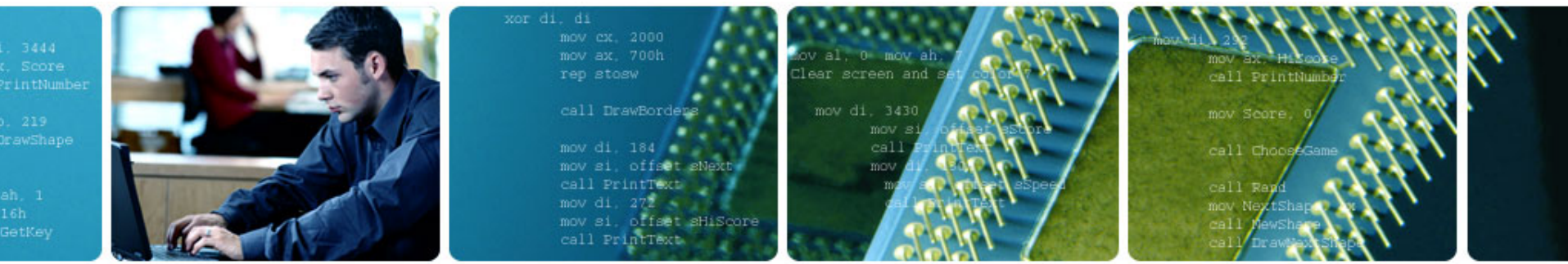
z/OS Learning Center: Introduction to ISPF

Unit 1: The Basics of ISPF and data sets
Module 4: Working with data sets

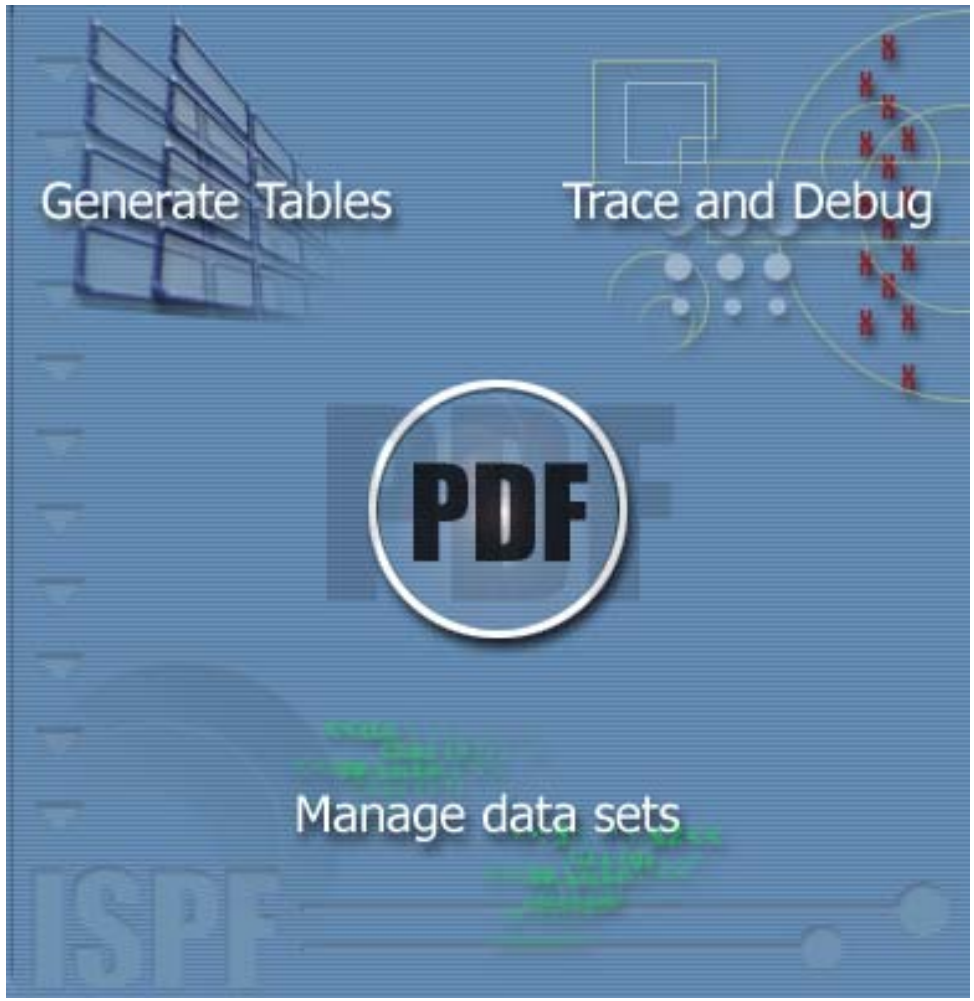


Working with data sets – Introduction

The ISPF Program Development Facility provides services to help you manage data sets. These include the edit and browse functions, data set and catalog utilities, and data set search and compare functions.

In this module, we'll explore the basic viewing, browsing, and search capabilities ISPF provides.

Time to complete: 30 minutes



Working with data sets – Objectives

Upon completion of this unit, you should be able to:

- **View and browse data sets**
- **Use basic search commands such as LOCATE and FIND**
- **State how data sets are named, created, and allocated**

Working with data sets – Accessing the View Entry Panel

To view or browse a data sets, select the View option on the Primary Option Menu.

One way to access the View Entry panel is to type 1 on the option line and press the Enter key.

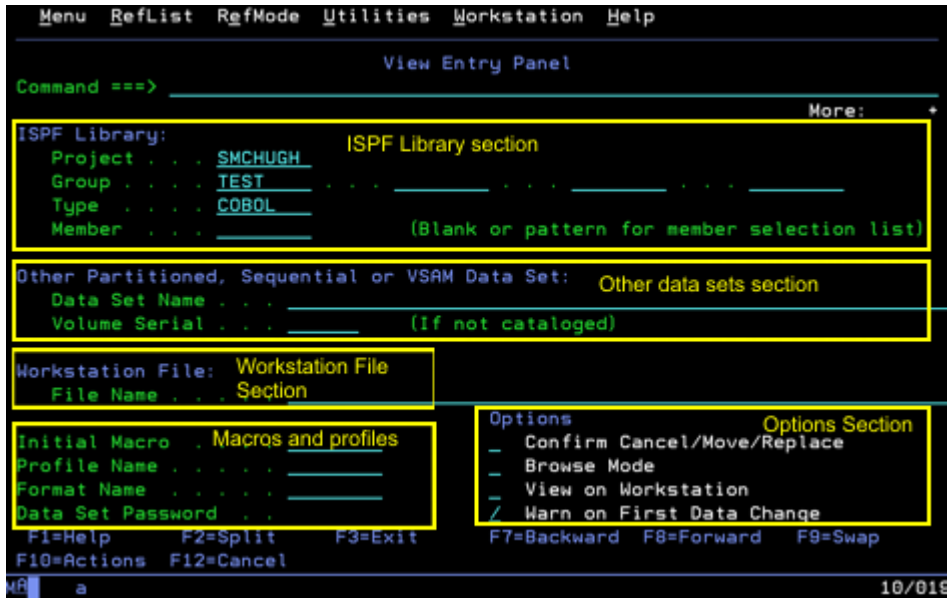
Alternately, you can either select View from the Menu pull-down in the action bar, or click on the word View and press the Enter key.

Working with data sets – Exploring the View Entry Panel

The View Entry Panel appears when you select View from the ISPF Primary Option Menu. You can use this panel to enter the name of a data set to view or browse, and to specify macros and profiles, and options.

