password**, if the member is password protected.

2. Data entered from the dialog.

   You can enter up to **three lines of data**. The dialog includes the data in the job stream.

Job Information Specifications

You can specify the following job options:

- UPSI
  You can set up to eight user program switches. Positions 0 - 7 of the UPSI byte are set from left to right. For each program switch, specify:

  0 - Switch is set off
  1 - Switch is set on
  x - Switch is unchanged

- Job date
  Specify a **date** to override the system date.

- **COMMENT** statements

- **PAUSE** statement

Bibliography

Publications for VSE/SP Component Program Products

This list outlines the VSE/SP component program product documentation which is referenced in this book.

Customer Information Control System, Version 1 Release 6 (below: CICS)

CICS/VS Operator's Guide, SC33-0080

CICS/VS Resource Definition Guide, SC33-0149

VSE/Advanced Functions, Version 2 Release 1

VSE/Advanced Functions System Control Statements, SC33-6198

VSE/Interactive Computing and Control Facility, Version 2 Release 1 (below: VSE/ICCF)

VSE/ICCF Installation and Operation Reference, SC33-6203

VSE/POWER, Version 2 Release 2

VSE/POWER Installation and Operation Guide, SH12-5329

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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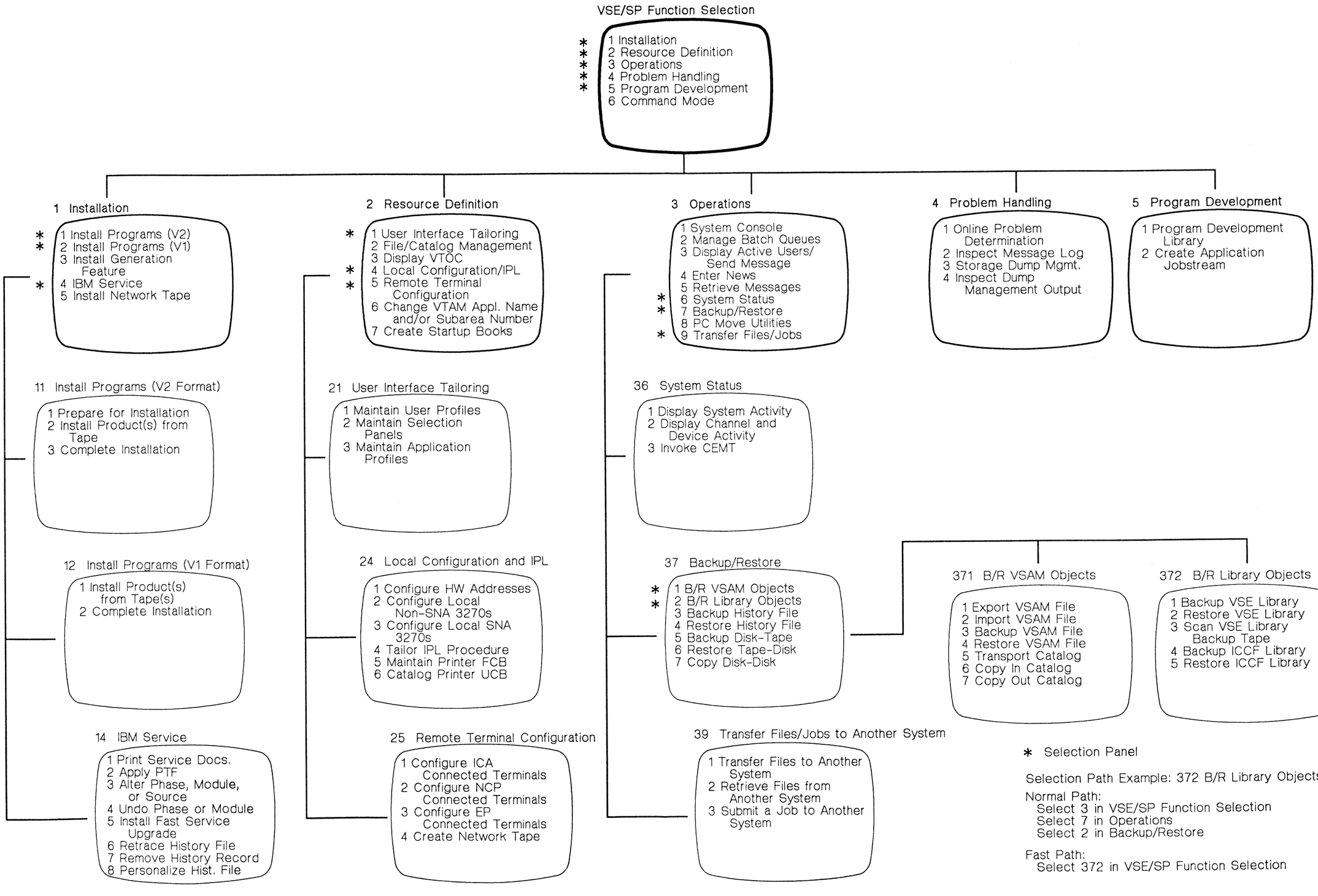
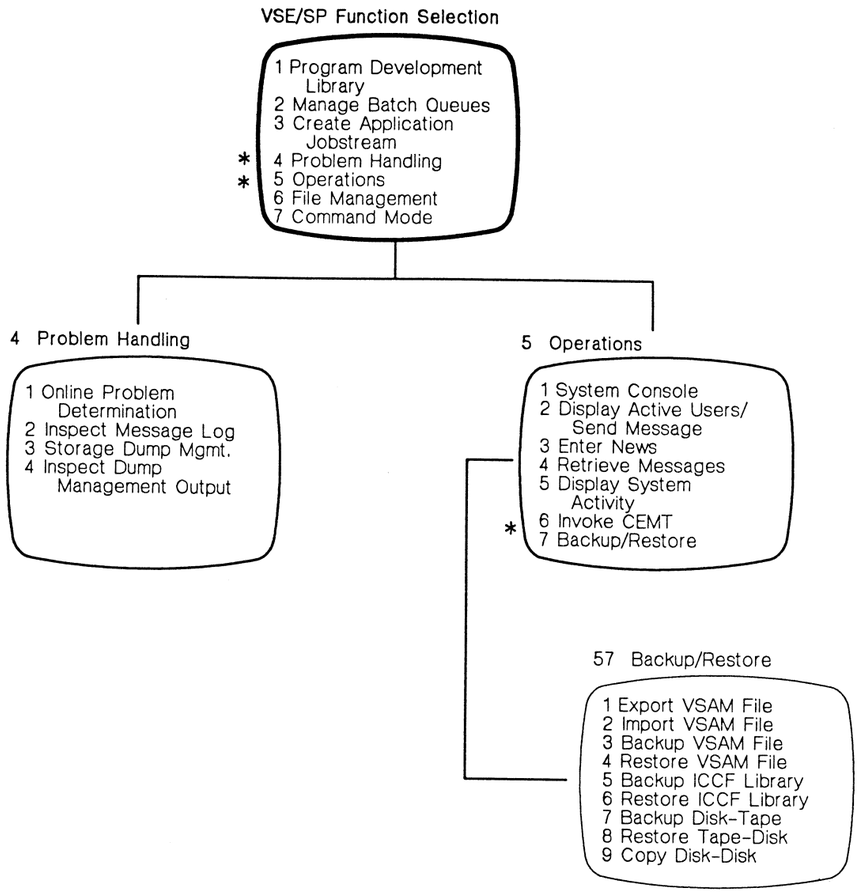
Default Selection Panel Hierarchy for System Administrator



Default Selection Panel Hierarchy for Programmer



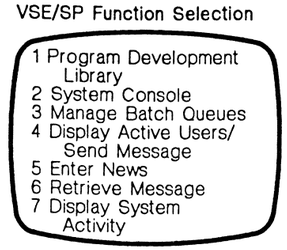
* Selection Panel

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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