



Information Management for z/OS

User's Guide

Version 7.1

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Preface

This book is intended to help you learn how to use Tivoli® Information Management for z/OS. It contains training exercises to teach you how to perform end-user tasks.

The first part of this book presents a series of exercises that teach you some specific tasks that the Tivoli Information Management for z/OS program can help you perform. If you are a beginning user, do these exercises first. Before you can begin the exercises, the database you use must contain a set of training records that have been created by your program administrator.

After you finish the exercises, you should be ready to use other books in the Tivoli Information Management for z/OS library that apply more directly to the tasks you perform every day. You can find these books listed in the Prerequisite section of this book.

Who Should Read This Document

This document is for users of Tivoli Information Management for z/OS who need to learn how to copy, update, print, create, delete records; how to enter commands; or how to search a Tivoli Information Management for z/OS database.

To use the *Tivoli Information Management for z/OS User's Guide*, you should understand how to use applications on your z/OS operating system. You do not have to know anything about the Tivoli Information Management for z/OS program.

Prerequisite and Related Documentation

The library for Tivoli Information Management for z/OS Version 7.1 consists of these publications. For a description of each, see “The Tivoli Information Management for z/OS Library” on page 297.

Tivoli Information Management for z/OS Application Program Interface Guide, SC31-8737-00

Tivoli Information Management for z/OS Client Installation and User's Guide, SC31-8738-00

Tivoli Information Management for z/OS Data Reporting User's Guide, SC31-8739-00

Tivoli Information Management for z/OS Desktop User's Guide, SC31-8740-00

Tivoli Information Management for z/OS Diagnosis Guide, GC31-8741-00

Tivoli Information Management for z/OS Guide to Integrating with Tivoli Applications, SC31-8744-00

Tivoli Information Management for z/OS Integration Facility Guide, SC31-8745-00

Tivoli Information Management for z/OS Licensed Program Specification, GC31-8746-00

Tivoli Information Management for z/OS Master Index, Glossary, and Bibliography, SC31-8747-00

Tivoli Information Management for z/OS Messages and Codes, GC31-8748-00

Tivoli Information Management for z/OS Operation and Maintenance Reference, SC31-8749-00

Tivoli Information Management for z/OS Panel Modification Facility Guide,
SC31-8750-00

Tivoli Information Management for z/OS Planning and Installation Guide and Reference,
GC31-8751-00

*Tivoli Information Management for z/OS Problem, Change, and Configuration
Management*, SC31-8752-00

Tivoli Information Management for z/OS Program Administration Guide and Reference,
SC31-8753-00

Tivoli Information Management for z/OS Reference Summary, SC31-8754-00

Tivoli Information Management for z/OS Terminal Simulator Guide and Reference,
SC31-8755-00

Tivoli Information Management for z/OS User's Guide , SC31-8756-00

Tivoli Information Management for z/OS World Wide Web Interface Guide,
SC31-8757-00

Note: Tivoli is in the process of changing product names. Products referenced in this manual may still be available under their old names (for example, TME 10™ Enterprise Console instead of Tivoli Enterprise Console®).

What This Document Contains

- Chapters 1 through 14 help you learn about Tivoli Information Management for z/OS. Use the training records to step through the exercises in this part of the book. The exercises teach you how to use Tivoli Information Management for z/OS program commands and line commands to copy, update, print, create, and delete records. You can learn how to create a search argument and how to use the search argument to generate reports. You can also learn how to use Tivoli Information Management for z/OS help facilities when you need assistance.

Once you have mastered the basics, you can use this part of the book to obtain more detailed information about the tasks you perform every day with Tivoli Information Management for z/OS. For example, you can learn about creating effective search arguments to retrieve information from a database.
- Chapter 7 and the Appendixes contain reference information. “Using Commands” on page 103 provides complete descriptions of and syntax for the Tivoli Information Management for z/OS program and line commands. Use this chapter in conjunction with the *Tivoli Information Management for z/OS Reference Summary* when you need to look up information about a particular command.

“Your Organization’s Procedures” on page 265 is a convenient place for you to make notes about how your organization performs certain tasks (for example, entering data and numbering records) with the Tivoli Information Management for z/OS program. If you are a program administrator, you can use this chapter to detail operating procedures all users in your organization should follow.

“P-Word Lists by Record Type” on page 269 lists prefixes and the fields with which they are associated.

This product is enabled for DBCS support. As a result, this book uses the following terms:

- DBCS (double-byte character set)

- SBCS (single-byte character set)
- Mixed data

The term *mixed data* refers to data strings that can contain only DBCS data, only SBCS data, or any combination of DBCS and SBCS data. SBCS data is the same as EBCDIC data. The term *mixed case data* refers to data strings that can contain uppercase, lowercase, or a combination of uppercase and lowercase SBCS data.

Typeface Conventions

This guide uses several typeface conventions for special terms and actions. These conventions have the following meaning:

Bold Entries that you must use literally, choices, or options that you select appear in **bold**. The names of titles or screen objects in graphical windows also appear in bold.

Italics Variables and values that you must provide appear in *italics*. New terms also appear in italics.

Monospace

Code examples, output, and messages are in monospace font.

The panels as presented in this book are not meant to be exact replicas of the way a panel might appear on the screen. The information on the panels is correct, but the spacing is not always exact.

Commands, such as END, CONTROL, RESUME, or DOWN, appear in all capital letters in text. Although not commands, the user responses YES and NO also appear in capital letters.

The Use of Panel Style in This Document

With Tivoli Information Management for z/OS, you may see changes in the way Tivoli Information Management for z/OS panels are displayed. Two panel styles are available: the standard panel style and the enhanced panel style. The style of panel does not affect the data that must be entered from it.

Except where noted, this book uses the Tivoli Information Management for z/OS standard panel style when showing you how a panel looks.

For more information about the enhanced panel style, refer to the *Tivoli Information Management for z/OS Program Administration Guide and Reference*, the *Tivoli Information Management for z/OS Planning and Installation Guide and Reference*, and “Tivoli Information Management for z/OS Panel Styles” on page 1 in this book.

Contacting Customer Support

For support inside the United States, for this or any other Tivoli product, contact Tivoli Customer Support in one of the following ways:

- Send e-mail to support@tivoli.com
- Call 1-800-TIVOLI8
- Navigate our Web site at <http://www.support.tivoli.com>

The latest downloads and fixes can be obtained at <http://www.tivoli.com/infoman>.

Contacting Customer Support

For support outside the United States, refer to your Customer Support Handbook for phone numbers in your country. The Customer Support Handbook is available online at **<http://www.support.tivoli.com>**.

When you contact Tivoli Customer Support, be prepared to provide identification information for your company so that support personnel can assist you more readily.

1

Tivoli Information Management for z/OS Panel Styles

Tivoli Information Management for z/OS provides the following panel styles:

- The standard panel style, which was the only style available prior to Information/Management Version 6.1. See “Standard Panel Style” on page 2 for an illustration.
- The enhanced panel style, which adds to the standard panel by providing an action bar, pull-down menus, and context-specific function keys. See “Enhanced Panel Style” for an illustration.

Two Panel Styles for Tivoli Information Management for z/OS

This section introduces you to the format of the enhanced panel style. It also explains the differences between the two styles and how to use the enhanced panel style. The next two sections show the different appearances of the standard panel style and the enhanced panel style.

Note: The examples shown in later chapters of this book use the standard panel style when showing you how a panel looks.

Enhanced Panel Style

The action bar appears on the top line of panels using the enhanced panel style. Placing the cursor on an action item and pressing Enter displays the pull-down menu for that action item. The context-specific function keys appear at the bottom of the panel.

```
Environment   Dialog   Record   Window   Options   Help
-----
===>

BLG0EN20          --- PRIMARY OPTIONS MENU ---      APPLICATION: MANAGEMENT

OPTIONS:

    1. OVERVIEW.....Display general information and product enhancements.
    2. PROFILE.....Display or alter invocation or session defaults.
    3. APPLICATION....Change application, list available applications.
    4. CLASS.....Change current class, list available classes.
    5. ENTRY.....Create a record.
    6. INQUIRY.....Search for records.
    7. UTILITY.....Copy, display, print, delete, and update records.
    8. GLOSSARY.....Display a list of searchable words in the database.
    9. PMF.....Modify or create panels.

        Select an option, enter a command, or type QUIT to exit.

        Tivoli Information Management for z/OS Version 7 Release 1
        5697-SD9 (C) Copyright IBM Corp., 1981, 2001.

F1=Help      F2=Set 2    F3=End      F4=Split    F5=Back     F6=Suspend
F7=Up        F8=Down    F9=Recall   F10=Actions F11=Init    F12=Cancel
```

Standard Panel Style

The standard panel style is the panel style shipped with Tivoli Information Management for z/OS.

```
BLG0EN20          --- PRIMARY OPTIONS MENU ---      APPLICATION: MANAGEMENT

OPTIONS:

    1. OVERVIEW.....Display general information and product enhancements.
    2. PROFILE.....Display or alter invocation or session defaults.
    3. APPLICATION....Change application, list available applications.
    4. CLASS.....Change current class, list available classes.
    5. ENTRY.....Create a record.
    6. INQUIRY.....Search for records.
    7. UTILITY.....Copy, display, print, delete, and update records.
    8. GLOSSARY.....Display a list of searchable words in the database.
    9. PMF.....Modify or create panels.

        Select an option, enter a command, or type QUIT to exit.

        Tivoli Information Management for z/OS Version 7 Release 1
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===>
```


Selecting a Panel Style

Tivoli Information Management for z/OS provides the `WINDOW` command to enable you to change the panel style you are using. The `WINDOW` command also lets you select which window to use for the enhanced panel style. A window is a specific set of action bars, pull-down menus, and context-specific function keys used to display Tivoli Information Management for z/OS panels. If you use the enhanced panel style, you can choose between automatic window selection and manual window selection.

You can temporarily switch to the standard panel style by issuing the following command:

```
WINDOW STANDARD
```

To return to the enhanced panel style, issue the following command:

```
WINDOW ENHANCED
```

Also, when using the enhanced panel style as the default panel style, you can change the default panel style to the standard panel style by issuing the following commands:

```
WINDOW STANDARD  
WINDOW SAVE
```

For more information on the `WINDOW` command, see page 151.

Using the Enhanced Panel Style

To make Tivoli Information Management for z/OS more familiar to users of Common User Access[®] (CUA[®]) compliant interfaces, the Tivoli Information Management for z/OS panels can appear with an action bar at the top, pull-down menus, and context-specific function keys. If your program administrator made changes to the panels in your installation of Tivoli Information Management for z/OS, the panels may appear different from those shown in this book.

Using Pull-Down Menus

The action bar containing action items appears at the top of a Tivoli Information Management for z/OS panel using the enhanced panel style. To choose an action:

1. Use your mouse or the tab key to move the cursor to the action item you want.
2. Press Enter; a pull-down menu appears in a box below the chosen action item. Each pull-down choice corresponds to a command that you can choose.
3. Type the number of the selection you want to the left of the first selection in the menu.

The following example shows the Primary Options Menu panel in the enhanced panel style with the pull-down menu for the Environment action item displayed.

```
Environment  Dialog  Record  Window  Options  Help
-----
- 1.User profile...  PRIMARY OPTIONS MENU ---  APPLICATION: MANAGEMENT
  2. Suspend
  3. Resume
  4. Initialize
  5. Quit/Exit
  3. APPLICATION....Change application, list available applications.
  4. CLASS.....Change current class, list available classes.
  5. ENTRY.....Create a record.
  6. INQUIRY.....Search for records.
  7. UTILITY.....Copy, display, print, delete, and update records.
  8. GLOSSARY.....Display a list of searchable words in the database.
  9. PMF.....Modify or create panels.

      Select an option, enter a command, or type QUIT to exit.

      Tivoli Information Management for z/OS Version 7 Release 1
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F1=Help      F2=Set 2    F3=End      F4=Split    F5=Back     F6=Suspend
F7=Up        F8=Down    F9=Recall   F10=Actions F11=Init    F12=Cancel
```

Pull-Down Menus, PF Keys, and Command Line Entries

Generally, commands selected from pull-down menus are treated the same as commands entered with PF keys. Commands selected from pull-down menus are used to prefix data on the command line if your PROFILE, SESSION, PF KEY DATA is set to PREFIX. For example, to update record 00000002, enter R 2 on the command line, and select UPDATE from the Record pull-down menu. The record is updated the same as if you had entered UPDATE R 2 on the command line and pressed Enter.

Using a Display with More than 26 Lines

The following example shows the Tivoli Information Management for z/OS default Primary Options Menu panel using the enhanced panel style on a display with more than 26 lines and with the function keys showing.

```

Environment   Dialog   Record   Window   Options   Help
-----
===>

BLG0EN20          --- PRIMARY OPTIONS MENU ---      APPLICATION: MANAGEMENT

OPTIONS:

    1. OVERVIEW.....Display general information and product enhancements.
    2. PROFILE.....Display or alter invocation or session defaults.
    3. APPLICATION....Change application, list available applications.
    4. CLASS.....Change current class, list available classes.
    5. ENTRY.....Create a record.
    6. INQUIRY.....Search for records.
    7. UTILITY.....Copy, display, print, delete, and update records.
    8. GLOSSARY.....Display a list of searchable words in the database.
    9. PMF.....Modify or create panels.

        Select an option, enter a command, or type QUIT to exit.

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F1=Help      F2=Set 2    F3=End      F4=Split    F5=Back     F6=Suspend
F7=Up        F8=Down     F9=Recall   F10=Actions F11=Init    F12=Cancel

```

Using a Display with Fewer than 26 Lines

If your screen displays fewer than 26 lines, the enhanced panel appears like the next one. The MORE: + designation at the end of the line separating the action bar from the rest of the panel means that there are lines on the panel that do not appear on your screen. The + indicates that you must scroll down to see the hidden lines. You can use the function keys shown at the bottom of the screen or the Tivoli Information Management for z/OS UP and DOWN commands to scroll a panel. If you use the Tivoli Information Management for z/OS UP and DOWN commands, remember that the operands for these commands are valid only on table display panels. The operands for the UP and DOWN commands are ignored on non-table display panels.

Note: A table display panel is one that has LINE __ of __ in the upper right-hand corner.

Using a Display with Fewer than 26 Lines

```
Environment   Dialog   Record   Window   Options   Help
-----
====>
BLG0EN20          --- PRIMARY OPTIONS MENU ---      APPLICATION: MANAGEMENT
OPTIONS:
    1. OVERVIEW.....Display general information and product enhancements.
    2. PROFILE.....Display or alter invocation or session defaults.
    3. APPLICATION....Change application, list available applications.
    4. CLASS.....Change current class, list available classes.
    5. ENTRY.....Create a record.
    6. INQUIRY.....Search for records.
    7. UTILITY.....Copy, display, print, delete, and update records.
    8. GLOSSARY.....Display a list of searchable words in the database.
    9. PMF.....Modify or create panels.

        Select an option, enter a command, or type QUIT to exit.

F1=Help      F2=Set 2    F3=End      F4=Split    F5=Back     F6=Suspend
F7=Up        F8=Down    F9=Recall   F10=Actions F11=Init    F12=Cancel
```

After you scroll down to see the hidden lines, the MORE: + notation changes to MORE -. This still means that there are lines on the panel that do not appear on your screen. The - indicates that you must scroll up to see the hidden lines.

```
Environment   Dialog   Record   Window   Options   Help
-----
====>
OPTIONS:
    1. OVERVIEW.....Display general information and product enhancements.
    2. PROFILE.....Display or alter invocation or session defaults.
    3. APPLICATION....Change application, list available applications.
    4. CLASS.....Change current class, list available classes.
    5. ENTRY.....Create a record.
    6. INQUIRY.....Search for records.
    7. UTILITY.....Copy, display, print, delete, and update records.
    8. GLOSSARY.....Display a list of searchable words in the database.
    9. PMF.....Modify or create panels.

        Select an option, enter a command, or type QUIT to exit.

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F1=Help      F2=Set 2    F3=End      F4=Split    F5=Back     F6=Suspend
F7=Up        F8=Down    F9=Recall   F10=Actions F11=Init    F12=Cancel
```

If MORE: +- appears at the end of the line separating the action bar from the rest of the screen, you can scroll up or down to see hidden lines.

Other Considerations for Processing Enhanced Panel Style Panels

You process enhanced panel style panels the same as you do standard panel style panels. However, keep the following considerations in mind when you use the enhanced panel style panels:

- When using the enhanced panel style, if you:
 - Select the last item of a list
 - Completely fill a command line
 - Completely fill the last field on a panel

the cursor automatically moves to the first action item on the action bar at the top of the screen. Leaving the cursor on the action bar and pressing Enter causes the pull-down menu for that action item to appear. To prevent the pull-down menu from appearing, use your mouse or the tab key to move the cursor to the command line. You can then process the panel.

- The definitions of the function keys in the enhanced panel style differ from the definitions in the standard panel style.
- The definitions of the function keys in the enhanced panel style differ among the following windows:

BLGISPFE

The primary window

BLGISPFA

The administration window

- The action bar items are not protected fields. You can type over them, but no harm occurs if you do. To clear any text you accidentally type over an action bar item, move your cursor to the command line, type **end** and press Enter. The action bar item reappears, replacing the text you typed.
- The ISPF PFSHOW command affects which PF keys are shown. Refer to the *ISPF Dialog Management Guide and Reference* for more information.
- For ISPF users:

The **Screen format** field on the ISPF Settings panel determines how many lines are displayable. Refer to the *ISPF User's Guide* for more information.
- If you use a terminal with a 24-line screen, you must scroll up or down to see all the text on the panel.

Note: Your user profile has settings that also control the number of lines and columns that are displayed.

2

Tivoli Information Management for z/OS Graphical User Interface

You can view, edit, and interact with Tivoli Information Management for z/OS data through traditional host screens or various graphical user interfaces. As previously described, you can use host system panels in a standard or enhanced panel style. In addition, you can use the following:

- ISPF graphical user interface (GUI) controls to view panels as workstation windows
- A World Wide Web browser to interact with Tivoli Information Management for z/OS through a Web application
- The Tivoli Information Management for z/OS Desktop, which is a starter help desk application that uses a Java-based graphical user interface and host data model records to enable you to interact with Tivoli Information Management for z/OS

This chapter describes the graphical user interface controls that are available if you are using ISPF. For an explanation of how you can use Tivoli Information Management for z/OS Web connectors to communicate with the host through a Web browser, refer to the *Tivoli Information Management for z/OS World Wide Web Interface Guide*.

For a description of the Tivoli Information Management for z/OS Desktop, refer to the *Tivoli Information Management for z/OS Desktop User's Guide* or navigate Tivoli Web site <http://www.tivoli.com/infoman> for more information.

Using the Graphical User Interface Controls

If you use ISPF with Tivoli Information Management for z/OS, you can view Tivoli Information Management for z/OS panels as workstation windows. Graphical user interface controls, such as sizable, movable, and scrollable windows, push button function keys, action bars, and pull-down menus, are automatically available when you run in ISPF's graphical user interface (GUI) mode. For information on starting Tivoli Information Management for z/OS in GUI mode, refer to the *Tivoli Information Management for z/OS Planning and Installation Guide and Reference*. For more information on running in GUI mode, refer to the *ISPF User's Guide*.

Your Tivoli Information Management for z/OS program administrator can enable the following additional GUI features for Tivoli Information Management for z/OS:

- Push buttons
- Mnemonic choice selections
- Accelerator keys
- Separator bars
- Unavailable pull-down choices.

If these features do not appear automatically when you use Tivoli Information Management for z/OS in ISPF's GUI mode, contact your Tivoli Information Management for z/OS program administrator. Figure 1 shows the Tivoli Information Management for z/OS Primary Options Menu displayed in GUI mode.

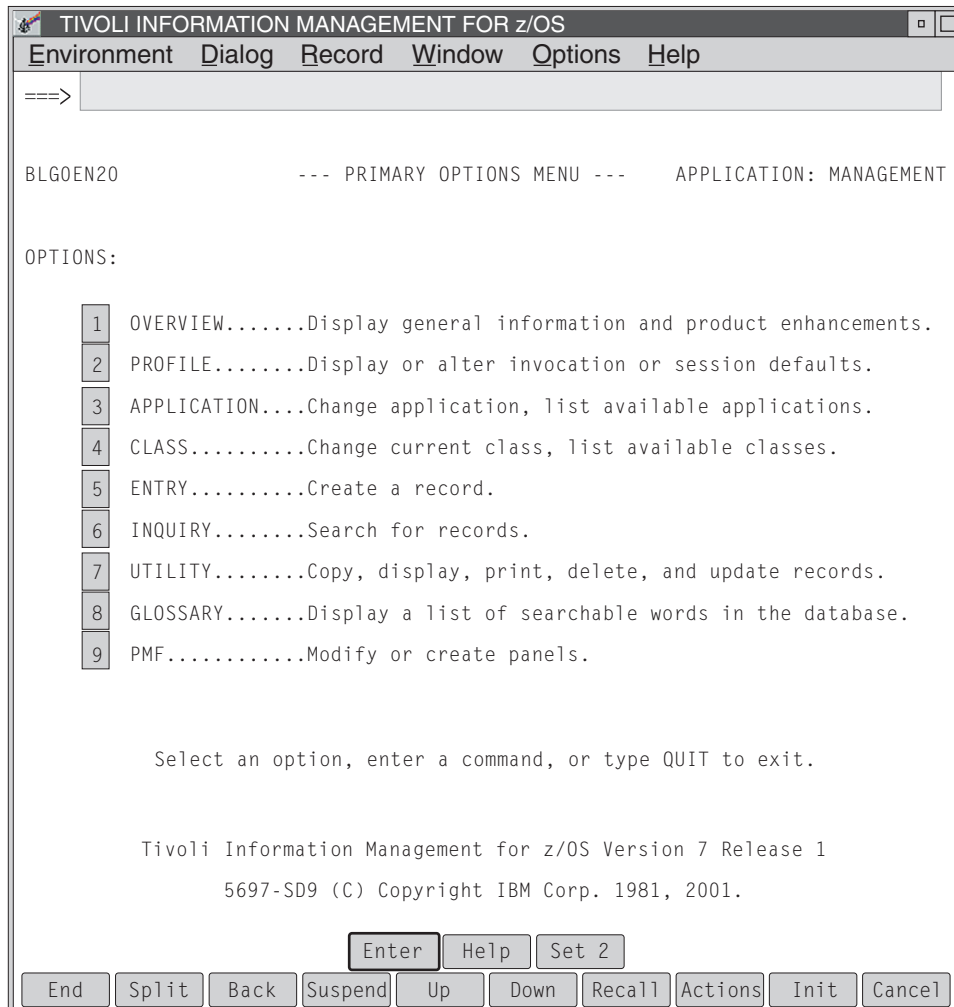


Figure 1. Tivoli Information Management for z/OS Primary Options Menu Displayed in ISPF GUI Mode

Push Buttons

This feature enables you to make certain Tivoli Information Management for z/OS selections, such as selecting a number on an options panel, by using the mouse to click on a push button point-and-shoot field. The push button appears graphically as a three-dimensional rectangle. You can move the mouse pointer to any point on the push button and then click. Pressing the push button can result in one of five actions, depending on the push button that is selected. The following sections describe the five uses of the push buttons.

Selection Numbers

These push buttons appear where a selection number normally appears on selections, options, and data-entry panels. When you press the push button, Tivoli Information Management for z/OS enters the number and performs the associated action. The option numbers on the Tivoli Information Management for z/OS Primary Options Menu (see Figure 1 on page 10) are examples of these push buttons.

Note: If you already typed other values on the command line, Tivoli Information Management for z/OS appends the selection number to the command line using the handling method that you specified in the **PF key data** field of your user profile.

To use the ISPF GUI correctly with data-entry panels, your user profile must be set to display entry field numbers. For more information, see “The Other Options on the Profile Summary Panel” on page 44.

Assisted-Entry Panel Plus Signs (+)

All assisted-entry panels contain text within a box. The box corners are represented by the plus sign (+) character. When you run Tivoli Information Management for z/OS in GUI mode, the plus signs become push buttons. Pressing any one of the plus signs opens the associated Validation Help panel. Figure 2 on page 12 shows an assisted-entry panel with plus sign push buttons.

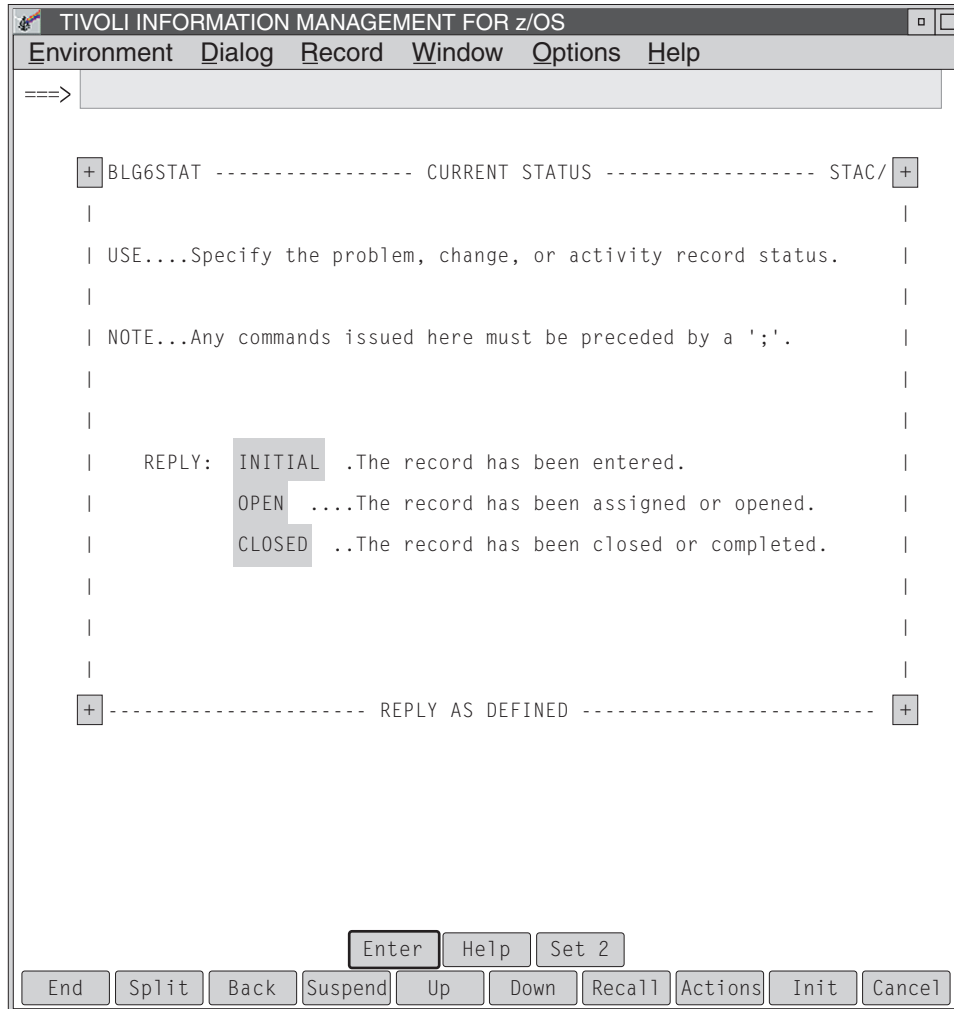


Figure 2. Tivoli Information Management for z/OS Assisted-Entry Panel with Plus Sign and Literal Value Push Buttons

Literal Values

A literal value is any group of characters in an assisted-entry panel or a Validation Help panel that is delimited by a less than (<) symbol and a greater than (>) symbol when you run in 3270 mode (see Figure 3 on page 13). When you run in GUI mode, the symbols disappear, and you see a push button instead. When you press a literal value push button, the value on the button is returned to the assisted-entry panel. The **INITIAL**, **OPEN**, and **CLOSED** push buttons in Figure 2 are examples of literal value push buttons.

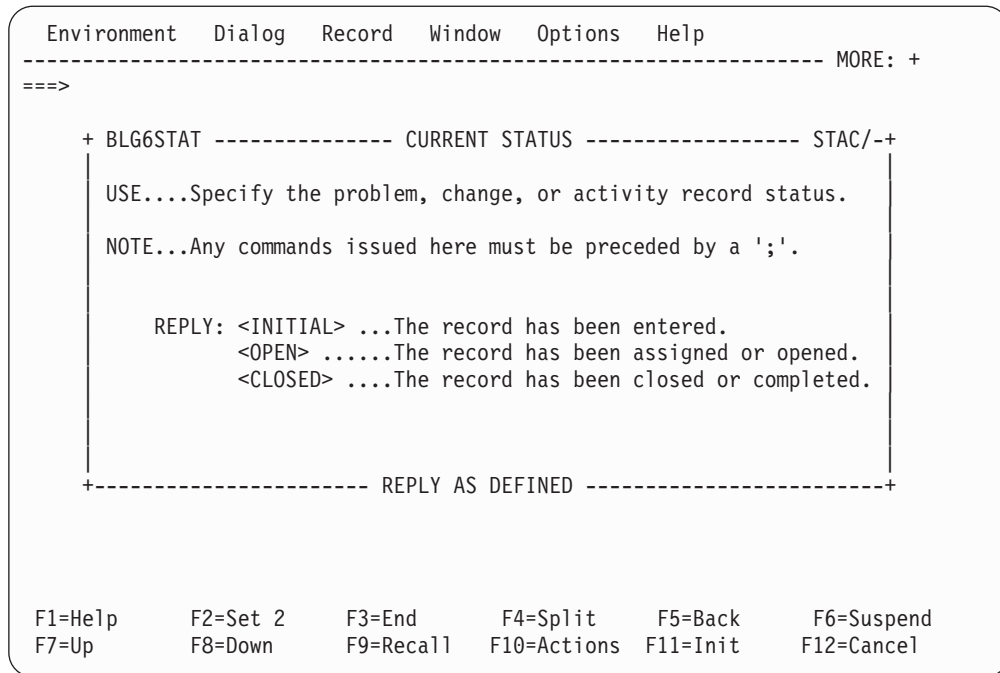


Figure 3. Tivoli Information Management for z/OS Assisted-Entry Panel Displayed in 3270 Mode

Table Panel Values

A Tivoli Information Management for z/OS table panel contains columns of fields and rows of data. The first column of each row of the table panel, which is usually the record number ID, appears as a push button. Pressing one of these push buttons moves that row of data to the top of the display and selects it. Figure 4 on page 14 shows a search results list, which is displayed in a table panel. The values in the **RECORD ID** field are push buttons.

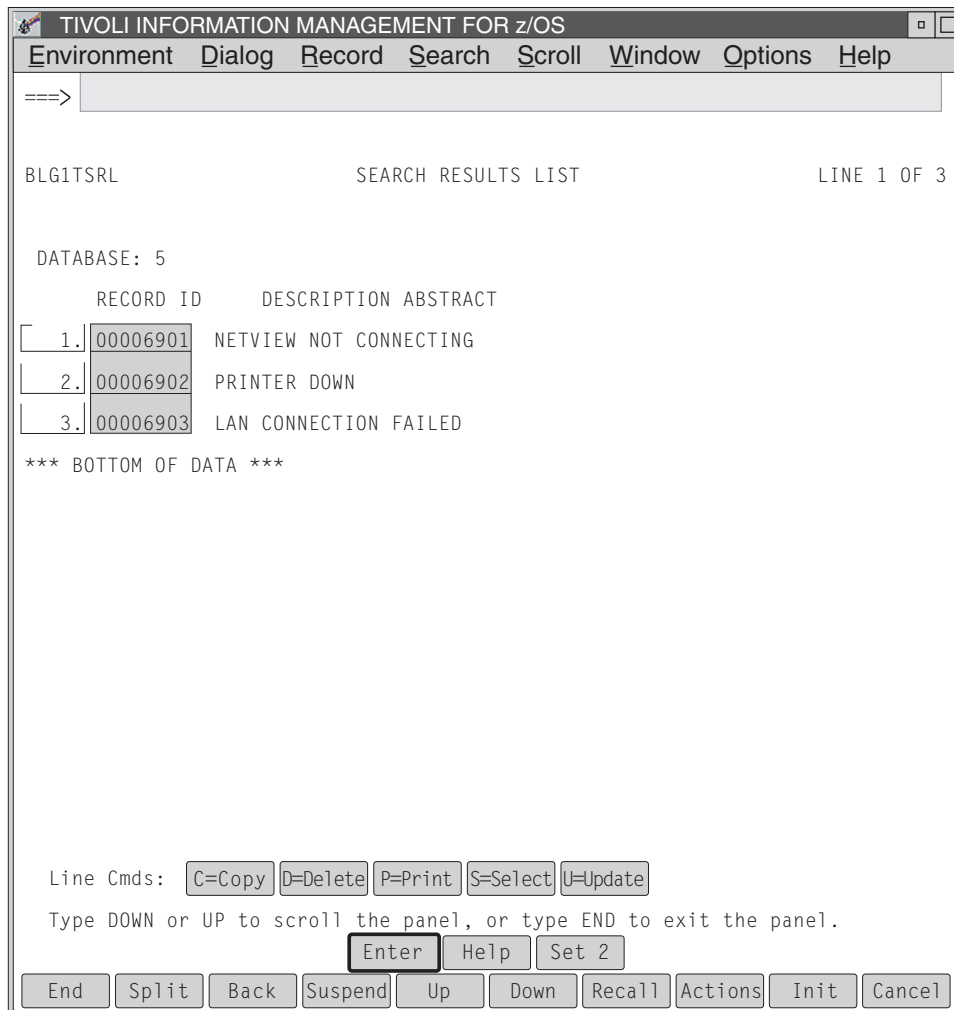


Figure 4. Tivoli Information Management for z/OS Table Panel (Search Results List) Displayed in ISPF GUI Mode

Table Panel Line Commands

The line commands that are listed on a table panel become push buttons when you use Tivoli Information Management for z/OS in GUI mode. The push buttons are located on the panel following **Line Cmds:**. Pressing a line command push button is the same as entering LINECMD x on the Tivoli Information Management for z/OS command line, where x is the first letter on the push button. For example, if you want to update the sixth record in a search results list containing 3357 records (see Figure 4 on page 14), do the following:

1. Press the push button that represents the record ID for the sixth row in the list. Tivoli Information Management for z/OS selects that row and moves it to the top of the displayed list.
2. Press the **Update** push button, and Tivoli Information Management for z/OS opens the record for update.

Mnemonic Choice Selections

This feature enables you to select an action bar or pull-down menu choice by pressing the letter that is underscored in the choice text. Before you can use a mnemonic, you must first select the action bar or pull-down menu. For example, to use mnemonics to choose **Change to Inquiry window**, do the following:

1. Press the ALT key once to select the action bar.
2. Press **W** to select the **Window** pull-down menu.
3. Press **I** to select **Change to Inquiry window**.

Figure 5 shows the **Window** pull-down menu.

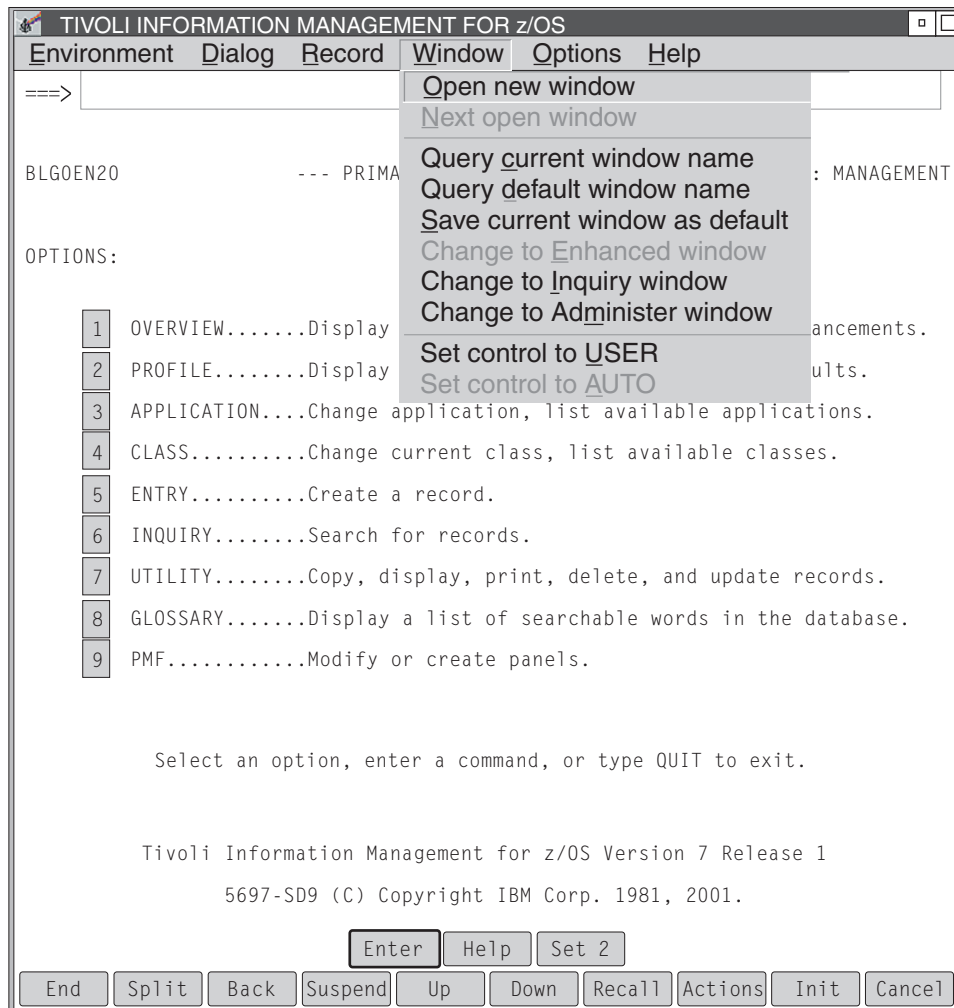


Figure 5. A Pull-Down Menu with Mnemonic Selections and Unavailable Choices

Unavailable Pull-Down Choices

This feature prevents you from selecting a choice that is not currently valid from a pull-down menu. The choice is highlighted and disabled. For example, in Figure 5 on page 15, you are using the enhanced panel style, so the **Change to Enhanced window** choice is highlighted in gray in the **Window** pull-down menu. If you attempt to select **Change to Enhanced window**, no action occurs.

Accelerator Keys

This feature enables users of ISPF to press a combination of keys to start a function from a pull-down menu. If an action item on a pull-down menu has an accelerator defined, you can start that action by using the accelerator—even if you have not switched to the action bar or displayed the pull-down menu.

Figure 6 shows the **Options** pull-down menu that appears when you use ISPF. Notice that to the right of both the **Settings** and **Configure tool integration** choices, there are accelerator keys defined:

- Ctrl + S for the **Settings...** option
- Ctrl + W for the **Configure tool integration...** option.

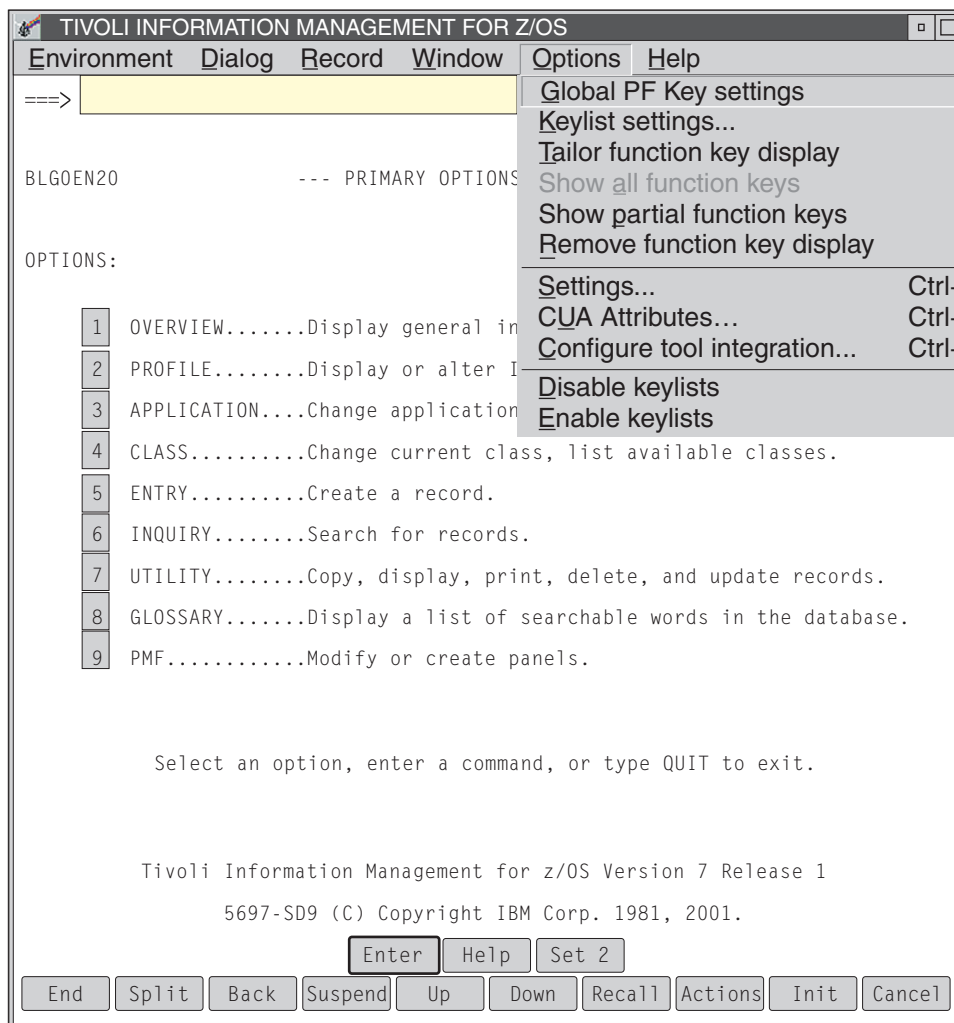


Figure 6. A Pull-Down Menu with Accelerator Keys

Separator Bars

This feature provides users of ISPF with a visual distinction between adjacent areas within a pull-down menu. Figure 6 shows two separator bars and divides the pull-down menu into three visually distinct parts.

Using Your Workstation Editor

If your organization is using ISPF, you can choose to use a workstation editor, rather than a host editor, to edit freeform text in Tivoli Information Management for z/OS records. There are two things you must do to enable Tivoli Information Management for z/OS to use your workstation editor:

1. Update your user profile and specify WS as your editor selection. See “Modifying Your User Profile” on page 41 for help with this step.
2. Select **Configure tool integration** from the **Options** pull-down menu. Enter the information about your workstation editor on the ISPF Tool Integration panel. Then return to Tivoli Information Management for z/OS.

When you select to edit freeform text in a record, your workstation editor is started. When you finish and close your editor, the data you entered is filed with the record on the host (not on your workstation).

If you specify WS in your user profile but you are not using ISPF GUI, Tivoli Information Management for z/OS uses the ISPF/PDF editor instead.

If you need to use your workstation editor when you are in 3270 mode, contact your Tivoli Information Management for z/OS program administrator to specify the NOGUIDSP parameter of the ISPSTART command. For information on starting Tivoli Information Management for z/OS, refer to the *Tivoli Information Management for z/OS Planning and Installation Guide and Reference*.

Using ISPF Split Screens

When you use the ISPF split screen function in GUI mode, you see two separate workstation windows. To split the screens, you can do one of the following:

- Select the **Split** function key push button
- Type the ISPF SPLIT command on the command line, and press Enter.

