CA Panvalet® ISPF Option

User Guide

r14.6
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Chapter 1: Introduction

The CA Panvalet Option for ISPF retains the advantages of the CA Panvalet library and provides the controls, information, and security of the original batch system in the online programming environment. The direct interface between IBM ISPF/PDF and the CA Panvalet library lets you perform online browse, edit, and utility functions on members in CA Panvalet libraries.

This guide provides general information about the CA Panvalet ISPF Option and end-user information about using the Browse, Edit, and Utility facilities. It also provides sample sessions, command descriptions, ISPF error and log message information, and exit facility information.

This chapter describes the features and benefits of the CA Panvalet ISPF Option. It also describes interface techniques using the CA Panvalet TSO Option and the CA Panvalet Access Method (PAM).

This section contains the following topics:
- ISPF Option System (see page 13)
- ISPF Option Facilities (see page 14)
- Interfacing ISPF and CA Panvalet (see page 15)

ISPF Option System

The CA Panvalet ISPF Option solves the problems inherent in self-programmed systems. It provides direct communication between ISPF Edit and a CA Panvalet library. The benefits of the CA Panvalet ISPF Option direct communication include:

- Ease of use
- Use of CA Panvalet and ISPF without the CA Panvalet TSO option as an intermediary
- Reduced overhead by bypassing the extra reading, writing, and DASD space required for temporary data sets
- Use of the full range of CA Panvalet and ISPF facilities
- Display of standard ISPF error messages
- Maintenance and display of CA Panvalet level stamps
- Display of CA Panvalet user-comment records
- Protection of production status or locked CA Panvalet members
ISPF Option Facilities

The CA Panvalet ISPF Option is divided into the following basic facilities: Edit, Browse, Utility, and View.

Edit

The Edit facility lets you edit CA Panvalet members using functions similar to ISPF/PDF edit.

Browse

The Browse facility lets you browse CA Panvalet members using functions similar to ISPF/PDF browse.

Utility

The Utility facility provides the following online CA Panvalet utilities:

- Member attribute changes (status, comment, user code, level)
- Member manipulation (copy, rename, delete, print)
- Member language change
- Library-to-library copy
- Member lock/unlock
- User query utility
- Compare utility
- Scan utility
- Create utility

Note: The member manipulation delete function and the Create and Scan utilities may not be available at your site.

View

The View facility lets you view CA Panvalet members using functions similar to ISPF/PDF view.
Interfacing ISPF and CA Panvalet

Many installations have interfaced CA Panvalet and ISPF through the CA Panvalet TSO Option, which is another TSO Command Processor. Using the TSO Option, a CA Panvalet member is copied from the CA Panvalet library to a temporary work data set. ISPF copies the member from the temporary data set into memory, and then you can edit the member while it is in memory. When editing is complete, the updated member is saved to the temporary data set, and the TSO Option is re-entered to copy the temporary data set back to the CA Panvalet library.

CA Panvalet users have developed interface techniques that range from direct use of the TSO Option facility by the programmer to very sophisticated automatic systems. Some installations have used the CA Panvalet access method (PAM), combined with CA Panvalet and TSO Option user exits, to create systems that make the interface so efficient that the programmer hardly realizes that the interface is there.

However, no matter how simple or sophisticated the interface, problems remain for these self-programmed systems. In the simple system, the programmer faces extra work in switching to the TSO Option to retrieve and store programs in the CA Panvalet library. The more sophisticated systems allow the same processing to be performed but restrict some of ISPF’s capabilities.
Chapter 2: System Overview

The basic CA Panvalet system is a batch source program library facility. The advantages of CA Panvalet include efficiency, reliability, control and monitoring of program changes and activity, and program security.

This section contains the following topics:

- **CA Panvalet Library** (see page 17)
- **Batch Update** (see page 18)
- **Control and Security** (see page 18)
- **Production Status** (see page 19)
- **Programmer and Management Functions** (see page 19)
- **Integrity Lock** (see page 19)
- **ISPF Option** (see page 19)
- **ISPF/PDF Primary Option Menu** (see page 21)
- **Primary Menu Options** (see page 23)
- **Wildcard Notation for MSL Member Names** (see page 25)
- **Default Panels** (see page 27)

CA Panvalet Library

The CA Panvalet library is a direct access data set where source code is compressed according to the characteristics of the programming language used. The CA Panvalet library:

- Reclaims DASD space to eliminate any need for reorganization
- Extends automatic error detection and recovery far beyond standard system facilities
- Includes backup, restore, and archive facilities to make CA Panvalet a completely self-contained system
Batch Update

In a batch environment, CA Panvalet provides a full range of facilities to delete, insert, or replace lines of code. You can:

- Modify individual lines in place and search and modify character strings
- Copy program code to and from partitioned data sets or sequential data sets
- Store common code on the library and have any other program on the library reference it using the CA Panvalet ++INCLUDE function

CA Panvalet produces a complete audit trail of all changes, including before and after images of lines modified in place. An optional facility lets you stamp all changed lines with the change level at which the modification was done.

Control and Security

The real value of CA Panvalet lies in the areas of control and security.

- For control, CA Panvalet monitors a wide range of activity information, including last access date, last maintenance date, and last action performed on each individual program.
- For security, CA Panvalet can restrict access to any particular program or a library. You can even control CA Panvalet facilities themselves and make them available to authorized persons only.

When you create a CA Panvalet library, you can suppress CA Panvalet commands (functions). To execute a suppressed function, you must enter the correct control code. If no security codes are set, the default security code is zero. Batch CA Panvalet jobs must supply a control code to execute suppressed commands even if the code is zero (the default). For more information about the SUPPRESS and CONTROL commands, see the System Management Guide.

The CA Panvalet ISPF Option Control field on the ISPF panels also defaults to zero. Therefore, when using the CA Panvalet ISPF Option to access libraries created with suppressed functions but no security codes, you can perform those suppressed functions without entering a CONTROL code.

Note: If you are using controlled, concatenated CA Panvalet libraries, the CONTROL codes for all libraries in the concatenation must be the same.
Production Status

Each CA Panvalet program has a status of production or test. You cannot modify programs in production status. You can modify programs in test status and generally use them for testing.

Programmer and Management Functions

Each CA Panvalet command is defined as a programmer or a management function. Programmers use programmer functions to create and maintain programs. Traditionally, programmer functions have been described in the User Guide. Management functions encompass all library administration and control facilities such as backup, restore, activity reporting, and deletion. Deletion (or destruction) of programs is not treated as a programmer function. Traditionally, management functions have been described in the System Management Guide.

Integrity Lock

The lock function lets you lock a member, regardless of status. Once a member is locked, only the user ID of the current lock stored with the member can modify its data, attributes, or comment text in any way. All other users are unable to modify it. For more information and an example of how to use this facility, see Utility Session 5 (Member Lock/Unlock) in the chapter "Sample Utility Sessions."

The user ID, as well as the date and time that the member was locked, are stored with the member. Only the user ID that matches the user ID of current lock stored with the member is allowed to unlock the member.

ISPF Option

The CA Panvalet ISPF Option functions as a subsystem of ISPF/PDF by incorporating CA Panvalet as a new option on the ISPF/PDF Primary Option Menu. Selecting the CA Panvalet option generates the CA Panvalet Primary Menu, which lets you select the Browse, Edit, Utility, and View facilities as well as the What’s New version summary information panels.
The following diagram illustrates the ISPF/PDF system with the CA Panvalet ISPF Option installed. Bold lines are used for the CA Panvalet ISPF Option.
The following panel shows the ISPF/PDF Primary Option Menu.

```
-------------------- ISPF/PDF PRIMARY OPTION MENU -----------------------

OPTION ==>
0  ISPF PARMS - Specify terminal and user parameters
   0  ISPF PARMS - Specify terminal and user parameters
   1  BROWSE - Display source data or output listings
   2  EDIT - Create or change source data
   3  UTILITIES - Perform utility functions
   4  FOREGROUND - Invoke language processors in foreground
   5  BATCH - Submit job for language processing
   6  COMMAND - Enter TSO command or CLIST
   7  DIALOG TEST - Perform dialog testing
   8  LM UTILITIES - Perform library management utility functions
   C  CHANGES - Display summary of changes for this release
   P  PANVALET - Browse, edit, and utilities
   T  TUTORIAL - Display information about ISPF/PDF
   X  EXIT - Terminate ISPF using log and list defaults

Enter END command to terminate ISPF.
```

Note: Although this panel lists CA Panvalet as option P, you can choose another option code for CA Panvalet at installation time.

From this panel, you can make the following selections for CA Panvalet:

P

CA Panvalet Primary Menu

P.1

Browse facility

P.2

Edit facility

P.3

Utility facility

P.3.1

Member attribute changes utility

P.3.2

Member manipulation utility

P.3.3

Member language change utility
P.3.4
Member lib-to-lib copy utility

P.3.5
Member Lock/Unlock utility

P.3.6
User query utility

P.3.7
Compare utility

P.3.8
Scan utility

P.3.9
Library create utility

P.4
View

P.5
What’s New
Primary Menu Options

The following panel illustrates the CA Panvalet primary menu:

```
PDFINFO=2002203-45----- AllFusion CA-Panvalet for Z/OS --- Computer Associates
OPTION ===>
    VERSION - vvrvggg

1  BROWSE - Display AllFusion CA-Panvalet Members
2  EDIT   - Modify/Create AllFusion CA-Panvalet Members
3  UTILITY- AllFusion CA-Panvalet/ISPF Utilities (COPY,QUERY,etc.)
4  VIEW   - Modify & Create without changing original mbr
5  WHAT'S NEW - In AllFusion CA-Panvalet Version 14.5

Enter END command to terminate AllFusion CA-Panvalet/ISPF.
```

From this panel, you can make the following menu selections:

1

Browse facility

2

Edit facility

3

Utility facility

3.1

Member attribute changes utility

3.2

Member manipulation utility

3.3

Member language change utility

3.4

Member lib-to-lib copy utility
3.5
Member lock/unlock utility

3.6
User query utility

3.7
Compare utility

3.8
Scan utility

3.9
Create utility

4
View facility

5
What’s New

Note: The upper-left section of the CA Panvalet primary menu identifies the level of IBM PDF and the version of CA Panvalet installed at your site. This date-related information has been removed from this panel and other panels throughout the remainder of this guide. Additionally, the current version of the CA Panvalet ISPF Option that you are operating replaces the vwrqggg in the upper-right section of the panel.

The CA Panvalet Option for ISPF provides a full range of Browse and Edit facilities. The primary difference between the CA Panvalet Option for ISPF and ISPF/PDF is that the basic DASD storage medium is a CA Panvalet library instead of a partitioned data set or a sequential data set.

Browse

The Browse functions are similar to ISPF/PDF Browse. The CA Panvalet member selected for browsing is copied to a work data set, and the ISPF/PDF Browse Service is invoked internally to perform the actual browse operations.
**Edit**

The Edit functions are similar to the ISPF/PDF Edit functions. When you select a member for editing, the member is retrieved from a CA Panvalet library directly into memory. Once the member is in memory, the ISPF Edit Service is invoked internally to perform the actual edit operations.

Because of the CA Panvalet requirements to maintain a controlled library, you should be aware of the following restrictions.

**Utility**

The Utility facility provides online CA Panvalet utility functions such as member Copy, Rename, and Status change.

Unlike the Edit and Browse facilities, Utility has no direct correspondence to ISPF/PDF utilities.

See the chapter "Utilities" for detailed information about these utilities.

**View**

The View facility lets you edit or view a member without the ability to save the edits. Many use the view facility for functions such as job submission.

The View functions are similar to ISPF/PDF View. The CA Panvalet member selected for viewing is copied to a work data set and the ISPF/PDF View Service is invoked internally to perform the actual View operations. Because the functionality and panels in the View facility are very similar to the Browse and Edit facilities, there is no chapter devoted to View functionality in this guide. See the chapters "Browse" and "Edit" for information about using the View facility.

**What's New**

The What's New option displays summaries of the two most recent CA Panvalet ISPF Option and CA Panvalet Batch versions.

**Wildcard Notation for MSL Member Names**

All Member Selection List (MSL) criteria specifications of the member name within Edit, Browse, Utilities, and View allow for wildcard notation within the CA Panvalet member name. Wildcard notation allows for generic pattern matching in member names. This reduces the length of selection criteria and provides more granularity in specifications.
The two special characters are:

- Asterisk (*) represents any number of characters or no characters
- Question mark (?) represents any single character

A name can contain only one asterisk (*), but any number of question marks (?). One name can contain both an asterisk and question marks.

Following are examples of wildcard notations:

**PAY**
List all members beginning with the first three letters PAY. This includes any item named PAY, such as PAY, PAYROLL, and PAY1.

**PAY??**
List all members beginning with PAY. This is the same as entering PAY*.

**P?Y**
List only 3-character member names that have a P in position 1 and a Y in position 3.

**P?Y**
List all members that have a P in position 1 and a Y in position 3.

**P**
List only the member named P (if any).

**P**
List all members beginning with the letter P.

**PAY??**
List only 5-character member names beginning with PAY and followed by two additional characters. This does not include any item named PAY, but does include PAY1A and PAYDA.

**+**
List all members.

**+OLD**
List all members ending in OLD, such as PAYOLD and PGMOLD.

**+O?D**
List all members with O as the third from the last character and D as the last character. For example, PAY01OLD and BOND.

**W*T**
List all members starting with W and ending with T, such as WAIT and WHAT.
Default Panels

The panels used within this guide assume that all installation default settings have been applied. If the actual panels that you view online are slightly different than the panels shown in this guide, it is because your site is using different PSPIPOPT installation options. For additional information about these options, see the *Getting Started*. 
Chapter 3: Browse

The Browse facility gives you read-only access to a CA Panvalet member.

Aside from the initial menu, there are no differences between ISPF/PDF Browse and CA Panvalet Browse.

This chapter describes the browse facility operational flow, access information, member selection list option, retrieval option, concatenated library information, and data display.

This section contains the following topics:

- Operational Flow (see page 29)
- Accessing the Browse Facility (see page 30)
- Using the Member Selection List Option (see page 34)
- Specifying Concatenated Libraries (see page 50)
- Using the Data Display (see page 52)

Operational Flow

During the browse operation, selected CA Panvalet members are copied to a temporary data set named:

'prefix.userid.PANVALET.ISPF0PTN.BROWSn'

Where n is the current ISPF logical screen number. ISPF/PDF Browse performs the actual browsing, but CA Panvalet controls it. After the browse is completed, ISPF/PDF Browse exits through CA Panvalet Browse. (See the following flow chart.)
The Browse facility supports members with all logical record lengths (from 80 through 4096 bytes, inclusive). The logical record length of the browse temporary data set is adjusted automatically to match the current logical record length of the member being browsed. The blocking factor selected by the installation is used unless the result causes a block size greater than the 32 KB maximum; in this case, a blocking factor of 5 is used.

**Note:** The temporary data set is suffixed with the current ISPF logical screen number to let you use the Browse facility in a split screen environment.

### Accessing the Browse Facility

To access the Browse facility, perform these steps:

1. Use either of the following methods:
   - Enter `1` on the CA Panvalet primary menu.
   - Enter `P.1` from the ISPF/PDF Primary Option Menu.
2. Press Enter. The PVBROWSE - Entry Panel is displayed.

```
-----------------------
PVBROWSE  ENTRY PANEL  --------------  Computer Associates
COMMAND ====>
VERSION - vvrgggg

Standard CA-Panvalet Library:
PROJECT ====> PAYROLL
GROUP ====> WORK ====> TEST ====> QUALITY ====> PROD
TYPE ====> PANLIB

MEMBER ====> (Blank for Criteria Selection PANEL for MSLs)
(Member name with Wildcard * ? notation for MSL)
Non-Standard CA-Panvalet Library – RETAIN ====> Y (Y/N, Save in Profile)
DSNAME ====>
VOLSER ====> (If NOT Cataloged)

CA-Panvalet Retrieval Options:
CONTROL ====> (If necessary)
ACCESS ====> (If necessary)
EXPAND ====> N (Y/N)

Press ENTER key to process; Enter END command to terminate.
```

**Note:** Specific display fields of CA Panvalet Browse differ from ISPF/PDF Browse, but the processing and use of the panel are similar.

3. Specify a standard or non-standard data set name for a CA Panvalet library using the following fields:

**Command**

Command is the ISPF/PDF command entry field. The CA Panvalet ISPF Option does not use this field. For more information, see the IBM *ISPF/PDF Reference Guide*.

**Standard CA-Panvalet Library**

Specifies project, group, type and member information for the standard CA Panvalet library data set name.

**Project, Group, Type**

Specifies a standard three-level data set name for the CA Panvalet library in the **project.group.type** format (for example, PAYROLL.WORK.PANLIB). As with ISPF/PDF, the data set name is initialized according to the last library used.

When used with CA Panvalet, Type has nothing to do with the type of data stored in the library. A CA Panvalet library usually consists of several types of program codes and data. Type is the third level of the data set name (in this example, PANLIB).

You can concatenate up to four standard CA Panvalet libraries (for example, work, test, quality, and prod). Concatenated standard CA Panvalet libraries can generate a composite Member Selection List (MSL). For more information, see Specifying Concatenated Libraries later in this chapter.
Member

Specifies a CA Panvalet member name or wildcard expression. The member name is from one to ten (1-10) alphanumeric and special characters (@, $, #) in length. Wildcard notation allows for generic pattern matching in member names. For more information about wildcard notation, see Wildcard Notation for MSL Member Names in the chapter "System Overview."

If you leave this field blank, the Member Selection List Option is automatically chosen. See Using the Member Selection List Option for more information.

Non-standard CA-Panvalet Library

Specifies non-standard CA Panvalet library information using the following fields:

- **Retain**—Specifies whether to use the RETAIN parameter to retain the non-standard CA Panvalet data set name across sessions. Valid values are Y (retain) and N (do not retain). The default is Y.

- **Dsname, Volser**—Specifies a non-standard data set name for a CA Panvalet library. A non-standard data set name does not match the three-level structure or the library is not cataloged.

  You must specify a full data set name (CA Panvalet never adds a user ID qualifier).

  You can specify a member name within parentheses, similar to a partitioned data set. If you do not specify a member name, an MSL is produced. The data set name is initialized according to the last library used.

  If you chose non-standard library concatenation panels at installation time, you can concatenate non-standard CA Panvalet libraries.

  **Note:** Concatenated non-standard CA Panvalet library panels provide for a 44-character data set name. With the exception of the data set name structure, all requirements of concatenation still apply.

4. Specify retrieval options required for the specified member using the following fields:

   **Control**

   Specifies a control code to use for secured libraries that have suppressed functions. For more information, see Control and Security in the chapter "System Overview."
Access

Controls access to individual members. To browse a restricted member, you must enter the five-digit access code before CA Panvalet can retrieve the member from the CA Panvalet library.

**Note:** When specified, this parameter must contain a numeric value. It is necessary only when the member Security Level (SL) is set to 1, 2, or 3. If the member is secured, the access code you specify must be left-justified. For example, if the access code is one (1), valid entries are:

1 01 001 0001 00001

For more information about access codes, see the *System Management Guide*.

Expand

Controls the expansion of embedded CA Panvalet `++INCLUDE` statements. You can specify N or Y as follows:

- **N**—The retrieved member contains the original `++INCLUDE` statement. The installation default is N.
- **Y**—The member contains the actual included code.

For more information about expanding `++INCLUDE` statements, see the description of the Expand field in the Field Descriptions section of the PVEDIT - Entry Panel in the chapter "Edit."

5. Press Enter to process.
Using the Member Selection List Option

When you leave the Member field blank on the PVBROWSE - Entry Panel, the PVBROWSE - MSL Criteria panel is displayed.

Since CA Panvalet libraries tend to be much larger than typical partitioned data sets and ISPF libraries, you can set criteria to limit the size of your MSL using this panel. If you choose not to limit the size of the MSL, leave all of the selection criteria blank.

```
-------------------------
| COMMAND               |
| LIB1: PAYROLL.WORK.PANLIB |
| LIB2: PAYROLL.TEST.PANLIB |
| LIB3: PAYROLL.QUALITY.PANLIB |
| LIB4: PAYROLL.PROD.PANLIB |

Please choose one or more of the following for the MEMBER SELECTION LIST:

  SORT MSL ===> N  (Y/N)
  List members starting with ===> (Wild * and ? notation, PAY?5*A)
  List members with LANG TYPE ===> 
  List members with USER CODE ===> (I=ID Only,B=Blank IDs ONLY)
  List members with USER-ID ===> 
  List members with STATUS ===> 
  Display with COMMENT Data ===> N  (Y/N)

MSL DISPLAY Options:
  ===> A  A - Standard  C - Last Update/LOCK
  B - USER-ID  D - LRECL/CC

CONTROL CODE (If required) ===> 

Press ENTER key to process; Enter END command to terminate.
```

The libraries LIB1, LIB2, LIB3, and LIB4 are displayed in the upper left portion of this panel. A maximum of four libraries are displayed, depending on the library selection entered on the PVBROWSE - Entry Panel. This concatenation sequence displayed is read-only, with modifications possible only by returning to the PVBROWSE - Entry Panel.

To limit the size of the MSL, enter data in the following fields as needed:

**Command**

Command is the ISPF/PDF command entry field. The CA Panvalet ISPF Option does not use this field. For more information, see the IBM ISPF/PDF Reference Guide.

**Sort MSL**

Lets you sort the Member Selection List through access to the MSL Sort Fields Panel. See Specifying MSL Sort Criteria later in this chapter for more information.

- N—Do not provide additional sort criteria.
- Y—Specify additional sort criteria to sort the MSL.
List Members Starting with

Limits the MSL by name or wildcard notation:

■ When you use a name followed by an asterisk (*), the characters entered are taken as the initial characters of the member name. For example, entering MEM* limits the selection to members whose names start with MEM. Entering MEM limits the MSL to the one specific member named MEM. From one to nine alphanumeric (1-9) and special characters (@, $, #) are allowed.

■ When you use a wildcard, the wildcard notation allows for generic pattern matching in member names. For example, entering *O?D limits all members that have O as the third from last character and D as the last character (such as PAY01OLD and BOND). For more information about wildcard notation, see Wildcard Notation for MSL Member Names in the chapter "System Overview."

List members with Lang Type

Limits the MSL by language type (for example, COBOL or FORTRAN). For a list of valid language types and synonyms, see the description of the Lang Type field in the Creating a New Member section in the chapter "Edit."

List members with User Code

Limits the MSL by specific user code (for example, 3210).

List members with User-ID

Limits the MSL by specific user ID and members with no user ID (old members that have not been accessed since CA Panvalet 14.2 and earlier). Specify I to limit the selection to user IDs only or B to limit the selection to blank user IDs only.

List members with Status

Limits the MSL to members of a certain status as follows: P (production), T (test), A (active), E (enabled), I (inactive), or D (disabled).

You can specify only one status attribute (combinations such as PE or PI are not allowed).

Display with Comment Data

Controls the display of user comments records with each CA Panvalet member. Specify Y or N as follows:

■ Y—Display member information on two lines. One for the member information and one for the comment.

■ N—Display member information only. The default is N.
MSL Display Options

Determines how to display the CA Panvalet ISPF Option MSL. You must specify one of the following values. The value entered is displayed on the Member Selection List for the specified option.

- **A**—Displays a standard MSL for each member. This is the default. See Displaying the Standard MSL for more information.
- **B**—Displays the MSL with the user ID of Last Update for each member. See Displaying Last Update User ID and Member Information for more information.
  
  **Note:** Selecting this option on a CA Panvalet 14.1 or earlier library version generates the user ID of Last Update MSL, with blank user ID information.
- **C**—Displays the MSL with the last update and current lock information for each member. See Displaying Last Update and Current Lock Information for more information.
  
  **Note:** Selecting this option on a CA Panvalet 14.1 or earlier library version causes the last update information to display as blanks. If the member was locked, the date and time of lock displays as blank and the current lock displays as unknown.
- **D**—Displays the MSL with the logical record length (LRECL) and carriage control attribute (CC) for each member. See Displaying Logical Record Length and Carriage Control Information for more information.

Control Code

Restricts certain library file functions using the specified control code. You can use these restricted functions only after you enter the correct control code. If using controlled concatenated CA Panvalet libraries, you must use the same control codes for all libraries.

Information Window

If you choose selection criteria for an MSL that could cause a long response delay due to the directory scan processing requirements of the criteria, an information window displays toward the top of the PVBROWSE - MSL Criteria panel as follows:

```plaintext
+-----------------------------------------------+  
| DIRECTORY SCAN HAS COMPLETED FOR 1 OUT OF A TOTAL OF 4 LIBRARIES |  
| LIBRARY IN PROCESS: PAYROLL.TEST.PANLIB |  
| THUS FAR 21 PERCENT OF ALL MEMBERS HAVE BEEN PROCESSED |  
+-----------------------------------------------+  
```
The information in this window includes the:

- Count of libraries for which the directory scan process has completed out of the total count of concatenated CA Panvalet libraries
- Data set name of the current CA Panvalet library in process
- Percentage of the MSL that has been built so far

While processing to build the MSL continues, this information displays with keyboard lock of the MSL - Criteria panel. The panel provides you with an idea of how much processing has been done and how much remains. For very long processing requirements, the current processing statistics are periodically updated.

**Displaying the MSL**

If you leave the member name on the PVBROWSE - Entry Panel blank and enter selection criteria on the PVBROWSE - MSL Criteria panel, the Browse facility responds with an MSL for the options selected.

The panel that is displayed depends on the value specified in the MSL Display Options field on the PVBROWSE - MSL Criteria panel. You can generate an MSL for a single library or multiple libraries from the PVBROWSE - MSL Criteria panel. For a detailed multiple library example, see Specifying Concatenated Libraries later in this chapter.
Displaying the Standard MSL

The following panel shows an MSL generated with the following options specified on the PVBROWSE - MSL Criteria panel:

- A (the default) for MSL Display Options
- Y for Display with Comment Data

```
-------- PVBROWSE MSL Option(A) - MEMBER SELECTION LIST --- Raw 1 to 6 of 8

Enter Panvalet Function:
| S or B -Browse, M -MSL Options & Dataset Info
|
| MEMBER    LIB LVL USER F LANG STAT LMAINT   LACCESS   BLKS  STATMTS ACT AVG
|
| MEMBER1    1 1 0 N COBOL TAE          09/09/03     1        1 ADD 80
| MEMBER2    1 1 0 COBOL TAE          09/09/03     1        1 ADD 80
| MEMBER3    1 1 0 N COBOL TAE          09/09/03     1        1 ADD 80
| MEMBER4    1 1 0 COBOL TAE          09/09/03     1        1 ADD 80
| MEMBER5    1 1 0 N COBOL TAE          09/09/03     1        1 ADD 80
| MEMBER6    3 1 0 N DATA  TAE          09/09/03     1        1 ADD 80
```

Note: These statistics are CA Panvalet statistics, not ISPF statistics.

MSL Processing

From the panel that is displayed, you can select a member for editing, browse a member, or modify a member as follows:

- To select a member for editing, specify S membername on the Command line or S to the left of the member name in the Enter Panvalet Function field.
- To browse a member, specify B membername on the Command line or B to the left of the member name in the Enter Panvalet Function field.
- To specify retrieval options for a member, specify M on the Command line or to the left of the member name in the Enter Panvalet Function field. When you press Enter, the PVBROWSE - Retrieval Options panel is displayed. See Specifying Retrieval Options later in this chapter for more information.
You can also specify the LOCATE and SELECT commands on the Command line the same as under ISPF/PDF. To specify an access code with the member name, you must specify it in the User field that corresponds to the member you are selecting. For example, if member ABC requires an access code of 4280, enter the following command on the command line, and 4280 in the User field associated with member ABC:

```
SELECT ABC
```

**Note:** Because an MSL does not normally represent the whole directory, it is possible to select a member that is not contained in the MSL. When a browse of such a member ends, the MSL display starts with the member name in the list that immediately precedes the selected member name.

### MSL Display Options

The following describes the common MSL display options:

**Member**

The CA Panvalet member name.

**Lib**

The CA Panvalet library number in which the member resides. Libraries are numbered based on the Group specified on the PVBROWSE - Entry Panel. You can have up to four standard libraries, numbered one through four based upon their order as specified on the Group parameter.

**Lvl**

The CA Panvalet modification level.

**User**

The four-digit CA Panvalet user code. When a member has a user code other than 0, the user code does not display. To browse this type of member, you must enter the correct user code for the member in this field. The user code must be left-justified. For example, if the user code is one (1), valid entries are:

```
1
01
001
0001
00001
```

**Note:** If the correct access parameter is entered in the Access field on the PVBROWSE - Entry Panel, a value is not required for this field.
Using the Member Selection List Option

F
The member’s format-modifying, stored-sequencing options, if any.

N
Indicates a member added with the NOFORMAT option (all characters stored).

T
Indicates a member added with the TSO sequence option.

Blank
Indicates no stored sequencing options (formatted according to language type).

Lang
The language type of the member.

Stat
The current status attributes (for example, PROD, TEST, or ACTIVE) of each member.

L Maint
The date of last maintenance (the last time a change was made to the member). This field is blank when equal to date of last access.

Laccess
The date of last access (the last time the member was accessed in any way). For more information about access date, see the System Management Guide.

Statmts
The number of statements in the member.

Act
The last action performed on the member since the last complete (batch) directory listing was printed. Printing a complete listing using CA Panvalet batch (PAN#2 ++PRINT) clears this field. Abbreviate the entries as follows:

<table>
<thead>
<tr>
<th>Action</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Added</td>
<td>ADD</td>
</tr>
<tr>
<td>Locked</td>
<td>LOC</td>
</tr>
<tr>
<td>Status</td>
<td>STA</td>
</tr>
<tr>
<td>Comment</td>
<td>COM</td>
</tr>
<tr>
<td>Renamed</td>
<td>REN</td>
</tr>
<tr>
<td>Updated</td>
<td>UPD</td>
</tr>
<tr>
<td>Copied</td>
<td>COP</td>
</tr>
<tr>
<td>Replaced</td>
<td>REP</td>
</tr>
<tr>
<td>User</td>
<td>USE</td>
</tr>
<tr>
<td>Format</td>
<td>FOR</td>
</tr>
<tr>
<td>Restored</td>
<td>RES</td>
</tr>
<tr>
<td>Level</td>
<td>LEV</td>
</tr>
<tr>
<td>Resequenced</td>
<td>SEQ</td>
</tr>
</tbody>
</table>

The Blks and Avg fields are only displayed when Option A is specified, where:

Blks
Displays the number of blocks the member occupies on the CA Panvalet library.

Avg
Displays the average number of bytes stored per statement.
Displaying Last Update User ID and Member Information

In this example, we specified B in the MSL Display Options field to display the last update user ID with the member information. We also specified Y in the Display with Comment Data field to display comment information with the member information. When you press Enter, the PVBROWSE MSL Option(B) - Member Selection List panel is displayed.

The User-ID column only appears when you select option B in the MSL Display Options field on the MSL Criteria panel. This field displays the user ID that performed the last update to this member. This user ID is updated for all CA Panvalet members as a result of an add, update, create, or replace function. This information is available only for release 14.2 and above libraries.

Note: See MSL Display Options for a description of the remaining fields.
Displaying Last Update and Current Lock Information

In this example, we specified C in the MSL Display Options field to display the last update and current lock information with the member information. We also specified Y in the Display with Comment Data field to display comment information with the member information. When you press Enter, the PVBROWSE MSL Option(C) - Member Selection List panel is displayed.

<table>
<thead>
<tr>
<th>MEMBER</th>
<th>LIB</th>
<th>USER</th>
<th>LANG</th>
<th>STAT</th>
<th>DATE</th>
<th>TIME</th>
<th>USER-ID</th>
<th>DATE</th>
<th>TIME</th>
<th>USER-ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEMBER1</td>
<td>1</td>
<td>COBOL</td>
<td>TAE</td>
<td>09/09/03</td>
<td>10:09</td>
<td>USER001</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMBER2</td>
<td>1</td>
<td>COBOL</td>
<td>TAE</td>
<td>09/09/03</td>
<td>10:09</td>
<td>USER001</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMBER3</td>
<td>1</td>
<td>COBOL</td>
<td>TAE</td>
<td>09/09/03</td>
<td>10:08</td>
<td>USER001</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMBER4</td>
<td>1</td>
<td>COBOL</td>
<td>TAE</td>
<td>09/09/03</td>
<td>10:08</td>
<td>USER001</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMBER5</td>
<td>1</td>
<td>COBOL</td>
<td>TAE</td>
<td>09/09/03</td>
<td>10:08</td>
<td>USER001</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMBER6</td>
<td>3</td>
<td>DATA</td>
<td>TAE</td>
<td>09/09/03</td>
<td>10:24</td>
<td>USER001</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Current Lock field is only displayed when you select Option C from the PVBROWSE - MSL Criteria panel. This field displays the date and time of the lock and the user ID of the user who locked the member.

The following last update information is available for release 14.2 and above libraries:

**Date**

Date of the last update to this member. This date is updated for all CA Panvalet members as a result of an add, update, create, or replace function.

**Time**

Time of the last update to this member. This time is updated for all CA Panvalet members as a result of an add, update, create, replace, or lock function.

**User-ID**

User ID of the last update to this member. This user ID is updated for all CA Panvalet members as a result of an add, update, create, replace, or lock function.
The following current lock information is available for release 14.2 and above libraries:

**Date**

Date of the current lock in effect for the member. This information is displayed only for members that are currently locked. This date is updated only as the result of a successful lock request.

**Time**

Time of the current lock in effect for the member. This information is displayed only for members that are currently locked. This time is updated only as the result of a successful lock request.

**User-ID**

User ID of the user who issued the current lock for the member. This information is displayed only for members that are currently locked. The user ID is updated only as the result of a successful lock request.

**Displaying Logical Record Length and Carriage Control Information**

In this example, we specified D in the MSL Display Options field to display the logical record length and carriage control attribute information with the member information. We also specified Y in the Display with Comment Data field to display comment information with the member information. When you press Enter, the PVBROWSE MSL Option(D) - Member Selection List panel is displayed.

<table>
<thead>
<tr>
<th>MEMBER</th>
<th>LIB</th>
<th>LVL</th>
<th>USER</th>
<th>F</th>
<th>LANG</th>
<th>STAT</th>
<th>LMAINT</th>
<th>LACCESS</th>
<th>ACT</th>
<th>LRECL</th>
<th>AVG</th>
<th>CC</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEMBER1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>N</td>
<td>COBOL</td>
<td>TAE</td>
<td>09/09/03</td>
<td>ADD</td>
<td>80</td>
<td>80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMBER2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>09/09/03</td>
<td>ADD</td>
<td>80</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMBER3</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>N</td>
<td>COBOL</td>
<td>TAE</td>
<td>09/09/03</td>
<td>ADD</td>
<td>80</td>
<td>80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMBER4</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>09/09/3</td>
<td>ADD</td>
<td>80</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMBER5</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>N</td>
<td>COBOL</td>
<td>TAE</td>
<td>09/09/03</td>
<td>ADD</td>
<td>80</td>
<td>80</td>
<td></td>
<td>ASA</td>
</tr>
<tr>
<td>MEMBER6</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>N</td>
<td>DATA</td>
<td>TAE</td>
<td>09/09/03</td>
<td>ADD</td>
<td>80</td>
<td>80</td>
<td></td>
<td>ASA</td>
</tr>
</tbody>
</table>

THIS IS A SAMPLE COMMENT

THIS IS A SAMPLE COMMENT

THIS IS A SAMPLE COMMENT

THIS IS A SAMPLE COMMENT

THIS IS A SAMPLE COMMENT

THIS IS A SAMPLE COMMENT
The following information is available for release 14.3 and above libraries:

**Lrecl**

The logical record length of the member. The logical record length for a 14.3 and above library member of language type DATA can range from 80 to 4096 bytes (inclusive). All other language types and pre-14.3 library members can only have a logical record length of 80.

**Avg**

The average number of bytes stored per statement (extended display field). Although this field displays in the Option A (standard) MSL display, only a maximum value of 99 is allowed within this display format. However, within the option D display format, a maximum value of 4096 is allowed.

**CC**

The carriage control attribute of each member:

- ASA (American National Standard) carriage control in column one of each record. This member is eligible for PRINT utility SPINOFF processing.
- MCH (machine carriage control) in column one of each record. This member is eligible for PRINT utility SPINOFF processing.

### Displaying the Standard MSL

The following panel shows an MSL generated with A (the default) in the MSL Display Options field and N in the Display with Comment Data field on the PVEDIT - MSL Criteria panel.

```
--- PVEDIT MSL Option(A) - MEMBER SELECTION LIST --- Row 1 to 3 of 3
COMMAND ====>                                                   SCROLL===> CSR

Enter Panvalet Function:
| S or B -Browse,  M -MSL Options & Dataset Info |
| MEMBER     LIB LVL USER F LANG STAT LMAINT   LACCESS   BLKS  STATMTS ACT AVG |
| PAMTEST    1    9        ASMB  TAE          10/07/03     1      111 UPD 80 |
| PAMTEST2   1    1    0 N ASMB  TAE          09/03/03     1        1 ADD 80 |
| PAMTEST3   1    1    0   ASMB  TAE          09/05/03     1        1 UPD 80 |

************************************************ Bottom of data ********************************
```

**Note:** The statistics are CA Panvalet statistics, not ISPF statistics.

See MSL Display Options in the Displaying the Standard MSL section of the chapter "Browse" for more information about the fields that are displayed on this panel.
The Blks and Avg fields are only displayed when Option A is specified, where:

**Blks**

Displays the number of blocks the member occupies on the CA Panvalet library.

**Avg**

Displays the average number of bytes stored per statement.

From this panel, you can specify the LOCATE and SELECT commands on the command line the same as under ISPF/PDF. If necessary, you can give an access code as an additional parameter by specifying it in the User field that corresponds to the member you are selecting. For example, if member ABC requires an access code of 4280, enter the following command on the command line, and 4280 in the User field associated with the member ABC:

```
SELECT ABC
```

You can also specify the select (S), browse (B), and M (modify) commands from the Command line or in the Enter Panvalet Function field on the left side of the Member Selection List panel.

- From the Command line, use the following format to select a member for editing (S), browse a member (B), or modify retrieval options for a member (M), where `membername` identifies the name of the member you want to select or browse:

  ```
  M
  S membername
  B membername
  ```

- From the Enter Panvalet Function selection list, enter S, B, or M next to the member you want to select, browse, or modify (retrieval options).

  **Note:** If the member is access code-protected, enter the access code in the User field that corresponds to the member you are selecting.

**Note:** Because an MSL does not normally represent the whole directory, it is possible to select a member that is not contained in the MSL. When an edit of such a member ends, the MSL display starts with the member name in the list that immediately precedes the selected member name.

The M (modify) command displays the PVBROWSE - Retrieval Options panel where you can specify additional retrieval options for a member such as sort, control, access, and expand. See Specifying Retrieval Options for more information.
Displaying Last Update User ID and Member Information

In this example, we specified B in the MSL Display Options field to display the last update user ID with the member information. When you press Enter, the PVEDIT MSL Option(B) - Member Selection List panel is displayed.

```
----------- PVEDIT MSL Option(B) - MEMBER SELECTION LIST --- Row 1 to 3 of 3
COMMAND ==>> SCROLL==> CSR

Enter Panvalet Function:
| S or B -Browse, M -MSL Options & Dataset Info |
V -------------- -------------- -------------- -------------- -------------- -------------- -------------- -----
  | MEMBER     LIB LVL USER F LANG STAT LMAINT   LACCESS   STATMTS ACT USER-ID |
- PAMTEST    1    9        ASMB  TAE          10/07/03      111 UPD PAYRL01
- PAMTEST2   1    1    0 N ASMB  TAE          09/03/03        1 ADD USER111
- PAMTEST3   1    1    0   ASMB  TAE          09/05/03        1 UPD PAYRL02

******************************* Bottom of data *******************************
```

See Displaying Last Update User ID and Member Information in the chapter "Browse" for more information about the fields that are displayed on this panel.

Displaying Last Update and Current Lock Information

In this example, we have used a different CA Panvalet library and specified C in the MSL Display Options field to display the last update and current lock information with the member information. When you press Enter, the PVEDIT MSL Option(C) - Member Selection List panel is displayed.

```
----------- PVEDIT MSL Option(C) - MEMBER SELECTION LIST --- Row 1 to 6 of 6
COMMAND ==>> SCROLL==> CSR

Enter Panvalet Function:
| S or B -Browse, M -MSL Options & Dataset Info |
V -------------- -- -------------- -- -------------- -- -------------- -- -------------- -- -------------- --
  | MEMBER     LIB USER LANG STAT DATE   TIME  USER-ID |
- MEMBER1    1     0 COBOL TAE 09/09/03 10:07 USER01
- MEMBER2    1     0 COBOL TAE 09/09/03 10:07 USER01
- MEMBER3    1     0 COBOL TAE 09/09/03 10:07 USER01
- MEMBER4    1     0 COBOL TAE 09/09/03 10:07 USER01  09/11/03 11:10 USER001
- MEMBER5    1     0 COBOL TAE 09/09/03 10:08 USER01
- MEMBER6    1     0 COBOL TAE 09/09/03 10:24 USER01  09/12/03 06:10 USER001

******************************* Bottom of data *******************************
```

See Displaying Last Update and Current Lock Information in the chapter "Browse" for more information about the fields that are displayed on this panel.
Displaying Logical Record Length and Carriage Control Information

In this example, we specified D in the MSL Display Options field to display the logical record length and carriage control attribute information with the member information. When you press Enter, the PVEDIT MSL Option(D) - Member Selection List panel is displayed.

---

PVEDIT MSL Option(D) - MEMBER SELECTION LIST  --- Com Row 1 to 7 of 7
COMMAND ==>

---

Enter Panvalet Function:
| S or B -Browse, M - MSL Options & Dataset Info
<p>|</p>
<table>
<thead>
<tr>
<th>MEMBER</th>
<th>LIB</th>
<th>LVL</th>
<th>USER</th>
<th>F</th>
<th>LANG</th>
<th>STAT</th>
<th>LMAINT</th>
<th>LACCESS</th>
<th>ACT</th>
<th>LRECL</th>
<th>AVG</th>
<th>CC</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEMBER1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>09/09/03</td>
<td>ADD</td>
<td>80</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMBER2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>N COBOL</td>
<td>TAE</td>
<td>09/09/03</td>
<td>ADD</td>
<td>80</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMBER3</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>09/09/03</td>
<td>ADD</td>
<td>80</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMBER4</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>N COBOL</td>
<td>TAE</td>
<td>09/09/03</td>
<td>ADD</td>
<td>80</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMBER5</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>09/09/03</td>
<td>ADD</td>
<td>80</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMBER6</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>N DATA</td>
<td>TAE</td>
<td>09/09/03</td>
<td>ADD</td>
<td>80</td>
<td>80</td>
<td>ASA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

------------------------------- Bottom of data -------------------------------

See Displaying Logical Record Length and Carriage Control Information in the chapter "Browse" for more information about the fields that are displayed on this panel.
Specifying MSL Sort Criteria

You can sort the MSL based on field name in ascending or descending sequence.

To specify MSL sort criteria, perform these steps:
1. Type Y in the Sort MSL field on the PVBROWSE - Retrieval Options panel or the PVBROWSE - MSL Criteria panel.
2. Press Enter. The MSL Sort Fields panel is displayed.

3. Specify sort criteria using the following fields:
   **Sort Order**
   You can specify up to nine levels of sorting criteria and can sort by: member name, language type, user code, status, last maintenance date, last access date, last user ID to update the member, last update date, and last update time.
   
   For each field, enter a value between 1 (highest sorting criterion) and 9 (lowest), or leave the field blank to indicate no sorting based on that field.

   **Sequence**
   You can sequence each field in the sort by ascending or descending sequence. Specify A (ascending) or D (descending).

   **SAVE current SORT ORDER and SEQUENCE to the PROFILE**
   To save the current sort order and sequence in your profile, specify Y for this parameter. If you do not want to save the current sort order and sequence in your profile, specify N (the default).

4. Press Enter to Process.
Specifying Retrieval Options

To modify the CA Panvalet retrieval options from the MSL, perform these steps:

1. Type **M** on the Command line or in the Enter Panvalet Function area to the left of the member name on the Member Selection List panel.

2. Press Enter. The PVBROWSE - Retrieval Options panel is displayed.

```
----- PVBROWSE - RETRIEVAL OPTIONS ----- Computer Associates

COMMAND =>

LIB 1 - PAYROLL.WORK.PANLIB                     5 SCAN HITS V 14.5
LIB 2 - PAYROLL.TEST.PANLIB                      1 SCAN HITS V 14.5
LIB 3 - PAYROLL.QUALITY.PANLIB                   2 SCAN HITS V 14.5
LIB 4 - PAYROLL.PROD.PANLIB                      0 SCAN HITS V 14.5

Please choose one or more of the following for the CA-Panvalet RETRIEVAL options:

SORT MSL ===> N     (Y/N)
CONTROL ===>        (If necessary)
ACCESS ===>         (If necessary)
EXPAND ===> N       (Y/N)

Press ENTER key to process; Enter END command to terminate.
```

CA Panvalet library information is displayed after the Command line. This information consists of the following:

- Data set name of the CA Panvalet library
- Count of CA Panvalet library directory member SCAN HITS found when building this MSL from your selection criteria
- CA Panvalet library version for the MSL

3. Specify retrieval options using the fields shown. See Accessing the Browse Facility earlier in this chapter for more information about these fields.