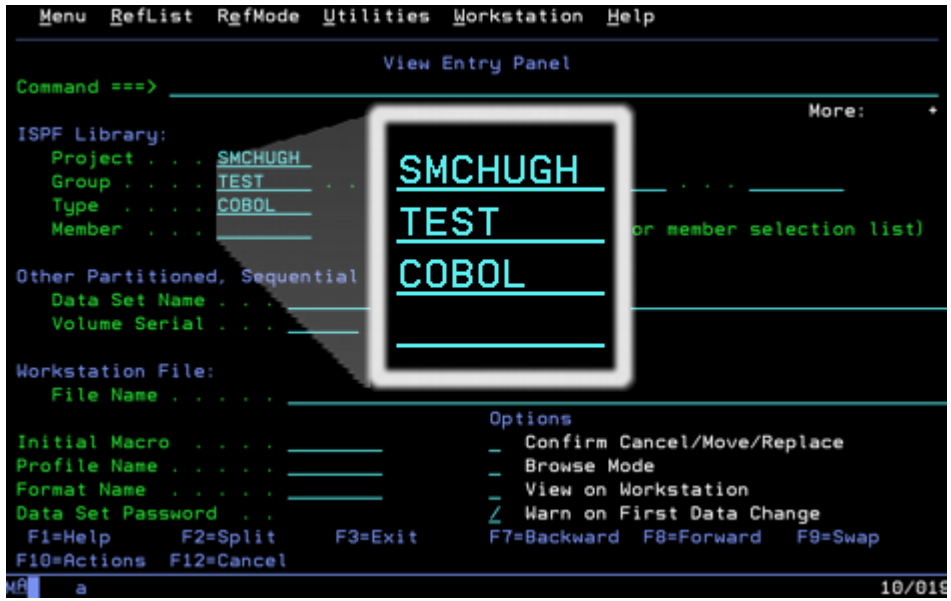
The five sections of this panel include:

- **The ISPF Library section**
- **The Other Partitioned, Sequential, or VSAM data set section**
- **The Workstation File section (requires a connection to the workstation)**
- **The Macro and Profiles section**
- **The Options section**



Working with data sets – Entering data set names

The ISPF Library section permits you to enter a data set name. The project ID identifies the project associated with the data set. It usually defaults to the user ID from your LOGON command. The three components of the data set name, Project, Group, and Type, are strung together to form the z/OS data set name. For example, SMCHUGH.TEST.COBOL

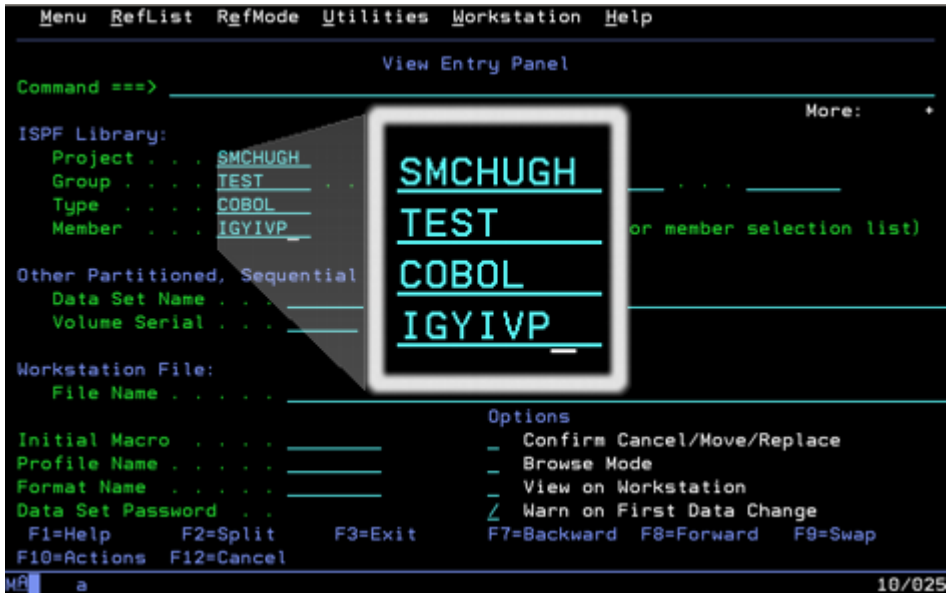


Working with data sets – Searching for a data set member

If the data set is partitioned, you can specify the name of the member in the Member field.

You may also enter a pattern for the member name. A pattern consists of a partial member name plus the symbols * or % or both.

For example, the member name IGY* will select all members that begin with the three letters IGY.

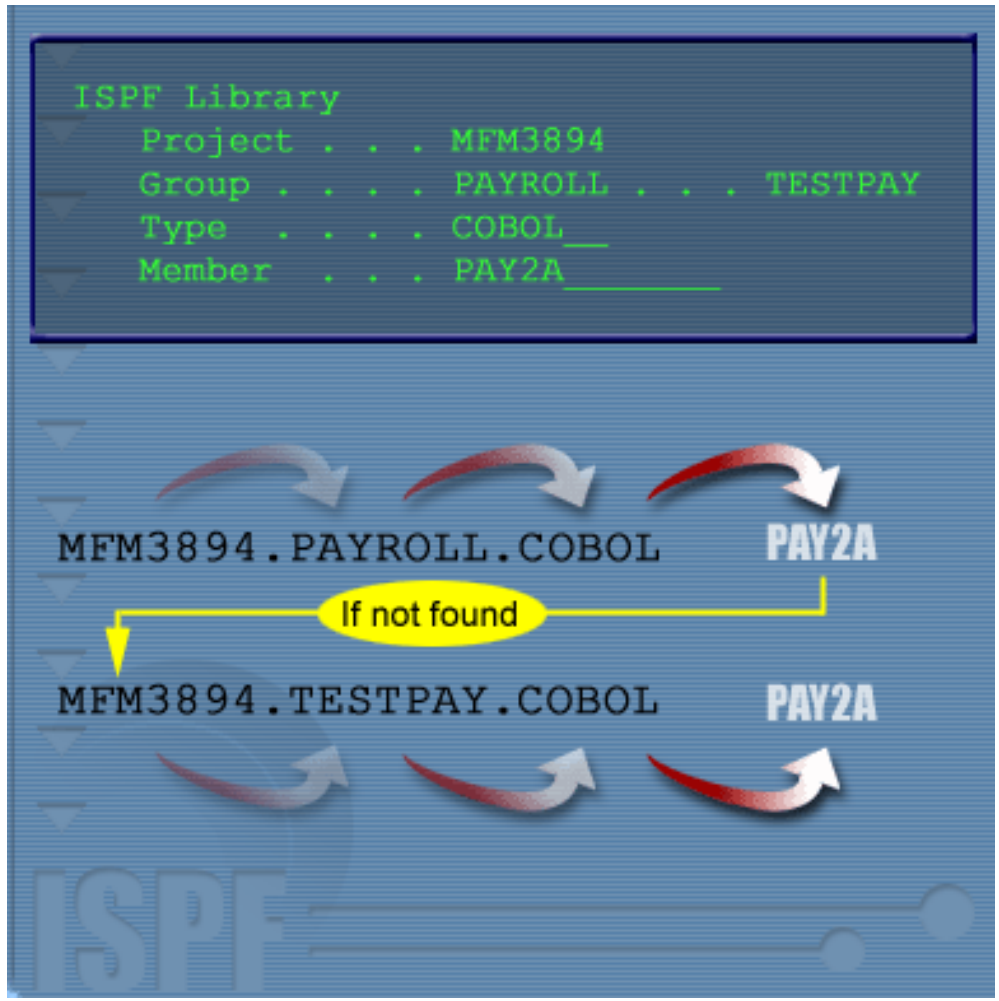


Working with data sets – Using library concatenation to search for a data set member

You can specify a sequence of libraries in the additional fields next to the Group field. ISPF will search through the libraries in the order you specify to find the member.