If you use the Tivoli Information Management for z/OS enhanced panel style, you also can split the screen by selecting **Open new window** from the **Window** pull-down menu.

To toggle between the two windows, you can do one of the following:

- Click the mouse on the second window
- Type the ISPF SWAP command on the command line, and press Enter.

If you use the Tivoli Information Management for z/OS enhanced panel style, you also can toggle between windows by selecting **Next open window** from the **Window** pull-down menu.

Each window is independently sizable, movable, and scrollable. However, when you press Enter in the current window, transactions in the second window wait for transactions in the current window to complete.

3

Before You Begin

This chapter shows you:

- How to respond to various kinds of panels
- How to enter data three ways
- How to use PF keys
- How to get help

Responding to Different Panel Types

When you work with Tivoli Information Management for z/OS, you respond to various panels to accomplish tasks. Different types of panels help you perform different tasks. Most panels prompt you for the type of response required: entering data, making a selection, or typing a command. The following panels are examples of those that you use when working with Tivoli Information Management for z/OS. Included with the panels are explanations of the panel contents and how you respond to each panel.

Primary Options Menu

Displays a list of numbered options, each of which begins a task. To select an option, type the number on the command line and press Enter.

```
BLG0EN20          --- PRIMARY OPTIONS MENU ---      APPLICATION: MANAGEMENT

OPTIONS:

  1. OVERVIEW.....Display general information and product enhancements.
  2. PROFILE.....Display or alter invocation or session defaults.
  3. APPLICATION....Change application, list available applications.
  4. CLASS.....Change current class, list available classes.
  5. ENTRY.....Create a record.
  6. INQUIRY.....Search for records.
  7. UTILITY.....Copy, display, print, delete, and update records.
  8. GLOSSARY.....Display a list of searchable words in the database.
  9. PMF.....Modify or create panels.

          Select an option, enter a command, or type QUIT to exit.

          Tivoli Information Management for z/OS Version 7 Release 1
          5697-SD9 (C) Copyright IBM Corp., 1981, 2001.

===>
```

Selection Panel

Displays a list of numbered items. To select an option, type the selection number on the command line and press Enter.

```
+ BLG00011 ----- SYSTEM RECORD INQUIRY ----- 1 OF 1-+
|
| USE....Identify the type of records to include in the inquiry.
|
| 1.CLASS.....Include privilege class records in inquiry.
| 2.SRC.....Include SRC records in the inquiry.
| 3.MAP.....Include mapping records in inquiry.
| 4.INDEX.....Include index records in inquiry.
|
|----- SELECT ITEM -----+
|
|====>
```

Data-Entry Panel

Enables you to enter data in a number of data fields. See “Three Data-Entry Methods” on page 23.

```
BLG0B100                PROBLEM REPORTER ENTRY                PROBLEM: _____
Enter problem reporter data; cursor placement or input line entry allowed.

 1. Reported by.....<R> _____      13. Problem type..... _____
 2. Reporter dept..... _____         14. Problem status....<R> _____
 3. Reporter phone..... _____         15. User problem number.. _____
 4. Date occurred..... _____         16. Initial priority..... _
 5. Time occurred..... _____          17. Outage..... _____
 6. Network name..... _____           18. Rerun time..... _____
 7. System name..... _____            19. Network impact..... _____
 8. Program name..... _____           20. System impact..... _____
 9. Device name..... _____            21. Program impact..... _____
10. Key item affected... _____         22. Device impact..... _____
11. Date fix required... _____         23. User form number..... _____
12. Time fix required... _____         24. Location code..... _____
                                         26. Outage type..... _

25. Description.....<R> _____

When you finish, type END to save or CANCEL to discard any changes.

====>
```

Assisted-Entry Panel

Provides information that helps you enter the correct data in a particular field. The panel describes the field, explains its proper format, and gives typical examples of data to enter. It also checks your response for correctness.

```

+ BLG6PTYP ----- ITEM TYPE ----- TYPE/--+
|
| USE...Enter type of change, problem, or activity being reported.
|
| FORM..AAAAAAA - 1 to 8 alphanumeric positions.
|
|
| EXAMPLES: Software.....Reply.....software
|           Hardware.....Reply.....hardware
|           Documentation...Reply.....document
|           Performance.....Reply.....perform
|
+----- REPLY AS ILLUSTRATED -----+

===>
    
```

If you make an error entering data on a data-entry panel, or if you ask for help by typing a field number on the command line of a data-entry panel, an assisted-entry panel like this one appears. If you get to this panel by making an error in data-entry, a message indicates what was wrong with the entry you made. After you correctly enter the data on the assisted-entry panel, you return to the original data-entry panel.

Table Display

Presents information in table format. The information may be larger than the screen size. To see all of the information, you can scroll it using the UP, DOWN, RIGHT, or LEFT scrolling commands. You use the line commands listed at the bottom of the panel to perform operations.

```
BLG1TSRL                SEARCH RESULTS LIST                LINE 1 OF 15

DATABASE: 5

   RECORD ID      DESCRIPTION ABSTRACT
1. TRN850        RESPONSE TIME TOO SLOW ( TRAINING RECORD )
2. TRN376        NEEDS ANOTHER DISK DRIVE ( TRAINING RECORD )
3. TRN744        CANNOT ACCESS APPLICATION ( TRAINING RECORD )
4. TRN100        BROKEN ON/OFF SWITCH ( TRAINING RECORD )
5. TRN200        COLOR CONVERGENCE PROBLEM ( TRAINING RECORD )
6. TRN300        NEEDS TONER MAKES STREAKS ( TRAINING RECORD )
7. TRN400        PRINTING TOO LIGHT ( TRAINING RECORD )
8. TRN500        CANNOT BLOCKCOPY TEXT ( TRAINING RECORD )
9. TRN700        PAPER JAM CANNOT BE FIXED ( TRAINING RECORD )
10. TRN800       BROKEN DISK DRIVE ( TRAINING RECORD )
11. TRN439       RESPONSE TIME TOO SLOW ( TRAINING RECORD )
12. TRN559       GARBAGE ON MY PRINTOUTS ( TRAINING RECORD )
13. TRN125       DOES NOT FILL UP MY SCREEN ( TRAINING RECORD )
14. TRN600       PASSWORD DOES NOT WORK ( TRAINING RECORD )

Line Cmds: C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.
====>
```

Help Panel

Contains explanatory information for the panel on which you requested help. If a message is displayed on the panel when you request help, a help panel for the message appears instead. You can scroll this type of panel UP and DOWN to see all of the help information. After you read the help panel, you can type END and press Enter to return to the panel where you requested help. For more information about getting help, see “Getting Help” on page 31.

```
BLG2BU00                PROBLEM SUMMARY HELP                LINE: 1 OF 108

Selected information from the problem record being created, copied, or
updated is shown on the summary panel.  If you are creating a new
record, the information serves as a reminder about the data you have
already entered.  If you are copying or updating a record, review the
information to ensure that you are working with the correct record.

A selection list is shown at the bottom of the panel.  Choose one of
the items to enter information or update data about the problem, or to
file the record.  The available selections are:

REPORTER DATA
  To enter one or more of the following:
    Date fix required           Problem type
    Date occurred              Program impact
    Description                 Program name

Type DOWN or UP to scroll the panel, or type END to exit the panel.
====>
```

Data-Summary Panel

Shows some of the fields in the record you are working with. You can see other fields by selecting one of the choices at the bottom of the panel.

You cannot change data directly on a data summary panel.

```

BLG0BU00                PROBLEM SUMMARY                PROBLEM: TRN400

Reported by..... HARRISON          Problem status..... OPEN
Assignee name..... _____        Current phase..... _____
Tracked by..... _____           Current priority..... _
Network name..... _____         Owing priv. class..... _____
System name..... _____          Entry priv. class..... SMITHSON
Program name..... _____         Date entered..... 10/07/1998
Device name..... 1403               Time entered..... 10:46
Key item affected..... _____    Date last altered..... 10/07/1998

Description..... PRINTING TOO LIGHT (TRAINING RECORD )

Select one of the following, type END to save your changes, or type CANCEL
to discard your changes.
    1. Reporter data.                6. Supplemental data.
    2. Status data.                  7. Synopsis data.
    3. Close data.                   8. Freeform text.
    4. Symptom data.                 9. File record.
    5. Resolution data.              10. Create solution and file record.

====>
    
```

Three Data-Entry Methods

Before you can create a record, you must know how to enter data. You enter data into a data-entry field by one of three methods:

- Typing data directly into the field
- Typing data on the command line
- Using the equal sign (=) function

Typing Data Directly into the Field

You can enter data by moving the cursor to the data field and typing the data directly on the lines of the panel.

If you want to enter data on BLG0B100, the Problem Reporter Entry panel, you can move the cursor to each field on the panel and type the data. You can use the tab keys -->| or |<-- to move from field to field.

For some fields, the information you type is changed to uppercase. After you enter data in the fields, press Enter.

Three Data-Entry Methods

```
BLG0B100                PROBLEM REPORTER ENTRY                PROBLEM: TRNRAS1

Enter problem reporter data; cursor placement or input line entry allowed.

  1. Reported by.....<R> HOLLOWAY _____    13. Problem type..... _____
  2. Reporter dept..... _____              14. Problem status....<R> OPEN _____
  3. Reporter phone..... 555-8383 _____    15. User problem number.. TRNRAS1_
  4. Date occurred..... 11/15/1997 _____  16. Initial priority..... _
  5. Time occurred..... _____             17. Outage..... _____
  6. Network name..... _____              18. Rerun time..... _____
  7. System name..... _____              19. Network impact..... _____
  8. Program name..... ISPF20 _____        20. System impact..... _____
  9. Device name..... _____              21. Program impact..... _____
 10. Key item affected... _____          22. Device impact..... _____
 11. Date fix required... _____          23. User form number.....
 12. Time fix required... _____          24. Location code..... ROOM77C_
                                           26. Outage type..... _

25. Description.....<R> THIS IS MY UPDATED SAMPLE TRAINING RECORD

      When you finish, type END to save or CANCEL to discard any changes.

====>
```

| When entering data in date fields, enter the data in the date format established for your
| session by your system administrator, or the date format specified in your user profile as the
| preferred format. Instructions on how to define your user profile are provided later in
| “Understanding and Defining Your User Profile” on page 40.

| If you enter data directly into more than one field on a panel and then press Enter, the data
| you enter is processed as an immediate response chain (IRC). See “Using Immediate
| Response Chains” on page 235 for information on IRCs. Generally, the fields are processed
| line by line from top to bottom, and the field in the left column is processed before the field
| in the right column. It is possible, however, for the panel designer to designate a different
| processing order. The order of processing can be different from the order in which you typed
| the data. If an error is found with a field and you enter a command (such as HELP) on the
| displayed assisted-entry panel, any unprocessed data is lost. To avoid losing data, enter the
| correct data on the assisted-entry panel without issuing a command. Because you can exceed
| the Tivoli Information Management for z/OS reply buffer length, and thereby truncate some
| of your data, use caution when entering large amounts of data directly into fields on a panel.

If a data-entry field is right justified, you must either type over any existing data in the field
or blank it out. Otherwise your data will not be valid. For example, your PMF administrator
changed the following panel so that the **User form number** field is right justified.

The current data in the **User form number** field is EDH34.

```

BLG0C100                CHANGE REQUESTER ENTRY                CHANGE: 00747390

Enter change requester data; cursor placement or input line entry allowed.

1. Requested by.....<R> JONES_____      11. Change type..... _____
2. Requester dept..... _____          12. Change status....<R> INITIAL
3. Requester phone..... _____         13. Change reason..... _____
4. Network name..... _____           14. User change number.. _____
5. System name..... _____            15. Initial priority.... _
6. Program name..... _____           16. Estimated duration.. _____
7. Device name..... _____            17. Problem fixed..... _____
8. Key item affected... _____         18. User form number.... _EDH34
9. Date required..... _____          19. Location code..... _____
10. Time required..... _____

20. Description.....<R> INSTALL NEW PRINTER_____

      When you finish, type END to save or CANCEL to discard any changes.

====>
    
```

To change the data in the field, choose one of these methods:

- Type over the data, completely covering the existing data with new data.
- Begin typing the new data in the left-most position of the field and blank out any remaining existing data. Press Enter.
- On the command line, type the field number followed by a comma and the new data. Press Enter. (See “Typing Data on the Command Line” on page 26.)
- On the command line, type the field number and press Enter. This brings up the assisted-entry panel for the field. Type the new data on the command line and press Enter. (See “Using Assisted-Entry Panels” on page 81.)

In this example, type the new data, FYS33, in the left-most position of the field and blank out the remaining existing data. Press Enter.

Three Data-Entry Methods

```
BLG0C100                CHANGE REQUESTER ENTRY                CHANGE: 00747390

Enter change requester data; cursor placement or input line entry allowed.

 1. Requested by.....<R> JONES_____  11. Change type..... _____
 2. Requester dept..... _____      12. Change status....<R> INITIAL
 3. Requester phone..... _____     13. Change reason..... _____
 4. Network name..... _____        14. User change number.. _____
 5. System name..... _____         15. Initial priority.... _
 6. Program name..... _____        16. Estimated duration.. _____
 7. Device name..... _____         17. Problem fixed..... _____
 8. Key item affected... _____     18. User form number.... FYS33
 9. Date required..... _____       19. Location code..... _____
10. Time required..... _____

20. Description.....<R> INSTALL NEW PRINTER_____

      When you finish, type END to save or CANCEL to discard any changes.

====>
```

Your new data replaces the old data, and it is right justified.

```
BLG0C100                CHANGE REQUESTER ENTRY                CHANGE: 00747390

Enter change requester data; cursor placement or input line entry allowed.

 1. Requested by.....<R> JONES_____  11. Change type..... _____
 2. Requester dept..... _____      12. Change status....<R> INITIAL
 3. Requester phone..... _____     13. Change reason..... _____
 4. Network name..... _____        14. User change number.. _____
 5. System name..... _____         15. Initial priority.... _
 6. Program name..... _____        16. Estimated duration.. _____
 7. Device name..... _____         17. Problem fixed..... _____
 8. Key item affected... _____     18. User form number.... _FYS33
 9. Date required..... _____       19. Location code..... _____
10. Time required..... _____

20. Description.....<R> INSTALL NEW PRINTER_____

      When you finish, type END to save or CANCEL to discard any changes.

====>
```

Typing Data on the Command Line

You can also enter data by typing directly on the command line. When you type the data on the command line, you must first identify which field it goes into. Suppose that you want to enter a location code and a problem type on the Problem Reporter Entry panel.

To enter the data on the command line, you type

```
24,room77c,13,software
```


and press Enter. The string of data tells Tivoli Information Management for z/OS that you want field 24 to contain room77c and field 13 to contain software.

```

BLG0B100                PROBLEM REPORTER ENTRY                PROBLEM: TRNRAS1

Enter problem reporter data; cursor placement or input line entry allowed.

1. Reported by.....<R> HOLLOWAY_____ 13. Problem type..... _____
2. Reporter dept..... _____ 14. Problem status....<R> OPEN_____
3. Reporter phone..... 555-8383_____ 15. User problem number.. TRNRAS1_
4. Date occurred..... _____ 16. Initial priority..... _
5. Time occurred..... _____ 17. Outage..... _____
6. Network name..... _____ 18. Rerun time..... _____
7. System name..... _____ 19. Network impact..... _____
8. Program name..... ISPF20_ 20. System impact..... _____
9. Device name..... _____ 21. Program impact..... _____
10. Key item affected... _____ 22. Device impact..... _____
11. Date fix required... _____ 23. User form number..... _____
12. Time fix required... _____ 24. Location code..... _____
                                     26. Outage type..... _

25. Description.....<R> _____

When you finish, type END to save or CANCEL to discard any changes.

====> 24,room77c,13,software

```

Notice that the field numbers and the data are separated by commas. The field number is typed first, then a comma, then the data, then a comma, then the next field number, and so forth. When you press Enter, the data is placed in the correct fields in uppercase.

Note: You can control whether field numbers are displayed on data-entry panels by changing the setting of an option in your user profile. You will learn more about changing your user profile in “Modifying Your User Profile” on page 41. For now, just be aware that whether or not field numbers are displayed, you can still type data on the command line using field numbers, if you happen to know what the field numbers are. If field numbers are not displayed, you can temporarily display them again by changing your user profile. Because the default is to display field numbers, the screen illustrations in this manual show use of field numbers on data-entry panels. More information about setting the display entry field number option is available in “The Other Options on the Profile Summary Panel” on page 44.

Using the Equal Sign Function

The third method for entering data is a time-saver. In your user profile you can store some data that you type repeatedly, such as your name or department number. Once this data is set up in the profile, simply place a single-byte character set (SBCS) equal sign (=) in a field where that data goes, and Tivoli Information Management for z/OS automatically places the data there for you. (“Modifying Your User Profile” on page 41 shows you how to modify your profile to include some of this data.)

You can also use the equal sign function with data that is always available from the system (for instance, the current date and time). See “Update by Using the Equal Sign Function” on page 71 for more information on updating data with the = sign, and see “Using the Equal Sign with a Date Offset” on page 29 for more information on using the = sign with a date offset. Use either of the previous data-entry methods to enter an SBCS equal sign (=) in the appropriate data-entry field.

Three Data-Entry Methods

If you enter an SBCS equal sign in data fields 4 and 5 of this panel, for example, then press Enter, the current date and time are entered for you in those fields.

```
BLG0B100                PROBLEM REPORTER ENTRY                PROBLEM: TRNRAS1

Enter problem reporter data; cursor placement or input line entry allowed.

  1. Reported by.....<R> HOLLOWAY_____  13. Problem type..... SOFTWARE
  2. Reporter dept..... _____          14. Problem status....<R> OPEN_____
  3. Reporter phone..... 555-8383_____  15. User problem number.. TRNRAS1_
  4. Date occurred..... = _____        16. Initial priority..... _
  5. Time occurred..... = _____        17. Outage..... _____
  6. Network name..... _____          18. Rerun time..... _____
  7. System name..... _____          19. Network impact..... _____
  8. Program name..... ISPF20_____        20. System impact..... _____
  9. Device name..... _____          21. Program impact..... _____
 10. Key item affected... _____        22. Device impact..... _____
 11. Date fix required... _____        23. User form number..... _____
 12. Time fix required... _____        24. Location code..... ROOM77C_
                                           26. Outage type..... _

25. Description.....<R> THIS IS MY UPDATED SAMPLE TRAINING RECORD

    When you finish, type END to save or CANCEL to discard any changes.

====>
```

If you have set values for certain fields in your user profile, you can use the SBCS equal sign for each of them. For example, your name, department number, phone number, and any other profile values that your program administrator sets up for your installation can all be entered simply by using an equal sign in the appropriate fields.

I

The following panel illustrates how values are retrieved into the fields after you press Enter:

```
BLG0B100                PROBLEM REPORTER ENTRY                PROBLEM: TRNRAS1

Enter problem reporter data; cursor placement or input line entry allowed.

  1. Reported by.....<R> HOLLOWAY_____  13. Problem type..... SOFTWARE
  2. Reporter dept..... _____          14. Problem status....<R> OPEN_____
  3. Reporter phone..... 555-8383_____  15. User problem number.. TRNRAS1_
  4. Date occurred..... 10/21/1998_____  16. Initial priority..... _
  5. Time occurred..... 09:06_____        17. Outage..... _____
  6. Network name..... _____          18. Rerun time..... _____
  7. System name..... _____          19. Network impact..... _____
  8. Program name..... ISPF20_____        20. System impact..... _____
  9. Device name..... _____          21. Program impact..... _____
 10. Key item affected... _____        22. Device impact..... _____
 11. Date fix required... _____        23. User form number..... _____
 12. Time fix required... _____        24. Location code..... ROOM77C_
                                           26. Outage type..... _

25. Description.....<R> THIS IS MY UPDATED SAMPLE TRAINING RECORD

    When you finish, type END to save or CANCEL to discard any changes.

====>
```

Using the Equal Sign with a Date Offset

In addition to using the equal sign (=) in a date field for the current date, you can also use a date offset. A date offset enables you to use an SBCS (=) sign with an SBCS minus sign (-) and a number, or an SBCS plus sign (+) and a number, to enter a date other than the current date. For example, entering an = sign enters the current date, entering **=-1** enters yesterday's date, and entering **=-7** enters the date 7 days in the past. Similarly, entering **=+1** enters tomorrow's date, and entering **=+7** enters the date 7 days in the future. Date offsets are calculated in days unless you enter a date offset type indicating you want the offset calculated in weeks, months, or years.

You can use any 6-digit whole number with the **=-** and **=+** offsets to specify the date you want. If you are using a 2-digit year, any date offset you enter cannot have a value that will be calculated to occur before the year 1950 or after the year 2049. This restriction does not apply if you are using the Tivoli-supplied date conversion routine and both your internal and external date formats use 4-digit years.

To specify a date one or more weeks from the current date, place an SBCS **W** after the number in the offset. To specify a date one or more months from the current date, place an SBCS **M** after the number in the offset. To specify a date one or more years from the current date, place an SBCS **Y** after the number in the offset. For example, entering **=+2M** enters the date two months in the future of your current date. Entering **=-1Y** enters the date one year in the past of your current date.

Note: You must enter a numerical value with the date offset to specify a valid date; a value of 1 is not assumed.

The following examples show the results from entering specific offsets to specify a date. These examples use a 4-digit year and use June 3, 1998, as the date to calculate the offset date from.

Offset You Enter	Offset Date Entered
=+7d	06/10/1998
=-14	05/20/1998
=+3w	06/24/1998
=+2m	08/03/1998
=-1y	06/03/1997

Day is the default value for a date offset. You can place a **d** after the number in an offset to specify an offset in days, but it is not necessary. Any date offset entered without a letter after the number in the offset is calculated in days.

Leaving Panels

Usually, when you respond to a panel by entering data or making a selection, another panel is displayed in sequence. However, as you work with the exercises in this book, you may want to leave a panel, start a different prompting sequence, or end a session. The following commands give you a choice of ways to leave a panel, a prompting sequence, or a session.

To use a command, type it on the command line at the bottom of the panel, and then press Enter. On some or all assisted-entry panels, (depending on a profile option explained later) you must type an SBCS semicolon (;) in front of a command to distinguish it from a data response (for example, ;back). In other cases, the ; is optional. Until you become familiar with the cases when the ; is or is not required, we suggest that you always type a ; before a command. The uppercase letters show the shortest acceptable truncation of each command.

BAck Returns you to a previous panel, but does not save data.

CAncel

Ends a prompting sequence, but does not save data and modifications.

ENd Ends a prompting sequence and saves any data you have collected or modified on panels.

FABend

Abnormally ends (ABEND) your session any time a severe error occurs. FABEND forces Tivoli Information Management for z/OS to ABEND and returns an error code.

INitialize

Cancels the current prompting sequence and returns to the most recent Primary Options Menu. Any changes that were not permanently saved are lost.

Quit Ends your session and leaves Tivoli Information Management for z/OS. You must save any data you have collected before you quit if you do not want to lose it.

RESume

Returns you to the last prompting sequence you suspended.

SUSpend

Enables you to put the prompting sequence on hold to start another one.

Note: These and other commands used with Tivoli Information Management for z/OS are described in greater detail in “Using Commands” on page 103.

If you enter the command **initialize**, for example, then press Enter, you return to the Primary Options Menu without saving any changes you may have made since the last time someone filed this record.

```

BLG0B100                PROBLEM REPORTER ENTRY                PROBLEM: TRNRAS1

Enter problem reporter data; cursor placement or input line entry allowed.

  1. Reported by.....<R> HOLLOWAY _____  13. Problem type..... SOFTWARE
  2. Reporter dept..... _____            14. Problem status...<R> OPEN
  3. Reporter phone..... 555-8383 _____  15. User problem number.. TRNRAS1_
  4. Date occurred..... _____           16. Initial priority..... _
  5. Time occurred..... _____           17. Outage..... _____
  6. Network name..... _____           18. Rerun time..... _____
  7. System name..... _____            19. Network impact..... _____
  8. Program name..... ISPF20 _____      20. System impact..... _____
  9. Device name..... _____            21. Program impact..... _____
 10. Key item affected... _____         22. Device impact..... _____
 11. Date fix required... _____         23. User form number.....
 12. Time fix required... _____         24. Location code..... ROOM77C_
                                           26. Outage type..... _

25. Description.....<R> THIS IS MY UPDATED SAMPLE TRAINING RECORD

      When you finish, type END to save or CANCEL to discard any changes.

====> initialize

```

Using PF Keys

Using the program function (PF) keys minimizes the keystrokes necessary to operate Tivoli Information Management for z/OS. The *ISPF Dialog Management Guide and Examples* contains detailed information about using these keys. If your terminal has PF keys, you can use them to perform certain basic Tivoli Information Management for z/OS operations or enter commands. You can even change the predefined settings of the PF keys by issuing the ISPF KEYS command, if you are using the standard panel style, or by issuing the ISPF KEYLIST command, if you are using the enhanced panel style. The standard panel style uses the PF key definitions stored in your ISPF user profile. The enhanced panel style uses the PF key definitions in the ISPF KEYLIST. See your program administrator if you need more information on changing the settings for your terminal's PF keys.

In addition, you can issue the ISPF PFSHOW command to display your PF key settings on the panel during a Tivoli Information Management for z/OS session, or you can issue the ISPF 'PFSHOW OFF' command to remove them from the panel. Enter the ISPF PFSHOW or ISPF 'PFSHOW OFF' commands on the Tivoli Information Management for z/OS command line.

Note: Using the ISPF PFSHOW command may prevent line commands or any other text on the bottom two lines of the panel from displaying. Also, the enhanced panel style can alter the values of the PF keys.

Getting Help

As you work with the exercises, you may need assistance to complete a task. In addition to using this book, you can also use the following help facilities.

Using the Online Overview

If you are beginning a Tivoli Information Management for z/OS session and you are not sure what to do after you log on, select **Overview** by typing **1** on the command line of

Primary Options Menu and pressing Enter. The overview guides you through a series of panels that explain how to use the Tivoli Information Management for z/OS functions.

After you finish reading a panel series, you can use either the INITIALIZE command or a series of END commands to return to the Primary Options Menu.

Requesting Assisted-Entry Panels

If you are not sure what to enter in a particular field on a data-entry panel, you can enter the field number on the command line without any data. An assisted-entry panel then shows you the correct format and type of information to enter. The data you type on the assisted-entry panel is placed in the correct field on the data-entry panel when you press Enter.

If your user profile is set to not display field numbers on data-entry panels, you can still display an assisted-entry panel by typing incorrect data (for example, a question mark) in the entry field.

Whenever you enter data into a field on a data-entry panel, Tivoli Information Management for z/OS validates the format of the data. If you enter data that is not valid, Tivoli Information Management for z/OS displays an assisted-entry panel for each field with incorrect data. If the assisted-entry panel does not give you enough information to determine a valid reply, you can enter the **help validate** command for additional details. For more information about assisted-entry panels, see “Using Assisted-Entry Panels” on page 81.

Using the HELP Command

You can use the HELP command to obtain various types of information:

- A complete description of a message displayed on the panel.
- A list of other messages when a plus sign (+) precedes a message on any panel. You can then select each message in the list to receive additional help.
- The complete text of a message when a plus sign (+) follows a message on any panel.
- Information on how to respond to a panel.
- The command HELP STATUS gives you a description of the general status of your Tivoli Information Management for z/OS session, including a list of commands that are valid at this time.
- The command HELP *commandname* gives you information on how to use a specific command.
- The command HELP VALIDATE provides you with valid replies to assisted-entry panels.

See “Using Commands” on page 103 for more information about using the HELP command.

Clearing Messages from the Screen

During your Tivoli Information Management for z/OS session, TSO or ISPF might issue a message. The message appears on the display the next time you press Enter or a PF key. To return to the Tivoli Information Management for z/OS panel, wait for three asterisks to appear below the message, then press either the Clear key or the Enter key. The panel is restored for you, except for anything you typed on the panel or the command line before you pressed Enter or a PF key. You can then enter your next command.

You might also receive messages from Tivoli Information Management for z/OS. To clear these messages from your screen, simply press Enter. Use the CANCEL or BACK commands to clear a severe error message or a Tivoli Information Management for z/OS broadcast message.

A Note about Tivoli Information Management for z/OS Messages

Sometimes a Tivoli Information Management for z/OS message appears with a plus sign (+) at the beginning or the end of the message.

A plus sign at the beginning of the message means that there are additional messages. Typing HELP on the command line of the panel where the first message appears and pressing Enter causes a list of the additional messages to appear. You can then type an S next to any message in the list that you want additional information about.

If the plus sign appears at the end of the message, the message is too long to display all at once. Typing HELP on the command line and pressing Enter displays the rest of the message.

4

Getting Started

This chapter shows you:

- What you do to prepare to start
- How to sign on to Tivoli Information Management for z/OS
- How to use the Primary Options Menu
- How to select an application to work with
- How to modify your user profile
- How to choose a privilege class

Preparing to Start

Before you begin the exercises in this part of the book:

1. Record the name and phone number of your program administrator on page 265 for future reference. You may need to call for information concerning several of the following steps.
2. Log on to MVS™.
Tivoli Information Management for z/OS runs under the MVS operating system. So, to use Tivoli Information Management for z/OS, you must first use your local procedure to log on to your MVS operating system.
3. Sign on to Tivoli Information Management for z/OS.
If your organization has made Tivoli Information Management for z/OS an option on the ISPF Primary Options Menu, select the Tivoli Information Management for z/OS option. If not, get the correct CLIST name used to start Tivoli Information Management for z/OS from your program administrator. Record the name of that CLIST on page 265 for future reference. After you have logged on to MVS, enter the CLIST to start Tivoli Information Management for z/OS.
4. Ensure that the training records exist.
The exercises in this part of the book work with a set of records created specifically for training purposes. Your program administrator or other authorized user must create those records before you start. See your program administrator if the training records do not exist.

Looking at the Primary Options Menu

Each time you start Tivoli Information Management for z/OS, you begin a new session. The first panel you see when you sign on to Tivoli Information Management for z/OS is the Tivoli Information Management for z/OS proprietary information statement. This panel appears every time you start Tivoli Information Management for z/OS interactively unless

Looking at the Primary Options Menu

you specify in your user profile to bypass it. You can learn about your user profile in “Understanding and Defining Your User Profile” on page 40.

BLG00002

Tivoli Information Management for z/OS proprietary information panel.

Press Enter to proceed to the next screen (you can automatically bypass this panel by changing your user profile).

```
+ BLG00002  TIVOLI INFORMATION MANAGEMENT FOR Z/OS VERSION 7.1  ----+
|
|          Licensed Materials - Property of IBM
|
|          Program Number: 5697-SD9
|          (C) Copyright IBM Corp., 1981, 2001.
|          All Rights Reserved.
|
|          US Government Users Restricted Rights - Use, duplication or dis-
|          closure restricted by GSA ADP Schedule Contract with IBM Corp.
|
|          (Profile can be set to bypass this panel in the future.)
|
|-----+----- PRESS ENTER TO CONTINUE -----+
|
|====>
```

If this is your very first time signing on to Tivoli Information Management for z/OS, a message on this screen may indicate that a user profile has been created for you or that your existing profile has been updated because of the Tivoli Information Management for z/OS version change. In that case, you must press Enter twice—once to clear the message from the screen, and once to proceed to the Primary Options Menu.

Note: You do not need to understand user profiles just yet. They are explained later in this book.

The next panel to appear is the Primary Options Menu. Tivoli Information Management for z/OS has two Primary Options Menus, one for the Management application, and one for the System application. Which Primary Options Menu you see first depends on the setting in your user profile. Assuming that your profile is set with the default of MANAGEMENT, the panel that you see now is BLG0EN20. From this panel you can begin working with Tivoli Information Management for z/OS.

BLG0EN20

Primary Options Menu for the Management application.

```
BLG0EN20          --- PRIMARY OPTIONS MENU ---      APPLICATION: MANAGEMENT

OPTIONS:

  1. OVERVIEW.....Display general information and product enhancements.
  2. PROFILE.....Display or alter invocation or session defaults.
  3. APPLICATION...Change application, list available applications.
  4. CLASS.....Change current class, list available classes.
  5. ENTRY.....Create a record.
  6. INQUIRY.....Search for records.
  7. UTILITY.....Copy, display, print, delete, and update records.
  8. GLOSSARY.....Display a list of searchable words in the database.
  9. PMF.....Modify or create panels.

          Select an option, enter a command, or type QUIT to exit.

          Tivoli Information Management for z/OS Version 7 Release 1
          5697-SD9 (C) Copyright IBM Corp., 1981, 2001.

===>
```

You can choose any of the options on the Primary Options Menu by typing the number of your choice on the command line and pressing Enter. (The command line follows the ===> arrow.)

Whenever you select an option from the Primary Options Menu, you begin a *prompting sequence*, a series of panels to which you respond in order to complete a given task. You will learn more about each task as you complete the exercises in this book.

BLG0EN10

Primary Options Menu for the System application.

```
BLG0EN10          --- PRIMARY OPTIONS MENU ---          APPLICATION: SYSTEM

OPTIONS:

  1. OVERVIEW.....Display general information and product enhancements.
  2. PROFILE.....Display or alter invocation or session defaults.
  3. APPLICATION...Change application, list available applications.
  4. CLASS.....Change current class, list available classes.
  5. ENTRY.....Create a record.
  6. INQUIRY.....Search for records.
  7. UTILITY.....Copy, display, print, delete, and update records.
  8. GLOSSARY.....Display a list of searchable words in the database.
  9. DBADMIN.....Perform database administration.

          Select an option, enter a command, or type QUIT to exit.

          Tivoli Information Management for z/OS Version 7 Release 1
          5697-SD9 (C) Copyright IBM Corp., 1981, 2001.

====>
```

Notice the top line of each panel. The panel name is displayed in the upper-left corner, the title of the panel appears in the center, and the application name or problem number appears in the upper-right corner of the panel.

To exit from Tivoli Information Management for z/OS, type **quit** on the command line of the Primary Options Menu.

Selecting an Application

Because you can perform different tasks with each part of Tivoli Information Management for z/OS, you need to be able to change from one application to another.

If you do not see the choice for an option you want, you are probably looking at the wrong application Primary Options Menu. To change menus, select the APPLICATION selection on either of the Primary Options Menus. The Application Selection panel appears, and you can choose the appropriate application. When you select the application, the appropriate Primary Options Menu appears.

If your first Primary Options Menu is the one for System, type **3** (for Application) and press Enter.

```

BLG0EN10          --- PRIMARY OPTIONS MENU ---          APPLICATION: SYSTEM

OPTIONS:

  1. OVERVIEW.....Display general information and product enhancements.
  2. PROFILE.....Display or alter invocation or session defaults.
  3. APPLICATION...Change application, list available applications.
  4. CLASS.....Change current class, list available classes.
  5. ENTRY.....Create a record.
  6. INQUIRY.....Search for records.
  7. UTILITY.....Copy, display, print, delete, and update records.
  8. GLOSSARY.....Display a list of searchable words in the database.
  9. DBADMIN.....Perform database administration.

          Select an option, enter a command, or type QUIT to exit.

          Tivoli Information Management for z/OS Version 7 Release 1
          5697-SD9 (C) Copyright IBM Corp., 1981, 2001.

====> 3
    
```

BLG00030, the Application Selection panel, lists the Tivoli Information Management for z/OS applications. You get to the same selection panel if you choose option 3 on the Primary Options Menu for the Management application, as well. You select the application you want to work with by typing the selection number on the command line and pressing Enter.

Because the exercises in this part of the book use the Management application, type **2** (for Management) and press Enter.

```

+ BLG00030 ----- APPLICATION SELECTION ----- 1 OF 1-+
|
|          IDENTIFY THE APPLICATION FOR THIS SESSION
|
| OPTIONS:
|
|   1. SYSTEM.....Use System dialogs for entry/inquiry.
|   2. MANAGEMENT...Use Management dialogs for entry/inquiry.
|
|   4. INTEGRAT.....Use Integration Facility dialogs.
|
|   9. SERVICDESK...Use Consolidated Service Desk.
|
+----- SELECT APPLICATION -----+

====> 2
    
```

After you select an application, you go to the Primary Options Menu for that application.

Note: Other Tivoli Information Management for z/OS applications are the Integration Facility and the Consolidated Service Desk. You can find information about the Integration Facility in the *Tivoli Information Management for z/OS Integration Facility Guide*. You can learn about the Consolidated Service Desk application (which supports the interface to Tivoli Inventory) in the *Tivoli Information Management for z/OS Guide to Integrating with Tivoli Applications* manual. You do not yet need to understand these applications.

Understanding and Defining Your User Profile

Proceed carefully

You may want to consult your program administrator (whose name should be recorded on page 265) before making any permanent changes to your user profile. This is an activity that you should not attempt until you become an experienced Tivoli Information Management for z/OS user. You can safely skip this topic and still learn about Tivoli Information Management for z/OS through the exercises in the rest of this book. Turn to “Choosing a Privilege Class” on page 49.

Your user profile defines how certain functions work in Tivoli Information Management for z/OS. You can change the definitions in your user profile. Also, you can enter data in your user profile that you use repeatedly. You do not have to select a program application and a privilege class each time you log on. You can modify your user profile so it makes those selections automatically. In fact, your profile already has some selections pre-established for you.

You can specify a set of default values that Tivoli Information Management for z/OS uses from session to session. The defaults can be control information, which tells Tivoli Information Management for z/OS how to perform, or data that Tivoli Information Management for z/OS uses when you do not want to enter the same information repeatedly.

For example, you can specify whether field numbers should be displayed, how you want the system to display information on your screen, how Tivoli Information Management for z/OS uses commands you enter, and which application and privilege class you use when you sign on. You can specify values needed when you create reports and where you want the reports sent.

Also, you can define values for information you enter frequently so you can use the equal sign function for quick data-entry (see “Three Data-Entry Methods” on page 23). These values might include your name, phone number, and department, for example.

All of these values form your *user profile*. This exercise shows you how to modify your user profile.

If you are a current user, Tivoli Information Management for z/OS attempts to retain the contents of your old user profile when you install the new version. If this is the first time that you have used Tivoli Information Management for z/OS, a user profile is created for you using a set of default values.

Modifying Your User Profile

You can display and modify many values in your user profile by:

- Selecting 2 Profile from the Primary Options Menu
- Entering the PROFILE command on most panels. Refer to “Using Commands” on page 103 for more information on using the PROFILE command.

The following example uses the first method. However, both methods use the same prompting sequence to accomplish the task.

To modify your user profile, type **2** (for Screen control defaults) on the command line of the Primary Options Menu and press Enter. You then see BLG0PU00, the Profile Summary panel.

```

BLG0PU00                                PROFILE SUMMARY                                USER ID: SMITHSON

Invocation application..... MANAGEMENT   PF key data location..... SUFFIX
Invocation class.....                    Recall stack depth..... 10
Command detection..... PROMPT            Scroll up/down amount.... PAGE
Back command operation..... PROCESSED    Scroll left/right amount. PAGE
Print output destination....            Fold output columns..... NO
Standard report destination.            Maximum screen lines..... 024
Draw report destination.....             Recall command operation. CMDLINE
Database..... 5                          Date last altered..... 09/25/1998
Logical files.....                       Time last altered..... 10:06

OPTIONS:

1. Session control defaults.            7. User and database defaults.
2. Screen control defaults.             8. Reset profile and end.
3. Report control defaults.             9. Temporary profile end.
4. Print output destination.            10. Permanent profile end.
5. Standard report destination.         11. Draw report destination.
                                         12. User-defined profile values.

===>

```

The panel has two parts. The top portion displays some of the important control values as a summary of what your user profile contains. The bottom portion of the panel lists selections you can make to display and update parts of your user profile.

Selections 1 through 5, 7, 11, and 12 enable you to alter certain values in your user profile. These selections are described in “Modifying Profile Values” on page 42.

Selections 8, 9, and 10 are described in “Saving Profile Changes” on page 47.

The two fields on this panel that are not described in subsequent panel descriptions are:

Date last altered

Contains the date on which the profile was last temporarily or permanently stored.

Time last altered

Contains the time at which the profile was last temporarily or permanently stored.

Modifying Your User Profile

After your session ends, the date and time reflect only the permanent modifications. See Item 9, Temporary profile end on page 48 for more information on temporarily saving your modifications.

Modifying Profile Values

For this exercise, type 1 (for Session control defaults) on the command line of the panel and press Enter.

```
BLG0PU00          PROFILE SUMMARY          USER ID: SMITHSON

Invocation application..... MANAGEMENT   PF key data location..... SUFFIX
Invocation class..... _____        Recall stack depth..... 10
Command detection..... PROMPT           Scroll up/down amount.... PAGE
Back command operation..... PROCESSED    Scroll left/right amount. PAGE
Print output destination.... _____  Fold output columns..... NO
Standard report destination. _____  Maximum screen lines..... 024
Draw report destination..... _____   Recall command operation. CMDLINE
Database..... 5 _____              Date last altered..... 09/25/1998
Logical files..... _____           Time last altered..... 10:06

OPTIONS:

    1. Session control defaults.          7. User and database defaults.
    2. Screen control defaults.          8. Reset profile and end.
    3. Report control defaults.          9. Temporary profile end.
    4. Print output destination.        10. Permanent profile end.
    5. Standard report destination.     11. Draw report destination.
                                         12. User-defined profile values.

====> 1
```

BLG0P100, the Session Defaults panel, is similar to most other panels you can use to modify your profile. Enter or modify the data in the data fields. In this exercise you can set your profile to automatically bypass the Tivoli Information Management for z/OS proprietary information statement on this panel.


```

BLG0P100                SESSION DEFAULTS                USER ID: SMITHSON

Enter session default data; cursor placement or input line entry allowed.

----- INVOCATION -----
 1. Application.....<R> MANAGEMENT
 2. Class.....
 3. SRC.....
 4. Bypass copyright?...<R> NO_

----- OUTPUT DESTINATION -----
31. Print.....
32. Standard report.....
33. Draw.....

----- COMMAND PROCESSING -----
11. Detection.....<R> PROMPT_
12. BACK operation.....<R> PROCESSED
13. RECALL operation....<R> CMDLINE
14. RECALL stack depth..<R> 10
15. PRINT operation.....<R> KEEP

----- SEARCH OPTIONS -----
41. Default panel.....
42. Quick search?.....<R> NO_
43. User line commands.<R> RUN_

----- MISCELLANEOUS -----
21. PF key data.....<R> SUFFIX_

----- EDITOR OPTIONS -----
51. Editor selection...<R> INFO
52. INFO for SRCs/TSPs?<R> YES

When you finish, type END to save or CANCEL to discard any changes.

===> end
    
```

Change the value of field 4 by typing YES over the default value of NO and pressing Enter. (This example shows the default values; the defaults for your installation may be different.)

Then, type **end** on the command line and press Enter to save your changes.

The following lists contain explanations for each of the 18 fields on the Session Defaults panel.

Invocation Fields

1. Application

Specifies the name of the application to be called when you start Tivoli Information Management for z/OS.

2. Class

Specifies the privilege class used as a default when you call Tivoli Information Management for z/OS.

3. SRC

Specifies the stored response chain (SRC) issued when you call Tivoli Information Management for z/OS.

4. Bypass copyright?

Specifies whether to show the proprietary statement at the beginning of each session.

Command Processing Fields

11. Detection

Specifies the method Tivoli Information Management for z/OS uses to interpret information as data or commands on assisted-entry panels.

12. BACK operation

Specifies the kind of panel that you return to when you enter a BACK command.

13. RECALL operation

Specifies the default operand for the RECALL command.

14. RECALL stack depth

Specifies the number of command line inputs saved by the RECALL command.