If you specify Y for Sort MSL, when you press Enter the Sort MSL Fields panel is displayed. See Specifying MSL Sort Criteria for more information.
Specifying Concatenated Libraries

To generate a composite MSL, specify multiple concatenated standard CA Panvalet libraries on the PVBROWSE - Entry Panel and leave the Member field blank.

The following panel shows a standard CA Panvalet library concatenation specification.

```
-------------------------
PVBROWSE - ENTRY PANEL ---- Computer Associates
COMMAND ===> VERSION - vvrgggg

Standard CA-Panvalet Library:
PROJECT ===> PAYROLL
GROUP ===> WORK ===> TEST ===> QUALITY ===> PROD
TYPE ===> PANLIB
MEMBER ===> (Blank for Criteria Selection PANEL for MSLs)
           (Enter name with Wildcard * ? notation for MSL)
Non-Standard CA-Panvalet Library - RETAIN ===> Y  (Y/N, Save in Profile)
DSNAME ===> VOLSER ===> (If NOT Cataloged)

CA-Panvalet Retrieval Options:
CONTROL ===> (If necessary)
ACCESS ===> (If necessary)
EXPAND ===> N      (Y/N)

Press ENTER key to process; Enter END command to terminate.
```

When CA Panvalet libraries with standard data set names are concatenated, the MSL is a composite list. Composite lists contain an ordered list of members, in collated sequence by member name, that meet your selection criteria. You define your selection criteria and the concatenation sequence on the PVBROWSE - Entry Panel.

Only the first occurrence of a member name within the concatenation sequence is shown in the composite MSL. For example, when the same member occurs on both the first and third concatenated libraries, only the First Library number displays.
The following panel shows a composite MSL generated with N for Display with Comment Data and B for MSL Display Options on the PVBROWSE - Entry Panel.

```
------- PVBROWSE MSL Option(B) - MEMBER SELECTION LIST --- Row 1 to 7 of 7
COMMAND ===>                                                  SCROLL==> CSR

Enter Panvalet Function:
| S or B -Browse,  M -MSL Options & Dataset Info
| MEMBER LIB LVL USER F LANG STAT LMAINT LACCESS STATMTS ACT USER-ID
V -----
- MEMBER1 1 1 0 COBOL TAE 09/09/03 1 ADD USER001
- MEMBER2 1 1 0 N COBOL TAE 09/09/03 1 ADD USER001
- MEMBER3 1 1 0 COBOL TAE 09/09/03 1 ADD USER001
- MEMBER4 1 1 0 N COBOL TAE 09/09/03 1 ADD USER001
- MEMBER5 1 1 0 COBOL TAE 09/09/03 1 ADD USER001
- MEMBER6 3 1 0 DATA TAE 09/09/03 1 ADD USER001
- MEMBER7 2 1 0 OTHER TAE 09/09/03 19 ADD USER001
- MEMBER8 3 1 0 COBOL TAE 09/09/03 1 ADD USER001

******************************* Bottom of data *******************************
```

The LIB column displays the library number or group in which the member was found. For concatenated libraries, up to four library numbers can be displayed in the order of the concatenation sequence specified for the Group parameter on the PVBROWSE - Entry panel. If you are not using a concatenated sequence, a 1 is displayed.

The remaining MSL parameters, and the selection and primary commands, function the same as for the single library MSL shown earlier in this chapter.
Using the Data Display

CA Panvalet Browse data display is identical to the ISPF/PDF data display. The following is a typical PVBROWSE data display panel showing 80 columns of data, including level stamps.

```
PVBROWSE PDPV.WORK.PANLIB(PAMTEST) ----------------- LINE 00000000 COL 001 080
COMMAND ===> SCROLL ===> PAGE
******************************************************************************
* DATA SET PAMTEST AT LEVEL 009 AS OF 10/07/99
  TITLE '05 PANVALET READ-ONLY SYSTEM TEST PROGRAM'
  PAMREAD CSECT
  * THIS SAMPLE PROGRAM, IS TO BE USED FOR DOCUMENTATION AND EXAMPLE
  * PURPOSES WHEN USING PAM.
    USING *,15 TEMPORARY BASE REG 00005**9
    STM 14,12,12(13) STORE REG 00006
    LR 12,13 SAVE CALLERS REG 00007
    LA 13,SAVEAREA SET SAVEAREA ADDRESS 00008
    ST 12,4(13) SET CALLER IN CALLEES 00009
    ST 13,8(12) CALLEES IN CALLERS 00010
    DROP 15 DROP TEMPORARY BASE REG 00011**9
    BALR 12,0 USE R12 AS BASE 00012
    USING *,12 00013
    *OPEN
    XC ACTION,ACTION CLEAR ACTION WORD 00014
    CALL POPEN, (ACTION,DDNAME,BACKUP),VL OPEN PANVALET FILE 00015
    CLC ACTION,=F'0' ERROR DURING OPEN? 00016
    BNE ERROR YES, GO TO ERROR ROUTINE 00017**8
    GETDIR EQU * 00018**8
    XC ACTION,ACTION CLEAR ACTION WORD 00019
    *************** BOTTOM OF DATA ***************
```

Level Stamping

You can initiate a level stamp option when installing batch CA Panvalet. With this feature in effect, any changes in COBOL, ANSCOBOL, BAL, PL1, RPG, AUTOCODER, JCL, and FORTRAN programs are flagged with the new level number at the time of the change. The level stamp consists of three characters displayed in columns 78-80 of the data set. Values range from **1 to 255 (asterisks are part of the level stamp display).

**Note:** A member must use CA Panvalet (PAN) sequencing to take advantage of level stamping.
Concatenated Data Display

When you select a concatenated standard CA Panvalet member, from the PVBROWSE - Entry Panel or from a Composite MSL, the data display panel indicates the actual CA Panvalet library data set name and member being displayed. The following is a PVBROWSE data display panel showing a member selected from the sample composite MSL example shown earlier in this chapter. The library data set name identifies the third library (LIB 3) in the concatenation sequence.

```
PVBROWSE PAYROLL.QUALITY.PANLIB(MEMBER6)  ------- LINE 00000000 COL 001 080
COMMAND ===>                                                  SCROLL ===> CSR
**************************************************** TOP OF DATA ****************************************************
THIS IS SAMPLE DATA 000010
THIS IS SAMPLE DATA 000020
THIS IS SAMPLE DATA 000030
THIS IS SAMPLE DATA 000040
THIS IS SAMPLE DATA 000050
THIS IS SAMPLE DATA 000060
THIS IS SAMPLE DATA 000070
THIS IS SAMPLE DATA 000080
THIS IS SAMPLE DATA 000090
THIS IS SAMPLE DATA 000100
**************************************************** BOTTOM OF DATA *****************************************************
```
The Edit facility lets you display, create, and modify members stored in CA Panvalet libraries.

This chapter describes how to access the edit facility, use the member selection list option, specify retrieval/save options and concatenated library information, and use the data display and sequencing information.

After a CA Panvalet library member is selected for editing and placed in memory, there are few differences between CA Panvalet Edit and ISPF/PDF Edit. The main differences between the two systems are the characteristics of the ISPF libraries and CA Panvalet libraries. This chapter discusses these differences.

This section contains the following topics:

- Production, Disabled Status, or Locked Members (see page 55)
- Library Concatenation (see page 56)
- ISPF/PDF Edit MOVE (see page 56)
- LRECL Edit Restrictions (see page 56)
- Accessing the Edit Facility (see page 57)
- Creating a New Member (see page 61)
- Using the Member Selection List Option (see page 64)
- Specifying Concatenated Libraries (see page 78)
- Composite Member Selection List (see page 79)
- Using the Data Display and Sequencing (see page 80)
- Edit Primary Commands (see page 84)

Production, Disabled Status, or Locked Members

When you retrieve a production, disabled, or locked member using CA Panvalet edit, a member status message appears. When you retrieve a locked member, the owning user ID of the user that currently has the member locked appears as part of the long or informational message when you press PF1. When the owning user ID of lock is not available for a member, the informational message displays the user ID as blanks enclosed within quotation marks. For more information, see Integrity Lock in this chapter.

The CA Panvalet ISPF Option does not allow a locked member to be modified when the user ID of the user attempting to modify the member does not match the owning user ID of lock. A locked member can, however, be modified on the CA Panvalet library when the user ID of the user modifying the member matches the owning user ID of lock.

You can use the Edit, Create, Utilities Member Copy, and Utilities Library-to-Library Copy to create a new member in test, active, enable status.
Library Concatenation

CA Panvalet members edited with a library concatenation sequence specified are saved into the first library or the origin library within the concatenation sequence. You can save a production or disabled member being edited if the original member is not located in the first library within the concatenation sequence. The edited member is saved with a status of TEST, ACTIVE, ENABLED (TAE) in the concatenated first library or origin library.

You can edit a production or disabled library member located in the first concatenated library. The CA Panvalet ISPF Option issues a warning message indicating the member status. CA Panvalet denies any attempt to save the edited member and generates an error message.

**Note:** The CA Panvalet ISPF Option panels support concatenation of non-standard libraries if you choose non-standard library concatenation panels at installation time.

Although the CA Panvalet ISPF Option supports non-standard library concatenation, all references and examples presented in this guide are to the standard form of concatenation, Project, Group, and Type. For more information, see Control and Security in this chapter.

ISPF/PDF Edit MOVE

The Edit facility does not support the ISPF/PDF Edit MOVE primary command for CA Panvalet members.

LRECL Edit Restrictions

You can create CA Panvalet members in batch with logical record lengths between 80 and 4096 bytes (inclusive). However, due to ISPF/PDF restrictions, CA Panvalet Edit only supports the editing of members with logical record lengths between 80 and 246 bytes (inclusive).

When expanding included (++ INCLUDE) members in CA Panvalet Edit (or Browse), all included members must have the same logical record length as the edited member.

When copying a CA Panvalet member into a CA Panvalet edited member, the copied member must have the same logical record length as the edited member.

When replacing a CA Panvalet member with a block of data from a CA Panvalet edited member, the replaced member’s logical record length is made the same as that of the edited member.
Accessing the Edit Facility

To access the edit facility, perform these steps:

1. Use either of the following methods:
   - Enter 2 on the CA Panvalet primary menu
   - Enter P.2 from the ISPF/PDF Primary Option Menu.

2. Press Enter. The PVEDIT - Entry Panel is displayed.

   ![PVEDIT - Entry Panel]

   **Note:** Specific display fields of CA Panvalet Edit differ from ISPF/PDF Edit, but the processing and use of the panels are similar.

3. Specify a standard or non-standard data set name for a CA Panvalet library using the following fields:

   For more information about these fields, see Accessing the Browse Facility in the chapter "Browse."

   **Standard CA-Panvalet Library**

   Specifies project, group, type and member information for the standard CA Panvalet library data set name.

   If you list a new member name or a member name that does not exist, the PVEDIT(Add) - Member Options panel appears. You can use this panel to specify the information to create the new member. For more information, see Creating a New Member in this chapter.
If you do not specify a member name, the Member Selection List Option is automatically chosen. The PVEDIT - MSL Criteria panel appears, which lists the options for limiting the MSL. The Member Selection List panel displays next. For more information, see Using the Member Selection List Option in this chapter.

**Non-standard CA-Panvalet Library**

Specifies non-standard CA Panvalet library information using the Retain, Dsname, and Volser fields.

4. Specify retrieval/save options required for the specified member using the following fields:

You can also specify these fields from the MSL using the Retrieval/Save Options panel. See Specifying Retrieval/Save Options later in this chapter for more information.

**Control**

Specifies a control code to use for secured libraries that have suppressed functions. For more information, see Control and Security in the chapter "System Overview."

**Access**

Controls access to individual members. To edit a restricted member, you must enter the five-digit access code before CA Panvalet can retrieve the member from the CA Panvalet library.

**Note:** When specified, this parameter must contain a numeric value. It is necessary only when the member Security Level (SL) is set to 1, 2, or 3. If the member is secured, the access code you specify must be left-justified. For example, if the access code is one (1), valid entries are:

1
01
001
0001
00001

For more information about access codes, see the *System Management Guide*.

**Save**

For concatenated library specifications, the value specified controls the library in which the edited CA Panvalet member is written. Valid values are:

- 1—Saves the member in the First Library in the concatenation. The library from which you retrieved the member (the Origin Library) contains the unmodified member whenever the Origin Library is not the First Library.

- 0—Saves the member in the library within the concatenation from which you retrieved it (the Origin Library).
Expand

Controls the expansion of embedded CA Panvalet ++INCLUDE statements. To expand ++INCLUDED members, all included members must have the same logical record length as the edited member. You can specify Y or N as follows:

- N — The retrieved member contains the original ++INCLUDE statement. The installation default is N.
- Y — The member contains the source that was copied (included) by the ++INCLUDE statement.

You can use this field to change the existing expand specification. Any modifications to included source data are not retained.

**Note:** Modifications to data lines that are present as the result of a ++INCLUDE expansion (data lines that reside within the INCLUDE++ HEADER and the END INCLUDE++ trailer comment) are treated as follows:

- Any data lines inserted within the boundaries of the INCLUDE++ HEADER and END INCLUDE++ trailer comment become part of the member being edited after the member is saved.
- Modification to data present as the result of expanding the ++INCLUDE is not saved.
- Data lines that belong to an expanded ++INCLUDE that are moved, copied, or repeated anywhere in the member are not saved.

To save the data of a ++INCLUDE in the member you are editing, use the Edit Copy Facility. When you save the original member, the expanded ++INCLUDE information is converted back to the single ++INCLUDE statement in the original member.

The first level INCLUDE is expanded with a special header and trailer comment to mark the beginning and end of the included member. Additional levels of INCLUDE are expanded normally. The format of the header comment is as follows.

<table>
<thead>
<tr>
<th>type</th>
<th>column</th>
</tr>
</thead>
<tbody>
<tr>
<td>COBOL,COBOL-72,</td>
<td></td>
</tr>
<tr>
<td>ANSCOBOL,RPG</td>
<td>C</td>
</tr>
<tr>
<td>FORT</td>
<td>b! /</td>
</tr>
<tr>
<td>PLI</td>
<td>/</td>
</tr>
<tr>
<td>JCL</td>
<td>/</td>
</tr>
<tr>
<td>ASM</td>
<td>*</td>
</tr>
</tbody>
</table>

and others

After the expanded statements are saved, they are compressed back to the original ++INCLUDE statement. The format of the trailer comment is the same, except for the key phrase END INCLUDE++, which starts in column 8 of the trailer record.
Edit Lock

Protects the CA Panvalet edited member from modification by any CA Panvalet products (such as batch CA Panvalet processing) for the duration of the CA Panvalet Edit processing. When Edit Lock processing completes, the member remains in the status it was in before the Edit Lock. To use this option, the edited member must be unlocked or the same user ID of the already locked member must match the user ID editing it.

To enable Edit Lock, specify Y. The installation default is N, Edit Lock not enabled.

For concatenated libraries only, the following describes how Edit Lock functions with the Save option.

- SAVE=1—The library from which you retrieved the member for edit (the Origin Library) is used to Edit Lock the member. When the edit is complete, the edited member is saved (unlocked) in the First Library in the concatenation. The Origin Library's member is unlocked if it is not the First Library in the concatenation.

- SAVE=0—The library from which you retrieved the member for edit (the Origin Library) is used to Edit Lock the member. When the edit is complete, the edited member is saved (unlocked) in the same library from which you retrieved it (the Origin Library).

Up Level #

Indicates whether you want to increase the Level Number when a save is performed. This parameter is useful when working on a task that will take more than one edit session to complete. To increase the Level Number when a save is performed, specify Y, the default. If you do not want the Level Number to increment, specify N.

5. Optionally specify an edit profile in the CA-Panvalet Edit Profile field. CA Panvalet Edit profiles are similar to ISPF/PDF profiles, except that CA Panvalet Edit profile names default to language type, not to data set name type as in ISPF/PDF.

6. Optionally specify the name of a macro to execute before editing of the member takes place in the Initial Macro field. For more information, see the IBM ISPF/PDF Program Reference Guide.

7. Press Enter to Process.
Creating a New Member

As in ISPF/PDF Edit, when you specify a member name that does not exist, a new member is created. The PVEDIT (Add) - Member Options panel provides all the necessary information needed by CA Panvalet to create the new member. This panel is displayed when the following conditions exist:

- The CA Panvalet member name specified on the PVEDIT - Entry Panel does not exist in the specified library (or any of the concatenated CA Panvalet libraries).
- The SELECT primary command on a Member Selection List panel tries to select a member that does not exist on the specified library.

---

**PVEDIT(ADD) - MEMBER OPTIONS - NEW MBR, NEED LANG TYPE**

**COMMAND ====>**

**Standard CA-Panvalet Library:**
- PROJECT : PDPV
- GROUP : TEST
- TYPE : PANLIB
- MEMBER :

**Non-Standard CA-Panvalet Library:**
- DSNANE :
- VOLSER : (If NOT Cataloged)

**New Member Options:**
- LANG TYPE ===> (Required)  LRECL ===> 133 (Required)
- USER CODE ===> (Optional)  CC ===> ASA (ASA/MCH)
- PAN/TSO ===> (Sequencing)
- FORMAT ===> (Y = Format according to Language type)
- COMMENT ===>

Press ENTER key to process; Enter END command to terminate.

To create a new member, perform these steps:

1. Enter a standard or non-standard data set name for the CA Panvalet library and specify new member options using the following fields:

   **Lang Type**

   Specifies the language type of the new member. A value is required in this field. Synonyms are allowed for many standard languages. Valid entries are illustrated in the following table.

<table>
<thead>
<tr>
<th>Language Type</th>
<th>Allowable Synonyms</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSCB</td>
<td>ANSCOBOL</td>
</tr>
<tr>
<td>ASMB</td>
<td>BAL, ALC, ASM, ASSEMBLER</td>
</tr>
<tr>
<td>AUTOC</td>
<td>AUTOCODER</td>
</tr>
</tbody>
</table>
Creating a New Member

<table>
<thead>
<tr>
<th>Language Type</th>
<th>Allowable Synonyms</th>
</tr>
</thead>
<tbody>
<tr>
<td>COBOL</td>
<td>COBOL</td>
</tr>
<tr>
<td>COB72</td>
<td>COBOL-72</td>
</tr>
<tr>
<td>DATA</td>
<td>DATA</td>
</tr>
<tr>
<td>FORT</td>
<td>FORTRAN,FORTG,FORTGII,FORTH,GOFORT</td>
</tr>
<tr>
<td>JCL</td>
<td>JCL,CNTL</td>
</tr>
<tr>
<td>OBJCT</td>
<td>OBJECT,OBJ</td>
</tr>
<tr>
<td>OTHER</td>
<td>OTHER</td>
</tr>
<tr>
<td>PL/I</td>
<td>PL1,PL/,PLI,PLIF,PLIIF,PLIFI</td>
</tr>
<tr>
<td>RPG</td>
<td>RPG</td>
</tr>
<tr>
<td>USER1</td>
<td>USER180</td>
</tr>
<tr>
<td>USER2</td>
<td>USER780</td>
</tr>
<tr>
<td>USER3</td>
<td>USER3</td>
</tr>
<tr>
<td>USER4</td>
<td>USER4</td>
</tr>
</tbody>
</table>

Most entries are self-explanatory. USER180, USER780, USER3, and USER4 are user-defined language types that can, for an individual installation, carry their own unique names replacing the identifiers USER180, USER780, USER3, and USER4. For specific details about the formatting of each language type, see the Getting Started.

**Note:** You can change the USER3 and USER4 names (up to five characters). Synonyms do not apply.

For information about displaying user-defined language type labels for existing language types, see the ZTYPEx option in the Getting Started for z/OS.

**User Code**

Represents the four-digit CA Panvalet user code. This value is optional. You can assign the user code at the time a new member is created, or you can assign or change it later using the CA Panvalet Utility facility.

The user code can represent additional numeric information related to a member (for example, project number, account number, or employee number). However, it can also be a member security code if it is a secured member (Security Level 1, 2, or 3). The user code defaults to zero if it is not specified during the member add process.
**PAN/TSO**

Determines whether to use CA Panvalet (PAN) or TSO (TSO) sequencing of programs. PAN is the installation default. For more information about PAN and TSO sequencing, see the Using the Data Display and Sequencing section in this chapter.

**Format**

Stores all eighty characters of the input records, regardless of language type. CA Panvalet normally removes sequence and ID fields as part of the data compression algorithm. To select this option, enter Y. The installation default is N, which means that NOFORMAT is used.

**Lrecl**

Declares the logical record length of the newly-created member. For members whose Lang Type specification is DATA, this value can range from 80 to 246 (inclusive). For all other Lang Type specifications, this value can only be 80. The default value is 80.

**CC**

Declares the carriage control attribute of the newly-created member:

- ASA (American National Standard) carriage control in column one of each record. This member is eligible for PRINT utility SPINOFF processing.
- MCH (Machine) carriage control in column one of each record. This member is eligible for PRINT utility SPINOFF processing.

**Comment**

Lets you enter a comment (up to 50 characters) for the member you are adding. You can enter a comment on this screen, or add or change it later using the Utility facility.

1. Press Enter to process.
Using the Member Selection List Option

When you leave the member name parameter blank on the PVEDIT - Entry Panel, the PVEDIT - MSL Criteria panel is displayed.

Since CA Panvalet libraries tend to be much larger than typical partitioned data sets and ISPF libraries, you can set criteria to limit the size of your MSL using this panel. If you choose not to limit the size of the MSL, leave all of the selection criteria blank.

```
COMMAND ===> PVEDIT - MSL CRITERIA
LIB1: USERID.SAMPLE.PANLIB

Please choose one or more of the following for the MEMBER SELECTION LIST:

  SORT MSL ===> N (Y/N)          
  List members starting with ===> (Wild * and ? notation, PAY7*A)
  List members with LANG TYPE ===> 
  List members with USER CODE ===> 
  List members with USER-ID ===> ==> (I=ID Only,B=Blank IDs ONLY)
  List members with STATUS ===> 

  Display with COMMENT Data ===> N (Y/N)
  MSL DISPLAY Options: ===> B A - Standard  C - Last Update/LOCK
                           B - USER-ID  D - LRECL/CC
  CONTROL CODE (If required) ===> 

Press ENTER key to process; Enter END command to terminate.
```

The libraries subject to edit are displayed in the upper left section of this panel. A maximum of four libraries are displayed, depending on the library selection entered on the PVEDIT - Entry Panel. This concatenation sequence displayed is read-only, with modifications possible only by returning to the PVEDIT - Entry Panel.

Enter selection criteria to limit the size of the Member Selection List to be displayed. See Using the Member Selection List Option in the chapter "Browse" for detailed information about these fields.

Displaying the MSL

If you leave the member name on the PVEDIT - Entry Panel blank and enter selection criteria on the PVEDIT - MSL Criteria panel, the Edit facility responds with an MSL.

The panel that is displayed depends on the value specified in the MSL Display Option field on the PVEDIT - MSL Criteria panel.
This section provides examples of generated MSLs for a single library from the PVEDIT - MSL Criteria panel. For a multiple library example, see Specifying Concatenated Libraries in this chapter.

When you modify a member through the CA Panvalet Edit facility, seven characters of user identification are automatically associated with the modified member. You can optionally display this identification, called the user ID, through the Member Selection List (MSL) panel.

If no members are selected as a result of the criteria, a ZERO MEMBER(S) SELECTED error message is generated.

**Specifying MSL Sort Criteria**

You can sort the MSL based on field name in ascending or descending sequence.

To display the MSL Sort Fields panel, specify Y for the Sort MSL parameter on the PVEDIT – Retrieval/Save Options panel or the PVEDIT – MSL Criteria panel. See Specifying MSL Sort Criteria in the chapter "Browse" for more information.
Specifying Retrieval/Save Options

To modify the CA Panvalet retrieval and save options from the MSL, perform these steps:

1. Type M on the Command line or in the Enter Panvalet Function area to the left of the member name on the Member Selection List panel.

2. Press Enter. The PVEDIT - Retrieval/Save Options panel is displayed.

The following library information is displayed in the upper left portion of this panel:

- Data set name of the CA Panvalet library
- Count of CA Panvalet directory member scan hits found when building the MSL (displayed previously) from your selection criteria
- CA Panvalet library version for the MSL

3. Specify retrieval/save options as needed in the fields on this panel. See Accessing the Edit Facility earlier in this chapter for more information about these fields.

If you specify Y for Sort MSL, when you press Enter the Sort MSL Fields panel is displayed. See Specifying MSL Sort Criteria for more information.
Displaying the Standard MSL

The following panel shows an MSL that was generated with no comments (Comments=N) and the default MSL Display Option. The statistics displayed in the MSL are CA Panvalet statistics, not ISPF statistics.

<table>
<thead>
<tr>
<th>MEMBER</th>
<th>RES</th>
<th>LVL</th>
<th>USER</th>
<th>SL</th>
<th>STAT</th>
<th>ACCDE</th>
<th>LMAINT</th>
<th>LACCESS</th>
<th>BLKS</th>
<th>STATMTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A011086A</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>TAE</td>
<td></td>
<td>COBOL</td>
<td>01/03/03</td>
<td>1</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>A011586A</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>TAE</td>
<td></td>
<td>COBOL</td>
<td>01/15/03</td>
<td>05/22/03</td>
<td>1</td>
<td>33</td>
</tr>
<tr>
<td>A081985</td>
<td>39</td>
<td>0</td>
<td>0</td>
<td>TAE</td>
<td></td>
<td>COBOL</td>
<td>06/13/03</td>
<td>07/02/03</td>
<td>5</td>
<td>111</td>
</tr>
</tbody>
</table>

**Note:** You can perform one simultaneous change function against each member listed on the MSL.

To change member attributes, perform these steps:

1. Specify a change code as follows in the Enter Panvalet Function field to the left of the member name.
   - **U**—Modify the user code. Type the new user code over the existing code in the User column.
   - **L**—Change the level number. Type the new level number over the existing level number in the Lvl column.
   - **S**—Change the status. Type the new status in the Stat column.
   - **C**—Add or change a user-comment. Display with Comment Data=Y must be specified on the MSL Criteria panel.
   - **M**—Specify MSL Sort options. See Specifying MSL Sort Criteria for more information.

   **Note:** This option can also be entered on the Command line.

2. Press Enter to process your selections.

**Note:** You can scroll the MSL in the same manner as in ISPF/PDF using the Locate primary command.
Common MSL Display Options

The following describes the fields that are displayed on the Member Selection List when the MSL Display Options field on the Changes - MSL Criteria panel is set to A or B:

**Member**
- The CA Panvalet member name.

**Res**
- Displays results of selected change functions. If the member is locked (LOC), you cannot modify the member attributes unless the owning user ID of lock matches the user ID of the user performing the change function.

**Lvl**
- The CA Panvalet modification level.

**User**
- The four-digit CA Panvalet user code. The user code is displayed if it is non-zero.

**SL**
- A one-digit code representing the member security level. Enter a security code here, if required. The SL field is not displayed if the user code is non-zero.

**Stat**
- The current status attributes (such as P for production, T for test, A for active) of each member.

**Accde**
- A five-digit code (left-justified) used to allow access to a secured member.

**Lang**
- The language type of the member.

**Lmaint**
- The date of last maintenance—the last time a change was made to the member. This field is blank when equal to the date of last access.

**Laccess**
- The date of last access—the last time the member was accessed in any way. For more information about access date, see the *System Management Guide*.

**Blks**
- The number of blocks the member occupies in the CA Panvalet library.
The **Statmts** field appears only when Option A is specified. This field displays the number of statements in the member.

The **User-ID** field appears only when Option B is specified. This field displays the user-identification characters associated with the last (most recent) Batch CA Panvalet ++UPDATE command or the CA Panvalet ISPF Option (EDIT) SAVE for the corresponding member.

### Displaying the Standard MSL

The following screen shows an MSL generated with no comments (Display with Comment Data=N) on the MSL Criteria panel. The statistics displayed in the MSL are CA Panvalet statistics, not ISPF statistics.

<table>
<thead>
<tr>
<th>COMMAND</th>
<th>LANG CHG MSL Option(A) - MEMBER SELECTION LIST</th>
<th>SCROLL</th>
<th>CSR</th>
</tr>
</thead>
</table>

Enter Panvalet Function:
- S or L - Change Language, M - MSL Options & Dataset Info

<table>
<thead>
<tr>
<th>MEMBER</th>
<th>F</th>
<th>LANG</th>
<th>NEW-LANG</th>
<th>LVL</th>
<th>USER</th>
<th>STAT</th>
<th>LMAINT</th>
<th>LACCESS</th>
<th>BLKS</th>
<th>STATMTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEMBER1</td>
<td>COBOL</td>
<td>33</td>
<td>3220</td>
<td>TAE</td>
<td>12/23/02</td>
<td>03/03/03</td>
<td>9</td>
<td>132</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMBER2</td>
<td>COBOL</td>
<td>1</td>
<td>0</td>
<td>TAE</td>
<td>04/13/03</td>
<td>1</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMBER3</td>
<td>COBOL</td>
<td>9</td>
<td>0</td>
<td>TAE</td>
<td>12/19/03</td>
<td>2</td>
<td>33</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMBER4</td>
<td>ASMB</td>
<td>18</td>
<td>42</td>
<td>TAE</td>
<td>11/15/03</td>
<td>1</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

You can use this panel to change the language type of any members displayed on the MSL.

To select one or more members for the language change processing, specify S (select) or L (language) in the Enter Panvalet Function field to the left of the member name, then enter the New-Lang data for the member. When you press Enter, the Language Change utility processes the MSL selections from the top of the panel down to the last selection serially.

You must complete all panel selections before any panel changes are processed. Any member selected without New-Lang specified or with incorrect change modification for New-Lang receives an error message.

**Note:** You cannot enter the S (Select) or L (Language) commands from the command line. A change to the format field (F) must be made from the Language Change - Entry Panel.
Common MSL Display Options

The following describes the common fields displayed when you select Option A or Option B in the MSL Display Options field on the Language Change - MSL Criteria panel:

**Member**

The CA Panvalet member name.

**F**

Y in this field indicates the member is formatted according to its language type. A blank in this field indicates that no format is used and CA Panvalet stores all 80 characters of the input record, regardless of the language type.

**Lang**

The current member language type.

**New-Lang**

Lets you enter the new CA Panvalet language type for a member. Valid values are five-character or less LANG TYPE values and their allowable synonyms (see the Language Type Table in this chapter). If the member is locked (LOCKED), you cannot change it unless the user ID of the LOCK matches the user ID of the user performing the language change function.

**Lvl**

The CA Panvalet modification level.

**User**

The four-digit CA Panvalet user code. When a member has a security level other than 0, the user code does not display. You must then enter the correct five-digit access code in the USER field for members that are restricted by access code.

**Stat**

The current status attributes (P for production, T for test, A for active, and so on) of each member.

**Note:** The member must be in TEST, ENABLE status for this function to complete successfully.

**Lmaint**

The date of last maintenance—the last time a change was made to the member. This field is blank when equal to the date of last access.
Using the Member Selection List Option

Laccess

The date of last access—the last time the member was accessed in any way.

Blks

The number of blocks the member occupies in the CA Panvalet library.

The Statmts field is displayed only when option A is specified for MSL Display Options. This field displays the number of statements in the member.

Displaying Last Update User ID and Member Information

In this example, we specified B in the MSL Display Options field to display the last update user ID with the member information. When you press Enter, the Lang Chg MSL Option(B) - Member Selection List panel is displayed.

<table>
<thead>
<tr>
<th>MEMBER</th>
<th>FLANG</th>
<th>NEW-LANG</th>
<th>LVL</th>
<th>USER</th>
<th>STAT</th>
<th>LMAINT</th>
<th>LACCESS</th>
<th>BLKS</th>
<th>USER-ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEMBER1</td>
<td>COBOL</td>
<td>33</td>
<td>0</td>
<td>TAE</td>
<td>12/23/02</td>
<td>03/03/03</td>
<td>USERAAA</td>
<td>1</td>
<td>USERAAA</td>
</tr>
<tr>
<td>MEMBER2</td>
<td>COBOL</td>
<td>1</td>
<td>0</td>
<td>TAE</td>
<td>04/13/03</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMBER3</td>
<td>COBOL</td>
<td>9</td>
<td>0</td>
<td>TAE</td>
<td>12/19/03</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMBER4</td>
<td>ASMB</td>
<td>18</td>
<td>0</td>
<td>TAE</td>
<td>11/15/03</td>
<td>1</td>
<td>USERBBB</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The User-ID column only appears when you select option B in the MSL Display Options field on the MSL Criteria panel. This field displays the user ID of the last update to this member. This user ID is updated for all CA Panvalet members as a result of an add, update, create, or replace function. This information is available only for release 14.2 and above libraries.

See Common MSL Display Options earlier in this section for a description of the remaining fields.
Language Change MSL Information Window Example

If you select multiple members for language change that causes a response delay due to processing requirements, an information window is displayed. An example follows for Option A.

The following Lang Chg MSL Option(A) - Member Selection List panel has four members selected for language change. For example purposes only, assume that these changes cause a response delay.

---

**LANG CHG MSL Option(A) - MEMBER SELECTION LIST**

Row 1 to 4 of 4

**COMMAND ====>**

**SCROLL==>** CSR

Enter Panvalet Function:

| S or L - Change Language, M - MSL Options & Dataset Info |

<table>
<thead>
<tr>
<th>MEMBER</th>
<th>F LANG</th>
<th>NEW-LANG</th>
<th>LVL</th>
<th>USER</th>
<th>STAT</th>
<th>LMAINT</th>
<th>LACCESS</th>
<th>BLKS</th>
<th>STATMTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEMBER1</td>
<td>COBOL</td>
<td>cobol</td>
<td>72</td>
<td>33</td>
<td>3220</td>
<td>TAE</td>
<td>12/23/02</td>
<td>03/03/03</td>
<td>9</td>
</tr>
<tr>
<td>MEMBER2</td>
<td>COBOL</td>
<td>anscobol</td>
<td>1</td>
<td>0</td>
<td></td>
<td>TAE</td>
<td>04/13/03</td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>MEMBER3</td>
<td>COBOL</td>
<td>pl/i</td>
<td>9</td>
<td>0</td>
<td></td>
<td>TAE</td>
<td>12/19/03</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>MEMBER4</td>
<td>ASMB</td>
<td>cobol</td>
<td>18</td>
<td>42</td>
<td></td>
<td>TAE</td>
<td>11/15/03</td>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

---

In the next panel, the information window is displayed (at intervals) while the request is processing. The window contains statistics indicating the count of members processed out of the total members requested for language change. This information gives you an idea of how much processing has been done and how much remains. For long processing requirements, the processing statistics are updated.

---

**LANG CHG MSL Option(A) - MEMBER SELECTION LIST**

Row 1 to 4 of 4

**COMMAND ====>**

**SCROLL==>** CSR

+----------------------------------+
<table>
<thead>
<tr>
<th>LANGUAGE CHANGE DONE FOR 2 OUT OF 4 REQUESTED.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>MEMBER</th>
<th>F LANG</th>
<th>NEW-LANG</th>
<th>LVL</th>
<th>USER</th>
<th>STAT</th>
<th>LMAINT</th>
<th>LACCESS</th>
<th>BLKS</th>
<th>STATMTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEMBER1</td>
<td>COBOL</td>
<td>cobol</td>
<td>72</td>
<td>33</td>
<td>3220</td>
<td>TAE</td>
<td>12/23/02</td>
<td>03/03/03</td>
<td>9</td>
</tr>
<tr>
<td>MEMBER2</td>
<td>COBOL</td>
<td>anscobol</td>
<td>1</td>
<td>0</td>
<td></td>
<td>TAE</td>
<td>04/13/03</td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>MEMBER3</td>
<td>COBOL</td>
<td>pl/i</td>
<td>9</td>
<td>0</td>
<td></td>
<td>TAE</td>
<td>12/19/03</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>MEMBER4</td>
<td>ASMB</td>
<td>cobol</td>
<td>18</td>
<td>42</td>
<td></td>
<td>TAE</td>
<td>11/15/03</td>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

---

*************** Bottom of data **********************
Displaying Last Update User ID and Member Information

The following panel shows a sample display when you select Option B for MSL Display Options on the MSL Criteria panel. This option displays a last update user ID and member information.

```
-=-=-=-= LIB-TO-LIB MSL Option(B) - MEMBER SELECTION LIST --- Row 1 to 5 of 5
COMMAND => SCROLL => CSR
Enter Panvalet Function:
| S or T - Transfer, M - MSL Options & Dataset Info |
| MEMBER RESULT LOC LVL USER LANG STAT LMAINT LACCESS BLKS USER-ID |
|---------- ---------- ---------- ---------- ---------- ---------- ---------- ---------- ----------- |
S MEMBER1 33 3220 COBOL TAE 12/23/02 03/05/03 1 USERBBB
S MEMBER2 1 0 COBOL TAE 04/13/03 1
S MEMBER3 9 0 COBOL TAE 05/19/03 1 USERAAA
S MEMBER4 18 42 ASMB TAE 06/28/03 1
S MEMBER5 3 0 PL/1 TAE 05/28/03 1
*************** Bottom of data ***********************
```

The **User-ID** column is displayed only when you select Option B from the Lib-to-Lib Copy MSL Criteria Panel. It displays user identification characters associated with the last (most recent) Batch CA Panvalet ++UPDATE command or the CA Panvalet ISPF Option (EDIT) SAVE for the corresponding member. See Common MSL Display Options for more information about the other fields on this panel.
Lib-to-Lib Copy MSL Information Window

If you select multiple members for library-to-library copy, and cause a long response delay due to processing requirements, an information window is displayed. An example of an MSL that generates an information window follows.

The following Lib-to-Lib Copy - Member Selection List panel has four out of five members selected for library-to-library copy using the REPL option from the Lib-To-Lib Copy - To Panel. For example purposes only, assume that these copies cause a long response delay.

Following is a sample of the information window that displays at intervals while the request is processing. The window contains statistics indicating the count of members processed out of the total members requested for library-to-library copy. This information gives you an idea of how much processing has been done and how much remains. For long processing requirements, the processing statistics are periodically updated.
After processing your Lib-To-Lib Copy utility, the Lib-To-Lib Copy - Member Selection List panel displays the results as shown on the following sample panel:

--- LIB-TO-LIB MSL Option(A) - MEMBER SELECTION LIST --- Row 1 to 5 of 5

Enter Panvalet Function:
S or T - Transfer, M - MSL Options & Dataset Info

<table>
<thead>
<tr>
<th>MEMBER</th>
<th>RESULT</th>
<th>LOC</th>
<th>LVL</th>
<th>USER</th>
<th>LANG</th>
<th>STAT</th>
<th>LMAINT</th>
<th>LACCESS</th>
<th>BLKS</th>
<th>STATMTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEMBER1</td>
<td><em>REPLACED</em></td>
<td>33</td>
<td>3220</td>
<td>COBOL</td>
<td>TAE</td>
<td>12/23/02</td>
<td>06/15/03</td>
<td>9</td>
<td>132</td>
<td></td>
</tr>
<tr>
<td>MEMBER2</td>
<td><em>REPLACED</em></td>
<td>0</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>04/13/03</td>
<td>06/15/03</td>
<td>0</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>MEMBER3</td>
<td><em>REPLACED</em></td>
<td>9</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>05/19/03</td>
<td>06/15/03</td>
<td>2</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>MEMBER4</td>
<td><em>REPLACED</em></td>
<td>18</td>
<td>42</td>
<td>ASMB</td>
<td>TAE</td>
<td>06/01/03</td>
<td>06/15/03</td>
<td>1</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>MEMBER5</td>
<td></td>
<td>3</td>
<td>0</td>
<td>PL/1</td>
<td>TAE</td>
<td>05/28/03</td>
<td></td>
<td>0</td>
<td>119</td>
<td></td>
</tr>
</tbody>
</table>

Specifying Lib-to-Lib Copy Option

The Lib-To-Lib Copy Options panel is displayed when you enter M on the Command line of the Lib-To-Lib Copy Member Selection List panel or enter M in Column 1 for a specific member on the Lib-To-Lib Copy Member Selection List panel.

--------------- LIB-TO-LIB COPY OPTIONS ------------ Computer Associates

FROM - PAYROLL.WORK.PANLIB
TO - PAYROLL.TEST.PANLIB

Please choose one or more of the following LIB-TO-LIB Copy Options:

- SORT MSL ===> N (Y/N)
- CONTROL (FROM) ===> (If necessary, FROM library)
- ACCESS (FROM) ===> (If necessary, FROM member)
- CONTROL (TO) ===> (If necessary, TO library)
- ACCESS (TO) ===> (If necessary, TO member)
- STATUS ===> REST (REST to create status = T A E -or- REPL to retain FROM member status)
- CONFIRM? ===> N (Y/N - Display Confirmation panel)

Press ENTER key to process; Enter END command to terminate.
Specify Lib-To-Lib Copy Options using the following fields:

Sort MSL

The SORT MSL parameter lets you sort the Member Selection List through access to the MSL Sort Fields panel. If you specify N, you cannot provide additional sort criteria. If you want to sort the MSL, specify Y. See Specifying MSL Sort Criteria for more information about how to specify sort criteria.

Control (From/To library)

When using the Lib-to-Lib Copy utility, you must always specify the control codes of the FROM and TO CA Panvalet libraries. Use these two fields to specify the necessary control codes if you did not specify them on the Lib-to-Lib Copy - From/To panels. For more information, see Control and Security in the chapter "System Overview."

Access (From/To member)

CA Panvalet lets you control access to individual members. If you want to copy a restricted member, you must specify that member’s access code. If the copy results in the replace of a restricted member in the TO library, you must specify that member’s access code. Use these two fields to specify the necessary access codes if you did not specify them on the Lib-to-Lib Copy - From/To panels.

Status

You can choose the restore/replace status of copied members here. The STATUS default value is blank. Valid values are:

- REPL (or repl)—The status of the member in the To library is the same as the status of the member in the From library. If the member does not exist on the To library, it is added to the To library.

- REST (or rest)—The status of the member created on the To library is taken from the value displayed, which is derived from the RSTSTAT operand value in the PVOPT macro (CA Panvalet options module FGPAN23). For more information about PVOPT, see the System Management Guide. The member must not already exist on the To CA Panvalet library when you choose restore (REST) because existing members are not replaced.

You can transfer CA Panvalet library members directly to another CA Panvalet library. The last action field is set to RESTORE or REPLACE, as chosen above. You cannot replace production status programs in an output (or To) CA Panvalet library.

This function is similar to the batch CA Panvalet PAN#2 Management ++TRANSFER command direct method. For more information about the ++TRANSFER command, see the System Management Guide.
Using the Member Selection List Option

Confirm
Indicates whether to display a confirmation panel for each existing CA Panvalet member undergoing replacement due to the Lib-To-Lib Copy utility. See Confirming Language Change for more information. Enter Y or N. The installation default is N (meaning do not display the Confirm Replace panel).

Note: If you specify Confirm=Y, status must be REPL for the Confirm Replace panel to display.

Specifying MSL Sort Criteria

Specify Y in the Sort MSL field on the Lib-To-Lib Copy Options panel or the Lib-To-Lib Copy - MSL Criteria panel to display the MSL Sort Fields panel. From this panel, you can sort the MSL based on field name in ascending or descending sequence. See the chapters "Browse" and "Edit" for more information about the fields on this panel.

Displaying Last Update and Current Lock Information

The following panel shows a sample display when you select option C for MSL Display Options on the MSL Criteria panel. This option displays last update user ID and current lock information.

```
---------- LOCK/UNLOCK MSL Option(C) - MEMBER SELECTION LIST -- Row 1 to 5 of 5
COMMAND ====> SCROLL===> CSR

Enter Panvalet Function: L -LOCK , U -UNLOCK , M -MSL Options

| MEMBER     RESULT    LOC LVL USER LANG STAT       DATE     TIME   USER    |
|------------ ----------------- ----- ----- --- ----- ---- ---- -----
| MEMBER1               L    3    0 ASMB  TAE       07/26/03 14:21 USER001 |
| MEMBER2                    3    0 AUTOC TAE       |
| MEMBER3               L    3    0 ASMB  TAE       08/01/03 10:30 USER001 |
| MEMBER4                    3    0 COBOL TAE       |
| MEMBERS               L    3    0 DATA  TAE       08/05/03 11:01 USER001 |

******************************* Bottom of data ********************************
```
Specifying Concatenated Libraries

To generate a composite MSL, specify multiple concatenated standard CA-Panvalet libraries on the PVEDIT - Entry Panel and leave the Member field blank.

You can concatenate up to four standard CA Panvalet libraries. Specification of concatenated standard CA Panvalet libraries occurs from left to right on the Group qualifier of the standard CA Panvalet library name entry area. Each concatenated library must have the same Project and Type qualifiers. Concatenated standard CA Panvalet libraries generate a Composite MSL. (For more information, see Concatenated Libraries in the Using the Data Display and Sequencing section in this chapter.)