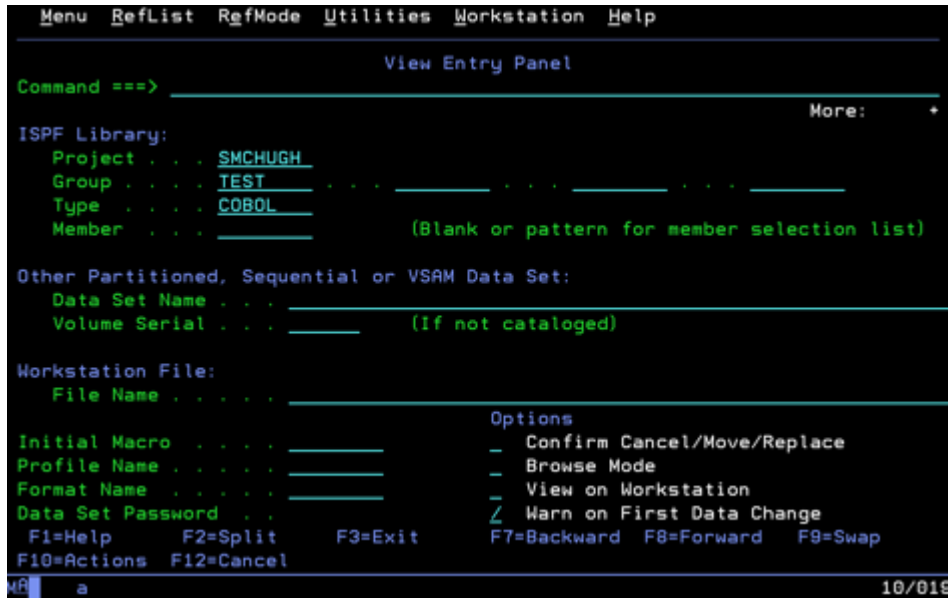
In this example, browse searches MFM3984.PAYROLL.COBOL first to locate the member PAY2A. If not found, it searches MFM3984.TESTPAY.COBOL to find PAY2A.

If the data set you specify is partitioned, and you specify a pattern of the member name, or if you do not specify a member name at all, you will receive a member selection list.



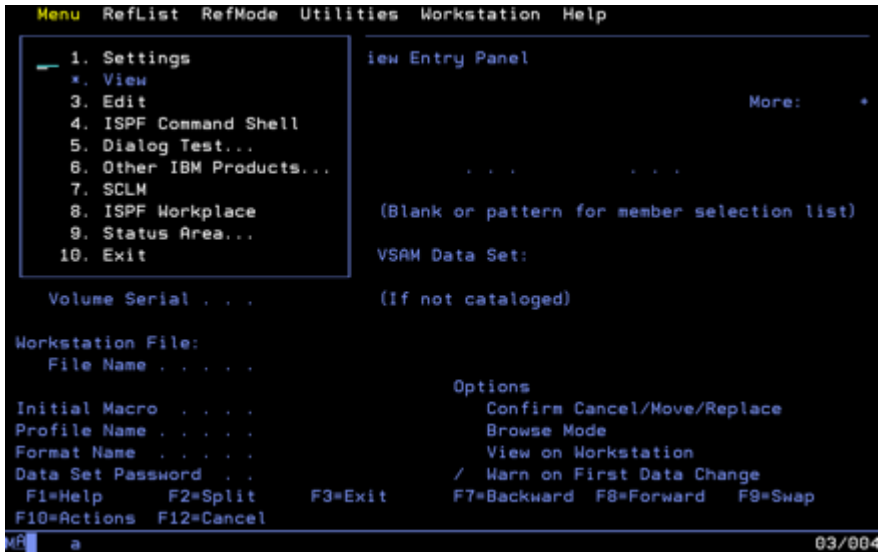
Working with data sets – View Entry Panel action bar simulation

The action bar of the View Entry Panel displays some important choices.
To try a simulation of expanding the options on the action bar, click the Launch button.



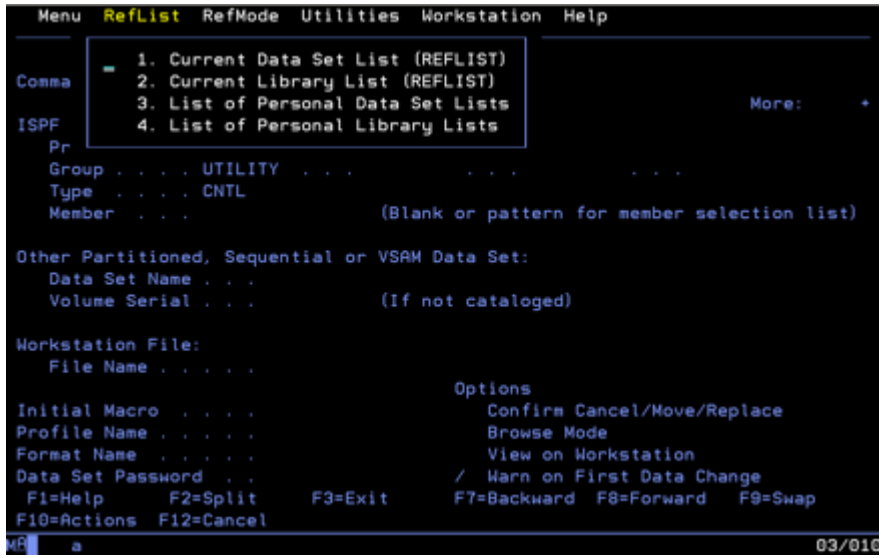
Working with data sets – View Entry Panel action bar simulation

The Menu option provides a drop down list with a subset of the items on the ISPF Primary Option Menu.



Working with data sets – View Entry Panel action bar simulation

The options on the RefList menu help you work with personal data set lists and library lists. You can use this feature to speed up access to data sets you use frequently.



Working with data sets – View Entry Panel action bar simulation

The options on the RefMode menu control the action ISPF takes when you select a data set from a personal list. You can set all of your lists to either the Execute Mode or the Retrieve Mode.
In List Execute mode, when you select an entry from the list, ISPF places information about the data set in the ISPF Library or Other data set Name field and proceeds as if you also pressed the Enter key.
In List Retrieve mode, when you select an entry from the list, ISPF retrieves the information, but does not act on it, allowing you to set other options before you press the Enter key.

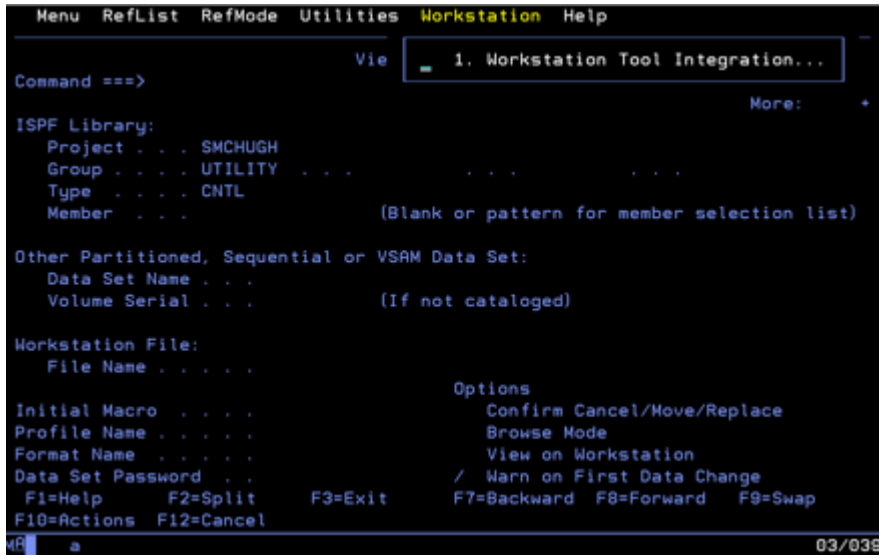
Working with data sets – View Entry Panel action bar simulation

The Utilities menu provides quick access to all the functions available in the Utilities (option 3) of the ISPF Primary Options Menu.

Working with data sets – View Entry Panel action bar simulation

The Workstation selection enables you to more fully utilize your desktop workstation's potential by giving you the ability to edit host data on the workstation, and workstation data on the host. ISPF calls this function distributed editing or running in the graphical user interface (GUI) mode.

Before you can run in GUI mode, however, your workstation has to be configured properly, a task beyond the scope of this learning module.