15. Print operation

Specifies whether to free or keep open the output file after a PRINT command.

Note: Using FREE with DDNAME or DSNNAME for a print output destination with a disposition of OLD can cause data in the output file to be overwritten.

Miscellaneous Options

21. PF key data

Specifies the way Tivoli Information Management for z/OS interprets PF key data in relation to data on the command line.

Output Destination Fields

31. Print

Specifies the print output destination (SYSOUT, DSNNAME, or DDNAME) for the session.

32. Standard report

Specifies the output destination for standard reports for this session.

33. Draw

Specifies the output destination for draw reports for this session.

Search Options Fields

41. Default panel

Specifies the panel on which to display a search results list.

42. Quick search?

Specifies whether the quick search panels are to be used.

43. User line commands

Specifies whether pending line commands are to be run or dropped when the user issues a BACK, CANCEL, INITIALIZE, or QUIT command from a search results list.

Editor Options

51. Editor selection

Specifies the editor to be used for adding and updating text. You can specify the Tivoli Information Management for z/OS editor, the ISPF/PDF editor, or, if you are using the ISPF Version 4.2 or higher GUI interface, a workstation editor. If you specify a workstation editor and you are not running in GUI mode, the ISPF/PDF editor is used instead. See “Using Your Workstation Editor” on page 17 for complete instructions on using your workstation editor with Tivoli Information Management for z/OS.

52. Info editor for SRCs/TSPs?

Specifies whether the Tivoli Information Management for z/OS editor is used for SRCs and TSPs.

The Other Options on the Profile Summary Panel

You can modify other parts of your user profile by selecting different options on the Profile Summary panel. To help you determine the changes you need to make to your user profile, a brief description of each option follows. Contact your Program Administrator if you need more information on changing your user profile.

2. Screen control defaults

This option takes you to BLG0P200, the Screen Control Defaults panel, where you can type values that define the way your screen functions. You can set such things as command line location, data-entry field fill character, display line command

character, display output uppercase, fold output columns, line command field fill character, maximum screen lines, maximum screen width, scroll left/right amount, and scroll up/down amount with this option.

In addition, you can specify whether field numbers display on data-entry panels. If you prefer not to see them, you can set the screen control default to NO for the display of entry field numbers. You can always turn them back on again by changing the setting to YES (the default). If you are already familiar with using Tivoli Information Management for z/OS, and have memorized field numbers, you should know that the setting has no impact to your ability to perform tasks. That is, you can still run commands and use response chains when field numbers are not displayed. Response chains are described later in “Using Response Chains” on page 235.

Notes:

1. If you change the display entry field numbers setting to NO and still see numbers, you should check with your program administrator. If data-entry panels have been customized at your location, your program administrator must first enable them to use this option.
2. If you are using the ISPF GUI, the display entry field numbers setting must be set to YES to work correctly.

3. Report control defaults

This option takes you to BLG0P300, the Report Control Defaults panel, where you can type values that control the way your reports are processed—values such as current period date range, next period date range, and previous period date range.

4. Print output destination

This option takes you to BLG0P400, the Print Output Destination panel, where you can add or modify print output destination defaults for DDNAME, DSNAME, and SYSOUT. The setting for this option is shown in field number 31 on panel BLG0P100, the Session Defaults panel.

5. Standard report destination

This option takes you to BLG0P500, the Standard Report Destination panel, to add or modify report output destination defaults for DDNAME, DSNAME, and SYSOUT. The setting for this option is shown in field number 32 on panel BLG0P100, the Session Defaults panel.

7. User and database defaults

This option takes you to BLG0P700, the User and Database Defaults panel, where you can type values to define the following: user’s name, user’s department, user’s phone, user’s time zone, user’s date format, default database, and default logical files. Entering default values on the BLG0P700 panel enables you to later enter an SBCS equal sign (=) in the user’s name, user’s department, and user’s phone fields to automatically display the data values and eliminate unnecessary typing.

The user’s time zone field is used only if the universal time processing feature is enabled in your Tivoli Information Management for z/OS environment. It enables you to specify the time zone in which you are performing work, so that Tivoli Information Management for z/OS can express dates and times in the time zone you select. (See “Searching Dates and Times with Universal Time Processing” on page 220 for more information.) The user’s date format field enables you to select a preferred date format from a list of supported formats. For example, you can select MM/DD/YYYY as a preferred format for entering and viewing dates on panels or in

reports. The selection made for date format does not affect how you perform freeform searches, however, since freeform searches use an internal date format. (Searching is described later in this document in “Learning More about Obtaining Information from a Database” on page 191.) The **Logical files** field is used only when searching user-defined databases.

For both the time zone and date format fields, if you leave the field blank, the default values defined by your system administrator for your session will be used.

11. Draw report destination

This option takes you to BLG0P800, the Draw Report Destination panel, where you can add or modify report output destination defaults for DDNAME, DSNAME, and SYSOUT.

12. User-defined profile values

This option allows you to use profile variables that the program administrator sets up for your organization. Selecting this option causes you to go to an ISPF panel, *not* to a Tivoli Information Management for z/OS panel, to perform your task. Changes you make on that panel are saved immediately, and are not reset by option 8. If your program administrator has not defined profile variables unique to your organization, this option is not used.

Important note about user profile values

The values in your user profile affect almost everything you do with Tivoli Information Management for z/OS.

Remember that the correct values in your user profile can make your work with Tivoli Information Management for z/OS much easier, while incorrect ones can cause much confusion.

At a minimum, you should consider setting up default data values for your name, department, and telephone number so you do not have to type in these values when you are entering records later. Select option 7 (for User and Database Defaults) and press Enter. On the resulting panel, you can type your name, department, and phone number, and then type **end** to save the changes. Once your profile is saved, you can then simply type an equal sign (=) in these entry fields on your panels to have Tivoli Information Management for z/OS automatically populate these fields with the values you entered as defaults.

```

BLG0P700                USER AND DATABASE DEFAULTS                USER ID: WALDEN

Enter data definition data; cursor placement or input line entry allowed.

      1. User's name..... WALDEN _____
      2. User's department..... BBC_____
      3. User's telephone..... 555-7878_____
      4. User's time zone..... _____
      5. User's date format..... MM/DD/YYYY

      8. Database.....<R> 5
      9. Logical files..... _____

When you finish, type END to save or CANCEL to discard any changes.
```

Saving Profile Changes

After you have made selections on the profile panels to modify your profile, you need to select one of three ways to end your prompting sequence.

On BLG0PU00, the Profile Summary panel, notice three of the selections—8, 9, and 10. These selections provide three methods for ending after you change your profile.

```
BLG0PU00                PROFILE SUMMARY                USER ID: SMITHSON

Invocation application..... MANAGEMENT  PF key data location..... SUFFIX
Invocation class.....          _____  Recall stack depth..... 10
Command detection.....         PROMPT     Scroll up/down amount.... PAGE
Back command operation.....     PROCESSED  Scroll left/right amount. PAGE
Print output destination....    _____  Fold output columns..... NO
Standard report destination.    _____  Maximum screen lines..... 024
Draw report destination.....    _____  Recall command operation. CMDLINE
Database.....                   5         Date last altered..... 09/25/1998
Logical files.....              _____  Time last altered..... 10:06

OPTIONS:

    1. Session control defaults.          7. User and database defaults.
    2. Screen control defaults.           8. Reset profile and end.
    3. Report control defaults.           9. Temporary profile end.
    4. Print output destination.          10. Permanent profile end.
    5. Standard report destination.       11. Draw report destination.
                                           12. User-defined profile values.

====>
```

Note: If you entered changes through selection 12, User-defined profile values, the new values are saved as soon as you leave panel BLGPVARS. The new values are saved regardless of whether you save or cancel any other profile changes. If you use the Cancel or Reset commands to leave panel BLGPVARS, the Date last modified and Time last modified values return to the last permanently saved profile settings. If you use any other command to leave the panel, these values also change.

8. Reset profile and end

When you use this selection for ending, your changes are *not* saved. Instead, your profile is reset to the values that were last permanently saved. Any temporary changes made to your profile during this session are no longer in effect.

9. Temporary profile end

When you use this selection, the changes you made take effect *only for this session*. The changes are not stored when you exit this session. This method is good for experimenting with changes to your profile. When you end the session, the last permanently saved profile settings take effect.

10. Permanent profile end

When you use this selection (or issue the END command on this panel) your profile is *permanently changed* when you enter QUIT to end the Tivoli Information Management for z/OS session. The changes you entered take effect now and for all future sessions. If this session ends abnormally—for example if the system cancels it for some reason—even these permanent changes are lost.

Important notes about user profiles

- Whether filed temporarily or permanently, profile values are carried between Tivoli Information Management for z/OS environments. That is, a profile value changed while in a suspended environment remains in effect even after the RESUME command is issued to stop the environment in which the change was made.
- Even though Tivoli Information Management for z/OS allows you to enter a profile dialog while you are already in a profile dialog, “nesting” of profile dialogs is not recommended because it can become confusing.

Choosing a Privilege Class

The databases your organization creates by using Tivoli Information Management for z/OS are valuable assets. To protect the information in the database from being altered or erased by mistake, your organization can set up privilege classes. The privilege classes define which tasks an individual user or a group of users can perform.

Authorities are assigned for a Tivoli Information Management for z/OS function and record type combination. For example, one privilege class might be defined so that those users assigned to it can only display problem records—display is the function, problem is the record type. So, if you were assigned to that privilege class, you could only display problem records; you could not create, delete, or copy them. At the same time, you could not display change or configuration records, or update any kind of record. By using privilege classes to limit the kinds of tasks that users can perform, your organization can better protect its database information.

When you sign on to Tivoli Information Management for z/OS for a session, notice the message at the bottom of the screen telling you which privilege class you are using. This message appears when you belong to only one privilege class or have set your user profile to use a certain privilege class upon invocation of Tivoli Information Management for z/OS.

```
BLG0EN20          --- PRIMARY OPTIONS MENU ---      APPLICATION: MANAGEMENT

OPTIONS:

  1. OVERVIEW.....Display general information and product enhancements.
  2. PROFILE.....Display or alter invocation or session defaults.
  3. APPLICATION...Change application, list available applications.
  4. CLASS.....Change current class, list available classes.
  5. ENTRY.....Create a record.
  6. INQUIRY.....Search for records.
  7. UTILITY.....Copy, display, print, delete, and update records.
  8. GLOSSARY.....Display a list of searchable words in the database.
  9. PMF.....Modify or create panels.

          Select an option, enter a command, or type QUIT to exit.

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BLG10014I Your current privilege class is WRITERS.
====>
```

If this is the privilege class you need, you can continue with your work. If it is not, you must change your privilege class for this session. If you see message BLG10024I, you are assigned to more than one privilege class and have not identified any of them in your user profile as the invocation class. You may want to make that assignment if you use one privilege class most often. You can learn how to make this profile setting in “Modifying Your User Profile” on page 41. If you set a privilege class in your profile, you can still change privilege classes during any Tivoli Information Management for z/OS session by using the following procedure.

Sometimes you might be assigned to more than one privilege class. For the purposes of the exercises in this book, you should be assigned to at least two, your regular privilege class, and your training privilege class. In that case, you have to select the privilege class you want to work under. On the Primary Options Menu for Management, type **4** (for Class) and press Enter.


```

BLG0EN20          --- PRIMARY OPTIONS MENU ---      APPLICATION: MANAGEMENT

OPTIONS:

  1. OVERVIEW.....Display general information and product enhancements.
  2. PROFILE.....Display or alter invocation or session defaults.
  3. APPLICATION...Change application, list available applications.
  4. CLASS.....Change current class, list available classes.
  5. ENTRY.....Create a record.
  6. INQUIRY.....Search for records.
  7. UTILITY.....Copy, display, print, delete, and update records.
  8. GLOSSARY.....Display a list of searchable words in the database.
  9. PMF.....Modify or create panels.

          Select an option, enter a command, or type QUIT to exit.

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====> 4
    
```

BLG1TPCL, the Privilege Class List panel, shows a list of the privilege classes you are assigned to. Choose the privilege class used for training. For this exercise, type **2** (for TRNCLASS) on the command line and press Enter.

```

BLG1TPCL          PRIVILEGE CLASS LIST              LINE 1 OF 3

          CLASS      DESCRIPTION ABSTRACT

  1. SMITHSON  PRIV CLASS FOR ROBERT SMITHSON
  2. TRNCLASS  PRIV CLASS FOR TRAINING
  3. FINANCE   PRIV CLASS FOR FINANCE DEPT
*** BOTTOM OF DATA ***

          Line Cmds: E=Execute S=Select
          Type DOWN or UP to scroll the panel, or type END to exit the panel.

====> 2
    
```

Note: You are not yet familiar with line commands (they are explained later), but you can use the line commands shown at the bottom of this screen to accomplish the same task. By typing an E next to the training class list number and pressing Enter, you can EXECUTE the new privilege class. If you type an S next to the number, you can display the privilege class record to see what is in it.

Choosing a Privilege Class

After choosing your privilege class for this session, you return to the Primary Options Menu. Notice the message at the bottom of the screen telling you which privilege class you are now using.

```
BLG0EN20          --- PRIMARY OPTIONS MENU ---      APPLICATION: MANAGEMENT

OPTIONS:

  1. OVERVIEW.....Display general information and product enhancements.
  2. PROFILE.....Display or alter invocation or session defaults.
  3. APPLICATION....Change application, list available applications.
  4. CLASS.....Change current class, list available classes.
  5. ENTRY.....Create a record.
  6. INQUIRY.....Search for records.
  7. UTILITY.....Copy, display, print, delete, and update records.
  8. GLOSSARY.....Display a list of searchable words in the database.
  9. PMF.....Modify or create panels.

      Select an option, enter a command, or type QUIT to exit.

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BLG10014I Your current privilege class is TRNCLASS
====>
```

While you are working with Tivoli Information Management for z/OS, you might receive a message that says you cannot use a function or perform a task because of your privilege class. If you need to use that function or perform that task to do your job, check to see if you are part of another privilege class that has the proper authority, and switch over to that class. If you do not belong to a class with the proper authority, contact your program administrator.

5

Working with Records from the Primary Options Menu

You can use any of these methods to work with an existing record:

- Start on the Primary Options Menu and type **7** (for Utility)
- Enter a line command on a Search Results List (see “Working with Records from a Search Results List” on page 93)
- Use a command as explained in “Using Commands” on page 103

This chapter tells you how to start the following functions from the Primary Options Menu:

- Display a record
- Print a record
- Copy a record
- Update a record
- Delete a record
- Create a record

Beginning the Exercises

The exercises in this chapter introduce you to working with existing records and show you how to create new records. You can work with many different types of records, but the basic procedures are similar. For these exercises you work with problem records.

After you complete the exercises in this book, you can learn more about different types of records and the data they contain by reading the other books in the Tivoli Information Management for z/OS library (see “Where to Find More Information” on page 297). For now, you need only understand that a record contains data and that you can display, update, create, print, copy, or delete that data.

Remember that the privilege class assigned to you by your program administrator allows you to perform only certain tasks with certain types of records. Therefore, you might receive a message during these exercises that says you are not authorized to perform certain tasks. If you need to perform that task to do your job, contact your program administrator (whose name and phone number should be recorded on page 265).

For these exercises, you work with the Management application. You start from the Tivoli Information Management for z/OS Primary Options Menu BLG0EN20.

For all of these exercises (except updating a record), the book shows the simplest form of data-entry, which is typing the data directly into the data field of the panel. The book also uses the complete name of commands when they are used, and it shows step-by-step which

panels are required to accomplish each task. There are faster ways to perform these tasks, and you can learn some of them later in this book. For the update exercise, the book uses all three methods of data-entry. You can use any form of data-entry explained in “Three Data-Entry Methods” on page 23 and any acceptable form of the commands explained in “Using Commands” on page 103.

Displaying a Record from the Primary Options Menu

This exercise teaches you how to display a problem record. You might not have authority to perform this task with problem records. If you get a message during this exercise that says the privilege class you are running with does not have the authority to perform the requested function and you need to do this task to perform your job, call your program administrator.

When you know the record ID of the record you want to work with, you can begin on the Primary Options Menu, or you can issue the DISPLAY command as explained in “Using Commands” on page 103. If you do not know the exact record ID, you display a list of records from which you can select the record you want to display, as shown in the exercise that appears in “Working with Records from a Search Results List” on page 93.

Each method starts differently, but all methods eventually use the same prompting sequence to accomplish the task. In this chapter, you start from the Primary Options Menu.

On the Primary Options Menu for Management, type **7** (for Utility) and press Enter.

```
BLG0EN20          --- PRIMARY OPTIONS MENU ---      APPLICATION: MANAGEMENT
OPTIONS:
  1. OVERVIEW.....Display general information and product enhancements.
  2. PROFILE.....Display or alter invocation or session defaults.
  3. APPLICATION...Change application, list available applications.
  4. CLASS.....Change current class, list available classes.
  5. ENTRY.....Create a record.
  6. INQUIRY.....Search for records.
  7. UTILITY.....Copy, display, print, delete, and update records.
  8. GLOSSARY.....Display a list of searchable words in the database.
  9. PMF.....Modify or create panels.

      Select an option, enter a command, or type QUIT to exit.

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====> 7
```

On BLG1UT00, the Utility panel, type **1** (for Display) and press Enter.

```

+ BLG1UT00 ----- UTILITY -----+
|
| RECORD UTILITY DIALOG ENTERED, SELECT ITEM
|
| 1. DISPLAY.....Display a record in a database.
| 2. PRINT.....Print an existing record.
| 3. COPY.....Create a duplicate of an original record.
| 4. DELETE.....Delete a record from a database.
| 5. UPDATE.....Update an existing record.
|
+----- SELECT ITEM -----+

```

====> 1

On BLG1UT01, the Utility Entry Dialog panel, the **Database** field is primed with the number of the database that is specified in your user profile. If it is not 5, type **5** in the field. (You will learn more about databases later in this book.)

Type the number of the training record you want to display, **trn850**, in the **Record ID** field. Press Enter. The syntax of the data you entered is validated by Tivoli Information Management for z/OS and the data now appears in uppercase. Press Enter again to display the Problem Summary Display panel.

```

BLG1UT01                UTILITY ENTRY DIALOG                UTILITY
Enter UTILITY information; cursor placement or input line entry allowed.

1. Database.....<R> 5
2. Record ID.....<R> trn850__

To start the function, press Enter without field modification.

====>

```

Displaying a Record from the Primary Options Menu

Note: The <R> symbol next to a field on certain data-entry panels means that field is a required field. You cannot proceed in the prompting sequence until you have entered information into this field. Completing the unmarked fields is optional.

BLG0S010, the Problem Summary Display panel, shows a summary of the data in record TRN850. The selections at the bottom allow you to view more details about the record's data.

Note: If you are exchanging problem records with the distributed Tivoli Service Desk application, you can view Tivoli Service Desk Bridge information by selecting option 11. For more information about using the Tivoli Service Desk Bridge, refer to the *Tivoli Information Management for z/OS Guide to Integrating with Tivoli Applications*.

Type **1** (for Reporter display) and press Enter to look at information about who reported the problem.

BLG0S010	PROBLEM SUMMARY DISPLAY	PROBLEM: TRN850
Reported by.....	THOREAU	Problem type.....<H> _____
Assignee name.....<H>	_____	Problem status.....<H> INITIAL
Tracked by.....<H>	_____	Current phase.....<H> _____
Network name.....	_____	Current priority.....<H> _____
System name.....	_____	Owning priv. class..... _____
Program name.....	XEDIT	Entry priv. class..... MASTER
Device name.....	3278	Date entered..... 10/07/1998
Key item affected.....	_____	Time entered..... 11:15
Cause code.....	_____	Date last altered...<H> 10/07/1998
Date closed.....	_____	Time last altered...<H> 11:15
Vendor status.....<H>	_____	User last altered...<H> INFOADM
Description.....	RESPONSE TIME TOO SLOW (TRAINING RECORD)	

Select one of the following, or type END or CANCEL to leave this panel.

1. Reporter display.	6. Detail display.
2. Status display.	7. Supplemental data display.
3. Close display.	8. Interested privilege classes.
4. History display.	9. Synopsis display.
5. Freeform text and notes.	10. Record utilities.
	11. TSD Bridge display.

====> **1**

Note: The <H> symbol next to a field on certain data-entry panels means that field is part of the journaled, or *history* data.

BLG0L100, the Problem Reporter Display panel, shows more of the data fields about the problem reporter. Notice the record ID (called problem number) in the upper-right corner.

To leave this panel, type **end** and press Enter.

```

BLG0L100          PROBLEM REPORTER DISPLAY          PROBLEM: TRN850

Reported by..... THOREAU          Problem type.....<H> _____
Reporter dept..... 76              Problem status.....<H> INITIAL
Reporter phone..... 555-6767      Initial priority....<H> ___
Date occurred..... _____     Outage..... _____
Time occurred..... _____     Rerun time..... _____
Network name..... _____      Network impact..... _____
System name..... _____       System impact..... _____
Program name..... XEDIT           Program impact..... _____
Device name..... 3278            Device impact..... _____
Key item affected..... _____  User form number..... _____
Date fix required...<H> 10/19/1998 Location code..... ROOM890
Time fix required...<H> _____ Outage type..... _____
Description..... RESPONSE TIME TOO SLOW ( TRAINING RECORD )

                                     To return to the Summary Display panel, type END or CANCEL.

====> end
    
```

BLG0S010, the Problem Summary Display panel, appears again. You can make another selection here to view additional details about this record.

For now, just type **end** and press Enter.

```

BLG0S010          PROBLEM SUMMARY DISPLAY          PROBLEM: TRN850

Reported by..... THOREAU          Problem type.....<H> _____
Assignee name.....<H> _____   Problem status.....<H> INITIAL
Tracked by.....<H> _____     Current phase.....<H> _____
Network name..... _____      Current priority....<H> ___
System name..... _____       Owning priv. class..... _____
Program name..... XEDIT           Entry priv. class..... MASTER
Device name..... 3278            Date entered..... 10/07/1998
Key item affected..... _____  Time entered..... 11:15
Cause code..... _____        Date last altered...<H> 10/07/1998
Date closed..... _____       Time last altered...<H> 11:15
Vendor status.....<H> _____   User last altered...<H> INFOADM
Description..... RESPONSE TIME TOO SLOW ( TRAINING RECORD )

Select one of the following, or type END or CANCEL to leave this panel.

1. Reporter display.              6. Detail display.
2. Status display.               7. Supplemental data display.
3. Close display.                8. Interested privilege classes.
4. History display.              9. Synopsis display.
5. Freeform text and notes.     10. Record utilities.
                                11. TSD Bridge display.

====> end
    
```

BLG1UT01, the Utility Entry Dialog panel, appears again. From this panel you can display another record or type **initialize** and press Enter to return to the Primary Options Menu.

```
BLG1UT01                UTILITY ENTRY DIALOG                UTILITY
Enter UTILITY information; cursor placement or input line entry allowed.

1. Database.....<R> 5
2. Record ID.....<R> trn850__

To start the function, press Enter without field modification.

===> initialize
```

Printing a Record from the Primary Options Menu

This exercise teaches you how to print a record to a data set. Remember that you might not have authority to perform this task. If you get a message during this exercise that says you are assigned to a privilege class that does not have authority to do this task, and you need to do this task to perform your job, call your program administrator.

When you know the record ID of the record you want to work with, you can begin on the Primary Options Menu, or you can issue the PRINT command as shown in “Using Commands” on page 103. If you do not know the exact record ID, you can display a list of records from which you can select the record you want to print, as shown in the exercise that appears in “Working with Records from a Search Results List” on page 93.

Each of these methods start differently, but all methods eventually use the same prompting sequence to accomplish the task. In this chapter, you start from the Primary Options Menu.

On the Primary Options Menu for the Management application, type **7** (for Utility) and press Enter to start the prompting sequence to print a record.


```

BLGOEN20          --- PRIMARY OPTIONS MENU ---      APPLICATION: MANAGEMENT

OPTIONS:

  1. OVERVIEW.....Display general information and product enhancements.
  2. PROFILE.....Display or alter invocation or session defaults.
  3. APPLICATION...Change application, list available applications.
  4. CLASS.....Change current class, list available classes.
  5. ENTRY.....Create a record.
  6. INQUIRY.....Search for records.
  7. UTILITY.....Copy, display, print, delete, and update records.
  8. GLOSSARY.....Display a list of searchable words in the database.
  9. PMF.....Modify or create panels.

          Select an option, enter a command, or type QUIT to exit.

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====> 7
    
```

On BLG1UT00, the Utility panel, type **2** (for Print) and press Enter.

```

+ BLG1UT00 ----- UTILITY -----+
|                                     |
| RECORD UTILITY DIALOG ENTERED, SELECT ITEM |
|                                     |
|  1. DISPLAY.....Display a record in a database. |
|  2. PRINT.....Print an existing record. |
|  3. COPY.....Create a duplicate of an original record. |
|  4. DELETE.....Delete a record from a database. |
|  5. UPDATE.....Update an existing record. |
|                                     |
+----- SELECT ITEM -----+

====> 2
    
```

On BLG1UT01, the Utility Entry Dialog panel, enter the ID of the record you want to print in field 2 and the number of the database in which it is found. Type **5** for the database number and **trn850** for the record ID.

Press Enter twice.

Printing a Record from the Primary Options Menu

```
BLG1UT01                UTILITY ENTRY DIALOG                UTILITY
Enter UTILITY information; cursor placement or input line entry allowed.

1. Database.....<R> 5
2. Record ID.....<R> trn850__

To start the function, press Enter without field modification.

===>
```

BLG0P401, the Print Output Destination panel, appears if you *do not* have print output information already set as defaults in your user profile, and this is the first print job you have done for this Tivoli Information Management for z/OS session, or if you have not freed your print data set.

Type **2** (for DSNAME) to put the print output into a data set. Press Enter.

```
+ BLG0P401 ----- PRINT OUTPUT DESTINATION ----- PRINT+
|
| USE...Identify the output destination to use for print request.
|
| NOTE: Output destination data for each selection is defaulted
|       based on the current profile values.
|
| 1.SYSOUT.....Add or modify sysout information.
| 2.DSNAME.....Add or modify data set name information.
| 3.DDNAME.....Add or modify ddname information.
|
+----- SELECT ITEM -----+

===> 2
```

BLG0P420, the Print DSNAME Destination Entry panel, appears. Modify the fields to reflect the way your organization prints. (Ask for details from your program administrator, and record your local defaults on page 268.)

Enter the name of a data set, for example **userid.print.dataset**, and modify the other fields to reflect the way you want to print.

```

BLG0P420          PRINT DATA SET DESTINATION ENTRY          USER ID: SMITHSON

Enter allocation parameters; cursor placement or input line entry allowed.

  1. Data set name.....<R> userid.print.dataset_____
  2. Disposition..... _____

Space allocation (NEW data sets):      Data set characteristics (NEW data sets)
  3. Space units.....<R> BLK           10. Logical record length..<R> 00137
  4. Primary quantity.....<R> 0130    11. Block size.....<R> 03155
  5. Secondary quantity...<R> 0130    12. Record format.....<R> VBA
  6. Allocation block size<R> 03155

Data set location:
  7. Volume serial number.... _____
  8. Unit type..... _____

Output processing:
  9. Lines per page.....<R> 00000060 13. Output in uppercase....<R> NO_

===>
    
```

Type **end** and press Enter to complete your modification of the printing information and to initiate the printing.

```

BLG0P420          PRINT DATA SET DESTINATION ENTRY          USER ID: SMITHSON

Enter allocation parameters; cursor placement or input line entry allowed.

  1. Data set name.....<R> USERID.PRINT.DATASET_____
  2. Disposition..... _____

Space allocation (NEW data sets):      Data set characteristics (NEW data sets)
  3. Space units.....<R> BLK           10. Logical record length..<R> 00137
  4. Primary quantity.....<R> 0130    11. Block size.....<R> 03155
  5. Secondary quantity...<R> 0130    12. Record format.....<R> VBA
  6. Allocation block size<R> 03155

Data set location:
  7. Volume serial number.... _____
  8. Unit type..... _____

Output processing:
  9. Lines per page.....<R> 00000060 13. Output in uppercase....<R> NO_

===> end
    
```

Note: If you leave the **Disposition** field blank, Tivoli Information Management for z/OS uses an appropriate automatic disposition setting—NEW for a new data set; OLD for an existing data set. If you want to append this record to the end of a data set you created in a previous session, you must change the **Disposition** field on this panel to MOD.

Printing a Record from the Primary Options Menu

BLG1UT01, the Utility Entry Dialog panel, reappears with a message telling you that your record printed successfully.

Type **end** and press Enter to return to the Primary Options Menu.

```
BLG1UT01                UTILITY ENTRY DIALOG                UTILITY
Enter UTILITY information; cursor placement or input line entry allowed.

1. Database.....<R> 5
2. Record ID.....<R> trn850__

To start the function, press Enter without field modification.

BLG03079I Record TRN850 was printed successfully.
===> end
```

The print output destination that you specify this way remains in effect for the entire Tivoli Information Management for z/OS session, unless you use the FREE PRINT command or a setting in your user profile to free the data set. If you do not want to be prompted the first time you print a record, you can add print output destination information to your profile. See “Modifying Your User Profile” on page 41.

Copying a Record from the Primary Options Menu

This exercise teaches you how to copy a record. In this exercise you create a copy of a training record, which you can use to complete the rest of the exercises in this book. Remember that you may not have authority to perform this task with problem records. If you get a message during this exercise that says you are assigned to a privilege class that does not have authority to do this task, and you need to do this task to perform your job, call your program administrator.

When you copy a record, data for the new record is displayed instead of the original record. You give a new record ID to the copied record, and update any other information that is different. For this exercise, you copy a training record and give it a unique record ID.

When you know the record ID of the record you want to work with, you can begin on the Primary Options Menu, or you can issue the COPY command as shown in “Using Commands” on page 103. If you do not know the exact record ID, you can display a list of records from which you can select the record you want to copy, as shown in the exercise that appears in “Working with Records from a Search Results List” on page 93.

Each method starts differently, but all methods eventually use the same prompting sequence to accomplish the task. In this chapter you start from the Primary Options Menu.

On the Primary Options Menu for the Management application, type **7** (for Utility) and press Enter.

```
BLG0EN20          --- PRIMARY OPTIONS MENU ---      APPLICATION: MANAGEMENT

OPTIONS:

  1. OVERVIEW.....Display general information and product enhancements.
  2. PROFILE.....Display or alter invocation or session defaults.
  3. APPLICATION....Change application, list available applications.
  4. CLASS.....Change current class, list available classes.
  5. ENTRY.....Create a record.
  6. INQUIRY.....Search for records.
  7. UTILITY.....Copy, display, print, delete, and update records.
  8. GLOSSARY.....Display a list of searchable words in the database.
  9. PMF.....Modify or create panels.

      Select an option, enter a command, or type QUIT to exit.

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====> 7
```

On BLG1UT00, the Utility panel, type **3** (for Copy) and press Enter.

```
+ BLG1UT00 ----- UTILITY -----+
|                                     |
| RECORD UTILITY DIALOG ENTERED, SELECT ITEM |
|                                     |
|  1. DISPLAY.....Display a record in a database. |
|  2. PRINT.....Print an existing record. |
|  3. COPY.....Create a duplicate of an original record. |
|  4. DELETE.....Delete a record from a database. |
|  5. UPDATE.....Update an existing record. |
|                                     |
+----- SELECT ITEM -----+

====> 3
```

On BLG1UT01, the Utility Entry Dialog panel, type the number of the database in which it is found and the name of the record you are copying. Type **5** for the database and **trn744** for the record ID. Press Enter twice.

Copying a Record from the Primary Options Menu

```
BLG1UT01                UTILITY ENTRY DIALOG                UTILITY
Enter UTILITY information; cursor placement or input line entry allowed.

1. Database.....<R> 5
2. Record ID.....<R> trn744

To start the function, press Enter without field modification.

===>
```

BLG0B100, the Problem Reporter Entry panel, displays the data for the new record.

Notice that the problem number (also called record ID) in the upper-right corner is blank, and field **15. User problem number** is blank.

This is a copy of the training record. You give this copy a new problem number or Tivoli Information Management for z/OS assigns it automatically.

```
BLG0B100                PROBLEM REPORTER ENTRY                PROBLEM: _____
Enter problem reporter data; cursor placement or input line entry allowed.

1. Reported by.....<R> HOLLOWAY_____ 13. Problem type..... _____
2. Reporter dept..... _____         14. Problem status...<R> OPEN___
3. Reporter phone..... _____        15. User problem number.. _____
4. Date occurred..... _____         16. Initial priority..... _
5. Time occurred..... _____         17. Outage..... _____
6. Network name..... _____          18. Rerun time..... _____
7. System name..... _____           19. Network impact..... _____
8. Program name..... ISPF                20. System impact..... _____
9. Device name..... 3270PC                21. Program impact..... _____
10. Key item affected... _____       22. Device impact..... _____
11. Date fix required... _____        23. User form number.... _____
12. Time fix required... _____        24. Location code..... ROOM444
                                           26. Outage type..... _

25. Description.....<R> CANNOT ACCESS APPLICATION (TRAINING RECORD)_

When you finish, type END to save or CANCEL to discard any changes.

===>
```

Use the tab keys -->| or |<-- to move the cursor to field 15. Enter a unique record ID into the field. You need to enter an ID that has not been used before. Type **trn** followed by your initials, followed by a number. Press Enter.

```

BLG0B100                PROBLEM REPORTER ENTRY                PROBLEM: _____

Enter problem reporter data; cursor placement or input line entry allowed.

1. Reported by.....<R> HOLLOWAY_____  13. Problem type..... _____
2. Reporter dept..... _____          14. Problem status....<R> OPEN____
3. Reporter phone..... _____         15. User problem number.. trnras1_
4. Date occurred..... _____         16. Initial priority..... ____
5. Time occurred..... _____         17. Outage..... _____
6. Network name..... _____          18. Rerun time..... _____
7. System name..... _____           19. Network impact..... _____
8. Program name..... ISPF                20. System impact..... _____
9. Device name..... 3270PC                21. Program impact..... _____
10. Key item affected... _____       22. Device impact..... _____
11. Date fix required... _____        23. User form number.... _____
12. Time fix required... _____        24. Location code..... ROOM444
                                           26. Outage type..... ____

25. Description.....<R> CANNOT ACCESS APPLICATION (TRAINING RECORD)_

      When you finish, type END to save or CANCEL to discard any changes.

====>
    
```

For the panels shown in these exercises, the record ID assigned is TRNRAS1. However, the number you use should be different. Also, your organization might have a local procedure you should use to number records when you are not training. Record your local procedure, page 266.

You can also update the data shown. For example, move the cursor to the **Description** field and type: **this is my sample training record**.

Then move the cursor to the command line, type **end**, and press Enter to leave the panel.

Copying a Record from the Primary Options Menu

```
BLG0B100                PROBLEM REPORTER ENTRY                PROBLEM: TRNRAS1_

Enter problem reporter data; cursor placement or input line entry allowed.

 1. Reported by.....<R> HOLLOWAY_____ 13. Problem type..... _____
 2. Reporter dept..... _____        14. Problem status...<R> OPEN_____
 3. Reporter phone..... _____       15. User problem number.. TRNRAS1_
 4. Date occurred..... _____        16. Initial priority.....  _
 5. Time occurred..... _____        17. Outage..... _____
 6. Network name..... _____         18. Rerun time..... _____
 7. System name..... _____         19. Network impact..... _____
 8. Program name..... ISPF              20. System impact..... _____
 9. Device name..... 3270PC              21. Program impact..... _____
10. Key item affected... _____      22. Device impact..... _____
11. Date fix required... _____       23. User form number.... _____
12. Time fix required... _____       24. Location code.....  ROOM444
                                         26. Outage type..... _____

25. Description.....<R> this is my sample training record

      When you finish, type END to save or CANCEL to discard any changes.

====> end
```

BLG0BU00, the Problem Summary panel appears.

Type **end** or **9** (for File record) and press Enter to save the new record.

```
BLG0BU00                PROBLEM SUMMARY                PROBLEM: TRNRAS1

Reported by..... HOLLOWAY              Problem status..... OPEN
Assignee name..... _____           Current phase..... _____
Tracked by..... _____             Current priority.....  _
Network name..... _____           Owing priv. class.... _____
System name..... _____            Entry priv. class.... _____
Program name..... ISPF                 Date entered..... _____
Device name..... 3270PC                 Time entered..... _____
Key item affected..... _____       Date last altered..... _____

Description..... THIS IS MY SAMPLE TRAINING RECORD _____

Select one of the following, type END to save your changes, or type CANCEL
to discard your changes.

 1. Reporter data.                    6. Supplemental data.
 2. Status data.                      7. Synopsis data.
 3. Close data.                       8. Freeform text.
 4. Symptom data.                    9. File record.
 5. Resolution data.                 10. Create solution and file record.

====> 9
```

If you were creating solution records for a knowledge base, you could supply any additional information required and use option 10 to create the solution record and file the record at the same time. However, this document does not describe all there is to know about creating solution records for a knowledge base. For more information about solution records, refer to the *Tivoli Information Management for z/OS Program Administration Guide and Reference*.

After you select option 9 to file the record, BLG1UT01, the Utility Entry panel appears. Notice the message at the bottom of the panel telling you that your record has been stored.

You can copy other records or type **initialize** and press Enter to return to the Primary Options Menu.

```
BLG1UT01                UTILITY ENTRY DIALOG                UTILITY
Enter UTILITY information; cursor placement or input line entry allowed.

1. Database.....<R> 5
2. Record ID.....<R> TRN744

To start the function, press Enter without field modification.

BLG03058I Record TRNRAS1 was stored successfully.
===>
```

Copy this record again for use in “Using Assisted-Entry Panels” on page 81. Be sure to assign a different record ID. You could change the number that followed your initials in the previous example. The book will call this record TRNRAS2. If you do not give the record an ID, Tivoli Information Management for z/OS will assign a numeric ID to the record automatically. Make a note of this ID if you choose to let Tivoli Information Management for z/OS name your record.

Updating a Record from the Primary Options Menu

This exercise teaches you how to update the data in a problem record. Remember that you may not have authority to perform this task with problem records. If you get a message during this exercise that says you are assigned to a privilege class that does not have authority to do this task, and you need to do this task to perform your job, call your program administrator.

During this exercise, you update the data in the training record you created in the previous copying exercise, TRNRAS1.

When you know the record ID of the record you want to work with, you can begin on the Primary Options Menu, or you can issue the UPDATE command as explained in “Using Commands” on page 103. If you do not know the exact record ID, you can display a list of records from which you can select the record you want to update, as shown in the exercise that appears in “Working with Records from a Search Results List” on page 93.

Each method starts differently, but all methods eventually use the same prompting sequence to accomplish the task. In this chapter, you start on the Primary Options Menu.

Updating a Record from the Primary Options Menu

On the Primary Options Menu, type **7** (for Utility) and press Enter.

```
BLG0EN20          --- PRIMARY OPTIONS MENU ---      APPLICATION: MANAGEMENT

OPTIONS:

  1. OVERVIEW.....Display general information and product enhancements.
  2. PROFILE.....Display or alter invocation or session defaults.
  3. APPLICATION...Change application, list available applications.
  4. CLASS.....Change current class, list available classes.
  5. ENTRY.....Create a record.
  6. INQUIRY.....Search for records.
  7. UTILITY.....Copy, display, print, delete, and update records.
  8. GLOSSARY.....Display a list of searchable words in the database.
  9. PMF.....Modify or create panels.

      Select an option, enter a command, or type QUIT to exit.

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====> 7
```

On BLG1UT00, the Utility panel, type **5** (for Update) and press Enter.

```
+ BLG1UT00 ----- UTILITY -----+
|                                     |
| RECORD UTILITY DIALOG ENTERED, SELECT ITEM |
|                                     |
|  1. DISPLAY.....Display a record in a database. |
|  2. PRINT.....Print an existing record. |
|  3. COPY.....Create a duplicate of an original record. |
|  4. DELETE.....Delete a record from a database. |
|  5. UPDATE.....Update an existing record. |
|                                     |
+----- SELECT ITEM -----+

====> 5
```

On BLG1UT01, the Utility Entry Dialog panel, type **5** in the **Database** field.

Type the number of the record you want to update. For this exercise, use the record ID you assigned to the copied record in the previous exercise. The example panels in this exercise show record TRNRAS1, but your number is different. Press Enter twice.

```

BLG1UT01                UTILITY ENTRY DIALOG                UTILITY
Enter UTILITY information; cursor placement or input line entry allowed.

1. Database.....<R> 5
2. Record ID.....<R> TRNRAS1_

To start the function, press Enter without field modification.

===>
    
```

BLG0BU00, the Problem Summary panel for this record, gives you a list of selections from which you can update various details of the record data.

To update reporter data, type **1** (for Reporter data) and press Enter.

```

BLG0BU00                PROBLEM SUMMARY                PROBLEM: TRNRAS1
Reported by..... HOLLOWAY                Problem status..... OPEN
Assignee name..... _____                Current phase..... _____
Tracked by..... _____                Current priority..... _
Network name..... _____                Owing priv. class..... _____
System name..... _____                Entry priv. class..... TRNCLASS
Program name..... ISPF                    Date entered..... 10/07/1998
Device name..... 3270PC                    Time entered..... 11:19
Key item affected..... _____                Date last altered..... 10/07/1998

Description..... THIS IS MY SAMPLE TRAINING RECORD____

Select one of the following, type END to save your changes, or type CANCEL
to discard your changes.
1. Reporter data.                        6. Supplemental data.
2. Status data.                          7. Synopsis data.
3. Close data.                            8. Freeform text.
4. Symptom data.                          9. File record.
5. Resolution data.                       10. Create solution and file record.

====> 1
    
```

Note: Do not be concerned about what the selections on this panel and the data you enter on other panels are used for. This exercise shows you only the basic steps to update a record. Other books in the Tivoli Information Management for z/OS library discuss various types of records and the information they contain.

Updating a Record from the Primary Options Menu

Remember that when entering data you can use any of the methods explained in “Three Data-Entry Methods” on page 23. This example gives you a chance to practice all three methods.

Update by Typing Data Directly into the Field

You can enter data by moving the cursor to the data field and typing the data directly on the lines of the panel.

On BLG0B100, the Problem Reporter Entry panel, move the cursor to each field listed below and type the data. (Use the tab keys -->| or |<-- to move from field to field.)

```
BLG0B100                PROBLEM REPORTER ENTRY                PROBLEM: TRNRAS1

Enter problem reporter data; cursor placement or input line entry allowed.

 1. Reported by.....<R> HOLLOWAY _____ 13. Problem type..... _____
 2. Reporter dept..... _____           14. Problem status....<R> OPEN _____
 3. Reporter phone..... 555-8383 _____ 15. User problem number.. TRNRAS1_
 4. Date occurred..... _____           16. Initial priority.... _
 5. Time occurred..... _____           17. Outage..... _____
 6. Network name..... _____           18. Rerun time..... _____
 7. System name..... _____            19. Network impact..... _____
 8. Program name..... ISPF _____        20. System impact..... _____
 9. Device name..... 3270PC _____       21. Program impact..... _____
10. Key item affected... _____         22. Device impact..... _____
11. Date fix required... _____         23. User form number.... _____
12. Time fix required... _____         24. Location code..... ROOM444_
                                           26. Outage type..... _

25. Description.....<R> this is my updated sample training record

      When you finish, type END to save or CANCEL to discard any changes.

====>
```

For this exercise, move your cursor to the **Reporter phone** field and type 555-8383. Next, move your cursor to the **Description** field and change it to read **this is my updated sample training record** by typing over the existing description.