Before the selection list is displayed, a PVEDIT - MSL Criteria panel is displayed to give you control over criteria that can limit the size of the Member Selection List. For more information, see PVEDIT - MSL Criteria Panel in this chapter. The following panel shows a standard CA Panvalet library concatenation specification.

If you enter a member name on the PVEDIT - Entry Panel and the member does not exist on any of the concatenated libraries, the PVEDIT(ADD) - Member Options panel is displayed. After you choose the new Member Options and press ENTER, an edit session is started for the new member.

Note: You cannot change the CA Panvalet library specification.

To return control to the MSL, press PF3 (End).
Composite Member Selection List

When CA Panvalet libraries with standard data set names are concatenated, the MSL is a composite list. Composite lists contain an ordered list of members, in collated sequence by member name, that meet your selection criteria. You define your selection criteria and the concatenation sequence on the PVEDIT - Entry Panel.

Only the first occurrence of a member name within the concatenation sequence is shown in the composite MSL. For example, when the same member occurs on both the first and third concatenated libraries, only the First Library number displays.

After the PVEDIT - MSL Criteria panel is processed, the composite MSL created from the libraries specified on the above PVEDIT - Entry Panel is displayed. The following panel shows an MSL generated with the following options specified on the PVEDIT - MSL Criteria panel:

- N for Display with Comment Data
- A for MSL Display Options

The LIB column displays the library number or group in which the member was found. For concatenated libraries, up to four library numbers can be displayed in the order of the concatenation sequence specified for the Group parameter on the PVEDIT - Entry panel. If you are not using a concatenated sequence, a 1 is displayed.

The remaining MSL parameters, and the selection and primary commands, function the same as for the single library MSL shown earlier in this chapter.
Using the Data Display and Sequencing

Use the PVEDIT Data Display panel for the actual editing process. The contents of the specified member are displayed for modification through the use of this panel. The PVEDIT Data Display panel is identical in appearance to the ISPF/PDF Edit Data Display panel. The ISPF/PDF Edit Line Commands, used to edit data and text material, are also available in the PVEDIT function through the Data Display panel.

Line Commands

Enter the edit line commands in the line command field on any line by overtyping the sequence number displayed in that field.

Primary Commands

Enter primary commands on the Command line. For more information about edit primary commands supported by the PVEDIT function, see Edit Primary Commands in this chapter.

Columns 1 to 6 of the data display show the ISPF/PDF line number followed by 72 columns of data. With ISPF/PDF, a COBOL program displays columns 7 to 78, and all other data types display columns 1 to 72. Normal scrolling facilities let you access the additional columns.

A sample PVEDIT Data Display panel follows:

```
PVEDIT --- PDPV.TEST.PANLIB(PLISAMP) -------------------- COLUMNS 001 072
COMMAND ===> SCROLL ===> PAGE

000001 /* DATA SET PLISAMP AT LEVEL 001 AS OF 09/10/01 */
000002 /* ***** PL/I SAMPLE PROGRAM. ******/
000003 /*******/
000004 /* */
000005 /* USES COMPILETIME PREPROCESSOR TO MODIFY PL/I (F) SOURCE FOR */
000006 /* USE WITH THIS COMPILER. THE PREPROCESSOR STATEMENTS FOLLOWING */
000007 /* COULD BE PLACED ON A LIBRARY AND USED TO MODIFY SEVERAL SOURCE */
000008 /* PROGRAMS BY MEANS OF THE PREPROCESSOR %INCLUDE STATEMENT. THEY */
000009 /* PERFORM THE FOLLOWING FUNCTIONS: */
000010 /* */
000011 /* 1. CONVERT CALLS TO FOLLOWING PL/I (F) IHE... ROUTINES TO THE */
000012 /* EQUIVALENT NEW PL/I... ROUTINES: */
000013 /* IHEDUMP/J/C/T TO PLIDUMP, */
000014 /* IHERSTA/B/C/D TO PLISRSTA/B/C/D, */
000015 /* IHECKPS/T TO PLICKPT, */
000016 /* IHERESN/T TO PLIREST/PLICANC, */
000017 /* IHERESN/T TO PLIREST/PLICANC, */
000018 /* */
000019 /* 2. CHANGE FIRST DECLARE/DCL STATEMENT FOUND TO INCLUDE */
000020 /* BUILTIN ATTRIBUTE FOR FOLLOWING BUILT-IN FUNCTIONS (WHICH */
000021 /* DATE, TIME, ONCODE, ONCHAR, ONSOURCE, ONLOC, */
```
The setting of the NUMBER entry in the ISPF/PDF Edit profile determines the display line numbers. Either ISPF/PDF (NUMBER OFF) generates the line numbers, or they are picked up from the member sequence field (NUMBER ON or NUMB ON COB).

NUMBER ON picks up the CA Panvalet generated sequence field (PAN sequencing) or the saved sequence field (TSO sequencing). Specifying NUMBER OFF as the installation standard resolves conflicts that exist in sequence field sizes between CA Panvalet and ISPF/PDF.

**Member Sequencing**

Member sequencing is a complex relationship between CA Panvalet and ISPF/PDF. The actual events that take place depend on the settings of CA Panvalet PAN or TSO sequencing, CA Panvalet EXPAND, ISPF/PDF NUMBER, AUTONUM, and STATS.

CA Panvalet has standard conventions for the processing of sequenced numbers, as does ISPF/PDF, and significant differences exist between the two systems. However, the actual edit functions and technique of ISPF/PDF make the sequence numbers relatively unimportant. CA Panvalet (using PAN sequencing) also places little importance on the exact sequence number.

**Note:** The FIRST and LAST LINE NUMBERS of the PVEDIT(Copy) - Retrieval Option Panel rely on the physical or relative statement numbers. The sequence numbers displayed during an edit session might not correspond to the relative line numbers of the source statements as stored in the CA Panvalet library.

The line sequence numbering displayed during an edit session is affected by such factors as type of sequencing selected, editing activities, and option chosen (for example, EXPAND). Therefore, the physical placement of the statements on the CA Panvalet library only shows up consistently on a PVBROWSE screen or on a listing of the member. The generated comments for the selected member types are not considered as part of the members and, therefore, are not counted as a relative statement.

**Level Stamping**

You can initiate a level stamp option when installing batch CA Panvalet. With this feature in effect, any changes in COBOL, ANSCOBOL, BAL, PL1, RPG, AUTOCODER, JCL, and FORTRAN programs are flagged with the new level number at the time of the change. The level stamp consists of three characters displayed in columns 78-80 of the data set. Values range from **1 to 255 (asterisks are part of the level stamp display).

**Note:** To take advantage of level stamping, a member must use CA Panvalet (PAN) sequencing. Also, we recommend that you use NUMBER OFF.
PAN Sequencing

The CA Panvalet ISPF Option is best used with PAN sequencing and NUMBER OFF. When you retrieve a program, PAN sequencing generates sequence numbers. NUMBER OFF causes ISPF/PDF to ignore the PAN sequence numbers and generate its own numbers for the leftmost 6 columns of the display screen. When saving the member, the ISPF/PDF numbers are ignored and, with PAN sequencing, so are the CA Panvalet generated numbers. The member is stored without sequence numbers and is automatically resequenced on the next retrieval.

PAN sequencing works with NUMBER ON, but several differences occur. For example, the ISPF/PDF sequence numbers (positions one to six of the display) contain only five digits, with a blank in position six.

When a COBOL program is processed with NUMBER ON rather than NUMBER ON COB, part of the CA Panvalet ID field information (name, level, date of late maintenance) appears in the first three ISPF/PDF sequence numbers. The remaining ISPF/PDF sequence numbers are blank and transferred from the ID field columns 72 to 78.

TSO Sequencing

TSO sequencing lets you edit a program without having it resequenced. You should use this function only when you require TSO sequencing. You can use TSO sequencing only with BAL, COBOL, ANSCOBOL, FORTRAN, PL/I, JCL language types, and with any ZTYPE that mimics the mentioned languages.

Important! Because TSO sequencing retains sequence numbers, you should use TSO sequencing with extreme care. Unless this is handled properly, the end result could be an edited program that you cannot save because of out-of-sequence errors.

When LANGUAGE=COBOL and NUM ON COB, either PAN or TSO sequencing works just as well. In this case, any ISPF/PDF sequencing operations (RENUM, AUTONUM) are reflected in the stored sequence numbers.

Note: If you edit any TSO-sequenced member with ++INCLUDEs expanded (EXPAND=Y), you get a sequence error when you attempt to save the member.

Concatenated Libraries

When you select a member from a concatenated group of CA Panvalet libraries, you can potentially retrieve the member from any library within the concatenation. The retrieved data is always the first occurrence of the requested member from the CA Panvalet library concatenation sequence. You specify this sequence from left to right on the PVEDIT - Entry Panel in the GROUP field of the standard CA-Panvalet library data set names. If CA Panvalet does not find the member in any of the concatenated libraries, CA Panvalet treats the member as a new CA Panvalet member.
In either case, you can only save the edited data to the first CA Panvalet library of the specified concatenation sequence (LIB 1), regardless of the original CA Panvalet library. The title line of the PVEDIT Data Display Panel always identifies the data set name of the first CA Panvalet library of the concatenation sequence. If the CA Panvalet member does not exist in the First Library of the concatenation sequence, the first save command adds it automatically.

The only exception involves CA Panvalet members with production or disabled attributes. When you select such a member from LIB 1 for editing, CA Panvalet tells you that the data set is production or disabled and that SAVE is not permitted. When you select a production or disabled member for editing from other than LIB 1, you can save the member to LIB 1; CA Panvalet adds it to the library with TEST, ENABLED status.

When using concatenated CA Panvalet libraries, the SAVE command uses the current CA Panvalet level number incremented by one. The CA Panvalet level number is incremented when creating or replacing the member in the first concatenated library of the sequence. For example, if a member exists in the second concatenated CA Panvalet library at level 5, the first save adds the member to LIB 1 at level 1. For more information, see the SAVE command in Edit Primary Commands in this chapter.

Data Display Example (COBSAMP)

The following PVEDIT Data Display panel shows the contents of the member COBSAMP. The composite MSL display shown earlier listed this member (see Composite Member Selection List in this chapter). The titled library data set name is that of the First Library of the concatenation sequence. Note that the member was actually selected from the second library (LIB 2), but you can only save the member to LIB 1.
Edit Primary Commands

After a CA Panvalet member has been retrieved and displayed for editing, the differences between ISPF/PDF Edit and CA Panvalet Edit are minor. These differences are mainly in the use of the primary edit commands.

The command descriptions below illustrate some of the differences between ISPF/PDF Edit and CA Panvalet Edit. (For a complete list and descriptions of all primary edit commands that the CA Panvalet ISPF Option uses, see the appendix, "Command Summary."

COPY

The COPY command copies a CA Panvalet member, a partitioned data set member, or a sequential data set and inserts it into a member being edited. A COPY command without a member name assumes that the member is not a CA Panvalet member and produces an ISPF/PDF Edit Copy panel for you to specify the source of the copy. A COPY command with a member name copies the entire member from the CA Panvalet library, or concatenated libraries, specified on the PVEDIT - Entry Panel. The PVEDIT (COPY) - Entry Panel is also available to change the current CA Panvalet library specification, or to limit the range of the copied data. The PVEDIT (COPY) - Entry Panel is similar to the PVEDIT - Entry Panel. For examples of panel use, see the chapter "Sample Edit Sessions."

Two techniques are provided for copying CA Panvalet members:

- Specify the CA Panvalet member name on the COPY primary command. The normal ISPF/PDF copying function is performed as with other data sets.
- Specify COPY /PAN on the command line. The /PAN keyword causes the PVEDIT (COPY) - Entry Panel to appear. For an example of this see Edit Session 1 in the chapter "Sample Edit Sessions." This method lets you specify the starting and ending sequence numbers to limit the range of the COPY or to change the current CA Panvalet library specification. When you change the CA Panvalet library specification, the COPY command searches this library, or concatenated libraries, for the requested member exclusively. After the member is copied, the original CA Panvalet library specification on the PVEDIT - Entry Panel is activated.

Note: If the /PAN keyword does not work, see your CA Panvalet ISPF Option systems administrator. The keyword might have been modified.
ISP/PDF and PVCOPY LRECL Processing Differences

ISP/PDF Edit COPY and PVCOPY process members with different logical record lengths differently:

- ISPF/PDF COPY lets you copy a PDS member that differs in logical record length from the edited member. If the copied member’s data LRECL is greater than the edited member, the copied data is truncated. If the copied member’s data LRECL is less than the edited member, the copied data is right padded with blanks.

- PVCOPY protects the integrity of data by allowing only copied data from CA Panvalet library members to match the logical record length of the edited member. This eliminates the need to truncate or pad records that might be corrupted by a blank padding character.

CREATE

The CREATE command causes a line or block of lines to be stored as a new CA Panvalet member or as a partitioned data set member. A CREATE command without a member name assumes non-CA Panvalet and displays an ISPF/PDF Edit Create panel for you to specify the destination of the created member. Two techniques are provided for creating CA Panvalet members:

- Specify the CA Panvalet member name on the CREATE command. The requested member is created within the CA Panvalet library, or the first concatenated library of the sequence, specified on the PVEDIT - Entry Panel.

- Specify CREATE /PAN on the command line. The /PAN keyword causes the PVEDIT (CREATE) - Entry Panel to be displayed. For an example of this see Edit Session 1 in the chapter "Sample Edit Sessions." This method lets you change the current CA Panvalet library specification or certain CA Panvalet member attributes of the created member. After the member is created, the original CA Panvalet library specification on the PVEDIT - Entry Panel is activated.

  Note: If the /PAN keyword does not work, consult the person in charge of installation of the CA Panvalet ISPF Option at your site. The keyword might have been modified.

  Note: Both ISPF/PDF EDIT CREATE and PVCREATE create a new member from the edited data that has the same logical record length (LRECL) as the CA Panvalet edited member. You cannot alter the logical record length.
MOVE

CA Panvalet Edit does not support the MOVE command for CA Panvalet members. This is because the MOVE command copies a module from an external library into the program being edited and then deletes the module on the external library. CA Panvalet does not permit program deletion in this manner. Using this command results in an error message informing you that copy was done instead.

RECOVERY

An audit trail of edit transactions is automatically recorded in an ISPF/PDF controlled data set. If the system crashes, you can use the ISPF/PDF recovery data set to recover the edit session.

PVEDIT - Recovery Panel

When CA Panvalet Edit is operating in recovery mode (standard IBM RECOVERY ON), an audit trail of user interactions is automatically recorded in an application-dependent data set. Following a system failure, you can use the audit trail to replay the CA Panvalet Edit session.

CA Panvalet Edit uses a special recovery table, stored on your ISPF profile data set, to handle CA Panvalet Edit automatic recovery processing. The name of the CA Panvalet Edit Recovery Table is built by appending PERT to the current ISPF application identifier. When using the default application identifier, the name of the CA Panvalet Edit Recovery Table is ISRPERT.

This table is separate and distinct from the ISPF/PDF Edit Recovery Table (see the ISPF/PDF Installation and Customization Manual). CA Panvalet Edit uses IBM ISPF/PDF Edit Recovery facilities to handle its recovery, and uses its own table to save relevant CA Panvalet recovery information.
When you select CA Panvalet Edit from the ISPF/PDF Primary Option Menu, the following screen is displayed, indicating that recovery is available for a CA Panvalet library member. As directed on the panel, you can proceed with recovery, cancel recovery, defer recovery until the next edit session, or you can enter the END command to return to the Primary Option Menu. If you proceed with, defer, or cancel recovery, and other CA Panvalet library members exist to be recovered, the PVEDIT - Recovery Panel is displayed for each library and member.

![PVEDIT - Recovery Panel](image)

**REPLACE**

The CA Panvalet replace command causes a line or block of lines to replace an existing CA Panvalet member. The replace command is not allowed for CA Panvalet members other than those with TEST, ENABLE status. A member that is currently locked is not replaced unless the owning user ID of lock matches the user ID of the user performing the replace function. A replace command without a member name assumes non-CA Panvalet and produces an ISPF/PDF Edit Replace panel for you to specify the destination of the replace.
To replace CA Panvalet members that are in TEST, ENABLE status and not locked, do one of the following:

- Specify the CA Panvalet member name on the REPLACE primary command. The requested member (with the required TEST, ENABLE status) is replaced within the CA Panvalet library or the first concatenated library of the sequence (LIB 1) specified on the PVEDIT - Entry Panel.

- Specify REPLACE /PAN on the command line. The /PAN keyword causes the PVEDIT (REPLACE) - Entry Panel to be displayed. For an example of this see Edit Session 1 in the chapter "Sample Edit Sessions." This method lets you change the current CA Panvalet library specification. After the member is replaced, the original CA Panvalet library specification on the PVEDIT - Entry Panel is activated.

When the attribute values of an CA Panvalet member being edited are inconsistent with those attributes of the CA Panvalet member to be replaced, a Confirmation Panel appears. This panel describes the inconsistent attributes (for example, LANG TYPE, NOFORMAT, or PAN/TSO), and prompts you for a decision for further processing. You can continue the REPLACE processing, changing the contents of the CA Panvalet member to be replaced, or you can cancel the replace request.

**Note:** If the /PAN keyword does not work, consult the person in charge of the CA Panvalet ISPF Option installation at your site. The keyword might have been modified.

### ISPF/PDF and PVREPLACE LRECL Processing Differences

ISPF/PDF Edit REPLACE and PVREPLACE process members with different logical record lengths differently.

ISPF/PDF REPLACE lets you REPLACE a PDS member that differs in logical record length from the edited CA Panvalet member. If the replaced member's LRECL is greater than the edited member, the replaced data is right-padded with blanks. If the replaced member's LRECL is less than the edited member, the replaced data is truncated.

PVCOPY lets you REPLACE a CA Panvalet member that differs in logical record length from the edited CA Panvalet member if the replaced member’s LANG TYPE is DATA. If the replaced member’s LRECL is:

- Greater than the edited member, the replaced data remains the same length and causes the replaced member's LRECL to be the same as the edited member.
- Less than the edited member, the replaced data remains the same length and causes the replaced member's LRECL to be the same as the edited member.

If the replaced member LANG TYPE is not DATA, the edited member's data must have a logical record length of 80 for the REPLACE processing to proceed.
SAVE

The SAVE command stores the edited data back into the CA Panvalet library from which the member was retrieved. There are two exceptions to this.

- Specifying a concatenation sequence of CA Panvalet libraries with standard data set names. For further information about concatenating CA Panvalet libraries in CA Panvalet Edit, see Specifying Concatenated Libraries earlier in this chapter.

- Specifying a production or disabled member or a locked member. When you select such a member for editing, you are informed that the data set is production or disabled or locked and that you cannot save this member. A member that is currently locked can be saved only when the owning user ID of lock matches the user ID of the user performing the save function. The retrieval and subsequent editing (in memory) of the member is not restricted; only the save command does not function. As an alternative, use the create command to save the member by creating a new one.

Note: For a complete list of the primary edit commands, see the appendix "Command Summary."

Simultaneous Update Protection

CA Panvalet provides protection against simultaneous updates through one of two possible mechanisms:

- Across multiple CPUs and between ISPF and batch users on the same CPU, the CA Panvalet level number provides protection. When two users retrieve the same member for editing, CA Panvalet honors the first one that is saved. The second SAVE results in a "faulty level" error message. Save the second update with a CREATE, CANCEL the edit session, then sort out the situation. However, if the online user chooses not to update the level number, the "faulty level" error may not occur.

  Note: If the CA Panvalet library resides on a DASD device generated as SHARED, a very short-term RESERVE is issued. For more information about enqueues and reserve processing, see the System Management Guide.

- For all ISPF users on a single CPU, the ENQ/DEQ facility provides protection. When you are editing a member, other users attempting to edit the member receive a message that states that the member is already in use by another user.
This chapter describes four CA Panvalet ISPF Option sample terminal sessions using the Edit facility.

Edit Session 1

Serves as a quick introduction to the CA Panvalet ISPF Option. It includes examples of the Primary Menus, Entry Panels, Criteria Panels, Data Display Panels, and the CREATE Primary Command.

Edit Session 2

A continuation of Session 1. In addition to the panels demonstrated in Session 1, this session illustrates use of the concatenation facility and includes examples of the Composite MSL and the REPLACE Primary command.

Edit Session 3

A continuation of Session 2, concentrating on the concatenation facility provided by the COPY primary command.

Edit Session 4

A continuation of Session 1. In addition to the panels demonstrated in Session 1, this session illustrates the use of the concatenation facility and includes examples of the Composite MSL using the Last Update/Lock MSL.

You can use this chapter for training by going through the sessions in order, or you can reference specific topics through the chapter Table of Contents or the Index.

For specific information about commands and parameters used in these sessions, see the chapter "Edit" and the appendix "Command Summary."

Edit Session 1

You can use this session as a quick introductory CA Panvalet ISPF Option course or to reference the use of specific edit panel functions.
Initializing ISPF/PDF

To initialize the ISPF/PDF system, enter `ispf` below the READY prompt in TSO as shown in the following example:

```
READY
ispf
```

The ISPF/PDF Primary Option Menu is displayed.

Initiating the ISPF Option

From the ISPF/PDF Primary Option Menu, enter `P` on the Option line to initiate the CA Panvalet ISPF Option.

```
---------- ISPF/PDF PRIMARY OPTION MENU -----------
OPTION === P  USERID - PRGMR01
  0 ISPF PARMS - Specify terminal and user parameters
  1 BROWSE   - Display source data or output listings
  2 EDIT     - Create or change source data
  3 UTILITIES- Perform utility functions
  4 FOREGROUND- Invoke language processors in foreground
  5 BATCH    - Submit job for language processing
  6 COMMAND  - Enter TSO command or CLIST
  7 DIALOG TEST- Perform dialog testing
  8 LM UTILITIES- Perform library management utility functions
  C CHANGES  - Display summary of changes for this release
  P PANVALET- Browse, edit, and utilities
  T TUTORIAL- Display information about ISPF/PDF
  X EXIT     - Terminate ISPF using log and list defaults

Enter END command to terminate ISPF.
```

The CA Panvalet primary menu is displayed.
Initializing PVEDIT

From the CA Panvalet primary menu, enter 2 on the Option line to initialize the Edit facility.

```
-------------------- AllFusion CA-Panvalet for z/OS --- Computer Associates
OPTION ===> 2
VERSION - vvr9g99
  1 BROWSE - Display AllFusion CA-Panvalet Members
  2 EDIT - Modify/Create AllFusion CA-Panvalet Members
  3 UTILITY - AllFusion CA-Panvalet/ISPF Utilities (COPY, QUERY, etc.)
  4 VIEW - Modify & Create without changing original mbr
  5 WHAT'S NEW - In AllFusion CA-Panvalet Version 14.5

Enter END command to terminate AllFusion CA-Panvalet/ISPF.
```

The PVEDIT - Entry Panel displays.

**Note:** You can also access the PVEDIT - Entry Panel by specifying Option P.2 on the ISPF/PDF Primary Option Menu.
Naming the Library

On the PVEDIT - Entry Panel, enter the CA Panvalet library name (PDPV.TEST.PANLIB) under the standard library section, leaving the Member field blank.

```
----------------------------- PVEDIT - ENTRY PANEL ---------------- Computer Associates
COMMAND ===> VERSION - vvrgggg

Standard CA-Panvalet Library:
PROJECT ===> PDPV
GROUP ===> TEST
TYPE ===> PANLIB
MEMBER ===> (Blank for Criteria Selection PANEL for MSLs)
           (Enter name with Wildcard * ? notation for MSL)
Non-Standard CA-Panvalet Library - RETAIN ===> Y (Y/N, Save in Profile)
DSNAME ===> VOLSER ===> (If NOT Cataloged)

CA-Panvalet Retrieval/Save Options:
CONTROL ===> (If necessary) EXPAND ===> N (Y/N)
ACCESS ===> (If necessary) EDIT LOCK ===> N (Y/N)
SAVE ===> 1 (1 = First Library UP LEVEL # ===> Y (Y/N)
          0 = Origin Library)
CA-Panvalet EDIT Profile ===> Initial Macro ===> Press ENTER key to process; Enter END command to terminate.
```

When you press Enter, the PVEDIT - MSL Criteria panel is displayed.
Limiting the Member Selection List

On the PVEDIT - MSL Criteria panel, indicate that you want to list all members starting with PAM, having a Lang Type of Assembler (ASMB), a status of Test (T), and a standard PVEDIT MSL listing (Option A).

Press Enter to display the PVEDIT - Member Selection List panel and all members in the PDPV.TEST.PANLIB library that fit the MSL criteria.

Selecting the Member for Editing

From the Member Selection List, enter $ next to PAMTEST to select it for editing.

When you press Enter, the PVEDIT panel is displayed with the member PAMTEST open for editing.
Copy to a Member

You want to copy the contents of the CA Panvalet member XXXCOMMENT from library PDPV.COPY.PANLIB into PAMTEST. Because the member name (XXXCOMMENT) is ten characters long and the library name is different from the library specified on the Edit Entry Panel, you must access the PVEDIT (Copy) - Entry Panel.

To copy to a member, perform these steps:

1. Type `copy /pan` on the Command line.
2. Type `a (after)` on line 4 to indicate that the data is copied into PAMTEST after line 4.

```
PVEDIT --- PDPV.TEST.PANLIB(PAMTEST)  ------------------ COLUMNS 001 072
COMMAND ===> copy /pan                                      SCROLL ===> HALF
******                                                                
TOP OF DATA                                                                 
NOTE   * DATA SET PAMTEST AT LEVEL 009 AS OF 10/07/01
000001  TITLE 'MVS/XA PANVALET READ-ONLY SYSTEM TEST PROGRAM'
000002  PAMREAD  CSECT
000003  * THIS SAMPLE PROGRAM IS TO BE USED FOR DOCUMENTATION AND EXAMPLE
a 0004  * PURPOSES WHEN USING PAM.
000005  * USING *,15 TEMPORARY BASE REGISTER
000006  STM 14,12,12(13) STORE REG
000007  LR  12,13 SAVE CALLERS REG
000008  LA  13,SAVEAREA SET SAVEAREA ADDRESS
000009  ST 12,4(13) SET CALLER IN CALLEES
000010  ST 13,8(12) CALLEES IN CALLERS
000011  DROP 15 DROP TEMPORARY BASE REG
000012  BALR 12,0 USE R12 AS BASE
000013  USING *,12
000014  *OPEN
000015  *XC ACTION,ACTION CLEAR ACTION WORD
000016  CALL POPEN,(ACTION,DONAME,backup),VL OPEN PANVALET FILE
000017  CLC ACTION,=F'0' ERROR DURING OPEN?
000018  BNE ERROR YES, GO TO ERROR ROUTINE
000019  GETDIR EQU *
000020  XC ACTION,ACTION CLEAR ACTION WORD
```

3. Press Enter. The PVEDIT(Copy) - Entry Panel is displayed.
4. To change the CA Panvalet library name, type the member name **XXXCOMMENT** in the Member field, and **COPY** in the Group field.

```
COMMAND ==> PVEDIT(COPY) - ENTRY PANEL ------ Computer Associates

EDIT LIBRARY(MEMBER): PDPV.TEST.PANLIB(PAMTEST)

From Standard CA-Panvalet Library:
PROJECT ==> PDPV
GROUP  ==> COPY    ==>     ==>     ==>     ==>  TYPE  ==> PANLIB
MEMBER  ==> XXXCOMMENT  (Blank for MEMBER SELECTION LIST)

From Non-Standard CA-Panvalet Library:
DSNAME  ==> VOLSE    ==>     (If NOT Cataloged)

CA-Panvalet Retrieval Options: Line Numbers:  (Blanks for entire member)
CONTROL ==> FIRST    ==>     (Blank means FIRST)
ACCESS   ==> LAST     ==>     (Blank means LAST)
EXPAND   ==> N        (Y/N)
```

5. Press Enter to display the PAMTEST member with the XXXCOMMENT member copied into it.
Deleting Lines

To delete lines, perform these steps:

1. To delete the user comments on lines 3 and 4, enter D on those lines as shown on the following panel.

   ![Panel Example](image)

   1. **DATA SET PAMTEST AT LEVEL 009 AS OF 10/07/01**
   2. **THIS SAMPLE PROGRAM IS TO BE USED FOR DOCUMENTATION AND EXAMPLE PURPOSES WHEN USING PAM.**
   3. **IF DESIRED THIS PROGRAM MAY BE USED AS A BASE FOR MODIFICATIONS**
   4. **IN ORDER TO CREATE A WORKING PROGRAM.**
   5. **USING *,15 TEMPORARY BASE REGISTER**
   6. **STORE REG**
   7. **SAVE CALLERS REG**
   8. **SET SAVEAREA ADDRESS**
   9. **SET CALLER IN CALLEES**
   10. **CALLEES IN CALLERS**
   11. **DROP TEMPORARY BASE REG**
   12. **USE R12 AS BASE**
   13. **USING *,12 OPEN**
   14. **CLEAR ACTION WORD**
   15. **OPEN PANVALET FILE**
   16. **ERROR DURING OPEN?**
   17. **YES, GO TO ERROR ROUTINE**

2. Press Enter. The PAMTEST member is displayed without the deleted lines.

   **Note:** The screen will be resequenced as a result of deleting the two lines.
Inserting Lines

To insert lines, perform these steps:

1. To insert two lines between lines 2 and 3, enter I on line 2 as shown on the following panel.

```
Pvedit --- pdpv.test.panlib(pamtest)------------------- columns 001 072
command ===> scroll ===> half
****** *********************** top of data ***********************

Note * data set pamtest at level 009 as of 10/07/01
000001 title 'mvs/xa panvalet read-only system test program'
12 0002 pamread csect
000003 * if desired this program may be used as a base for modifications
000004 * in order to create a working program.
000005 using *,15 temporary base register
000006 stm 14,12,(13) store reg
000007 lr 12,13 save callers reg
000008 la 13,savearea set savearea address
000009 st 12,4(13) set caller in callees
000010 st 13,8(12) callees in callers
000011 drop 15 drop temporary base reg
000012 balr 12,0 use r12 as base
000013 using *,12
000014 *open
000015 xc action,action clear action word
000016 call popen, (action,doname,backup),vl open panvalet file
000017 clc action,=f'0' error during open?
000018 bne error yes, go to error routine
000019 getdir equ *
000020 xc action,action clear action word
```

2. Press Enter. The PAMTEST member is displayed with inserted blank lines.

```
Pvedit --- pdpv.test.panlib(pamtest)------------------- columns 001 072
command ===> scroll ===> half
****** *********************** top of data ***********************

Note * data set pamtest at level 009 as of 10/07/01
000001 title 'mvs/xa panvalet read-only system test program'
000002 pamread csect
000003 * if desired this program may be used as a base for modifications
000004 * in order to create a working program.
000005 using *,15 temporary base register
000006 stm 14,12,(13) store reg
000007 lr 12,13 save callers reg
000008 la 13,savearea set savearea address
000009 st 12,4(13) set caller in callees
000010 st 13,8(12) callees in callers
000011 drop 15 drop temporary base reg
000012 balr 12,0 use r12 as base
000013 using *,12
000014 *open
000015 xc action,action clear action word
000016 call popen, (action,doname,backup),vl open panvalet file
000017 clc action,=f'0' error during open?
000018 bne error yes, go to error routine
```
3. The panel is now ready for the new data. Enter the comments on the blank lines as shown on the following screen.

```
PVEDIT --- PDV.TEST.PANLIB(PAMTEST)------------------------ COLUMNS 001 072
COMMAND ==>
SCROLL ===>
HALF

****** ********************************** TOP OF DATA **********************************
NOTE * DATA SET PAMTEST AT LEVEL 009 AS OF 10/07/01
000001 TITLE 'MVS/XA PANVALET READ-ONLY SYSTEM TEST PROGRAM'
000002 PANREAD CSET
'......' * This is an example of a program using the PANVALET access
'......' * method.
000003 * IF DESIRED THIS PROGRAM MAY BE USED AS A BASE FOR MODIFICATIONS
000004 * IN ORDER TO CREATE A WORKING PROGRAM.
000005 USING *,15 TEMPORARY BASE REGISTER
000006 STM 14,12,12(13) STORE REG
000007 LR 12,13 SAVE CALLERS REG
000008 LA 13,SAVEAREA SET SAVEAREA ADDRESS
000009 ST 12,4(13) SET CALLER IN CALLEES
000010 ST 13,8(12) CALLEES IN CALLERS
000011 DROP 15 DROP TEMPORARY BASE REG
000012 BALR 12,0 USE R12 AS BASE
000013 USING *,12
000014 *OPEN
000015 XC ACTION,ACTION CLEAR ACTION WORD
000016 CALL POPEN,(ACTION,DDNAME,BACKUP),VL OPEN PANVALET FILE
000017 CLC ACTION,=F'0' ERROR DURING OPEN?
000018 BNE ERROR YES, GO TO ERROR ROUTINE

Note: The screen is resequenced to accommodate the new data. The lower case input is changed to upper case because the profile is defined as CAPS ON.
```

4. Press Enter. The PAMTEST member is displayed with the inserted lines.

```
PVEDIT --- PDV.TEST.PANLIB(PAMTEST)------------------------ COLUMNS 001 072
COMMAND ==>
SCROLL ===>
HALF

****** ********************************** TOP OF DATA **********************************
NOTE * DATA SET PAMTEST AT LEVEL 009 AS OF 10/07/01
000001 TITLE 'MVS/XA PANVALET READ-ONLY SYSTEM TEST PROGRAM'
000002 PANREAD CSET
'......' * This is an example of a program using the PANVALET access
'......' * method.
000003 * IF DESIRED THIS PROGRAM MAY BE USED AS A BASE FOR MODIFICATIONS
000004 * IN ORDER TO CREATE A WORKING PROGRAM.
000005 USING *,15 TEMPORARY BASE REGISTER
000006 STM 14,12,12(13) STORE REG
000007 LR 12,13 SAVE CALLERS REG
000008 LA 13,SAVEAREA SET SAVEAREA ADDRESS
000009 ST 12,4(13) SET CALLER IN CALLEES
000010 ST 13,8(12) CALLEES IN CALLERS
000011 DROP 15 DROP TEMPORARY BASE REG
000012 BALR 12,0 USE R12 AS BASE
000013 USING *,12
000014 *OPEN
000015 XC ACTION,ACTION CLEAR ACTION WORD
000016 CALL POPEN,(ACTION,DDNAME,BACKUP),VL OPEN PANVALET FILE
000017 CLC ACTION,=F'0' ERROR DURING OPEN?
000018 BNE ERROR YES, GO TO ERROR ROUTINE
```
Creating a New Member

To add a new member to an CA Panvalet library that is different from the library specified on the PVEDIT - Entry Panel, use the CREATE primary command.

To create a new member, perform these steps:

1. Type `create /pan` on the COMMAND line.
2. Type `cc` on lines 3 and 6 to identify the block of text you want to use to create the contents of the new CA Panvalet member.

```
PVEDIT -RDPV.TEST.PANLIB(PAMTEST)---------- COLUMNS 001 072
COMMAND ===> create /pan  SCROLL ===> HALF
****** *********************************** TOP OF DATA *********************************
NOTE   *          DATA SET PAMTEST    AT LEVEL 009 AS OF 10/07/01
000001  TITLE 'MVS/XA PANVALET READ-ONLY SYSTEM TEST PROGRAM'
000002 PAMREAD  CSECT
cc 003 *  THIS IS AN EXAMPLE OF A PROGRAM USING THE PANVALET ACCESS
000004 *  METHOD...
000005 *  IF DESIRED THIS PROGRAM MAY BE USED AS A BASE FOR MODIFICATIONS
cc 006 *  IN ORDER TO CREATE A WORKING PROGRAM.
000007 USING *,15  TEMPORARY BASE REGISTER
000008 STM 14,12(13) STORE REG
000009 LR 12,13 SAVE CALLERS REG
000010 LA 13,SAVEAREA SET SAVEAREA ADDRESS
000011 ST 12,4(13) SET CALLER IN CALLEES
000012 ST 13,8(12) CALLEES IN CALLERS
000013 DROP 15 DROP TEMPORARY BASE REG
000014 BALR 12,0 USE R12 AS BASE
000015 USING *,12
000016 *OPEN
000017 XC ACTION,ACTION CLEAR ACTION WORD
000018 CALL POPEN,(ACTION,DDNAME,BACKUP),VL OPEN PANVALET FILE
000019 CLC ACTION,=F'0' ERROR DURING OPEN?
000020 BNE ERROR YES, GO TO ERROR ROUTINE
```
3. Press Enter to display the PVEDIT(Create) - Entry Panel.

```
------------------------- PVEDIT(CREATE) - ENTRY PANEL ------- Computer Associates
COMMAND

EDIT LIBRARY(MEMBER): PDPV.TEST.PANLIB(PAMTEST)

To Standard CA-Panvalet Library:
PROJECT ===> PDPV
GROUP      ===> TEST
TYPE       ===> PANLIB
MEMBER

To Non-Standard CA-Panvalet Library:
DSNAME     ===> (If NOT Cataloged)
VOLSER

Create Member Options:
USER CODE  ===> (Optional)       PAN/TSO ===> PAN  (Sequencing)
CONTROL    ===> (If necessary for the TO LIBRARY)
FORMAT     ===> Y        (Y = Format according to Language type)
               (N = NOFORMAT, store all characters)
COMMENT
```

4. To specify the To Library data set and member name in DSNAME (name) format, type "special.assembler.toolbox.panlib(pamcomment)" in the To Non-Standard CA-Panvalet Library DSNAME field and vol001 in the Volser field.

**Note:** Quotation marks around the non-standard DSNAME value are optional.
5. Press Enter to display the MEMBER1 member.

The PAMCOMMENT CREATED short message in the upper right corner confirms that the new member PAMCOMMENT has been added to the CA Panvalet library with data set name SPECIAL.ASSEMBLER.TOOLBOX.PANLIB, which resides on volume VOL001. The member PAMCOMMENT has the same CA Panvalet attributes as the currently edited member PAMTEST.

### Ending the Edit Session

To end the edit session, press PF3 (End). This saves the CA Panvalet member, ends the edit session, and returns you to the PVEDIT - Member Selection List panel.

**Note:** Entering `SAVE` in the Command line saves the CA Panvalet data set, but does not end the edit session. Entering `CANCEL` in the Command line ends the edit but does not SAVE the CA Panvalet data set.
To return to the PVEDIT - Entry Panel, press PF3 (End) twice.

---

**PVEDIT - ENTRY PANEL**

**COMMAND** ===>  

**VERSION** - vvrgggg

**Standard CA-Panvalet Library:**

**PROJECT** ===> PDPV  
**GROUP** ===> TEST  
**TYPE** ===> PANLIB

**MEMBER** ===> (Blank for Criteria Selection PANEL for MSLs)

**Non-Standard CA-Panvalet Library - RETAIN ===> Y**  
(Enter name with Wildcard * ? notation for MSL)

**DSNAME** ===> 
**VOLSER** ===> (If NOT Cataloged)

**CA-Panvalet Retrieval/Save Options:**

**CONTROL** ===> (If necessary)  
**EXPAND** ===> N (Y/N)

**ACCESS** ===> (If necessary)  
**EDIT LOCK** ===> N (Y/N)

**SAVE** ===> 1  
(1 = First Library UP LEVEL # ===> Y (Y/N)

0 = Origin Library)

**CA-Panvalet EDIT Profile** ===>  
**Initial Macro** ===> 

Press ENTER key to process; Enter END command to terminate.

---

**Edit Session 2**

Edit Session 2 is a continuation of Edit Session 1. It illustrates the concatenation facility provided by PVEDIT.

This session applies concatenation to expand included (++INCLUDE) members from multiple CA Panvalet libraries. In this example, the data set COBOL.INCLUDE1.PANLIB contains CA Panvalet members containing commonly used COBOL text, such as file definitions expressed by COBOL FD statements. The installation shares this COBOL text by accessing these members through the ++INCLUDE command.

In addition, this session illustrates the use of concatenation as an aid in the control of changes made to CA Panvalet members. Depending on policies at your site, you can use standard CA Panvalet ISPF Option data set names to identify the development phase of an individual CA Panvalet member. The development or change life cycle of a CA Panvalet member is defined by the member's LEVEL number and the standard CA Panvalet library in which the member resides. In this example, the CA Panvalet library COBOL.SAMPLE.PANLIB contains various COBOL application programs. The site lets programmers make changes within the CA Panvalet library COBOL.WORK.PANLIB only.
Concatenation Environment

The following example illustrates the PVEDIT session of the CA Panvalet member SAMPCOBOL. SAMPCOBOL contains a ++INCLUDE for ENVDIV1, which is the standard COBOL Environment Division text used widely at the site. Note that SAMPCOBOL is a member of the CA Panvalet library COBOL.SAMPLE.PANLIB, but does not exist in COBOL.WORK.PANLIB. The first PVEDIT SAVE command that is issued causes the member SAMPCOBOL to be added to the CA Panvalet library COBOL.WORK.PANLIB. The member is added with TEST ENABLE status and has a LEVEL number one greater than the original LEVEL number. Each additional PVEDIT SAVE command that is issued causes the member SAMPCOBOL to be updated to the CA Panvalet library COBOL.WORK.PANLIB and increments the LEVEL number by one.

For more information, see Control and Security in the chapter "System Overview."
Specify Data Set Names

From the PVEDIT - Entry Panel, perform the following steps to specify data set names:

1. Enter the standard CA Panvalet library data set names in the same order (left to right) as you want them concatenated.
   
   **Note:** Do not enter a member name when you request a composite MSL.

2. Overtype the Expand option to Y (YES).

---

[Diagram of PVEDIT - ENTRY PANEL]

---

3. Press Enter to display the PVEDIT - MSL Criteria panel.

---

[Diagram of PVEDIT - MSL CRITERIA]

---

Press ENTER key to process; Enter END command to terminate.
Limit Member Selection List

From the PVEDIT - MSL Criteria panel, perform these steps to list all members with Lang Type of COBOL and Status of Test:

1. Type COBOL in the List members with Lang Type field.
2. Type T in the List members with Status field.

```
------------------------- PVEDIT - MSL CRITERIA ------- Computer Associates
COMMAND ==> 

LIB1: COBOL.WORK.PANLIB
LIB2: COBOL.SAMPLE.PANLIB
LIB3: COBOL.INCLUDE1.PANLIB

Please choose one or more of the following for the MEMBER SELECTION LIST:

1. SORT MSL ===> N (Y/N)
2. List members starting with ===> (Wild * and ? notation, PAY?5*A)
3. List members with LANG TYPE ===> COBOL
4. List members with USER CODE ===> (I=ID Only,B=Blank IDs ONLY)
5. List members with STATUS ===> T
6. Display with COMMENT Data ===> N (Y/N)
7. MSL DISPLAY Options: ===> A A - Standard C - Last Update/LOCK
                                B - USER-ID D - LRECL/CC
8. CONTROL CODE (If required) ===> 

Press ENTER key to process; Enter END command to terminate.
```

3. Press Enter to display the PVEDIT - Member Selection List Panel.

```
-------- PVEDIT MSL Option(A) - MEMBER SELECTION LIST --- Row 1 to 7 of 7
COMMAND ==> 

Enter Panvalet Function:
| S or B - Browse, M - MSL Options & Dataset Info |
| MEMBER LIB LVL USER F LANG STAT MAINT LACCESS BLKS STATMTS ACT AVG |
| V ------- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - |
| ENDIV1 3 3 0 COBOL TAE 06/12/03 06/14/03 1 4 23 |
| ENDIV2 3 4 0 COBOL TAE 06/11/03 06/14/03 4 135 42 |
| FDPARTB 3 2 0 COBOL TAE 06/11/03 07/19/03 4 135 42 |
| IOSEC 3 2 0 N COBOL TAE 06/11/03 07/19/03 1 9 51 |
| SAMPCOBOL 2 5 0 COBOL TAE 07/18/03 07/18/03 3 87 UPD 25 |
| SAMPCOBOL 2 2 0 COBOL TAE 07/19/03 07/20/03 3 96 31 |
| TESTCOBOL 1 2 0 COBOL TAE 07/20/03 07/20/03 9 396 UPD 31 |

***************************************************************************** Bottom of data ****************************************************************************
```
Composite Member Selection List

The composite MSL shows the library location of the members used for the PVEDIT function. The member SAMPCOBOL is retrieved from the library COBOL.SAMPLE.PANLIB (LIB 2) and the ++INCLUDE member ENVDIV1 from the library COBOL.INCLUDE1.PANLIB (LIB 3).

From the Member Selection List, enter $ next to SAMPCOBOL to select it.