Working with data sets – View Entry Panel action bar simulation

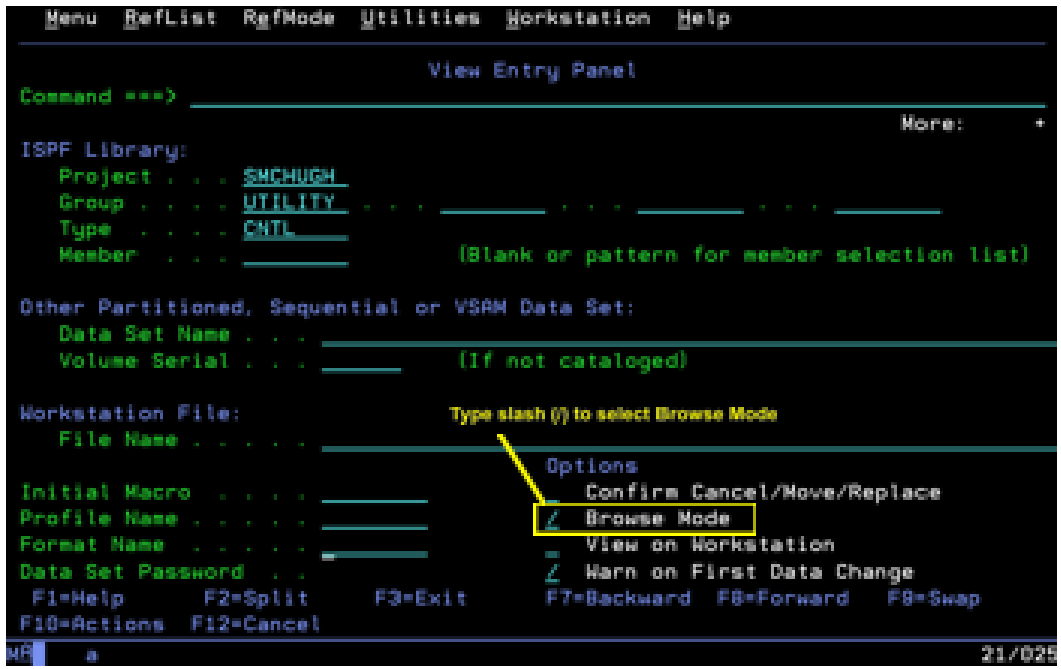
The Help menu provides general information about the options and commands available from the View Entry Panel, and information about each choice available on the panel.

Working with data sets – Selecting View or Browse Mode

Once you have entered the data set information in either the ISPF Library section or the Other Partitioned or Sequential data set section, you can open the data set in either View or Browse mode.

To open the data set in View Mode, press Enter, since View is the default mode.

To open the data set in Browse Mode, place a slash (/) next to the Browse Mode option in the lower right-hand section of the View Entry Panel (as shown here), and press Enter.



Working with data sets – Browsing Verses Viewing data sets

View displays data in either the View or Browse mode. You can use View or Browse to look at (but not change) large data sets such as compiler listings. You can scroll the data up, down, left, or right. If you are using Browse, entering a FIND command on the Command line allows you to search the data for a character string. If you are using View, you can use all the commands and macros available to you in the Edit function.

When you Browse data sets you are in read-only mode. You can't make any changes, copy lines, or perform other editing functions.

Browsing allows you to use the Browse primary commands to manipulate data.

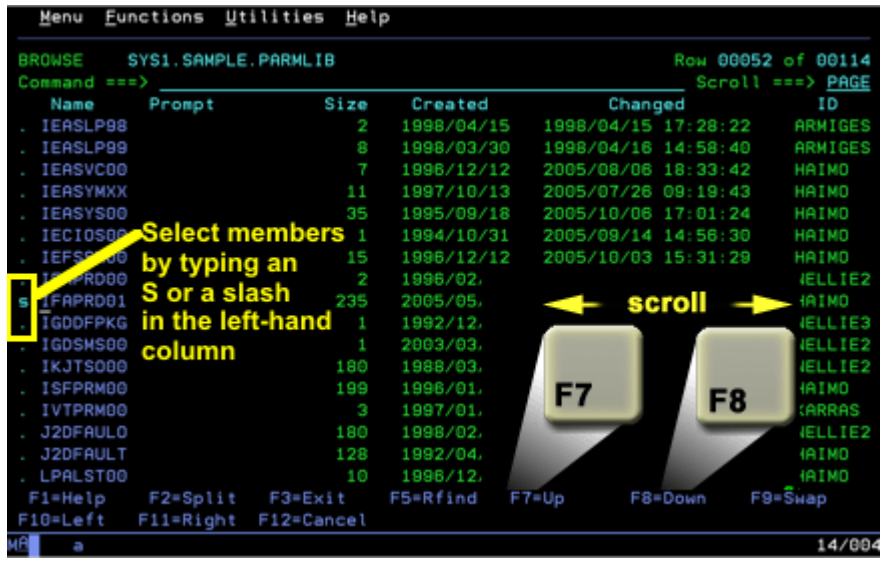
Browse can handle larger data sets, because it can load them a chunk at a time, whereas View and Edit have to load the entire member or data set into memory. Also, Browse can handle data sets whose record format is U (undefined).

Working with data sets – Scrolling the Member Selection List

If you do not specify a unique member name on the View Entry Panel, the member selection list, also called a member list, appears. The member list is initially an alphabetic list of the members of an ISPF library or TSO partitioned data set.

Use the F7 and F8 keys to scroll backwards (up) and forwards (down), respectively, in the member selection list.

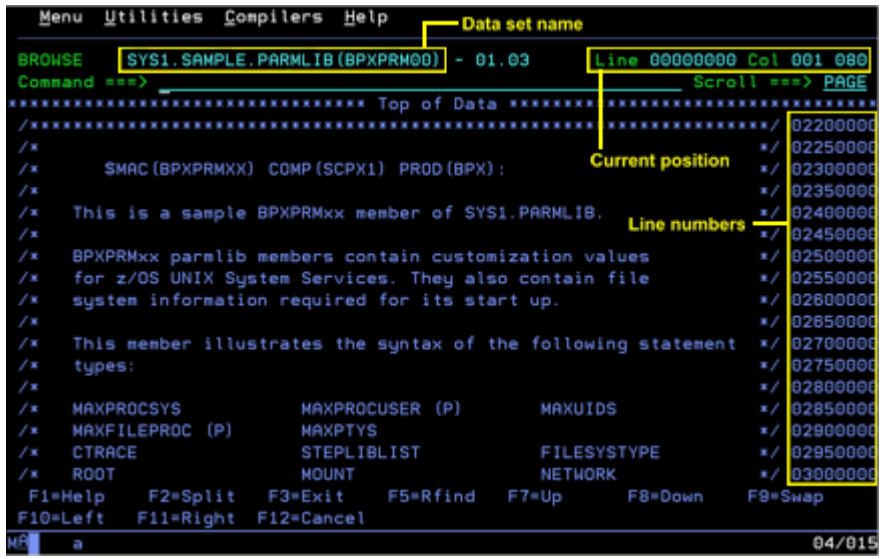
To select a member, type an “s” or a slash (/) in the left column next to the member name. Press the Enter key to browse the selected member.



Working with data sets – Browsing a data set

After you select the member you want to display and press Enter, the browse panel displays the first lines of the data. An example is shown here. This is a section of a sample PARMLIB.

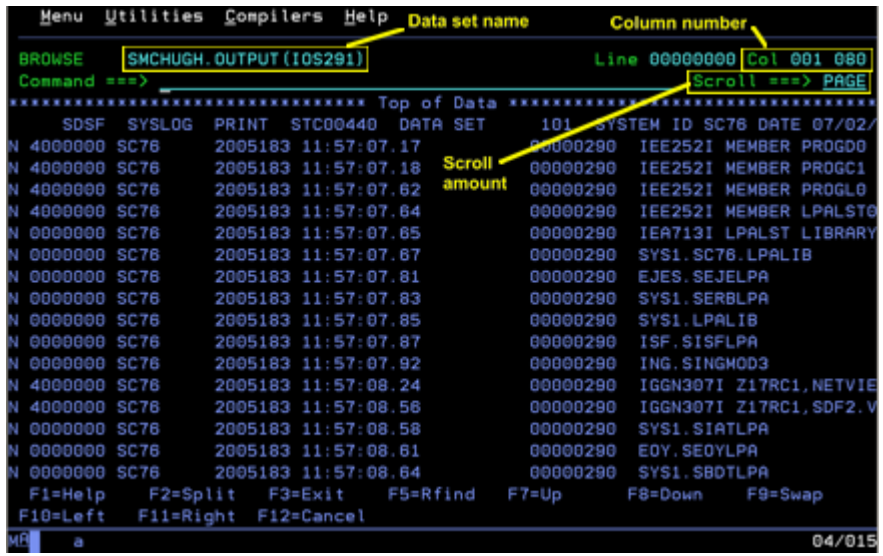
The heading line displays the data set name, current line position, and current columns displayed. In this screen, only browsing is allowed. You are not permitted to edit the member.