After you have typed data in these fields, press Enter. The information you typed is changed to uppercase unless your Tivoli Information Management for z/OS program administrator has defined your system to display the data in some other case.

Update by Typing the Data on the Command Line

You can also enter data by typing it directly on the command line. When you type the data, you must first identify which field it goes into.

Type the following data on the command line, and press Enter. You see that fields 24 and 13 have been updated with the data you entered.

```
24,room77c,13,software
```

```

BLG0B100                PROBLEM REPORTER ENTRY                PROBLEM: TRNRAS1

Enter problem reporter data; cursor placement or input line entry allowed.

  1. Reported by.....<R> HOLLOWAY_____  13. Problem type..... SOFTWARE
  2. Reporter dept..... _____          14. Problem status....<R> OPEN_____
  3. Reporter phone..... 555-8383_____    15. User problem number.. TRNRAS1_
  4. Date occurred..... _____          16. Initial priority..... _
  5. Time occurred..... _____          17. Outage..... _____
  6. Network name..... _____           18. Rerun time..... _____
  7. System name..... _____           19. Network impact..... _____
  8. Program name..... ISPF_____          20. System impact..... _____
  9. Device name..... 3270PC_____         21. Program impact..... _____
 10. Key item affected... _____        22. Device impact..... _____
 11. Date fix required... _____        23. User form number..... _____
 12. Time fix required... _____        24. Location code..... ROOM77C_
                                           26. Outage type..... _____

25. Description.....<R> THIS IS MY UPDATED SAMPLE TRAINING RECORD_____

      When you finish, type END to save or CANCEL to discard any changes.

====>
    
```

Notice that the field numbers and the data are separated from each other by commas. The field number is typed first, then a comma, then the data, then a comma, then the next field number, and so on. When you press Enter, the data is placed in the correct fields in uppercase.

Update by Using the Equal Sign Function

In your user profile you can store some data that you type repeatedly, such as your name or department number. Once this data is set up in the profile, simply place an SBCS equal sign (=) in a field where you want that data to be, and Tivoli Information Management for z/OS automatically places the data there for you. “Modifying Your User Profile” on page 41 shows you how to modify your user profile to include some of this data.

You can also use the equal sign function with data that is always available, for example, the current date and time. For information on using the = sign with a date offset, see “Using the Equal Sign with a Date Offset” on page 29.

Use the tab keys to move the cursor, and enter an SBCS equal sign (=) in field **2. Reporter dept** to enter information from your profile. Type equal signs in field **4. Date occurred** and field **5. Time occurred** to get information that is always available from Tivoli Information Management for z/OS. Press Enter.

Updating a Record from the Primary Options Menu

```
BLG0B100                PROBLEM REPORTER ENTRY                PROBLEM: TRNRAS1

Enter problem reporter data; cursor placement or input line entry allowed.

  1. Reported by.....<R> HOLLOWAY _____    13. Problem type..... SOFTWARE
  2. Reporter dept..... = _____            14. Problem status...<R> OPEN
  3. Reporter phone..... 555-8383 _____    15. User problem number.. TRNRAS1_
  4. Date occurred..... = _____           16. Initial priority.....
  5. Time occurred..... = _____           17. Outage.....
  6. Network name..... _____             18. Rerun time.....
  7. System name..... _____             19. Network impact.....
  8. Program name..... ISPF _____         20. System impact.....
  9. Device name..... 3270PC _____        21. Program impact.....
 10. Key item affected... _____         22. Device impact.....
 11. Date fix required... _____          23. User form number....
 12. Time fix required... _____          24. Location code..... ROOM77C_
                                           26. Outage type.....

25. Description.....<R> THIS IS MY UPDATED SAMPLE TRAINING RECORD

      When you finish, type END to save or CANCEL to discard any changes.

====>
```

Your department number, and the present date and time are entered for you in those fields. Type **end** and press Enter to leave the panel and save your updates.

```
BLG0B100                PROBLEM REPORTER ENTRY                PROBLEM: TRNRAS1

Enter problem reporter data; cursor placement or input line entry allowed.

  1. Reported by.....<R> HOLLOWAY _____    13. Problem type..... SOFTWARE
  2. Reporter dept..... L7 _____           14. Problem status...<R> OPEN
  3. Reporter phone..... 555-8383 _____    15. User problem number.. TRNRAS1_
  4. Date occurred..... 10/21/1998 _____  16. Initial priority.....
  5. Time occurred..... 09:06 _____       17. Outage.....
  6. Network name..... _____             18. Rerun time.....
  7. System name..... _____             19. Network impact.....
  8. Program name..... ISPF _____         20. System impact.....
  9. Device name..... 3270PC _____        21. Program impact.....
 10. Key item affected... _____         22. Device impact.....
 11. Date fix required... _____          23. User form number....
 12. Time fix required... _____          24. Location code..... ROOM77C_
                                           26. Outage type.....

25. Description.....<R> THIS IS MY UPDATED SAMPLE TRAINING RECORD

      When you finish, type END to save or CANCEL to discard any changes.

====> end
```

You return to BLG0BU00, the Problem Summary panel.

Type **end** and press Enter or select **9. File record** to save your updates. Either response stores the record.

```

BLG0BU00                                PROBLEM SUMMARY                                PROBLEM: TRNRAS1

Reported by..... HOLLOWAY                Problem status..... OPEN
Assignee name..... _____              Current phase..... _____
Tracked by..... _____                 Current priority..... _____
Network name..... _____               Owing priv. class..... _____
System name..... _____                 Entry priv. class..... TRNCLASS
Program name..... ISPF_____              Date entered..... 10/07/1998
Device name..... 3270PC_____             Time entered..... 11:19
Key item affected..... _____           Date last altered..... 10/07/1998

Description..... THIS IS MY UPDATED SAMPLE TRAINING RECORD

Select one of the following, type END to save your changes, or type CANCEL
to discard your changes.
    1. Reporter data.                      6. Supplemental data.
    2. Status data.                       7. Synopsis data.
    3. Close data.                        8. Freeform text.
    4. Symptom data.                     9. File record.
    5. Resolution data.                   10. Create solution and file record.

====> end
    
```

You return to BLG1UT01, the Utility Entry Dialog panel. Notice the message at the bottom of the panel telling you that your record has been stored. You can update another record or type **initialize** on the command line to return to the Primary Options Menu.

```

BLG1UT01                                UTILITY ENTRY DIALOG                                UTILITY

Enter UTILITY information; cursor placement or input line entry allowed.

    1. Database.....<R> 5
    2. Record ID.....<R> TRNRAS1_

To start the function, press Enter without field modification.

BLG03058I RECORD TRNRAS1 STORED SUCCESSFULLY
====> initialize
    
```

Deleting a Record from the Primary Options Menu

Sometimes it is necessary to remove a record from a database. Usually, to protect the information in the database, only a few people in an organization are authorized to remove records. This exercise teaches you some basic techniques to delete a problem record from a database. Remember that you might not have authority to perform this task with problem

Deleting a Record from the Primary Options Menu

records. If you get a message during this exercise that says you are assigned to a privilege class that does not have authority to do this task and you need to do this task to perform your job, call your program administrator.

Note: For users of previous releases of Information/Management, you may recall this as the purge function. You can still use the PURGE command with this version of Tivoli Information Management for z/OS. The results are the same.

For this exercise, you designate a record to delete from a database and verify the delete request.

When you know the record ID of the record you want to work with, you can begin on the Primary Options Menu, or you can issue the DELETE command. If you do not know the exact record ID, you display a list of records from which you can select the record you want to delete, as shown in the exercise that starts in “Working with Records from a Search Results List” on page 93.

Each method starts differently, but all methods eventually use the same prompting sequence to accomplish the task.

Your organization may have a local procedure for you to follow to get a record deleted from the database. If so, record that procedure on page 268 in the Reference section. Otherwise continue this deletion exercise.

From the Primary Options Menu for the Management application, type **7** (for Utility) and press Enter.

```
BLG0EN20          --- PRIMARY OPTIONS MENU ---    APPLICATION: MANAGEMENT
OPTIONS:
  1. OVERVIEW.....Display general information and product enhancements.
  2. PROFILE.....Display or alter invocation or session defaults.
  3. APPLICATION...Change application, list available applications.
  4. CLASS.....Change current class, list available classes.
  5. ENTRY.....Create a record.
  6. INQUIRY.....Search for records.
  7. UTILITY.....Copy, display, print, delete, and update records.
  8. GLOSSARY.....Display a list of searchable words in the database.
  9. PMF.....Modify or create panels.

      Select an option, enter a command, or type QUIT to exit.

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====> 7
```

On BLG1UT00, the Utility panel, type **4** (for Delete), and press Enter.


```

+ BLG1UT00 ----- UTILITY -----+
|
| RECORD UTILITY DIALOG ENTERED, SELECT ITEM
|
| 1. DISPLAY.....Display a record in a database.
| 2. PRINT.....Print an existing record.
| 3. COPY.....Create a duplicate of an original record.
| 4. DELETE.....Delete a record from a database.
| 5. UPDATE.....Update an existing record.
|
+----- SELECT ITEM -----+

```

==> 4

On BLG1UT01, the Utility Entry Dialog panel, type **5** in the **Database** field, and type the record ID you want to delete in the **Record ID** field. For this exercise, enter the ID of the record you created during the copy exercise, page 65; the one the book called TRNRAS1. Press Enter twice.

```

BLG1UT01                UTILITY ENTRY DIALOG                UTILITY
Enter UTILITY information; cursor placement or input line entry allowed.

1. Database.....<R> 5
2. Record ID.....<R> trnras1_

To start the function, press Enter without field modification.

==>

```

BLG0BU10, the Problem Delete Verification panel, displays a summary of the record for your verification. This verification step helps you be sure that you are deleting the correct record.

Deleting a Record from the Primary Options Menu

If you decide not to delete the record, select 1 to cancel your delete request. However, for this exercise, select 2 to verify your request to delete the record. Type **2** (for Verify delete request), and press Enter.

```
BLG0BU10          PROBLEM DELETE VERIFICATION          PROBLEM: TRNRAS1
Reported by..... HOLLOWAY          Problem type.....<H> SOFTWARE
Assignee name.....<H> _____      Problem status.....<H> OPEN
Assignee phone.....<H> _____      Current phase.....<H> _____
Tracked by.....<H> _____          Current priority.....<H> _
System name.....<H> _____          Outage.....<H> _____
Program name..... ISPF                Owing priv. class..... _____
Device name..... 3270PC                Entry priv. class..... TRNCLASS
Key item affected..... _____      Date entered..... 10/07/1998
Cause code..... _____             Time entered..... 11:19
Date closed..... _____             Date last altered....<H> 10/21/1998

Description..... THIS IS MY UPDATED SAMPLE TRAINING RECORD

Select one of the following to cancel or verify your request

1. Cancel delete request.
2. Verify delete request.

====> 2
```

BLG1UT01, the Utility Entry Dialog panel, appears again. Notice the message at the bottom of the panel telling you that your record has been deleted. If you had decided not to delete the record, you would have received a message at the bottom saying that the delete was canceled.

To return to the Primary Options Menu, type **initialize**, and press Enter.

```

BLG1UT01                UTILITY ENTRY DIALOG                UTILITY
Enter UTILITY information; cursor placement or input line entry allowed.

                1. Database.....<R> 5
                2. Record ID.....<R> TRNRAS1_

                To start the function, press Enter without field modification.

BLG03034I The specified record TRNRAS1 was successfully deleted.
===> initialize
    
```

Creating a Record from the Primary Options Menu

This exercise teaches you some basic techniques to create a record in a database. Earlier in this chapter, you created a record by copying another record, and then updating the data in the copy. However, this exercise shows you how to create a record without copying another.

Remember that you may not have authority to perform this task with problem records. If you get a message during this exercise that says you are assigned to a privilege class that does not have authority to do this task and you need to do this task to perform your job, call your program administrator.

You cannot enter line commands on the Search Results List to create a record, nor can you enter a command to create a record. You must create a record by starting on the Primary Options Menu.

To create a record, type **5** (for Entry) on the Primary Options Menu for the Management application and press Enter.

Creating a Record from the Primary Options Menu

```
BLG0EN20          --- PRIMARY OPTIONS MENU ---      APPLICATION: MANAGEMENT

OPTIONS:

  1. OVERVIEW.....Display general information and product enhancements.
  2. PROFILE.....Display or alter invocation or session defaults.
  3. APPLICATION...Change application, list available applications.
  4. CLASS.....Change current class, list available classes.
  5. ENTRY.....Create a record.
  6. INQUIRY.....Search for records.
  7. UTILITY.....Copy, display, print, delete, and update records.
  8. GLOSSARY.....Display a list of searchable words in the database.
  9. PMF.....Modify or create panels.

          Select an option, enter a command, or type QUIT to exit.

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====> 5
```

On BLG00000, Entry panel, you select what kind of record you want to create.

For this exercise, type **1** (for Problem), and press Enter.

```
+ BLG00000 ----- ENTRY ----- 1 OF 1-+
|
| USE....Identify the type of description (record) to be entered.
|
|  1.PROBLEM.....Enter data processing problem description.
|  2.CHANGE.....Enter change request for system/procedure.
|  3.CONFIG.....Enter description of system configuration,
|                financial data, or service organization.
|  4.RULES.....Enter description of escalation rules.
|  5.DATA MODEL.....Enter description of a data model.
|  6.PEOPLE.....Enter description of a person.
|  7.SOLUTION.....Enter solution record.
|
+----- SELECT ITEM -----+

====> 1
```

BLG0B100, the Problem Reporter Entry panel, lists the information that can be collected for this problem.

For this exercise, use any of the methods discussed in “Three Data-Entry Methods” on page 23 to enter the data in the fields as shown in the example. For field 15, make up your own user problem number, perhaps by using your initials followed by the number 777.

```

BLG0B100                PROBLEM REPORTER ENTRY                PROBLEM: _____

Enter problem reporter data; cursor placement or input line entry allowed.

  1. Reported by.....<R> holloway_____  13. Problem type..... hardware
  2. Reporter dept..... finance_____    14. Problem status...<R> initial
  3. Reporter phone..... 555-8632_____  15. User problem number.. trn777__
  4. Date occurred..... = _____      16. Initial priority..... _
  5. Time occurred..... = _____      17. Outage..... _____
  6. Network name..... _____         18. Rerun time..... _____
  7. System name..... _____         19. Network impact..... _____
  8. Program name..... _____         20. System impact..... _____
  9. Device name..... 6670_____        21. Program impact..... _____
 10. Key item affected... _____      22. Device impact..... _____
 11. Date fix required... _____      23. User form number..... _____
 12. Time fix required... _____      24. Location code..... A528__
                                           26. Outage type..... _

25. Description.....<R> Large paper jam ( training record )_____

      When you finish, type END to save or CANCEL to discard any changes.

====>
    
```

When you press Enter, the data is placed in the fields in uppercase, which shows that the data syntax has been verified and accepted by Tivoli Information Management for z/OS.

When you have completed entering data, type **end** and press Enter to save your entries.

```

BLG0B100                PROBLEM REPORTER ENTRY                PROBLEM: TRN777

Enter problem reporter data; cursor placement or input line entry allowed.

  1. Reported by.....<R> HOLLOWAY_____  13. Problem type..... HARDWARE
  2. Reporter dept..... FINANCE_____    14. Problem status...<R> INITIAL
  3. Reporter phone..... 555-8632_____  15. User problem number.. TRN777__
  4. Date occurred..... 10/22/1998      16. Initial priority..... _
  5. Time occurred..... 09:40           17. Outage..... _____
  6. Network name..... _____         18. Rerun time..... _____
  7. System name..... _____         19. Network impact..... _____
  8. Program name..... _____         20. System impact..... _____
  9. Device name..... 6670_____        21. Program impact..... _____
 10. Key item affected... _____      22. Device impact..... _____
 11. Date fix required... _____      23. User form number..... _____
 12. Time fix required... _____      24. Location code..... A528__
                                           26. Outage type..... _

25. Description.....<R> LARGE PAPER JAM ( TRAINING RECORD )_____

      When you finish, type END to save or CANCEL to discard any changes.

====> end
    
```

BLG0BU00, the Problem Summary panel, shows the most important of the fields in which you entered data and lists, at the bottom, some selections that enable you to enter more information about the problem. For this exercise, you do not use these selections.

Creating a Record from the Primary Options Menu

On the command line type, **end** or **9** (for File record), then press Enter. Either response saves your data as this new record.

```
BLG0BU00                PROBLEM SUMMARY                PROBLEM: TRN777

Reported by..... HOLLOWAY          Problem status..... INITIAL
Assignee name..... _____       Current phase..... _____
Tracked by..... _____          Current priority..... _
Network name..... _____        Owing priv. class..... _____
System name..... _____         Entry priv. class..... _____
Program name..... _____        Date entered..... _____
Device name..... 6670              Time entered..... _____
Key item affected..... _____   Date last altered..... _____

Description..... LARGE PAPER JAM ( TRAINING RECORD )

Select one of the following, type END to save your changes, or type CANCEL
to discard your changes.
    1. Reporter data.                6. Supplemental data.
    2. Status data.                 7. Synopsis data.
    3. Close data.                  8. Freeform text.
    4. Symptom data.               9. File record.
    5. Resolution data.            10. Create solution and file record.

====> 9
```

You return to BLG0EN20, the Primary Options Menu. Notice the message at the bottom of the panel that tells you record TRN777 was stored successfully.

```
BLG0EN20                --- PRIMARY OPTIONS MENU ---      APPLICATION: MANAGEMENT

OPTIONS:

    1. OVERVIEW.....Display general information and product enhancements.
    2. PROFILE.....Display or alter invocation or session defaults.
    3. APPLICATION....Change application, list available applications.
    4. CLASS.....Change current class, list available classes.
    5. ENTRY.....Create a record.
    6. INQUIRY.....Search for records.
    7. UTILITY.....Copy, display, print, delete, and update records.
    8. GLOSSARY.....Display a list of searchable words in the database.
    9. PMF.....Modify or create panels.

Select an option, enter a command, or type QUIT to exit.

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BLG03058I Record TRN777 was stored successfully.
====>
```

Using Assisted-Entry Panels

If you are not sure what to enter in a particular field on a data-entry panel, you can enter the field number on the command line without any data. An assisted-entry panel then shows you the correct format and type of information to enter. The data you type on the assisted-entry panel is placed in the correct field on the data-entry panel.

Note: As mentioned earlier on page 27, field numbers may not be displayed if they are suppressed through your user profile. If they are not displayed, you can display them again by changing your user profile option.

Whenever you enter data into a field on a data-entry panel, Tivoli Information Management for z/OS validates the format of the data. If you enter data that is not valid, Tivoli Information Management for z/OS displays an assisted-entry panel for each field with incorrect data.

You may not always see an assisted-entry panel when you enter data that is not valid or a field number to see the correct format. You may sometimes be presented with a Validation Data panel (BLGLVSEL). See “Validation Data Panel” on page 89 for more information about this panel.

This exercise shows you how the assisted-entry panels work. It uses the second copy of training record TRN744 that you made in the exercise for copying records (see “Copying a Record from the Primary Options Menu” on page 62). The example calls this record TRNRAS2. In this exercise, you update the copied record with the help of assisted-entry panels.

On the Primary Options Menu for the Management application, type **7** (for Utility), and press Enter.

```

BLG0EN20          --- PRIMARY OPTIONS MENU ---      APPLICATION: MANAGEMENT

OPTIONS:

  1. OVERVIEW.....Display general information and product enhancements.
  2. PROFILE.....Display or alter invocation or session defaults.
  3. APPLICATION...Change application, list available applications.
  4. CLASS.....Change current class, list available classes.
  5. ENTRY.....Create a record.
  6. INQUIRY.....Search for records.
  7. UTILITY.....Copy, display, print, delete, and update records.
  8. GLOSSARY.....Display a list of searchable words in the database.
  9. PMF.....Modify or create panels.

      Select an option, enter a command, or type QUIT to exit.

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====> 7

```

Using Assisted-Entry Panels

On BLG1UT00, the Utility panel, type **5** (for Update), and press Enter.

```
+ BLG1UT00 ----- UTILITY -----+
|                                     |
|          RECORD UTILITY DIALOG ENTERED, SELECT ITEM          |
|                                                                 |
|          1. DISPLAY.....Display a record in a database.      |
|          2. PRINT.....Print an existing record.              |
|          3. COPY.....Create a duplicate of an original record. |
|          4. DELETE.....Delete a record from a database.      |
|          5. UPDATE.....Update an existing record.             |
|                                                                 |
|-----+----- SELECT ITEM -----+-----|
|                                                                 |
|====> 5
```

On BLG1UT01, the Utility Entry Dialog panel, type **5** in the **Database** field.

Type the number of the record you want to update in the **Record ID** field. For this exercise, use the record ID you assigned to the copied record. The example in this exercise uses record ID TRNRAS2, but your number is different. Press Enter twice.

```
BLG1UT01                UTILITY ENTRY DIALOG                UTILITY
Enter UTILITY information; cursor placement or input line entry allowed.

          1. Database.....<R> 5
          2. Record ID.....<R> trnras2_

          To start the function, press Enter without field modification.

====>
```

BLG0BU00, Problem Summary, appears. This panel gives you a list of selections from which you can update various details of the record data.

Type **1** (for Reporter data) and press Enter.

BLG0BU00	PROBLEM SUMMARY	PROBLEM: TRNRAS2
Reported by..... HOLLOWAY	Problem status..... OPEN	
Assignee name..... _____	Current phase..... _____	
Tracked by..... _____	Current priority..... _____	
Network name..... _____	Owning priv. class..... _____	
System name..... _____	Entry priv. class..... TRNCLASS	
Program name..... ISPF	Date entered..... 10/07/1998	
Device name..... 3270PC	Time entered..... 11:19	
Key item affected..... _____	Date last altered..... 10/07/1998	
Description..... CANNOT ACCESS APPLICATION (TRAINING RECORD)		
Select one of the following, type END to save your changes, or type CANCEL to discard your changes.		
1. Reporter data.	6. Supplemental data.	
2. Status data.	7. Synopsis data.	
3. Close data.	8. Freeform text.	
4. Symptom data.	9. File record.	
5. Resolution data.	10. Create solution and file record.	
====> 1		

On BLG0B100, the Problem Reporter Entry panel, type **17,yes,23**.

This entry means you want to enter YES in field 17, and for field 23 you entered no data, because you want to see an assisted-entry panel.

Press Enter.

BLG0B100	PROBLEM REPORTER ENTRY	PROBLEM: TRNRAS2
Enter problem reporter data; cursor placement or input line entry allowed.		
1. Reported by.....<R> HOLLOWAY _____	13. Problem type..... _____	
2. Reporter dept..... _____	14. Problem status...<R> OPEN _____	
3. Reporter phone..... _____	15. User problem number.. TRNRAS2_ _____	
4. Date occurred..... _____	16. Initial priority..... _____	
5. Time occurred..... _____	17. Outage..... _____	
6. Network name..... _____	18. Rerun time..... _____	
7. System name..... _____	19. Network impact..... _____	
8. Program name..... ISPF _____	20. System impact..... _____	
9. Device name..... 3270PC_ _____	21. Program impact..... _____	
10. Key item affected... _____	22. Device impact..... _____	
11. Date fix required... _____	23. User form number..... _____	
12. Time fix required... _____	24. Location code..... ROOM444_ _____	
	26. Outage type..... _____	
25. Description.....<R> CANNOT ACCESS APPLICATION (TRAINING RECORD)_ _____		
When you finish, type END to save or CANCEL to discard any changes.		
====> 17,yes,23		

Using Assisted-Entry Panels

BLG6APLT, the Outage assisted-entry panel, appears for field 17 because YES is an incorrect data response for this field. You need to enter data in the format shown on the panel.

For this exercise, type **00:04:00**, and press Enter.

```
+ BLG6APLT ----- OUTAGE ----- INTO/-+
|
| USE...Enter amount of time lost due to the problem occurrence.
|
| FORM...DD:HH:MM - Days, hours, minutes.
|
|
| EXAMPLES: One day lost.....Reply.....01:00:00
|           Half hour lost.....Reply.....00:00:30
|           Day and a half.....Reply.....01:12:00
|
|----- REPLY AS ILLUSTRATED -----+
|
| BLG05021W The response YES is not valid.
|
| The reply to the current assisted entry panel is invalid because it does
| not match the validation criteria. Review the allowable responses for the
| panel and correct the reply. Reply ;HELP or ;HELP VALIDATE for additional
| information.
|
|           CORRECT THE REPLY, THEN PRESS ENTER
|
|====> 00:04:00
```

BLG6UPRN, the assisted-entry panel, appears because you entered field number 23 without data.

You can enter commands on assisted-entry panels. For example, type **help** and press Enter.

```

+ BLG6UPRN ----- USER FORM NUMBER ----- NUMX/++
USE...Enter installation defined problem reporter form number.
FORM...AAAAAAAA - 1 to 8 alphanumeric positions.

EXAMPLES:  D7217711.....Reply.....d7217711
            F0000988.....Reply.....f988
            AB45.....Reply.....ab45

+----- REPLY AS ILLUSTRATED -----+

==>> help
```

Note: Typing any command, except for the BACK command, on an assisted-entry panel causes data on the original data-entry panel that has not yet been processed to be lost. For example, you entered data in field 17 on this data-entry panel. An assisted-entry panel for field 17 appears because you entered the original data incorrectly. If you type a command other than the BACK command on this assisted-entry panel, such as the HELP command, any data you entered for fields *after* field 17 on the original panel is lost. If you had typed data for field 23, instead of leaving it blank, that data is now gone. Typing the BACK command on the command line causes data in fields after field 17 to be processed normally. However, field 17 is not updated because the data entered for it is not valid. See “Three Data-Entry Methods” on page 23 for more information on the processing order of panel fields.

For this example, no unprocessed data is waiting on the original panel, so it is safe to enter this HELP command.

BLG00100, Response Type, appears because you entered a value that could be considered a command (if you or your program administrator have not modified your user profile to change the prompt value). It prompts you to indicate whether the word you entered is data or a command.

Because this is a command, type **1** (for Command) and press Enter.

```
+ BLG00100 ----- RESPONSE TYPE ----- COMMAND--+
|
|   RESPONSE TO THE PREVIOUS PANEL COULD BE A COMMAND OR DATA
|
|   OPTIONS:
|
|     1. COMMAND....Treat the response as a command.
|     2. DATA.....Treat the response as data (not a command).
|     3. RETURN....Return to the assisted-entry panel,
|           NOTE: Remaining replies will be ignored.
|
|           SELECT OPTION
|
+-----+

BLG03085I The assisted-entry panel response HELP looks like a command.
===> 1
```

The next time you enter a command on a panel requesting data, enter it with a semicolon in front of it, like this:

```
;help
```

The panel will then use the input as a command, regardless of your user profile settings.

Your other option is to change the setting of the **Command Detection** field in your profile to either **COMMAND** or **DATA**. A setting of **COMMAND** indicates that when you enter data on an assisted-entry panel that could be interpreted as either a command or data, you want the data to always be treated as a command. A setting of **DATA** indicates that you intend any data on an assisted-entry panel to be a response to that panel, and that you will precede any commands with a semicolon.

The command is processed and you see the help panel you requested: BLG0AAE0, the Assisted-Entry Panel Format and Use help panel.

Scroll with UP or DOWN commands to read the panel.

Then type **end**, and press Enter.

BLG0AAE0 ASSISTED-ENTRY PANEL FORMAT AND USE LINE: 1 OF 84

Assisted-entry panels give you instructions for entering the response to a numbered item on a data-entry panel. Assisted-entry panels are also provided for certain selection panel items.

The entry explanation describes the proper format in which items are to be entered and provides examples of valid entries.

On an assisted-entry panel you may enter data or you may enter a command as follows:

* You may enter data on the input line.

Your response must meet the validation criteria specified on the panel. The length of your response cannot exceed the length indicated, and the response must contain only the allowed set of

Type DOWN or UP to scroll the panel, or type BACK to exit the panel.

====> end

BLG6UPRN, the User Form Number assisted-entry panel, appears.

Type **t99** as the user form number, and press Enter.

```
+ BLG6UPRN ----- USER FORM NUMBER ----- NUMX/-+
|
| USE....Enter installation defined problem reporter form number.
| FORM...AAAAAAA - 1 to 8 alphanumeric positions.
|
| EXAMPLES:  D7217711.....Reply.....d7217711
|             F0000988.....Reply.....f988
|             AB45.....Reply.....ab45
|
+----- REPLY AS ILLUSTRATED -----+
```

====> t99

BLG0B100, the Problem Reporter Entry panel, appears.

Type **end** and press Enter to leave the panel and save your updates.

Using Assisted-Entry Panels

```
BLG0B100                PROBLEM REPORTER ENTRY                PROBLEM: TRNRAS2

Enter problem reporter data; cursor placement or input line entry allowed.

  1. Reported by.....<R> HOLLOWAY_____  13. Problem type..... _____
  2. Reporter dept..... _____         14. Problem status....<R> OPEN_____
  3. Reporter phone..... _____         15. User problem number.. TRNRAS2_
  4. Date occurred..... _____         16. Initial priority..... _____
  5. Time occurred..... _____         17. Outage..... 00:04:00
  6. Network name..... _____         18. Rerun time..... _____
  7. System name..... _____          19. Network impact..... _____
  8. Program name..... ISPF_____         20. System impact..... _____
  9. Device name..... 3270PC_____        21. Program impact..... _____
 10. Key item affected... _____        22. Device impact..... _____
 11. Date fix required... _____        23. User form number..... T99_____
 12. Time fix required... _____        24. Location code..... ROOM444_
                                           26. Outage type..... _____

25. Description.....<R> CANNOT ACCESS APPLICATION (TRAINING RECORD)

      When you finish, type END to save or CANCEL to discard any changes.

====> end
```

BLG0BU00, the Problem Summary panel, appears.

Type **end** or **9** (for File record) and press Enter to save your updates. Either response stores the record.

```
BLG0BU00                PROBLEM SUMMARY                PROBLEM: TRNRAS2

Reported by..... HOLLOWAY                Problem status..... OPEN
Assignee name..... _____             Current phase..... _____
Tracked by..... _____                Current priority..... _____
Network name..... _____              Owing priv. class..... _____
System name..... _____              Entry priv. class..... TRNCLASS
Program name..... ISPF_____            Date entered..... 10/07/1998
Device name..... 3270PC_____          Time entered..... 11:19
Key item affected..... _____        Date last altered..... 10/07/1998

Description..... CANNOT ACCESS APPLICATION (TRAINING RECORD)___

Select one of the following, type END to save your changes, or type CANCEL
to discard your changes.
  1. Reporter data.                      6. Supplemental data.
  2. Status data.                       7. Synopsis data.
  3. Close data.                        8. Freeform text.
  4. Symptom data.                     9. File record.
  5. Resolution data.                  10. Create solution and file record.

====> 9
```

BLG1UT01, the Utility Entry Dialog panel, appears. Notice the message at the bottom of the panel telling you that your record has been stored. You can update another record or type **initialize** and press Enter to return to the Primary Options Menu.

```

BLG1UT01                UTILITY ENTRY DIALOG                UTILITY
Enter UTILITY information; cursor placement or input line entry allowed.

                1. Database.....<R> 5
                2. Record ID.....<R> TRNRAS2_

                To start the function, press Enter without field modification.

BLG03058I Record TRNRAS2 was stored successfully.
===> initialize

```

When you have successfully completed the exercises in this chapter, you (or an authorized user) should delete any records that you created, but *do not* delete TRNRAS2 yet.

Validation Data Panel

Tivoli Information Management for z/OS can present a list of valid choices for a data-entry field when you request assistance. If your organization uses this function, Tivoli Information Management for z/OS bypasses the assisted-entry panel for the field and, instead, shows you a current list of choices. You can select from this list by using the mouse (if you are in ISPF GUI mode) or the keyboard.

Another way you will see the list of valid choices is by entering data that is not valid in a data-entry field. Again, Tivoli Information Management for z/OS bypasses the assisted-entry panel, which would normally appear, and displays a current list of valid choices.

For example, your organization may have only eight people who report problems and you want to ensure that their names are spelled correctly when their names are entered in the **Reported by** field on the Problem Reporter Entry panel.

Your Tivoli Information Management for z/OS administrator creates a validation data panel. Now when you are on the Problem Reporter Entry panel (BLG0B100) and you want to fill in the **Reported by** field, this is what happens:

If you are not sure of the choices, you can type **1** on the command line.

Validation Data Panel

```
BLG0B100                PROBLEM REPORTER ENTRY                PROBLEM: _____

Enter problem reporter data; cursor placement or input line entry allowed.

  1. Reported by.....<R> _____                13. Problem type..... _____
  2. Reporter dept..... _____                14. Problem status....<R> _____
  3. Reporter phone..... _____                15. User problem number.. _____
  4. Date occurred..... _____                16. Initial priority..... _
  5. Time occurred..... _____                17. Outage..... _____
  6. Network name..... _____                18. Rerun time..... _____
  7. System name..... _____                19. Network impact..... _____
  8. Program name..... _____                20. System impact..... _____
  9. Device name..... _____                21. Program impact..... _____
 10. Key item affected... _____                22. Device impact..... _____
 11. Date fix required... _____                23. User form number..... _____
 12. Time fix required... _____                24. Location code..... _____
                                                26. Outage type..... _

25. Description.....<R> _____

                When you finish, type END to save or CANCEL to discard any changes.

====> 1
```

The Validation Data panel displays and lists the available choices.

```
BLGLVSEL                VALIDATION DATA                LINE 1 OF 8

USE....Select one from the list of valid entries for this field.
REPORTER NAME                VALIDATION RECORD: BLG6REQN

  1. WARREN                WARREN WEBSTER
  2. SAUNDRA                SAUNDRA HOLT
  3. SAGER                SAGER PETERSON
  4. BILL                BILL ENGLER
  5. TAMALYN                TAMALYN HAINES
  6. JACK                JACK BURNETT
  7. STAN                STANLEY HASTINGS
  8. ALOYSIUS                ALOYSIUS MAHDOE

Line Cnds: S=Select
Type DOWN or UP to scroll the panel, or type BACK to exit the panel.

====>
```

Make your selection by typing an **S** in the line command area, as shown, or type the number of the entry on the command line, and press Enter. If you are working in GUI mode, you can use your mouse to make your selection.


```

BLGLVSEL                                VALIDATION DATA                                LINE 1 OF 8
USE...Select one from the list of valid entries for this field.
REPORTER NAME                            VALIDATION RECORD: BLG6REQN

  1. WARREN                                WARREN WEBSTER
  2. SAUNDRA                              SAUNDRA HOLT
  3. SAGER                                SAGER PETERSON
  4. BILL                                  BILL ENGLER
  s 5. TAMALYN                             TAMALYN HAINES
  6. JACK                                  JACK BURNETT
  7. STAN                                  STANLEY HASTINGS
  8. ALOYSIUS                              ALOYSIUS MAHDOE

Line Cmds: S=Select
Type DOWN or UP to scroll the panel, or type BACK to exit the panel.

===>
    
```

Your selection is entered in the **Reported by** field.

```

BLG0B100                                PROBLEM REPORTER ENTRY                                PROBLEM:_____
Enter problem reporter data; cursor placement or input line entry allowed.

  1. Reported by.....<R> TAMALYN _____
  2. Reporter dept..... _____
  3. Reporter phone..... _____
  4. Date occurred..... _____
  5. Time occurred..... _____
  6. Network name..... _____
  7. System name..... _____
  8. Program name..... _____
  9. Device name..... _____
 10. Key item affected... _____
 11. Date fix required... _____
 12. Time fix required... _____
 13. Problem type..... _____
 14. Problem status....<R> _____
 15. User problem number.. _____
 16. Initial priority.... _
 17. Outage..... _____
 18. Rerun time..... _____
 19. Network impact..... _____
 20. System impact..... _____
 21. Program impact..... _____
 22. Device impact..... _____
 23. User form number..... _____
 24. Location code..... _____
 25. Description.....<R> _____
 26. Outage type..... _

      When you finish, type END to save or CANCEL to discard any changes.

===>
    
```

If you type something other than one of the valid choices in the **Reported by** field on BLG0B100, you will also see the Validation Data panel. For instance, if you entered **sandra**, the Validation Data panel appears.

Validation Data Panel

```
BLG0B100                PROBLEM REPORTER ENTRY                PROBLEM: _____

Enter problem reporter data; cursor placement or input line entry allowed.

  1. Reported by.....<R> sandra_____                13. Problem type..... _____
  2. Reporter dept..... _____                14. Problem status....<R> _____
  3. Reporter phone..... _____                15. User problem number.. _____
  4. Date occurred..... _____                16. Initial priority..... _____
  5. Time occurred..... _____                17. Outage..... _____
  6. Network name..... _____                18. Rerun time..... _____
  7. System name..... _____                19. Network impact..... _____
  8. Program name..... _____                20. System impact..... _____
  9. Device name..... _____                21. Program impact..... _____
 10. Key item affected... _____                22. Device impact..... _____
 11. Date fix required... _____                23. User form number..... _____
 12. Time fix required... _____                24. Location code..... _____
                                                26. Outage type..... _____

25. Description.....<R> _____

                When you finish, type END to save or CANCEL to discard any changes.

====>
```

You will see the BLG05021W message on the Validation Data panel indicating the name you entered is not valid. Select the correct name.

```
BLGLVSEL                VALIDATION DATA                LINE 1 OF 8

USE....Select one from the list of valid entries for this field.
REPORTER NAME                VALIDATION RECORD: BLG6REQN

  1. WARREN                WARREN WEBSTER
  2. SAUNDRA                SAUNDRA HOLT
  3. SAGER                SAGER PETERSON
  4. BILL                BILL ENGLER
  5. TAMALYN                TAMALYN HAINES
  6. JACK                JACK BURNETT
  7. STAN                STANLEY HASTINGS
  8. ALOYSIUS                ALOYSIUS MAHDOE

Line Cnds: S=Select
Type DOWN or UP to scroll the panel, or type BACK to exit the panel.
BLG05021W The response SANDRA is not valid.
====>
```

If you enter a command at the same time you select a field that has a validation list, you receive an error. For example, if you enter 14,;FIND SUSAN, you see the Validation Data panel with an error message telling you your command is not valid.

| Depending on your environment, you may also be able to display extended help for the list
| while you are on the BLGLVSEL panel. If the field associated with the validation data is a
| special type of field called a data attribute record, your program administrator can define
| extended help for the field. You can display the help by typing ;HELP and pressing Enter on
| the BLGLVSEL panel.

6

Working with Records from a Search Results List

You can use any of these methods to work with an existing record:

- Start on the Primary Options Menu and type 7 (for Utility)
- Enter a line command from a Search Results List
- Use a command as explained in “Using Commands” on page 103

This chapter tells you how to use a search results list and line commands to:

- Display a single record
- Print a single record
- Copy a single record
- Update a single record
- Delete a single record

The exercises in this chapter show you how to work with single records because that is the easier way for you to become familiar with the search results list and line commands. Later in this book you can learn how to work with more than one record at a time by using *block* line commands. You can find more information about line commands and block line commands in “Understanding Line Commands” on page 178.

Beginning the Exercises

The exercises in this chapter introduce you to working with records from a search results list. You can work with different types of records, but the basic procedures are similar. For these exercises you work with problem records.

After you complete the exercises in this book, you can learn more about different types of records and the data they contain by reading the other books in the Tivoli Information Management for z/OS library list (see “Where to Find More Information” on page 297). For now, you have to understand only that a record contains data and that you can display, update, create, print, copy, or delete that data.

Remember that the privilege class assigned to you by your program administrator allows you to perform only certain tasks with certain types of records. Therefore, you might receive a message during these exercises that says you are not authorized to perform a task. If you need to perform that task to do your job, contact your program administrator (whose name and phone number should be recorded on page 265).

Performing the Search for Records

For these exercises, you work with the Management application. You start from the Primary Options Menu for the Management application, BLG0EN20. You learn how to display a list of sample training records that your program administrator has placed in the database for you. Then, from that list, you select the record you want to work with.

To display a list of records, you use the SEARCH command. For the purposes of this exercise, you do not need to know a great deal about the SEARCH command. You will learn more about searching and line commands in “Obtaining Information from a Database” on page 163.

To display the list of training records, type **search =5 training** on the command line.

Press Enter.

```
BLG0EN20          --- PRIMARY OPTIONS MENU ---  APPLICATION: MANAGEMENT
OPTIONS:
  1. OVERVIEW.....Display general information and product enhancements.
  2. PROFILE.....Display or alter invocation or session defaults.
  3. APPLICATION...Change application, list available applications.
  4. CLASS.....Change current class, list available classes.
  5. ENTRY.....Create a record.
  6. INQUIRY.....Search for records.
  7. UTILITY.....Copy, display, print, delete, and update records.
  8. GLOSSARY.....Display a list of searchable words in the database.
  9. PMF.....Modify or create panels.

      Select an option, enter a command, or type QUIT to exit.

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====> search =5 training
```

BLG1TSRL, Search Results List, appears. This panel contains a list of all records in the Tivoli Information Management for z/OS database that have the word “training” in the description. Your list may be in a different order than this one.

This panel shows only the first part of the list. Use the scroll commands to view the rest of the list.

To see more of the list, type **down** and press Enter.

```

BLG1TSRL                SEARCH RESULTS LIST                LINE 1 OF 15

DATABASE: 5

   RECORD ID   DESCRIPTION ABSTRACT
  1. TRN850    RESPONSE TIME TOO SLOW ( TRAINING RECORD )
  2. TRN376    NEEDS ANOTHER DISK DRIVE ( TRAINING RECORD )
  3. TRN744    CANNOT ACCESS APPLICATION ( TRAINING RECORD )
  4. TRN100    BROKEN ON/OFF SWITCH ( TRAINING RECORD )
  5. TRN200    COLOR CONVERGENCE PROBLEM ( TRAINING RECORD )
  6. TRN300    NEEDS TONER MAKES STREAKS ( TRAINING RECORD )
  7. TRN400    PRINTING TOO LIGHT ( TRAINING RECORD )
  8. TRN500    CANNOT BLOCKCOPY TEXT ( TRAINING RECORD )
  9. TRN600    PASSWORD DOES NOT WORK ( TRAINING RECORD )
 10. TRN700    PAPER JAM CANNOT BE FIXED ( TRAINING RECORD )
 11. TRN800    BROKEN DISK DRIVE ( TRAINING RECORD )
 12. TRN439    RESPONSE TIME TOO SLOW ( TRAINING RECORD )
 13. TRN559    GARBAGE ON MY PRINTOUTS ( TRAINING RECORD )
 14. TRN125    DOES NOT FILL UP SCREEN ( TRAINING RECORD )

Line Cmds: C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.

====> down
    
```

The rest of BLG1TSRL, Search Results List, appears.

To return to the top of the list, type **up** and press Enter.

```

BLG1TSRL                SEARCH RESULTS LIST                LINE 15 OF 15

DATABASE: 5

   RECORD ID   DESCRIPTION ABSTRACT
 15. TRN366    WILL NOT INITIALIZE ( TRAINING RECORD )
*** BOTTOM OF DATA ***

Line Cmds: C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.

====> up
    
```

Note: Tivoli Information Management for z/OS limits the number of records in a search results list to 32 767. If you create a search results list with more than 32 767 records, Tivoli Information Management for z/OS displays only 32 767 records.

Displaying a Record from the Search Results List

This exercise teaches you how to display a problem record from a search results list. You may not have authority to perform this task. If you need to do this task for your job, contact your program administrator.