<table>
<thead>
<tr>
<th>MEMBER</th>
<th>LIB</th>
<th>LVL</th>
<th>USER</th>
<th>F</th>
<th>LANG</th>
<th>STAT</th>
<th>LMAINT</th>
<th>LACCESS</th>
<th>BLKS</th>
<th>STATMTS</th>
<th>ACT</th>
<th>AVG</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVDIV1</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>06/12/03</td>
<td>06/14/03</td>
<td>1</td>
<td>4</td>
<td>23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENVDIV2</td>
<td>3</td>
<td>4</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>06/11/03</td>
<td>06/14/03</td>
<td>4</td>
<td>135</td>
<td>42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FDPARTB</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>06/11/03</td>
<td>07/19/03</td>
<td>4</td>
<td>135</td>
<td>42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IOSEC</td>
<td>3</td>
<td>2</td>
<td>N</td>
<td>COBOL</td>
<td>TAE</td>
<td>06/11/03</td>
<td>07/19/03</td>
<td>1</td>
<td>9</td>
<td>51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S  SAMPCOBOL</td>
<td>2</td>
<td>5</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>07/18/03</td>
<td>07/18/03</td>
<td>3</td>
<td>87</td>
<td>UPD</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>S  SAMPLCOBOL</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>07/19/03</td>
<td>07/20/03</td>
<td>3</td>
<td>96</td>
<td>31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TESTCOBOL</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>07/20/03</td>
<td>07/20/03</td>
<td>9</td>
<td>396</td>
<td>UPD</td>
<td>31</td>
<td></td>
</tr>
</tbody>
</table>

The selected member, SAMPCOBOL, is displayed on a PVEDIT Data Display panel, as described in the following section.

Data Display

When SAMPCOBOL is displayed, the library data set name on the PVEDIT Data Display title line is that of the first library in the concatenation sequence identified by the associated composite MSL as LIB 1. The LIB 1 data set and member names are displayed on the title line as a reminder that SAMPCOBOL can be saved only in the first library in the concatenation sequence.
The following PVEDIT Data Display panel illustrates data displayed in NUMBER OFF format. The expansion of the ++INCLUDED member ENVDIV1 resulted in an out of sequence condition on the sequence number fields within the displayed data. To return COBOL display format, you can enter NUM ON COB on the command line. To renumber the sequence fields, you can enter RENUM on the command line. For this sample session, the data displays in NUMBER OFF format.

```
PVEDIT - - COBOL.WORK.PANLIB(SAMPCOBOL) -------------- COLUMNS 001 072 COMMAND ===> SCROLL ===> PAGE
****** ************************************************* TOP OF DATA *************************************************
==MSG>  - CAUTION- PROFILE CHANGED TO "NUMBER OFF" (FROM "NUMBER ON COB")
==MSG>  - BECAUSE OF SEQUENCE NUMBERS (OR LACK OF THEM) FOUND IN DATA
000001 000010*  THE FOLLOWING IS THE COBOL SAMPLE PROGRAM ‘TESTRUN’ ***
000002 000020 IDENTIFICATION DIVISION
000003 000030 PROGRAM-ID. TESTRUN.
000004 000040 DATE-COMPILED.
000005 000050 REMARKS. THIS PROGRAM HAS BEEN WRITTEN AS A SAMPLE PROGRAM FOR
000006 000060  COBOL USERS. IT CREATES AN OUTPUT FILE AND READS IT BACK AS
000007 000070  INPUT.
000008 000080*INCLUDE++ ENVDIV1
000009 000090 ENVIRONMENT DIVISION.
000010 000010 CONFIGURATION SECTION.
000011 000030 SOURCE-COMPUTER. IBM-370.
000012 000040 OBJECT-COMPUTER. IBM-370.
000013*END INCLUDE++
000014 000090 INPUT-OUTPUT SECTION.
000015 000100 FILE-CONTROL.
000016 000110 SELECT FILE-1 ASSIGN TO UT-2400-S-SAMPLE.
000017 000120 SELECT FILE-2 ASSIGN TO UT-2400-S-SAMPLE.
000018 000130 DATA DIVISION.
000019 000140 FILE SECTION.
```

**Saving a Member**

To save the member SAMPCOBOL in the library COBOL.WORK.LIBRARY without terminating PVEDIT, enter `save` on the command line.

**Note:** The member is saved with the original sequence numbers because all expanded (++INCLUDE) data lines are not saved. Lines 8 through 13 are not saved because they are identified as include expansion data. Line 8 begins the block of data (*INCLUDE++) and line 13 ends the block (*END ++INCLUDE). The PVEDIT SAVE command retains only the original INCLUDE++ line when the member is updated in the CA Panvalet library.
When you save the file, you remain in the member in PVEDIT. Note the SAMPCOBOL SAVED message in the upper right corner.

```
**CAUTION** BECAUSE OF SEQUENCE NUMBERS (OR LACK OF THEM) FOUND IN DATA
000001 000010*  THE FOLLOWING IS THE COBOL SAMPLE PROGRAM 'TESTRUN' ***
000002 000020 IDENTIFICATION DIVISION
000003 000030 PROGRAM-ID. TESTRUN.
000004 000040 DATE-COMPILED.
000005 000050 REMARKS. THIS PROGRAM HAS BEEN WRITTEN AS A SAMPLE PROGRAM FOR
000006 000060  COBOL USERS. IT CREATES AN OUTPUT FILE AND READS IT BACK AS
000007 000070  INPUT.
000008 000080*END INCLUDE++ ENVDIV1
000009 000090 ENVIRONMENT DIVISION.
000010 000020 CONFIGURATION SECTION.
000011 000030 SOURCE-COMPUTER. IBM-370.
000012 000040 OBJECT-COMPUTER. IBM-370.
000013 *END INCLUDE++
000014 000090 INPUT-OUTPUT SECTION.
000015 000100 FILE-CONTROL.
000016 000110 SELECT FILE-1 ASSIGN TO UT-2400-S-SAMPLE.
000017 000120 SELECT FILE-2 ASSIGN TO UT-2400-S-SAMPLE.
000018 000130 DATA DIVISION.
000019 000140 FILE SECTION.
```

Use the PVEDIT REPLACE primary command to update an existing member (IOSEC) in a CA Panvalet library (COBOL.INCLUDE1.PANLIB) that is different from the library that was specified on the PVEDIT - Entry Panel.

**Note:** The member IOSEC is not in production status. The PVEDIT REPLACE command does not replace members in production or disabled status.
To update IOSEC in a different library, perform these steps:

1. Type `replace /pan` on the COMMAND line.

2. Type `cc` on lines 14 and 17 to identify the block of text you want to use from the PVEDIT data for the contents of the updated member.

3. Press Enter to display the PVEDIT(Replace) - Entry Panel.
4. In the TO Standard CA-Panvalet Library area of the panel, enter the To library name `COBOL.INCLUDE1.PANLIB`, and the member name `IOSEC`, which you want to replace.

```
------------ PVEDIT(REPLACE) - ENTRY PANEL ---- Computer Associates
COMMAND ====
EDIT LIBRARY(MEMBER): COBOL.WORK.PANLIB(SAMPCOBOL)

To Standard CA-Panvalet Library:
PROJECT ===> COBOL
GROUP    ===> INCLUDE1
TYPE     ===> PANLIB
MEMBER   ===> IOSEC      **Unlocked, Test, Enable Status Members Only**

To Non-Standard CA-Panvalet Library:
DSNAME   ===>           (If NOT Cataloged)
VOLSER   ===>           (If NOT Cataloged)

Replace Member Options:
CONTROL  ===>           (If necessary for the To Library)
ACCESS   ===>           (If necessary for the MEMBER)

Press ENTER key to process; Enter END command to terminate.
```

5. Press Enter.

The PVEDIT - Confirm Replace Panel is displayed, warning you that the TO member `IOSEC` has the NOFORMAT attribute. The data used to replace the contents of the `IOSEC` member also has the NOFORMAT attribute after the update. This causes the sequence numbers of the data to be retained because all 80 characters of the data record are stored.

```
------------ PVEDIT - CONFIRM REPLACE ---- Computer Associates
COMMAND ====

Data set attributes are inconsistent:
LRECL differences will cause the TO MEMBER's LRECL size to be replaced by the LRECL size of the EDITed MEMBER's data.
LANG TYPE differences will cause EDIT MEMBER data to be reformatted to the LANG TYPE attribute of the TO MEMBER.

EDIT LIBRARY(MEMBER): COBOL.WORK.PANLIB(SAMPCOBOL)
TO LIBRARY(MEMBER): COBOL.INCLUDE1.PANLIB(IOSEC)

EDIT MEMBER ATTRIBUTES: TO MEMBER ATTRIBUTES:
LANG TYPE : COBOL LANG TYPE : COBOL
NOFORMAT  : N    NOFORMAT  : Y
PAN/TSO    : PAN PAN/TSO    : PAN
LRECL      : 0090 LRECL      : 0088

Press ENTER key to allow replace with TO MEMBER attributes.
Enter END command to cancel replace.
```
6. Press Enter to proceed with the PVEDIT REPLACE and display the SAMPCOBOL member.

The IOSEC REPLACED short message in the upper right corner confirms that existing member IOSEC has been updated. The member IOSEC has its original CA Panvalet attributes, but contains the new data selected from the SAMPCOBOL member currently under PVEDIT.
Canceling an Edit

Because the member SAMPCOBOL was already saved, you must use the CANCEL command to cancel its PVEDIT. To do this, enter cancel on the Command line of the SAMPCOBOL member data display panel.

```
PVEDIT -- COBOL.WORK.PANLIB(SAMPCOBOL)------------------------ IOSEC REPLACED
COMMAND ===>> cancel SCROLL ===>> PAGE
****** ********************** TOP OF DATA ************************************
==MSG> -CAUTION- PROFILE CHANGED TO "NUMBER OFF" (FROM "NUMBER ON COB")
==MSG>     BECAUSE OF SEQUENCE NUMBERS (OR LACK OF THEM) FOUND IN DATA
000001 000010* THE FOLLOWING IS THE COBOL SAMPLE PROGRAM 'TESTRUN' ***
000002 000020 IDENTIFICATION DIVISION
000003 000030 PROGRAM-ID. TESTRUN.
000004 000040 DATE-COMPILED.
000005 000050 REMARKS. THIS PROGRAM HAS BEEN WRITTEN AS A SAMPLE PROGRAM FOR
000006 000060     COBOL USERS. IT CREATES AN OUTPUT FILE AND READS IT BACK AS
000007 000070     INPUT.
000008 000080*INCLUDE++ ENVDIV1
000009 000090 ENVIRONMENT DIVISION.
000010 000020 CONFIGURATION SECTION.
000011 000030 SOURCE-COMPUTER. IBM-370.
000012 000040 OBJECT-COMPUTER. IBM-370.
000013     *END INCLUDE++
000014 000090 INPUT-OUTPUT SECTION.
000015 000100 FILE-CONTROL.
000016 000110     SELECT FILE-1 ASSIGN TO UT-2400-S-SAMPLE.
000017 000120     SELECT FILE-2 ASSIGN TO UT-2400-S-SAMPLE.
000018 000130 DATA DIVISION.
000019 000140 FILE SECTION.
```
The PVEDIT MSL Option (A) - Member Selection List panel is displayed.

--- PVEDIT MSL Option(A) - MEMBER SELECTION LIST ---

**COMMAND ====>**
**SCROLL==> CSR**

Enter Panvalet Function:
<table>
<thead>
<tr>
<th>S or B</th>
<th>Browse</th>
<th>M</th>
<th>MSL Options &amp; Dataset Info</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>MEMBER</th>
<th>LIB</th>
<th>LVL</th>
<th>USER</th>
<th>F</th>
<th>LANG</th>
<th>STAT</th>
<th>LMAINT</th>
<th>LACCESS</th>
<th>BLKS</th>
<th>STATMTS</th>
<th>ACT</th>
<th>AVG</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVDIV1</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>06/12/03 06/14/03</td>
<td>1</td>
<td>4</td>
<td>23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENVDIV2</td>
<td>3</td>
<td>4</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>06/11/03 06/14/03</td>
<td>4</td>
<td>135</td>
<td>42</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FDPARTB</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>08/01/03 08/01/03</td>
<td>1</td>
<td>9</td>
<td>UPD 51</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IOSEC</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>N</td>
<td>COBOL</td>
<td>TAE</td>
<td>08/01/03 08/01/03</td>
<td>3</td>
<td>87</td>
<td>UPD 25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAMPCOBOL</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>08/01/03 08/01/03</td>
<td>3</td>
<td>66</td>
<td>31</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAMPLCOBOL</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>07/19/03 07/20/03</td>
<td>3</td>
<td>96</td>
<td>31</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TESTCOBOL</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>07/20/03 07/20/03</td>
<td>9</td>
<td>396</td>
<td>UPD 31</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: Member SAMPCOBOL now resides in LIB 1 at level 1; however, you would need to rerun the MSL to have LIB 1 display. The original SAMPCOBOL still resides in LIB 2 with level 5, but CA Panvalet only displays the first occurrence of a member within a concatenation. If you reran the MSL, the member IOSEC in LIB 3 has a new level of 3 because the PVEDIT REPLACE command updated it. Here is a sample of the updated composite MSL showing the LIB 1 for SAMPCOBOL and LVL 3 for IOSEC.

--- PVEDIT MSL Option(A) - MEMBER SELECTION LIST ---

**COMMAND ====>**
**SCROLL==> CSR**

Enter Panvalet Function:
<table>
<thead>
<tr>
<th>S or B</th>
<th>Browse</th>
<th>M</th>
<th>MSL Options &amp; Dataset Info</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>MEMBER</th>
<th>LIB</th>
<th>LVL</th>
<th>USER</th>
<th>F</th>
<th>LANG</th>
<th>STAT</th>
<th>LMAINT</th>
<th>LACCESS</th>
<th>BLKS</th>
<th>STATMTS</th>
<th>ACT</th>
<th>AVG</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVDIV1</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>06/12/03 06/14/03</td>
<td>1</td>
<td>4</td>
<td>23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENVDIV2</td>
<td>3</td>
<td>4</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>06/11/03 06/14/03</td>
<td>4</td>
<td>135</td>
<td>42</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FDPARTB</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>08/01/03 08/01/03</td>
<td>1</td>
<td>9</td>
<td>UPD 51</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IOSEC</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>N</td>
<td>COBOL</td>
<td>TAE</td>
<td>08/01/03 08/01/03</td>
<td>3</td>
<td>87</td>
<td>UPD 25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAMPCOBOL</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>08/01/03 08/01/03</td>
<td>3</td>
<td>87</td>
<td>UPD 25</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAMPLCOBOL</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>07/19/03 07/20/03</td>
<td>3</td>
<td>96</td>
<td>31</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TESTCOBOL</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>07/20/03 07/20/03</td>
<td>9</td>
<td>396</td>
<td>UPD 31</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To terminate PVEDIT and the CA Panvalet ISPF Option press PF3, and then press END.
Edit Session 3

Edit Session 3 is a continuation of Edit Session 2. It illustrates the concatenation facility provided by the PVEDIT COPY primary command. Using the COPY and CREATE commands, you can use many "cut and paste" editing techniques. The ability to access multiple CA Panvalet libraries within a single PVEDIT session makes this possible.

In this session, CA Panvalet library COBOL.INCLUDE1.PANLIB contains various COBOL ++INCLUDE members of commonly used COBOL text. In addition, the CA Panvalet library COBOL.PAYROLL2.PANLIB contains various ++INCLUDE members. These members contain COBOL file definition statements that are associated with the site's payroll application.

As in Edit Session 2, the CA Panvalet library COBOL.SAMPLE.PANLIB contains various COBOL application programs. The site lets programmers make changes in the CA Panvalet library COBOL.WORK.PANLIB only.

The following illustrates the PVEDIT session of CA Panvalet member SAMPLCOBOL. SAMPLCOBOL does not contain any ++INCLUDE statements. Use the PVEDIT COPY command to copy a new COBOL file section text block. The member FSPAY1 in the CA Panvalet library INCLUDE.PAYROLL2.PANLIB contains a COBOL file section definition that uses a ++INCLUDE for member FDDBASEII. The member FDDBASEII in CA Panvalet library INCLUDE.COMMON.PANLIB contains COBOL file definition statements for a file commonly used at the site.

As discussed above, CA Panvalet library COBOL.WORK.PANLIB is used for member modifications, and COBOL.SAMPLE.PANLIB contains the desired member SAMPLCOBOL. See the following example.

<table>
<thead>
<tr>
<th>PVEDIT</th>
<th>COBOL</th>
<th>COBOL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>WORK</td>
<td>SAMPLE</td>
</tr>
<tr>
<td></td>
<td>PANLIB</td>
<td>PANLIB</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PVCOPY</th>
<th>COBOL</th>
<th>COBOL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PAYROLL2</td>
<td>COMMON</td>
</tr>
<tr>
<td></td>
<td>PANLIB</td>
<td>PANLIB</td>
</tr>
</tbody>
</table>
Specifying Data Set Names

On the PVEDIT – Entry Panel, perform these steps:

1. Type the standard CA Panvalet library data set names (COBOL.WORK.PANLIB and COBOL.SAMPLE.PANLIB) in the same order (left to right) as you want to concatenate them.

2. Type the requested member name SAMPLCOBOL.

```
-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-= PVEDIT - ENTRY PANEL =-=-=-=-=-=- Computer Associates
COMMAND =>

VERSION - vvrgggg

Standard CA-Panvalet Library:
  PROJECT ===> COBOL
  GROUP    ===> WORK       ===> SAMPLE      ===> TYPE      ===> PANLIB
  MEMBER   ===> SAMPLCOBOL (Blank for Criteria Selection PANEL for MSLs)
  (Enter name with Wildcard * ? notation for MSL)

Non-Standard CA-Panvalet Library - RETAIN ===> Y (Y/N, Save in Profile)
  DSNAME   ===> (If NOT Cataloged)
  VOLSER   ===> 

CA-Panvalet Retrieval/Save Options:
  CONTROL  ===> (If necessary)  EXPAND ===> N (Y/N)
  ACCESS   ===> (If necessary)  EDIT LOCK ===> N (Y/N)
  SAVE     ===> 1  (1 = First Library UP LEVEL # ===> Y (Y/N)
               0 = Origin Library)
  CA-Panvalet EDIT Profile ===> Initial Macro ===> 

Press ENTER key to process; Enter END command to terminate.
```
3. Press Enter to display the data display panel for **COBOL.WORK.PANLIB(SAMPLCOBOL)**.

```
PEDIT -- COBOL.WORK.PANLIB(SAMPLCOBOL)--------------------- COLUMNS 001 072
COMMAND ===>                                                  SCROLL ===> CSR
****** ********************** TOP OF DATA *******************************
000010* THE FOLLOWING IS THE COBOL VERSION OF                07/19/85
000020* THE SAMPLE PROGRAM *** TESTRUN ***.                   SMPCOBOL
000030 IDENTIFICATION DIVISION.                                LV0
000040 PROGRAM-ID. TESTRUN.
000050 DATE-COMPILED.
000060 ENVIRONMENT DIVISION.
000070 CONFIGURATION SECTION.
000080 SOURCE-COMPUTER. IBM-370.
000090 OBJECT-COMPUTER. IBM-370.
000100 INPUT-OUTPUT SECTION.
000110 FILE-CONTROL.
  000120 SELECT FILE-1 ASSIGN TO UT-2400-S-SAMPLE.
  000130 SELECT FILE-2 ASSIGN TO UT-2400-S-SAMPLE.
000140 DATA DIVISION.
  000150* ===> INSERT FILE SECTION HERE           <===
  000160* ===> INSERT WORKING-STORAGE HERE    <===
  000170* ===> INSERT PROCEDURE DIVISION HERE <===
  000180* **** END OF 'TESTRUN' SAMPLE PROGRAM ****
****** *********************************************** BOTTOM OF DATA **********************************************
```

The SAMPLCOBOL member contains an incomplete COBOL program. Your task is to cut and paste blocks of COBOL text from other CA Panvalet libraries.
Copy a Member

Use the PVEDIT COPY primary command to insert a file section after line 150 in the COBOL text.

To copy to a member, perform these steps:

1. Type `copy /pan` on the command line.
2. Type `A` (after) on line 150 to identify where you want to insert the copied CA Panvalet member.
3. Press Enter to display the PVEDIT(Copy) - Entry Panel.

```
------------------------ PVEDIT(COPY) - ENTRY PANEL ------------------------
COMMAND =>
EDIT LIBRARY(MEMBER): COBOL.WORK.PANLIB(SAMPLCOBOL)
From Standard CA-Panvalet Library: COBOL.WORK.PANLIB(SAMPLCOBOL)
  PROJECT ===> COBOL
  GROUP    ===> WORK    ===> SAMPLE
  TYPE     ===> PANLIB
  MEMBER   ===> (Blank for MEMBER SELECTION LIST)
From Non-Standard CA-Panvalet Library:
  DSNNAME ===> 
  VOLSER   ===> (If NOT Cataloged)
CA-Panvalet Retrieval Options: Line Numbers: (Blanks for entire member)
  CONTROL ===> FIRST ===> (Blank means FIRST)
  ACCESS   ===> LAST ===> (Blank means LAST)
  EXPAND   ===> N    (Y/N)
Press ENTER key to process; Enter END command to terminate.
```

**Note:** The default libraries that you can use for the COPY command are the same ones that you previously entered on the PVEDIT - Entry Panel.

**PVEDIT - COPY Entry Panel**

As previously discussed, the required member FSPAY1 resides in the CA Panvalet library INCLUDE.PAYROLL2.PANLIB.

**Note:** Assume that the site standards dictate that ++INCLUDE members common to all applications reside in the CA Panvalet library INCLUDE.COMMON.PANLIB. FSPAY1 contains a ++INCLUDE for member FDDBASEII.

To copy the contents of FDDBASEII, perform these steps:

1. Type the standard CA Panvalet library data set names (INCLUDE.PAYROLL2.PANLIB and INCLUDE.COMMON.PANLIB) in the same order (left to right) as you want them concatenated.

   **Note:** Even though the member you want to copy is known, request the display of a composite MSL by not specifying a member name.
2. Enter Y for the EXPAND option.

![EDIT PANEL](image)

3. Press Enter to display the MSL Criteria panel.

   **Note:** The Display with Comment Data option value is defaulted to N (NO).

4. Enter COBOL in the Lang Type field to request a composite MSL constructed from all members in the CA Panvalet library concatenation that have a Lang Type value of COBOL.

5. Type A in the MSL Display Options field to generate a standard PVEDIT MSL.

![MSL CRITERIA PANEL](image)

Press ENTER key to process; Enter END command to terminate.
6. Press Enter to display the composite MSL.

<table>
<thead>
<tr>
<th>MEMBER</th>
<th>LIB</th>
<th>LVL</th>
<th>USER</th>
<th>LANG</th>
<th>STAT</th>
<th>MAINT</th>
<th>ACCESS</th>
<th>BLKS</th>
<th>STATMTS</th>
<th>ACT</th>
<th>AVG</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDACCT1</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>03/14/03</td>
<td>06/12/03</td>
<td>1</td>
<td>10</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>FDACCT3</td>
<td>1</td>
<td>6</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>03/14/03</td>
<td>06/14/03</td>
<td>1</td>
<td>9</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>FDACCT10</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>04/01/03</td>
<td>04/01/03</td>
<td>3</td>
<td>118</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>FDBILLING1</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>07/19/03</td>
<td>07/19/03</td>
<td>1</td>
<td>5</td>
<td>UPD 80</td>
<td></td>
</tr>
<tr>
<td>FDBILLING2</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>07/19/03</td>
<td>07/19/03</td>
<td>2</td>
<td>25</td>
<td>UPD 80</td>
<td></td>
</tr>
<tr>
<td>FDDBASEII</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>01/09/03</td>
<td>03/01/03</td>
<td>1</td>
<td>21</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>FSPAY1</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>04/20/03</td>
<td>06/10/03</td>
<td>1</td>
<td>10</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>FSACCT10</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>05/10/03</td>
<td>06/18/03</td>
<td>1</td>
<td>8</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>FSACCT10§</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>05/11/03</td>
<td>05/11/03</td>
<td>1</td>
<td>9</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>FSBILLING1</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>06/01/03</td>
<td>06/18/03</td>
<td>2</td>
<td>52</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>FSBILLING2</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>06/01/03</td>
<td>06/19/03</td>
<td>2</td>
<td>61</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>IDCOMPANY</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>01/08/03</td>
<td>07/20/03</td>
<td>1</td>
<td>12</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>WSACCT1</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>06/01/03</td>
<td>06/01/03</td>
<td>1</td>
<td>10</td>
<td>UPD 80</td>
<td></td>
</tr>
<tr>
<td>WSDBASEII</td>
<td>2</td>
<td>5</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>01/06/03</td>
<td>07/20/03</td>
<td>1</td>
<td>4</td>
<td>24</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Member FSPAY1 is displayed within LIB 1 and member FDDBASEII is displayed within LIB 2. The composite MSL shows the library location of the members used for the COPY function. Member FSPAY1 is copied from the library INCLUDE.PAYROLL2.PANLIB (LIB 1) and member FDDBASEII is copied from the library INCLUDE.COMMON.PANLIB (LIB 2).
7. To specify the COPY Line Number specifications without returning to the PVEDIT(Copy) - Entry Panel, enter M in the member selection field next to FSPAY1. The PVEDIT(Copy) - Retrieval Options panel is displayed.

```
------------------------ PVEDIT(COPY) - RETRIEVAL OPTIONS --- Computer Associates
COMMAND ===>          
LIB 1- INCLUDE.PAYROLL2.PANLIB                          11 SCAN HITS V 14.5
LIB 2- INCLUDE.COMMON.PANLIB                             3 SCAN HITS V 14.5

Please choose one or more of the following PVEDIT COPY Retrieval Options:
CONTROL ===>          (If necessary)
ACCESS ===>          (If necessary)
EXPAND ===> Y        (Y/N)
LINE NUMBERS:              (Blanks for entire CA-Panvalet member)
FIRST ===>          (Blank means FIRST LINE of member)
LAST ===> 7         (Blank means LAST LINE of member)

Press ENTER key to process; Enter END command to terminate.
```

Assume you know that the FSPAY1 module starts with relative sequence number 1 and ends with 10. You also know that the lines in FSPAY1 beginning with 1 and ending with 7 define the desired file (PAY1) that is required for this application. In addition, the lines in FSPAY1 beginning with 8 and ending with 10 define a second file (PAY1TAX) that does not relate to this specific application. For this reason, the PVEDIT(Copy) - Retrieval Options panel is used to eliminate copying the undesired lines of FSPAY1.

Note: The line numbers you enter are relative line numbers, which represent how the statements are physically stored in the CA Panvalet library. For more information, see Member Sequencing in the chapter "Edit."

Although you could have specified this request on the PVEDIT(Copy) - Entry Panel, the Retrieval Options panel is displayed to show an alternative method of performing the request.

8. In the Line Numbers section of the Retrieval Options panel, enter 7 in the Last field. This copies relative lines 1 to 7 and ignores 8 to 10. Press Enter to return to the MSL.
9. Enter S in the Member Selection field next to FSPAY1.

```
--------  PVEDIT MSL Option(A) - MEMBER SELECTION LIST  ---  Row 1 to 14 of 14
Enter Panvalet Function:
| S or B -Browse,  M -MSL Options & Dataset Info |
| MEMBER     LIB LVL USER F LANG STATMAINT LACCESS BLKS STATMTS ACT AVG |
|FDACCT1 1 3 0 COBOL TAE 03/14/03 06/12/03 1 10 80 |
|FDACCT3 1 6 0 COBOL TAE 03/14/03 06/14/03 1 9 80 |
|FDACCT10 1 3 0 COBOL TAE 04/01/03 04/01/03 3 118 80 |
|FBSBILLING1 1 2 0 COBOL TAE 07/19/03 07/19/03 1 5 UPD 80 |
|FBSBILLING2 1 5 0 COBOL TAE 07/19/03 07/19/03 2 25 UPD 80 |
|FDDBASEII 2 2 0 COBOL TAE 01/09/03 01/09/03 1 21 80 |
|FSFSPAY1 1 5 0 COBOL TAE 04/20/03 06/10/03 1 10 80 |
|FSACCT10 1 3 0 COBOL TAE 05/10/03 06/18/03 1 8 80 |
|FSACCT10$ 1 4 0 COBOL TAE 05/10/03 06/18/03 1 9 80 |
|FDBBILLING1 1 2 0 COBOL TAE 06/01/03 06/19/03 2 61 80 |
|FDBBILLING2 1 2 0 COBOL TAE 06/01/03 06/19/03 1 12 80 |
|WACCT1 1 5 0 COBOL TAE 06/01/03 06/01/03 1 10 UPD 80 |
|WSDBASEII 2 5 0 COBOL TAE 06/01/03 06/01/03 1 4 24 |
******************************************************************************* Bottom of data **********************************
```

10. Press Enter. The PVEDIT member is displayed.

The COPY function has completed and the same concatenated libraries specified on the PVEDIT - Entry Panel are active.

```
PVEDIT --- COBOL.WORK.PANLIB(SAMLOBOL) ------------------------------- FSPAY1 COPIED
COMMAND ===> SCROLL ===> CSR
*****  ********************* TOP OF DATA  *************************************************
==MSG> Profile changed to "NUMBER OFF" (FROM "NUMBER ON COB")
==MSG> BECAUSE OF SEQUENCE NUMBERS (OR LACK OF THEM) FOUND IN DATA
000001 000010* THE FOLLOWING IS THE COBOL VERSION OF 000002 000020* THE SAMPLE PROGRAM *** TESTRUN ***. SM
000003 000030 IDENTIFICATION DIVISION.
000004 000040 PROGRAM-ID. TESTRUN.
000005 000050 DATE-COMPILED.
000006 000060 ENVIRONMENT DIVISION.
000007 000070 CONFIGURATION SECTION.
000008 000080 SOURCE-COMPUTER. IBM-370.
000009 000090 OBJECT-COMPUTER. IBM-370.
000010 000100 INPUT-OUTPUT SECTION.
000011 000110 FILE-CONTROL.
000012 000120 SELECT FILE-1 ASSIGN TO UT-2400-S-SAMPLE.
000013 000130 SELECT FILE-2 ASSIGN TO UT-2400-S-SAMPLE.
000014 000140 DATA DIVISION.
000015 000150* INSERT FILE SECTION HERE
000016 000010* ---> GROUP: PAYROLL2 ** FILE SECTION: PAY1 <<<
000017 000020 FILE SECTION.
000018 000030* INCLUDE++ FDDBASEII
000019 000010* ---> GROUP: COMMON ** FILE DEFINITION: DBASEII <<<
```
11. The data displays in number off format because the result from the PVCOPY function caused an out of sequence condition on the sequence number fields within the displayed data. To return to COBOL display format, enter **NUM ON COBOL** on the command line, and press Enter.

**Note:** To renumber the sequence fields, enter **RENUM** on the command line. For this sample session, the data displays in COBOL format.

12. **SCROLL** the data display up to line 14 to view the copied data. Because **SCROLL** is in cursor (CSR) mode, place the cursor on line 14 and press **DOWN**.

Notice the copied member FSPAY1 with its included (**INCLUDE**) member FDDBASEII.

```
PVEDIT --- COBOL.WORK.PANLIB(SAMPLOBOL) ----------- FSPAY1 COPIED
COMMAND ====> SCROLL ===> CSR
=============== TOP OF DATA ===============
==MSG> -CAUTION- PROFILE CHANGED TO "NUMBER OFF" (FROM "NUMBER ON COB")
==MSG> BECAUSE OF SEQUENCE NUMBERS (OR LACK OF THEM) FOUND IN DATA
000140 DATA DIVISION.
000150* ===> INSERT FILE SECTION HERE <===
000151* --> GROUP: PAYROLL2 ** FILE SECTION: PAY1 <-- 04/20/
000152 FILE SECTION. FSPA
000153*INCLUDE++ FDDBASEII CL*
000154* --> GROUP: COMMON ** FILE DEFINITION: DBASEII <-- 01/09/
000155 FD FILE-1
000156 LABEL RECORDS ARE OMITTED
000157 BLOCK CONTAINS 100 CHARACTERS
000158 RECORD CONTAINS 20 CHARACTERS
000159 RECORDING MODE IS F
000160 DATA RECORD IS RECORD-1.
000161 01 RECORD-1.
000162 02 FIELD-A PICTURE X(20).
000163*END INCLUDE++
000164 FD FILE-2
000170 LABEL RECORDS ARE OMITTED
000180 BLOCK CONTAINS 5 RECORDS
000190 RECORD CONTAINS 20 CHARACTERS
000200 RECORDING MODE IS F
000210 DATA RECORD IS RECORD-2

**Note:** You can continue the cut and paste process to aid in the development of this SAMPLOBOL program.

13. To terminate PVEDIT and the Option for ISPF, press **PF3** and then press **End**.

**Edit Session 4**

Edit Session 4 is a continuation of Session 1. Perform the same procedures to access the PVEDIT - ENTRY PANEL.
Naming the Library

Type the CA Panvalet library names of COBOL.WORK.PANLIB, COBOL.SAMPLE.PANLIB, and COBOL.INCLUDE1.PANLIB, in the Standard CA-Panvalet Library section.

Press Enter to display the PVEDIT - MSL Criteria panel with concatenated libraries.

Limiting the Member Selection List

To limit the member selection list, perform these steps from the PVEDIT - MSL Criteria panel:

1. Type COBOL in the Lang Type field to select all members with a language type of COBOL.
2. Type T in the Status field to select all members in TEST status.
3. Type C in the MSL Display Options field to display the MSL with last update and current lock information.

```
-------------------------
PVEDIT - MSL CRITERIA ------ Computer Associates
COMMAND =

LIB1: COBOL.WORK.PANLIB
LIB2: COBOL.SAMPLE.PANLIB
LIB3: COBOL.INCLUDE1.PANLIB

Please choose one or more of the following for the MEMBER SELECTION LIST:

SORT MSL ==> N        (Y/N)
List members starting with ===> (Wild * and ? notation, PAY7*A)
List members with LANG TYPE ===> COBOL
List members with USER CODE ===> (I=ID Only, B=Blank IDs ONLY)
List members with USER-ID ===> T
List members with STATUS ===> T
List members with STATUS ===> T
Display with COMMENT Data ==> N        (Y/N)
MSL DISPLAY Options: ==> C  A - Standard  C - Last Update/LOCK
CONTROL CODE (If required) ==> B - USER-ID  D - LRECL/CC

Press ENTER key to process; Enter END command to terminate.
```

4. Press Enter to display the PVEDIT MSL Option(C) - Member Selection List.

```
-------- PVEDIT MSL Option(C) - MEMBER SELECTION LIST --- Com Row 1 to 5 of 5
COMMAND =

Enter Panvalet Function:
| S or B -Browse,  M -MSL Options & Dataset Info
| MEMBER LIB USER LANG STAT DATE TIME USER-ID
| MEMBER1 2 0 COBOL TAE 07/12/03 12:00 USERAAA
| MEMBER2 3 0 COBOL TAE 07/16/03 05:00 USERAAA  06/01/03 10:30 USERAAA
| MEMBER3 3 0 COBOL TAE 07/04/03 18:00 USERAAA  05/12/03 16:10 USERAAA
| MEMBER4 1 0 COBOL TAE
| MEMBER5 2 0 COBOL TAE 07/12/03 17:00 USERAAA  05/12/03 14:10 USERAAA

Enter S in the member selection column next to member MEMBER3. This session proceeds as in Session 1, with MEMBER3 displayed.
```
Chapter 6: Utilities

The Utilities facility provides direct access to the CA Panvalet library utility operations.

This chapter describes how to access and use these utilities.

This section contains the following topics:

- Accessing the Utility Selection Menu (see page 129)
- Member Attribute Changes Utility (see page 130)
- Member Manipulation Utility (see page 135)
- Member Language Change Utility (see page 143)
- Library-to-Library Copy Utility (see page 149)
- Member Lock/Unlock Utility (see page 154)
- User Query Utility (see page 158)
- Compare Utility (see page 160)
- Scan Utility (see page 167)
- Create Utility (see page 169)

Accessing the Utility Selection Menu

To access the Utility Selection Menu, perform these steps:

1. Use either of the following methods:
   - Enter 3 on the CA Panvalet Primary Menu
   - Enter P.3 on the ISPF/PDF Primary Option Menu.

   **Tip:** You can select specific utilities as Options 3.x from the CA Panvalet Primary Menu, or P.3.x from the ISPF/PDF Primary Option Menu.
2. Press Enter. The Utility Selection Menu is displayed.

<table>
<thead>
<tr>
<th>UTILITY SELECTION MENU</th>
<th>Computer Associates</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPTION ====&gt; VERSION - vvrugg</td>
<td></td>
</tr>
<tr>
<td>1 - CA-Panvalet Member Attribute Changes</td>
<td></td>
</tr>
<tr>
<td>Add / Change USER CODE . Add / Change COMMENT</td>
<td></td>
</tr>
<tr>
<td>Change LEVEL Number . Change STATUS</td>
<td></td>
</tr>
<tr>
<td>2 - CA-Panvalet Member Manipulation</td>
<td></td>
</tr>
<tr>
<td>COPY a member, RENAME a member, DELETE a member</td>
<td></td>
</tr>
<tr>
<td>PRINT a member (in the ISPF LIST data set)</td>
<td></td>
</tr>
<tr>
<td>PRINT a member w/ Carriage Control (&quot;SPINOFF&quot;)</td>
<td></td>
</tr>
<tr>
<td>3 - CA-Panvalet Member Language Change</td>
<td></td>
</tr>
<tr>
<td>4 - CA-Panvalet Member Library-To-Library Copy</td>
<td></td>
</tr>
<tr>
<td>5 - CA-Panvalet Member Lock/Unlock Utility</td>
<td></td>
</tr>
<tr>
<td>6 - CA-Panvalet User Query Utility</td>
<td></td>
</tr>
<tr>
<td>7 - CA-Panvalet Compare Utility</td>
<td></td>
</tr>
<tr>
<td>8 - CA-Panvalet Scan Utility</td>
<td></td>
</tr>
<tr>
<td>9 - CA-Panvalet Create Utility</td>
<td></td>
</tr>
<tr>
<td>Enter END command to terminate.</td>
<td></td>
</tr>
</tbody>
</table>

3. Specify the utility number in the Option line to select a utility from the list. When you press Enter, the Entry Panel for the selected utility is displayed.

Detailed information for each utility is provided in the following sections.

**Member Attribute Changes Utility**

The Member Attribute Changes utility lets you modify member status, user code, level number, or user-comment records, provided the member is not locked or is locked to your user ID. This utility lets you process CA Panvalet members with a logical record length from 80 to 4096 bytes for version 14.3 and above libraries.

**Changing Member Attributes**

To change member attributes, perform these steps:

1. Use either of the following methods to access the Member Attribute Changes utility:
   - Enter 1 on the Utility Selection Menu.
   - Enter P.3.1 on the ISPF/PDF Primary Option Menu.
2. Press Enter. The Changes - Entry Panel is displayed.

```
-----------------------------------   CHANGES - ENTRY PANEL   -------- Computer Associates
FUNCTION ===>                      VERSION - vrg999
  S - Modify the STATUS of a member  L - Modify the LEVEL of a member
  U - Add/Change a USER code        C - Modify/Add a COMMENT to a member
  BLANK - Display MEMBER SELECTION LIST

Standard CA-Panvalet Library:
  PROJECT ===> PAYROLL
  GROUP ===> WORK
  TYPE ===> PANLIB
  MEMBER ===>             (Wild * and ? notation, PAY?5*A)

Non-Standard CA-Panvalet Library:
  DSNNAME ===>                
  VOLSER ===>                (IF NOT Cataloged)

Enter MODIFICATION data below:
  STATUS ===>                LEVEL NUMBER ===> 
  USER CODE ===>                SECURITY LEVEL ===> 
  COMMENT ===>                

Press ENTER key to process; Enter END command to terminate.
```

3. Enter one of the following from the Function line:

   **S**

   Modify the status. See Modifying the Status next for more information.

   **U**

   Add or change a user code. See Modifying the User Code for more information.

   **L**

   Modify the member level. See Modifying the Member Level for more information.

   **C**

   Add or change a user-comment. See Adding a User Comment for more information.

   **blank**

   Display the Changes - MSL Criteria panel, which lets you specify criteria to limit the MSL before displaying a list of members on the Member Selection List panel. See Using the Member Selection List Option for more information.
4. Use the Project, Group, Type, and Member fields to specify standard CA Panvalet library member data or use the Dsname and volser fields to specify non-standard CA Panvalet library fields. See the chapter "Browse" for more information about these fields.

**Note:** You can modify only one of these fields per member in any single execution of the Member Attribute Changes utility.

5. Use the Status, User Code, Comment, Level Number, and Security Level fields (shown under Enter Modification data below) to specify the new or changed data for the specified CA Panvalet member.

### Modifying the Status

To change the member status, perform these steps on the Changes - Entry Panel:

1. Type S in the Function line.
2. Identify the member to change in the Member field.
3. Specify the new status code in the Status field. You can change one status attribute (for example, A to I). Valid status changes are:

<table>
<thead>
<tr>
<th>Old Status</th>
<th>New Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>P</td>
<td>Test to production</td>
</tr>
<tr>
<td>A</td>
<td>I</td>
<td>Active to Inactive</td>
</tr>
<tr>
<td>I</td>
<td>A</td>
<td>Inactive to Active</td>
</tr>
<tr>
<td>E</td>
<td>D</td>
<td>Enabled to Disabled</td>
</tr>
<tr>
<td>D</td>
<td>E</td>
<td>Disabled to Enabled</td>
</tr>
</tbody>
</table>

**Note:** You cannot change status P to T. If the member is locked with a user ID other than your own, you cannot change the status. If the member is locked with your own user ID, the only status change you can make is from T to P.

4. Press Enter to process.

### Modifying the User Code

To modify the member user code, perform these steps on the Changes - Entry Panel:

1. Type U in the Function line.
2. Identify the member to change in the Member field.
3. Specify the new user code in the User Code field.
4. Press Enter to process.
Modifying the Member Level

To modify the member level, perform these steps on the Changes - Entry Panel:

1. Type L in the Function line.
2. Identify the member to change in the Member field.
3. Specify the new level number in the Level Number field.
4. Press Enter to process.

Adding a User Comment

To add a user comment, perform these steps on the Changes - Entry Panel:

1. Type C in the Function line.
2. Identify the member to change in the Member field.
3. Specify the comment (up to 50 characters) in the Comment field.
4. Press Enter to process.
Using the Member Selection List Option

To specify MSL selection criteria, perform these steps from the Changes - Entry Panel:

1. Leave the Function and Member fields blank.
2. Press Enter. The MSL Criteria panel is displayed.

---

Fill in the following fields as necessary and press Enter:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SORT MSL</td>
<td>(Y/N)</td>
</tr>
<tr>
<td>List members starting with</td>
<td>* (Wild * and ? notation, PAY75*A)</td>
</tr>
<tr>
<td>List members with LANG TYPE</td>
<td></td>
</tr>
<tr>
<td>List members with USER CODE</td>
<td></td>
</tr>
<tr>
<td>List members with USER-ID</td>
<td>(I=ID Only,B=Blank IDs ONLY)</td>
</tr>
<tr>
<td>List members with STATUS</td>
<td></td>
</tr>
</tbody>
</table>

- Display with COMMENT Data: (Y/N)
- MSL DISPLAY Options: A - Standard MSL, B - USER-ID of Last Update
- CONTROL (If required)

Press ENTER key to process; Enter END command to terminate.

CA Panvalet libraries are typically larger than partitioned data sets and ISPF libraries. You can specify criteria on this panel to limit the members that are displayed for processing on the Member Selection List.

3. Specify selection criteria as needed to limit the MSL.

   If you choose not to limit the size of the MSL, leave all of the selection criteria blank.

   **Note:** See the chapters "Browse" and "Edit" for descriptions of the fields on this panel.

4. Press Enter to process. The following processing occurs depending on the values of the Sort MSL field and the MSL Display Options field:

   - If Sort MSL is N and MSL Display Options is A (the default), the Changes MSL Option(A) - Member Selection List is displayed. See Displaying the Standard MSL next to continue.

   - If Sort MSL is N and MSL Display Options field is B, the Changes MSL Option(B) - Member Selection List is displayed. This list displays the user ID of last update for each member displayed.

   - If Sort MSL is Y, the Sort MSL Fields panel is displayed. See Specifying MSL Sort Criteria for more information.
Specifying MSL Sort Criteria

Specify Y in the Sort MSL field on the Changes - MSL Criteria panel or specify M on the Command line or to the left of the member name in the Enter Panvalet Function field on the Member Selection List panel to display the MSL Sort Fields panel. From this panel, you can sort the MSL based on field name in ascending or descending sequence. See the chapter "Browse" for more information about the fields on this panel.

Member Manipulation Utility

The Member Manipulation utility lets you copy, rename, or delete a CA Panvalet member. You can also produce a hardcopy printout of a CA Panvalet member to the ISPF List data set.

For CA Panvalet members created with an ASA (American National Standard) or MCH (Machine) Carriage Control attribute, the utility also lets you print the member directly to the printer destination and output CLASS of your choice. The utility preserves the member's carriage control within the printed record images.

This utility lets you process CA Panvalet members with logical record lengths from 80 to 4096 bytes for version 14.3 and above libraries.

Note: You cannot concatenate CA Panvalet libraries for this utility.

Manipulating Member Information

To manipulate member information, perform these steps:

1. Use either of the following methods to access the Manipulate Member utility:
   - Enter option 2 on the Utility Selection Menu.
   - Enter P.3.2 on the ISPF/PDF Primary Option Menu.
2. Press Enter. The Manipulate - Entry Panel is displayed.

![Manipulate - Entry Panel]

3. Specify one of the following codes on the Function line:

   **C**
   
   Copy a member. See Copying a Member for more information.

   **P**
   
   Print a member. See Printing a Member for more information.

   **D**
   
   Delete a member. See Deleting a Member for more information.

   **R**
   
   Rename a member. See Renaming a Member for more information.

   **blank**
   
   Display the Manipulate - MSL Criteria panel, which lets you specify criteria to limit the MSL before displaying a list of members on the Member Selection List panel. See Using the Member Selection List Option for more information.

4. Use the Project, Group, Type, and Member fields to specify standard CA Panvalet library member data or use the Dsname and volser fields to specify non-standard CA Panvalet library fields.

   Optionally use the Control field to change the existing control code specification. If the member you want to manipulate is restricted, you must enter the Access Code before you can manipulate it.

   See the chapter "Browse" for detailed information about these fields.

5. Press Enter to process.
**Copying a Member**

To create a copy of an existing CA Panvalet member, perform these steps from the Manipulate - Entry Panel:

1. Type **C** in the Function field.
2. Specify the name of the member you want to copy in the Member field.
3. Specify the name of the copy member in the New Member field.
4. Press Enter to process.

**Printing a Member**

To create a spinoff (carriage control) JES SYSOUT listing file or a listing (on the ISPF List data set), perform these steps from the Manipulate - Entry Panel:

1. Type **P** in the Function field.
2. Specify the name of the member you want to print in the Member field.
3. Press Enter to Process.

- For CA Panvalet members that have a CC (Carriage Control) attribute setting of ASA (American National Standard) or MCH (Machine), the PRINT request automatically causes the dynamic allocation of a JES SYSOUT listing file with the corresponding carriage control attribute containing the specified member's data. Members must have a record length from 80 to 133 bytes. The output obtained is similar to the print output from CA Panvalet ++WRITE PRINT, with CC=ASA or CC=MCH.

   The dynamic file is allocated as a SPINOFF SYSOUT data set, which means that when the PRINT function completes for the specified member, the file is closed and becomes eligible for JES Writer (printer) processing.

   You can manually change the Destination and Class of the SYSOUT through SPOOL access software, or you can use the Destination ID and Output Class fields on the Manipulate - Entry Panel.

- For all other CA Panvalet members, the PRINT function produces a listing (on the ISPF List data set) of the specified member.

**Important!** The CA Panvalet ISPF Option does no validation checking on the Destination ID or Output Class values. JES does diagnostic checking.
Following are descriptions of the Print and SYSPUT "SPINOFF" options:

**Destination ID**
Specifies the JES printer destination name. Use the destination name when creating a JES listing SPINOFF data set for PRINT functions using CA Panvalet members with a CC (Carriage Control) attribute of ASA (American National Standard) or MCH (Machine). The default value is blank (no specification).

**Output Class**
Specifies the JES OUTPUT CLASS. Use the output class when creating a JES listing SPINOFF data set for PRINT functions using CA Panvalet members with a CC (Carriage Control) attribute of ASA (American National Standard) or MCH (Machine). The default value is A (Class A).

**Expand Includes**
Controls the expansion of embedded CA Panvalet ++INCLUDE statements. You can specify Y or N. When Expand Includes is N, the printed member contains the original ++INCLUDE statement. When Expand Includes is Y, the printed member contains the source that was copied (included) by the ++INCLUDE statement. The default value is N (no ++INCLUDE expansion).

**Note:** This processing option is in effect for both SPINOFF and ISPF List data set functions.

When expanding included members for CA Panvalet PRINT functions, all included members must have the same logical record length as the specified (root) member.

### Deleting a Member

To delete a member, perform these steps from the Manipulate - Entry Panel:

1. Type **D** in the Function field.
2. Specify the name of the member you want to delete in the Member field.
3. To delete with confirmation, specify **Y** in the Confirm Delete field.
   
   If specified, a panel is displayed to prompt you to confirm the delete before it is performed.
4. Press Enter to Process.

**Note:** You cannot delete a locked member.

This option may not be available at your site. If you need this functionality, contact your CA Panvalet administrator.
Renaming a Member

To rename a CA Panvalet member, perform these steps from the Manipulate - Entry Panel:

1. Type **R** in the Function field.
2. Specify the name of the member you want to rename in the Member field.
3. Specify the new name of the member in the New Member field.
4. Press Enter to process.

**Note:** A locked member cannot be renamed unless the owning user ID of the lock matches the user ID of the user performing the rename function.

Using the Member Selection List Option

To specify MSL selection criteria, perform these steps from the Manipulate - Entry Panel:

1. Leave the Function and Member fields blank.
2. Press Enter. The MSL Criteria panel is displayed.