Working with data sets – Scrolling a data set

Scrolling functions let you specify both the direction and amount you move as you browse the data set. F7 and F8 move the window up and down respectively. F10 and F11 move it left and right.

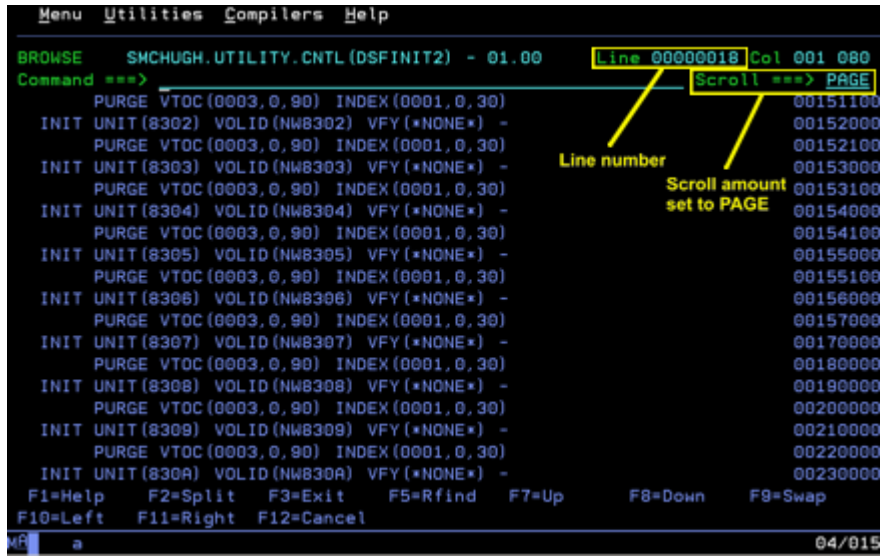
You may specify the amount of the scroll by entering a value in the SCROLL field to the right of the Command line.



Working with data sets – Scroll values

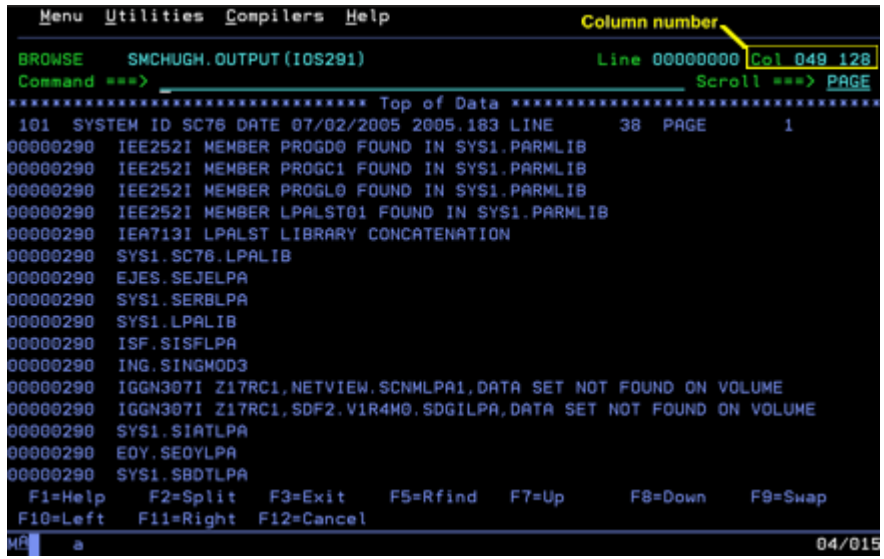
Possible values for the scroll amount include:

PAGE	**Move the screen window one page (default)**
HALF	**Move the panel window half a page**
N	**Move the screen window n lines or columns.**
MAX	**Move the screen window to top, bottom, left, or right margin.**
CSR	**Move the screen window so data at the current cursor position ends up at the top, bottom, left, or right of the screen.**
DATA	**Move the screen window one line or column less than a full page**



Working with data sets – Scrolling Wider data sets

When data sets are wider than the display, you may need to scroll right and left. You can use F11 to scroll right and F10 to scroll left. In this example, we have set the scroll amount to PAGE and scrolled from column 1 to column 49 by pressing F11.

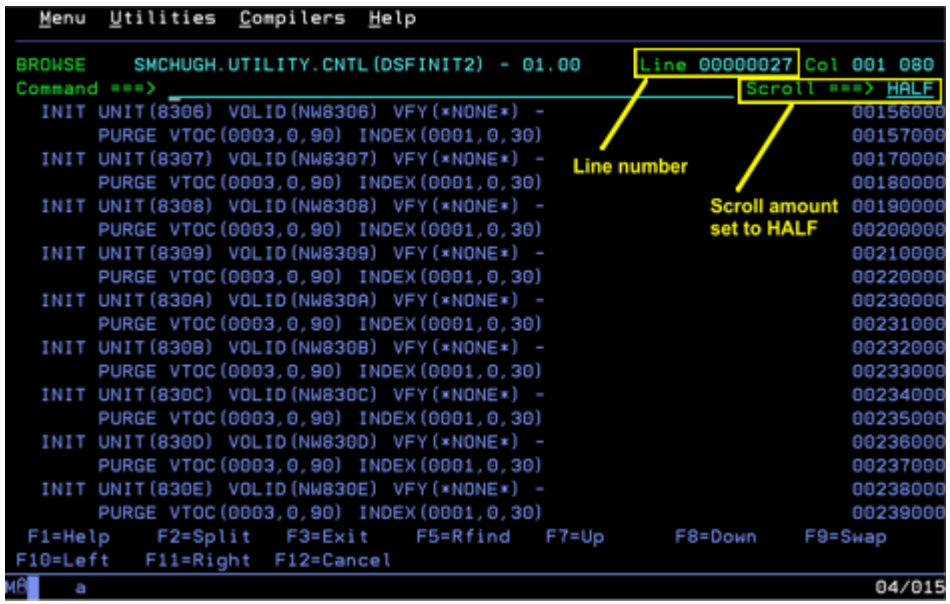


Working with data sets – Scrolling simulation

In this example, we have set the scroll amount to HALF. On the previous panel we ended on line 18. After scrolling half a page we are on line 27.

In this simulation you will see how the different scroll values affect scrolling both up and down and to the right and left.

To try this scrolling simulation, click the Launch button.

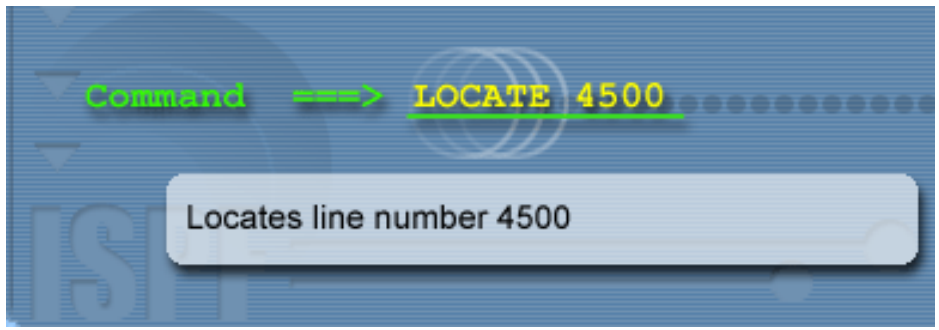


Working with data sets – Using the LOCATE Command with Line Numbers

You can position the display to a certain line number by using the LOCATE command, followed by the line number. Remember that this line number refers to the line number as it appears on the side of the display window.