You can display a record by entering a line command on the Search Results List panel.

To display a record from BLG1TSRL, the Search Results List panel, type **s** (for Select) in front of the sequence number of the record you want to display (record TRN744) and press Enter. The record appears on your screen.

To return to the Search Results List panel, type **END** and press Enter. When you return, the line you selected is at the top of the display.

```
BLG1TSRL                SEARCH RESULTS LIST                LINE 1 OF 15

DATABASE: 5

   RECORD ID      DESCRIPTION ABSTRACT
   1. TRN850      RESPONSE TIME TOO SLOW ( TRAINING RECORD )
   2. TRN376      NEEDS ANOTHER DISK DRIVE ( TRAINING RECORD )
  s 3. TRN744      CANNOT ACCESS APPLICATIONS ( TRAINING RECORD )
   4. TRN100      BROKEN ON OFF SWITCH ( TRAINING RECORD )
   5. TRN200      COLOR CONVERGENCE PROBLEM ( TRAINING RECORD )
   6. TRN300      NEEDS TONER MAKES STREAKS ( TRAINING RECORD )
   7. TRN400      PRINTING TOO LIGHT ( TRAINING RECORD )
   8. TRN500      CANNOT BLOCKCOPY TEXT ( TRAINING RECORD )
   9. TRN600      PASSWORD DOES NOT WORK ( TRAINING RECORD )
  10. TRN700      PAPER JAM CANNOT BE FIXED ( TRAINING RECORD )
  11. TRN800      BROKEN DISK DRIVE ( TRAINING RECORD )
  12. TRN439      RESPONSE TIME TOO SLOW ( TRAINING RECORD )
  13. TRN559      GARBAGE ON MY PRINTOUTS ( TRAINING RECORD )
  14. TRN125      DOES NOT FILL UP SCREEN ( TRAINING RECORD )

Line Cmds: C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.

====>
```

Printing a Record from the Search Results List

This exercise teaches you how to print a record to a data set by using a search results list and line command. Remember that you might not have authority to perform this task. If you get a message during this exercise that says you are assigned to a privilege class that does not have authority to do this task, and you need to do this task to perform your job, call your program administrator.

You can print a record to a data set by entering a line command from a search results list panel. You saw how to display a list of records using the **SEARCH** command in “Displaying a Record from the Search Results List”.

To print a record from BLG1TSRL, the Search Results List panel, type a **p** in front of the sequence number of the record you want to print. In this exercise, type a **p** in front of record TRN744.

```

BLG1TSRL                SEARCH RESULTS LIST                LINE 1 OF 15

DATABASE: 5

   RECORD ID      DESCRIPTION ABSTRACT
1. TRN850        RESPONSE TIME TOO SLOW ( TRAINING RECORD )
2. TRN376        NEEDS ANOTHER DISK DRIVE ( TRAINING RECORD )
p 3. TRN744        CANNOT ACCESS APPLICATION ( TRAINING RECORD )
4. TRN100        BROKEN ON OFF SWITCH ( TRAINING RECORD )
5. TRN200        COLOR CONVERGENCE PROBLEM ( TRAINING RECORD )
6. TRN300        NEEDS TONER MAKES STREAKS ( TRAINING RECORD )
7. TRN400        PRINTING TOO LIGHT ( TRAINING RECORD )
8. TRN500        CANNOT BLOCKCOPY TEXT ( TRAINING RECORD )
9. TRN600        PASSWORD DOES NOT WORK ( TRAINING RECORD )
10. TRN700       PAPER JAM CANNOT BE FIXED ( TRAINING RECORD )
11. TRN800       BROKEN DISK DRIVE ( TRAINING RECORD )
12. TRN439       RESPONSE TIME TOO SLOW ( TRAINING RECORD )
13. TRN559       GARBAGE ON MY PRINTOUTS ( TRAINING RECORD )
14. TRN125       DOES NOT FILL UP SCREEN ( TRAINING RECORD )

Line Cmds: C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.

====>
    
```

If you have already printed a record during this Tivoli Information Management for z/OS session, and if you did not free the print data set, the **p** line command runs immediately, and Tivoli Information Management for z/OS appends to the same data set.

```

+ BLG0P401 ----- PRINT OUTPUT DESTINATION ----- PRINT--+
|
| USE...Identify the output destination to use for print request.
|
| NOTE: Output destination data for each selection is defaulted
|       based on the current profile values.
|
| 1.SYSOUT.....Add or modify sysout information.
| 2.DSNAME.....Add or modify data set name information.
| 3.DDNAME.....Add or modify ddname information.
|
+----- SELECT ITEM -----+

====> 2
    
```

If this is your first print request, BLG0P401, the Print Output Destination panel, appears. You are now working with the same prompting sequence used to print a record from the Primary Options Menu. You print a record the same way by continuing with panel BLG0P401 on page 60.

Printing a Record from the Search Results List

When the operation is completed, you return to the search results list. A message informs you that the record was printed, and the line you chose now appears at the top of the display.

Copying a Record from the Search Results List

This exercise teaches you how to copy a record from a search results list. When you copy a record, data for the new record is displayed instead of the original record. You give a new record ID to the copied record and update any other information that has changed. For this exercise, you copy a training record and give it a unique record ID. Remember that you may not have authority to perform this task with problem records. If you get a message during this exercise that says you are assigned to a privilege class that does not have authority to do this task, and you need to do this task to perform your job, call your program administrator.

You can copy a record by entering a line command on a search results list panel. You saw how to display a list of records using the SEARCH command on “Performing the Search for Records” on page 94.

To copy a record from BLG1TSRL, the Search Results List panel, type a **c** in front of the sequence number of the record you want to copy. In this exercise, type a **c** in front of record TRN744.

Press Enter.

```
BLG1TSRL                SEARCH RESULTS LIST                LINE 1 OF 15

  DATABASE: 5

  RECORD ID      DESCRIPTION ABSTRACT
  1. TRN850      RESPONSE TIME TOO SLOW ( TRAINING RECORD )
  2. TRN376      NEEDS ANOTHER DISK DRIVE ( TRAINING RECORD )
  c 3. TRN744      CANNOT ACCESS APPLICATION ( TRAINING RECORD )
  4. TRN100      BROKEN ON OFF SWITCH ( TRAINING RECORD )
  5. TRN200      COLOR CONVERGENCE PROBLEM ( TRAINING RECORD )
  6. TRN300      NEEDS TONER MAKES STREAKS ( TRAINING RECORD )
  7. TRN400      PRINTING TOO LIGHT ( TRAINING RECORD )
  8. TRN500      CANNOT BLOCKCOPY TEXT ( TRAINING RECORD )
  9. TRN600      PASSWORD DOES NOT WORK ( TRAINING RECORD )
 10. TRN700      PAPER JAM CANNOT BE FIXED ( TRAINING RECORD )
 11. TRN800      BROKEN DISK DRIVE ( TRAINING RECORD )
 12. TRN439      RESPONSE TIME TOO SLOW ( TRAINING RECORD )
 13. TRN559      GARBAGE ON MY PRINTOUTS ( TRAINING RECORD )
 14. TRN125      DOES NOT FILL UP SCREEN ( TRAINING RECORD )

  Line Cmds: C=Copy D=Delete P=Print S=Select U=Update
  Type DOWN or UP to scroll the panel, or type END to exit the panel.

====>
```

You are now working with the same prompting sequence used to copy a record from the Primary Options Menu. You create your new record the same way by continuing with the example on page 64.


```

BLG0B100                PROBLEM REPORTER ENTRY                PROBLEM: _____

Enter problem reporter data; cursor placement or input line entry allowed.

  1. Reported by.....<R> HOLLOWAY _____  13. Problem type..... _____
  2. Reporter dept..... _____            14. Problem status...<R> OPEN__
  3. Reporter phone..... _____           15. User problem number.. _____
  4. Date occurred..... _____           16. Initial priority..... _
  5. Time occurred..... _____           17. Outage..... _____
  6. Network name..... _____            18. Rerun time..... _____
  7. System name..... _____             19. Network impact..... _____
  8. Program name..... ISPF                  20. System impact..... _____
  9. Device name..... 3270PC_                21. Program impact..... _____
 10. Key item affected... _____          22. Device impact..... _____
 11. Date fix required... _____          23. User form number..... _____
 12. Time fix required... _____          24. Location code..... ROOM444_
                                           26. Outage type..... _

25. Description.....<R> CANNOT ACCESS APPLICATION (TRAINING RECORD)_

When you finish, type END to save or CANCEL to discard any changes.UU=UPDATE

====>
    
```

When you file the new record, you return to the search results list. The line you chose is now at the top of the display, and a message appears telling you that the new record was stored. The new record *does not* appear on the search results list, however. You must exit the current list and create a new list to see the latest record.

Updating a Record from the Search Results List

This exercise teaches you how to update the data in a record from a search results list. For this exercise, you update the data in the training record you created in the previous copying exercise. Remember that you may not have authority to perform this task with problem records. If you get a message during this exercise that says you are assigned to a privilege class that does not have authority to do this task, and you need to do this task to perform your job, call your program administrator.

You can update a record by entering a line command on a search results list panel. You saw on page 96 how to display a list of records using the SEARCH command. If you have been using the same search results list that you created in the beginning of this chapter for all of these exercises, your latest record does not appear on the list. Return to the Primary Options Menu and perform a search so that the record you created in the copy exercise appears on the search results list.

To update a record from BLG1TSRL, the Search Results List panel, type a **u** to the left of the sequence number of the record you want to update.

In this exercise, type a **u** to the left of the record you just re-created that the book calls TRNRAS1. You may have to scroll down to see your record in the search results list.

Press Enter.

Updating a Record from the Search Results List

```
BLG1TSRL                SEARCH RESULTS LIST                LINE 1 OF 16

DATABASE: 5

RECORD ID      DESCRIPTION ABSTRACT
1. TRN850      RESPONSE TIME TOO SLOW ( TRAINING RECORD )
2. TRN376      NEEDS ANOTHER DISK DRIVE ( TRAINING RECORD )
3. TRN744      CANNOT ACCESS APPLICATION ( TRAINING RECORD )
4. TRN100      BROKEN ON OFF SWITCH ( TRAINING RECORD )
5. TRN200      COLOR CONVERGENCE PROBLEM ( TRAINING RECORD )
6. TRN300      NEEDS TONER MAKES STREAKS ( TRAINING RECORD )
7. TRN400      PRINTING TOO LIGHT ( TRAINING RECORD )
8. TRN500      CANNOT BLOCKCOPY TEXT ( TRAINING RECORD )
9. TRN600      PASSWORD DOES NOT WORK ( TRAINING RECORD )
10. TRN700     PAPER JAM CANNOT BE FIXED ( TRAINING RECORD )
11. TRN800     BROKEN DISK DRIVE ( TRAINING RECORD )
12. TRN439     RESPONSE TIME TOO SLOW ( TRAINING RECORD )
U 13. TRNRAS1  THIS IS MY SAMPLE TRAINING RECORD
14. TRN559     GARBAGE ON MY PRINTOUTS ( TRAINING RECORD )

Line Cmds: C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.

====>
```

You are now working with the same prompting sequence used to update a record from the Primary Options Menu. You update a record the same way by continuing with BLG0BU00 on page 69.

When you finish updating the record, you return to the search results list. The line you chose is now at the top of the display, and a message appears telling you that the record has been stored.

```
BLG0BU00                PROBLEM SUMMARY                PROBLEM: TRNRAS1

Reported by..... HOLLOWAY          Problem status..... OPEN
Assignee name..... _____        Current phase..... _____
Tracked by..... _____           Current priority..... _
Network name..... _____         Owing priv. class..... _____
System name..... _____          Entry priv. class..... TRNCLASS
Program name..... ISPF              Date entered..... 10/07/1998
Device name..... 3270PC             Time entered..... 11:19
Key item affected..... _____    Date last altered..... 10/07/1998

Description..... THIS IS MY SAMPLE TRAINING RECORD

Select one of the following, type END to save your changes, or type CANCEL
to discard your changes.
    1. Reporter data.                6. Supplemental data.
    2. Status data.                  7. Synopsis data.
    3. Close data.                   8. Freeform text.
    4. Symptom data.                 9. File record.
    5. Resolution data.              10. Create solution and file record.

====>
```

Deleting a Record from the Search Results List

This exercise teaches you some basic techniques to delete a record from a database. Remember that you might not have authority to perform this task with problem records. If you get a message during this exercise that says you are assigned to a privilege class that does not have authority to do this task and you need to do this task to perform your job, call your program administrator.

For this exercise, you designate a record to delete from a database and verify the delete request.

Your organization might have a local procedure that you should follow for deleting records from the database. If so, record that procedure on page 268 in the Reference section. Otherwise continue this deletion exercise.

You can delete a record by entering a line command on a search results list panel. You learned how to display a list of records using the SEARCH command on page 96.

To delete a record from BLG1TSRL, the Search Results List panel, type a **d** to the left of the sequence number of the record you want to delete. This exercise continues to use TRNRAS1 in the example panels.

Note: Do not delete any records that you did not create for these exercises.

Press Enter.

```

BLG1TSRL                SEARCH RESULTS LIST                LINE 1 OF 16

DATABASE: 5

   RECORD ID   DESCRIPTION ABSTRACT
   1. TRN850   RESPONSE TIME TOO SLOW ( TRAINING RECORD )
   2. TRN376   NEEDS ANOTHER DISK DRIVE ( TRAINING RECORD )
   3. TRN744   CANNOT ACCESS APPLICATION ( TRAINING RECORD )
   4. TRN100   BROKEN ON OFF SWITCH ( TRAINING RECORD )
   5. TRN200   COLOR CONVERGENCE PROBLEM ( TRAINING RECORD )
   6. TRN300   NEEDS TONER MAKES STREAKS ( TRAINING RECORD )
   7. TRN400   PRINTING TOO LIGHT ( TRAINING RECORD )
   8. TRN500   CANNOT BLOCKCOPY TEXT ( TRAINING RECORD )
   9. TRN600   PASSWORD DOES NOT WORK ( TRAINING RECORD )
  10. TRN700   PAPER JAM CANNOT BE FIXED ( TRAINING RECORD )
  11. TRN800   BROKEN DISK DRIVE ( TRAINING RECORD )
  12. TRN439   RESPONSE TIME TOO SLOW ( TRAINING RECORD )
d 13. TRNRAS1  THIS IS MY SAMPLE TRAINING RECORD
  14. TRN559   GARBAGE ON MY PRINTOUTS ( TRAINING RECORD )

Line Cmds: C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.

===>

```

BLG0BU10, the Problem Delete Verification panel, appears.

Deleting a Record from the Search Results List

You are now working with the same prompting sequence used to delete a record from the Primary Options Menu. You delete a record the same way by continuing with BLG0BU10 on page 75.

```
BLG0BU10          PROBLEM DELETE VERIFICATION          PROBLEM: TRNRAS1

Reported by..... HOLLOWAY          Problem type.....<H> SOFTWARE
Assignee name.....<H> _____      Problem status.....<H> OPEN
Assignee phone.....<H> _____      Current phase.....<H> _____
Tracked by.....<H> _____          Current priority....<H> _
System name.....<H> _____          Outage.....<H> _____
Program name..... ISPF                Owing priv. class..... _____
Device name..... 3270PC                Entry priv. class..... TRNCLASS
Key item affected..... _____      Date entered..... 10/07/1998
Cause code..... _____             Time entered..... 11:19
Date closed..... _____            Date last altered....<H> 10/21/1998

Description..... THIS IS MY UPDATED SAMPLE TRAINING RECORD

          Select one of the following to cancel or verify your request.

                          1. Cancel delete request.
                          2. Verify delete request.

====>
```

If you receive the message BLG03082I on the delete verification, it indicates that a function was performed on the record since the search. Someone might have updated this record since the search, or even deleted it from the database. In this case, the record you are now viewing might have been created since the search. It might be necessary to cancel the delete request and review your local procedure for deleting records (page 268.)

When you finish deleting the record or cancel the delete request, you return to the search results list. If you cancel the delete request, the line you chose appears at the top of the panel. If you actually delete the record, the line corresponding to the record appears at the top of the panel with the word DELETED in it. You also see a message indicating that the record was deleted.

7

Using Commands

This chapter tells you how to use commands to perform Tivoli Information Management for z/OS functions, including:

- Processing a record
- Scrolling
- Searching
- Modifying your user profile

You can issue most commands from any panel. However, you can issue some commands only from specific panel types. For example, the UP command is only valid when you are on a table panel. If you issue a command that is not valid, an error message appears and the command is ignored. The HELP STATUS command can help you determine which commands are valid at a given time.

You can include commands in immediate response chains (IRCs). However, if the command is in response to an assisted-entry panel, you should precede it with an SBCS semicolon (;) (or the character defined in your profile for command detection) to distinguish it from data. See “Using Response Chains” on page 235 for information about IRCs.

Entering Commands

When entering a command, you can use the shortest acceptable truncation of the command, the entire command, or anything in between. For, example, BA is unique for the BACK command; however, RE is not unique for either RESUME or REPORT. Refer to the uppercase letters under “Tivoli Information Management for z/OS Command Summary” on page 105 to find the shortest acceptable version of each command. In this book the entire command appears in the command.

Commands are entered on the command line of a panel, after the arrow ==> .

To display training record TRN744, type **display r trn744** on the command line and press Enter.

```
BLG0EN20          --- PRIMARY OPTIONS MENU ---      APPLICATION: MANAGEMENT

OPTIONS:

  1. OVERVIEW.....Display general information and product enhancements.
  2. PROFILE.....Display or alter invocation or session defaults.
  3. APPLICATION...Change application, list available applications.
  4. CLASS.....Change current class, list available classes.
  5. ENTRY.....Create a record.
  6. INQUIRY.....Search for records.
  7. UTILITY.....Copy, display, print, delete, and update records.
  8. GLOSSARY.....Display a list of searchable words in the database.
  9. PMF.....Modify or create panels.

          Select an option, enter a command, or type QUIT to exit.

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====> display r trn744
```

If you do not specify a record ID with the command, such as typing only DISPLAY, or UPDATE, or UPDATE R, Tivoli Information Management for z/OS prompts you for the record ID by displaying panel BLG1UT01, just as it did in the scenarios found in “Working with Records from the Primary Options Menu” on page 53. When you specify the ID, the prompting sequence begins with the first panel *after* panel BLG1UT01.

Because you can also enter data on some panel command lines, typing a semicolon (;) before the command always identifies it as a command. For example, to issue the command INITIALIZE so that it is not interpreted as data on an assisted-entry panel, you type:

```
;initialize
```

Use a semi-colon (;) to tell Tivoli Information Management for z/OS that your entry is a command.

```

BLM8CU51                ASSISTED ENTRY UPDATE                EXTERNALS

+-----+-----+-----+
| BLG6STAT                CURRENT STATUS                STAC/ |
| USE....Specify the problem, change, or activity record status. |
| NOTE...Any commands issued here must be preceded by a ';'.   |
|                               |
|     REPLY: INITIAL...The record has been entered.             |
|           OPEN.....The record has been assigned or opened.   |
|           CLOSED....The record has been closed or completed.  |
|                               |
|                               REPLY AS DEFINED                |
+-----+-----+-----+

Modify textual data within the box.  To modify control data, type
CONTROL on the command line.  When you finish, type END to save or
CANCEL to discard any changes.
===> ;initialize

```

Tivoli Information Management for z/OS Command Summary

The Command Summary below lists the Tivoli Information Management for z/OS commands and their functions. Commands not listed here are specific to a particular Tivoli Information Management for z/OS component and are explained in the book for that facility. A more detailed explanation of commands and their uses starts on page 107. The uppercase letters show the shortest acceptable truncation of each command.

Note: In addition to these commands, your system administrator may have defined additional commands specific to your organization. In addition, not all users may be authorized to use all of the commands. Your system administrator will be able to provide specific information on Tivoli Information Management for z/OS commands that are available for your use.

COMMAND	DESCRIPTION
AR gument	Enter search arguments.
BA ck	Return to previous panel without saving data.
CA ncel	End current prompting sequence without saving changes or data.
CH ange	Modify contents of a stored response chain (SRC).
CO py	Bring record from database into storage.
DE lete	Delete a record from the database.
DI splay	Display a record from the database.
DO wn	Scroll toward bottom of a table display or help panel.
DR Op	Do not process user line commands.
EN d	End the current prompting sequence and save changes.
EX ecute	Process an SRC.

FAbend	Abnormally ends (ABEND) your session any time a severe error occurs. FABEND forces Tivoli Information Management for z/OS to ABEND and returns an error code.
FINd	Locate a string of text in table display.
FLow	Trace the panels used during a Tivoli Information Management for z/OS session.
FRee	Close and free an open data set.
GEnerate	Create an SRC.
GLossary	Display the glossary for a database.
Help	Obtain assistance or message explanation.
INitialize	Cancel the current prompting sequence and return to the most recent primary options menu. Any changes that were not permanently saved are lost.
ISpf	Issue an ISPF command from Tivoli Information Management for z/OS.
LEft	Scroll left on a table display.
LInecmd	Use line commands in a response chain.
Next	Display the next record from a search results list or sequential record list.
Order	Establish sequential mode from search results list.
PREvious	Display the previous record from a search results list or sequential record list.
PRInt	Print a database record or contents of a table display.
PROfile	Enter the profile prompting sequence.
PURge	Delete a record from the database.
Quit	End your session and leave Tivoli Information Management for z/OS. You must save any data you have collected before you quit if you do not want to lose it.
RECall	Recall command-line data or last search.
REPort	Produce a written report.
RESume	Return to the last prompting sequence you suspended.
RIght	Scroll to the right on a table display.
RUUn	Process user line commands that were collected or execute a terminal simulator panel (TSP) or terminal simulator EXEC from the command line.
SEarch	Start a search operation.
SOrt	Sort data in lists.
STatistics	Display search statistics.

SUspend	Suspend the current prompting sequence so you can start another one.
TABle	Identify an alternate table panel on which to display a search results list
TRace	Trace the flow of the control lines being processed by one or more TSPs or TSXs.
UP	Scroll toward top of a table display.
UPDate	Update a record in the database.
View	Display prompting sequence responses or the existing search argument.
Window	Control the style of ISPF panel for Tivoli Information Management for z/OS to display.

Reading Command Syntax

The remainder of this chapter lists the commands in alphabetical order with explanations for each. The commands are listed with their complete syntax. The symbols and words used in the syntax diagrams have the following meanings:

- Operands shown in braces { } represent alternatives; you must choose one.
- Operands shown in brackets [] are optional; you can choose one or none.
- Operands separated by an OR symbol (|) mean you choose one of them.
- An operand shown in *italics* represents the default used by Tivoli Information Management for z/OS when no operand is chosen.
- Operands shown completely in lowercase are variables; substitute your own value for them. Operands beginning in uppercase should be entered as shown, but not necessarily in uppercase. They must be entered in SBCS form. The uppercase letters represent the shortest acceptable version of the operand that you can use.
- Numeric values must be entered in SBCS form.

ARGUMENT Command ARgument
--

Use the ARGUMENT command to add or modify freeform and prefix search keywords in the current search argument. Refer to the *Tivoli Information Management for z/OS Program Administration Guide and Reference* for a description and explanation of the types of keywords used in a search argument.

When you issue the ARGUMENT command, BLG1TARG, the Argument—Review or Modify Current Search Argument panel, lists the keywords in the argument. The upper portion of the display contains the locked keywords of the current search argument.

You cannot modify or scroll the locked keywords in the top portion of the display with the ARGUMENT command.

Up to 8 lines can be displayed in the top portion. Therefore, if the locked keywords of the current search argument are too many to fit on 9 lines, only the first 9 lines are displayed. When you want to see the entire current search argument, use the VIEW command.

The lower portion of the display contains any unlocked keywords that already exist in the current search argument. When no such keywords exist, this portion of the display is blank. You can modify or enter freeform or prefix keywords here. When you need more blank lines to enter keywords, you can scroll down. To modify this portion of the argument, type the changes under the line “Enter or Modify Freeform Search Argument Below”. Do not enter the new keywords on the command line.

When entering a keyword in the lower portion, do not span 2 lines with one word. For example, if you are near the end of a line and begin to type **INTERA** and you reach the end of the line, the cursor jumps down to the next line. If you continue to type **CTIVE** on the next line, Tivoli Information Management for z/OS adds two separate freeform keywords to the argument, INTERA and CTIVE, connected by the Boolean AND search operator.

You can include search operators between the keywords in the argument. See “Entering Search Keywords” on page 140 for a list of the search operators. When entering or modifying freeform or prefix keywords in the search argument, you should be familiar with using search operators and entering search keywords. Remember that a search operator must precede the prefix (not the value associated with the prefix) if used with a prefix keyword.

While in the argument prompting sequence, you can issue a SEARCH command to try out the argument. After reviewing the search results and ending the search prompting sequence, you are returned to the argument display. You can now refine the argument further, and then do another search.

A freeform keyword is not validated before it is used in a search. Each keyword you specify is used exactly as entered. You should include any leading zeros and provide the correct internal format for dates, that is, DATx/yy/mm/dd or DATx/yyyy/mm/dd, and time, that is, TIMx/hh:mm. The equal sign (=) cannot be used for the current date, time, or privilege class.

When entering or modifying an argument for mixed case data, be sure to enclose the search argument for the field with single quotation marks. For example, if you are adding the Person Assigned field and System Name field in your argument, and those two fields are stored for searching in mixed case format, enter your freeform search argument as 'PERA/Wilson' 'NAST/Acctg'. The quotation marks tell Tivoli Information Management for z/OS that it should look for an exact case match on the argument. Be sure to type the prefix portion of your search argument in uppercase (e.g., PERA/) since mixed case prefixes are not supported.

When you want to nullify all changes made to the argument while on the argument panel, issue the CANCEL command. When you want to retain the changes made to the argument, issue the END command. In either case, you are returned to the point from which you issued the ARGUMENT command.

To perform the search, issue the SEARCH command, which uses the newly created or updated argument. When you issue the SEARCH command from the argument panel, you are returned to the argument panel when you issue END or CANCEL from the search results list.

BACK Command

BAck [**Displayed** | **Processed**]

The BACK command enables you to back up in the active prompting sequence by returning to a previous panel.

When the current panel of the active prompting sequence is an options panel from which a prompting sequence was started and saved, BACK reactivates the most recent pending prompting sequence. The information collected by the prompting sequence panels, up to and including the panel returned to, is deleted. The operation performed by the BACK command depends on which operand you specify. When you specify neither operand, your user profile is checked to determine the default action needed. The two operands, DISPLAYED and PROCESSED, are mutually exclusive.

Displayed

Specifies that the last panel you actually saw is to be redisplayed.

For example, if you enter the IRC **3,7,4,8,3,3,7** while on panel A, the IRC is processed and you are presented with panel J. By entering the BACK DISPLAYED command, you return to panel A, and all the information collected by the IRC **3,7,4,8,3,3,7** is deleted.

Processed

Specifies that the last panel processed by Tivoli Information Management for z/OS, except for control panels, is to be displayed. When the last panel was an assisted-entry panel, it is only displayed if called by a data-entry panel and that panel was displayed. You might not have seen this last processed panel before.

For example, if you enter the IRC **3,7,4,8,3,3,7** while on panel A, the IRC is processed and you are presented with panel Q. By entering the BACK PROCESSED command, you are returned to panel P (that you had not seen) and the information collected by **,7** is deleted.

When you issue the **BACK** command from the Primary Options Menu that represents the product's entry point, nothing happens.

When you enter the **BACK** command on a table display, you return to the panel where you initiated the display, regardless of whether that panel had been displayed. In this case, the **DISPLAYED** or **PROCESSED** operand is ignored.

When you issue the **BACK** command from a search results list and there are user-defined line commands that have been collected, your profile is checked to see whether the line commands should be dropped.

CANCEL Command

CAnceL

Use the **CANCEL** command to cancel the active prompting sequence and all pending prompting sequences. All information that has been collected, but not saved, is deleted. You are returned to the panel where the prompting sequence began.

When you issue the **CANCEL** command from the Primary Options Menu that represents the product's entry point, nothing happens.

When you use the **CHANGE** command to display the Change Collected Data panel, **CANCEL** redisplay the panel from which you issued **CHANGE**. Any modifications you made while in the change function, before issuing **CANCEL**, are ignored. The **CANCEL** command can also be used to end a change subfunction. A change subfunction occurs when you select an item from the Change Collected Data panel for modification. When **CANCEL** is issued, any changes made during the subfunction are nullified and the Change Collected Data panel is redisplayed.

When processing text, **CANCEL** returns to the point from which you entered the freeform text editor. Any text changes that you made before issuing **CANCEL** are ignored.

When you issue the **CANCEL** command from a search results list and there are user-defined line commands that have been collected, your profile is checked to see whether the line commands should be dropped.

CHANGE Command

CHAnge

Use the **CHANGE** command to modify a stored response chain (SRC) in update mode. You can also use the **CHANGE** command to modify search argument data.

When you are working with SRCs, the **CHANGE** command is unpredictable if you are not in update mode.

The keywords are displayed in a column with the following structure:

- The start of a new prompting sequence from within another prompting sequence is shown with its information indented 4 positions.
- Information collected through assisted-entry panels is indented 2 positions.
- Periods are inserted in the column to make it easier to connect the line numbers with their associated information.

CHANGE is not valid when the current SRC is already being changed. You cannot nest CHANGE commands. CHANGE is also not valid during a prompting sequence that creates an SRC.

After you return to the CHANGE table display, you can use END or CANCEL to return to the point where you issued the CHANGE command. You must complete any required fields before you can return. Sometimes, the prompting sequence will end itself. END saves your change; CANCEL does not.

COPY Command

COPY [R [id]]

Use the COPY command to make a copy of a record in Database 5. The copied record is given a new record ID. The COPY command takes you into the same prompting sequence you start when you copy a record by using the Utility selection on the Primary Options Menu. See “Copying a Record from the Primary Options Menu” on page 62 for an example of the prompting sequence.

The copy of the record is modified and filed in the database with a new record ID. The original record in the database is not changed. When you omit the record ID, Tivoli Information Management for z/OS prompts you for it through the Utility Entry Dialog panel.

When you specify the record ID, a copy of the record is displayed. When you finish modifying the copied record, you are returned to where you issued the COPY command. Issue END to store the copied record or CANCEL to delete the copied record.

A user-specified record ID is a mixed string of 1 to 8 bytes, beginning with an SBCS alphabetic or a shift out (SO) character. SBCS Katakana characters cannot be used. When the record ID is generated by Tivoli Information Management for z/OS, it is an SBCS decimal string. Leading zeros can be omitted when specifying decimal record IDs.

The SBCS blank separating the R operand and the record ID is optional.

Note: If you are using logical database partitioning, you may have access to records in different logical partitions that have the same RNID. You cannot use the COPY command to copy records with duplicate RNIDs. However, you can copy them using the copy line command on a search results list. Refer to the *Tivoli Information Management for z/OS Program Administration Guide and Reference* for additional information.

DELETE Command

```
DElete [ R [ id ] ]
```

Use the DELETE command to delete the specified record from Database 5. Before deleting the record, Tivoli Information Management for z/OS prompts you for delete verification.

When you specify the record ID, the record is deleted from Database 5. When you omit the record ID, Tivoli Information Management for z/OS prompts you for it. To halt the delete, issue the CANCEL command or make the selection for canceling the delete request from the delete verification panel.

After the record is deleted, you are returned to the panel where you issued the DELETE command.

A user-specified record ID is a mixed string of 1 to 8 bytes, beginning with an SBCS alphabetic or a shift-out (SO) character. SBCS Katakana characters cannot be used. When the record ID is generated by Tivoli Information Management for z/OS, it will be an SBCS decimal string. Leading zeros can be omitted when specifying decimal record IDs.

The SBCS blank separating the R operand and the record ID is optional.

Note: Although DELETE replaces the PURGE command that existed in previous versions of Tivoli Information Management for z/OS, the PURGE command is still a valid command.

If you are using logical database partitioning, you may have access to records in different logical partitions that have the same RNID. You cannot use the DELETE command to delete records with duplicate RNIDs. However, you can delete them using the delete line command on a search results list. Refer to the *Tivoli Information Management for z/OS Program Administration Guide and Reference* for additional information.

DISPLAY Command

```
DIisplay [ R [ id ] ]
```

Use the DISPLAY command to display a record from a database. This command takes you into the same prompting sequence you start when you display a record using the Utility selection on the Primary Options Menu. See “Displaying a Record from the Primary Options Menu” on page 54 for an example of the prompting sequence.

When you specify the record ID, the record is displayed immediately. The database used is the default database indicated in your user profile. When you omit the record ID operand, or if you type R without a value, you will be prompted for it by a data-entry panel. On this panel you can change the database number as well as supply the record ID.

A user-specified record ID is a mixed string of 1 to 8 bytes, beginning with an SBCS alphabetic or a shift out (SO) character. SBCS Katakana characters cannot be used. When

the record ID is generated by Tivoli Information Management for z/OS, it is an SBCS decimal string. Leading zeros can be omitted when specifying decimal record IDs.

The SBCS blank separating the R operand and the record ID is optional.

Note: If you are using logical database partitioning, you may have access to records in different logical partitions that have the same RNID. You cannot use the DISPLAY command to display records with duplicate RNIDs. However, you can display them from a search results list. Refer to the *Tivoli Information Management for z/OS Program Administration Guide and Reference* for additional information.

DOWN Command

Down [**nnnnn** | **Csr** | **Half** | **Page** | **Max** | **Last**]

Use the DOWN command to scroll toward the bottom of a table display. This means that data disappears from the top of your scroll area.

The DOWN command is not valid when it is issued anywhere except on a table display. The operand indicates the amount of the scroll. When no operand is specified on the command, the default scroll amount from your profile is used. The operands are mutually exclusive.

When the scroll amount specified would scroll beyond the bottom of the data, scrolling ends when it reaches the bottom of the data. The *****BOTTOM OF DATA***** line is the first and only line displayed on the screen in this case.

nnnnn

Specifies the number of logical lines to be scrolled. The number can be from 0 to 32 767. A negative number cannot be specified.

Csr Specifies that the logical line in the scroll area marked by the cursor should be scrolled to the top of the scroll area. The cursor's position is moved to the top along with the data.

If the cursor is located outside the scroll area (on the message line, for example) when the DOWN CSR command is issued, a full-page scroll occurs and the cursor moves to the command line.

If the cursor is located in the first logical line of the scroll area when the DOWN CSR command is issued, a full-page scroll occurs and the cursor moves to the command line.

Half Specifies that the scroll area is to move up so that half of the physical lines shown in the area are scrolled off the top of the screen. This means that the first logical line that starts in the bottom half of the screen is to be scrolled to the top.

When the table panel's definition indicates that the set of columns defined in the table panel for display are to be vertically repeated, a DOWN HALF command applies to half of all the physical lines contained in all of the vertically repeated columns on the screen.

Page Specifies that the scroll area is to be moved such that all of the physical lines shown in the area are scrolled off the top of the screen.

When the table panel's definition indicates that the set of columns defined in the table display is to be repeated, a DOWN PAGE command applies to all the physical lines on the screen contained in all of the repeated columns.

The DOWN PAGE command might give blank lines in your scroll area under the ***BOTTOM OF DATA*** line. The DOWN MAX command tries to fill the whole scroll area with data.

- Max** Specifies that the scroll area is to be moved to the bottom of the data. The ***BOTTOM OF DATA*** line is the last line displayed. It is located as far toward the bottom of the screen as possible, so that:
- When the amount of data is quite small, the ***TOP OF DATA*** line remains as the top line of the scroll window.
 - When the amount of data is larger than can be contained on the screen, the top line starts at the beginning of a logical line, and not in the middle or end of a screen.
- Last** Specifies that the scroll area is to be moved to the bottom of the data. The last line of enterable data, which can be the ***BOTTOM OF DATA*** line (if a line command can be entered on it) or the ***BOTTOM OF DATA*** line shows at the top of the scroll area.

DROP Command

DROp { **nnn** | **All** | **Panel** }

Use the DROP command when you do not want to process line commands that you have already collected.

- nnn** Specifies the line number of the record on the current search results list where you entered a line command that you do not want to process.
- All** Specifies that all line commands you have entered are to be freed. You do not want to process *any* line commands. The DROP ALL command is processed through all suspension levels of your session.
- Panel** Specifies that you do not want to process any line commands that you entered on the current search results list.

END Command

ENd [**Generate**]

Use the END command to stop the current prompting sequence and save any changes you made.

When you issue the END command, the prompting sequence becomes a pending prompting sequence of the prompting sequence that started it, and you are returned to the "higher level" prompting sequence.

Note that a pending prompting sequence's information can still be deleted, if its higher-level prompting sequence is canceled.

END attempts to complete the prompting sequence. However, if while ending the prompting sequence, a panel is found where a user response is required, END processing stops. That panel is displayed, with an appropriate message, so that you can enter the required information.

When you issue the END command from the Primary Options Menu that represents the product's entry point, nothing happens.

The END command with the GENERATE operand stops the process of collecting responses into an SRC. You can then proceed by adding responses to the SRC or filing the SRC record. When you file the SRC record, the data collected before issuing END GENERATE is saved under the name you specified for the SRC.

EXECUTE Command

```
EXecute [ src-name [ ,irc-chain ]]
```

Use the EXECUTE command to run an SRC. When you include the name of an SRC as an operand, the SRC is processed immediately. The SRC name can be a mixed string of 1 to 8 bytes in length, beginning with an SBCS alphabetic or a shift-out (SO) character. The SBCS characters in the remaining part may be alphanumeric, and the characters #, @, \$, &, and / may be included.

Note: Whichever code page is used, use the X'5b' code point for that code page rather than the \$.

When you omit the name, an SRC list appears.

You can append an immediate response chain (IRC) to the SRC by doing any of the following:

- After typing the EXECUTE command, type the SRC name, followed by a comma, followed by the IRC, and press Enter.
- Enter the IRC on the command line when using the E line command on the SRC List Display panel.
- Enter the SRC sequence number followed by the IRC directly on the command line on the SRC List Display panel.

When you enter EXECUTE without an SRC name but followed by an IRC, the first response in the IRC is taken to be the SRC sequence number, and the remainder is taken to be the IRC for the selected SRC.

The data in the IRC is treated as responses to any diverted panels that might appear while the SRC is executing. Any responses remaining in the IRC after the SRC finishes are processed as a normal IRC. If the SRC does not complete processing, any remaining responses in the IRC are ignored.

When you enter a command during SRC processing of a diverted panel, the SRC stops and any remaining IRC is discarded. A message indicates that SRC processing has stopped.

The EXECUTE command is not valid while you are in generate mode or PMF TEST mode.

FABEND Command

FAbend

Use the FABEND command to exit Tivoli Information Management for z/OS any time you think a severe error has occurred. This command forces Tivoli Information Management for z/OS to end with a user ABEND code 291 (hexadecimal 123), and produces a dump. ISPF is not ended. In order for a dump to be produced, one of the standard SYSADUMP, SYSABEND, or SYSMDUMP DD statements must be allocated to the jobstep before issuing the FABEND command.

Tivoli Information Management for z/OS issues one of the following error codes when you issue the FABEND command:

- 04** Means that you requested stopping during the initialization phase of your Tivoli Information Management for z/OS session.
- 08** Means that you requested stopping while Tivoli Information Management for z/OS was trying to recover from running out of storage.
- 12** Is sent for all other conditions that caused you to stop Tivoli Information Management for z/OS abnormally.

FIND Command

```
FIND [ string ]  
[[ CHAR | CHARACTER ] | WORD | [ PRE | PREFIX ] | [ SUF | SUFFIX ]  
[NEXT | [ PREV | PREVIOUS ] | FIRST | LAST ]]
```

Use the FIND command to locate a specified word or character string within the current table display's scroll area. The line containing the specified string is displayed as the second line in the display window. The cursor is positioned at the beginning of the string.

All columns are searched for the character string. The column containing the located string is scrolled left or right by the minimum amount required to bring the string into view. When you want to continue scrolling after the FIND command processes, you must use the column operand.

Note that if the string continues on the next line (that is, it spans two logical lines), FIND does not find the string. All columns are searched for the character string. When necessary, the column containing the string you are searching for is scrolled left or right by the minimum amount required to bring the string into view. When the string is longer than the width of the column, it is left-justified in the column.

When the string cannot be displayed, because it is located in the portion of a folded line that extends past the last line in the scroll area, a message is displayed, and the cursor is placed on the command line.

The FIND command cannot find the *****TOP OF DATA***** and *****BOTTOM OF DATA***** lines, although they might at times be visible on the display.

The FIND operands are optional, and can appear in any order. However, the operands can be used only if a string operand is specified. This means, for example, that when you specify an operand such as **FIRST**, without also including a string, the letters **FIRST** are treated as a character string. You can use either the full spelling of each operand or the shortened version shown by uppercase letters in the syntax above. The default operands are in italics.

The string you enter can be as long as necessary, and can contain mixed data. The string can be delimited by starting and ending SBCS apostrophes ('). The SBCS apostrophes are required if:

- The string contains SBCS blanks, SBCS commas, or SBCS apostrophes
- Both a string and an operand are specified, and the string has the same value as one of the operands.

Each apostrophe inside the string for which you are searching is represented by two apostrophes. For example, when you try to locate the string 'I don't know', you specify the string operand as

```
'I don''t know'
```

DBCS quotes should not be represented by two apostrophes. They will be treated as part of the string. When the string contains DBCS spaces or commas and no SBCS spaces or commas, the string need not be enclosed in quotes.

Leading SO and trailing SI characters are used in the matching process if they are followed or preceded by DBCS characters in the argument.

CHAR | CHARACTER

Locates the character string anywhere in a line. This is the default.

FIRST

Locates the first occurrence of the string from the top of the data.

LAST Locates the last occurrence of the string in the data.

NEXT

Locates the next occurrence of the string. This is the default setting.

PRE | PREFIX

Locates the string only when preceded by a character that is not alphabetic, numeric, or national.

PREV | PREVIOUS

Locates the previous occurrence of the string.

SUF | SUFFIX

Locates the string only when followed by a character that is not alphabetic, numeric, or national.

WORD

Locates the string only when delimited on both sides by a character that is not SBCS alphabetic (A-Z), numeric (0-9), or national (\$, #, @).

When either **FIRST** or **NEXT** is specified, **FIND** scans each line from left to right, top to bottom. When **PREV** or **LAST** is specified, **FIND** scans backward from right to left, bottom to top, to locate the previous occurrence of the string.

FIND ignores uppercase and lowercase distinctions for alphabetic characters.

Some examples of the **FIND** command are:

FIND Repeats the last find operation; in this case, it finds the next occurrence of the characters “abcd” as a suffix.

FIND abcd

Finds the next occurrence of characters “abcd”

FIND abcd PRE

Finds the next occurrence of prefix “abcd”

FIND abcd SUF

Finds the next occurrence of suffix “abcd”

FIND abcd SUF FIRST

Finds the first occurrence of suffix “abcd”

FIND abcd SUF NEXT

Finds the next occurrence of suffix “abcd”

FIND abcd WORD LAST

Finds the last occurrence of word “abcd”

FIND PREV abcd

Finds previous occurrence of characters “abcd”

FIND WORD abcd

Finds the next occurrence of word “abcd”

When no operands are specified, the most recent **FIND** string and operands (specified or defaulted) used during this Tivoli Information Management for z/OS session are used again. This is called a repeat **FIND**. Repeat **FIND** locates the next occurrence of the string, unless the **PREV** or **LAST** operands were originally specified on the **FIND** command. If they were, repeat **FIND** locates the previous occurrence of the string.