```
MANIPULATE - MSL CRITERIA ------- Computer Associates
COMMAND ===> 
LIB1: PAYROLL.WORK.PANLIB

Please choose one or more of the following for the MEMBER SELECTION LIST:

**SORT MSL ==> N** (Y/N)
List members starting with ===> (Wild * and ? notation, PAY?5*A)
List members with LANG TYPE ===> 
List members with USER CODE ===> 
List members with USER-ID ===> (I=ID Only,B=Blank IDs ONLY)
List members with STATUS ===> 
Display with COMMENT Data ===> N (Y/N)
MSL DISPLAY Options: ===> A A - Standard MSL
                     ===> B - USER-ID of Last Update
CONTROL (If required) ===> 

Press ENTER key to process; Enter END command to terminate.
```

CA Panvalet libraries are typically larger than partitioned data sets and ISPF libraries. You can specify criteria on this panel to limit the members that are displayed for processing on the Member Selection List.
3. Specify selection criteria as needed to limit the MSL.

If you choose not to limit the size of the MSL, leave all of the selection criteria blank.

**Note:** See the chapters "Browse" and "Edit" for descriptions of the fields on this panel.

4. Press Enter to process. The following processing occurs depending on the values of the Sort MSL field and the MSL Display Options field:

- If Sort MSL is **N** and MSL Display Options is **A** (the default), the Manipulate MSL Option(A) - Member Selection List is displayed. See Displaying Members to continue.

- If Sort MSL is **N** and MSL Display Options is **B**, the Manipulate MSL Option(B) - Member Selection List is displayed. This list displays the user ID of last update for each member displayed.

- If Sort MSL is **Y**, the Sort MSL Fields panel is displayed. See Specifying MSL Sort Criteria for more information.

### Displaying the Standard MSL

The following panel shows an MSL that was generated with no comments (Comments=N) and the default MSL Display Option (A). The statistics displayed in the MSL are CA Panvalet statistics, not ISPF statistics.

<table>
<thead>
<tr>
<th>COMMAND</th>
<th>MANIPULATE MSL Option(A) - MEMBER SELECTION LIST</th>
<th>SCROLL===&gt; CSR</th>
</tr>
</thead>
</table>

Enter Panvalet Function:

<table>
<thead>
<tr>
<th>R</th>
<th>Rename, C</th>
<th>Copy, P</th>
<th>Print, D</th>
<th>Delete, M</th>
<th>MSL Options</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>MEMBER</th>
<th>RESULT</th>
<th>LVL</th>
<th>USER</th>
<th>FM</th>
<th>LANG</th>
<th>STATIMATE</th>
<th>LACCESS</th>
<th>BLKS</th>
<th>STATMTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEMBER1</td>
<td>10</td>
<td>3220</td>
<td>ASM</td>
<td>PAE</td>
<td>10/19/03</td>
<td>11/05/03</td>
<td>9</td>
<td>113</td>
<td></td>
</tr>
<tr>
<td>MEMBER2</td>
<td>1</td>
<td>0 N</td>
<td>COBOL</td>
<td>TAE</td>
<td>04/15/03</td>
<td></td>
<td>1</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>MEMBER3</td>
<td>2</td>
<td>0 T</td>
<td>COBOL</td>
<td>TAE</td>
<td>05/03/01</td>
<td></td>
<td>1</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

To manipulate member information, perform these steps:

1. Specify a function code as follows in the Enter Panvalet Function field to the left of the member name:

   **Note:** You can perform one manipulation function against each member listed on the MSL simultaneously using these codes.

   **C**

   Creates a copy of an existing CA Panvalet member. Place the copy member name in the Result column.
R
Renames a CA Panvalet member. Place the new name for the member in the Result column. A locked member cannot be renamed unless the owning user ID of the lock matches the user ID of the user performing the rename function.

P
Prints a listing of a CA Panvalet member.

D
Deletes a member. If you specified a Y for Confirm Delete on the Manipulation Entry Panel, you must confirm the delete before it occurs. Locked members cannot be deleted.

Note: This function may not be available at your site.

M
Displays the MSL Sort Fields panel, which lets you specify sort criteria for the MSL. See Specifying MSL Sort Criteria for more information.

Note: This option can also be entered on the Command line.

2. Press Enter to process your selections.

Note: You can scroll the MSL in the same manner as in ISPF/PDF using the Locate primary command.

Common MSL Display Options

The following describes the fields that are displayed on the Member Selection List when the MSL Display Options field on the Manipulate - MSL Criteria panel is set to A or B:

Member
The CA Panvalet member name.

Result
Displays results of selected manipulate functions. If the member is locked (LOCKED), you cannot rename it unless the owning user ID of lock matches the user ID of the user performing the manipulate function.

The Result field is also an input field for the Copy and Rename functions. You can enter the new member name for the rename or copy.

Note: To rename or copy a locked member, you must use the Manipulate - MSL Option (B) - Member Selection List. You cannot rename or copy a locked member from the Manipulate - MSL Option (A) - Member Selection List.

Lvl
The CA Panvalet modification level.
User

The four-digit CA Panvalet user code. When a member has a security level other than zero, you cannot perform an action on the member unless your user ID matches the user ID that set the security level. If your user ID does not match and the member is access code restricted, use the Manipulate - Entry Panel to manipulate the member and specify an Access Code.

FM

The member format-modifying, stored sequencing options, if any.

N

Indicates a member was added with the FORMAT=N option.

T

Indicates a member was added with the TSO sequence option.

blank

Indicates no stored sequencing options.

Lang

The member language type.

Stat

The current status attributes (for example, P for production, T for test, and A for active) of each member.

Lmaint

The date of last maintenance—the last time a change was made to the member. This field is blank when it equals the date of last access.

Laccess

The date of last access—the last time the member was accessed in any way. For more information about access date, see the System Management Guide.

Blks

The number of blocks the member occupies in the CA Panvalet library.

The Statmts field appears only when Option A is specified. This field displays the number of statements in the member.
Displaying Last Update User ID and Member Information

The following panel shows a sample display when you select option B for MSL Display Options on the MSL Criteria panel. This option displays last update user ID and member information.

```
<table>
<thead>
<tr>
<th>MEMBER</th>
<th>RESULT</th>
<th>LVL</th>
<th>USER</th>
<th>FM</th>
<th>LANG</th>
<th>STAT</th>
<th>LMAINT</th>
<th>LACCESS</th>
<th>BLKS</th>
<th>USER-ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEMBER1</td>
<td>10</td>
<td>3220</td>
<td>ASMB</td>
<td>PAE</td>
<td>10/19/03</td>
<td>11/05/03</td>
<td>USERAAA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMBER2</td>
<td>1</td>
<td>0 N</td>
<td>COBOL</td>
<td>TAE</td>
<td>04/15/03</td>
<td>1 USERAAA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMBER3</td>
<td>2</td>
<td>0 T</td>
<td>COBOL</td>
<td>TAE</td>
<td>05/03/01</td>
<td>1 USERAAA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
```

The User-ID column only appears when you select option B in the MSL Display Options field on the MSL Criteria panel. This field displays the user-identification characters associated with the last (most recent) Batch CA Panvalet ++UPDATE command or the CA Panvalet ISPF Option (EDIT) SAVE for the corresponding member.

Specifying MSL Sort Criteria

Specify Y in the Sort MSL field on the Manipulate - MSL Criteria panel or specify M on the Command line on the Member Selection List panel to display the MSL Sort Fields panel. From this panel, you can sort the MSL based on field name in ascending or descending sequence. See the chapters "Browse" and "Edit" for more information about the fields on this panel.

Member Language Change Utility

The Member Language Change utility lets you change the internal language format/type and the carriage control attribute of existing CA Panvalet members. This utility lets you process members with a language type of DATA that have a logical record length from 80 to 4096 bytes. All other language types must have a logical record length of 80 bytes.

**Note:** You can only modify a locked member in TEST, ENABLE status if the owning user ID of the LOCK matches the user ID of the user performing the language change function; otherwise the member must be unlocked prior to performing the language change function. Any attempt to modify production or disabled status members, or members that are locked to another user ID, generates an error message.
Defining Member Language Changes

To define member language changes, perform these steps:

1. Use either of the following methods to access the Language Change utility:
   - Enter option 3 on the Utility Selection Menu.
   - Enter P.3.3 on the ISPF/PDF Primary Option Menu.

2. Press Enter. The Language Change - Entry Panel is displayed.

3. Use the Project, Group, Type, and Member fields to specify standard CA Panvalet library member data or use the Dsname and volser fields to specify non-standard CA Panvalet library fields. See the chapter "Browse" for detailed information about these fields.
4. Specify language change options using the following fields:

**Confirm**

Indicates whether to display a confirmation panel for each member that is changed. The default is N, indicating that the Confirm Language Panel is not displayed.

**Lang Type**

Specifies a new language type for the member. Available values include all standard CA Panvalet five-character or less language type values and all language synonyms supported by CA Panvalet. These are listed in the following table.

*Note:* When you make a language change, all level stamps are removed.

<table>
<thead>
<tr>
<th>Language Type</th>
<th>Allowable Synonyms</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTOC</td>
<td>AUTOCODER</td>
</tr>
<tr>
<td>ASMB</td>
<td>BAL, ALC, ASM, ASSEMBLER</td>
</tr>
<tr>
<td>COBOL</td>
<td>COBOL</td>
</tr>
<tr>
<td>ANSCB</td>
<td>ANSCOBOL</td>
</tr>
<tr>
<td>COB72</td>
<td>COBOL-72</td>
</tr>
<tr>
<td>FORT</td>
<td>FORTRAN, FORTG, FORTGI, FORTH, GOFORT</td>
</tr>
<tr>
<td>PL/1</td>
<td>PL1, PL/I, PLI, PLIF, IPLI</td>
</tr>
<tr>
<td>RPG</td>
<td>RPG</td>
</tr>
<tr>
<td>OBJCT</td>
<td>OBJECT, OBJ</td>
</tr>
<tr>
<td>JCL</td>
<td>JCL, CNTL</td>
</tr>
<tr>
<td>DATA</td>
<td>DATA</td>
</tr>
<tr>
<td>OTHER</td>
<td>OTHER</td>
</tr>
<tr>
<td>USER1</td>
<td>USER180</td>
</tr>
<tr>
<td>USER2</td>
<td>USER780</td>
</tr>
<tr>
<td>USER3</td>
<td>USER3</td>
</tr>
<tr>
<td>USER4</td>
<td>USER4</td>
</tr>
</tbody>
</table>
For information about displaying user-defined language type labels for existing language types, see the ZTYPEEx option description in the appendix "PVOPT Macro USERMODS" of the *Getting Started*.

For specific details on the CA Panvalet formatting of each language type, see the *User Guide*. Most entries are self-explanatory. USER180, USER780, USER3, and USER4 are user-defined language types that can, in an individual installation, carry their own unique names replacing the identifiers USER180, USER780, USER3, and USER4.

**Note:** You cannot reformat CA Panvalet members with logical record lengths greater than 80 to any other language type but DATA.

**CC**

Specifies new carriage control attributes. Valid values are:

- **OFF**—Clears the current carriage control setting. Any carriage control within column one of each record is ignored and treated as data. The member is no longer eligible for PRINT utility SPINOFF processing.

- **ASA**—American National Standard carriage control within column one of each record. This member is eligible for PRINT utility SPINOFF processing.

- **MCH**—Machine carriage control within column one of each record. This member is eligible for PRINT utility SPINOFF processing.

**Format**

Specify Y or N to indicate whether the member is formatted according to its language type. Y is the default. If you specify N, no format is used. All 80 characters of the input record are stored, regardless of the language type. Specifying N lets you suppress that level of compression. All other data compression is performed as usual. Format is set to Y if left blank.

**Note:** If you specify Format=N, the F (format) field on the associated MSL will be blank.

**Keep Stamp**

Specify Y in the Keep Stamp field to keep level stamps if the To language is similar and the positions of the stamps are the same. Specify N (the default) to remove level stamps. When you make a language change, all level stamps are removed.

5. Press Enter to process.
Using the Member Selection List Option

To specify MSL selection criteria, perform these steps from the Language Change - Entry Panel:

1. Leave the Function and Member fields blank.
2. Press Enter. The MSL Criteria panel is displayed.

CA Panvalet libraries are typically larger than partitioned data sets and ISPF libraries. You can specify criteria on this panel to limit the members that are displayed for processing on the Member Selection List.

3. Specify selection criteria as needed to limit the MSL.
   
   If you choose not to limit the size of the MSL, leave all of the selection criteria blank.
   
   Note: See Using the Member Selection List Option in the chapters "Browse" and "Edit" for descriptions of the fields on this panel.

4. Press Enter to process. The following processing occurs depending on the values of the Sort MSL field and the MSL Display Options field:
   
   - If Sort MSL is N and MSL Display Options is A (the default), the Changes MSL Option(A) - Member Selection List is displayed. See Displaying the Standard MSL to continue.
   
   - If Sort MSL is N and MSL Display Options field is B, the Changes MSL Option(B) - Member Selection List is displayed. This list displays the user ID of last update for each member displayed. See Displaying Last Update User ID and Member Information to continue.
   
   - If Sort MSL is Y, the Sort MSL Fields panel is displayed. See Specifying MSL Sort Criteria for more information.
Specifying MSL Sort Criteria

Specify Y in the Sort MSL field on the Language - MSL Criteria panel or specify M on the Command line on the Member Selection List panel to display the MSL Sort Fields panel. From this panel, you can sort the MSL based on field name in ascending or descending sequence. See the chapters "Browse" and "Edit" for more information about the fields on this panel.

Confirming Language Changes

When you specify Confirm=Y on the Language Change - Entry Panel, the Confirm Language Change panel is displayed for each CA Panvalet member for which you are changing the language.

```
----------------------
CONFIRM LANGUAGE CHANGE ------- Computer Associates
COMMAND ===>
Data for the member below is about to be reformatted to the format of the NEW LANG TYPE listed below.

LIBRARY(MEMBER): PAYROLL.WORK.LIBRARY(MEMBERNAME)

OLD LANG TYPE : COBOL            NEW LANG TYPE : ANSCB
OLD FORMAT    : N    (Y/N)       NEW FORMAT  : N    (Y/N)
OLD CC        :                        NEW CC        :

Press ENTER key to allow reformatting of the above member.
Enter END command to cancel LANGUAGE CHANGE of the above member.
```

Note: This panel is displayed for each member selected for language change from the Language Change - Member Selection List panel.

Verify the information displayed on this panel for the member that is to be changed as follows:

Library (Member)

The CA Panvalet library data set name and member name (in parentheses) are shown for each member undergoing language change.

Old Lang Type, New Lang Type

The member language types, both Old and New, are displayed to assist you in confirming the language change.
Old Format, New Format

The member Format options, both Old and New, are displayed to help you confirm the language change. The displayed values are Y or N, where Y indicates the member has the Format option and N indicates the member does not have the Format option.

Old CC, New CC

The Old and New member carriage control attribute settings are displayed to help you confirm the language change.

Library-to-Library Copy Utility

The Library-to-Library Copy utility lets you copy members between CA Panvalet libraries with logical record lengths from 80 to 4096 bytes for version 14.3 and above libraries. This utility is similar to the batch CA Panvalet PAN#2 ++TRANSFER command.

You can replace identical members on the target CA Panvalet library with the status information of the From CA Panvalet library member by specifying the REPL option. You can restore members to the target CA Panvalet library using the status value from the PVOPT RSTSTAT parameter in the CA Panvalet options module by specifying the REST option.

A locked member can be replaced only when the owning user ID of the current LOCK matches the user ID of the user performing this function.

Performing Library-To-Library Copies

To perform library-to-library copies of a member, perform these steps:

1. Use either of the following methods to access the Library-To-Library Copy utility:
   - Enter option 4 on the Utility Selection Menu.
   - Enter P.3.4 on the ISPF/PDF Primary Option Menu.
2. Press Enter. The Lib-To-Lib Copy - From Panel is displayed.

```
-------------------- LIB-TO-LIB COPY - FROM PANEL ------------- Computer Associates
COMMAND =⇒
VERSION - vrgggg

Specify From Library, Member and LIB-TO-LIB Copy Options below:

From Standard CA-Panvalet Library:

PROJECT =⇒ PAYROLL
GROUP =⇒ WORK
TYPE =⇒ PANLIB
MEMBER =⇒ (Wild * and ? notation, PAY?5*A)

From Non-Standard CA-Panvalet Library:

DSNAME =⇒
VOLSER =⇒ (If NOT Cataloged)

LIB-TO-LIB Copy Options:

CONTROL =⇒ (If necessary, FROM library)
ACCESS =⇒ (If necessary, FROM member)

Press ENTER key to process; Enter END command to terminate.
```

3. Specify the From Library, Member, and Lib-To-Lib copy options. See the chapters "Browse" and "Edit" for detailed information about these fields.

4. Press Enter. The Lib-to-Lib Copy - To Panel is displayed.

```
-------------------- LIB-TO-LIB COPY - TO PANEL ------------- Computer Associates
COMMAND =⇒

From Library(Member): PAYROLL.WORK.PANLIB(MEMBERNAME)
Specify TO CA-Panvalet Library and LIB-TO-LIB Copy Options below:

To Standard CA-Panvalet Library:

PROJECT =⇒ PAYROLL
GROUP =⇒ TEST
TYPE =⇒ PANLIB

To Non-Standard CA-Panvalet Library:

DSNAME =⇒
VOLSER =⇒ (If NOT Cataloged)

LIB-TO-LIB Copy Options:

CONTROL =⇒ (If necessary, TO library)
ACCESS =⇒ (If necessary, TO member)
STATUS =⇒ REST (REST to create status = T A E
-or-
REPL to retain FROM member status)
CONFIRM? =⇒ N (Y/N - member replacement confirmation panel)

Press ENTER key to process; Enter END command to terminate.
```

The From CA Panvalet library data set name and member name (in parentheses) are displayed for informational purposes.
5. Specify the CA Panvalet library to which you want to copy members contained in the From library.

**Important!** When copying a member from a Version 14.3 (or above) CA Panvalet library that has a logical record length greater than 80, the library you are copying to must also be a Version 14.3 (or above) library.

6. Specify member copy options in the Lib-to-Lib Copy To Options section:

**Note:** For information about the Control and Access fields, see the chapters "Browse" and "Edit." For a successful replace, you must specify identical access codes on the From and To panels.

**Status**

You can choose the restore/replace status of copied members here. The default value is blank. Valid values are:

- **REPL** (or repl)—The status of the member in the target library is the same as the status of the member in the From library. If the member does not already exist, it is added to the target library.

  **Note:** A locked member can be replaced only if the owning user ID of LOCK matches the user ID of the user performing the replace function.

- **REST** (or rest)—CA Panvalet takes the status of the member created on the target library from the value displayed. The displayed value is taken from the RSTSTAT operand value in the PVOPT macro (CA Panvalet options module FGPAN23). For more information about PVOPT, see the System Management Guide. The member must not already exist on the target CA Panvalet library when you specify restore (REST), because CA Panvalet does not replace existing members.

You can transfer CA Panvalet library members directly to another CA Panvalet library. CA Panvalet sets the last action field to RESTORE or REPLACE as specified above. You cannot replace production status members or locked members in an output (or target) CA Panvalet library.

This function is similar to the batch CA Panvalet PAN#2 Management ++TRANSFER command direct method. For more information about the ++TRANSFER command, see the System Management Guide.

**Confirm**

Indicates whether to display a confirmation panel for each existing CA Panvalet member undergoing replacement due to the Lib-To-Lib Copy utility. See Confirming Changes for more information. Enter Y or N. The installation default is N (meaning do not display the Confirm Replace panel).

**Note:** If you specify Confirm=Y, status must be REPL for the Confirm Replace panel to display.

7. Press Enter to process.
Confirming Changes

When you specify Y for Confirm on the Lib-To-Lib Copy - To Panel, the Lib-To-Lib Copy - Confirm Replace panel is displayed for CA Panvalet members in the To CA Panvalet library that are being replaced by members of the From CA Panvalet library.

**Note:** If no members are replaced (From library members do not exist in the To library), no confirmation panel is displayed.

An informational message is displayed, indicating that member replacement is about to occur for the member name in the Member field (MEMBER1 above). You can press Enter to allow member replacement, or you can use the END command to cancel member replacement.

If the To member’s CA Panvalet status is not the same as the original From member’s status, the From Status and To Status fields appear on the Lib-To-Lib Copy - Confirm Replace panel. These fields display the corresponding status values to alert you that there is a difference. When the status values are the same, these fields do not appear on the Lib-To-Lib Copy - Confirm Replace panel.

**Note:** This panel is displayed for each member selected for library-to-library copy that is replacing a To Library member when using the Lib-To-Lib Copy - Member Selection List panel. See Specifying MSL Sort Criteria if Sort MSL is Y.
Using the Member Selection List Option

To specify MSL selection criteria, perform these steps from the Lib-To-Lib Copy To panel:

1. Leave the Member field blank.
2. Press Enter. The Lib-To-Lib Copy - MSL Criteria panel is displayed.

CA Panvalet libraries tend to be much larger than typical partitioned data sets and ISPF libraries. You can specify criteria on this panel to limit the members that are displayed for processing on the Member Selection List.

3. Specify selection criteria to limit the size of the MSL using the following fields:

   - If you choose not to limit the size of the MSL, leave all of the selection criteria blank.

   See the chapters "Browse" and "Edit" for descriptions of the remaining fields on this panel.

Control (From/To library)

When using the Lib-To-Lib Copy utility, you must always specify the control codes of the From and To CA Panvalet libraries. Use these two fields to specify the necessary control codes if you did not specify them on the Lib-to-Lib Copy - From/To panels. For more information, see Control and Security in the chapter "System Overview."
Access (From/To member)

CA Panvalet lets you control access to individual members. If you want to copy a restricted member, you must specify that member’s access code. If the copy results in the replace of a restricted member in the To library, you must specify that member’s access code. Use these two fields to specify the necessary access codes if you did not specify them on the Lib-to-Lib Copy - From/To panels.

4. Press Enter to process.

Member Lock/Unlock Utility

The member Lock/Unlock utility lets you lock or unlock a CA Panvalet member with a logical record length from 80 to 4096 bytes for Version 14.3 and 14.5 libraries, regardless of the member’s status.

Note: When using the CA Panvalet ISPF Option, only the user that originally locks a member is able to unlock it. If the user that locked a member is no longer available, the CA-Panvalet batch ++UNLOCK functions allows administrators to override an existing lock.

See Integrity Lock and Production, Disabled Status, or Locked Members in the chapter "System Overview" for more information.

Locking or Unlocking a Member

To specify lock or unlock values for a CA Panvalet library member, perform these steps:

1. Use either of the following options to access the Lock/Unlock utility:
   - Enter 5 on the Utility Selection Menu.
   - Enter P.3.5 on the ISPF/PDF Primary Option Menu.
2. Press Enter. The Lock/Unlock - Entry Panel is displayed.

```
------------------------
Lock/Unlock - Entry Panel
------------------------
FUNCTION ===> VERSION - vvrgrgg

L - LOCK a CA-Panvalet Member
U - UNLOCK a CA-Panvalet Member
BLANK - Display MEMBER SELECTION LIST

Standard CA-Panvalet Library:
PROJECT ===> PAYROLL
GROUP ===> WORK
TYPE ===> PANLIB
MEMBER ===> (Wild * and ? notation, PAY75*A)

Non-Standard CA-Panvalet Library:
DSNAME ===> VOLSER ===> (If NOT Cataloged)

Lock/Unlock Options,(If necessary):
CONTROL ===> ACCESS ===> 

Press ENTER key to process; Enter END command to terminate.
```

3. Specify one of the following function codes on the Function line:

**L (lock)**

Lets you lock a CA Panvalet member. If the member is already locked, CA Panvalet issues a message stating that your request was denied. See Locking a Member for more information.

**U (unlock)**

Lets you unlock a CA Panvalet member. See Unlocking a Member for more information.

**Blank**

Display the Lock/Unlock - MSL Criteria panel, which lets you specify criteria to limit the MSL before displaying a list of members on the Member Selection List panel. See Using the Member Selection List Option for more information.

4. Use the Project, Group, Type, and Member fields to specify standard CA Panvalet library member data or use the Dsname and volser fields to specify non-standard CA Panvalet library fields. See the chapter "Browse" for more information about these fields.

**Note:** You can modify only one field per member in any single execution of the Member Attribute Changes utility.

5. Optionally specify Lock/Unlock options.

6. Press Enter to process.
Locking a Member

When CA Panvalet Batch locks a member, the lock user ID is present only for environments that use a security package that propagates the TSO user ID. Some of the security packages that provide CA Panvalet with user ID information are: RACF, PCF2, eTrust CA-ACF2 Security, and eTrust CA-Top Secret Security.

**Note:** When the member was locked on a CA Panvalet library version prior to Version 14.2, the informational message that appears shows blanks enclosed within quotation marks. Otherwise, the informational message shows the owning user ID of LOCK enclosed within quotation marks.

To lock a member, perform these steps on the Lock/Unlock - Entry Panel:

1. Type **L** in the Function line.
2. Specify the member to change in the Member field.
3. Press Enter to process.

Unlocking a Member

To unlock a member, perform these steps on the Lock/Unlock - Entry Panel:

1. Type **U** in the Function line.
2. Specify the member to change in the Member field.
3. Press Enter to process.

Manipulating Locked Members

Once a member is locked in a CA Panvalet library, its data, attributes, or comment cannot be modified in any way, but it can still be accessed, copied, or retrieved to another library. This ability to lock and unlock a member in a CA Panvalet library provides a more complete level of member integrity.

**Note:** A locked member can be modified when the owning user ID of the lock matches the user ID of the user performing the update function, or if the owning user ID of lock is blank. Although the owning user ID is allowed to update the member, the member still remains locked. For more information, see Integrity Lock in the chapter "System Overview."

For example, suppose you want to manipulate the contents of a member stored in a CA Panvalet library using a workstation rather than mainframe facilities. You could lock the member in the CA Panvalet library using the CA Panvalet ISPF Option utilities, the PAN#1 ++LOCK facility, or the CA Panvalet TSO Option PAN LOCK command. As long as the member remains locked, it cannot be modified by you or any other user.
Once the member is locked, you can retrieve a copy of its contents to a z/OS disk data set, using the CA Panvalet ISPF Option facilities, the PAN#1 ++WRITE facility, or the CA Panvalet TSO Option PAN RETRIEVE command. Then, use a host/workstation file transfer facility available at your data center to download the data to your workstation.

Once you are finished working on the data at your workstation, upload the data back to the host mainframe, again using whatever host/workstation file transfer facility is available to you.

At the mainframe level, unlock the member in the CA Panvalet library, using the CA Panvalet ISPF Option utilities, the PAN#1 ++UNLOCK facility, or the CA Panvalet TSO Option PAN UNLOCK command. Once the member is unlocked, you can move the data back into the CA Panvalet library member, using the CA Panvalet ISPF Option facilities, the PAN#1 ++UPDATE facility, or the CA Panvalet TSO Option PAN STORE command.

**Using the Member Selection List Option**

To specify MSL selection criteria, perform these steps from the Lock/Unlock - Entry Panel:

1. Leave the Function and Member fields blank.
2. Press Enter. The Lock/Unlock - MSL Criteria panel is displayed.

```
------------------------ LOCK/UNLOCK - MSL CRITERIA ------ Computer Associates
COMMAND ===>
LIB1: PAYROLL.WORK.PANLIB
Please choose one or more of the following for the MEMBER SELECTION LIST:
  SORT MSL ===> N (Y/N)
  List members starting with ===> (Wild * and ? notation, PAY?5*A)
  List members with LANG TYPE ===> (I=ID Only,B=Blank IDs ONLY)
  List members with USER CODE ===> (I=ID Only,B=Blank IDs ONLY)
  List members with USER-ID ===> (I=ID Only,B=Blank IDs ONLY)
  List members with STATUS ===> (I=ID Only,B=Blank IDs ONLY)
  Display with COMMENT Data ===> N (Y/N)
  MSL DISPLAY Options: ===> C
                         A - Standard MSL
                         B - USER-ID of Last Update
                         C - Current LOCK Information
  CONTROL (If required) ===> 
Press ENTER key to process; Enter END command to terminate.
```

CA Panvalet libraries are much larger than typical partitioned data sets and ISPF libraries. You can specify criteria on this panel to limit the members that are displayed for processing on the Member Selection List.
3. Specify selection criteria as needed to limit the MSL.
   If you choose not to limit the size of the MSL, leave all of the selection criteria blank.

   **Note:** See the chapters "Browse" and "Edit" for descriptions of the fields on this panel.

4. Press Enter to process. The following processing occurs depending on the values of the Sort MSL field and the MSL Display Options field:
   - If Sort MSL is **N** and MSL Display Options is **A** (the default), the Lock/Unlock MSL Option(A) - Member Selection List is displayed. See Displaying Members to continue.
   - If Sort MSL is **N** and MSL Display Options field is **B**, the Lock/Unlock MSL Option(B) - Member Selection List is displayed. This list displays the user ID of last update for each member displayed.
   - If Sort MSL is **N** and MSL Display Options field is **C**, the Lock/Unlock MSL Option(C) - Member Selection List is displayed. This list displays the last update and current lock information for each member displayed.
   - If Sort MSL is **Y**, the Sort MSL Fields panel is displayed. See Specifying MSL Sort Criteria for more information.

**Specifying MSL Sort Criteria**

Specify **Y** in the Sort MSL field on the Lock/Unlock - MSL Criteria panel or specify **M** on the Command line on the Member Selection List panel to display the MSL Sort Fields panel. From this panel, you can sort the MSL based on field name in ascending or descending sequence. See the chapters "Browse" and "Edit" for more information about the fields on this panel.

**User Query Utility**

The User Query utility lets you query the system for users and jobs that might have a data set enqueue. It requests a list of user IDs and job names associated with all current SHARED and EXCLUSIVE queries outstanding in the operating environment at the time of the query. If enqueues are found, an MSL is built with the ID, data set name, and input fields. Use the input fields to type in a message and send it to the user immediately, at logon time, or save it for processing later.
Accessing the User Query Utility

To access the User Query utility, use either of the following methods:

- Enter 6 on the Utility Selection Menu.
- Enter P.3.6 on the ISPF/PDF Primary Option Menu.

When you press Enter, the Query Enqueued-Entry Panel is displayed.

<table>
<thead>
<tr>
<th>Library Name</th>
<th>Queue Name</th>
<th>(Blank Defaults to SPFPAN, PANVALET, VALETPAN)</th>
</tr>
</thead>
</table>

From this panel, you can:

- Specify the library and queue name to query who is enqueued on a specific library
- Specify any queue name for a list of enqueued users and jobs

**Note:** If Queue Name is not specified, the search defaults to SPFPAN, PANVALET, and VALETPAN.

When you press Enter, the Queried Enqueues List panel is displayed when enqueues are found that match the specified search criteria.

<table>
<thead>
<tr>
<th>Library Name</th>
<th>Queue Name</th>
<th>(Blank Defaults to SPFPAN, PANVALET, VALETPAN)</th>
</tr>
</thead>
</table>

Select User and enter message for Owner of Enqueue: WHEN=

- ID=STIKE02
- DSN=STIKE02.WORK.PANLIB
- MG=

- ID=FRAMI06
- DSN=LIBSYS.WORK9805.PANLIB
- MSG=

- ID=KRICA01
- DSN=KRICA01.WORK.PANLIB
- MSG=

To send a message to enqueued library users or to job names, perform these steps:

1. Specify the message you want to send to the user or job name in the Msg field.
2. Specify when to deliver the message by specify L (logon), N (immediate), or S (save) in the When field. If S is specified, the message is not sent.
**Compare Utility**

This utility lets you report on the differences between two files (old and new) and highlight what has changed in the old file to produce the new one.

**Initiating the Compare Utility**

To initiate the Compare utility, perform these steps:

1. Use either of the following methods to access the PCOMPARE Member Entry Panel:
   - Select option 7 on the Utility Selection Menu.
   - Enter P.3.7 on the ISPF/PDF Primary Option Menu.

2. When you press Enter, the PCOMPARE Member Entry Panel is displayed.

3. Specify the old and new data set information using the following fields:
   - The files can be CA Panvalet members, sequential files, PDS members, or a combination of two of the three formats.
   - **Dsname**
     - Provides the data set name for the Old or New file to be compared. Do not use quotes or enter a member name if the file is a CA Panvalet library or partitioned data set.
   - **Member**
     - Displays the member name if the member resides in a CA Panvalet or PDS file.
Fileorg

For a sequential file, specify SEQ. For CA Panvalet, specify PAN. For a PDS, specify PDS.

Lvl

Supplies the level number of the file you want to compare. This field applies only to CA Panvalet files and is optional. If the level number does not agree with the current level of the file, the PCOMPARE will fail.

Access

Supplies a CA Panvalet library member access code. This field is optional. You can specify it only if Fileorg is PANVALET. It is required for CA Panvalet members that are access controlled.

The access code can be any numeric value in the range of 0 to 75533.

If the same access code is needed for both the Old and New inputs, it is only necessary to give the Access keyword once on the Old or New command. There is no default for Access.

Control

Supplies a CA Panvalet library control code. You can specify Control when Fileorg is PANVALET. It is required only for CA Panvalet libraries that are control protected.

The control code can be any numeric value in the range of 0 to 65534.

If the same control code is needed for both the Old and New inputs, it is only necessary to give the Control keyword once on the Old or New command. There is no default for Control.

4. Specify the following Compare options:

Expand

Determines whether to expand INCLUDE commands for a CA Panvalet library member you are comparing. You can specify Expand only if Fileorg is PANVALET.

- N—Causes INCLUDE commands to be read as is.
- Y—Causes INCLUDE commands to be expanded up to the nesting level specified in the CA Panvalet options module.

If you omit Expand from the Old or New command, it uses the value specified on the other command. The default value is N.
**Compare Utility**

**Column Beg**

Defines the first column of the field you want to compare. It must be a numeric value within the range of 1 to the logical record length.

**Column End**

Defines the last column of the field you want to compare. It must be a numeric value within the range of 1 to the logical record length. Column End must be greater than or equal to Column Beg. If you omit Column End, the default is the logical record end.

5. Optionally, specify a value for Space in Cyl for large members that need to be compared. The default request is for two cylinders.

6. Specify one of the following values for Report Type:

**Detail**

Provides a complete listing of the Old and New files with all the differences shown. A single line shows matching Old and New records. Differences are shown as deleted and inserted records.

**Delta**

Shows the records that are different between the Old and New files. The presence of a matched record or records is marked only by a single line or pair of lines. Differences are shown as deleted and inserted records. If the differences are few, a Delta change report is much smaller than a Detail change report.

**Update**

Lists the complete ++UPDATE stream required to modify the Old file to look like the New file.

**No**

Indicates to not write the Detail, Delta, or Update reports. The Command and Compare summaries are the only reports built.

The default report type is Delta.

7. Press Enter to process.

See Viewing the Data Display for information about the generated report.

**Viewing the Data Display**

The data display is a view of the requested report from PCOMPARE.
Detail Report

The Detail report is a complete listing of all Old and New file records that were matched, deleted, or inserted. The Old and New filenames are shown in the heading of every page. The Detail report is in a columnar format that includes Old-Num, New-Num, Change, and the record image. A scale line appears at the top and bottom of every page.

**Old-Num**

When the Old and New files match, Old-Num is the relative record number of the matching Old record. For deleted records, Old-Num is the relative record number of the deleted Old record. For inserted records, Old-Num is blank.

**New-Num**

When the Old and New files match, New-Num is the relative record number of the matching New record. For inserted records, New-Num is the relative record number of the inserted New record. For deleted records, New-Num is blank.

**Change**

When the Old and New files match, this field is blank. Delete and insert mark deleted and inserted records, respectively.

**Record Image**

When the Old and New files match, the record image field contains the corresponding Old record image. For deleted records, this field contains the deleted Old record image. For inserted records, the record image field contains the inserted New record image.

For Old and New files with record lengths greater than 100, up to 100 bytes of the first record is printed on the first line with the remaining detail wrapped to the next print line until the entire record is printed. Unprintable characters appear as periods (.).
A Detail report is useful when you need a complete hard copy audit of the similarities and differences between two files.

The panel is scrollable to the right to reveal the text of the member. At the bottom of the report is a summary of changes.

**Delta Report**

The Delta report is a listing of all Old and New file records that were deleted or inserted. The Old and New file names are shown in the heading of every page. The Delta report is in a columnar format that includes Old-Num, New-Num, Change, and the record image. A scale line appears at the top and bottom of every page.

**Old-Num**

When the old and new files match, Old-Num is the relative record number of the matching Old record. For deleted records, Old-Num is the relative record number of the deleted Old record. For inserted records, Old-Num is blank.

**New-Num**

When the Old and New files match, New-Num is the relative record number of the matching New record. For inserted records, New-Num is the relative record number of the inserted New record. For deleted records, New-Num is blank.
### Change

When the Old and New files match, this field contains equal signs. Delete and insert mark deleted and inserted records, respectively.

### Record Image

When the Old and New files match, the record image field is blank. For deleted records, this field contains the deleted old record image. For inserted records, the record image contains the inserted new record image.

For Old and New files with record lengths greater than 100, up to 100 bytes of the first record is printed on the first line with the remaining detail wrapped to the next print line until the entire record is printed. Unprintable characters appear as periods (.).

Any block of two or more matching records is represented by only two report lines. The record numbers of the first and last records of the matching block are shown.

A Delta report is usually much shorter than a Detail report. It is useful when you need a hard copy audit of just the differences between two files.

### Update Report

The Update report lists the complete PAN#1 ++UPDATE stream needed to change the Old file into the New file. The Old and New file names are shown in the heading of every page. A scale line appears at the top and bottom of every page.
The Update report always shows fixed length 80-byte records. If the Old and New input files have a record size of less than 80, the inserted records are padded with blanks on the right. If the Old and New input files have a record size of greater than 80, the inserted records are truncated on the right.

```
Menu Utilities Compilers Help
-----------------------------------------
BROWSE  SYS00206.T160018.RA000.USER001.R0335862  Line 00000000 Col 001 080
Command ===> Scroll ===> CSR
**************************************** Top of Data ****************************************
COMPUTER ASSOCIATES INTERNATIONAL, INC.  07/24/00  COM
PANVALET/COMPARE  VERSION vvr00ggg  16:00:18

***************

PANVALET/COMPARE

PROGRAMS AND ALL SUPPORTING MATERIALS COPYRIGHT 1995 BY COMPUTER ASSOCIATES INTERNATIONAL, INC.

OLD: LIBSYS.APT.R020ABS.PANLIB
NEW: LIBSYS.APT.R03

++UPDATE APCS0021,190
++D 000016,000016
++C 000058
*   Copyright (C) 2001 Computer Associates  *030A*BAD
++C 000068
*   APCS0001  *030A*BAD
++C 000068
*   APCC0001  *030A*BAD
```


Compare Summary

The Compare summary is produced at the very end of all the previous reports or if Report Type No is selected. The Compare summary gives match and difference statistics for the Old and New files. The Old and New file names are shown in the heading.

Scan Utility

The Scan utility lets you scan a member for user-specified values or statements and produce a report showing the results of the scan.

Note: The Scan utility options may not be available at your site. If you need this functionality, contact your CA Panvalet administrator.

Initiating the Scan Utility

To initiate the Scan utility, perform these steps:

1. Use either of the following methods to initiate the Scan utility:
   - Select option 8 on the Utility Selection Menu.
   - Enter P.3.8 on the ISPF/PDF Primary Option Menu.
2. Press Enter. The Scan Entry Panel is displayed.