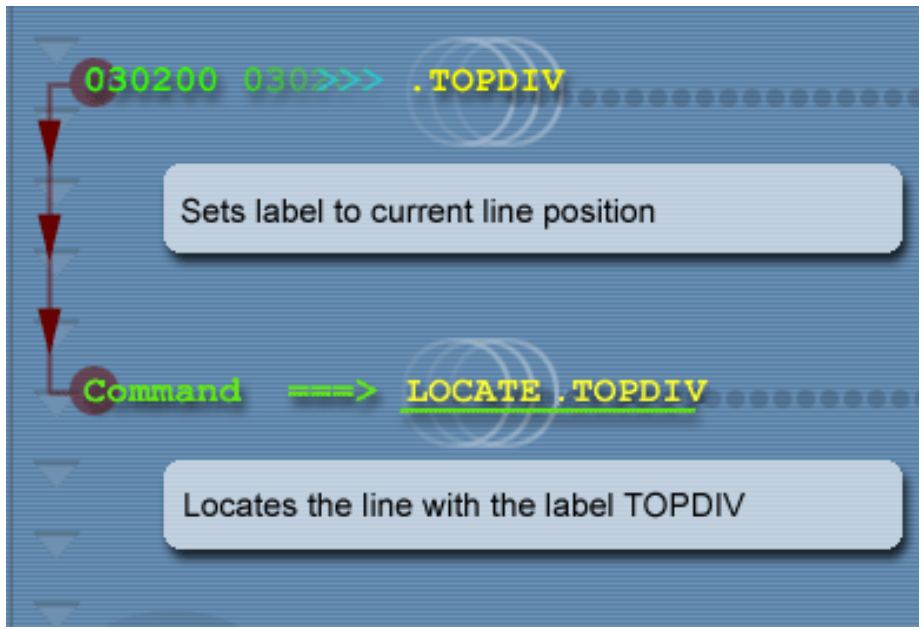
For example,

Command ===> LOCATE 4500 brings line 4500 to the top of the display.



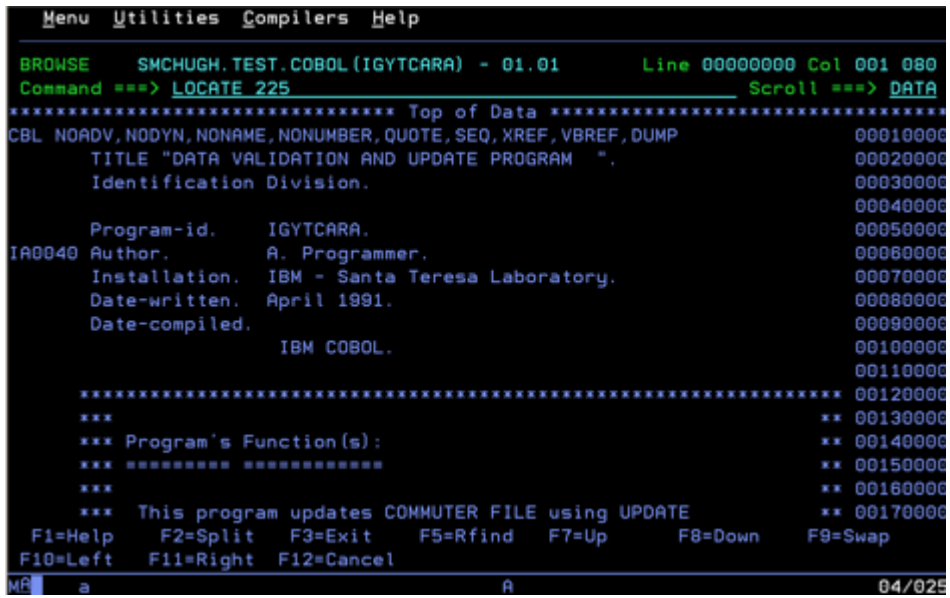
Working with data sets – Using the LOCATE command with a label

You can also assign a label to a line number in the member by positioning the line at the top of the display, then typing a period, followed by the label in the line command area.
For example:
Command ===> 030200
positions line 030200 at the top of the display.
Command ===> .TOPDIV
assigns the label TOPDIV to line 030200.
Then, later in your browse session, you can use the label with the LOCATE command to go there immediately.
Example:
Command ===> LOCATE .TOPDIV
Labels are not retained when you leave the browse session.



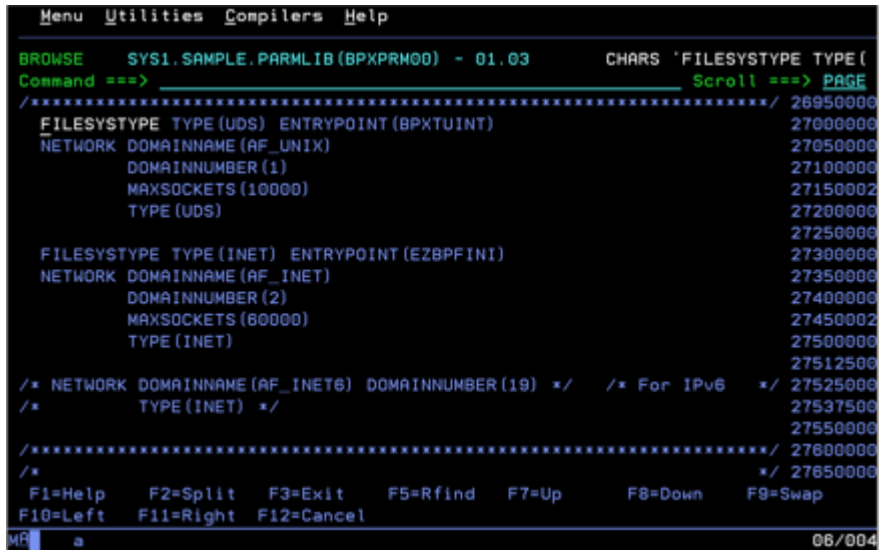
Working with data sets – LOCATE command simulation

To try a simulation of using the LOCATE command in a browse session, click on the Launch button.



Working with data sets – Using the FIND Command

You can use the FIND command to search for a specific string of characters. You type FIND at the command line followed by the string. If the search string contains blanks or characters, enclose it in either single or double quotes.



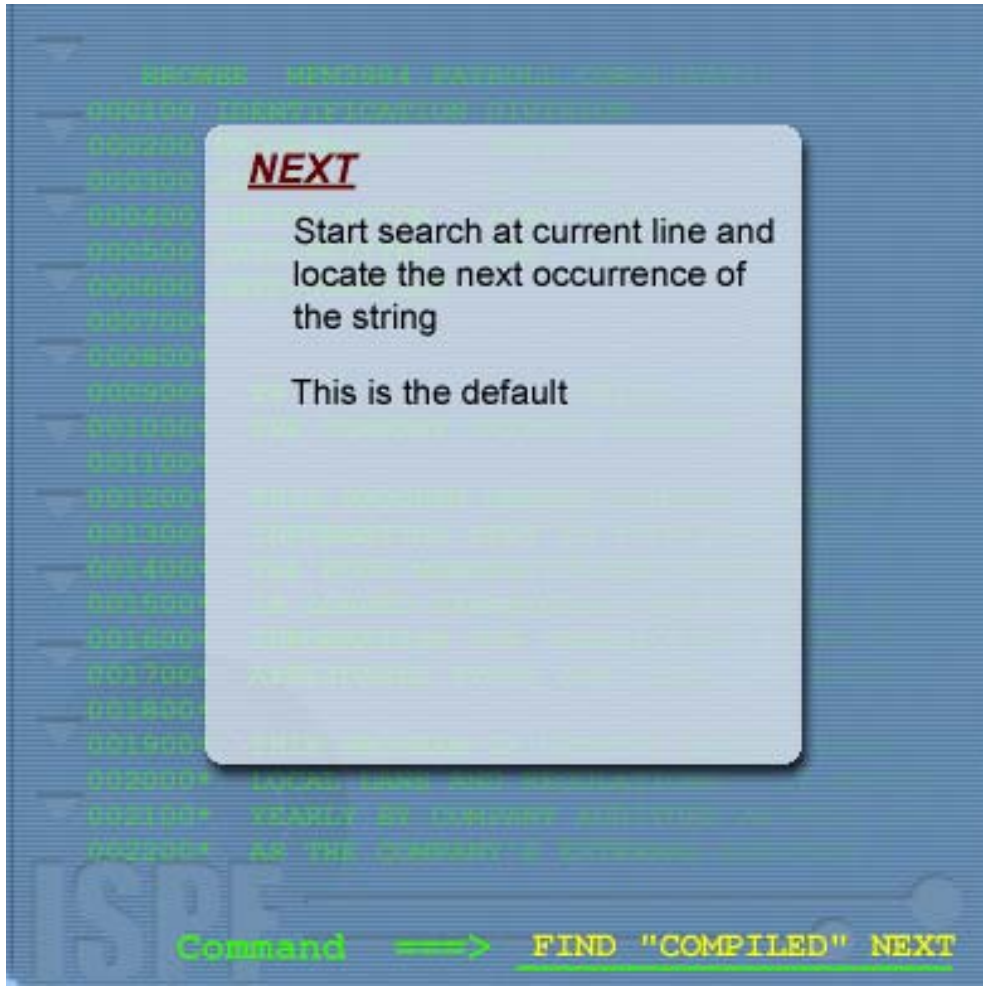
For example:
Command ===> FIND “FILESYSTYPE TYPE(UDS)"
will find the next line that contains the target string. To search for additional occurrences of the same string, press F5, the Repeat Find (Rfind) key.