When the cursor is in the scroll area, the find mechanism starts its search with the character immediately following the cursor (or immediately preceding the cursor if a backward find is being performed, such as when using the **PREV** operand).

When the cursor is not in the scroll area (for example, it might be on the command line), the search starts at the beginning of the first line in the scroll area.

When the string is not found between the starting location and the end of the data, a message is displayed. The repeat **FIND** function can then be used to wrap to the top (or bottom, if a backward find is being performed) of the data and continue the search.

Notes:

1. The repeat FIND function (FIND with no operands) works better if you start it with a PF key. When you type the FIND command on the command line, your cursor is in the wrong place to begin the search operation. The search begins at the top of the scroll area and finds the same line over and over again.
2. Setting up a PF key for the FIND command works better. When you move the cursor to the correct line, such as the second line, and then press the FIND PF key, it locates the correct occurrence of the string. Also, when you type FIND on the command line, then move the cursor to the correct line, and then press Enter, the repeat FIND process succeeds.
3. The FIND command does not support a case-sensitive find request, regardless of how data is displayed in the display's scroll area (in mixed case or uppercase).

FLOW Command

FLow [*ON* | **OFF**]

Use the FLOW command to trace the processing sequence of panels, terminal simulator panels and EXECs (TSPs and TSXs), and data attribute records used in a Tivoli Information Management for z/OS session. The FLOW command output, when allocated to the terminal, allows you to see the processing sequence interactively. However, BLGFLOW can be allocated to a data set as well.

When FLOW is active, every panel, TSX, or data attribute record that is processed causes a message to be written to the data set specified by the DD named BLGFLOW. If BLGFLOW is not allocated, there is no output.

Activate the FLOW command by issuing ;FLOW or ;FLOW ON at any point during a Tivoli Information Management for z/OS session. Stop it by issuing ;FLOW OFF. It is not active until you explicitly request it. If you issue FLOW ON when FLOW is already on, the system ignores the second request; similarly for FLOW OFF, the system ignores the second request when FLOW is not active.

The SUSPEND command and the RESUME command do not affect the setting of the flow command. FLOW will have the same ON or OFF setting after you issue SUSPEND or RESUME as it had before you issued the command.

FLOW creates a report that identifies the processing sequence of panels, records, and EXECs, and the location from which they were loaded (for example, the data set name or database name). It also indicates whether or not an item was located in a local panel buffer. The report identifies the date and time you activated FLOW, followed by a list of items that were loaded. A date and time follows that indicate when FLOW was stopped.

The following example shows what you might see if you were to route the FLOW command output to a data set:

```
FLOW ACTIVATED 05/15/1998 10:42:13
BLG0EN20 DE BASE (BUFFER)
BLG0B100 DE BASE
BLG1A111 CTL BASE
BLGTSPPE TSP TEST
```

```
XYZTSX01   ???  **NONE**  
XYZTSX01   TSX  
FLOW TERMINATED 05/15/1998 10:45:51
```

In this example, the processing sequence shows that two data-entry panels were processed first, followed by a control panel, a TSP, an unknown item, and a TSX.

The output contains three columns of information:

- The name of the panel, TSX, or data attribute record. An asterisk (*) may follow a panel name to indicate that panel was not part of the main panel flow. Typically, this means the panel was referenced rather than actually processed (that is, it was loaded into an auxiliary panel buffer). Examples of panels that are referenced are: message panels (which are always reloaded for each use), control panels that specify information for use by program exits, and panels that are being loaded for update by the Panel Modification Facility.
- The type of item that was processed:
 - AE** Assisted-entry panel
 - CTL** Control panel
 - DAR** Data attribute record
 - DE** Data-entry panel
 - HLP** Help panel
 - MSG** Message panel
 - OPT** Options panel
 - SEL** Selection panel
 - TBL** Table panel
 - TSX** Terminal simulator EXEC
 - ???** Unknown (panel was not found)
- The location from which the panel or data attribute record was originally loaded from buffer. For panels, the location is a data set name; for data attribute records, the location is a database name. If the item location is not found, ****NONE**** is specified.
If the item was found in a local panel buffer, the word **(BUFFER)** appears next to the location. If **(BUFFER)** does not appear, the item was loaded from a panel data set or from a database.

The output from the **FLOW** command is sent to the destination you specify on the **BLGFLOW DD** statement, to the **SYSOUT** device, or to another output data set. You can allocate this data set before starting Tivoli Information Management for z/OS or you can allocate it at any time during Tivoli Information Management for z/OS session before you issue **FLOW ON**. To allocate this data set, issue **ISPF 'TSO ALLOC FI(BLGFLOW) DA('datasetname') NEW RECFM(V B A) ...'**. When you direct the output to another data set, the **DCB** information for the output data set must include a record format of **VBA**. When it does not, the results are unpredictable.

The **LRECL** default is set to 80, but you can change this length when you define the data set. If an output line is longer than the specified **LRECL**, it is split across as many print lines as is necessary to print each line.

FREE Command**FRee data-set**

Use the FREE command to close and free an open data set.

The FREE command closes a data set and deallocates any allocations of the data set made by Tivoli Information Management for z/OS, but it does not close or deallocate any allocations of the data set made outside Tivoli Information Management for z/OS.

One operand is required with the FREE command. It must be one of the following valid operands:

Print Specifies to close and free the print data set.

If you want the print data set to be freed automatically every time you issue the PRINT command, you can change your session defaults. See “Understanding and Defining Your User Profile” on page 40 for information about modifying your user profile.

Trace Specifies to close and free the trace data set. You can issue the FREE TRACE command at any time during a Tivoli Information Management for z/OS session.

GENERATE Command**GEnerate**

Use the GENERATE command to begin the process of building a stored response chain (SRC) for later use. Enter the GENERATE command on the panel where you want the SRC to start.

The GENERATE command is not allowed within a change, display, execute, generate, or PMF panel test prompting sequence, or on a table display panel. When you issue the GENERATE command, the SRC Description Entry panel appears. See “Using Response Chains” on page 235 for an example of the prompting sequence.

To end the GENERATE prompting sequence, issue END GENERATE.

GLOSSARY Command**GLossary [string]**

Use the GLOSSARY command to display the contents of the glossary data set (the SDIDS index) for a database. This command performs the same function as selecting **Glossary** on the Primary Options Menu.

The glossary contains all searchable (cognized) words (freeform keywords as well as p-words and s-words) actually contained in the records stored in the database. If a word does not appear in the glossary, it cannot be found by a search.

You may want to view an s-word to determine how often it is used in a database. However, the s-word cannot be entered as a string operand for the GLOSSARY command.

You can scroll up beyond the first freeform keyword in the glossary. This area of the glossary contains the s-words for the named database. The s-words are listed here because the first character of an s-word is an undisplayable hexadecimal character (sometimes referred to as a watermark character) that collates earlier in the glossary than the character A. All s-words are displayed in a special format to distinguish them from p-words and freeform words.

For s-words, the hexadecimal character is converted to its displayable representation, followed by a space; for example, BA //S/TXS where BA represents the hexadecimal value X'BA'.

The entries in the glossary data set are in alphanumeric order and represent the words that you can use to search the database. You use the glossary to determine the prefix and freeform keywords needed to build a freeform search argument.

The string operand specifies where in the glossary the display should start. It starts with the first p-word or freeform word that begins with the character string. This operand is optional. When no such string is found, the glossary display begins with the next keyword appearing in alphanumeric order.

The string can be from 1 to 32 characters long. It can contain mixed data and SBCS Katakana characters. Search operators are not used in the GLOSSARY command. When the operator characters appear in the string, they are treated as characters, not search operators.

When you enter a keyword, you will notice that Tivoli Information Management for z/OS changes the entry to uppercase. You cannot specifically request to view mixed case entries. Your Tivoli Information Management for z/OS program administrator can, if necessary, modify the BLG6KWRD assisted-entry panel which corresponds to the Keyword field on the Glossary panel to allow you to enter requests for viewing mixed case data.

When you specify a string operand, the glossary table display is shown for the default database, as specified in your user profile.

When you omit the string operand, Tivoli Information Management for z/OS displays a data-entry panel for you to enter the string and change the database number.

When you omit the string operand, both on the command and on the Glossary data-entry panel, the glossary table display starts with the first p-word or freeform word contained in the glossary data set for the named database whose first character is English uppercase or DBCS. A message indicates that you are at the beginning of the glossary words that can be entered in a freeform search.

When you end the glossary display, you are returned to either the Glossary Data-Entry panel, or to the panel where you issued the GLOSSARY command.

Note: If you are using logical database partitioning, you should refer to the *Tivoli Information Management for z/OS Program Administration Guide and Reference* for additional information about the GLOSSARY command.

HELP Command

Help [**command** | **STATUS** | **VALIDATE**]

You can use the HELP command to obtain:

- An explanation of the current panel.
- Descriptions of messages displayed on your screen.
- A list of messages when there are more than one message.
- Information on how to use a specific command.
- A description of the general status of your Tivoli Information Management for z/OS session, including a list of commands that are valid at this time.
- Additional help on valid replies to an assisted-entry panel.

The HELP command shows information on table displays. Use the scrolling commands to look at the help text.

You can specify either no operand or one operand, but not more than one.

When you issue HELP without an operand, you receive either:

- A help panel pertaining to the current panel, if no message is displayed, or
- If a message is displayed, an explanation of the message.

When one message is displayed, but additional messages do not fit on your screen (as shown by a + in front of the message), the HELP command displays a list of all the messages. Use the select line command (S) to obtain an explanation of any message in the list. HELP with a command as an operand gives you a description of the command specified. For example, HELP GLOSSARY gives a description of the GLOSSARY command. The operand must be entered as an SBCS string.

HELP with the STATUS operand displays status and command information about Tivoli Information Management for z/OS; the status information is shown in the nonscrollable top portion of the display, and the available commands are shown in the scroll area underneath the status information.

When you issue the HELP STATUS command, only the commands that you can issue from where you are in Tivoli Information Management for z/OS are displayed. For instance, if you are in PMF, only the PMF commands are displayed. Also, the RECALL command cannot be issued unless you are in a suspended level.

The following status information is displayed:

Version

Displays the Tivoli Information Management for z/OS level in the format VxRxMx.

Record ID

Displays the 1- to 8-character mixed data name of the current record. If there is no current record, the word NONE appears.

Class Displays the 1- to 8-character mixed data name of the current privilege class. If there is no current privilege class, the word NONE appears.

Suspension level

Displays the number of SUSPEND commands that are currently active.

Modes

Displays the several modes that Tivoli Information Management for z/OS can enter. The modes are displayed in order as follows:

mode1

Specifies whether Tivoli Information Management for z/OS is in ENTRY or INQUIRY mode.

mode2

Specifies whether CHANGE mode is in effect.

mode3

Specifies whether Tivoli Information Management for z/OS is in SEARCH RESULTS display mode or in SEQUENTIAL RECORD display mode.

mode4

Specifies whether Tivoli Information Management for z/OS is in GENERATING SRC mode, EXECUTING SRC mode, or neither of these.

Database

Displays the current database to be used if you issue a SEARCH or REPORT command without specifying the database operand.

Logical files

Displays the logical files to be used if you issue a SEARCH or REPORT command without specifying the logical files to search.

Session member

Displays the current session member being used. Refer to the SESS keyword in *Tivoli Information Management for z/OS Planning and Installation Guide and Reference* for more information.

Window name

Displays the ISPF panel name.

Window level

Displays the Tivoli Information Management for z/OS level of the WINDOW NAME.

Primary partition

Displays the primary partition name if it exists. Otherwise, NONE is specified.

Global partition

Displays the global partition name if it exists. Otherwise, NONE is specified.

Time zone formats

Displays the symbol for the time zone in use by the session if the universal time processing feature is enabled in your environment. For example, the value may be ET for the United States/Canada Eastern time with daylight savings time. The value may represent the default time zone set up by your Tivoli Information Management

for z/OS installer, or the time zone you select through the user profile. If universal time processing is not enabled, NONE is displayed. A list of symbols and what they represent can be viewed in the user profile through the **User and database defaults** option. A discussion of time zones and how the universal time processing feature works in Tivoli Information Management for z/OS is available in the *Tivoli Information Management for z/OS Planning and Installation Guide and Reference*.

An old time zone format can also be specified. The old time zone format defines a time zone symbol to be associated with older records in your database if the old time zone symbol differs from the default time zone symbol.

External date formats

Displays the external date format in use by the session. The default external date format set up by your installer is displayed unless you have overridden the format by making a date format selection through the user profile (in the **User and database defaults** option). The external date format is the format you see when working with records on data entry or display panels.

An old date format can also be specified. The old date format specifies an external date format for older records in your database.

Trigger characters

Displays the trigger characters used at your installation to identify data attribute records. A trigger character distinguishes data attribute records from panels, and is used only if your system uses data model records. A trigger character is specified by your Tivoli Information Management for z/OS installer through a special keyword when defining the operating characteristics of your session. The ampersand character (&) refers to the trigger character reserved for use by data attribute records provided with Tivoli Information Management for z/OS. Following the ampersand, any trigger characters defined for your installation are listed. If no data model record database was defined in your session-parameters member by your installer, the ampersand is displayed by default. Refer to MODELDB keyword in the *Tivoli Information Management for z/OS Planning and Installation Guide and Reference* for more information.

Data model database

Identifies the database that contains data model records. The number of the database is specified by your Tivoli Information Management for z/OS installer. Refer to MODELDB keyword in the *Tivoli Information Management for z/OS Planning and Installation Guide and Reference* for more information.

Although they may not be listed, you can use the scrolling commands UP, DOWN, LEFT, and RIGHT while viewing the status display.

An example of HELP STATUS output follows:

```

BLG1THLP                STATUS AND AVAILABLE COMMANDS

VERSION = VxRxMx  RECORD ID = NONE  CLASS = MASTER  SUSPENSION LEVEL = 0
MODES = INQUIRY  SEQUENTIAL RECORD
DATABASE = 5  LOGICAL FILES =
SESSION MEMBER = 00  WINDOW NAME = BLGISPF  WINDOW LEVEL = JOYxxxx
PRIMARY PARTITION = NONE  GLOBAL PARTITION = NONE
TIME ZONE FORMATS:  DEFAULT = NONE  OLD = NONE
EXTERNAL DATE FORMATS:  DEFAULT = MM/DD/YYYY  OLD = NONE
TRIGGER CHARACTERS = & #  DATA MODEL DATABASE = 5

COMMAND NAME          COMMAND DESCRIPTION

ARGUMENT              ADD/DELETE/MODIFY FREEFORM ARGUMENTS
BACK                  BACK UP TO LAST DISPLAYED OR PROCESSED PANEL
CANCEL               TERMINATE THE CURRENT DIALOG WITHOUT SAVE
:                    :
:                    :

```

Using HELP with the VALIDATE command provides additional help on valid replies to an assisted-entry panel. The system displays a table panel (BLG1THVD) listing the validation patterns contained in the current assisted-entry panel.

When no assisted-entry panel is current when the HELP VALIDATE command is entered, an error message is displayed.

Note: When you issue the HELP command without an operand on a table display panel on which you have typed data, the new data is ignored. The help that you receive is for the screen as it was last processed. When you return from the help, the new data is lost. For example, if you type a line command that is not valid, such as G, press Enter, then correct the line command to D, type HELP, and press Enter, the help given is for the line command G. When you return from the help, the G is redisplayed. The D command was not processed because you did not press Enter before entering HELP.

The HELP command can also be used to display extended help for data attribute records or validation records if such help was either defined by the program administrator or made available in the application.

INITIALIZE Command

INitialize

Use the INITIALIZE command to cancel the current prompting sequence and return to the most recent Primary Options Menu.

This command does not resume suspended prompting sequences. When you have suspended a prompting sequence and are working in another prompting sequence (as the result of having issued one or more SUSPEND commands), the INITIALIZE command displays the suspension level number on the Primary Options Menu to let you know that you still have

suspended prompting sequences pending. See the SUSPEND command for the scheme used for counting suspension levels. When you are not in a suspended state, no level number is shown.

The INITIALIZE command works backward through all active and pending prompting sequences, deleting all data, until you are returned to the most recent Primary Options Menu.

Changes made to your user profile during the session that have already been temporarily or permanently saved are not affected by this command. However, if you are in the middle of the profile prompting sequence and you issue INITIALIZE, because you have not yet temporarily or permanently saved the profile changes, those changes are not made.

Neither your current privilege class nor the current product setting is changed by the INITIALIZE command. However, the INITIALIZE command nullifies any search results list.

When you issue the INITIALIZE command from a Primary Options Menu, there is no effect because you are already initialized.

When you issue the INITIALIZE command from a search results list and there are user-defined line commands that were collected, your profile is checked to see whether the line commands should be dropped.

ISPF Command

ISpf 'command string'

This command enables you to issue ISPF or TSO commands without leaving Tivoli Information Management for z/OS.

Enter the command or command string within SBCS apostrophes if it contains an SBCS blank or special SBCS character. When the command string contains an SBCS apostrophe, enter two apostrophes instead.

Do not represent DBCS quotation marks by two apostrophes. They are treated as part of the string. When the string contains DBCS spaces or commas and no SBCS spaces or commas, the string need not be enclosed in quotation marks.

To alter your PF key assignments, enter ISPF KEYS and follow the instructions on the panels.

To print just the physical screen image, you must use the ISPF PRINT command. ISPF determines where the screen image should be printed; the output destination in your Tivoli Information Management for z/OS user profile is irrelevant.

Note: When you are using split screens (ISPF SPLIT command), use the ISPF SWAP command to move between the two sessions, rather than the cursor control key.

LEFT Command

LEft [**nnnnn** | **Csr** | **Half** | **Page** | **Max**] [**COlumn**]

Use the LEFT command to move the scroll area part of the display window toward the left edge of a table display. The data you see disappears from the right edge of the window.

The LEFT command is not valid if it is issued anywhere except on a table display.

When there is no more data to be seen, the LEFT command results in no action; your screen does not change. The operand indicates the amount of the scroll. When no operand is specified on the command, the default scroll amount from your profile is used. The operands are mutually exclusive, with the exception of the COLUMN operand, which can be used in conjunction with any of the other operands.

When the scroll amount specified would scroll beyond the left edge of the data, the scroll operation ends when it reaches the left edge of the data. No indication is given that the scroll operation stopped prematurely.

The scroll amount specified or defaulted indicates the number of character positions to scroll. However, if the table panel's definition indicates that the set of columns defined in the table display are to be vertically repeated, a horizontal scroll operation has its effect in all vertically repeated columns.

nnnnn

Specifies the number of character positions to be scrolled. The number can be from 0 to 32 767. A negative number cannot be specified.

Csr

Specifies that the scroll area is to be moved left so that the character position marked by the cursor is scrolled to the right-hand edge of the scroll area. The cursor's position is moved along with the scrolled data to the right-hand edge.

If the cursor is located outside the scroll area (on the message line, for example) when the LEFT CSR command is issued, a full-page scroll occurs, and the cursor moves to the command line.

If the cursor is located outside the scroll area when the LEFT CSR COLUMN command is issued, an error message is displayed, and the cursor moves to the command line.

If the cursor is located in the rightmost character position of the scroll area when the LEFT CSR command is issued, a full-page scroll occurs, and the cursor remains in the right-most character position of the scroll area.

Half

Specifies that the scroll area is to be moved left such that half of the character positions shown in the area disappear from the scroll area to the right.

Page

Specifies that the scroll area is to be moved left such that all of the character positions shown in the area disappear from the scroll area to the right.

Max

Specifies that the scroll area is to be moved left so that the first (or left-most) character of data appears in the left-most position of the scroll area.

COLUMN

Specifies that the scroll area is to be limited to the scrollable column that contains the cursor. If the cursor is outside a horizontally scrollable column when the COLUMN operand is specified, an error message is displayed.

This operand can be used in conjunction with the other mutually exclusive operands.

Only the data in the column is scrolled; the column heading remains fixed.

When COLUMN is not specified, all of the scrollable columns are scrolled as a unit.

LINECMD Command

Linecmd *line-command*

Use the LINECMD command to enter line commands as part of a chained response.

One operand is required with the LINECMD command. It must be one of the valid line commands being displayed on the bottom of the particular table panel on which LINECMD is used.

The LINECMD command operates on the current line of the table display on which LINECMD is issued. Use the scrolling commands UP or DOWN to move the current line to the line of data on which you want to enter the line command.

You can issue the command directly on the displayed panel, in an immediate response chain (IRC), or in a stored response chain (SRC).

For the same line on a nonlist processor table display, if two or more LINECMD commands are issued successively in an IRC, SRC, or from an ADDDATA control line within a terminal simulator panel (TSP), only the last LINECMD is processed. This action is the same as if you typed a line command next to the line and then overtyped it with another line command before pressing Enter.

NEXT Command

Next [*Cancel* | **End**]

Use the NEXT command to display the record (entry) following the current record. When you are in search results mode, the following entry from the search results list is displayed. When you are in sequential mode (after issuing an ORDER command), the following entry in the database is displayed. When neither display mode is in effect, you cannot use the NEXT command.

The operation performed by the NEXT command depends on which operand you specify. When you specify neither operand, CANCEL is the default. The two operands, CANCEL and END, are mutually exclusive.

When you are displaying records, it makes no difference whether you use the CANCEL operand or the END operand. The next record is displayed in either case. However, when you are updating or copying a record, the operands cause different actions as follows:

Cancel

Does not save any unfiled changes before displaying the next record.

End Saves your changes before displaying the next record.

ORDER Command

Order

Use the ORDER command to change from viewing a list of entries in a search results list to viewing entries sequentially in a database.

Before you can use the ORDER command, you must first create a search results list by doing a search. Then you can issue the ORDER command to establish a sequential list of records starting with the current record from the search results list.

When you end the ORDER prompting sequence with an END or CANCEL command, you are returned to the search results list. The current record is the same as it was when you issued the ORDER command.

A sequential record list indicates the number of the database in which the records are stored. In addition, the list for a read-only database indicates the logical files used by the most recent SEARCH command issued (an * indicates all files).

These sequential record lists are presented on table displays. The Description Abstract field can be scrolled left and right if the abstract is too long to fit in the display window.

When you do not have display authority (not required for SRC records) for a record included in the list, you do not see the description abstract. Instead, the field contains the word UNAUTHORIZED.

You can issue scroll commands or enter one of the valid line commands. Enter the line commands in the line command entry area shown by the apostrophes. However, unlike the search results lists, sequential record lists are not numbered. Therefore, you cannot select an item for display by entering its sequence number on the command line.

When you want to display a sequential list of all titles in a logical file, you must first do a search so that all records in the file are listed in the search results list. When the search results list appears, issue the ORDER command.

Note: If you are using logical database partitioning, use of the ORDER command should be restricted. Refer to the *Tivoli Information Management for z/OS Program Administration Guide and Reference* for information on how to use the command alias and authorization function to restrict the use of a command, and for additional information on logical database partitioning.

PREVIOUS Command**PREvious** [*Cancel* | **End**]

Use the PREVIOUS command to display the record (entry) preceding the current record. When you are in search results mode, the preceding entry from the search results list is displayed. When you are in sequential mode (after issuing an ORDER command), the preceding entry in the database is displayed.

The operation performed by the PREVIOUS command depends on which operand you specify. When you specify neither operand, CANCEL is the default. The two operands, CANCEL and END, are mutually exclusive.

When you are displaying records, it makes no difference whether you use the CANCEL or the END operand. The previous record is displayed in either case. However, if you are updating or copying a record, the operands cause different actions, as follows:

Cancel

Does not save any unfiled changes before displaying the preceding record.

End Saves your changes before displaying the preceding record.

PRINT Command**PRInt** [**R** [*id*] | **All**]

Use the PRINT command to print either a record from a database or the contents of a table display.

To print just the physical screen image, you must use the ISPF PRINT command.

The first time you issue a PRINT command in your Tivoli Information Management for z/OS session, Tivoli Information Management for z/OS allocates the print output data set. Tivoli Information Management for z/OS uses the values defined in your user profile to determine the output destination, the characteristics (such as block size, logical record length, and others) of the print data set, and whether to free the print data set or keep it open.

If your profile specifies to keep the print data set open, it remains open until you do one of the following:

- Issue a FREE PRINT command
- Issue a QUIT command
- Change one of the following in your profile:
 - Change a SYSOUT attribute, such as destination, if SYSOUT is being used for print output

- Change a data set attribute, such as lines per page, if DSNAME or DDNAME is being used for print output
- Change the print output destination (for example, from SYSOUT to DSNAME)
- Change the **PRINT operation** field to FREE in your user profile

After you perform one of the previous actions, the next time you issue PRINT, a new data set is opened.

When the R operand is specified without a value, you are prompted for the record ID. When you supply the record ID on the command, the database specified in your user profile is used as the default.

When the record has been printed, you are returned to the panel where you issued the PRINT command.

A user-specified record ID is a mixed string of 1 to 8 bytes, beginning with an SBCS alphabetic or a shift out (SO) character. SBCS Katakana characters cannot be used. When the record ID is generated by Tivoli Information Management for z/OS, it will be an SBCS decimal string. Leading zeros can be omitted when specifying decimal record IDs.

The PRINT command causes a page eject to occur before printing a table display or record.

The PRINT command uses a report format table to format a database record into the output data set. There is a report format table for each different record type. Refer to the *Tivoli Information Management for z/OS Data Reporting User's Guide* for more information on report format tables.

When both the R and the ALL operands are omitted, R is the default. The operands are mutually exclusive.

The ALL operand specifies that the current table display (including all lines for the table panel that are not currently displayed on the physical screen) is to be printed. Only the data that could be made visible by using the UP and DOWN commands is printed. In other words, data on either side (left or right) of any column that could not be made visible by using only the UP and DOWN commands is not printed, unless you scroll it into view.

When the current panel is not a table display, the ALL operand is not allowed.

The first time MVS data is printed to a new output destination, it is preceded by writing the MVS disclaimer to that new output destination. Subsequent writes of MVS data to the same output destination do not cause the disclaimer to be rewritten. However, if you enter the profile prompting sequence and change the output destination, the MVS disclaimer is written to that new output destination the first time you direct qmvs. output to it. A page eject (if the output destination contains control characters) is forced prior to writing the disclaimer.

Note: If you are using logical database partitioning, you may have access to records in different logical partitions that have the same RNID. You cannot use the PRINT command to print records with duplicate RNIDs. However, you can print them using the print line command on a search results list. Refer to the *Tivoli Information Management for z/OS Program Administration Guide and Reference* for additional information.

PROFILE Command**PROfile**

Use the PROFILE command to change values in your user profile. With the PROFILE command you can enter the profile prompting sequence from any other prompting sequence. The PROFILE command starts the same prompting sequence as if you had selected 2 Profile from the Primary Options Menu. See “Modifying Your User Profile” on page 41 for an example of how to modify your profile.

When you finish updating your profile, you are returned to the point from which you issued the PROFILE command.

The PROFILE command has no operands.

QUIT Command**Quit**

The QUIT command causes you to leave Tivoli Information Management for z/OS immediately. Any data collected in the current session and not previously saved is lost. The QUIT command can be entered from any panel. SRCs and records already created and filed are not affected.

All information gathered by all active and suspended prompting sequences that has not yet been stored is deleted.

When you include the QUIT command in an IRC, be sure the command is at the end of the chain.

Note: If you used any ISPF commands during your Tivoli Information Management for z/OS session, ISPF can prompt you for the disposition of any list or log data sets.

When you issue the QUIT command from a search results list and there are user-defined line commands that have been collected, your profile is checked to see whether the line commands should be dropped.

RECALL Command**RECall [Search | Cmdline | Notsp]**

Use the RECALL command to bring back the last entry:

- Typed on the command line
- Issued with a PF key
- Entered on the command line with a terminal simulator panel (TSP)

- On the command line at the time a TSP was called

The entry appears on the command line on the current panel. It does not have to be a valid command name.

Consecutive RECALL commands bring back successively older command-line entries until they reach the point where you entered the product, or until they reach the threshold value contained in your user profile. RECALL commands are not included in the retrieval process.

The default setting for the RECALL command is in your profile. When you want to see only command-line data that you entered, change the profile setting to NOTSP.

When you specify any operands with the RECALL command, they override your profile. For example, if your profile setting is NOTSP and you enter RECALL CMDLINE on the command line, the CMDLINE operand overrides the setting in your profile, and the recalled statement might be from a TSP.

If your profile setting is CMDLINE and you enter RECALL NOTSP on the command line, the NOTSP operand overrides the profile setting. In this case, the recalled statement is the last statement you entered and not a statement that a TSP entered. The Tivoli Information Management for z/OS minimum truncation rules apply to the operands.

When the RECALL command is part of an immediate response chain (IRC), the response chain ends when it processes the RECALL command. The remainder of the IRC is not processed.

Search

Specifies that the last SEARCH command entered on the input line is to be retrieved and displayed on the command line. Only one SEARCH command (the last one entered) can be recalled. The next SEARCH command you enter replaces the currently saved SEARCH command. If you have not issued a SEARCH command before you issue a RECALL SEARCH, a message appears on your screen.

RECALL SEARCH brings back only what you typed on the command line. This might not necessarily be the last complete SEARCH command processed. This can occur when the search arguments were collected when you responded to panels, rather than when you type them. If you want to see the last complete search argument, use the ARGUMENT or VIEW commands.

Cmdline

Specifies that the data last entered on the command line is to be retrieved and displayed on the command line. The data might have been entered by a TSP.

Notsp Specifies that the data you last entered on the command line is to be retrieved and displayed on the command line. Data entered by a TSP is not retrieved.

If the **Recall command operation** field in your Profile Summary is set to NOTSP, replies generated by TSPs are still entered into your recall stack. However, because these entries are not retrieved by the RECALL NOTSP command, the number of entries retrieved may be fewer than the stack size specified in the **Recall stack depth** field in your Profile Summary.

A RECALL command, entered by itself on the command line (that is, not as part of an IRC) is not retrievable by the RECALL CMDLINE command.

If consecutive RECALL CMDLINE commands reach the end of the stack, a message appears on your screen. A RECALL CMDLINE command issued at this point retrieves the item at the top of the stack, that is, the most recent entry you made on the command line. The whole process is repeated if you continue.

The maximum number of command-line entries stacked by Tivoli Information Management for z/OS is determined by your user profile. You can change the stack depth by modifying your user profile. If the stack is full and you enter something in the command line, the new entry goes at the top of the stack, and the oldest entry is removed.

If any form of the RECALL command is entered as part of an IRC, the entire IRC is collected as part of the stack.

Note: For greater convenience, you can set up a PF key to issue the RECALL command.

For example, you enter a 9 to file a record and then enter the RECALL command. If your organization has notification enabled, and your profile specifies RECALL CMDLINE, you must enter the RECALL command several times before the 9 you entered to file the record is recalled. This is because a TSP was called to perform notification when you filed the record. All the activity involved with that notification is recalled before the 9 is recalled. If your profile setting for RECALL is NOTSP, or if you issue RECALL NOTSP from the command line, the 9 is recalled.

Another example: A search results list appears on your screen. You end that list and do another search as follows: END,SEARCH +STAC/OPEN. If you enter the RECALL command now and your profile specifies RECALL SEARCH or RECALL CMDLINE, the command recalled is SEARCH +STAC/OPEN. The END is not recalled. This is because a TSP was started when you ended the search results list. The END called the TSP, and Tivoli Information Management for z/OS held the remaining string (SEARCH +STAC/OPEN) until the TSP completed its processing. When the TSP completed processing, the string was issued from the command line.

When you issue the RECALL command a second time, the command recalled is END,SEARCH +STAC/OPEN. If your profile setting for RECALL is NOTSP or if you issue RECALL NOTSP from the command line, the command recalled is END,SEARCH +STAC/OPEN.

REPORT Command

```
REPort [ =n | =c | =nc ] [ argument | + argument ]
```

Use the REPORT command to create standard reports as defined by Tivoli Information Management for z/OS or your organization (for user report formats). You can also use the REPORT command to create a data set that can be used as input to your own customized reports.

Each time you issue a REPORT command in a session, Tivoli Information Management for z/OS allocates a data set for the report output. Tivoli Information Management for z/OS uses the values defined in your user profile to determine the output destination and the characteristics (such as block size, logical record length, and others) of the data set.

If the report output destination is not defined in your profile, Tivoli Information Management for z/OS prompts you for the data with a panel.

The REPORT command uses a report format table to format a database record into the output data set. Each different report has a corresponding report format table. Refer to the *Tivoli Information Management for z/OS Data Reporting User's Guide* for more information on report format tables.

The operands (including the argument) you specify on the REPORT command are exactly the same as those on the SEARCH command. Therefore, the operand descriptions are not included here. See the SEARCH command.

The “+ argument” data that is appended to the current search argument by the REPORT command, is always canceled and never remains as part of the current search argument when the report prompting sequence ends, unlike that of the SEARCH command whose “+ argument” can either be ended or canceled.

When the REPORT command finishes, you are returned to the panel where you issued the REPORT command. The report prompting sequence is always canceled automatically; that is, any arguments specified on the REPORT command itself are discarded.

RESUME Command

RESume

Use the RESUME command to return to the prompting sequence from which the most recent SUSPEND command was issued.

Any information gathered by the current prompting sequences that you have not yet saved is deleted.

The suspended prompting sequence is reactivated. The RESUME command works backward through all active prompting sequences, deleting their data and all data of pending prompting sequences under the active prompting sequences, until a return is made to the previous prompting sequence. You are returned to the panel from which the most recent SUSPEND command was issued.

When you are returned to the previously suspended prompting sequence, a message on the panel indicates the suspension level of the resumed prompting sequence. See the SUSPEND command for the numbering scheme used for counting suspended prompting sequences. If you are returning to the product's entry prompting sequence, the suspension level is zero.

When you return to the suspended prompting sequence, the suspended prompting sequence's privilege classes and product settings are the same as they were when you left it. Any changes you made to these settings in the new prompting sequence are discarded when the suspended prompting sequence is reinstated. A message informs you of this.

The display mode of the current prompting sequence is not carried back to the prompting sequence being resumed; the display mode that existed in the previous prompting sequence is reinstated.

Any immediate response chain (IRC) following the RESUME command is carried back to the most recently suspended prompting sequence and is processed there.

Any profile changes you made in the ending prompting sequence, which you temporarily or permanently stored before issuing the RESUME command, are in effect for the prompting sequence being resumed.

When the RESUME command is issued when no prompting sequence has been suspended, an error message is displayed on the current panel.

RIGHT Command

```
Right [ nnnnn | Csr | Half | Page | Max ] [ COLumn ]
```

Use the RIGHT command to move the scroll area part of the display window toward the right edge of a table display. This means that the data you see disappears from the left edge of the scroll area.

The RIGHT command is not valid if it is issued anywhere except on a table display.

When there is no more data to be seen, the RIGHT command results in no action. Your screen does not change. The operand indicates the amount of the scroll. When no operand is specified on the command, the default horizontal scroll amount from your profile is used. The operands are mutually exclusive, with the exception of the COLUMN operand, which can be used in conjunction with any of the other operands.

If the scroll amount specified would scroll beyond the right edge of the data, the scroll operation ends when it reaches the right edge of the data. No indication is given that the scroll operation stopped prematurely.

The scroll amount specified or defaulted indicates the number of character positions to scroll. However, if the table panel's definition indicates that the set of columns defined in the table display are to be vertically repeated, then a horizontal scroll operation has its effect in all vertically repeated columns. The *****TOP OF DATA***** and *****BOTTOM OF DATA***** lines do not move when you scroll from left to right.

nn**n**n**n**

Specifies the number of character positions (in decimal) to be scrolled. The number can be from 0 to 32 767. A negative number cannot be specified.

Csr

Specifies that the scroll area is to be moved right such that the character position marked by the cursor is scrolled to the left-hand edge of the scroll area. The cursor's position is moved along with the data to the left-hand edge.

If the cursor is located outside the scroll area (in a message line, for example) when the RIGHT CSR command is issued, a full-page scroll occurs instead, and the cursor moves to the command line.

If the cursor is located outside the scroll area when the RIGHT CSR COLUMN command is issued, an error message is displayed, and the cursor moves to the command line.

If the cursor is located in the leftmost character position of the scroll area when the RIGHT CSR command is issued, a full-page scroll occurs instead, and the cursor remains in the left-most character position of the scroll area.

- Half** Specifies that the scroll area is to be moved right such that half of the character positions shown in the area move to the left out of the scroll area.
- Page** Specifies that the scroll area is to be moved right such that all of the character positions shown in the area move to the left out of the scroll area.
- Max** Specifies that the scroll area is to be moved right so the last (or rightmost) character of data appears in the right-most position of the scroll area.

Column

Specifies that the scroll area is to be limited to the scrollable column that contains the cursor. When the cursor is outside a horizontally scrollable column when the COLUMN operand is specified, an error message is displayed.

This operand can be used in conjunction with the other mutually exclusive operands.

Only the data in the column is scrolled; the column heading remains fixed.

When COLUMN is not specified, the entire set of nonpermanent columns (including headings) is scrolled as a unit.

RUN Command

```
RUn [ tspname | alias | tsxname [ parmlist ] ]
```

Use the RUN command to call a TSP to process user-defined line commands that were collected from a search results list. This command can also call a TSP when no user-defined line commands have been collected on the current search results list panel. If you want to process data that has been collected previously, issue the RUN command with either the TSP name that processes user-defined line commands or the alias of that TSP.

You can also use the RUN command to call a terminal simulator EXEC (TSX), described in *Tivoli Information Management for z/OS Terminal Simulator Guide and Reference*, and optionally pass parameters to that TSX.

tspname

Specifies the name of a TSP. The TSP name must be an 8-character SBCS string. The first character of a TSP name must be alphabetic. The remaining part of the string may contain alphanumeric, @, #, or \$ characters.

- alias** Specifies the name of an alias in the ALIAS record for a TSP or TSX. An alias name must be an SBCS string of 1 to 8 characters. The first character of an alias name must be alphabetic. The remaining part of the string may contain alphanumeric, @, #, or \$ characters.

tsxname

Specifies the name of a TSX. A TSX name can be any valid PDS member name.

parmlist

An argument string that is passed to the TSX as one argument, which the TSX can parse as needed.

Note: Parameters can be specified only on the RUN command for a TSX. If you specify parameters when running a TSP, they will be ignored.

default

Entering no TSP name or alias runs all the TSPs that have been collected up to this point for this table panel.

The TSP name and the alias name must be SBCS strings of 1 to 8 characters. The first character must be alphabetic, and the remaining part of the string may contain alphanumeric or @, #, \$ characters.

Note: Whichever code page is used, use the X'5b' code point for that code page rather than the \$.

SEARCH Command

```
Search [ =n | =c | =nc | =n* ] [ argument | + argument ]
```

Use the SEARCH command to retrieve information from a database. See “Obtaining Information from a Database” on page 163 for the steps necessary to create a search argument and do a search using a prompting sequence and SEARCH command. For information about searching freeform text, see “Searching Freeform Text” on page 229.

=n Specifies the database to be searched. The numbers assigned to databases follows:

0, 1, 2, 3

Reserved for your organization’s database, user-defined format, read only

4

User database, Tivoli Information Management for z/OS format, read only

5

Tivoli Information Management for z/OS database, read/write

6, 7, 8, 9

User databases, Tivoli Information Management for z/OS format, read only

=c Specifies the logical file to be searched (MVS or VM databases only). One or more alphabetic characters can be entered, with no spaces between them. An SBCS asterisk (*) can be used to specify all logical files of a database.

=nc Specifies both the database and the logical files. The equal sign (=) is required. No spaces are allowed between the equal sign (=), the n, and the c values.

=n* Specifies the database to be searched and that all logical partitions that you have access to should be searched. The equal sign (=) is required. No spaces are allowed between the equal sign, the n value, and the *. Only databases 5, 6, 7, 8 and 9 are valid for the n value.

argument

Specifies a new argument to define the search rather than the current argument.

+ argument

Indicates that the specified argument is to be appended to the end of the current argument.

The =c value is ignored if database 5 is used. If both the =n and =c values are omitted and the command is of the form “SEARCH argument”, the default values used for the database and logical files are obtained from your user profile, which contains valid values for these fields.

When both the =n and =c values are omitted, and the command is of the form “SEARCH” or “SEARCH + argument”, the default values used for the database and logical files are the same as those that were used in the previous SEARCH command. When no active search prompting sequence is in effect for the previous SEARCH command, the database and logical files are obtained from your profile.

If you are using logical database partitions and you want to search all partitions that you have access to in a database, you must specify the database number with an asterisk (for example, SE =9*).

Note: The SUSPEND command begins a new prompting sequence. At the start of a new prompting sequence, no prompting sequences are active. That is, any active search prompting sequences in the old prompting sequence are suspended, not active. Thus, a SEARCH command issued in a new prompting sequence obtains its default =n and =c values from your profile if they are not specified on the command.

Entering Search Keywords

A search argument, if specified on the SEARCH command, consists of search keywords separated by logical operators. The logical operators are as follows:

Operator	Function
AND (space)	Logical AND
OR ()	Logical OR
NOT (¬)	Logical NOT
hyphen (-)	Range operator, specifies range of values

An SBCS space, hyphen (-), vertical bar (|) and NOT (¬) symbol at the beginning of a keyword is interpreted as a search operator. See “Using Search Operators” on page 205 for additional information on how to use these operators.

Note: The SBCS slash (/) or underscore (_) characters may be interpreted by Tivoli Information Management for z/OS as part of a p-word, so avoid using search arguments that have the slash or underscore characters as anything other than part of a p-word.

Depending on your SDIDS key length, only the first 16 or 32 characters, including any prefix, of a keyword are used; any additional characters are truncated.

When searching the MVS database, do not use keywords longer than 12 characters.

You can further control which panel shows the search results list by use of the TABLE command (see page 145) or by your profile setting for the Default Search panel. The program administrator for your installation can modify the panel on which the search results list is displayed (change control panel BLG1A201). This modification can also include a sort. When no sort is performed, the search results list is shown in the order that the records

exist on the SDDS. This order is not necessarily the order in which the records are entered into the database. Refer to the *Tivoli Information Management for z/OS Diagnosis Guide* for details about database architecture.

A keyword can contain any character. The keyword is used exactly as you specify it in the search argument.

However, if you are doing a freeform search of the DESCRIPTION field in records, or any other literal string field, note the following special situation. When you are searching for a keyword containing any SBCS character other than:

- A through Z
- 0 through 9
- #
- \$
- @, or
- &

then you must use a blank in place of those special characters. (If you are doing a structured or quick search, you can use any of the special characters except a period, because the period is translated to a blank.)

Note: If you are doing a freeform search on a string field that is stored for searching (that is, cognized) as an unparsed string, and the field contains any SBCS character other than those listed above, do not use a blank for that character. Enter your freeform search argument with the character as it would have been entered in the record; for example, se pera/0'Malley or se pera/Davis-Jones. For more information about searching on string fields that are cognized as unparsed strings, see “Searching Fields Containing Blanks” on page 217.

When you are searching freeform for the keyword 1.2.3 in a description field, you must specify it as **1 2 3**, with a blank replacing each period. Or, if you are searching for 3/9/97, specify **3 9 97**.

Note: This restriction does not apply when the SBCS Katakana code page is used rather than the SBCS English code page.

A period (.) (either SBCS or DBCS) at the end of a keyword specifies an abbreviated search.

For example, the keyword “XYZ.” causes all keywords beginning with XYZ to be used in the search, while a DBCS keyword “<WAWBWCW.>” causes all keywords beginning with <WAWBWC to be used in the search.

Note: Tivoli Information Management for z/OS limits the number of records in a search results list to 32 767. If you create a search results list with more than 32 767 records, Tivoli Information Management for z/OS displays only 32 767 records.