```
-- SCAN ENTRY PANEL --
Command ===> Version - vvrgggg

Enter CA-Panvalet Library:
Dataset name ===> USERAAA.TEST.PANLIB
Control Code ===> (If required)

CA-Panvalet/Scan Options:
Search Criteria => * (Member name, *, OR by Language *COBOL)
Delimiter   => / (Beginning and Ending Delimiter)
Scan Value  => THE
Beg Statement => , (Beginning MBR Statement number OR ,)
End Statement => , (Ending MBR Statement number OR ,)
Beg Column   => , (Beginning Scan Column number OR ,)
End Column   => , (Ending Scan Column number OR ,)

Press ENTER key to process; Enter END command to terminate.
```

3. Specify the CA Panvalet library in the following fields:

**Dataset name**

Specify the name of the data set that you want to scan. Data set name is a required field for the scan function.

**Control Code**

Specify the control code (if necessary).

4. Specify the following scan options:

**Search Criteria**

Specify the search criteria for the scan, for example, member name, language, or an asterisk (*). An asterisk (the default) indicates that you want to search the entire data set.

**Delimiter**

Specify a one-character beginning and ending delimiter for the scan. The default is a slash (/).

**Scan Value**

Specify the 1- to 60-character value for which you want to scan. Scan Value is a required field.

**Beg Statement**

Specify the beginning member statement (line) number on which you want to initiate the scan. Valid values for this field are numeric or a comma (,), which indicates that you do not want to use this field as part of the scan criteria. The default is comma.
End Statement

Specify the ending member statement (line) number on which you want to limit the scan. Valid values for this field are numeric or a comma (,), which indicates that you do not want to use this field as part of the scan criteria. The default is comma.

Beg Column

Specify the beginning column number on which you want to initiate the scan. Valid values for this field are numeric or a comma (,), which indicates that you do not want to use this field as part of the scan criteria. The default is comma.

End Column

Specify the column number on which you want to limit the scan. Valid values for this field are numeric or a comma (,), which indicates that you do not want to use this field as part of the scan criteria. The default is comma.

5. Press Enter to generate a Scan report similar to the following:

```
BROWSE    SYS03258.T105840.RA000.USERAAA.R0337153    Line 00000000 Col 001 080
Command ===>                                                  Scroll ===> CSR
*********************************
COMPUTER ASSOCIATES INTERNATIONAL, INC.                     VERSION    09/15/03
USERAAA.TEST.PANLIB                                         vvrgggg    10.58.40
++SCAN *,/THE/$NOTES                     LV001
THIS DATA SET xxx.xxxx.xxxxxxxx.xxx CONTAINS THE JCL THAT THEY ARE CREATED BASED ON QAT.LIBR.BATCHJCL AND /* YOU CAN LINK ALL THE NECESSARY JOBS BY USING THE $CASCADE AND */ YOU CAN LINK ALL THE NECESSARY JOBS BY USING THE $CASCADE AND */ RUN THE JOB CASCADES. HOWEVER IT’D BETTER TO RUN INDIVIDUALLY ***** ABOVE ACTION SATISFACTORILY COMPL
$CASCADE                    LV001
//** CASCADE TO THE NEXT JOB
***** ABOVE ACTION SATISFACTORILY COMPLETED *****
$CCFB103                    LV002
-DESC USING THE ASSIGN BY ITSELF
-DESC USING THE OPEN BUT LET IT ASSIGN
***** ABOVE ACTION SATISFACTORILY COMPLETED *****
$CCFB104                    LV002
```

Create Utility

The Create utility lets you create a CA Panvalet library. You specify the data set name and other application specifications such as space, block size, and volumes.

Note: The Create utility options may not be available at your site. If you need this functionally, contact your CA Panvalet administrator.
# Initiating the Create Utility

To initiate the Create utility, perform these steps:

1. Use either of the following methods to initiate the Create utility:
   - Enter 9 on the Utility Selection Menu.
   - Enter P.3.9 on the ISPF/PDF Primary Option Menu.

2. Press Enter. The Library Create panel is displayed.

```
------------------------- LIBRARY CREATE ----------------
Command ===>             Version - vvrsggg

Specify New Data set and applicable fields, then Press ENTER to process
- Data set name ===> 

Specifications:
  Records ===> Data Sets ===> 
  Blksize ===> -Primary Space ===> (PS or DA)
  Volume ===> Dsorg ===> Secondary ===> 
  -Unit ===> Secondary ===> (CYL, TRK or numeric Blksize)
  -Space ===> Volumes ===> 

Suppress functions ===> Y    Execution Mode ===> 1  1. Foreground
                       ===> 2. Background

Job statement information:

```

3. Specify the new data set name in the **Data set name** field. This is a required field for the Library Create function.

4. Enter data set specifications as needed in the following fields:

   For more information about these fields, see PAN#4 – Library Creation in the *System Management Guide*.

   **Note:** The Primary Space, Unit, and Space fields are required.

   **Records**
   
   Optionally specifies the number of records per track for the library.

   **Data Sets**
   
   Optionally specifies an estimated number of members to be stored on the library. The value is a one- to six-digit number and cannot exceed the number of physical blocks in the file. If it exceeds this figure, CA Panvalet adjusts to the maximum number of directory entries possible for the library size allocated.

   If you omit this parameter, the number of directory entries equivalent to one-third the number of data blocks is provided (not one-third of the library).
Blksz

Specifies the number of bytes per DASD block. To determine the correct block size to use for your specific DASD, see the System Management Guide. Blksz can range from 502 bytes to 32767 bytes.

Primary Space

Specifies the initial volume of disk space to be allocated. Valid values for this parameter are 1 to 99999. A value is required.

Volume

Specifies the one- to six-character name for the physical DASD device on which you want to allocate this library.

Dsorg

Specifies the data set organization for the library. Valid values are PS (the default) and DA. DA is recommended unless CMS accesses the file. If CMS accesses the file, it must have a Dsorg of PS. If you leave this field blank, it defaults to PS.

Unit

Specifies the device type for this version of CA Panvalet. The Unit parameter must contain a meaningful value for your site, for example: SYSDA, 3390, or 3380. A value is required.

Secondary

Specifies a secondary allocation of space. Valid values are 1 to 99999. This parameter applies only if you have a data set on multiple volumes; so it is a rarely used parameter.

Space

Specifies cylinders, tracks, or the size of the block for the library you want to create. A value must be specified. If the library resides on one volume, you must specify the space allocated as the primary allocation (do not specify a value for Secondary). Valid values are CYL, TRKS, or size of the block (if Blksz parameter is specified on this panel).

Volumes

Specifies up to two additional volume serial numbers, separated by commas. This optional parameter is rarely used—only when a library spans more than one volume.
5. To suppress functions against the library, specify Y in the Suppress functions field. A panel is displayed where you can suppress the following functions:

Add       Format    Select    Active    Print
Allocate  Insert    Status    All       Prod
Attach    Level     Unlock    Disabled  Punch
Comment   Lock      Update    Enable    Temp
Copy       Option    User      Inactive  Work
Detach    Rename    Using     Prefix    *
Exec      Reseq     Write

Note: Enforcement of suppressed commands requires imposition of a Control Code through the PAN#2 function. For more information about PAN#2, see the System Management Guide.

6. Specify 1 or 2 in the Execution Mode field as follows:

1

Initializes a library in foreground. 1 is the default. When you press Enter, a create report is generated similar to the following sample:

<table>
<thead>
<tr>
<th>Menu</th>
<th>Utilities</th>
<th>Compilers</th>
<th>Help</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRNSM</td>
<td>SYS30258.T112621.RA000.USERAAA.R0339859</td>
<td>Line 00000000 Col 00000000</td>
<td></td>
</tr>
</tbody>
</table>

Command ===>                                                  Scroll ===> PAGE

******************************** Top of Data ********************************
COMPUTER ASSOCIATES INTERNATIONAL, INC.                     VERSION    09/15/03
PUBLIC.QA2.PANL                                           1450403    11.26.21
++CLEAR
***** 000420 BLOCKS CLEARED ON VOLUME(S) WORK05

PANVALET LIBRARY STATUS AND ACTIVITY REP
/UNIT     SIZE   BLOCKS    HEAD    BLOCKS    BLOCKS      SETS  STA
ALLOCATED 14    3,440   420    6        414   228
COMPUTER ASSOCIATES INTERNATIONAL, INC.                     VERSION    09/15/03
PUBLIC.QA2.PANLIB                                         1450403    11.26.21
FILE VERSIONS:  PANCRE8 => V14.5         PANDD2 => NOT-USED       PANDD3 => NOT-

******************************** Bottom of Data *******************************

2

Builds JCL to execute in batch. For batch execution, you must also specify JOB statement information at the bottom of the Library Create panel and have access to skeleton PANCR8J1 in the ISPSLIB concatenation. When you press Enter, the JCL is built for Edit. If no changes are necessary, enter SUBMIT (or SUB) in the Command field and press Enter.

A message is sent to the terminal indicating whether the job succeeded. In batch mode, the library statistics report is found in the output listing.
Chapter 7: Sample Utility Sessions

This chapter contains CA Panvalet ISPF Option sample terminal sessions, one for accessing utilities and one for each utility.

- Accessing Utilities
- Utility Session 1 (Attribute Changes)
- Utility Session 2 (Member Manipulation)
- Utility Session 3 (Language Change)
- Utility Session 4 (Lib-to-Lib Copy)
- Utility Session 5 (Member Lock/Unlock)
- Utility Session 6 (User Query)
- Utility Session 7 (Compare)
- Utility Session 8 (Scan)
- Utility Session 9 (Create)

You can use this chapter for training by going through the sessions, or you can reference specific topics in the sessions.

For specific information about commands and parameters used in these sessions, see the appendix "Command Summary."

This section contains the following topics:

- Accessing Utilities (see page 174)
- Utility Session 1 (Attribute Changes) (see page 176)
- Utility Session 2 (Member Manipulation) (see page 179)
- Utility Session 3 (Language Change) (see page 183)
- Utility Session 4 (Lib-to-Lib Copy) (see page 188)
- Utility Session 5 (Member Lock/Unlock) (see page 192)
- Utility Session 6 (User Query) (see page 196)
- Utility Session 7 (COMPARE) (see page 198)
- Utility Session 8 (Scan) (see page 199)
- Utility Session 9 (Create) (see page 201)
Accessing Utilities

This section describes how to access the Utility Selection Menu, from which you can use any of the CA Panvalet ISPF Option utilities.

To access the Utility Selection Menu from TSO, follow these steps:

1. To initialize the ISPF/PDF system, enter `ispf` below the READY prompt in TSO as shown in the following example:

```
READY
ispf
```

The ISPF/PDF Primary Option Menu is displayed.

2. From the ISPF/PDF Primary Option Menu, enter `P` on the Option line to initiate the CA Panvalet ISPF Option.

```
--------------------- ISPF/PDF PRIMARY OPTION MENU ---------------------
OPTION ===> P

0  ISPF PARMS - Specify terminal and user parameters
1  BROWSE - Display source data or output listings
2  EDIT - Create or change source data
3  UTILITIES - Perform utility functions
4  FOREGROUND - Invoke language processors in foreground
5  BATCH - Submit job for language processing
6  COMMAND - Enter TSO command or CLIST
7  DIALOG TEST - Perform dialog testing
8  LM UTILITIES - Perform library management utility functions
C  CHANGES - Display summary of changes for this release
P  PANVALET - Browse, edit, and utilities
T  TUTORIAL - Display information about ISPF/PDF
X  EXIT - Terminate ISPF using log and list defaults

Enter END command to terminate ISPF.
```

The CA Panvalet primary menu is displayed.
3. From the CA Panvalet primary menu, enter 3 on the Option line to initialize the Utility facility.

```
------------------------ AllFusion CA-Panvalet for z/OS -- Computer Associates
OPTION ==> 3          VERSION - vvrgrggg
  1 BROWSE - Display AllFusion CA-Panvalet Members
  2 EDIT - Modify/Create AllFusion CA-Panvalet Members
  3 UTILITY - AllFusion CA-Panvalet/ISPF Utilities (COPY, QUERY, etc.)
  4 VIEW - Modify & Create without changing original mbr
  5 WHAT'S NEW - In AllFusion CA-Panvalet Version 14.5

Enter END command to terminate AllFusion CA-Panvalet/ISPF.

*********************************************************************
* COPYRIGHT (C) 2003      Computer Associates International, Inc.  *
* -- All   Rights   Reserved    Worldwide.    --                      *
*********************************************************************
```

The Utility Selection Menu is displayed.

```
------------------------ UTILITY SELECTION MENU ------ Computer Associates
OPTION ==>          VERSION - vvrgrggg
  1 - CA-Panvalet Member Attribute Changes
      . Add / Change USER CODE  . Add / Change COMMENT
      . Change LEVEL Number  . Change STATUS
  2 - CA-Panvalet Member Manipulation
      . COPY a member, RENAME a member, DELETE a member
      . PRINT a member (in the ISPF LIST data set)
      . PRINT a member w/ Carriage Control ("SPINOFF")
  3 - CA-Panvalet Member Language Change
  4 - CA-Panvalet Member Library-To-Library Copy
  5 - CA-Panvalet Member Lock/Unlock Utility
  6 - CA-Panvalet User Query Utility
  7 - CA-Panvalet Compare Utility
  8 - CA-Panvalet Scan Utility
  9 - CA-Panvalet Create Utility

Enter END command to terminate.

Note: You can also access the Utility Selection Menu by specifying Option P.3 on the ISPF/PDF Primary Option Menu.

You can now access any of the CA Panvalet ISPF Option utilities from this menu, as described in the following sections.
Utility Session 1 (Attribute Changes)

This sample session illustrates the terminal session flow for a typical Attribute Changes utility function.

Initiating the Attribute Changes Utility

To initiate the Attribute Changes utility, perform these steps:

1. Use either of the following methods to access the Attribute Changes utility:
   - Enter 1 on the Option line of the Utility Selection Menu.
   - Enter P.3.1 on the ISPF/PDF Primary Option Menu.

2. Press Enter. The Changes - Entry Panel is displayed.

3. Leave Function and Member blank. Press Enter to display the Changes - MSL Criteria panel.

   **Note:** You can perform individual utility functions on an CA Panvalet member using this panel. For example, to change the level number of member pamtest, enter L in the Function field, pamtest in the Member field, and 1 in the Level Number field. When you press Enter, the level is changed to 1. The message LVL CHANGED appears in the upper right corner of the panel.
Limiting the Member Selection List

The Changes - MSL Criteria panel lists the options available for limiting the selection list.

To limit the member selection list, perform these steps:

1. Specify PAM in the List members starting with field.

```
COMMAND ===>
LIB1: PDPV.TEST.PANLIB

Please choose one or more of the following for the MEMBER SELECTION LIST:

- SORT MSL ===> N (Y/N)
- List members starting with ===> PAM (Wild * and ? notation, PAY?5*A)
- List members with LANG TYPE ===> (I=ID Only,B=Blank IDs ONLY)
- List members with USER-ID ===>       (I=ID Only,B=Blank IDs ONLY)
- List members with USER-ID ===>
- List members with STATUS ===>       (I=ID Only,B=Blank IDs ONLY)
- Display with COMMENT Data ===> N (Y/N)
- MSL DISPLAY Options: ===> A A - Standard MSL
-                  B - USER-ID of Last Update
- CONTROL (If required) ===>

Press ENTER key to process; Enter END command to terminate.
```

2. Press Enter. The Member Selection List panel is displayed, listing all members that start with PAM.

```
---------- CHANGES MSL Option(A) - MEMBER SELECTION LIST --- Row 1 to 3 of 3
COMMAND ===>

Enter Panvalet Function:
| U -User Code, L -Level #, S -Status, M -MSL Options
| V

| MEMBER   RES LVL USER SL STAT ACODE LANG LMAINT LACCESS BLKS STATMTS |
|---------- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| PAMREAD   128 1111 0 TAE ASMB 10/07/03 11/11/03 9 111 |
| PAMREADTST 19 1009 0 TAE ASMB 09/03/03 11/11/03 1 1 |
| PAMTEST   2 0 0 TAE ASMB 11/11/03 1 1 |
```
Changing Attributes

To change member attributes, perform these steps from the Member Selection List:

1. Change the level number of PAMREAD to 129:
   a. Type L to the left of the member name.
   b. Type the new level number over the existing number (128) in the LVL field.

2. Change the user code of PAMREADTST to 1234:
   a. Type U to the left of the member name.
   b. Type the new user code over the existing code (1009) in the USER field.

3. Change the status of PAMTEST from ENABLED to DISABLED:
   a. Type S to the left of the member name.
   b. Type D over the E in the STAT parameter.

   The panel should look as follows:

4. Press Enter to perform the functions.

The panel is redisplayed, indicating that all three functions were performed simultaneously. The type of change is indicated to the right of each member name.
## Ending the Utility Session

To end the utility session, perform these steps:

1. Press PF3 (End) on the Member Selection List to return to the Changes - MSL Criteria panel.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>---</td>
<td>---</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>COMMAND ===⇒</td>
<td>LIB1: PDPV.TEST.PANLIB</td>
<td>Please choose one or more of the following for the MEMBER SELECTION LIST:</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>SORT MSL ===⇒ N (Y/N)</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>List members starting with ===⇒ PAM (Wild * and ? notation, PAY?5*A)</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>List members with LANG TYPE ===⇒</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>List members with USER CODE ===⇒</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>List members with USER-ID ===⇒ (I=ID Only, B=Blank IDs ONLY)</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>List members with STATUS ===⇒</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>Display with COMMENT Data ===⇒ N (Y/N)</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>MSL DISPLAY Options: ===⇒ A A - Standard MSL</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>B - USER-ID of Last Update</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>CONTROL (If required) ===⇒</td>
</tr>
</tbody>
</table>

Press ENTER key to process; Enter END command to terminate.

The message PAMREAD LVL CHANGED is displayed in the upper right corner of the panel. This message identifies the first action performed on the Changes - Member Selection List panel.

2. To return to the Changes - Entry Panel, press PF3 (End) twice.

## Utility Session 2 (Member Manipulation)

This sample session illustrates the terminal session flow for a typical Member Manipulation utility function.

## Initiating the Member Manipulation Utility

To initiate the Member Manipulation utility, perform these steps:

1. Use either of the following methods to access the Member Manipulation utility:
   - Enter 2 on the Option line of the Utility Selection Menu.
   - Enter P.3.2 on the ISPF/PDF Primary Option Menu.
2. Press Enter. The Manipulate - Entry Panel is displayed.

```
-- MANIPULATE - ENTRY PANEL ---- Computer Associates
FUNCTION ==> VERSION - vrrggg
C - COPY a member         R - RENAME a member
P - PRINT a member        BLANK - Display MEMBER SELECTION LIST
D - DELETE A member
    Confirm Delete ==> N (Y/N)

Standard CA-Panvalet Library:
PROJECT ==> PDV
GROUP  ==> TEST
TYPE   ==> PANLIB
MEMBER ==> NEW MEMBER ===>

Non-Standard CA-Panvalet Library:
DSNAME ==> (If NOT Cataloged)
VOLSER ==> (If NOT Cataloged)
CONTROL Code ==> ACCESS Code ==>

Press ENTER key to process; Enter END command to terminate.
```

3. Leave the Function and Member fields blank.

**Note:** You can perform individual utility functions on an CA Panvalet member using this panel. For example, to rename pamtest to pamtest2, enter R in the Function field, **pamtest** in the Member field, and **pamtest2** in the New Member field. When you press Enter, the member is renamed. The message PAMTEST RENAMED appears in the upper right corner of the panel.

4. Press Enter to display the Manipulate - MSL Criteria panel.
Limiting the Member Selection List

The Manipulate - MSL Criteria panel lists the options available for limiting the selection list.

To limit the member selection list, perform these steps:

1. Enter PAM in the List members starting with field.

```
MANIPULATE - MSL CRITERIA
   List members starting with ===> PAM       (Y/N)
   List members with LANG TYPE ===>       (Wild * and ? notation, PAYT*A)
   List members with USER CODE ===>       (I=ID Only,B=Blank IDs ONLY)
   List members with USER ID ===>           ==>   (I=ID Only,B=Blank IDs ONLY)
   List members with STATUS ===>           ==>   (I=ID Only,B=Blank IDs ONLY)
   Display with COMMENT Data ===> N         (Y/N)
   MSL DISPLAY Options:        ===> A         A
     A - Standard MSL
     B - USER-ID of Last Update
   CONTROL (If required) ===>
```

Press ENTER key to process; Enter END command to terminate.

2. Press Enter. The Member Selection List panel is displayed, listing all members that start with PAM.
Manipulating Member Information

To manipulate member information, perform these steps on the Member Selection List:

1. Make a copy of PAMTEST named PAMREAD:
   a. Enter C to the left of the member name.
   b. Enter the member name you want to copy to (PAMREAD) to the right of PAMTEST.

2. Rename member PAMTEST2 to PAMTEST1 as follows:
   a. Enter R to the left of the member name.
   b. Enter the new member name (PAMTEST1) to the right of PAMTEST2.

3. Print a copy of PAMTEST3 by entering P to the left of the member name.
   The panel should look as follows:

   --- MANIPULATE MSL Option(A) - MEMBER SELECTION LIST --- Row 1 to 3 of 3
   COMMAND => SCROLL ==> CSR
   Enter Panvalet Function:
   | R - Rename, C - Copy, P - Print, D - Delete, M - MSL Options |
   | MEMBER     RESULT     LVL USER FM LANG STAT LMAINT   LACCESS  BLKS  STATMTS |
   V ---------- --------------- ---- ------------ --- --- --- --- --- --- --- --------
   C PAMTEST   PAMREAD      1 3220 ASMB TAE          03/01/03     9      111
   R PAMTEST2  PAMTEST1     1 1234    ASMB  TAE 09/03/03 04/15/03     1        1
   P PAMTEST3                1    0    ASMB  TAE 09/05/03 05/03/03     1        1
   **************************************** Bottom of data ****************************************

4. Press Enter to perform the functions.
   You cannot perform another manipulation on this MSL without first refreshing it.
   This is because the member name was changed to a new name on the CA Panvalet
   library. The new name might or might not meet the MSL selection criteria. To
   modify the new member, you must enter PF3 (End) and reenter selection criteria on
   the Manipulate - MSL Criteria panel to refresh the MSL for the renamed member.

Ending the Utility Session

To end the utility session, perform these steps:

1. Press PF3 (End). This saves the CA Panvalet member, ends the utility session, and
   returns you to the Manipulate - MSL Criteria panel.

2. To return to the Manipulate - Entry Panel, press PF3 (End) twice.
Utility Session 3 (Language Change)

This sample session illustrates the terminal session flow for a typical Language Change utility function.

Initiating the Language Change Utility

To initiate the Language Change utility, perform these steps:

1. Use either of the following methods to access the Language Change utility:
   - Enter 3 on the Option line of the Utility Selection Menu.
   - Enter P.3.3 on the ISPF/PDF Primary Option Menu.

2. Press Enter. The Language Change - Entry Panel is displayed.

3. Leave Member blank and set Confirm to Y to request a confirmation panel.

   **Note:** The confirmation panel (Confirm Language Change) is displayed automatically after you enter your changes.

   **Note:** You can perform individual utility functions on an CA Panvalet member using this panel. For example, to change the language of MEMBER3 to BAL without a confirmation panel, enter MEMBER3 in the Member field, BAL in the Lang Type field, and leave the default value N for Confirm. When you press Enter, the language is changed. The message MEMBER3 ASMB F = Y appears in the upper right corner of the panel, where F=Y indicates that FORMAT=Y for MEMBER3.

4. Press Enter to display the Language Change - MSL Criteria panel.
Limiting the Member Selection List

The Language Change - MSL Criteria panel lists the options available for limiting the selection list.

To limit the member selection list, perform these steps:

1. Enter **MEM** in the List members starting with field.

```
--------------------- LANGUAGE CHANGE - MSL CRITERIA ---- Computer Associates
COMMAND ===>

LIB1: PAYROLL.WORK.PANLIB

Please choose one or more of the following for the MEMBER SELECTION LIST:

- **SORT MSL ===> N** (Y/N)
- **List members starting with ===> MEM** (Wild * and ? notation, PAY?5*A)
- **List members with LANG TYPE ===>**
- **List members with USER CODE ===>**
- **List members with USER-ID ===>** (I=ID Only,B=Blank IDs ONLY)
- **List members with STATUS ===>**
- **Display with COMMENT Data ===> N** (Y/N)
- **MSL DISPLAY Options: ===> A** - Standard MSL, **B** - USER-ID of Last Update
- **CONTROL (If required) ===>**

Press ENTER key to process; Enter END command to terminate.
```

2. Press Enter. The Member Selection List panel is displayed.

```
---------- LANGUAGE CHANGE - MSL OPTIONS(A) - MEMBER SELECTION LIST --- Row 1 to 4 of 4
COMMAND ===>

Enter Panvalet Function:
| S or L - Change Language, M - MSL Options & Dataset Info
| | MEMBER F LANG NEW-LANG LVL USER STAT LMAINT LACCESS BLKS STATMTS
V
| MEMBER1 COBOL 33 3220 TAE 12/30/03 03/05/03 9 132
| MEMBER2 COBOL 1 0 TAE 04/13/03 1 11
| MEMBER3 COBOL 9 0 TAE 05/19/03 2 33
| MEMBER4 Y ASMB 18 42 TAE 06/01/03 1 9

*************************************************************************** Bottom of data ***************************************************************************** 
```
Changing the Member Language

To change member languages, perform these steps from the Member Selection List:

1. Enter S to the left of the member names (MEMBER1, MEMBER3, and MEMBER4) for language change.
   a. For MEMBER1, change the language from COBOL to DATA by entering DATA in the New-Lang column.
   b. For MEMBER3, change the language from COBOL to PL/1 by entering PL/1 in the New-Lang column and set the format option to Y by entering Y in the F column.
   c. For MEMBER4, change the format option to N by entering N in the F column. Since this is a language change, you must enter a new language type in the Lang-Type column. Enter the same type ASMB.

   The panel should look as follows:

<table>
<thead>
<tr>
<th>COMMAND</th>
<th>LANG CHG MSL Option(A) - MEMBER SELECTION LIST</th>
<th>Command</th>
<th>---</th>
<th>SCROLL —— CSR</th>
</tr>
</thead>
</table>

   | MEMBER      | LANG  | NEW-LANG | LVL USER STAT LMAINT LACCESS BLKS STATMTS |
   |-------------|-------|----------|------------------------|-------------------|
   | MEMBER1     | COBOL| DATA     | 33 3220 TAE 12/30/03 03/05/03 9 132 |
   | MEMBER2     | COBOL|          | 1 0 TAE 04/13/03 1 11 |
   | MEMBER3     | Y    | COBOL PL/1| 9 0 TAE 05/19/03 2 33 |
   | MEMBER4     | N    | ASMB ASMB | 18 42 TAE 06/01/03 1 9 |

   2. Press Enter to display the Confirm Language Change panel. This panel is displayed because you entered Y for Confirm on the Language Change - Entry Panel.
Confirming Language Changes

A separate Confirm Language Change panel is displayed for each change you entered. In our sample session, three panels will appear consecutively to show the changes.

To confirm the language changes that were made, perform these steps:

1. The Confirm Language Change panel for MEMBER1 is displayed. Press Enter to save and confirm the change that was made to MEMBER1.

```
-------------------- CONFIRM LANGUAGE CHANGE ------- Computer Associates
COMMAND ===> 

Data for the member below is about to be reformatted to the format of the NEW LANG TYPE listed below.

LIBRARY(MEMBER): PAYROLL.WORK.PANLIB(MEMBER1)

OLD LANG TYPE : COBOL   NEW LANG TYPE : DATA
OLD NOFORMAT  : N (Y/N) NEW NOFORMAT  : N (Y/N)
OLD CC        : NEW CC :

Press ENTER key to allow reformatting of the above member.
Enter END command to cancel LANGUAGE CHANGE of the above member.

```

2. The Confirm Language Change panel for MEMBER3 is displayed. Press Enter to confirm the change to MEMBER3.

```
-------------------- CONFIRM LANGUAGE CHANGE ------- Computer Associates
COMMAND ===> 

Data for the member below is about to be reformatted to the format of the NEW LANG TYPE listed below.

LIBRARY(MEMBER): PAYROLL.WORK.PANLIB(MEMBER3)

OLD LANG TYPE : COBOL   NEW LANG TYPE : PL/I
OLD NOFORMAT  : N (Y/N) NEW NOFORMAT  : Y (Y/N)
OLD CC        : NEW CC :

Press ENTER key to allow reformatting of the above member.
Enter END command to cancel LANGUAGE CHANGE of the above member.
```
3. The Confirm Language Change panel for MEMBER4 is displayed. Press Enter to confirm the change to MEMBER4.

```
---------------------------- CONFIRM LANGUAGE CHANGE ----------------
COMMAND =>

Data for the member below is about to be reformatted to the format of the NEW LANG TYPE listed below.

LIBRARY(MEMBER): PAYROLL.WORK.PANLIB(MEMBER4)

OLD LANG TYPE : ASMB            NEW LANG TYPE : ASMB
OLD NOFORMAT : Y     (Y/N)       NEW NOFORMAT : N      (Y/N)
OLD CC        :                    NEW CC        :

Press ENTER key to allow reformatting of the above member.
Enter END command to cancel LANGUAGE CHANGE of the above member.
```

4. Press Enter to display the changes on the Member Selection List.

```
------- LANG CHG MSL Option(A) - MEMBER SELECTION LIST -------
SCROLL== CSR

Enter Panvalet Function:
| S or L -Change Language, M -MSL Options & Dataset Info |
| MEMBER     F LANG  NEW LANG   LVL USE | USER STAT | LMAINT | LACCESS | BLKS | STATMTS |
| V ---------- --------- --------- --------- --------- --------- --------- --------- --------- --------- --------- --------- --------- --------- ----------|

MEMBER1      COBOL **CHANGED*  33 3220  TAE 12/30/03 03/05/03     9      132
MEMBER2      COBOL              1    0  TAE          04/13/03     1       11
MEMBER3    Y COBOL **CHANGED*   9    0  TAE          05/19/03     2       33
MEMBER4    N ASMB  **CHANGED*  18   42  TAE          06/01/03     1        9

******************************* Bottom of data *********************
```

This panel indicates that all three members were changed concurrently. To save I/O, the changes are not reflected on this panel; however, the message Changed in the New-Lang field indicates that the changes have been applied.

To see the changes appear in the LANG field, press PF3 (End) to return to the Language Change - MSL Criteria panel, and then press Enter to redisplay the Member Selection List. The F column appears blank for members with Format=N.

**Ending the Session**

To end the utility session, perform these steps:

1. Enter **END** on the command line or press PF3 (End). The Language Change - MSL Criteria panel is displayed.
2. Enter **END** or press PF3 again to display the Language Change - Entry Panel.
Utility Session 4 (Lib-to-Lib Copy)

This sample session illustrates the terminal session flow for a typical Library-to-Library Copy utility function.

Initiating the Member Lib-to-Lib Copy

To initiate the Lib-to-Lib Copy utility, perform these steps:

1. Use either of the following methods to access the Lib-to-Lib Copy utility:
   - Enter 4 on the Option line of the Utility Selection Menu.
   - Enter P.3.4 on the ISPF/PDF Primary Option Menu.

2. Press Enter. The Lib-To-Lib Copy - From Panel is displayed.

   ------------ LIB-TO-LIB COPY - FROM PANEL -------- Computer Associates
   COMMAND ===>
   VERSION - vvr9ggg

   Specify From Library, Member and LIB-TO-LIB Copy Options below:

   From Standard CA-Panvalet Library:
   PROJECT ===> PAYROLL
   GROUP     ===> WORK
   TYPE      ===> PANLIB
   MEMBER    ===> (Wild * and ? notation, PAY75*A)

   From Non-Standard CA-Panvalet Library:
   DSNAM     ===>
   VOLSER    ===> (If NOT Cataloged)

   LIB-TO-LIB Copy Options:
   CONTROL   ===> (If necessary, FROM library)
   ACCESS    ===> (If necessary, FROM member)

   Press ENTER key to process; Enter END command to terminate.

3. Leave the Member field blank.

   **Note:** You can perform individual utility functions on an CA Panvalet member using this panel and the Lib-To-Lib Copy - To Panel. For example, specify a member name and CA Panvalet library in the Project, Group, Type, and Member fields. When you press Enter, the Lib-To-Lib Copy - To Panel is displayed. Specify a standard CA Panvalet library data set name in the Project, Group, Type fields, and leave the default values for Status and Confirm. Press Enter to perform the copy. A message indicating that the member was restored appears in the upper right corner of the panel.
4. Press Enter. The Lib-To-Lib Copy - To Panel is displayed.

```
-- LIB-TO-LIB COPY - TO PANEL ---- Computer Associates
COMMAND ===> [ aan ]

From Library(Member): PAYROLL.WORK.PANLIB()
Specify TO CA-Panvalet Library and LIB-TO-LIB Copy Options below:

To Standard CA-Panvalet Library:
  PROJECT ===> PAYROLL
  GROUP ===> TEST
  TYPE ===> PANLIB

To Non-Standard CA-Panvalet Library:
  DSNNAME ===> [ aan ]
  VOLSER ===> [ aan ] (If NOT Cataloged)

LIB-TO-LIB Copy Options:
  CONTROL ===> [ aan ] (If necessary, TO library)
  ACCESS ===> [ aan ] (If necessary, TO member)
  STATUS ===> REPL (REST to create status = T A E
     -or- REPL to retain FROM member status)
  CONFIRM? ===> Y (Y/N - member replacement confirmation panel)
```

5. Make the following changes on this panel:

a. Type a standard CA Panvalet library data set name, `payroll.test.panlib`, in the Project, Group, and Type fields in the To Standard CA-Panvalet Library section of the panel.

b. Type `REPL` in the Status field in the Lib-To-Lib Copy Options section of the panel to retain the member status of the From members selected.

c. Type `Y` in the Confirm field to request a confirmation panel for replaced members.

**Note:** The confirmation panel (Lib-To-Lib Copy - Confirm Replace) is displayed automatically after you enter your copy data.

6. Press Enter to display the Lib-To-Lib Copy - MSL Criteria panel.
Limiting the Member Selection List

The returned screen is the Lib-To-Lib Copy - MSL Criteria panel, which lists the options available for limiting the selection list.

To limit the member selection list, perform these steps:

1. Enter **MEM** in the List members starting with field.

```
---------------------
LIB-TO-LIB COPY - MSL CRITERIA ---- Computer Associates

COMMAND ==>

FROM Library: PAYROLL.WORK.PANLIB
TO Library: PAYROLL.TEST.PANLIB

Please choose one or more of the following for the MEMBERS SELECTION LIST:

- SORT MSL ===> N (Y/N)
- List members starting with ===> MEM (Wild * and ? notation, PAY?5*A)
- List members with LANG TYPE ===> 
- List members with USER CODE ===> 
- List members with USER-ID ===> 
- List members with STATUS ===> 

- FROM library CONTROL (re-entry) ===> 
- FROM member ACCESS (re-entry) ===> 
- TO library CONTROL (re-entry) ===> 
- TO member ACCESS (re-entry) ===> 

Display with COMMENT Data ===> N (Y/N)
MSL DISPLAY Options: ===> A
- A - Standard MSL
- B - USER-ID of Last Update

Press ENTER key to process; Enter END command to terminate.
```

2. Press Enter. The Lib-To-Lib Copy - Member Selection List panel is displayed.
Selecting Members for the Library-to-Library Copy

To select members for the library-to-library copy, perform these steps:

1. Type $ next to MEMBER1, MEMBER3, and MEMBER4 on the Member Selection List as shown on the following panel:

--- LIB-TO-LIB MSL Option(A) - MEMBER SELECTION LIST --- Row 1 to 5 of 5
COMMANID SCROLL=> CSR

Enter Panvalet Function:
| S or T - Transfer, M - MSL Options & Dataset Info |
| MEMBER RESULT  LOC LVL USER LANG STAT LMAINT LACCESS BLKS STATMTS |
| V ---------- ---------- -------------------------- ----------------------- |
| S MEMBER1 33 3220 COBOL TAD 12/23/02 03/05/03 9 2 132 |
| S MEMBER2 1 0 COBOL TAE 04/13/03 1 11 |
| S MEMBER3 9 0 COBOL TAE 05/19/03 2 33 |
| S MEMBER4 18 42 ASMB TAE 06/01/03 1 9 |
| MEMBERS5 3 0 PL/1 TAE 05/28/03 8 119 |

2. Press Enter. The Lib-To-Lib Copy - Confirm Replace panel is displayed. This occurs because you entered Y for Confirm on the Lib-To-Lib Copy - To Panel.

Confirming the Lib-to-Lib Copy Replace

To confirm the lib-to-lib copy replace, press Enter on the Lib-To-Lib Copy - Confirm Replace panel.

--- LIB-TO-LIB COPY - CONFIRM REPLACE --- Computer Associates
COMMANID

Data within the To Library member is about to be REPLACED by data of the From Library member shown below.

From Library: PAYROLL.WORK.PANLIB
To Library: PAYROLL.TEST.PANLIB
Member: MEMBER4

Press ENTER key to allow replace of the above member.
Enter END command to cancel above member LIB-TO-LIB COPY replace.
For example purposes, MEMBER4 from CA Panvalet library PAYROLL.WORK.PANLIB is replacing a duplicate member name on CA Panvalet library PAYROLL.TEST.PANLIB. That is why you are asked for a confirmation.

**Note:** The other selected members do not exist on PAYROLL.TEST.PANLIB for this example; therefore, they do not need confirmation.

The Lib-To-Lib MSL Option(A) - Member Selection List panel is displayed. The returned screen indicates that all three members selected for library-to-library copy were copied, and the Result column indicates successful completion.

---

**LIB-TO-LIB MSL Option(A) - MEMBER SELECTION LIST**

**Row 1 to 5 of 5**

<table>
<thead>
<tr>
<th>COMMAND ====&gt;</th>
<th>SCROLL==&gt; CSR</th>
</tr>
</thead>
</table>

Enter Panvalet Function:

<table>
<thead>
<tr>
<th>S or T - Transfer, M - MSL Options &amp; Dataset Info</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>MEMBER</th>
<th>RESULT</th>
<th>LOC LVL</th>
<th>USER LANG</th>
<th>STAT LMAINT</th>
<th>LACCESS</th>
<th>BLKS</th>
<th>STATMTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEMBER1</td>
<td><strong>RESTORED</strong></td>
<td>33 3220 COBOL TAD 12/23/02 03/05/03 9 132</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMBER2</td>
<td></td>
<td>1 0 COBOL TAE 04/13/03 1 11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMBER3</td>
<td><strong>RESTORED</strong></td>
<td>9 0 COBOL TAE 05/19/03 2 33</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMBER4</td>
<td><strong>RESTORE</strong></td>
<td>18 42 ASMB TAE 06/01/03 1 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMBER5</td>
<td></td>
<td>3 0 PL/1 TAE 05/28/03 8 119</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Ending the Session**

To end the utility session, perform these steps:

1. Enter **END** on the command line or press PF3 (End). The Lib-To-Lib Copy - MSL Criteria panel is displayed.

2. Enter the **END** command or press PF3 again. The Lib-To-Lib Copy - From Panel is displayed.

**Utility Session 5 (Member Lock/Unlock)**

This sample session illustrates the terminal session flow for a typical Lock/Unlock utility function.
Initiating the Member Lock/Unlock Utility

To initiate the Member Lock/Unlock utility, perform these steps:

1. Use either of the following methods to access the Member Lock/Unlock utility:
   - Enter 5 on the Option line of the Utility Selection Menu.
   - Enter P.3.5 on the ISPF/PDF Primary Option Menu.
2. Press Enter. The Lock/Unlock - Entry Panel is displayed.

   ------------------------
   LOCK/UNLOCK - ENTRY PANEL -----
   Computer Associates
   FUNCTION ===> VERSION - vrrgggg
   L - LOCK a CA-Panvalet Member
   U - UNLOCK a CA-Panvalet Member
   BLANK - Display MEMBER SELECTION LIST

   Standard CA-Panvalet Library:
   PROJECT ===> PAYROLL
   GROUP ===> WORK
   TYPE ===> PANLIB
   MEMBER ===> (Wild * and ? notation, PAY?5*A)

   Non-Standard CA-Panvalet Library:
   DSNNAME
   VOLSER ===> (If NOT Cataloged)

   Lock/Unlock Options,(If necessary):
   CONTROL ===> ACCESS ===> 

   Press ENTER key to process; Enter END command to terminate.

3. Leave Function and Member blank.

   Note: You can perform individual utility functions on an CA Panvalet member using this panel. For example, to lock MEMBER1, enter L in the Function field and MEMBER1 in the Member field. When you press Enter, the member is locked.

4. Press Enter. The Lock/Unlock - MSL Criteria panel is displayed, listing the options available for limiting the selection list.
Limiting the Member Selection List

To limit the member selection list, perform these steps on the MSL Criteria panel:

1. Enter MEM in the List members starting with field.

```
COMMAND ===> LIB: PAYROLL.WORK.PANLIB

Please choose one or more of the following for the MEMBER SELECTION LIST:

- SORT MSL ===> N (Y/N)
- List members starting with ===> MEM (Wild * and ? notation, PAY?5*A)
- List members with LANG TYPE ===>
- List members with USER CODE ===>
- List members with USER-ID ===> (I=ID Only,B=Blank IDs ONLY)
- List members with STATUS ===>
- Display with COMMENT Data ===> N (Y/N)
- MSL DISPLAY Options: ===> A
  - A - Standard MSL
  - B - USER-ID of Last Update
  - C - Current LOCK Information

CONTROL (If required) ===> 

Press ENTER key to process; Enter END command to terminate.
```

2. Press Enter. The Member Selection List panel is displayed.

```
COMMAND ===> SCROLL==> CSR

Enter Panvalet Function:
| L -LOCK, U -UNLOCK, M -MSL Options |

MEMBER | RESULT | LOC LVL | USER | LANG | STAT | LMAINT | LACCESS | BLKS | STATMTS
------- | ------ | ------- |----- |------ |------ |-------- |-------- |----- |--------
MEMBER1  | 10     | 3220    | ASMB | TAE  | 10/11/02 | 12/15/02 | 111     | 8007 |
MEMBER2  | 1      | 0      | ASMB | TAE  | 11/20/02 |          | 10      | 404  |
MEMBER3  | 22     | 0      | ASMB | TAE  | 06/01/03 | 20      | 973     |      |
MEMBER4  | **LOCKED** | L | 6    | COBOL | TAE | 06/01/03 | 06/17/03 | 3      | 100  |
MEMBER5  | **LOCKED** | L | 17   | COBOL | TAE | 04/18/03 | 12/15/02 | 27     | 1368 |
MEMBER6  | 6      | 0      | COBOL | TAE  | 02/06/03 |          | 2       | 88   |
MEMBER7  | 1      | 0      | ASMB | TAE  | 01/05/03 | 01/09/03 | 65      | 4056 |
MEMBER8  | 8      | 0      | ASMB | TAE  | 01/11/03 |          | 14      | 678  |
MEMBER9  | 23     | 0      | ASMB | TAE  | 01/04/03 |          | 311     | 24132|
```

* Bottom of data *
Locking and Unlocking Members

To use the L or U line commands to lock or unlock members, perform these steps on the Member Selection List:

1. Lock MEMBER2 by entering L to the left of the member name.
2. Unlock MEMBER4 by entering U to the left of the member name.
3. Lock MEMBER7 by entering L to the left of the member name.