Working with data sets – Using the Search String Qualifier NEXT

You can also add one of the following qualifiers after the search string:

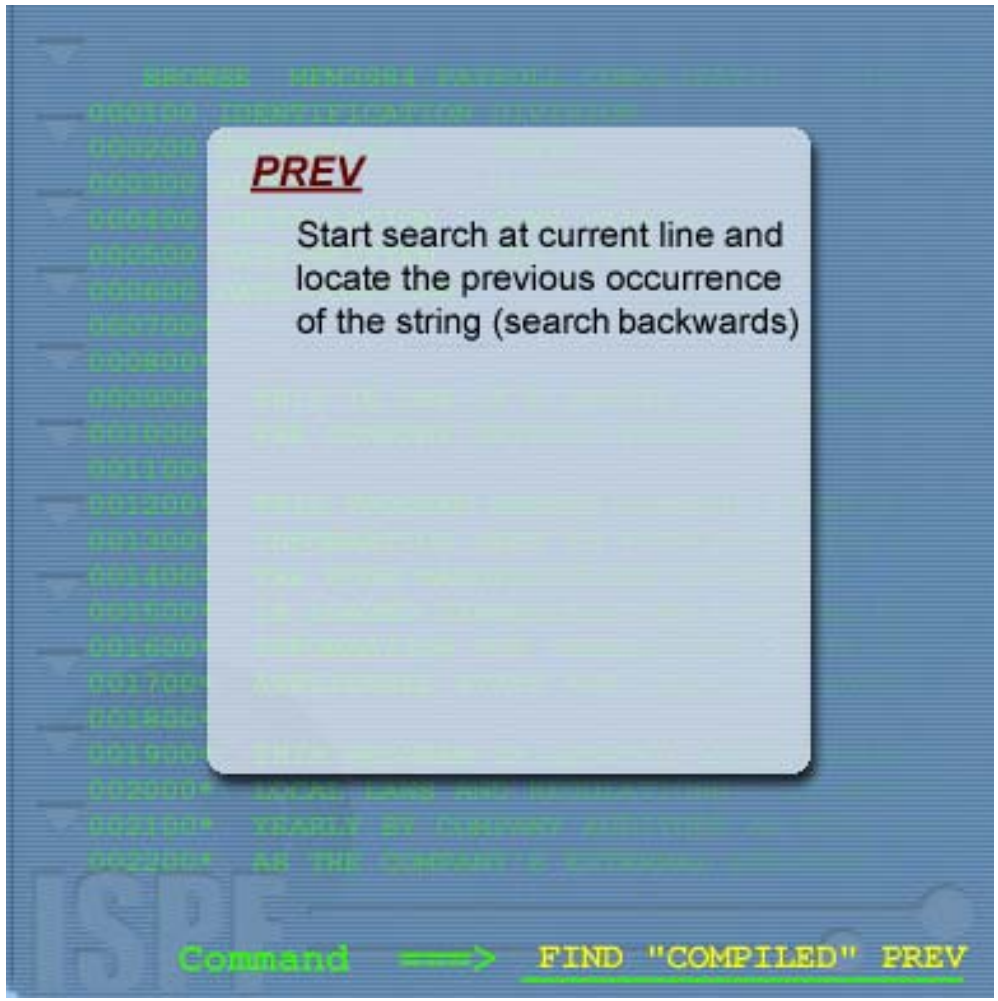
- NEXT
- PREV
- FIRST
- LAST
- ALL

The default, NEXT, starts at the current line and finds the next occurrence of the string.



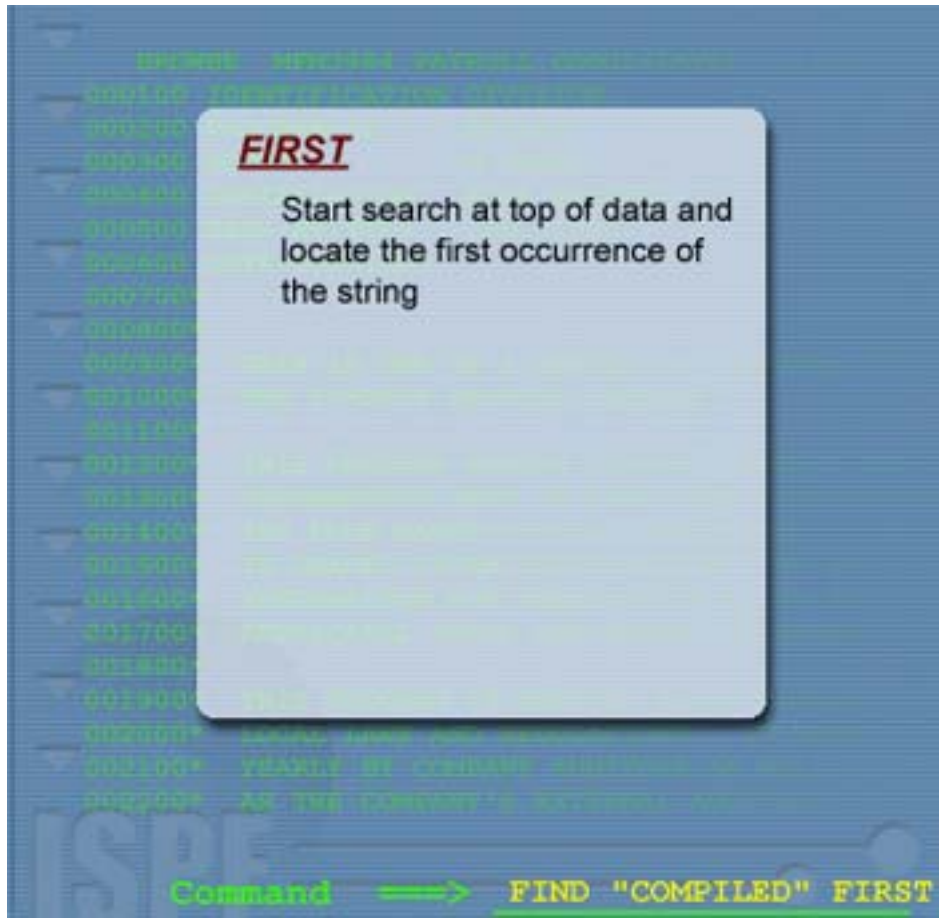
Working with data sets – Using the Search String Qualifier PREV

The PREV search string qualifier begins the search at the current line and finds the first occurrence of the string before the current line.