In general, searches on data are not case sensitive and you typically do not have to care about what case you use when you are entering your search argument because Tivoli Information Management for z/OS translates the arguments to uppercase before it does the search. However, if your program administrator has defined certain fields to be case sensitive for searching, you need to enclose the search arguments for those fields within single quotation marks. The single quotation marks serve to tell Tivoli Information

Management for z/OS that it needs to look for an exact case match on the argument. For example, if the Assignee Name and System Name fields are case sensitive for searching, your search argument would include single quotation marks (e.g., search 'PERA/Wilson' 'NASY/Acctg') around each prefix word/field pair. Ensure that the prefix words are entered in uppercase. For more details on searching mixed case data, see “Searching Mixed Case Data” on page 216.

When you construct a search argument, consider whether the SDIDS key is 18 bytes or 34 bytes. With an 18-byte key, your search argument can be up to 16 bytes long. With a 34-byte key, your argument can be up to 32 bytes long. A fully qualified search argument written for an 18-byte SDIDS can obtain different results when used with a 34-byte SDIDS. To get the same results on a 34-byte SDIDS as you did on an 18-byte SDIDS, use the same fully qualified search argument written on your 34-byte SDIDS as you used on your 18-byte SDIDS, but add a period to the end of it to make it an abbreviated search on your 34-byte SDIDS. Refer to the *Tivoli Information Management for z/OS Planning and Installation Guide and Reference* for more information about the length of the SDIDS key.

An asterisk (*) (either SBCS or DBCS) within a keyword causes the search mechanism to ignore that character position when performing a keyword match. An asterisk cannot be the first character of a keyword.

Note: Shift-out (SO) and shift-in (SI) characters are not ignored by this operator.

— SORT Command —

```
Sort [ column ] [ A | D ]
```

Use the SORT command to sort data in the columns on a table list processor panel.

column

Specifies which column of data on the panel you want to sort. (The line command column is not included.) The default is the first data column.

A | D Specifies whether you want to sort in ascending or descending order. The default is ascending order.

For example,

- SORT (Sorts column 1 in ascending order.)
- SORT 3 (Sorts column 3 in ascending order.)
- SORT D (Sorts column 1 in descending order.)
- SORT 2 D (Sorts column 2 in descending order.)

Note: If the data is stored in mixed case format for searching, the data is sorted as if it is all uppercase.

— STATISTICS Command —

```
STatistics
```

Use the STATISTICS command to view the statistics associated with the most recent pending or active search. This data does not appear on the search results list display.

The format of the statistics display depends on whether the search was performed against a database that does not have logical files (such as the Tivoli Information Management for z/OS database), or against a database that contains logical files (such as the MVS or VM databases).

The statistics display for a search against a database without logical files shows the following:

Search Keywords

The keywords used in the argument.

Nest Level

The level at which a keyword is nested. This is determined by the keyword's location in relation to any parenthetical units being used in the search argument.

Number of Keyword Matches

The number of times the keyword was found in the database.

Sub-Arg Matches

The number of matches which result from the keywords in the current nest level.

Cumulative Matches

The number of matches that would have resulted if the search ended with the current keyword or parenthetical unit.

Number of Forms

For most keywords, this number is 1. However, for keywords that were entered with the ignore character (*), the truncation character (.), or the range operator (-), this is the number of unique words that matched.

In addition to the above columns, the statistics display for searches against databases with logical files contains the following information:

Logical Files

The number of matches found in each logical file searched.

Matches in the Previous Files

The number of matches found in the logical files specified for each keyword searched.

Matches in All Files

The number of matches found in all logical files for each keyword searched.

The STATISTICS command is not valid when the current prompting sequence does not have an active or pending search prompting sequence.

Note: If you are using logical database partitioning, use of the STATISTICS command should be restricted. Refer to the *Tivoli Information Management for z/OS Program Administration Guide and Reference* for information on how to use the command alias and authorization function to restrict the use of a command, and for additional information on logical database partitioning.

Reading Command Syntax

The following panel shows an example of the structured search statistics screen for an argument using universal time fields of 04/03/2000 in the US Eastern Time time zone. The structured search processing code would convert this relatively simple search into the following argument:

```
((DATO&2000/04/03 TIMO&04:00 - TIMO&23:59|(-TIMO&.))|(DATO&2000/04/04 TIMO&00:00 - TIMO&3:59))
```

The search statistics screen for a search for this date will appear as follows:

BLG1TSTA		SEARCH STATISTICS				LINE 1 of 16	
DATABASE: 5		TOTAL MATCHES: 00000024					
SEARCH KEYWORDS	NEST LEVEL	KEYWORD MATCHES	SUB-ARG MATCHES	CUMULATIVE MATCHES	NUMBER OF FORMS		
INQUIRY	0	450	0	450	1		
RECS=PROBLEM	0	259	0	242	1		
VISIBLE PHRASE NOT AVAILABLE	0	188	0	173	1		
(1						
(2						
DATO&2000/04/03	2	24	24	173	1		
TIMO&04:00-TIMO&23:59	2	136	20	173	41		
	3						
-(TIMO&.	3	314	314	173	50		
)	3	0	314	173	0		
)	2	0	20	173	0		
	2						
DATO&2000/04/04	2	4	4	173	1		
TIMO&00:00-TIMO&3:59	2	35	4	173	9		
)	2	0	4	173	0		
)	1	0	24	24	0		

Type DOWN or UP to scroll the panel, or type END to exit the panel.

====>

SUSPEND Command

SUSPEND

The SUSPEND command allows you to interrupt the current prompting sequence to begin a new prompting sequence. The Primary Options Menu for the current product setting is the starting point for the new prompting sequence. Your position in the current prompting sequence is saved; no data is lost. To return to this prompting sequence later, use the RESUME command. The SUSPEND command causes a message to be displayed on the Primary Options Menu that indicates the suspension level of the new prompting sequence. For the first suspended prompting sequence (one SUSPEND command issued), this is suspension level one; for the second suspended prompting sequence (two SUSPEND commands issued), this is suspension level two; and so on.

Upon entering the new prompting sequence, your privilege class, product settings, and profile settings are the same as they were in the old suspended prompting sequence.

If you issue the SUSPEND command while you are updating the profile, and you have not saved the changes, none of the changes are carried into the new prompting sequence.

You can enter the SUSPEND command up to 255 times before issuing any RESUME command. Each time the current prompting sequence is suspended, a new Tivoli Information Management for z/OS prompting sequence begins. Be careful when you nest prompting sequences very deeply, because each suspended prompting sequence retains the resources it holds (such as virtual storage) until it is stopped by a RESUME command.

To determine the current suspension level, issue the HELP STATUS command.

TABLE Command

Table [pnlname | Reset]

Use the TABLE command to specify an alternate table panel for displaying a search results list.

pnlname

The name of the panel that is to display any future search results lists for the current Tivoli Information Management for z/OS session.

The panel name must be an SBCS string of 1 to 8 characters. The first character must be alphabetic, and the rest of the string may contain alphanumeric or @, #, \$ characters.

Note: Whichever code page is used, use the X'5b' code point for that code page rather than the \$.

Reset

Indicates that the profile value for a default search results list be used for displaying any future SEARCH command results for this Tivoli Information Management for z/OS session.

Note: Tivoli Information Management for z/OS limits the number of records in a search results list to 32 767. If you create a search results list with more than 32 767 records, Tivoli Information Management for z/OS displays only 32 767 records.

If a search results list exists (if you can issue a series of BACK, END, or CANCEL commands to return to a search results list) when you issue the TABLE command with a panel name, the system displays the search list on the panel specified by the TABLE command.

When you issue the TABLE command and there is no current search results list, the panel name that you specified with the TABLE command is stored and used whenever a SEARCH command is issued from now until you log off Tivoli Information Management for z/OS, or until you issue the TABLE RESET command.

When you specify a panel name on the TABLE command, the program does not verify it for existence or for actually being a table panel until you use this panel for the SEARCH command.

The following factors (in order of precedence) determine which panel is used to display search results lists:

- When you issue the TABLE command with a panel name, the named panel is used until you issue TABLE RESET or issue another TABLE command.
- When you have not issued the TABLE command, or when you issue TABLE RESET, the default search panel in your profile is used. When the default search panel in your profile is blank, then panel BLG1A201 is used to determine which panel is used.

When you issue the TABLE command without an operand, Tivoli Information Management for z/OS attempts to determine which panel you want to use. When there is only one possible panel, it is used. When there is more than one possible panel, the system displays a scrollable list of panels. You can select a panel from this list. Control panel BLG1ATBL contains this list of one or more table panels for use at your installation. You can modify the list to accommodate the needs of your installation.

TRACE Command

```
TRace [ ON [ Nolink ] [ ignore | Keep ] | OFF ]
```

Use the TRACE command to trace the flow of the control lines being processed by one or more TSPs or TSXs. You can trace all the control lines processed in a single TSP or TSX and can include control lines processed by any other TSP or TSX that is started with the LINK control line or the 002B function code.

If you use the TRACE command with a TSX, the processing of control lines and REXX statements is traced; however, you must ensure that the TSX contains the appropriate statements to turn on tracing. For example, the TSX should include an `if blgtrace=1 then` statement, the REXX trace command, and appropriate REXX trace command options. For an example of these statements, refer to any TSX provided in the SBLMTSX data set. The SBLMTSX data set contains TSXs shipped with Tivoli Information Management for z/OS.

After it is activated, TRACE remains in effect until you turn it off.

No operands are required for the TRACE command. When no operands are specified, the default is ON. The valid operands are as follows:

ON Specifies that tracing should begin when a TSP or TSX is encountered and should continue when other TSPs or TSXs are encountered, either by a LINK control line or an 002B function code. If you are tracing a TSX, you must also ensure that the TSX contains the appropriate statements to turn on tracing.

OFF Specifies that tracing should be stopped.

NOLINK

Specifies that the trace command should not trace linked-to TSPs or TSXs.

IGNORE

Specifies that the trace control lines in a TSP will be overridden by the TRACE command. This operand does not apply to TSXs.

KEEP Specifies that TSP trace control line settings will override the TRACE command. This operand does not apply to TSXs.

Note: Running traces on multiple sessions concurrently can produce unexpected results. This applies to the TRACE command as well as the TRACE control line. Contact your program administrator or refer to the *Tivoli Information Management for z/OS Terminal Simulator Guide and Reference* for more information.

UP Command

UP [nnnnn | Csr | Half | Page | Max]

Use the UP command to scroll toward the top of a table display. This means that data disappears from the bottom of your scroll area.

The UP command is not valid if it is issued anywhere except on a table display. The operand or keyword indicates the amount of the scroll. If no operand is specified on the command, the default vertical scroll amount from your profile is used. The operands are mutually exclusive.

When the scroll amount specified would scroll beyond the top of the data, scrolling ends when it reaches the top of the data.

nnnnn

Specifies the number of logical lines to be scrolled. The number can be from 0 to 32 767. A negative number cannot be specified.

Csr Specifies that the logical line in the scroll area marked by the cursor should be scrolled as close to the bottom of the scroll area as possible, while still ensuring that the top line in the scroll area starts with the beginning of a logical line. The cursor's position is moved along with the data to the bottom.

When the cursor is located outside the scroll area (on the message line, for example) when the UP CSR command is issued, a full-page scroll occurs instead, and the cursor moves to the command line.

When the cursor is located in the first logical line of the scroll area when the UP CSR command is issued, a full-page scroll occurs instead, and the cursor moves to the command line.

Half Specifies that the scroll area is to be moved such that half of the physical lines shown in the area are scrolled off the bottom of the screen.

When the table panel's definition indicates that the set of columns defined in the table panel for display are to be vertically repeated, an UP HALF command applies to half of all the physical lines contained in all of the vertically repeated columns on the screen.

Page Specifies that the scroll area is to be moved such that all of the physical lines shown in the area are scrolled off the bottom of the screen. For example, if folding is in

effect, and the current screen shows four complete logical lines and part of a fifth, the PAGE keyword results in scrolling five logical lines. The scrolling process ensures, if possible, that you never skip a line of data while doing a PAGE scroll.

When the table panel's definition indicates that the set of columns defined in the table display are to be repeated, an UP PAGE command applies to all the physical lines on the screen contained in all of the repeated columns.

Max Specifies that the scroll area is to be moved to the top of the data. The ***TOP OF DATA*** line is the first line displayed on the screen.

UPDATE Command

```
UPDate [ R [ id ] ]
```

Use the UPDATE command to start the same update prompting sequence. See “Updating a Record from the Primary Options Menu” on page 67 for an example of the prompting sequence. You must have the correct privilege class authority before you can update a record.

When you specify the record ID, the record is brought into storage from the default database specified in your profile. When you omit the record ID, Tivoli Information Management for z/OS prompts you for it.

When you finish updating the record, you are returned to the panel where you issued the UPDATE command.

The record ID is a 1- to 8-character mixed data alphanumeric (user-specified) or decimal (Tivoli Information Management for z/OS-assigned) string. This data can consist of DBCS data and SBCS English. You cannot use SBCS Katakana. Leading zeros are omitted for a decimal string. A blank separating the R operand and the record ID is optional.

The UPDATE command is not valid when the specified record is already being updated, whether by you or by another user.

When you enter the update function and want to exit without modifying the record, you issue the CANCEL command.

Note: If you are using logical database partitioning, you may have access to records in different logical partitions that have the same RNID. You cannot use the UPDATE command to update records with duplicate RNIDs. However, you can update them using the update line command on a search results list. Refer to the *Tivoli Information Management for z/OS Program Administration Guide and Reference* for additional information.

VIEW Command

```
View [ Argument ] [ Internals ] [ON | OFF]
```

Use the VIEW command to review the collected data for either the current record or the current search argument.

The VIEW command lists all of the items collected thus far during the prompting sequence for the current item.

Using VIEW, you can keep track of the data in the record or the keywords in the search argument, and the order in which they were collected during the prompting sequence. The item to be viewed and the format of the display depend on which operands, if any, you specify. You can specify any of the operands. You can specify VIEW INTERNALS ARGUMENT or VIEW ARGUMENT INTERNALS, as well as issuing VIEW and just one operand at a time. When you omit all the operands, the system displays the current item being processed in external form.

Argument

Specifies that the current search argument is to be displayed. When there is no current search argument, the search argument displayed is blank. A message explains this.

Internals

Specifies that the collected data for either the current search argument or the current item being processed is to be displayed in internal format. This format contains debugging information that was collected by panels and stored in an internal control block. The information consists of:

- The name of the panel on which the information was collected.
- The type of panel on which the information was collected.
- The response number that you specified on the panel that collected the data, if such a response number is applicable.
- The level of the panel.
- Cognize settings:
 - N if nothing is cognized
 - B if both the s-word and p-word are cognized
 - P if only the p-word is cognized

The cognize case indicator is separated from the setting by a slash character. If there is a p-word and it is cognized, the cognize case indicator is U or M:

- U for uppercase
- M for mixed case

An asterisk (*) following the U or M indicates the field is also cognized as an unparsed string. For more information about cognizing data in mixed case see “Searching Mixed Case Data” on page 216. For information about cognizing data as an unparsed string, see “Searching Fields Containing Blanks” on page 217.

If the p-word does not exist or if it is not cognized, the cognize case indicator is blank.

For example:

- N/ indicates no cognizing

- P/M indicates just the p-word is cognized, and it is cognized in mixed case
- B/ indicates full cognizing, but no p-word exists.
- Three flag bytes from the internal control block that indicate the type of information collected by the panel: maintenance information concerning the section of panel flow where the information was collected (F); the collection mode of Tivoli Information Management for z/OS (M); and prompting sequence control information (D). The flags are defined in the *Tivoli Information Management for z/OS Diagnosis Guide* and in the *Tivoli Information Management for z/OS Reference Summary*.
- The index into the dictionary data set for the s-word.
- The s-word collected for the panel, if that panel collected one.
- The prefix and its associated data collected by the panel if the panel collected a p-word, or the visible data for the s-word if the panel collected an s-word instead of a p-word.

| As is shown in the following panel, if the field is a date or time field, then a value
| will appear multiple times.

- If universal time has not been enabled, two values will be given:
 - The value provided by the user that entered the data in internal format
 - The same value in the current user's external format
- If universal time has been enabled, three values will be given:
 - The value in universal time (internal format)
 - The value in the time zone of the user that entered the data (internal format)
 - The value converted to the current user's time zone in the current user's external format

```

BLG1TVID                                VIEW INTERNAL DATA                                LINE 33 OF 51

PANEL   PANEL REL COG-  FLAGS   SWORD  STRUCTURED  PREFIX WORD OR
NAME    TYP/RSP  LEV NIZE  F  M  D  INDEX   WORD        VISIBLE PHRASE

BLGCFILE S/    00 B/   99/04/10 S0000 BC ISSCPR002 MANAGEMENT
BLGCFILE C/  2 00 N/   8D/04/10 S0000 BC IM00SST00 B5642F31F0C76889
BLGCFILE C/  2 00 N/   8D/04/10 S0000 BC IM00SST01 B56BF73CDAF9FC7
BLGCADR N A/  2 00 B/U  8D/04/10 S0000 BC IM00NR001 RNID/00000471
BLG0BU00 D/  2 21 B/   19/00/08 S0CFD BC IMDIASTA0 Status data
BLG0B200 D/  7 21 N/   41/00/08 S0C37
BLG6ASSD A/  4 21 B/U  0D/04/00 S0C37 BC IM00SDA00 DATA&2001/02/20
                                          DATA/2001/02/19
                                          DATA/02/19/2001

BLG0B200 D/  8 21 N/   41/00/00 S0C64
BLG6ASST A/  4 21 B/U  0D/04/00 S0C64 BC IM00SDA00 TIMA&02:30 TIMA/21:30
                                          TIMA/21:30

BLG0B200 D/  5 21 N/   41/00/08 S0C3E
BLG6DATX A/  3 21 B/U  0D/04/00 S0000 BC IM00SD002 DATX/2001/02/17 DATX/02
                                          /17/2001

BLG0B200 D/  5 21 N/   41/00/00 S0C3E
BLG6TIMX A/  3 21 B/U  0D/04/00 S0000 BC IM00ST00F TIMX/09:00 TIMX/09:00
BLG0B200 D/  E 21 N/   01/00/08 S000A
BLGSDBCP D/  0 21 N/   19/00/5C S0CF1 BC ISSCPN009 File record
*** BOTTOM OF DATA ***

Type DOWN or UP to scroll the panel, or type EXIT to exit the panel.

===>

```

ON/OFF

Activates and deactivates the viewing of data in a record at file time, both before and after data compression. You can issue these operands at any time during a Tivoli Information Management for z/OS session.

VIEW ON sets up conditions so that whenever you file a record, you see a View Internals type format of the record. If you never file a record while **VIEW ON** is active, then you never see the file time displays. **VIEW OFF** discontinues the file time displays.

If you issue **VIEW ON** when this function is already active, the system ignores this request; similarly, when you issue **VIEW OFF** and this function is not active, the system ignores this request.

If all the operands are omitted, the current item being processed is displayed in external format. The current item can be:

- A search argument that you are building
- A record that you are creating
- A record that has been read from a database
- The data that is being collected by the profile prompting sequence

The format of the external display is similar to that used by the **ARGUMENT** command.

You can view three kinds of items: visible data, p-words, and freeform words. The visible data correspond to the s-words that were collected during the prompting sequence. The p-words and freeform words might have been collected during the prompting sequence or might have come from a prior **SEARCH** or **ARGUMENT** command. When an authorization code is assigned to a record field, the p-word associated with that field appears on the

VIEW EXTERNALS display only if the current privilege class is MASTER. Any search operators present in the search argument are also shown on this display.

WINDOW Command

```
Window  {[ QUERY | QUERY PROFILE ] | [ SAVE | SAVE PROFILE]
         [ STANDARD ] | [ ENHANCED ] | [ window-name ] |
         [ CONTROL { AUTO | USER } ] }
```

Use the WINDOW command to query or change the ISPF panel style that displays Tivoli Information Management for z/OS panels. A runtime value for WINDOW is stored in memory. The profile is used to store a window value across sessions. The WINDOW command can also be used to query and change the window control setting. For more information see the CONTROL operand, below.

The WINDOW command uses one of the following required operands:

QUERY

Specifies that the current window name in use should be displayed. If the QUERY operand is followed by the PROFILE operand, then the window name stored in your profile is displayed.

Window [QUERY | QUERY PROFILE]

SAVE Specifies that the current value of window name should be stored in your profile. WINDOW SAVE PROFILE and WINDOW SAVE both mean save the current window name.

Window [SAVE | SAVE PROFILE]

STANDARD

Specifies that the standard window style without action bars and keylists is to be used for your display. The window name is changed to BLGISPFD.

Window [STANDARD]

ENHANCED

Specifies that the enhanced window style with action bars and keylists is to be used for your display. The window name is changed to BLGISPFE.

Window [ENHANCED]

window-name

Specifies a new window to be used to display panels. For example, WINDOW MYOWN changes the window setting to MYOWN. The window name specified must correspond to a valid ISPF panel in the ISPLIB file.

Window [window-name]

CONTROL

Specifies whether windows should change automatically.

■ AUTO

If control is set to AUTO, then any window supporting auto control, is enabled to do so. An example of auto control would be if, when you display a search

results list, you see an action on the action bar for SEARCH, but when you leave the list, the action is no longer there. This is accomplished by the window changing automatically.

■ **USER**

Entering WINDOW CONTROL USER or WINDOW window-name sets an indicator that prevents automatic window switching.

Window [CONTROL {AUTO | USER}]

If you enter the CONTROL operand on the WINDOW command, you must also enter either the AUTO or the USER operand.

Line Command Summary

COMMAND

DESCRIPTION

A	After, or Add a line to the end of the dictionary
Ann	Add the number of lines specified by nn to the end of the dictionary
B	Before
C	Copy
Cnn	Copy the number of lines specified by nn
D	Delete
Dnn	Delete the number of lines specified by nn
E	Execute, or Erase contents of a line
Enn	Erase contents of lines specified by nn
F	From a list processor table, access a sublist table of one or more data fields
I	Insert
Inn	Insert the number of lines specified by nn
L	Line entry (table list panels only) or Lengthen (freeform text using INFO editor only)
Lnn	Line entry on table list panels in the column number specified by nn
M	Move
Mnn	Move the number of lines specified by nn
P	Print
R	Repeat
Rnn	Repeat the number of lines specified by nn
S	Display (select)
U	Update

Block Line Commands

When you want to perform a task with a block of records listed on a panel, or a block of lines, use doubled line commands. Enter the block command at the beginning of the first line and last line of the block that you are working with. They are:

cc	Block copy
dd	Block delete
mm	Block move
pp	Block print
rr	Block repeat
ss	Block display
uu	Block update

Entering Line Commands

Line commands are issued on table displays, such as the Search Results List, Control Line Summary, and SRC panels. They are entered in the area to the left of the sequence number, in front of the record ID. All line and block commands must be entered using SBCS characters only.

Depending on the type of panel, line commands manipulate lines or records, and they are quicker and easier to use than the other Tivoli Information Management for z/OS program commands. They cannot be used on all panels. When you display a panel on which line commands can be used, the valid commands are listed at the bottom of the panel.

For example exercises, see “Understanding Line Commands” on page 178.

8

Understanding Special Types of Records and Fields

This section explains some of the special types of records and fields you work with as you use other books in the Tivoli Information Management for z/OS library.

Parent/Child Record Relationships

In some of the Tivoli Information Management for z/OS facilities you can link records to other records. These **child** records are created by updating the **parent** record. A parent record can have more than one child record.

The *Tivoli Information Management for z/OS Problem, Change, and Configuration Management* and *Tivoli Information Management for z/OS Desktop User's Guide* both discuss the creation and use of child and parent records. For now, just remember that child records are linked to parent records. If you delete a parent record, you also delete all child records linked to it.

Required Fields

When you create or update a record, you may be required to enter data in certain fields. These required fields are identified with the symbol **<R>** on the data-entry panels. You have already worked with required fields on page 56. The control information associated with a field determines whether or not the field is required.

You must enter data into required fields to complete the task you are performing. By establishing required fields, your organization ensures that a certain minimum amount of information is collected to make the record data useful.

Automatic Entry of Fields

Tivoli Information Management for z/OS facilities complete certain data fields automatically when a record is filed. Some of these fields are date entered, time entered, entry privilege class, date last altered, time last altered, and user ID last altered. Automatic data-entry is useful for tracking when changes were made to records and who made them.

In addition, by setting data definition defaults in your profile, you can have Tivoli Information Management for z/OS automatically supply the user's name, user's phone, and user's department fields on the data-entry panels when you type an equal sign (=) in those fields.

Other fields, such as the application name, any record ID not assigned by a user, the start panel for SRC records, and the approval status for change records, are filled in automatically.

Journal Fields

Tivoli Information Management for z/OS keeps track of changes to data fields that are identified as history items. These fields are identified by an <H> when you are in display mode. Whenever data is entered or updated in the field, the date, time, and user making the changes are recorded with the record data. If data is deleted from the field and the field has a prefix, the date, time, and user deleting the data are recorded in the record. All of this history data is maintained as long as the record is kept in the database.

Your organization can use this journalized data to create reports or to keep a journal of how changes were made to certain types of data.

Record Identifiers

In most cases, each record stored in the database has a unique identifier. If you are using logical database partitioning, it is possible to have records with identical RNIDs in the same database, though not within the same partition of that database. Records within a partition must have a unique RNID. More information on logical database partitioning can be found in *Tivoli Information Management for z/OS Program Administration Guide and Reference*.

You can assign an identifier to a record when you create it. In most cases, if you do not assign an identifier, Tivoli Information Management for z/OS assigns one automatically. An exception to this is most configuration records, which require a user-assigned identifier.

If you assign an identifier to a record, it must be a string of 1 to 8 bytes, beginning with an SBCS alphabetic or shift out (SO) character. If SBCS characters are used in the remaining part of the string, they must be alphanumeric characters or the special characters #, \$, /, & and @. (If your installation uses the SBCS Katakana code page, the special characters will be #, ¥, /, & and @.) If you do not assign an identifier, Tivoli Information Management for z/OS assigns an 8-digit SBCS numeric identifier.

Your organization might already have a method for numbering records. Ask your program administrator, and then record your local numbering method on page 266.

Text Control Data Fields

You can enter freeform text descriptions for most records. You can enter notes and additional information about the record. Tivoli Information Management for z/OS facilities keep track of changes to freeform text as they do with journal fields. For each line of freeform text, certain data is collected that identifies who entered or updated the data, and when.

Editing Freeform Text

Tivoli Information Management for z/OS gives you a choice of editors to use for editing freeform text: the Tivoli Information Management for z/OS (Info) editor, the ISPF/PDF editor, or a workstation text editor.

The session control defaults specified in your user profile determine which editor to use when you are working with freeform text. The session defaults part of your profile contains

two editor selection fields. In one of these fields you can choose your default editor, and in the other, you can specify whether or not to use the Tivoli Information Management for z/OS editor when you are working with SRCs and TSPs. See “Modifying Your User Profile” on page 41 for more information about user profiles. If you are working with SRCs and TSPs that were created to use the Tivoli Information Management for z/OS editor, then you must continue to use the Tivoli Information Management for z/OS editor when you work with them. If they were created to use the ISPF/PDF editor, then you must use that editor. If an SRC that was created with the Tivoli Information Management for z/OS editor is run while another editor is specified in your profile, the SRC may not run correctly, and the results you obtain may not be valid. You set the **INFO for SRCs/TSPs?** field in your user profile to avoid this problem.

If you use the ISPF/PDF editor for freeform text, Tivoli Information Management for z/OS allocates a temporary data set with a name in the following format:

SYSyyddd.Thhmmss.RA000.jjobname.Tmmss.Hgg

- yy** The year in which the data set was created
- ddd** The Julian day that the data set was created
- hh** The hour that the data set was created
- mm** The minute that the data set was created
- jjobname**
The TSO userid
- ss** The second that the data set was created
- gg** The value 01 or, in a sysplex environment, the system identifier

If you use a workstation editor for freeform text, Tivoli Information Management for z/OS allocates a permanent data set with a name in the following format:

userid.Dyyyyddd.Thhmmss.BLGTEXT

- userid** The prefix (&ZPREFIX) specified on your TSO profile or the TSO user ID (&ZUSER) if the prefix was not available
- yyyy** The 4-digit year in which the data set was created
- ddd** The Julian day that the data set was created
- hh** The hour that the data set was created
- mm** The minute that the data set was created
- ss** The second that the data set was created

Tivoli Information Management for z/OS allocates the data set with the following allocations if no freeform text has been entered previously:

DCB Parameters:

- Data set organization** =Sequential
- Device type** =DASD
- Record format** =Fixed block
- Block size** =132

Space Allocations:

Block length	=32K
Primary blocks	=2
Secondary blocks	=1

If freeform text exists already, Tivoli Information Management for z/OS allocates the data set with the previous allocations, except that the primary blocks may be larger.

If you encounter problems using RECOVERY with the ISPF/PDF editor, copy the ISREDRT member of your ISPF profile data set to that data set's BLG0EDRT member.

Preserving the Audit Trail for Freeform Text

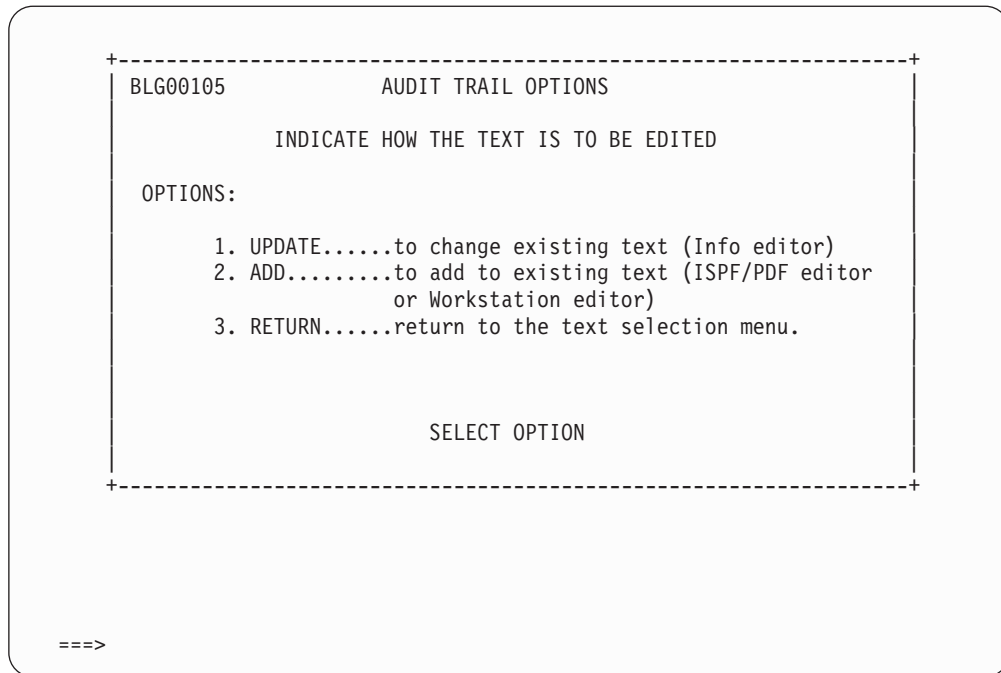
If you use the ISPF/PDF editor or a workstation editor, Tivoli Information Management for z/OS commands are not valid while this editor is in control. When you close the ISPF/PDF editor, control is returned to the Tivoli Information Management for z/OS editor.

The audit trail for freeform text cannot be preserved if an entire record is edited using the ISPF/PDF editor. If you update the freeform text in an existing record using the ISPF/PDF editor, the text control data fields in the record are lost when you file it. Only the current control information is filed with the record.

A program administrator can control the use of the ISPF/PDF editor by using the TEXTAUD keyword in the BLGPparms session parameters member macro. If you attempt to edit freeform text in a record and the TEXTAUD keyword is specified as YES in BLGPparms, panel BLG00105 will appear. You can select the type of edit (add or update) that you want to perform on the text. For more information about BLGPparms, refer to the *Tivoli Information Management for z/OS Planning and Installation Guide and Reference*.

Select UPDATE to update the existing text using the Tivoli Information Management for z/OS editor. The text audit trail is preserved.

Select ADD and you are presented with a blank ISPF/PDF text panel on which you can enter text that is appended to the existing text in the record. When you file the record, your new text is added to the end of the existing text with the control information from this editing session.



Regardless of whether the Tivoli Information Management for z/OS (Info) editor, the ISPF/PDF editor, or the workstation editor is used, the audit trail from previous sessions as well as the information from this editing session is preserved.

Table 1 and Table 2 on page 160 summarize the possible combinations of conditions and selections that determine which freeform text editor will be used.

Table 1. Editor Selection under Various Circumstances

Switch/Selection	Settings				
Profile editor selection	Tivoli Information Management for z/OS	PDF or Workstation	PDF or Workstation	PDF or Workstation	PDF or Workstation
Session text selection (TEXTAUD)	N/A	Yes	Yes	Yes	No
Text exists	N/A	No	Yes	Yes	N/A
BLG00105 response	N/A	N/A	1	2	N/A
Resulting editor	<i>Tivoli Information Management for z/OS</i>	<i>PDF or Workstation</i>	<i>Tivoli Information Management for z/OS</i>	<i>PDF or Workstation</i>	<i>PDF or Workstation</i>

Profile editor selection

Refers to the editor choice you made in your profile.

Session text selection

Refers to the TEXTAUD session-parameter member keyword.

TEXTAUD indicates whether an audit trail for freeform text is to be maintained in the case where the ISPF/PDF editor is started for a record that already contains the requested type of text.

Text exists

Indicates whether the record being updated has freeform text of the requested type.

BLG00105 response

Indicates your response to panel BLG00105 in which you select 1 to UPDATE the text and 2 to ADD to the text.

To further understand the determination of editors as presented in Table 1 on page 159, consider the following example. It illustrates how you might prefer one editor, but not be able to access that editor.

If all of the following conditions exist:

- Your profile editor selection has editor = PDF
- Your session-member has TEXTAUD = YES
- The requested record already has text of the requested type
- You select 1 UPDATE from panel BLG00105, indicating that you want to update the existing text,

then your resulting editor will be the Tivoli Information Management for z/OS editor.

Table 2 shows how the editor selection and SRC generation/execution and TSP execution interact.

Table 2. Editor selection when SRCs or TSPs are used

Profile Switches	SRC Generation		
Text switch	Tivoli Information Management for z/OS	PDF or Workstation	PDF or Workstation
INFO for SRCs/TSPs?	N/A	Yes	No
Resulting editor	<i>Tivoli Information Management for z/OS</i>	<i>Tivoli Information Management for z/OS</i>	<i>Generation ends</i>

Profile Switches	SRC Execution or TSP Execution		
Text switch	Tivoli Information Management for z/OS	PDF or Workstation	PDF or Workstation
INFO for SRCs/TSPs?	N/A	Yes	No
Resulting editor	<i>Tivoli Information Management for z/OS</i>	<i>Tivoli Information Management for z/OS</i>	<i>See previous table</i>

Text switch

Refers to the editor selection in your profile.

INFO for SRCs/TRCs?

Refers to the **INFO for SRCs/TSPs?** field on the profile summary Session Defaults panel (YES indicates use the Tivoli Information Management for z/OS editor for SRCs and TSPs).

Resulting editor

Refers to the editor that will be used to edit freeform text.

Tivoli Information Management for z/OS offers you the option of specifying an invocation macro for the PDF editor. Ask your program administrator whether an invocation macro exists for the PDF editor and how to use it.

Repairing Mixed Data

If you use DBCS data, it is possible that mixed data that is not valid can be created by using the ISPF/PDF editor. If mixed data that is not valid is found, it will be repaired as follows:

- Unpaired SO/SI character pairs are replaced with SBCS spaces.
- DBCS characters that are not valid are replaced by the DBCS character X'4242'.
- Any DBCS portions containing an odd number of bytes are repaired by removing the byte immediately preceding the SI at the end of the portion.

9

Obtaining Information from a Database

This chapter tells you:

- How to search a database for records by doing a structured search from the Primary Options Menu
- How to search a database for records by doing a quick search from the Primary Options Menu
- How to generate a report.

Note: A third type of search, the *freeform* search, is explained in “Learning More about Obtaining Information from a Database” on page 191. Information about searching *freeform text* (paragraph style text) is provided in “Searching Freeform Text” on page 229.

Searching for Information

Whenever you want to obtain data from a database, you have to define what kind of data you want. You cannot look at every record individually to find the data; some databases contain thousands of records. Therefore, you tell Tivoli Information Management for z/OS what kind of information you want and let it do the searching for you.

For example, you might want to display a list or create a report of all the records that contain data about problems reported by Holloway. When you define your search, you indicate that you are looking for problem records, and that in these records you are looking for data about who reported the problem, and the person reporting the problem is Holloway.

You must also specify which database you want to obtain information from. If you use one database frequently, you can specify that database number as a default in your user profile, so you need not specify the database each time you want to search. However, if you are using logical database partitioning and you want to search all partitions to which you have access in that database, you will need to specify the database on the search command. You can also set your user profile to determine whether to use Quick search. (See “Modifying Your User Profile” on page 41 for more information about modifying your user profile.)

The exercises in this chapter use database 5. When you retrieve information from another database, just change the database number wherever the exercise instructs you to specify database 5. (See “Choosing a Database” on page 191 for numbers of databases.)

If the database you are searching is database 0, 1, 2, or 3, you are searching a user-defined database in the Information/MVS format. Records in user-defined databases in the Tivoli Information Management for z/OS format are organized by logical files. The first character of the record ID specifies which logical file the record belongs to. For example, record P000513 belongs to logical file P, while record V240002 belongs to logical file V.

In your user profile, you can specify which logical files you want to see when you perform a search. If you want to see only records that belong to logical file P, on the User and Database Defaults panel (BLG0P700) in your user profile, change the **Logical files** field to P. If you want to see records that belong to logical files D, P, and V, change the **Logical files** field to DPV. If you want to see records for all the logical files, leave the **Logical files** field blank.

Creating a Search Argument

A *search argument* is a collection of values that defines the type of data you are looking for. Tivoli Information Management for z/OS uses search arguments to seek records for you.

You can create search arguments several ways. This chapter presents 2 exercises that show you how to create a search argument starting from the Primary Options Menu. Two methods of creating a search argument are demonstrated: the structured search method and the quick search method.

Note: The quick search method is also a *structured* search, but you do not use as many panels in your prompting sequence.

After you are familiar with these methods, turn to “Learning More about Obtaining Information from a Database” on page 191 to learn more about search arguments and additional searching methods.

After you create a search argument, use it to request a list of records to be displayed or used as input to a report.

Using the Structured Search Method to Create a Search Argument

This exercise shows you how to create a search argument using the structured search method of searching. Use this method to search data if the **Quick search?** field in the session control portion of your user profile is set to NO. Before you begin this exercise, ensure that your user profile is set this way. See “Modifying Your User Profile” on page 41 for more information.

For this exercise, suppose you want to locate all problems reported by Holloway. Starting from the Primary Options Menu for the Management application, you can create a search argument that tells Tivoli Information Management for z/OS which information to find.

BLG0EN20, the Primary Options Menu for the Management application appears. Type **6** (for Inquiry), and press Enter.

```

BLG0EN20          --- PRIMARY OPTIONS MENU ---      APPLICATION: MANAGEMENT

OPTIONS:

  1. OVERVIEW.....Display general information and product enhancements.
  2. PROFILE.....Display or alter invocation or session defaults.
  3. APPLICATION...Change application, list available applications.
  4. CLASS.....Change current class, list available classes.
  5. ENTRY.....Create a record.
  6. INQUIRY.....Search for records.
  7. UTILITY.....Copy, display, print, delete, and update records.
  8. GLOSSARY.....Display a list of searchable words in the database.
  9. PMF.....Modify or create panels.

          Select an option, enter a command, or type QUIT to exit.

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====> 6
    
```

BLG00001, the Tivoli Information Management for z/OS Inquiry panel appears. You are searching for problem records. Type **1** (for Problem), and press Enter.

```

+ BLG00001 ----- INQUIRY ----- 1 OF 1 ---+
|
| USE...Identify type of information to be added to the inquiry.
|
| 1.PROBLEM.....Enter data processing problem description.
| 2.CHANGE.....Enter change request for system/procedure.
| 3.CONFIGURATION.....Enter description of system configuration,
|                    financial data, or service organization.
| 4.RULES.....Enter description of escalation rules.
| 5.DATA MODEL.....Enter description of a data model.
| 6.PEOPLE.....Enter description of a person.
| 7.SOLUTION.....Enter solution data.
|
+----- SELECT ITEM -----+

====> 1
    
```

BLG0E000, the Problem Inquiry panel, lets you select the specific type of information you want to define for the search argument. Because you are searching for problems reported by Holloway, type **1** (for Reporter), and press Enter.

```
+ BLG0E000 ----- PROBLEM INQUIRY ----- 1 OF 1-+
|
| OPTIONS:
|
| 1. REPORTER.....Reporter name, date, time, system, etc.
| 2. STATUS.....Assignee, status, date, priority, etc.
| 3. CLOSE.....Close date and time, resolver, code etc.
| 4. SYMPTOMS.....Detailed problem symptoms and aids.
| 5. RESOLUTION....Detailed problem resolution (FIX).
| 6. SUPPLEMENTAL..Dump data set names, documentation, etc.
| 7. CLASSES.....Privilege classes interested in problem.
| 8. CONTROL.....Record control: owner, enter date, etc.
|
+----- SELECT OPTION -----+

```

====> 1

BLG0E100, the Problem Reporter panel, appears. Because you want the name of the problem reporter to be part of your search argument, type **1** (for Reporter), and press Enter.

```
+ BLG0E100 ----- PROBLEM REPORTER ----- 1 OF 3-+
|
| USE....Identify type of information to be added to the inquiry.
|
| 1.REPORTER.....Name of the problem reporter.
| 2.REPORTER DEPT.....Name of reporter's department/group.
| 3.DATE OCCURRED.....Date the problem occurred.
| 4.TIME OCCURRED.....Time the problem occurred.
| 5.NETWORK NAME.....Name of the affected network.
| 6.SYSTEM NAME.....Name of the affected system.
| 7.PROGRAM NAME.....Name of the affected program.
| 8.DEVICE NAME.....Name of the affected device.
| 9.KEY ITEM.....Name of the key item affected.
|
+----- TO BYPASS SELECTION PRESS ENTER -----+

```

====> 1

BLG6REQN, the assisted-entry panel for Reporter Name, appears. Notice the prefix PERS/ in the upper-right corner of the panel. This prefix is attached to the search data that you enter on this panel and used in your search. This combination is called a *prefix word*, or p-word. More information about prefixes appears in “Understanding Keywords” on page 194.

Type the name of the person who reported the problems:

holloway

and press Enter.

```

+ BLG6REQN ----- REPORTER NAME ----- PERS/--+
|
| USE...Enter name of the person entering problem, change, etc.
|
| FORM...Up to 40 characters, including special characters and
|         embedded blanks. The entire value will be searchable as
|         a single piece of data. If you want to search or sort
|         records by last name, enter the last name first.
|
| EXAMPLES: Janet Cooper-King..Reply.....Cooper-King Janet
|           Tim Johnson.....Reply.....Johnson Tim
|           Default.....Reply.....=
|
+----- REPLY AS ILLUSTRATED -----+

====> hol1oway
    
```

BLG0E100, the Problem Reporter panel, appears again.