The panel should look as follows:

```
<table>
<thead>
<tr>
<th>MEMBER</th>
<th>RESULT</th>
<th>LOC LVL</th>
<th>USER</th>
<th>LANG</th>
<th>STAT</th>
<th>LMAINT</th>
<th>LACCESS</th>
<th>BLKS</th>
<th>STATMTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEMBER1</td>
<td></td>
<td>10</td>
<td>3220</td>
<td>ASMB</td>
<td>TAE</td>
<td>10/11/02</td>
<td>12/15/02</td>
<td>111</td>
<td>8007</td>
</tr>
<tr>
<td>MEMBER2</td>
<td></td>
<td>1</td>
<td>0</td>
<td>ASMB</td>
<td>TAE</td>
<td>11/20/02</td>
<td>10</td>
<td>404</td>
<td></td>
</tr>
<tr>
<td>MEMBER3</td>
<td></td>
<td>22</td>
<td>0</td>
<td>ASMB</td>
<td>TAE</td>
<td>06/01/03</td>
<td>973</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMBER4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMBER5</td>
<td></td>
<td>6</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>06/01/03</td>
<td>06/17/03</td>
<td>3</td>
<td>100</td>
</tr>
<tr>
<td>MEMBER6</td>
<td></td>
<td>6</td>
<td>0</td>
<td>COBOL</td>
<td>TAE</td>
<td>02/06/03</td>
<td>2</td>
<td>88</td>
<td></td>
</tr>
<tr>
<td>MEMBER7</td>
<td></td>
<td>1</td>
<td>0</td>
<td>ASMB</td>
<td>TAE</td>
<td>01/05/03</td>
<td>01/09/03</td>
<td>65</td>
<td>4056</td>
</tr>
<tr>
<td>MEMBER8</td>
<td></td>
<td>8</td>
<td>0</td>
<td>ASMB</td>
<td>TAE</td>
<td>01/11/03</td>
<td>14</td>
<td>678</td>
<td></td>
</tr>
<tr>
<td>MEMBER9</td>
<td></td>
<td>23</td>
<td>0</td>
<td>ASMB</td>
<td>TAE</td>
<td>01/04/03</td>
<td>311</td>
<td>24132</td>
<td></td>
</tr>
</tbody>
</table>
```

**Note:** An L in the LOC column indicates that the member is currently locked.
Utility Session 6 (User Query)

4. Press Enter to perform the functions.

```
--------- LOCK/UNLOCK MSL Option(A) - MEMBER SELECTION LIST -- MBR MEMBER7 LOCKED
COMMAND ===> SCROLL ===> CSR

Enter Panel Function:
<p>| L -LOCK , U -UNLOCK , M -MSL Options |</p>
<table>
<thead>
<tr>
<th>MEMBER</th>
<th>RESULT</th>
<th>LOC</th>
<th>LVL</th>
<th>USER LANG</th>
<th>STAT</th>
<th>LMAINT</th>
<th>LACCESS</th>
<th>BLKS</th>
<th>STATMTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEMBER1</td>
<td>10</td>
<td>3220</td>
<td>ASMB</td>
<td>TAE</td>
<td>10/11/02</td>
<td>11/15/02</td>
<td>111</td>
<td>8007</td>
<td></td>
</tr>
<tr>
<td>MEMBER2</td>
<td><em>LOCKED</em></td>
<td>1</td>
<td>0</td>
<td>ASMB TAE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEMBER3</td>
<td>22</td>
<td>0</td>
<td>ASMB</td>
<td>TAE</td>
<td>06/01/03</td>
<td>09/03</td>
<td>65</td>
<td>8007</td>
<td></td>
</tr>
<tr>
<td>MEMBER4</td>
<td><em>UNLOCKED</em></td>
<td>L</td>
<td>0</td>
<td>COBOL TAE</td>
<td>06/01/03</td>
<td></td>
<td>3</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>MEMBER5</td>
<td>L</td>
<td>17</td>
<td>0</td>
<td>COBOL TAE</td>
<td>04/18/03</td>
<td>12/15/02</td>
<td>27</td>
<td>1368</td>
<td></td>
</tr>
<tr>
<td>MEMBER6</td>
<td>L</td>
<td>6</td>
<td>0</td>
<td>COBOL TAE</td>
<td>02/06/03</td>
<td></td>
<td>2</td>
<td>88</td>
<td></td>
</tr>
<tr>
<td>MEMBER7</td>
<td><em>LOCKED</em></td>
<td>1</td>
<td>0</td>
<td>ASMB TAE</td>
<td>01/05/03</td>
<td>01/09/03</td>
<td>65</td>
<td>4056</td>
<td></td>
</tr>
<tr>
<td>MEMBER8</td>
<td>8</td>
<td>0</td>
<td>ASMB TAE</td>
<td></td>
<td></td>
<td></td>
<td>14</td>
<td>678</td>
<td></td>
</tr>
<tr>
<td>MEMBER9</td>
<td>23</td>
<td>0</td>
<td>ASMB TAE</td>
<td></td>
<td></td>
<td></td>
<td>311</td>
<td>24132</td>
<td></td>
</tr>
</tbody>
</table>
```

The returned screen indicates that all three functions were performed simultaneously. The type of change is indicated to the right of each member name.

**Note:** To save I/O, the LOC (Locked) field still shows the previous status. To view the updated MSL, PF3 (End) to return to the Lock/Unlock – MSL Criteria panel, and then press Enter.

Utility Session 6 (User Query)

This sample session illustrates the terminal session flow for a typical User Query utility function.

**Initiating the User Query Utility**

To initiate the User Query utility, perform these steps:

1. Use either of the following methods to initiate the user query:
   - Enter 6 on the Option line of the Utility Selection Menu.
   - Enter P.3.6 on the ISPF/PDF Primary Option Menu.
2. Press Enter. The Query Enqueued - Entry Panel is displayed.

```
----------------------
QUERY ENQUEUED - ENTRY PANEL ------ Computer Associates
FUNCTION ===>
Enter Library and Queue Name to query who is ENQUEUED on a specific Library.
Enter Any Queue Name for a list of ENQUEUED Users and or Jobs.

Library Name ===> 
Queue Name ===> SPFPAN  (Blank Defaults to SPFPAN, PANVALET, VALETSPAN)
```

3. Leave Function blank and enter **SPFPAN** in the Queue Name field.

4. Press Enter. The Queried Enqueues List is displayed.

```
----------------------
QUERIED ENQUEUES LIST -------------- Row 1 to 1 of 1
FUNCTION ===>

Library Name: 
Queue Name: SPFPAN

Select User and enter message for Owner of Enqueue: 

ID=USER001   DSN=LIBSYS.CAIOISPF.V1RS5BS.GL0403.PANLIB
WHEN= N
MSG= Please save member1

******************************* Bottom of data ******************************************
```

5. To send a message to USER001:
   a. Type **S** next to USER001.
   b. Type **Please save member1** in the MSG= field.
   c. Schedule the message for immediate delivery by using the default of **N** for the WHEN parameter.

The panel should look as follows:

```
----------------------
QUERIED ENQUEUES LIST -------------- Row 1 to 1 of 1
FUNCTION ===>

Library Name: 
Queue Name: SPFPAN

Select User and enter message for Owner of Enqueue: 

S  ID=USER001   DSN=LIBSYS.CAIOISPF.V1RS5BS.GL0403.PANLIB
MSG= Please save member1
WHEN= N

******************************* Bottom of data ******************************************
```
6. Press Enter to send the message to USER001. The following message is delivered to USER001's screen and the Query Enqueued - Entry Panel is displayed on your screen.

   Please save member1

7. Press PF3 (End) to end the session.

Utility Session 7 (COMPARE)

This sample session illustrates the terminal session flow for a typical Compare utility function.

Initiating the Compare Utility

To initiate the Compare utility, perform these steps:

1. Use either of the following methods to initiate the Compare utility:
   ■ Enter 7 on the Option line of the Utility Selection Menu.
   ■ Enter P.3.7 on the ISPF/PDF Primary Option Menu.

2. Press Enter. The PCOMPARE Member Entry Panel is displayed.

---

<table>
<thead>
<tr>
<th>Command</th>
<th>Command Entry Panel</th>
<th>Computer Associates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version</td>
<td>vvrggggg</td>
<td></td>
</tr>
</tbody>
</table>

New Data Set
- Dname: PAYROLL.QA.PANLIB
- Lvl: 
- Member: MEMBER1 (Blank for Sequential file)
- Access: 
- Fileorg: PAN (PANvalet, SEQuential or PDS)
- Control: 

Old Data Set
- Dname: PAYROLL.PROD.PANLIB
- Lvl: 
- Member: MEMBER1 (Blank for Sequential file)
- Access: 
- Fileorg: PAN (PANvalet, SEQuential or PDS)
- Control: 

CA-Panvalet/Compare Options:
- Expand: (Y/N)
- Column Beg: 
- Column End: 

CA-Panvalet/Compare Report Options:
- Report Type: DELTA (Delta, Detail, Update, No)

---
Performing the Compare

To compare members, perform these steps from the PCOMPARE Member Entry Panel:

1. Compare MEMBER1 in the PAYROLL.QA.PANLIB and PAYROLL.PROD.PANLIB data sets:
   a. In the New Data Set section of the panel, type PAYROLL.QA.PANLIB in the Dsname field, MEMBER1 in the Member field, and PAN in the Fileorg field.
   b. In the Old Data Set section of the panel, type PAYROLL.PROD.PANLIB in the Dsname field, MEMBER1 in the Member field, and PAN in the Fileorg field.

2. Press Enter. The Compare report is displayed.

3. Press PF3 (End) to return to the PCOMPARE Member Entry Panel.

4. Press PF3 (End) to end the session.

Utility Session 8 (Scan)

This sample session illustrates the terminal session flow for a typical Scan utility function.
Initiating the Scan Utility

To initiate the Scan utility, perform these steps:

1. Use either of the following methods to initiate the Scan utility:
   - Enter 8 on the Option line of the Utility Selection Menu.
   - Enter P.3.8 on the ISPF/PDF Primary Option Menu.
2. Press Enter. The Scan Entry Panel is displayed.

```
------------------------ SCAN ENTRY PANEL -----------------
Command ==>

Enter CA-Panvalet Library:
Dataset name ===> PAYROLL.QA.PANLIB
Control Code ==> (If required)

CA-Panvalet/Scan Options:
Search Criteria => * (Member name, *, OR by Language *COBOL)
Delimiter     => / (Beginning and Ending Delimiter)
Scan Value    => MOVE
Beg Statement => , (Beginning MBR Statement number OR ,)
End Statement => , (Ending MBR Statement number OR ,)
Beg Column    => , (Beginning Scan Column number OR ,)
End Column    => , (Ending Scan Column number OR ,)

Press ENTER key to process; Enter END command to terminate.
```

Performing the Scan

To scan PAYROLL.QA.PANLIB for the value MOVE, perform these steps on the Scan Entry Panel:

1. Type PAYROLL.QA.PANLIB in the Dataset name field.
2. Type MOVE in the Scan Value field.
3. Press Enter. The Scan report is displayed.

```plaintext
BROWSE SYS03268.T170003.RA000.USER001.R0317326 Line 00000000 Col 001 080
Command ===>                                                  Scroll ===> PAGE
******************************************************************************
COMPUTER ASSOCIATES INTERNATIONAL, INC.                     VERSION    09/25/03
PUBLIC.QA.PANLIB                                             1450403    17.00.04
++SCAN *,/MOVE/
MEMBER1                     LV001
  00010   MOVE EMPL-NUm TO OUTPUT-EMPL-NUm.
***** ABOVE ACTION Satisfactorily COMPLETED *****
MEMBER12                    LV001
  00010   MOVE ZERO TO PR-BALANCE-DUE.
***** ABOVE ACTION Satisfactorily COMPLETED *****
MEMBER2                     LV001
  00010   MOVE TX-WITH TO OUTPUT-TAX-WITH.
  00020   MOVE VAC-PAY TO OUTPUT-VAC-PAY.
  00030   MOVE NET-PAY TO OUTPUT-NET-PAY.
***** ABOVE ACTION Satisfactorily COMPLETED *****
MEMBER3                     LV001
  00010   MOVE TOTAL-LINE-1 TO PRTOUT-RECORD
***** ABOVE ACTION Satisfactorily COMPLETED *****
MEMBER4
```

4. Press PF3 (End) to return to the Scan Entry Panel.

   **Note:** The Scan Value is automatically removed.

5. Press PF3 (End) to end the session.

### Utility Session 9 (Create)

This sample session illustrates the terminal session flow for a typical Create utility function.

### Initiating the Create Utility

To initiate the Create utility, perform these steps:

1. Use either of the following methods to initiate the Create utility:
   - Enter 9 on the Option line of the Utility Selection Menu.
   - Enter P.3.9 on the ISPF/PDF Primary Option Menu.
2. Press Enter. The Library Create panel is displayed.
Creating a Library

To create an CA Panvalet library, you need to enter a data set name and certain specifications on the Library Create panel as follows:

1. Type PUBLIC.QA.PANLIB in the Data set name field.
2. Type 50 in the Data Sets field.
3. Type 5 in the Primary field.
4. Type SYSDA in the Unit field.
5. Type CYL in the Space field.

The panel should look as follows:

```
LIBRARY CREATE

Specify New Data set and applicable fields, then Press ENTER to process

- Data set name ===> PUBLIC.QA.PANLIB

Specifications:
- Records ===> Data Sets ===> 50
- Blksize ===> -Primary Space ===> 5
- Volume ===> -Dsorg ===> (PS or DA)
- Unit ===> SYSDA
- Space ===> CYL
- Secondary ===> (CYL, TRK or numeric Blksize)

Volumes ===>

Suppress functions ===> N

Execution Mode ===> 1. Foreground

2. Background

Job statement information:

---

Press Enter to display the Library Status and Activity Report.

```

6. Press Enter to display the Library Status and Activity Report.
7. Press PF3 (End) to return to the Panvalet Library Create panel.
8. Press PF3 (End) to end the session.
Appendix A: Command Summary

This appendix describes commands for the CA Panvalet ISPF Option.

This section contains the following topics:

- **Member Selection List Primary Commands** (see page 205)
- **Line Commands** (see page 205)
- **Browse Primary Commands** (see page 206)
- **Edit Primary Commands** (see page 207)
- **Supersets and Subsets** (see page 211)

### Member Selection List Primary Commands

This section describes the member selection list primary commands:

**LOCATE**

Causes direct scrolling to the member name given. Used for all MSLs.

**SELECT**

Causes the specified CA Panvalet member to be selected for CA Panvalet Browse, Edit, or Library-to-Library utility facilities only.

### Line Commands

You can enter the following one-character commands at the beginning of a line, ahead of the member name on a CA Panvalet ISPF Option MSL.

**Note:** These commands are intended for use with the CA Panvalet ISPF Option functions. See the IBM ISPF and ISPF/PDF Reference Manual for a complete list of line commands available for ISPF/PDF.

**C (Comment)**

Adds or modifies a CA Panvalet user comment. This command applies to the CA Panvalet Attribute Changes utility only.

**C (Copy)**

Creates a copy of an existing CA Panvalet member. Enter the name of the new member you want to create to the right of the existing member name. This command applies to the CA Panvalet Member Manipulation utility only.
L (Level)
Causes the level number of a CA Panvalet member to be changed. This command applies to the CA Panvalet Attribute Changes utility only.

L (Lock)
Causes the locking of a CA Panvalet member. This command applies to the CA Panvalet Member Lock/Unlock utility only.

P (Print)
Produces a listing of the specified CA Panvalet member on the ISPF List data set. This command applies to the CA Panvalet Member Manipulation utility only.

R (Rename)
 Renames a CA Panvalet member. This command applies to the CA Panvalet Member Manipulation utility only.

S (Select)
Selects the specified CA Panvalet member for the CA Panvalet Browse, Edit, Language Change utility, or Library-to-Library Copy utility facilities.

S (Status)
Changes one status attribute of a CA Panvalet member. This command applies to the CA Panvalet Attribute Changes utility only.

U (Unlock)
Removes a LOCK from a CA Panvalet member. This command applies to the CA Panvalet Member Lock/Unlock utility only.

U (User)
Changes the user code of a CA Panvalet member. This command applies to the CA Panvalet Attribute Changes utility only.

Browse Primary Commands

All of the ISPF/PDF Browse primary commands function normally under CA Panvalet Browse, with the following exception:

BROWSE
Recursive Browse of CA Panvalet members is not supported. During a Browse session, you can use the BROWSE command for a sequential data set or a partitioned data set. However, the member name parameter on the BROWSE command is not supported.
Edit Primary Commands

When using CA Panvalet Edit, you can enter ISPF/PDF Edit primary commands on the command line, which is line 2 of the logical screen. With a few exceptions, these commands operate the same as described in the ISPF/PDF Program Reference Manual for ISPF/PDF Edit.

Several edit primary commands are front-ended (dynamically during Edit initialization) with CA Panvalet ISPF Option program macros. This means CA Panvalet edit commands are invoked. These front-ended commands are identified in the following list with the PVxxxx macro name in parentheses. The commands, along with a short description of how the CA Panvalet ISPF Option front-end differs from the normal ISPF/PDF Edit command, are also shown. The rest of the commands operate the same under both CA Panvalet Edit and ISPF/PDF Edit, except where differences are noted.

**AUTONUM**

Toggles autonum mode and saves it in the edit profile. However, with CA Panvalet, the renumbering of sequence numbers after a SAVE is controlled by the CA Panvalet library member’s language type NOFORMAT and PAN/TSO attributes, not by the autonum profile mode. Autonum affects members with the NOFORMAT attribute under edit.

**BOUNDS**

Sets the left and right boundaries and saves them in the edit profile. These bounds do not control left and right scrolling of members under CA Panvalet Edit.

**COPY (PVCOPY)**

Copies a CA Panvalet member, a partitioned data set member, or a sequential data set into a member being edited. A member name can have up to ten characters, and you can copy members from the current CA Panvalet library under edit or from the concatenated libraries when you enter the member name next to the COPY command.

You can specify a CA Panvalet member name or the CA Panvalet ISPF Option keyword (normally /PAN) after the COPY command. Specifying just a CA Panvalet member name copies members only from the current CA Panvalet library being edited. If you specify the CA Panvalet ISPF Option COPY keyword, the PVEDIT - Copy Panel is displayed. If you do not specify anything after the COPY command, the normal ISPF/PDF Copy panel (for non-CA Panvalet data sets) displays.
CREATE (PVCREAT)

Causes a line or block of lines to be stored as a new CA Panvalet member or as a new partitioned data set member. A member name can have up to ten characters, and only members on the current CA Panvalet library being edited are created when you enter the member name next to the CREATE command.

You can specify a CA Panvalet member name or the CA Panvalet ISPF Option CREATE keyword (normally /PAN) after the CREATE command. Specifying just a CA Panvalet member name creates members only for the current CA Panvalet library being edited. If you specify the CA Panvalet ISPF Option CREATE keyword, the PVEDIT (CREATE) - Entry Panel is displayed. If you do not specify anything after the CREATE command, the normal ISPF/PDF Create panel (for non-CA Panvalet data sets) displays.

EDIT (PVEDIT)

Recursive editing is not supported while in CA Panvalet Edit.

END (PVEND)

Updates the CA Panvalet member on the library if any changes were made, depending on the edit profile setting of AUTOSAVE. Returns to the CA Panvalet Edit entry panel.

LEVEL

CA Panvalet Edit treats this as an invalid command, as it applies exclusively to partitioned data sets (PDSs).

MOVE (PVMOVE)

CA Panvalet Edit does not support this command. You are prevented from performing a MOVE operation against a CA Panvalet member (PVCOPY is used instead; the member is not deleted). If you do not specify anything after the MOVE command, the normal ISPF/PDF Move panel (for non-CA Panvalet data sets) is displayed.

NUMBER

Causes sequence numbers to be generated for any new lines created by insert, repeat, or copy. Affects data being edited only, because sequencing is controlled by the CA Panvalet library member's language type, NOFORMAT, and PAN/TSO attributes. Numbering affects members with the NOFORMAT attribute being edited.

PACK

The PACK command sets pack mode on or off and saves it in the edit profile. This is a partitioned data set-oriented command. CA Panvalet Edit ignores pack mode profile settings, because the CA Panvalet library supplies the necessary data compression itself.

Important! Do not use the PACK command in CA Panvalet Edit because unpredictable and erroneous ISPF/PDF side effects can occur.
RECOVERY

Enables the PDF edit recovery function. If there is a subsequent system failure, you can recover the CA Panvalet Edit session up to the point of failure, using the PVEDIT - Recovery Panel. (For more information, see PVEDIT – Retrieval/Save Options Panel in the chapter "Edit.") RECOVERY OFF disables the edit recovery function.

RENUM

Renumbers each line of data being edited and turns number mode on. Affects data being edited only, because sequencing is controlled by the CA Panvalet library member's language type, NOFORMAT, and PAN/TSO attributes. Renumbering affects members with the NOFORMAT attribute being edited.

REPLACE(PVREPLA)

Replaces a CA Panvalet member, a partitioned data set member, or a sequential data set with member data being edited. A member name can have up to ten characters, and members are replaced only on the current CA Panvalet library being edited when you enter the member name next to the REPLACE command.

You can specify a CA Panvalet member name or the CA Panvalet ISPF Option REPLACE keyword (normally /PAN) after the REPLACE command. The REPLACE command operates on members with the TEST, ENABLE status only. Specifying just a CA Panvalet member name replaces members only for the current CA Panvalet library being edited. If you specify the CA Panvalet ISPF Option REPLACE keyword, the PVEDIT(REPLACE) - Entry Panel is displayed. If you do not specify anything after the REPLACE command, the normal ISPF/PDF Replace panel (for non-CA Panvalet data sets) is displayed.

RMACRO (PVRMACRO)

Stores the specified recovery macro name in the Edit profile.

SAVE (PVSAVE)

Updates the CA Panvalet member on the library.

Causes the data to be stored back into the edit file except when a production or disabled member is involved, which generates an error message. Editing can continue after execution of this command.

While in CA Panvalet Edit, you can invoke the CA Panvalet Edit functions (those that front-end the normal ISPF/PDF Edit commands) from user-written edit macros. You can do this by coding the edit function according to normal ISPF/PDF Edit macro syntax. The CA Panvalet front-end automatically gets control and performs the request. For example, if a user-written edit macro wants to perform a CA Panvalet Copy function, code one of the following:

- ISREDIT COPY panmbr AFTER linenbr
- ISREDIT !PVCOPY panmbr AFTER linenbr
If you invoke CA Panvalet Edit functions from a user-written macro, note the following:

- When the CA Panvalet function completes, shared variables PVRC and PMSG contain the return code (eight bytes in character format). The user macro must first get these variables from the shared pool, using VGET, and then check them to determine the success of the function. PVRC contains 0 (successful), 4 (non-critical error occurred, such as INCLUDE expand errors), 8 (critical error occurred, function not performed), or 12 (CA Panvalet internal diagnostic error). PMSG contains a CA Panvalet ISPF Option message ID, or blanks if no message is available.

- When you invoke the CA Panvalet function from a user macro, CA Panvalet EDIT MOVE/COPY/CREATE/REPLACE commands do not pass control to the normal ISPF/PDF Edit routines if you omit the member name, as they do if invoked from the EDIT primary command line. A member name is required.

- You can use the IBM BUILTIN feature to perform a normal ISPF/PDF Edit MOVE/COPY/CREATE/REPLACE functions. For more information, see the IBM PDF Edit and Edit Macros Guide.

**Note:** You must not use BUILTIN to override any of the command front-ends set up by the CA Panvalet ISPF Option, except MOVE/COPY/CREATE/REPLACE.

*The CA Panvalet EDIT command front-ends, whether you invoke them from the EDIT primary command line or from a user macro, follow the same syntax as the normal ISPF/PDF Edit equivalent.*

User-written edit macros can check ISPF/PDF variable PACT to determine if the edit in progress is CA Panvalet or not. PACT is set to Y during a CA Panvalet Edit.

**STATS**

*Works the same as ISPF/PDF Edit for sequential data sets. No partitioned data set statistics are kept for CA Panvalet members.*

**UNNUM**

*Causes sequence numbers to be set to blanks and turns number mode off. Affects data being edited only, as sequencing is controlled by the CA Panvalet library member's language type, NOFORMAT, and PAN/TSO attributes. Number off affects members with the NOFORMAT attribute under edit.*

**VERSION**

*CA Panvalet Edit treats this as an invalid command, as it applies exclusively to partitioned data sets (PDSs).*
Supersets and Subsets

The CA Panvalet ISPF Option supports CA Panvalet supersets and subsets according to the following specifications:

**BROWSE**

You can browse standard CA Panvalet members or supersets. You cannot browse an individual subset, except as part of a superset.

**EDIT**

You can enter an edit session for an existing CA Panvalet superset, but you cannot create or save a superset.

**UTILITY**

You can perform all utility functions on supersets, except level change, language change, and Lib-to-Lib Copy.

**MEMBER SELECTION LISTS (MSLs)**

A blank in the LVL column of an MSL indicates that the member is a CA Panvalet superset.

**SUBSETS**

The CA Panvalet ISPF Option cannot individually process a CA Panvalet subset. The subset can be processed only as part of the superset that contains it.
Appendix B: Messages

This appendix describes error and log messages from CA Panvalet ISPF Option.

This section contains the following topics:
- Error Messages (see page 213)
- Log Messages (see page 214)

Error Messages

To display long descriptions of the CA Panvalet ISPF Option error messages at your terminal, press PF1 (Help) when errors occur.

For information about user and system abends, see the appendices of the System Management Guide. For information about some of the abend codes, see also the CA Panvalet ISPF Option tutorial panels.

For information about other CA Panvalet error messages, see the Messages Guide.
Log Messages

Significant changes made by CA Panvalet Edit and CA Panvalet Utilities Changes, Manipulate, Language Change, and Library-to-Library Copy are logged in the standard IBM ISPF LOG data set. The following shows a sample ISPF Transaction Log:

```
TIME     *** ISPF TRANSACTION LOG *** USERID: USER210 DATE: 03/09/30 PAGE: 1

09:06 START OF ISPF LOG - SESSION # 300

09:08 PV EDIT - SAVE -PDPV.TEST.PANLIB(PRODPAY57) - MEMBER ADDED

09:09 PV EDIT - CREATE -PDPV.TEST.PANLIB(TESTPAY57) - MEMBER CREATED

09:11 PV EDIT - SAVE -PDPV.TEST.PANLIB(TESTPAY57) - SAVED LVL **9

09:13 PV UTIL - CHANGE -PDPV.TEST.PANLIB(TESTPAY57) - LEVEL CHANGED

09:13 PV UTIL - CHANGE -PDPV.TEST.PANLIB(TESTPAY57) - USER CHANGED

09:13 PV UTIL - CHANGE -PDPV.TEST.PANLIB(TESTPAY57) - STATUS CHANGED

09:13 PV UTIL - CHANGE -PDPV.TEST.PANLIB(TESTPAY57) - COMMENT CHANGED

09:14 PV UTIL - LANG CHANGE-PDPV.TEST.PANLIB(TESTPAY57) - LANG TYPE COB72 NF=N

09:15 PV UTIL - MANIP -PDPV.TEST.PANLIB(PRODPAY57) - COPIED

09:15      TO: PDPV.TEST.PANLIB(MOLDPAY57)

09:16 PV UTIL - MANIP -PDPV.TEST.PANLIB(MOLDPAY57) - RENAMED

09:16      TO: PDPV.TEST.PANLIB(DELETEPAY57)

09:17 PV UTIL - LIB-TO-LIB -PDPV.TEST.PANLIB(PRODPAY57) - REPLACED

09:17      TO: SYST.TEST.PANLIB(PRODPAY57)

09:18 PV UTIL - LIB-TO-LIB -PDPV.TEST.PANLIB(TESTPAY57) - RESTORED

09:18      TO: SYST.TEST.PANLIB(DELETEPAY57)

09:20 PV EDIT - REPLACE -PDPV.TEST.PANLIB(SOMEPAY57) - REPLACED LVL **6

09:21 END OF ISPF LOG - SESSION # 300
```
Appendix C: Exit Facilities

This appendix describes the general operation of the Exit Facility, version-to-version changes, and the available exits you can use with CA Panvalet Option for ISPF.

This section contains the following topics:

- **Exit Facility** (see page 215)
- **Version-to-Version Changes** (see page 217)
- **Initial Exit** (see page 221)
- **Final Exit** (see page 222)
- **Member Selection List Exit** (see page 223)
- **Keyword Value Exit** (see page 225)
- **Menu Fetch Exit** (see page 226)
- **Menu Validation Exit** (see page 231)
- **Data Retrieval Exit** (see page 236)
- **Data Save Exit** (see page 243)
- **Log Exit** (see page 249)
- **Authorization Exit** (see page 255)

## Exit Facility

The Exit Facility lets you write customized features into any of the CA Panvalet ISPF Option programs. In addition, you can also include several standard features that let you perform the following functions:

- Control the flow of data into or out of the ISPPROF data set (for example, retrieving or saving an ISPPROF data set and inspecting or changing the data from this set).
- Control user access to any or all CA Panvalet ISPF Option facilities.
- Control the display of a directory entry in a member selection list.
- Control user access to any or all of the library members.
- Modify menu parameters before the menu is displayed to give defaults or establish standards.
- Verify menu parameters after data entry to enforce standards.
- Inspect, modify, add, or delete data records retrieved from or written into the CA Panvalet library.
- Maintain an audit trail of changes to the CA Panvalet library corresponding to the Extended Backup/Audit Trail facility in batch CA Panvalet.

**Note:** Source for a sample exit can be found in the CA Panvalet batch installation PANLIB. See member $$SEEME in that library.
Exit Facility

Exit Load Module

You can use only the PSPILXIT load module for all user exits. The source for PSPILXIT can be found in the CA Panvalet batch installation PANLIB. See member $SEEME in that library.

The first byte of the first parameter passed to the load module identifies which user exit is being accessed. The load module is called from several points in the CA Panvalet ISPF Option.

For other version-dependent changes, see Version-to-Version Changes in this appendix.

Register Conventions

You must use the following register conventions when coding the exit module (PSPILXIT). It is the standard convention for higher-level languages (for example, COBOL).

- Register 1 contains the address of a variable length parameter list. The end of the list is indicated by the high-order bit of the last address. This bit is ON (X'80') for the last address in the list.
- Register 13 contains the address of a standard 18 fullword save area to be used by the exit module for saving CA Panvalet ISPF Option registers.
- Register 14 contains the return address into the CA Panvalet ISPF Option module that called the exit load module.
- Register 15 contains the address of the entry point of the exit load module.

Parameters

The first two parameters of the parameter list are always the same, regardless of the type of user exit being called. The rest of the parameter list varies depending on the user exit itself. See the user exit descriptions for details on the parameter list formats.

- Parameter One—The first address passed in the parameter list is always the address of the Exit Codes Area for a particular type of exit call.
- Parameter Two—The second address passed in the parameter list is always the address of the ISPF Logical Display Table (TLD) for the currently active screen.
IBM Control Blocks

The exit facility passes copies of several IBM internal control blocks to the user. However, IBM no longer supplies its customers with the documentation for these control blocks. For compatibility with previous releases, the CA Panvalet ISPF Option continues to pass these parameters to the user exit. However, Computer Associates cannot provide information about their formats.

The ISPF Logical Display Table (TLD) field, which is named TLDUSER2, is used to communicate between modules while the Option for ISPF is active.

Important! Do not modify TLDUSER2 under any exit processing at any time.

Linking Instructions

Following are sample link-edit control statements that link the sample exit program. The INCLUDE of ISPLINK would be needed if the exit used ISPF services.

```
//SYSLMOD DD ....... (output load library)
//ISPLINK DD ....... (load library containing ISPLINK)
//SYSLIN DD ....... (linkage editor input)
(... object from assembled sample exit ...)
INCLUDE ISPLINK
ENTRY name
NAME PSPILXIT(R)
/*
```

The ENTRY statement specifies the entry point of the exit you have assembled.

Version-to-Version Changes

This topic describes changes to the operation of the Exit Facility that have taken place as the result of version enhancements. Review these changes for the version of the CA Panvalet ISPF Option you are using.

Note: Be sure to review any ISPF Menu Fetch/Validation exits written under releases prior to 14.5 to determine the impact of any updated panels.
Library Environment Data Block

The CA Panvalet Library Environment Data Block identifies a particular CA Panvalet library and its relationship to other CA Panvalet libraries within a concatenation. The term "current CA Panvalet library" is used to designate a particular CA Panvalet library within a concatenation that is the subject of the exit event. Other parameter data items that a particular exit can return are associated with the current CA Panvalet library that is identified within the Library Environment Data Block.

Some exits already return information concerning the data set name and volume serial number of the associated CA Panvalet library. However, the Library Environment Data Block further describes the:

- Total number of CA Panvalet libraries concatenated.
- Search order used for the retrieval of CA Panvalet members.
- Relative position of the current CA Panvalet library within the concatenation search order.
- First library within the concatenation of CA Panvalet libraries (which is the only CA Panvalet Library that you can use for the CA Panvalet ISPF Option SAVE command).

Environment Data Block Structure

The Library Environment Data Block (PANLEDB) has a structure as shown in the following table. Each CA Panvalet library within the concatenation sequence is identified by a Library Data Entry (LDE) that contains the ddname, data set name, and volume serial number.

Note: When using the non-standard data set name field, the Library Environment Data Block is structured the same as if a single, standard library was specified.

<table>
<thead>
<tr>
<th>PV Library DDNAME (CL8)</th>
<th>PV Library DSNAME (CL44)</th>
<th>PV Library VOLSER (CL6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>See following note.</td>
<td>MY.PANLIB1</td>
<td>111111</td>
</tr>
<tr>
<td>See following note.</td>
<td>MY.PANLIB2</td>
<td>222222</td>
</tr>
<tr>
<td>See following note.</td>
<td>MY.PANLIB3</td>
<td>333333</td>
</tr>
<tr>
<td>See following note.</td>
<td>MY.PANLIB4</td>
<td>444444</td>
</tr>
</tbody>
</table>

Note: CA Panvalet Option for ISPF ddnames are assigned by the system. The CA Panvalet ddnames used by the Option for ISPF do not follow the ddname naming convention found in the multiple support feature of batch CA Panvalet version 14.5.
The following table provides DSECT and library environment information for PANLEDB:

<table>
<thead>
<tr>
<th>PANLEDB</th>
<th>DSECT</th>
<th>AllFusion CA-Panvalet Library Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DS F</td>
<td>Total LDE Count</td>
</tr>
<tr>
<td>CURLDE#</td>
<td>DS CL58</td>
<td>Current LDE Entry</td>
</tr>
<tr>
<td>CURLDE</td>
<td></td>
<td>Current LDE Entry</td>
</tr>
<tr>
<td>LDESTART</td>
<td>EQU *</td>
<td>Start of LDE</td>
</tr>
<tr>
<td></td>
<td>DS nCL58</td>
<td>LDE table entries (n=count=TOTLDE#)</td>
</tr>
</tbody>
</table>

**Total Entry Number (TOTLDE#)**

The total entry number (TOTLDE#) identifies the total number of library data entries within the structure.

**Current Entry Number (CURLDE#)**

The current entry number (CURLDE#) identifies the number (concatenation sequence order) of the library data entry for the CA Panvalet library, which is currently the subject of the exit event. The CURLDE# value is no less than one and no greater than TOTLDE#.

**Current Library Data Entry (CURLDE)**

The current library data entry (CURLDE) identifies the CA Panvalet library that is currently the subject of the exit event. The LDE contains the ddname, data set name, and volume serial number of the associated CA Panvalet library.

The ddname values of CA Panvalet libraries in the CA Panvalet ISPF Option environment are system-assigned and, therefore, not the same as those used by the batch environment. The CURLDE entry is also repeated in the library data entry table in the entry number designated by the CURLDE# value.

**Library Data Entry Table (LDESTART)**

LDESTART is the ordered list of library data entries that identify each CA Panvalet library within the concatenation. Each LDE contains the ddname, data set name, and volume serial number of the associated CA Panvalet Library. The order of the LDE entry is the same as the concatenation order.
Example 1: ISPF Option Concatenation

The following panel shows an example of specifying the concatenation of standard CA Panvalet libraries on the Pvedit - Entry Panel:

```
..-...-..-..-.-.-. COMMAND === PVEDIT - ENTRY PANEL ........ Computer Associates
   Standard CA-Panvalet Library:
   PROMPT === PROJECT
   TYPE === PANLIB
   MEMBER === STATPGM1 (Blank for Criteria Selection PANEL for MSLs)
   Non-Standard CA-Panvalet Library - RETAIN === Y (Y/N, Save in Profile)
   VOLSER === (If NOT Cataloged)

   CA-Panvalet Retrieval/Save Options:
   CONTROL === (If necessary) EXPAND === N (Y/N)
   ACCESS === (If necessary) EDIT LOCK === N (Y/N)
   SAVE === 1 (1 = First Library UP LEVEL # === Y (Y/N)
   0 = Origin Library)

   CA-Panvalet EDIT Profile ===> Initial Macro ===> Press ENTER key to process; Enter END command to terminate.
```

The following sample library environment data block diagram shows that the current library is the second library within a concatenation of three CA Panvalet libraries. This library contains the requested member STATPGM1 (see previous panel) that was retrieved from DSN=PROJECT.SCIENCE.PANLIB for PVEDIT.

**Note:** If you save the member, it is updated (or added) to the library based on the value entered into the SAVE field, on panel PSPIPE01.
Example 2: ISPF Option - No Concatenation

The following panel shows an example for specifying a non-standard CA Panvalet library on the Pvbrowse - Entry Panel:

```
-------------------------  PVBROWSE - ENTRY PANEL  -------  Computer Associates
COMMAND ===> VERSION - vnrjggg

Standard CA-Panvalet Library:
PROJECT ===> PAYROLL
GROUP ===> WORK
TYPE ===> PANLIB

MEMBER ===> MEMBER1 (Blank for Criteria Selection PANEL for MSLs)
           (Member name with Wildcard * ? notation for MSL)

Non-Standard CA-Panvalet Library - RETAIN ===> Y (Y/N, Save in Profile)
DSNAME ===> TEST.PANLIB
VOLSER ===> (If NOT Cataloged)

CA-Panvalet Retrieval Options:
CONTROL ===> (If necessary)
ACCESS ===> (If necessary)
EXPAND ===> (Y/N)

Press ENTER key to process; Enter END command to terminate.
```

The following sample library environment data block diagram shows that the current library is the only library. Note that the current library data entry (DSN=TEST.PANLIB) appears both in the CURLDE and the first entry within the LDE table area (LDESTART). Whenever the TOTLDE# and CURLDE# have a value of one (1), no CA Panvalet libraries are concatenated.

```
<table>
<thead>
<tr>
<th>TOTLDE#</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CURLDE#</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CURLDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYSxxxxx</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LDESTART</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYSxxxxx</td>
</tr>
</tbody>
</table>
```

Initial Exit

You can use the Initial Exit to restrict access to one or more of the CA Panvalet ISPF Option facilities. The Initial Exit receives control just after entry to any of the CA Panvalet ISPF Option facilities, but prior to any processing.
Parameter List

When control is passed to the exit, Register 1 points to the following parameter list:

![Parameter List Diagram]

Exit Codes Area

The first address in the parameter list points to the Exit Codes Area, where the first byte is set to I to indicate that the Initial Exit is being called.

The second byte is set to B (Browse), E (Edit), C (Changes utility), M (Manipulation utility), L (Language Change utility), T (Lib-to-Lib Copy utility), O (Member LOCK/UNLOCK utility), or Q (Query Enqueued utility), indicating from where the exit is.

The third, fourth, and fifth bytes are always blank.

ISPF TLD

The second address in the parameter list points to the ISPF Logical Display Table (TLD) for the currently active screen.

Return Code

The Initial Exit routine can pass the following return code back in the last byte of the Exit Codes Area:

- The character N indicates that the Option for ISPF is not used. Control is passed to its caller immediately. Control does not pass through the Final Exit if code N is returned from the Initial Exit.
- Any other character in the last byte of the Exit Codes Area allows the CA Panvalet ISPF Option to be used.

Final Exit

The Final Exit lets you undo any special processing performed in the Initial Exit. For example, in the Final Exit, you can FREEMAIN storage acquired through the GETMAIN macro in the Initial Exit. The Final Exit receives control after you end a CA Panvalet ISPF Option session using the END or the RETURN command.
**Parameter List**

When the exit receives control, Register 1 points to the following parameter list:

<table>
<thead>
<tr>
<th>R1 →</th>
<th>EXIT CODES AREA</th>
<th>TLD</th>
</tr>
</thead>
<tbody>
<tr>
<td>+0</td>
<td>F</td>
<td>b</td>
</tr>
<tr>
<td>+4</td>
<td>b</td>
<td>b</td>
</tr>
</tbody>
</table>

**Exit Codes Area**

The first address in the parameter list points to the Exit Codes Area, where the first byte is set to F to indicate that the Final Exit is being called.

The second byte is set to B (Browse), E (Edit), C (Changes utility), M (Manipulation utility), L (Language Change utility), T (Lib-to-Lib Copy utility), O (Member LOCK/UNLOCK utility), or Q (Query Enqueued utility), indicating from where the exit is.

The third, fourth, and fifth bytes are always blank.

**ISPF TLD**

The second address in the parameter list points to the ISPF Logical Display Table (TLD) for the currently active screen.

**Return Code**

No return code is necessary from the Final Exit.

**Member Selection List Exit**

The Member Selection List (MSL) Exit lets you control which entries appear in the MSL. The MSL Exit receives control every time you add a CA Panvalet member to a MSL for display to the terminal user.
**Parameter List**

When the exit receives control, Register 1 points to the following parameter list:

```
+0   EXIT CODES AREA
+4   TLD
+8   DIRECTORY ENTRY
+C   LIB ENVIRONMENT
```

**Exit Codes Area**

The first address in the parameter list points to the Exit Codes Area, where the first byte is set to D to indicate that the MSL Exit is being called.

The second byte is set to B (Browse), E (Edit), C (Changes utility), M (Manipulation utility), L (Language Change utility), T (Lib-to-Lib Copy utility), or O (Member LOCK/UNLOCK utility), indicating from where the exit is.

The third, fourth, and fifth bytes of the Exit Codes Area are always blank.

**ISPF TLD**

The second address in the parameter list points to the ISPF Logical Display Table (TLD) for the currently active screen.

**Directory Entry**

The third address in the parameter list points to the directory entry for the CA Panvalet member being processed. This directory entry is in the 0-UP format, as described in the *System Management Guide*.

**Lib Environment**

The fourth address in the parameter list points to a data block. This data block identifies the CA Panvalet library where the passed directory entry was retrieved. A table entry that contains the ddbname, data set name, and volume serial number identifies the CA Panvalet library.

For more information about the format, see Library Environment Data Block earlier in this appendix.
Return Code

The MSL Exit routine can pass a return code back to the Option for ISPF in the last byte of the Exit Codes Area:

- The character N indicates that the Option for ISPF should not display the member in the MSL.
- The character E indicates that the MSL exit routine has ended its analysis, and the Option for ISPF does not need to call the MSL exit again until the beginning of the next Member Selection.
- Any other character in the last byte of the Exit Codes Area allows the member to appear in the MSL.

**Note:** If your site does not use the MSL exit, use of the E return code can reduce the number of CPU cycles necessary to call the exit routine.

Keyword Value Exit

The Keyword Value Exit lets you execute functions such as encrypting the control and access codes before they are saved, and decrypting the codes after retrieval. The CA Panvalet ISPF Option gives control to the Keyword Value Exit just before or after it retrieves data from the ISPPROF data set and before it saves data intended for the ISPPROF data set.

Parameter List

When control is passed to the exit, Register 1 points to the following parameter list:
Exit Codes Area

The first address in the parameter list points to the Exit Codes Area, where the first byte is set to K to indicate that the Keyword Value Exit is being called.

The third byte of the Exit Codes Area is set to B, A, or P to indicate that the CA Panvalet ISPF Option is calling the exit:

- B (Before retrieving data from the ISPPROF data set)
- A (After retrieving data from the ISPPROF data set)
- P (Before putting data into the ISPPROF data set)

The second, fourth, and fifth bytes of the Exit Codes Area are always blank.

ISPF TLD

The second address in the parameter list points to the ISPF Logical Display Table (TLD) for the currently active screen.

Name List

The third address in the parameter list points to an ISPF name list structure containing the names of the ISPF profile variables. (For the layout of an ISPF name list structure, see the IBM ISPF Dialog Management Services Manual.)

The Keyword Value Exit can modify the ISPF variable names in this list.

Return Code

No return code is necessary from the Keyword Value Exit.

Menu Fetch Exit

This exit receives control before a menu is displayed. The exit can change the name of the menu and modify the value of variables associated with the menu to supply defaults and establish standards.
Parameter List

When the exit receives control, Register 1 points to the following parameter list:

```
R1 ->
  +0 EXIT CODES AREA
  +4 TLD
  +8 MENU ID
```

### Exit Codes Area

The first address in the parameter list points to the Exit Codes Area, where the first byte is set to M to indicate that a Menu Fetch Exit is being called.

The second byte is set to B (Browse), E (Edit), C (Changes utility), M (Manipulation utility), L (Language Change utility), T (Lib-to-Lib Copy utility), O (Member LOCK/UNLOCK utility), or Q (Query Enqueued utility), indicating from where the exit is.

The third and fifth bytes, in combination with the second byte, identify the panel function of the returned menu ID. The third byte classifies the panel by a broad functional category or an Edit subcommand. Valid values are:

- **P**
  - The Primary or Entry Panel associated with the function designated in the second byte.

- **M**
  - The MSL display panel associated with the function designated in the second byte.
S
The MSL Criteria panel associated with the function designated in the second byte.

A
The Add Panel associated with the Edit function (E) in the second byte.

C
The Copy subcommand associated with the Edit function (E) in the second byte.

R
The Replace subcommand associated with the Edit function (E) in the second byte.

N
The Create subcommand associated with the Edit function (E) in the second byte.

Note: The third byte must be interpreted with the second byte. For example, the third-byte value of C (Copy) always has a corresponding second-byte value of E (Edit).

The fifth byte describes the panel by a more specific functional category or type. Valid values are:

C
A Confirmation panel type associated with the function identified by the second and third bytes.

N
A New Member Options panel type associated with the function identified by the second and third bytes.

R
A Retrieval Options panel type associated with the function identified by the second and third bytes.

T
A To panel type associated with the function identified in the second and third bytes.

F
A From panel type associated with the function identified by the second and third bytes.
M

The MSL display panel associated with the Edit subcommand designated in the third byte.

S

The MSL Criteria panel associated with the Edit subcommand designated in the third byte.

Note: The fifth byte must be interpreted with the third byte. For example, the fifth-byte value of T (To panel) always has a corresponding third-byte value of P (Primary) and second-byte of L (Lib-to-Lib Copy utility). When the fifth byte is not necessary to describe a panel, the byte is always reset to blank.

ISPF TLD

The second address in the parameter list points to the ISPF Logical Display Table (TLD) for the currently active screen.

Menu ID

The third address in the parameter list points to an eight-byte field, which contains the name of the CA Panvalet ISPF Option menu you want to retrieve. The name in the eight-byte field is left-justified and padded with trailing blanks, as necessary, to make the name eight bytes long. The exit can modify this menu name. However, if the menu name is changed, the CA Panvalet ISPF Option still uses the variable names associated with the Computer Associates-supplied menu. The exit can modify menu variables associated with the menu about to be displayed. (See Manipulating ISPF Dialog Variables under Menu Validation Exit in this appendix.)