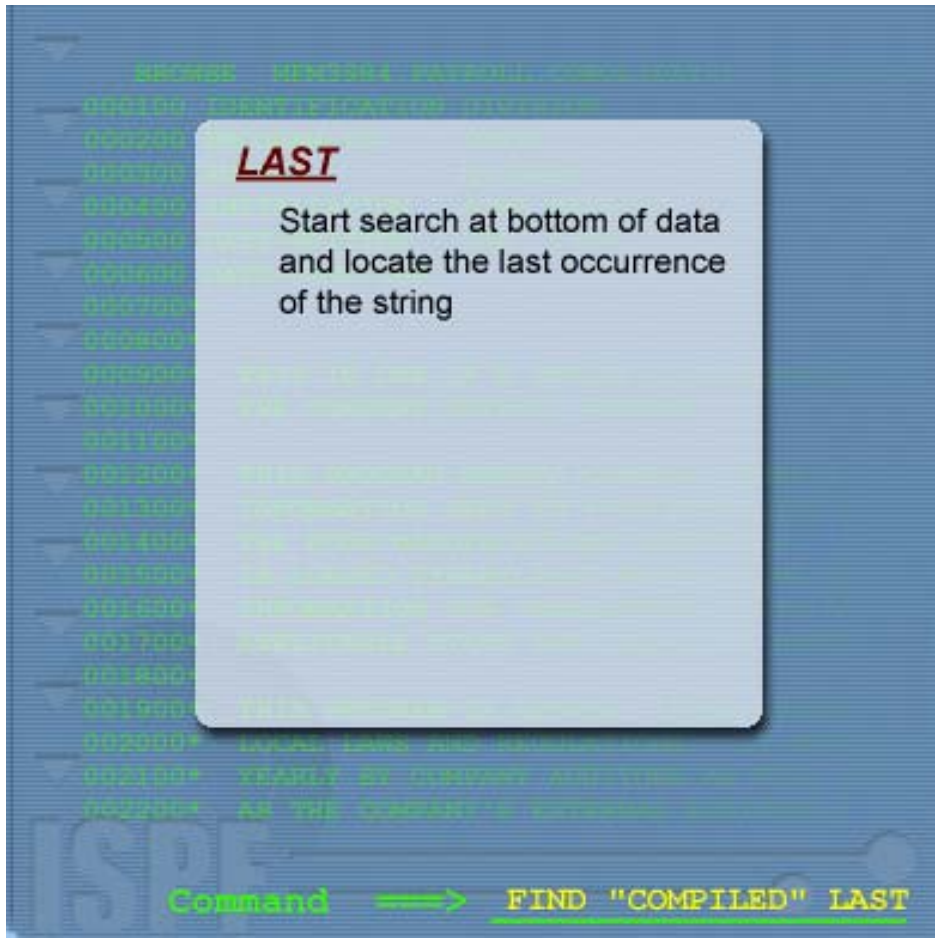
Working with data sets – Using the Search String Qualifier FIRST

Regardless of your current position in the data set, the FIRST qualifier starts the search at the top of the data set and finds the first occurrence of the string.



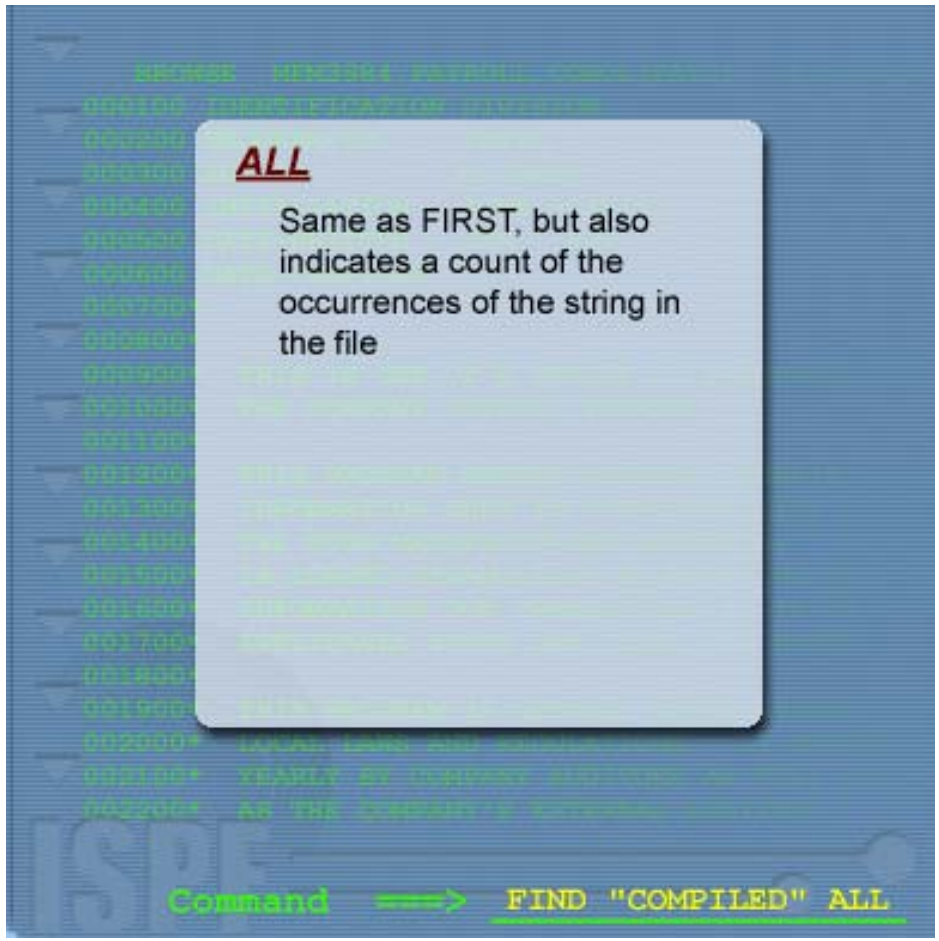
Working with data sets – Using the Search String Qualifier LAST

Regardless of your current position in the data set, the LAST qualifier starts the search at the end of the data set and searches backward to the last occurrence of the string.



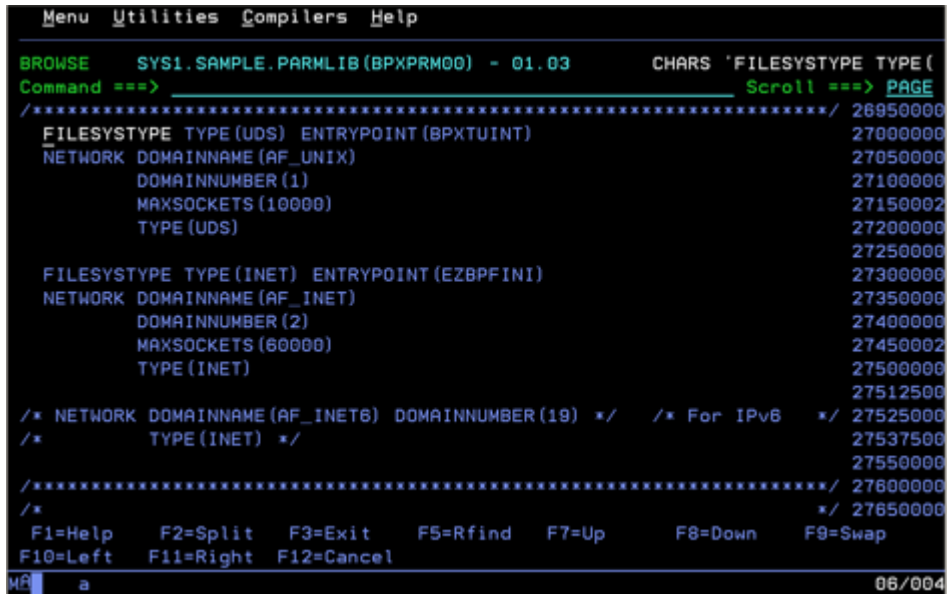
Working with data sets – Using the Search String Qualifier ALL

The ALL qualifier starts the search at the beginning of the data set and finds all occurrences of the string, and moves you to the first occurrence. A message in the upper-right corner of the screen shows the number of occurrences found.
You can use the RFIND function key (F5/F17) to move to the next occurrence of the string.



Working with data sets – FIND command simulation

To try your luck at finding a string in a data set, click the Launch button.



Working with data sets – Summary

In this module, Working with data sets, you learned:

- **How to view or browse a sequential data set or a member of a partitioned data set through the View Entry panel of ISPF.**
- **How to use the LOCATE command to locate a certain line number or label.**
- **How to use the FIND command with or without qualifiers to search for a string.**