Examples of Exit Codes

The following table lists the Exit Codes for the CA Panvalet ISPF Option Menu IDs (panels):

<table>
<thead>
<tr>
<th>Exit Codes</th>
<th>Menu ID</th>
<th>Panel Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5</td>
<td>M B P F</td>
<td>Pvbrowse Entry Panel</td>
</tr>
<tr>
<td></td>
<td>M B M F</td>
<td>Pvbrowse MSL</td>
</tr>
<tr>
<td></td>
<td>M B S F</td>
<td>Pvbrowse MSL Criteria</td>
</tr>
<tr>
<td></td>
<td>M B P F R</td>
<td>Pvbrowse Retrieval Options</td>
</tr>
<tr>
<td></td>
<td>M E P F</td>
<td>Pvedit Entry Panel</td>
</tr>
<tr>
<td></td>
<td>M E M F</td>
<td>Pvedit MSL</td>
</tr>
<tr>
<td></td>
<td>M E C F</td>
<td>Pvedit Copy Entry Panel</td>
</tr>
<tr>
<td>Exit Codes</td>
<td>Menu ID</td>
<td>Panel Description</td>
</tr>
<tr>
<td>-----------</td>
<td>--------</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td>2</td>
<td>M E A F</td>
<td>PSpipe06 Pvedit Add PANEL</td>
</tr>
<tr>
<td>3</td>
<td>M E S F</td>
<td>PSpipe09 Pvedit MSL Criteria</td>
</tr>
<tr>
<td>4</td>
<td>M E P F R</td>
<td>PSpipe10 Pvedit Retrieval Options</td>
</tr>
<tr>
<td>5</td>
<td>M E C F S</td>
<td>PSpipe11 Pvedit Copy MSL Criteria</td>
</tr>
<tr>
<td></td>
<td>M E C F M</td>
<td>PSpipe12 Pvedit Copy MSL</td>
</tr>
<tr>
<td></td>
<td>M E C F R</td>
<td>PSpipe13 Pvedit Retrieval Options</td>
</tr>
<tr>
<td></td>
<td>M E N F</td>
<td>PSpipe14 Pvedit Create Entry Panel</td>
</tr>
<tr>
<td></td>
<td>M E R F</td>
<td>PSpipe15 Pvedit Replace Entry Panel</td>
</tr>
<tr>
<td></td>
<td>M E R F C</td>
<td>PSpipe16 Pvedit Replace Confirmation Panel</td>
</tr>
<tr>
<td></td>
<td>M B M F</td>
<td>PSpipe501 Pvbrowse Last Update Current Lock Information MSL</td>
</tr>
<tr>
<td></td>
<td>M E M F</td>
<td>PSpipe502 Pvedit Last Update Current Lock Information MSL</td>
</tr>
<tr>
<td></td>
<td>M C P F</td>
<td>PSpipe02 Changes Utility Entry Panel</td>
</tr>
<tr>
<td></td>
<td>M C M F</td>
<td>PSpipe03 Changes MSL</td>
</tr>
<tr>
<td></td>
<td>M M F F</td>
<td>PSpipe04 Manipulation Utility Entry Panel</td>
</tr>
<tr>
<td></td>
<td>M M M F</td>
<td>PSpipe05 Manipulation MSL</td>
</tr>
<tr>
<td></td>
<td>M C S F</td>
<td>PSpipe06 Changes Utility MSL Criteria</td>
</tr>
<tr>
<td></td>
<td>M M S F</td>
<td>PSpipe07 Manipulation Utility MSL Criteria</td>
</tr>
<tr>
<td></td>
<td>M L P F</td>
<td>PSpipe08 Language Change Entry Panel</td>
</tr>
<tr>
<td></td>
<td>M L S F</td>
<td>PSpipe09 Language Change MSL Criteria</td>
</tr>
<tr>
<td></td>
<td>M L M F</td>
<td>PSpipe10 Language MSL</td>
</tr>
<tr>
<td></td>
<td>M T F F</td>
<td>PSpipe11 Lib-To-Lib Copy From</td>
</tr>
<tr>
<td></td>
<td>M T S F</td>
<td>PSpipe12 Lib-To-Lib Copy MSL Selection Criteria</td>
</tr>
<tr>
<td></td>
<td>M T M F</td>
<td>PSpipe13 Lib-To-Lib Copy MSL</td>
</tr>
<tr>
<td></td>
<td>M L P F C</td>
<td>PSpipe14 Language Change Confirmation Panel</td>
</tr>
<tr>
<td></td>
<td>M T P F T</td>
<td>PSpipe15 Lib-To-Lib Copy To</td>
</tr>
<tr>
<td></td>
<td>M T P F C</td>
<td>PSpipe16 Lib-To-Lib Copy Replace Confirmation</td>
</tr>
<tr>
<td></td>
<td>M T P F O</td>
<td>PSpipe17 Lib-To-Lib Copy Options</td>
</tr>
<tr>
<td></td>
<td>M O F F</td>
<td>PSpipe18 Lock/Unlock Utility Entry Panel</td>
</tr>
<tr>
<td></td>
<td>M O S F</td>
<td>PSpipe19 Lock/Unlock Utility MSL Selection Criteria</td>
</tr>
</tbody>
</table>
### Exit Codes

<table>
<thead>
<tr>
<th>Exit Codes</th>
<th>Menu ID</th>
<th>Panel Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>M O M F</td>
<td>PSPIPU20</td>
<td>Lock/Unlock Utility MSL</td>
</tr>
<tr>
<td>M O M F</td>
<td>PSPIPU21</td>
<td>Lock/Unlock Utility Current Lock Information MSL</td>
</tr>
<tr>
<td>MQMF</td>
<td>PSPIPU22</td>
<td>Queried Enqueues List</td>
</tr>
<tr>
<td>MQMF</td>
<td>PSPIPU23</td>
<td>Query Enqueued Entry Panel</td>
</tr>
</tbody>
</table>

### Return Code

No return code is necessary from the Menu Fetch Exit.

### Menu Validation Exit

You can use this exit to inspect menu variables, as entered by the user, to enforce standards. If a variable is incorrect or in violation of a standard, the exit can modify it. The exit can also request that the menu be redisplayed with an error message, prompting the user for additional or corrected information. Control is given to the Menu Validation Exit after the menu variables have been read from the panel, but before the CA Panvalet ISPF Option inspects them.
Parameter List

When control is passed to the exit, Register 1 points to the following parameter list:

```
R1 ->
+0   EXIT CODES AREA
+4   TLD
+8   MSG ID
+C   PARM ID
+10  MENU ID
```

Exit Codes Area

The first address in the parameter list points to the Exit Codes Area, where the first byte is set to M to indicate that a Menu Exit is being called.

The second byte is set to B (Browse), E (Edit), C (Changes utility), M (Manipulation utility), L (Language Change utility), T (Lib-to-Lib Copy utility), O (Member LOCK/UNLOCK utility), or Q (Query Enqueued utility), indicating from where the exit is.
The third and fifth bytes, in combination with the second byte, identify the panel function of the returned Menu ID. The third byte classifies the panel by a broad functional category or an Edit subcommand. Valid values are:

P
The Primary or Entry Panel associated with the function designated in the second byte.

M
The MSL display panel associated with the function designated in the second byte.

S
The MSL Criteria panel associated with the function designated in the second byte.

A
The Add Panel associated with the Edit function (E) in the second byte.

C
The Copy subcommand associated with the Edit function (E) in the second byte.

R
The Replace subcommand associated with the Edit function (E) in the second byte.

N
The Create subcommand associated with the Edit function (E) in the second byte.

Note: The third byte must be interpreted with the second byte. For example, the third-byte value of C (Copy) always has a corresponding second-byte value of E (Edit).

The fifth byte describes the panel by a more specific functional category or type. Valid values are:

C
A Confirmation panel type associated with the function identified by the second and third bytes.

N
A New Member Options panel type associated with the function identified by the second and third bytes.

R
A Retrieval Options panel type associated with the function identified by the second and third bytes.
T
A To panel type associated with the function identified in the second and third bytes.

F
A From panel type associated with the function identified by the second and third bytes.

M
The MSL display panel associated with the Edit subcommand designated in the third byte.

S
The MSL Criteria panel associated with the Edit subcommand designated in the third byte.

Note: The fifth byte must be interpreted with the third byte. For example, the fifth-byte value of T (To panel) always has a corresponding third-byte value of P (Primary) and second-byte of L (Lib-to-Lib Copy utility). When the fifth byte is not necessary to describe a panel, the byte is always reset to blank.

For further clarification, see Examples of Exit Codes earlier in this appendix. This example shows the CA Panvalet ISPF Option panels with their associated exit codes values.

ISPF TLD
The second address in the parameter list points to the ISPF Logical Display Table (TLD) for the currently active screen.

Message ID
The third address in the parameter list points to an eight-byte field containing the name of an ISPF error message ID.

- If the return code requests an error message display, the exit must fill in the eight-byte field with a message ID.
- If the exit does not request an error message display, the Message ID field is ignored.
- If the error message has substitution variables associated with it, the exit must update those variables before returning to the Option for ISPF. The variables can be updated by using the ISPF VREPLACE service (see Manipulating ISPF Dialog Variables in this appendix). The actual names of the variables to be replaced depend on the message. Refer to the text of the message itself to determine if there are variables and, if so, what the names are.
Parm ID

The fourth address in the parameter list points to an eight-byte field containing the name of the menu variable in error.

- If the return code requests an error message display, the exit must fill in this field with a menu variable name. After the error message is displayed, the cursor is positioned at the specified menu variable in error.
- If the exit does not request an error message display, the Parm ID field is ignored.
- If no specific cursor position is desired, fill the Parm ID field with blanks. In this case, the cursor is positioned according to menu defaults.

Menu ID

The fifth address in the parameter list points to an eight-byte field containing the name of the CA Panvalet ISPF Option menu whose fields have just been read from the screen. The menu name is padded with trailing blanks, if necessary, to make the name eight bytes long. The exit can use the VCOPY and VREPLACE ISPF services to query or modify menu variables. A description of those services follows.

Manipulating ISPF Dialog Variables

You can query or modify dialog variables using two ISPF services, VCOPY and VREPLACE. Some of the common uses of these services in a CA Panvalet ISPF Option user exit are:

- Sets default values in certain menu variables before the menu is displayed to the user.
- Inspects menu variables, after the user presses Enter, to enforce standards.
- Sets values in error message text variables prior to error message display.
- Makes use of the three CA Panvalet ISPF Option user parameter fields (PUP1, PUP2, and PUP3) as general exit work areas or, with menu modifications, as additional menu variables.

Both the VCOPY and VREPLACE services require a variable name. In the case of menu and error message variables, refer to the menu or message itself to find the variable names. To determine maximum menu variable lengths for VCOPY (MOVE mode) or VREPLACE, refer to the menu definition. For message variables, the only restraint is that the total length of the short and long error messages (after variable substitution) cannot exceed the maximum as prescribed by ISPF.
The three user parameter variables (PUP1, PUP2, and PUP3) recognized by the CA Panvalet ISPF Option can also be manipulated with VCOPY and VREPLACE. The only difference between using these variable names and using variable names defined by you is that the CA Panvalet ISPF Option initializes PUP1, PUP2, and PUP3 with values from the ISPPROF data set when the session begins. The values are also saved on ISPPROF at session end. Note that the three user parameter variables are each saved on ISPPROF as 80-byte fields.

*Note:* See the sample CA Panvalet ISPF Option user exit for VCOPY and VREPLACE examples. The sample exit is member PSPIAXS1. The source for PSPIAXS1 can be found in the CA Panvalet batch installation PANLIB. See member $$SEEME in that library. For more information about these and other ISPF services, see the IBM Interactive System Productivity Facility - Dialog Management Services Manual.

**Return Code**

The Menu Validation Exit routine can pass a return code back to the CA Panvalet ISPF Option in the last byte of the Exit Codes Area.

- The character N indicates that the CA Panvalet ISPF Option should not continue processing this menu, and the menu should be redisplayed with an error message. If the exit returns an N to the CA Panvalet ISPF Option in the last byte of the Exit Codes Area, the exit must:
  - Place the error message ID in the area pointed to by the third address in the parameter list.
  - VREPLACE any test variables associated with the error message.
  - Place the name of the menu variable in error in the area pointed to by the fourth address in the parameter list.
- Any other character in the last byte of the Exit Codes Area causes the CA Panvalet ISPF Option to continue with its own checks of the entered fields.

**Data Retrieval Exit**

This exit lets you insert, change, or delete records as they are being read from the CA Panvalet library. Control is given to the Data Retrieval Exit each time the CA Panvalet ISPF Option reads a data record from the CA Panvalet library.
Parameter List

When control is passed to the exit, Register 1 points to the following parameter list:

- **R1**
  - **+0**: EXIT CODES AREA
  - **+4**: TLD
  - **+8**: DIRECTORY ENTRY
  - **+C**: DATA RECORD
  - **+10**: RECORD INDICATOR
  - **+14**: SEQUENCE NUMBER
  - **+18**: LIB ENVIRONMENT

Exit Codes Area

The first address in the parameter list points to the Exit Codes Area, where the first byte is set to **R** to indicate that the Data Retrieval Exit is being called.

The second byte is set to **B, E, C, V, or M** to indicate that the exit is being called from Browse, Edit, Changes, View, or the Manipulation utility facilities, respectively.
If the second byte of the Exit Codes Area is set to E, the third byte of the Exit Codes Area is set to I, C, or P to indicate that the exit is called for Edit Initialization, during the processing of a copy of a CA Panvalet member, or during edit profile print processing. The third byte is also set to P during the Manipulation utility print function.

The fourth byte is always reset to blank.

The fifth byte is set to a blank each time a new record is retrieved from the CA Panvalet library. The exit can set this byte as a return code, in which case it is not reset by the CA Panvalet ISPF Option until the next record is read from the library. If this byte is set to a character R, it means the exit requested that the CA Panvalet ISPF Option return to the exit before reading another record from the library. (See Return Code later in this section for information about using this byte to control the insertion of new lines into the member.)

**ISPF TLD**

The second address in the parameter list points to the ISPF Logical Display Table (TLD) for the currently active screen.

**Directory Entry**

The third address in the parameter list points to the directory entry for the CA Panvalet member being processed. This directory entry is in the 0-UP format (see the System Management Guide).

**Data Record**

The content and length of the fourth address in the parameter list depends on the CA Panvalet options module (PVOPT) LNGEXIT value selected by the installation:

- If LNGEXIT=NO, the fourth address in the parameter list points to the 80-byte data record that has just been retrieved from the CA Panvalet library.

- If LNGEXIT=YES, the length of the record just retrieved from the CA Panvalet library is four bytes in front of the passed data record address. To access this value, subtract four from the address passed in the data record field. The length value must not be altered, and the size of the passed record data must not be altered.

If the last byte of the Exit Code Area is set to R, this record is the last record returned to the CA Panvalet ISPF Option by the exit. (See the description of how to insert and delete records later in this appendix.)
Record Indicator

The fifth address in the parameter list points to the record indicator. The record indicator is a one-byte character field. It describes the 80 through 4096-byte data record described previously. Valid values are:

U (Unchanged)

The data record is an ordinary record of the CA Panvalet member.

S (Special)

The record is a CA Panvalet Special Comment Record. When present, this is the first record in a CA Panvalet member. The sequence number for this record is always zero (F'0').

I (Include)

The record has been inserted as a result of CA Panvalet INCLUDE processing. The sequence number for this record is always zero (F'0'). This indicator appears for INCLUDEd data records and CA Panvalet INCLUDE++ header/trailer records.

For more information, see Data Save Exit in this appendix.

Sequence Number

The sixth address in the parameter list points to a relative sequence number. This field is a four-byte binary fullword (FL4). The sequence number represents the relative number of the data record within the CA Panvalet member.

The sequence numbers start with one (F'1') and are incremented by ones.

These same sequence numbers are passed to the Data Save Exit. Even if the data record has changed, or its relative position in the saved member has changed, this field contains the original sequence number from the Data Retrieval Exit.

Special Comment Records and included records do not have sequence numbers. When the record indicator is S or I, the sequence number is zero.

For more information, see Data Save Exit in this appendix.

Lib Environment

The seventh address in the parameter list points to a data block that identifies the CA Panvalet library from which the passed member’s data was retrieved. A table entry that contains the ddname, data set name, and volume serial number identifies the CA Panvalet library.

For more information about the format, see Library Environment Data Block in this appendix.
Return Code

Two return codes are significant to the Data Retrieval Exit. The first return code is the fourth byte of the Exit Codes Area, and the second return code is the last byte of the Exit Codes Area.

- If the exit sets the fourth byte of the Exit Codes Area to D, the data record is deleted. The data record is not passed to the ISPF function, Browse, or Print processor.
- Any other character in the fourth byte of the Exit Codes Area will pass the data record to the ISPF function.
- If the last byte of the Exit Codes Area is set to R, the CA Panvalet ISPF Option returns to the Data Retrieval Exit before it gets the next data record from the CA Panvalet library.
- The character E in the last byte indicates that the Data Retrieval Exit has ended its analysis, and the CA Panvalet ISPF Option should not call the exit again until the next member is retrieved from the library.

Note: If your site does not use the Data Retrieval Exit, specifying E as the return code for the first call can reduce the number of CPU cycles necessary to call the exit routine.
- Any other character in the last byte allows the CA Panvalet ISPF Option to get the next data line from the CA Panvalet library before calling the Data Retrieval Exit again.

Return Code Summary

The following chart summarizes the meanings of various return code combinations:

<table>
<thead>
<tr>
<th>Byte 4</th>
<th>Byte 5</th>
<th>Processing</th>
</tr>
</thead>
</table>
| *      | #      | 1. Pass this record to the ISPF function.  
          |        | 2. Get the next record from the CA Panvalet library.  
          |        | 3. Call the exit again. |
| *      | R      | 1. Pass this record to the ISPF function.  
          |        | 2. Do not get the next record from the CA Panvalet library.  
          |        | 3. Call the exit again. |
| *      | E      | 1. Pass this record to the ISPF function.  
          |        | 2. Do not call the exit again. |
| D      | #      | 1. Do not pass this record to the ISPF function.  
          |        | 2. Get the next record from the CA Panvalet library.  
          |        | 3. Call the exit again. |
The following topics show techniques for inserting and deleting records using the Data Retrieval Exit.

**Adding Records After the Current Record**

Use the following procedure to add records after the current record:

1. Move an R to the last byte of the Exit Codes Area to request that the CA Panvalet ISPF Option return to the exit after passing the current record to the ISPF function, but without getting the next record from the library.
2. Return to the CA Panvalet ISPF Option, which passes the current record to the ISPF function. Call the exit again with the R still in the last byte of the Exit Codes Area and the last record still in the data record area.
3. Set up the data record area with the new record you want to insert.
4. Return to the CA Panvalet ISPF Option, which passes the new record to the ISPF function. Call the exit again with the R still in the last byte of the Exit Codes Area and the last new record still in the data record area.
5. Repeat Steps 3 and 4 for every new record you want to insert.
6. When the last of the new records is passed back to the CA Panvalet ISPF Option, move a blank to the last byte of the Exit Codes Area. The CA Panvalet ISPF Option then passes the last new record to the ISPF function and gets the next record from the library before calling the exit again.

**Adding Records Before the Current Record**

Use the following procedure to add records before the current record:

1. Move the current record from the data record area to a suitable save area.
2. Move an R to the last byte of the Exit Codes Area to request that the CA Panvalet ISPF Option return to the exit after passing the new record to the ISPF function, but without getting the next record from the library.
3. Set up the data record area with the new record you want to insert.

---

<table>
<thead>
<tr>
<th>Byte 4</th>
<th>Byte 5</th>
<th>Processing</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>R</td>
<td>1. Do not pass this record to the ISPF function.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Do not get the next record from the CA Panvalet library.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Call the exit again.</td>
</tr>
<tr>
<td>D</td>
<td>E</td>
<td>1. Do not pass this record to the ISPF function.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Do not call the exit again.</td>
</tr>
</tbody>
</table>

- * Represents any character other than D.
- # Represents any character other than R or E.
4. Return to the CA Panvalet ISPF Option, which passes the new record to the ISPF function. Call the exit again with the R still in the last byte of the Exit Codes Area and the last new record still in the data record area.

5. Repeat Steps 3 and 4 for every new record you want to insert.

6. Move the original record from the save area back to the data record area.

7. Move a blank to the last byte of the Exit Codes Area. The CA Panvalet ISPF Option then passes the original record to the ISPF function and gets the next record from the library before calling the exit again.

8. Return to the CA Panvalet ISPF Option, which passes the original record to the ISPF function and gets the next record from the library before calling the exit again.

**Deleting Records**

Use the following procedure to delete records:

1. Move a D to the fourth byte of the Exit Codes Area.

2. Return to the CA Panvalet ISPF Option, which does not pass the record to the ISPF function. As long as the last byte of the Exit Codes Area is not an R, the CA Panvalet ISPF Option reads the next record from the library before calling the exit again.

**Adding Records After the Current Record**

Use the following procedure to add records after the current record:

1. Move an R to the last byte of the Exit Codes Area to request that the CA Panvalet ISPF Option return to the exit after writing the current record to the ISPF function, but without getting the next record from the editor.

2. Return to the CA Panvalet ISPF Option, which writes the current record to the CA Panvalet library. Call the exit again with the R still in the last byte of the Exit Codes Area and the last record still in the data record area.

3. Set up the data record area with the new record you want to insert.

4. Return to the CA Panvalet ISPF Option, which writes the new record to the CA Panvalet library. Call the exit again with the R still in the last byte of the Exit Codes Area and the last new record still in the data record area.

5. Repeat Steps 3 and 4 for every new record you want to insert.

6. When the last of the new records is passed back to the CA Panvalet ISPF Option, move a blank to the last byte of the Exit Codes Area. The CA Panvalet ISPF Option writes the last new record to the CA Panvalet library and get the next record from the editor before calling the exit again.
Adding Records Before the Current Record

Use the following procedure to add records before the current record:

1. Move the current record from the data record area to a suitable save area.
2. Move an R to the last byte of the Exit Codes Area to request that the CA Panvalet ISPF Option return to the exit after writing the new record to the CA Panvalet library, but without getting the next record from the editor.
3. Set up the data record area with the new record you want to insert.
4. Return to the CA Panvalet ISPF Option, which writes the new record to the CA Panvalet library. Call the exit again with the R still in the last byte of the Exit Codes Area and the last new record still in the Data Record area.
5. Repeat Steps 3 and 4 for every new record you want to insert.
6. Move the original record from the save area back to the data record area.
7. Move a blank to the last byte of the Exit Codes Area so the CA Panvalet ISPF Option now writes the original record to the CA Panvalet library. Get the next record from the editor before calling the exit again.
8. Return to the CA Panvalet ISPF Option, which writes the original record to the CA Panvalet library. Get the next record from the editor before calling the exit again.

Deleting Records

Use the following procedure to delete records:

1. Move a D to the fourth byte of the Exit Codes Area.
2. Return to the CA Panvalet ISPF Option, which does not write the record to the CA Panvalet library. As long as the last byte of the Exit Codes Area is not an R, the CA Panvalet ISPF Option gets the next record from the library before calling the exit again.

Data Save Exit

This exit lets you insert, change, or delete records as they are written to the CA Panvalet library. Control is given to the Data Save Exit each time the CA Panvalet ISPF Option writes a data record to the CA Panvalet library.
Parameter List

When control is passed to the exit, Register 1 points to the following parameter list:

Exit Codes Area

The first address in the parameter list points to the Exit Codes Area, where the first byte is set to S to indicate that the Data Save Exit is being called.

The second byte is set to E to indicate that the exit is being called from the CA Panvalet ISPF Option Edit facility.

The third byte is set to A, C, R, or U to indicate that the exit is being called for Edit Add, Edit Create, Edit Replace, or Edit Update facilities, respectively.
The fourth byte is normally blank. On the last record to be saved, this byte is set to L. The CA Panvalet ISPF Option always resets the fourth byte of the Exit Codes Area to a blank. If the exit sets the fourth byte of the Exit Codes Area to D, the CA Panvalet ISPF Option deletes the data line (the data line is not written to the CA Panvalet library).

The fifth byte is set to blank each time a new record is obtained from the ISPF editor. The exit can set this byte as a return code, in which case it is not reset until the next record is obtained from the editor. If this byte is set to R, it indicates that the CA Panvalet ISPF Option is to return to the exit before getting another record from the editor. (See Return Code later in this section for information about use of this byte to control the insertion of new lines into the member.)

**ISPF TLD**

The second address in the parameter list points to the ISPF Logical Display Table (TLD) for the currently active screen.

**Directory Entry**

The third address in the parameter list points to the directory entry for the CA Panvalet member being processed. This directory entry is in the 0-UP format, as described in the System Management Guide.

This parameter is valid only if you are updating the member. If you are adding or creating a new member, the directory entry has not yet been created. Therefore, it is not available to the exit. The only information that is correct is the member name.

**Data Record**

The content and length of the fourth address in the parameter list depends on the CA Panvalet options module (PVOPT) LNGEXIT value selected by the installation:

- If LNGEXIT=NO, the fourth address in the parameter list points to the 80-byte data record that has just been retrieved from the CA Panvalet library.
- If LNGEXIT=YES, the length of the record just retrieved from the CA Panvalet library is four bytes in front of the passed data record address. To access this value, subtract four from the address passed in the data record field. The length value must not be altered, and the size of the passed record data must not be altered.

The exit can review, change, or delete this record before it is written to the library. (See the description of how to insert and delete records later in this appendix.)
Record Indicator

The fifth address in the parameter list points to the record indicator. The record indicator is a one-byte character field. It describes the 80 through 4096-byte data record discussed above. Valid values are:

A (Added)

The user added the data record to the CA Panvalet member during the edit session.

C (Changed)

The user changed the data record during the edit session.

U (Unchanged)

The data record is an ordinary record of the CA Panvalet member. The data record was not changed during the edit session.

S (Special)

The record is a CA Panvalet special comment record. When present, this is the first record in a CA Panvalet member. The sequence number for this record is always zero (F'0'). Not all CA Panvalet members contain a special comment.

I (Include)

The record is inserted as a result of CA Panvalet INCLUDE processing. The sequence number for this record is always zero (F'0'). This indicator appears for included data records and CA Panvalet INCLUDE++ header/trailer records.

For more information, see Data Retrieval Exit in this appendix.

Sequence Number

The sixth address in the parameter list points to a relative sequence number. This field is a four-byte binary fullword (FL4). The sequence number represents the relative number of the data record as it appeared in the original CA Panvalet member prior to the edit session. For example, if this field contains the value F'27', then the record was the 27th record in the member when it was retrieved from the CA Panvalet library for edit.

These are the same sequence numbers that were passed to the Data Retrieval Exit. Even if the data record is changed, or its relative position in the saved member is changed, this field contains the original sequence number from the Data Retrieval Exit.

A record that is moved during an edit session does not have the original sequence number. Moved records are considered to be deleted from their original location and added to their new locations.

Records that were deleted during the edit session do not appear to this exit.
Special comment records, included records, and added records do not have sequence numbers. When the Record Indicator is S, A, or I, the sequence number is zero.

For more information, see Data Retrieval Exit in this appendix.

Lib Environment

The seventh address in the parameter list points to a data block that identifies the CA Panvalet library to which the passed member’s data is about to be saved. A table entry that contains the ddname, data set name, and volume serial number identifies the CA Panvalet library.

For more information about the format, see Library Environment Data Block in this appendix.

Return Code

Two return codes are significant to the Data Save Exit. The first return code is the fourth byte of the Exit Codes Area, and the second return code is the last byte of the Exit Codes Area.

- If the exit sets the fourth byte of the Exit Codes Area to D, the CA Panvalet ISPF Option deletes the data line. The data line is not written to the CA Panvalet library.
- Any other character in the fourth byte of the Exit Codes Area allows the CA Panvalet ISPF Option to write the data line into the CA Panvalet library.
- If the last byte of the Exit Codes Area is set to R, the CA Panvalet ISPF Option returns to the Data Save Exit before it gets the next data line from the CA Panvalet library.
- The character E in the last byte indicates that the Data Save Exit has ended its analysis, and the CA Panvalet ISPF Option should not call the exit again until the next member is written to the library.
  
  **Note:** If your site does not use the Data Save Exit, use of the E return code can reduce the number of CPU cycles necessary to call the exit routine.
- Any other character in the last byte allows the CA Panvalet ISPF Option to get the next data line from the CA Panvalet library before calling the Data Save Exit again.
## Return Code Summary

The following chart summarizes the meanings of various return code combinations:

<table>
<thead>
<tr>
<th>Byte 4</th>
<th>Byte 5</th>
<th>Processing</th>
</tr>
</thead>
<tbody>
<tr>
<td>*</td>
<td>#</td>
<td>1. Write this record to the CA Panvalet library.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Get the next record from the ISPF function.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Call the exit again.</td>
</tr>
<tr>
<td>*</td>
<td>R</td>
<td>1. Write this record to the CA Panvalet library.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Do not get the next record from the ISPF function.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Call the exit again.</td>
</tr>
<tr>
<td>*</td>
<td>E</td>
<td>1. Write this record to the CA Panvalet library.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Do not call the exit again.</td>
</tr>
<tr>
<td>D</td>
<td>#</td>
<td>1. Do not write this record to the CA Panvalet library.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Get the next record from the ISPF function.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Call the exit again.</td>
</tr>
<tr>
<td>D</td>
<td>R</td>
<td>1. Do not write this record to the CA Panvalet library.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Do not get the next record from the ISPF function.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Call the exit again.</td>
</tr>
<tr>
<td>D</td>
<td>E</td>
<td>1. Do not write this record to the CA Panvalet library.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Do not call the exit again.</td>
</tr>
</tbody>
</table>

- * Represents any other character other than D.
- # Represents any character other than R or E.

The following topics show techniques for inserting and deleting records using the Data Save Exit.
Log Exit

This exit lets you maintain an audit trail of changes to the CA Panvalet library, corresponding to the Extended Backup/Audit Trail facility in batch CA Panvalet. Control is given to the Log Exit any time an action on the part of the user results in a change to the CA Panvalet library. The Log Exit consists of three parts (Log Open, Log Data, and Log Close). Log Open and Log Close use the same parameter list format, while Log Data uses its own format. The Log Exit sequence is as follows for each function (except where noted):

**Log Open**

The Log Open Exit occurs sometime after (but not necessarily immediately after) the physical open of the specified CA Panvalet library. It is used as a method of associating Log Data Exit information with one or more CA Panvalet libraries. The Log Close Exit (see below) terminates this association. When the Log Close Exit specifies a CA Panvalet library that matches a CA Panvalet library already specified in a previous Log Open Exit, the specified CA Panvalet library is no longer associated with the data returned in the Log Data Exit. For this reason, think of the Log Open Exit as a logical open as opposed to a physical open. There might be cases where more than one pair of Log Open and Log Close Exits occurs between the physical open and close of a CA Panvalet library.

The Log Open Exit and the Log Close Exit are called with the Format 1 parameter list.

The Log Open Exit is called with the Format 1 parameter list sometime after the CA Panvalet library has been opened, and immediately before the PAN#1 command stream is passed through the data area of the Log Data Exit. There is a corresponding Log Close Exit that describes the same library that was identified in the prior Log Open Exit.

**Log Data**

The Log Data Exit is called with the Format 2 parameter list pointing to an area which contains a card image of a batch CA Panvalet command (++RENAME, ++STATUS, ++UPDATE, and so on) corresponding to the CA Panvalet ISPF Option function just successfully completed (RENAME, SAVE, and so on), or an image of the 80- through 4096-byte data record being applied to the CA Panvalet library.
Log Close

The Log Close Exit occurs sometime before (not necessarily immediately before) the physical close of the specified CA Panvalet library. It is used as a method of terminating the association of Log Data Exit information with one or more CA Panvalet libraries. This termination can be determined by matching the specified CA Panvalet library with the corresponding library specification found in the previous Log Open Exit.

The Log Close Exit is called with the Format 1 parameter list immediately after the PAN#1 command stream is passed through the data area of the Log Data Exit and sometime before the CA Panvalet library is closed. The library specification in the Log Close Exit matches a corresponding library specification in the previous Log Open Exit.

Save

In the case of a successful save from the Edit facility, the Log Data Exit is called multiple times with a complete ++UPDATE or ++ADD stream. If the member does not exist in the CA Panvalet library before the first save, a ++ADD stream is presented to the Log Exit that includes the contents of the entire member. If the member already exists, a complete ++UPDATE stream that corresponds to the changes made to the CA Panvalet member since the last successful save is presented to the Log Exit.

Replace

In the case of a successful replace from the Edit facility, the Log Data Exit is called multiple times with a complete ++UPDATE (ALL) stream that corresponds to the edit data used to replace the contents of the CA Panvalet member.

Create

In the case of a successful create from the Edit facility, the Log Data Exit is called multiple times with a complete ++ADD stream that corresponds to the edit data used to create the new CA Panvalet member.

Lib-to-Lib Copy

In the case of a successful Lib-to-Lib Copy from the Utility facility, the Log Data Exit is called multiple times with a complete ++UPDATE (ALL) or ++ADD stream representing the entire member in the "from" CA Panvalet library.
Format 1 Parameter List

When the Log Open and Log Close Exits receive control, Register 1 points to the following parameter list:

- **EXIT CODES AREA**
- **TLD**
- **DSN**
- **VOLSER**
- **CONTROL**
- **ACCESS**
- **LIB ENVIRONMENT**

Exit Codes Area (Format 1)

The first address in the parameter list points to the Exit Codes Area. The CA Panvalet ISPF Option sets the first byte of the Exit Codes Area to L to indicate that the Log Exit is being called. It sets the second byte to E, C, M, L, or T to indicate that the exit is being called from the Edit, Changes utility, Manipulation utility, Language Change utility, Lib-to-Lib Copy, or Lock/Unlock utility facilities, respectively.

It sets the third byte of the Exit Codes Area for the Format 1 parameter list to O or C to indicate that this is a Log Open or a Log Close Exit, respectively.

The fourth and fifth bytes of the Exit Codes Area are always blank.
**ISPF TLD (Format 1)**

The second address in the parameter list points to the ISPF Logical Display Table (TLD) for the currently active screen.

**DSN (Format 1)**

The third address in the Format 1 parameter list points to the fully qualified data set name for the CA Panvalet library being opened or closed. The data set name is 44 characters long, left justified, and padded with trailing blanks as needed.

**VOLSER (Format 1)**

The fourth address in the Format 1 parameter list points to the DASD VOLSER of the pack that contains the CA Panvalet library being opened or closed. The VOLSER is six characters long, left justified, and padded with trailing blanks as needed.

**Control (Format 1)**

The fifth address in the Format 1 parameter list points to the control code entered by the user for access to the CA Panvalet library being opened or closed. The control code is five characters long and is in zoned decimal format.

**Access (Format 1)**

The sixth address in the Format 1 parameter list points to the access code entered by the user for access to the CA Panvalet member being processed. The access code is five characters long and is in zoned decimal format.

**Lib Environment (Format 1)**

The seventh address in the Format 1 parameter list points to a Data Block that identifies the CA Panvalet library environment associated with the change action. In the case of the Log Exit, this data block identifies a concatenation environment that might have been used during the change to the specified number.

For more information about the format, see Library Environment Data Block in this appendix.
Format 2 Parameter List

When the Log Data Exit receives control, Register 1 points to the following parameter list:

![Diagram showing Format 2 Parameter List]

**Exit Codes Area (Format 2)**

The first address in the parameter list points to the Exit Codes Area. The CA Panvalet ISPF Option sets the first byte of the Exit Codes Area to L to indicate that the Log Exit is being called. It sets the second byte to E, C, M, L, or T to indicate that the exit is being called from the Edit, Changes utility, Manipulation utility, Language Change utility, Lib-to-Lib Copy, or Lock/Unlock utility facilities, respectively.

It sets the third byte of the Exit Codes Area for the Format 2 parameter list to D to indicate that this is a Log Data Exit.

The fourth and fifth bytes of the Exit Codes Area are always blank.

**ISPF TLD (Format 2)**

The second address in the parameter list points to the ISPF Logical Display Table (TLD) for the currently active screen.
Data Area (Format 2)

The content and length of the third address of the Format 2 parameter list depends on the CA Panvalet options module (PVOPT) LNGEXIT value selected by the installation:

- If LNGEXIT=NO, the third address in the Format 2 parameter list points to any one of the following:
  - An 80-byte area that contains a card-image of a CA Panvalet command corresponding to the ISPF function just successfully completed.
  - An 80-byte area that contains a card-image of a data record being applied to the CA Panvalet library.

- If LNGEXIT=YES, the third address in the Format 2 parameter list points to any one of the following:
  - An 80-byte area that contains a card-image of a CA Panvalet command corresponding to the ISPF function just successfully completed.
  - An 80 through 4096-byte area that contains an image of a data record being applied to the CA Panvalet library. The length of the record just retrieved from the CA Panvalet library is four bytes in front of the passed data record address. To access this value, subtract four from the address passed in the data record field.

In the case of a successful save from the Edit facility, the Log Exit is called multiple times with a complete ++UPDATE stream that corresponds to the changes made to the CA Panvalet library since the last successful save. Data records inserted, deleted, or changed by the Data Retrieval Exit or the Data Save Exit are reflected in the ++UPDATE stream passed to the Log Exit (the Data Save Exit is implemented before the Log Exit). Data records that contain ++, --, or /* in the first two positions of the record are converted to $+, $-, and $* respectively, before the Log Exit is called.

In the case of a successful replace from the Edit facility, the Log Data Exit is called multiple times with a complete ++UPDATE (ALL) stream that corresponds to the edit data that replaced the contents of the CA Panvalet member. Data records inserted, deleted, or changed by the Data Save Exit are reflected in the ++UPDATE stream passed to the Log Exit. Data records that contain ++, --, or /* in the first two positions of the record are converted to $+, $-, and $* respectively, before the Log Exit is called.

In the case of a successful create from the Edit facility, the Log Data Exit is called multiple times with a complete ++ADD stream that corresponds to the edit data used to create the new CA Panvalet member. Data records inserted, deleted, or changed by the Data Save Exit are reflected in the ++UPDATE stream passed to the Log Exit. Data records that contain ++, --, or /* in the first two positions of the record are converted to $+, $-, and $* respectively, before the Log Exit is called.
In the case of a successful Lib-to-Lib Copy from the Utility facility, the Log Data Exit is called multiple times with a complete ++UPDATE (ALL) or ++ADD stream that corresponds to the member in the "from" CA Panvalet library. Data records that contain ++, --, or /* in the first two positions of the record are converted to $+, $-, and $* respectively, before the Log Exit is called.

**Return Code**

The Log Exit routine can pass a return code back to the CA Panvalet ISPF Option in the last byte of the Exit Codes Area:

- The character E indicates that the exit ended its analysis and the CA Panvalet ISPF Option need not call the Log Exit again during the processing of this function. If the character E is returned from the Log Data Exit, the next exit called is the Log Close Exit for this function. If E is returned from the Log Open Exit, the Log Data Exit and Log Close Exit are not called at all for this function.

  If your site does not use the Extended Backup/Audit Trail facility, using this return code can reduce the number of CPU cycles necessary to analyze the member under edit and to create the batch CA Panvalet commands that correspond to the changes made to the member.

- The CA Panvalet ISPF option ignores any other character in the last byte.

**Authorization Exit**

Use the Authorization Exit to determine whether to allow access to any or all CA Panvalet library members. Control is given to the Authorization Exit before any access to a CA Panvalet library member for all the CA Panvalet ISPF Option functions, except for MSL retrieval. Control is also given before the edit of a new member. If a member access is denied, a standard ISPF error message informs the user that an installation security exit denied the access.

When CA Panvalet libraries with standard names are concatenated, the DSN and VOLSER parameter values (see below) identify the CA Panvalet library within the concatenation associated with the returned directory entry (DIRENTRY). The Library Environment Data Block is provided to identify all other CA Panvalet libraries in the order of their concatenation sequence. Each entry contains the ddname, data set name, and volume serial number.
You can retrieve a member from any CA Panvalet library within the concatenation. However, the member can be changed (or created) only in the first library (LIB 1) within the concatenation. In the case where a member is retrieved from other than the first library (LIB 1) within the concatenation, you must inspect the Library Environment Data Block to determine the CA Panvalet library where the member can be updated (or added).

**Note:** This concatenation technique is the same one used by IBM's ISPF/PDF.

When control is passed to the exit, Register 1 points to the following parameter list.
Parameter List

The first address in the parameter list points to the Exit Codes Area, where the first byte is set to A to indicate that the Authorization Exit is being called.

The second byte is set to B (Browse), E (Edit), C (Changes utility), M (Manipulation utility), L (Language Change utility), T (Lib-to-Lib Copy utility), O (Member LOCK/UNLOCK utility), or Q (Query Enqueued utility), indicating from where the exit is.
If the second byte of the Exit Codes Area is set to E, the third byte of the Exit Codes Area is set to I (Edit Initialization), C (Copy), S (Save), R (Create), or A (Replace).

**Note:** A copy, create, or replace for a non-CA Panvalet member, such as a PDS member, does not invoke this exit.

If the second byte of the Exit Codes Area is set to C, the third byte of the Exit Codes Area is set to S (Status), U (User), L (Level), or M (Comment).

If the second byte of the Exit Codes Area is set to M, the third byte of the Exit Codes Area is set to C (Copy), R (Rename), or P (Print), to indicate where the Manipulation Exit is called.

If the second byte of the Exit Codes Area is set to L, the third byte of the Exit Codes Area is blank, indicating the exit is called from the Language Change utility.

If the second byte of the Exit Codes Area is set to T, the third byte of the Exit Codes Area is set to S (Restore) or R (Replace), to indicate the exit is called from the Lib-to-Lib Copy utility function.

Only the Lib-to-Lib Copy function uses the fourth byte of the Exit Codes Area parameter list. For all other functions, this byte is always blank. The value F indicates that all data within the parameter list is associated with the From Library; the value T indicates the To Library.

The directory entry and comment data that appears in the T (To Library) parameter list are the same values that appear in the F (From Library) list when the member does not exist in the To Library. If the member already exists in the To Library, the Directory Entry and Comment data keep the current values of the existing To Library member.

For the Lib-to-Lib Copy function, the Authorization Exit is called twice. The first call describes the From CA Panvalet Library and is identified with a fourth byte Exit Codes Area value of F. With the From CA Panvalet Library specification, the second call describes the To CA Panvalet Library and is identified with a fourth-byte Exit Codes Area value of T.

If the second byte of the Exit Codes Area is set to O, the third byte of the Exit Codes Area is set to O (LOCK) or N (UNLOCK) to indicate that the exit is being called from the LOCK/UNLOCK utility.

The fifth byte of the Exit Codes Area is always set to blanks.

**ISPF TLD**

The second address in the parameter list points to the ISPF Logical Display Table (TLD) for the currently active screen.

**DSN**

The third address in the parameter list points to the fully qualified data set name for the CA Panvalet library being accessed.
VOLSER

The fourth address in the parameter list points to the DASD volume serial number of the pack that contains the CA Panvalet library being accessed.

Directory Entry

The fifth address in the parameter list points to the directory entry for the CA Panvalet member being accessed. If a COPY or RENAME is done from the Manipulation utility panel, the new member name resulting from the operation is shown in the ten bytes adjacent to this 80-byte directory entry. Note that this field is valid only for COPY or RENAME; its value is uncertain at all other times. The field is initialized to binary zeros. When a save or create adds a new member, the only directory information available for inspection is the member name, language format, and user code.

If the Language Change utility is being done, the new language name (LANG TYPE) resulting from the operation is shown in the five bytes adjacent to the directory entry. Note that this field is valid only for Language Change; its value is uncertain at all other times.

Comment

The sixth address in the parameter list points to the user comment record for the CA Panvalet member being accessed. This field is blank during the save or creation of a new member.

Lib Environment

The seventh address in the parameter list points to a data block that identifies the CA Panvalet library environment associated with the requested function. In the case of the Authorization Exit, this data block is used to identify a concatenation environment that can be used for the requested function.

For more information about the format, see the Library Environment Data Block in this appendix.

Return Code

The Authorization Exit routine can pass a return code back to the CA Panvalet ISPF Option in the last byte of the Exit Codes Area.

- The character N indicates that the CA Panvalet ISPF Option is not to allow access to the library member in question. The CA Panvalet ISPF Option gives the user an error message indicating that an installation security exit has denied use of the attempted function against the library member specified.
- Any other character in the last byte allows the CA Panvalet ISPF Option to continue processing the library member as indicated in the exit call.
Messages

Since CA Panvalet library member access can be denied for any of a number of reasons, it might be desirable to modify the Computer Associates supplied error message and help menu text. The message ID used is Z059 and the help menu member name is PSPITDNY. The Computer Associates supplied message and help menu text is as follows:

Message Text

Z059 'MEMBER ACCESS DENIED ' ALARM = YES HELP = PSPITDNY
You are not authorized for the function attempted against the member chosen.

Help Display

TUTORIAL ---------------- CA-PANVALET ACCESS CONTROL ---------------- TUTORIAL

COMMAND ===>

An installation security exit has determined that you are not authorized to use this function against the member you have specified.
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