You have defined the search information for this exercise. As you responded to the panels in the Inquiry prompting sequence, Tivoli Information Management for z/OS built the search argument. You can begin your search now, but first take a look at the other kinds of problem reporter information you might include in your search.

On this panel, you can enter more data for the search argument by responding to other selections. Notice that the panel reads “1 of 3” in the upper-right corner and the instruction says TO BYPASS SELECTION PRESS ENTER. If you do not enter data on the command line, but simply press Enter, you can display two other panels with more problem reporter selections.

For this exercise, do not enter any data on the command line. Press Enter to see the next Problem Reporter panel, 2 of 3.

```
+ BLG0E100 ----- PROBLEM REPORTER ----- 1 OF 3-+
|
| USE....Identify type of information to be added to the inquiry.
|
| 1.REPORTER.....Name of the problem reporter.
| 2.REPORTER DEPT.....Name of reporter's department/group.
| 3.DATE OCCURRED.....Date the problem occurred.
| 4.TIME OCCURRED.....Time the problem occurred.
| 5.NETWORK NAME.....Name of the affected network.
| 6.SYSTEM NAME.....Name of the affected system.
| 7.PROGRAM NAME.....Name of the affected program.
| 8.DEVICE NAME.....Name of the affected device.
| 9.KEY ITEM.....Name of the key item affected.
+----- TO BYPASS SELECTION PRESS ENTER -----+

```

====>

BLG0E101, the second Problem Reporter panel, appears. Look at the selections on this panel just to see what other data you can use in your search argument.

Continuing this exercise, press Enter to go to the third Problem Reporter panel, 3 of 3.

```
+ BLG0E101 ----- PROBLEM REPORTER ----- 2 OF 3-+
|
| USE....Identify type of information to be added to the inquiry.
|
| 1.DATE REQUIRED.....Date that fixes are required.
| 2.TIME REQUIRED.....Time that fixes are required.
| 3.PROBLEM TYPE.....Locally assigned problem types.
| 4.PROBLEM STATUS.....Current status of the problem.
| 5.INIT PRIORITY.....Initial priority for resolution.
| 6.OUTAGE.....Outage due to the problem.
| 7.RERUN TIME.....Rerun time due to the problem.
| 8.NETWORK IMPACT.....Impact on the involved network.
| 9.OUTAGE TYPE.....Scheduled or unscheduled outage.
+----- TO BYPASS SELECTION PRESS ENTER -----+

```

====>

BLG0E102, the third Problem Reporter panel, appears. Again, look at the selections to see what you could add to your search argument. Then, type **end**, and press Enter.

```
+ BLG0E102 ----- PROBLEM REPORTER ----- 3 OF 3-+
|
| USE...Identify type of information to be added to the inquiry.
|
| 1.SYSTEM IMPACT.....Impact on the involved system.
| 2.PROGRAM IMPACT.....Impact on the involved program.
| 3.DEVICE IMPACT.....Impact on the involved device.
| 4.FORM NUMBER.....Non-system problem reference.
| 5.LOCATION.....Physical location code of problem.
| 6.ERROR CODE.....Locally defined error code.
| 7.CLUSTER.....Name of the cluster involved.
| 8.CIRCUIT.....Number of the circuit to hardware.
| 9.DESCRPTION.....Description of the problem.
|
+----- WHEN COMPLETE REPLY END OR CANCEL -----+
```

====> end

BLG0E000, the Problem Inquiry panel, appears again. If you wanted to define more information about the record you are searching for, you could make other selections on this panel.

Now that you have created your search argument, the next step is to initiate the search. You begin the search by typing the **SEARCH** command on the command line and pressing Enter. But before you begin the search, you may want to see exactly what you have told Tivoli Information Management for z/OS to search for.

If you want to see the argument you created before you actually start the search, use the **VIEW ARGUMENT** command as shown.

Type **view argument** on the command line and press Enter to see the search argument you created. (Note, however, that this step is not required. You can begin a search without ever viewing the search argument.)

Creating a Search Argument

```
+ BLG0E000 ----- PROBLEM INQUIRY ----- 1 OF 1-+
|
|  OPTIONS:
|
|      1. REPORTER.....Reporter name, date, time, system, etc.
|      2. STATUS.....Assignee, status, date, priority, etc.
|      3. CLOSE.....Close date and time, resolver, code etc.
|      4. SYMPTOMS.....Detailed problem symptoms and aids.
|      5. RESOLUTION....Detailed problem resolution (FIX).
|      6. SUPPLEMENTAL..Dump data set names, documentation, etc.
|      7. CLASSES.....Privilege classes interested in problem.
|      8. CONTROL.....Record control: owner, enter date, etc.
|
+----- SELECT OPTION -----+

====> view argument
```

BLG1TVCD, the View Collected Data panel, shows the search argument following the word Inquiry. The information that was collected during Inquiry creates the search argument. For this example, you have collected keywords that define the kinds of records you want to find. Notice that one of the keywords is the p-word PERS/HOLLOWAY. Typing END on this panel returns you to the previous panel, where you can continue collecting your argument. Type **end**, and press Enter.

```
BLG1TVCD                VIEW COLLECTED DATA                LINE 1 OF 1
INQUIRY  RECS=PROBLEM  REP=REPORTER  PERS/HOLLOWAY
*** BOTTOM OF DATA ***

Type DOWN or UP to scroll the panel, or type END to exit the panel.

====> end
```

Because you have no more search criteria, you can start your search. Type **search**, and press Enter.


```
+ BLG0E000 ----- PROBLEM INQUIRY ----- 1 OF 1-+
|
| OPTIONS:
|
|   1. REPORTER.....Reporter name, date, time, system, etc.
|   2. STATUS.....Assignee, status, date, priority, etc.
|   3. CLOSE.....Close date and time, resolver, code etc.
|   4. SYMPTOMS.....Detailed problem symptoms and aids.
|   5. RESOLUTION...Detailed problem resolution (FIX).
|   6. SUPPLEMENTAL..Dump data set names, documentation, etc.
|   7. CLASSES.....Privilege classes interested in problem.
|   8. CONTROL.....Record control: owner, enter date, etc.
|
+----- SELECT OPTION -----+

===> search
```

All records that fit the description defined in the search argument are displayed on BLG1TSRL, the Search Results List panel.

```
BLG1TSRL                SEARCH RESULTS LIST                LINE 1 OF 2

DATABASE: 5

      RECORD ID      DESCRIPTION ABSTRACT
      1. TRN744      CANNOT ACCESS APPLICATIONS ( TRAINING RECORD )
      2. TRN200      COLOR CONVERGENCE PROBLEM ( TRAINING RECORD )
*** BOTTOM OF DATA ***

Line Cnds: C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.

===>
```

When you issue a SEARCH command, the records that meet your search criteria are displayed in a search results list. You can use line commands to work with these records, as you learned in “Working with Records from a Search Results List” on page 93. You can also type the REPORT command on the command line and generate a report about these records.

Note: Tivoli Information Management for z/OS limits the number of records in a search results list to 32,767. If you create a search results list with more than 32,767 records, Tivoli Information Management for z/OS displays only 32,767 records.

You can learn more about the format of the argument and keywords in “Learning More about Obtaining Information from a Database” on page 191. For this exercise, just be aware that you can look at the argument at any time during the Inquiry prompting sequence by entering the VIEW ARGUMENT command.

Note: Any attempt to retrieve records with SBCS Katakana data commencing with characters in the range of 'X'BA' - 'X'BF' can display records with structured words as well. Characters within this range are called *watermark characters*. They identify s-words and also correspond to SBCS Katakana characters.

Any attempt to use these characters with a period (abbreviation operator) may cause all the records in the database to be displayed.

Using Quick Search to Create a Search Argument

Quick search is a structured search method that presents you with data-entry panels similar to the panels used to create and update records. You create your search argument by entering data in one or more fields on the quick search panels. You may find that entering a search argument using quick search is faster than entering the same argument with other structured search methods.

You can set your user profile to use the quick search method by setting the **Quick search?** field in the Session Defaults section of your user profile to YES. See “Modifying Your User Profile” on page 41 for more information about modifying your user profile.

Notes:

1. If you start a search operation in quick search and then change the profile setting for quick search panels to NO, the search results are unpredictable.
2. The processing order of quick search arguments is not determined by the order in which they were typed. If you want this type of structured search argument while in quick search, you must press Enter after each argument.
3. The use of the ;BACK command in quick search may yield unpredictable results if a search has already been issued.
4. Any time you want to search for an item whose prefix is used for multiple purposes, such as a phone number or a department, the possibility exists that you will receive out-of-context matches. These items rely on the s-word to identify whether it is the reporter's, assignee's, or resolver's phone number or department. The assisted-entry panels for these items collect only a p-word, and the s-word is collected on the calling panel. The search mechanism that Tivoli Information Management for z/OS uses finds s-words and p-words, but does not look for cases where the s-word and p-word were collected for the same entry.

For example:

```
Record 1 contains: Reporter phone=555-1111 and assignee phone=555-9999
Record 2 contains: Reporter phone=555-9999 and assignee phone=555-1111
```

Both records contain the s-word for reporter phone number and assignee phone number, and both records have some occurrence of phone number 555-1111. Record 1 and Record 2 appear on the search results list when you search for either:

```
Reporter phone=555-1111
or
Assignee phone=555-1111
```

Similarly, both records appear on the search results list when you search for either:

```
Reporter phone=555-9999
or
Assignee phone=555-9999
```

This situation occurs in all cases where the assisted-entry panel has **Collect from caller** set to YES. The following list includes panels that are affected:

BLG6ALTO	Component Connections
BLG6ARID	Secondary Service ID
BLG6ASID	Secondary System ID
BLG6AUTH	Authority Level
BLG6AUT1	Authority Level
BLG6AUT2	Authority Level
BLG6CLAX	SRC Execution Class
BLG6DATX	Date
BLG6DDSN	Dump Data Set
BLG6DLOC	Physical Location of Document
BLG6ELGU	Privilege Class Eligible User
BLG6LCRN	Circuit Phone Number
BLG6MNGR	Manager Name
BLG6PERS	Person Name
BLG6PHON	Phone Number
BLG6PU01	Privilege Class Eligible User
BLG6RDUR	Escalation Duration
BLG6REVR	Reviewer Privilege Class
BLG6RIDN	ID of Person to Receive Notification
BLG6RNOD	Node of Person to Notify
BLG6SSGP	Secondary Support Group
BLG6TIMX	Time
BLG6USER	User Last Altered
BLG7AUTH	Authority Level

- Retrieving records with SBCS Katakana data of which the first character is in the range of 'X'BA' - 'X'BF' may retrieve records with s-words as well. Characters within this range are called watermark characters. They are used to identify s-word and also correspond to SBCS Katakana characters. Any attempt to use these characters with a period (abbreviation operator) may cause all the records in the database to be displayed.

Using the same example you used for “Using the Structured Search Method to Create a Search Argument” on page 164 to locate all problems reported by Holloway, use the quick search method instead of the structured search method. You can create a search argument starting from the Primary Options Menu that tells Tivoli Information Management for z/OS which information to find.

Start by setting your profile for Quick search.

Type **initialize** and press Enter to get to the Primary Options Menu.

BLG0EN20, the Tivoli Information Management for z/OS Primary Options Menu, appears. Type:

```
2,1,42,yes,end,9
```

Creating a Search Argument

Press Enter.

```
BLG0EN20          --- PRIMARY OPTIONS MENU ---      APPLICATION: MANAGEMENT

OPTIONS:

  1. OVERVIEW.....Display general information and product enhancements.
  2. PROFILE.....Display or alter invocation or session defaults.
  3. APPLICATION...Change application, list available applications.
  4. CLASS.....Change current class, list available classes.
  5. ENTRY.....Create a record.
  6. INQUIRY.....Search for records.
  7. UTILITY.....Copy, display, print, delete, and update records.
  8. GLOSSARY.....Display a list of searchable words in the database.
  9. PMF.....Modify or create panels.

          Select an option, enter a command, or type QUIT to exit.

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====> 2,1,42,yes,end,9
```

When you typed **2,1,42,yes,end,9**, you typed an *immediate response chain* (IRC). This is a short-cut method of telling Tivoli Information Management for z/OS what you want to do without having to enter responses on every panel of a prompting sequence. The chain above changed the setting in your user profile for the **Quick search?** field from NO to YES.

If you want to see which panels are used in the prompting sequence, use each comma in the chain as a step delimiter. Type **2** on the command line of the Primary Options Menu to display the Profile Summary panel, and press Enter. Type **1** on the Profile Summary panel to get the Session control defaults, and type **42,yes** to change the setting in field 42. Then type **END** to return to the Profile Summary panel, and use option 9 to temporarily change and file your profile. See “Using Response Chains” on page 235 for more information about IRCs.

To start a prompting sequence to create a search argument, type **6** (for Inquiry), and press Enter.

```

BLG0EN20          --- PRIMARY OPTIONS MENU ---      APPLICATION: MANAGEMENT

OPTIONS:

  1. OVERVIEW.....Display general information and product enhancements.
  2. PROFILE.....Display or alter invocation or session defaults.
  3. APPLICATION...Change application, list available applications.
  4. CLASS.....Change current class, list available classes.
  5. ENTRY.....Create a record.
  6. INQUIRY.....Search for records.
  7. UTILITY.....Copy, display, print, delete, and update records.
  8. GLOSSARY.....Display a list of searchable words in the database.
  9. PMF.....Modify or create panels.

          Select an option, enter a command, or type QUIT to exit.

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BLG16510I The profile update was temporarily saved.
====> 6
    
```

You are searching for problem records. Therefore, on BLG00001, the Tivoli Information Management for z/OS Inquiry panel, type **1** (for Problem), and press Enter.

```

+ BLG00001 -----INQUIRY ----- 1 OF 1 -----+
|
| USE....Identify type of information to be added to the inquiry.
|
| 1.PROBLEM.....Enter data processing problem description.
| 2.CHANGE.....Enter change request for system/procedure.
| 3.CONFIGURATION.....Enter description of system configuration,
|                   financial data, or service organization.
| 4.RULES.....Enter description of escalation rules.
| 5.DATA MODEL.....Enter description of a data model.
| 6.PEOPLE.....Enter description of a person.
| 7.SOLUTION.....Enter solution data.
|
+----- SELECT ITEM -----+

====> 1
    
```

BLG0E190, the Problem Reporter Data Inquiry panel, appears. Fill in fields to select the specific type of information you want to define for the search argument. To search for problems reported by Holloway, type **holloway** in field 1, and press Enter.

Creating a Search Argument

```
BLG0E190          PROBLEM REPORTER DATA INQUIRY

Add data for the search; cursor placement or input line entry allowed.

 1. Reported by..... holloway_____ 13. Problem type..... _____
 2. Reporter dept..... _____      14. Problem status..... _____
 3. Reporter phone..... _____      15. User problem number.. _____
 4. Date occurred..... _____      16. Initial priority..... _
 5. Time occurred..... _____      17. Outage..... _____
 6. Network name..... _____       18. Rerun time..... _____
 7. System name..... _____       19. Network impact..... _____
 8. Program name..... _____       20. System impact..... _____
 9. Device name..... _____        21. Program impact..... _____
10. Key item affected... _____    22. Device impact..... _____
11. Date fix required... _____    23. User form number..... _____
12. Time fix required... _____    24. Location code..... _____
                                     26. Outage type..... _

25. Description..... _____

      When you finish, type SE to search, END to save any changes,
      or CANCEL to discard any changes.

====>
```

You can enter more data for the search argument by specifying the data in the appropriate fields. When you complete the data on this panel, you can initiate the search or enter additional search argument data on other panels. For this example, type **end**, and press Enter.

```
BLG0E190          PROBLEM REPORTER DATA INQUIRY

Add data for the search; cursor placement or input line entry allowed.

 1. Reported by..... HOLLOWAY_____ 13. Problem type..... _____
 2. Reporter dept..... _____      14. Problem status..... _____
 3. Reporter phone..... _____      15. User problem number.. _____
 4. Date occurred..... _____      16. Initial priority..... _
 5. Time occurred..... _____      17. Outage..... _____
 6. Network name..... _____       18. Rerun time..... _____
 7. System name..... _____       19. Network impact..... _____
 8. Program name..... _____       20. System impact..... _____
 9. Device name..... _____        21. Program impact..... _____
10. Key item affected... _____    22. Device impact..... _____
11. Date fix required... _____    23. User form number..... _____
12. Time fix required... _____    24. Location code..... _____
                                     26. Outage type..... _

25. Description..... _____

      When you finish, type SE to search, END to save any changes,
      or CANCEL to discard any changes.

====> end
```

BLG0E090, the Problem Inquiry Summary panel, appears. If you want to define more information about the record you are searching for, you could navigate to other data-entry panels from this panel.

```

BLG0E090                PROBLEM INQUIRY SUMMARY

Problem status..... _____
Reported by..... HOLLOWAY
Reporter dept..... _____
Date occurred..... _____
Time occurred..... _____
Location code..... _____
Network name..... _____
System name..... _____
Program name..... _____
Device name..... _____
Key item affected..... _____

Assignee name..... _____
Assignee dept..... _____
Target date..... _____
Resolved by..... _____
Resolver dept..... _____
Cause code..... _____
Original problem... _____
Cause change number _____
Total time..... _____
Date closed..... _____

Description..... _____

Select one of the following to add information to your search argument.
  1. Reporter data.
  2. Status data.
  3. Close data.
  4. Symptom data.
  5. Resolution data.
  6. Supplemental data.
  7. TSD Bridge data.
  8. Control data.
  9. Search.
 10. Text data.

====>
    
```

If you want to see the argument you built, type **view argument** on the command line, and press Enter.

To display the list of records that satisfy the search argument for this example, you have two options. Either type **search** on the command line and press Enter, or type **9** (for Search), on the command line and press Enter.

```

BLG0E090                PROBLEM INQUIRY SUMMARY

Problem status..... _____
Reported by..... HOLLOWAY
Reporter dept..... _____
Date occurred..... _____
Time occurred..... _____
Location code..... _____
Network name..... _____
System name..... _____
Program name..... _____
Device name..... _____
Key item affected..... _____

Assignee name..... _____
Assignee dept..... _____
Target date..... _____
Resolved by..... _____
Resolver dept..... _____
Cause code..... _____
Original problem... _____
Cause change number _____
Total time..... _____
Date closed..... _____

Description..... _____

Select one of the following to add information to your search argument.
  1. Reporter data.
  2. Status data.
  3. Close data.
  4. Symptom data.
  5. Resolution data.
  6. Supplemental data.
  7. TSD Bridge data.
  8. Control data.
  9. Search.
 10. Text data.

====> search
    
```

Creating a Search Argument

All records that fit the description defined in the search argument are displayed on BLG1TSRL, the Search Results List panel.

```
BLG1TSRL                SEARCH RESULTS LIST                LINE 1 OF 2

DATABASE: 5

      RECORD ID      DESCRIPTION ABSTRACT
1. TRN744    CANNOT ACCESS APPLICATIONS ( TRAINING RECORD )
2. TRN200    COLOR CONVERGENCE PROBLEM ( TRAINING RECORD )
*** BOTTOM OF DATA ***

Line Cmds: C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.

===>
```

The bottom of the Search Results List panel displays line commands that you can issue. Type the line command to the left of the number in front of the record ID, in the *line command area*. Use the tab keys to move the cursor into the line command area.

Understanding Line Commands

At the bottom of BLG1TSRL, the Search Results List panel, are the line commands that you can issue. You use line commands to perform different tasks with the records. Remember, as you progress through the rest of the exercises, you might not be authorized to do all of these tasks.

The pre-defined line commands are:

- C** Copy a record
- D** Delete a record
- P** Print a record
- S** Display (select) a record
- U** Update a record

Your installation can have more than these standard line commands because your program administrator can define line commands to use with search results lists that are unique to your installation. These are called *user line commands*. If this is the case, the program administrator should provide you with a list of these user line commands. If you do have user line commands at your installation, you should know how to use the DROP and RUN commands.

You use a user line command just like any other: put the letter associated with that user line command in the line command area of the record on the search results list that you want to work with. If you do nothing else, the user line command runs when you leave the search results list. If you want to process the user line commands before leaving the list, issue the RUN command. If you decide that you do not want the user line command you entered to

run, you can issue the “DROP *n*” command, where *n* is the number of the line where you put the user line command. See “Using Commands” on page 103 for more information about DROP and RUN.

Note: The predefined line commands are not affected by either the RUN or DROP commands. For example, if you use the P line command to print a record, you do not need to use the RUN command to process it. Simply pressing Enter causes the line command to be processed. Also, using the DROP command after typing a P line command does *not* prevent the record from being printed.

On the Search Results List, each record is numbered sequentially. Line commands are issued in the area to the left of the sequence number. For example, if you want to display (select) a record, you type an “s” to the left of the number before the record ID.

For this exercise, type the command:

```
search =5 training
```

on the command line of the Primary Options Menu for the Management application, and press Enter. BLG1TRSL, a search results list panel similar to the one shown, appears. To display record TRN850, type s to the left of the record’s sequence number, and press Enter.

```

BLG1TRSL                      SEARCH RESULTS LIST                      LINE 1 OF 15

  DATABASE: 5

      RECORD ID      DESCRIPTION ABSTRACT
s  1. TRN850        RESPONSE TIME TOO SLOW ( TRAINING RECORD )
   2. TRN376        NEEDS ANOTHER DISK DRIVE ( TRAINING RECORD )
   3. TRN744        CANNOT ACCESS APPLICATION ( TRAINING RECORD )
   4. TRN100        BROKEN ON OFF SWITCH ( TRAINING RECORD )
   5. TRN200        COLOR CONVERGENCE PROBLEM ( TRAINING RECORD )
   6. TRN300        NEEDS TONER MAKES STREAKS ( TRAINING RECORD )
   7. TRN400        PRINTING TOO LIGHT ( TRAINING RECORD )
   8. TRN500        CANNOT BLOCKCOPY TEXT ( TRAINING RECORD )
   9. TRN600        PASSWORD DOES NOT WORK ( TRAINING RECORD )
  10. TRN700        PAPER JAM CANNOT BE FIXED ( TRAINING RECORD )
  11. TRN800        BROKEN DISK DRIVE ( TRAINING RECORD )
  12. TRN439        RESPONSE TIME TOO SLOW ( TRAINING RECORD )
  13. TRN559        GARBAGE ON MY PRINTOUTS ( TRAINING RECORD )
  14. TRN125        DOES NOT FILL UP SCREEN ( TRAINING RECORD )

Line Cmds: C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.

====>

```

BLG0S010, the Problem Summary Display panel, shows a summary of the data in record TRN850. You are now following the same prompting sequence that starts on page 56.

```
BLG0S010          PROBLEM SUMMARY DISPLAY          PROBLEM: TRN850

Reported by..... THOREAU          Problem type.....<H> _____
Assignee name.....<H> _____    Problem status.....<H> INITIAL
Tracked by.....<H> _____       Current phase.....<H> _____
Network name..... _____       Current priority.....<H> ____
System name..... _____         Owing priv. class..... _____
Program name..... XEDIT            Entry priv. class..... MASTER
Device name..... 3278              Date entered..... 10/07/1998
Key item affected..... _____   Time entered..... 11:15
Cause code..... _____          Date last altered...<H> 10/07/1998
Date closed..... _____         Time last altered...<H> 11:15
Vendor status.....<H> _____     User last altered...<H> INFOADM
Description..... RESPONSE TIME TOO SLOW ( TRAINING RECORD )

      Select one of the following, or type END or CANCEL to leave this panel.
      1. Reporter display.           6. Detail display.
      2. Status display.             7. Supplemental data display.
      3. Close display.              8. Interested privilege classes.
      4. History display.            9. Synopsis display.
      5. Freeform text and notes.    10. Record utilities.
      6. Detail display.             11. TSD Bridge display.

====>
```

You can enter more than one line command on the Search Results List at once. For example, you might want to display two records, copy a third record, and delete a fourth. You would type the appropriate line commands next to each record, then press Enter. You would then work with each record in order as they appeared on the Search Results List. When you are finished working with one record, you start working with the next instead of returning to the Search Results List.

Using Block Line Commands

When you want to perform a task with a block of records listed on the Search Results List panel, you use block line commands. Because all block line commands work in a similar way, only one is used in the example below. The block line commands are:

```
cc    block copy
dd    block delete
pp    block print
ss    block display
uu    block update
```

Starting on the Search Results List again, suppose you want to display (select) records TRN376, TRN744, and TRN100.

Type **ss** in the line command area next to the first record in the block and **ss** in the line command area next to the last record of the block, and press Enter.

```

BLG1TSRL                SEARCH RESULTS LIST                LINE 1 OF 15

DATABASE: 5

RECORD ID      DESCRIPTION ABSTRACT
1. TRN850      RESPONSE TIME TOO SLOW ( TRAINING RECORD )
ss 2. TRN376    NEEDS ANOTHER DISK DRIVE ( TRAINING RECORD
3. TRN744      CANNOT ACCESS APPLICATION ( TRAINING RECORD )
ss 4. TRN100    BROKEN ON OFF SWITCH ( TRAINING RECORD )
5. TRN200      COLOR CONVERGENCE PROBLEM ( TRAINING RECORD )
6. TRN300      NEEDS TONER MAKES STREAKS ( TRAINING RECORD )
7. TRN400      PRINTING TOO LIGHT ( TRAINING RECORD )
8. TRN500      CANNOT BLOCKCOPY TEXT ( TRAINING RECORD )
9. TRN600      PASSWORD DOES NOT WORK ( TRAINING RECORD )
10. TRN700     PAPER JAM CANNOT BE FIXED ( TRAINING RECORD )
11. TRN800     BROKEN DISK DRIVE ( TRAINING RECORD )
12. TRN439     RESPONSE TIME TOO SLOW ( TRAINING RECORD )
13. TRN559     GARBAGE ON MY PRINTOUTS ( TRAINING RECORD )
14. TRN125     DOES NOT FILL UP SCREEN ( TRAINING RECORD )

Line Cmds: C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.

====>
    
```

BLG0S010, the Problem Summary panel, appears for TRN376, the first record in the block you selected.

If you want to see more detailed information about the record, you can select any of the options listed at the bottom of the panel.

For this exercise, you want to find out more about who reported the problem. Type **1** (for Reporter display), and press Enter.

```

BLG0S010                PROBLEM SUMMARY DISPLAY                PROBLEM: TRN376

Reported by..... YAGER                Problem type.....<H> _____
Assignee name.....<H> _____        Problem status.....<H> CLOSED
Tracked by.....<H> _____          Current phase.....<H> _____
Network name..... _____          Current priority....<H> _
System name..... _____          Owning priv. class..... _____
Program name..... _____          Entry priv. class..... MASTER
Device name..... 3270PC                Date entered..... 10/07/1998
Key item affected..... _____      Time entered..... 11:25
Cause code..... _____            Date last altered...<H> 10/07/1998
Date closed..... _____           Time last altered...<H> 11:25
Vendor status.....<H> _____       User last altered...<H> INFOADM
Description..... NEEDS ANOTHER DISK DRIVE ( TRAINING RECORD )

Select one of the following, type END to save your changes, or type CANCEL
to discard your changes.
1. Reporter display.                   6. Detail display.
2. Status display.                     7. Supplemental data display.
3. Close display.                       8. Interested privilege classes.
4. History display.                     9. Synopsis display.
5. Freeform text and notes.            10. Record utilities.
                                         11. TSD Bridge display.

====> 1
    
```

Understanding Line Commands

BLG0L100, the Problem Reporter Display, shows you more data in the record.

To leave this panel, type **end**, and press Enter.

BLG0L100	PROBLEM REPORTER DISPLAY	PROBLEM: TRN376
Reported by.....	YAGER	Problem type.....<H> _____
Reporter dept.....	_____	Problem status.....<H> CLOSED
Reporter phone.....	_____	Initial priority.....<H> ___
Date occurred.....	_____	Outage..... _____
Time occurred.....	_____	Rerun time..... _____
Network name.....	_____	Network impact..... _____
System name.....	_____	System impact..... _____
Program name.....	_____	Program impact..... _____
Device name.....	3270PC	Device impact..... _____
Key item affected.....	_____	User form number..... _____
Date fix required....<H>	_____	Location code..... ROOM876
Time fix required....<H>	_____	Outage type..... _____
Description.....	NEEDS ANOTHER DISK DRIVE (TRAINING RECORD)	

To return to the Summary Display panel, type END or CANCEL.

====> end

You return to BLG0S010, the Problem Summary Display panel.

Type **end**, and press Enter again to leave this panel.

BLG0S010	PROBLEM SUMMARY DISPLAY	PROBLEM: TRN376
Reported by.....	YAGER	Problem type.....<H> _____
Assignee name.....<H>	_____	Problem status.....<H> CLOSED
Tracked by.....<H>	_____	Current phase.....<H> _____
Network name.....	_____	Current priority.....<H> ___
System name.....	_____	Owning priv. class..... _____
Program name.....	_____	Entry priv. class..... MASTER
Device name.....	3270PC	Date entered..... 10/07/1998
Key item affected.....	_____	Time entered..... 11:25
Cause code.....	_____	Date last altered....<H> 10/07/1998
Date closed.....	_____	Time last altered....<H> 11:25
Vendor status.....<H>	_____	User last altered....<H> INFOADM
Description.....	NEEDS ANOTHER DISK DRIVE (TRAINING RECORD)	

Select one of the following, or type END or CANCEL to leave this panel.

1. Reporter display.	6. Detail display.
2. Status display.	7. Supplemental data display.
3. Close display.	8. Interested privilege classes.
4. History display.	9. Synopsis display.
5. Freeform text and notes.	10. Record utilities.
	11. TSD Bridge display.

====> end

Notice that you did not return to the Search Results List. Instead, TRN744, the next record in the block you selected, appears. Again, you could make one of the selections at the bottom of the panel to see more of this record's information.

For this example, however, just type **end**, and press Enter.

```

BLG0S010                PROBLEM SUMMARY DISPLAY                PROBLEM: TRN744

Reported by..... HOLLOWAY                Problem type.....<H> _____
Assignee name.....<H> _____          Problem status.....<H> OPEN
Tracked by.....<H> _____            Current phase.....<H> _____
Network name..... _____            Current priority....<H> _
System name..... _____              Owing priv. class..... _____
Program name..... ISPF                  Entry priv. class..... MASTER
Device name..... 3270PC                 Date entered..... 10/07/1998
Key item affected..... _____        Time entered..... 11:19
Cause code..... _____              Date last altered...<H> 10/07/1998
Date closed..... _____             Time last altered...<H> 11:19
Vendor status.....<H> _____         User last altered...<H> INFOADM
Description..... CANNOT ACCESS APPLICATIONS ( TRAINING RECORD )

      Select one of the following, or type END or CANCEL to leave this panel.
      1. Reporter display.                6. Detail display.
      2. Status display.                  7. Supplemental data display.
      3. Close display.                   8. Interested privilege classes.
      4. History display.                  9. Synopsis display.
      5. Freeform text and notes.         10. Record utilities.
                                          11. TSD Bridge display.

====> end
    
```

Next, you see BLG0S010, the Problem Summary Display panel, for record TRN100, the last record in the block you selected.

Type **end**, and press Enter.

```
BLG0S010                PROBLEM SUMMARY DISPLAY                PROBLEM: TRN100

Reported by..... THOREAU                Problem type.....<H> _____
Assignee name.....<H> _____          Problem status.....<H> INITIAL
Tracked by.....<H> _____            Current phase.....<H> _____
Network name..... _____             Current priority.....<H> ___
System name..... _____              Owinging priv. class..... _____
Program name..... _____              Entry priv. class..... MASTER
Device name..... 3278                    Date entered..... 10/07/1998
Key item affected..... _____         Time entered..... 10:36
Cause code..... _____                Date last altered...<H> 10/07/1998
Date closed..... _____               Time last altered...<H> 11:36
Vendor status.....<H> _____           User last altered...<H> INFOADM
Description..... BROKEN ON OFF SWITCH ( TRAINING RECORD )

      Select one of the following, or type END or CANCEL to leave this panel.
      1. Reporter display.                6. Detail display.
      2. Status display.                  7. Supplemental data display.
      3. Close display.                   8. Interested privilege classes.
      4. History display.                  9. Synopsis display.
      5. Freeform text and notes.         10. Record utilities.
                                          11. TSD Bridge display.

====> end
```

Because this was the last record you selected, END returns you to the Search Results List.

The last record in the block of records you selected is listed at the top. You can use the UP or DOWN scrolling commands to look at the rest of the list.

```
BLG1TSRL                SEARCH RESULTS LIST                LINE 4 OF 15

DATABASE: 5

      RECORD ID      DESCRIPTION ABSTRACT
      4. TRN100      BROKEN ON OFF SWITCH ( TRAINING RECORD )
      5. TRN200      COLOR CONVERGENCE PROBLEM ( TRAINING RECORD )
      6. TRN300      NEEDS TONER MAKES STREAKS ( TRAINING RECORD )
      7. TRN400      PRINTING TOO LIGHT ( TRAINING RECORD )
      8. TRN500      CANNOT BLOCKCOPY TEXT ( TRAINING RECORD )
      9. TRN600      PASSWORD DOES NOT WORK ( TRAINING RECORD )
      10. TRN700     PAPER JAM CANNOT BE FIXED ( TRAINING RECORD )
      11. TRN800     BROKEN DISK DRIVE ( TRAINING RECORD )
      12. TRN439     RESPONSE TIME TOO SLOW ( TRAINING RECORD )
      13. TRN559     GARBAGE ON MY PRINTOUTS ( TRAINING RECORD )
      14. TRN125     DOES NOT FILL UP MY SCREEN ( TRAINING RECORD )
      15. TRN366     WILL NOT INITIALIZE ( TRAINING RECORD )
*** BOTTOM OF DATA ***

      Line Cmds: C=Copy D=Delete P=Print S=Select U=Update
      Type DOWN or UP to scroll the panel, or type END to exit the panel.

====>
```

Using the Search Argument to Obtain Reports

When you create a search argument, you can use the list of records defined by the argument as input to print reports. To do this, you enter **REPORT** on the command line of any panel. Then, you respond to the prompting sequence to define the kind of report you want and how you want to print it.

In the last exercise, you created a search argument that defined your search as all of the training records. Then, you displayed the list of records that satisfied that argument.

In this exercise, you use the same search argument and the search results list it produces to print a report.

Because you have already defined a search argument in the previous exercise, you can type **report** on **BLG1TSRL**, the Search Results List panel, and press Enter. The records that your search criteria find are used as input to your report.

```

BLG1TSRL                SEARCH RESULTS LIST                LINE 4 OF 15

DATABASE: 5

   RECORD ID   DESCRIPTION ABSTRACT
   4. TRN100   BROKEN ON OFF SWITCH ( TRAINING RECORD )
   5. TRN200   COLOR CONVERGENCE PROBLEM ( TRAINING RECORD )
   6. TRN300   NEEDS TONER MAKES STREAKS ( TRAINING RECORD )
   7. TRN400   PRINTING TOO LIGHT ( TRAINING RECORD )
   8. TRN500   CANNOT BLOCKCOPY TEXT ( TRAINING RECORD )
   9. TRN600   PASSWORD DOES NOT WORK ( TRAINING RECORD )
  10. TRN700   PAPER JAM CANNOT BE FIXED ( TRAINING RECORD )
  11. TRN800   BROKEN DISK DRIVE ( TRAINING RECORD )
  12. TRN439   RESPONSE TIME TOO SLOW ( TRAINING RECORD )
  13. TRN559   GARBAGE ON MY PRINTOUTS ( TRAINING RECORD )
  14. TRN125   DOES NOT FILL UP MY SCREEN ( TRAINING RECORD )
  15. TRN366   WILL NOT INITIALIZE ( TRAINING RECORD )
*** BOTTOM OF DATA ***

Line Cmds: C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.

====> report

```

BLG0W500, the Report Entry panel, lists the types of reports you can create.

For this exercise, type **2** (for Problem), and press Enter.

```
BLG0W500                                REPORT ENTRY

Identify the type of report to be created.

1. GENERAL.....Summary reports for all applications.
2. PROBLEM.....Problem management reports.
3. CHANGE.....Change management reports.
4. CONFIG.....Configuration management reports.

8. USER RFT.....Specify user report format table name.

10. BROWSE/PRINT.....Browse or print existing report data set.

                                Select item.

BLG15001I The report command is using database 5.
====> 2
```

Figure 7. Report Entry Panel

BLG0W020, the Problem Reports panel, lists the kinds of problem reports you can create. For this exercise, create a problem report that summarizes the data in the order of the dates that the problems occurred. Type **2** (for Calendar), and press Enter.

```
+ BLG0W020 ----- PROBLEM REPORTS ----- 1 OF 1-+
|
| USE....Identify the type of problem report to be produced.
|
| 1.PERIODIC STATUS.....Periodic status meeting data.
| 2.CALENDAR.....Summary of data by occurrence date.
| 3.ASSIGNEE.....Summary of data by assignee.
|
+----- SELECT ITEM -----+

====> 2
```

If you do not have the standard report output destination set in your user profile, then BLG0P501, the Standard Report Output Destination panel, appears. In the rest of the prompting sequence, you designate the output destination of your report.

Type **2** (for DSNAME), and press Enter.

```

+ BLG0P501 ----- STANDARD REPORT OUTPUT DESTINATION ----- REPORT--+
|
| USE...Identify output destination to use for standard reports.
|
| NOTE: Output destination data for each selection is defaulted
|       based on the current profile values.
|
| 1.SYSOUT.....Add or modify sysout information.
| 2.DSNAME.....Add or modify data set name information.
| 3.DDNAME.....Add or modify ddname information.
|
+----- SELECT ITEM -----+

```

====> 2

Panel BLG0P520, the Standard Report Data Set Destination Entry panel, appears, filled in with information from your user profile. Type in the DSNAME of the data set where you want your report to go. If you want to change any of the other fields on this panel, you can modify them.

```

BLG0P520      STANDARD REPORT DATA SET DESTINATION ENTRY      USER ID: SMITHSON
Enter allocation parameters; cursor placement or input line entry allowed.

 1. Data set name.....<R> _____
 2. Disposition.....    ___

Space allocation (NEW data sets):      Data set characteristics (NEW data sets)
 3. Space units.....<R> BLK           10. Logical record length..<R> 00137
 4. Primary quantity.....<R> 0130    11. Block size.....<R> 03155
 5. Secondary quantity...<R> 0130    12. Record format.....<R> VBA
 6. Allocation block size<R> 03155

Data set location:
 7. Volume serial number.... _____
 8. Unit type.....           _____

Output processing:                    13. Output in uppercase....<R> NO_
 9. Lines per page.....<R> 00000060  14. Browse the data set....___

====> end

```

If you enter YES in the **Browse the data set** field, then enter END to save your changes, the report is sent to the specified destination and you are put into ISPF browse mode so you can browse the data set. When you finish browsing the data set, or when you enter **end** (if you do not put YES in the **Browse the data set** field) you return to the panel where you issued REPORT.

Printing Other Kinds of Reports

You can print many kinds of reports with Tivoli Information Management for z/OS. The previous exercise helped you through the prompting sequence to obtain just one kind of report. You can learn more about working with reports by:

- Reading “Learning More about Obtaining Information from a Database” on page 191
- Reading about the REPORT command in “Using Commands” on page 103
- Reading the *Tivoli Information Management for z/OS Data Reporting User’s Guide*

The kinds of reports you can request with Tivoli Information Management for z/OS are listed below. The numbering of these types of reports corresponds to the selections on BLG0W500, the Report Entry panel, as shown on page 186.

1. General

Results List

The record IDs and descriptions of all records that are defined by the argument.

Line Summary

One-line summary information for each record defined by the argument.

Page Summary

One-page summary information for each record defined by the argument.

Detail The same information given with a Page Summary Report, plus details about journalized data and a printout of any freeform text.

2. Problem

Periodic Status

Periodic status meeting data.

Calendar

Summary of data by occurrence date.

Assignee

Summary of data by assignee.

3. Change

Periodic Status

Periodic status meeting data.

Calendar

Summary of data by occurrence date.

Approver Summary

Summary of changes still requiring approval by a privilege class.

Approver Detail

Detailed description of changes still requiring approval by a privilege class.

Change Activities

Changes with related activities.

Schedule

Changes and activities due this period.

4. Configuration

Location

Summary of data by location.

Component Features

Components with related features.

Hardware Map

Single line per entry map of hardware.

Software Map

Single line per entry map of software.

Feature References

Components for a specified feature.

Extract Diagram Data

Create data set for input to DRAW command.

8. User RFT

A report format defined by your organization.

10. Browse/Print

This selection takes you to BLG0W510, the Browse/Print panel, where you can browse an existing report data set. You:

1. Enter the data set name of the report.
2. Enter Browse to view the report on your terminal screen.

In addition, as an alternative, a special driver called the Open Database Connectivity (ODBC) driver is available for you to access Tivoli Information Management for z/OS data from a Windows NT[®] workstation. Using this driver, you can retrieve data onto your workstation and use common workstation applications to format reports. See “Generating Reports from a Workstation” for a description of this driver.

Note: Support for the host graphics function of the Report Format Facility, which uses the Graphical Data Display Manager (GDDM[®]), is no longer included. Customers requiring graphics reports can use the ODBC driver and a user-supplied, ODBC-enabled workstation application capable of producing graphic reports, or use Tivoli Decision Support for Information Management (5697-IMG).

Generating Reports from a Workstation

Another way to produce reports from host data is to use the Open Database Connectivity (ODBC) driver for Tivoli Information Management for z/OS. The ODBC driver enables the Tivoli Information Management for z/OS host database to serve as a data source for Windows NT workstations running applications enabled for ODBC. Many workstation applications support ODBC, such as database applications (for instance, Microsoft[®] Access or Lotus[®] Approach[®]), spreadsheets (such as Microsoft Excel), and text processing programs. ODBC is an architected database access interface that enables applications to access data using Structured Query Language (SQL) as a standard language. Applications that are enabled for ODBC can access various database management systems through a consistent set of application programming interfaces.

By using the ODBC driver for Tivoli Information Management for z/OS, you can, from a Windows NT workstation, use an ODBC-enabled application to click on the host data fields you want to search on. You can set up a filter or query to limit the search, and Tivoli Information Management for z/OS will execute the search and retrieve the data. From your workstation application, you can then format a wide variety of reports using the power of

Generating Reports from a Workstation

your workstation's application. For example, if your application supports the generation of pie chart or bar graph reports, you can produce these reports using Tivoli Information Management for z/OS data without the need for a host graphics tool, because you are doing your formatting on the workstation and not the host.

For more information about installing and using the ODBC driver, refer to the *Tivoli Information Management for z/OS Data Reporting User's Guide*.

10

Learning More about Obtaining Information from a Database

This chapter:

- Explains the numbering system for databases
- Shows how to select a database
- Provides ways to perform a database search
- Explains how to use Boolean search operators

For information about searching freeform text, see “Searching Freeform Text” on page 229.

Choosing a Database

Tivoli Information Management for z/OS works with several databases. Each database is assigned a number from 0 to 9.

The databases are numbered as follows:

- | | |
|-------------------|---|
| 0, 1, 2, 3 | Reserved for your organization’s databases, Information/MVS format, read only |
| 4 | User database, Tivoli Information Management for z/OS format, read only |
| 5 | Tivoli Information Management for z/OS database, read/write |
| 6, 7, 8, 9 | User databases, Tivoli Information Management for z/OS format, read only |

When retrieving data from a database, you must specify which database you want to use. If you use one database frequently, you can define that database number as a default in your user profile. (See “Modifying Your User Profile” on page 41 for details.)

Tivoli Information Management for z/OS stores records on database 5. However, your organization can establish its own databases to work with Tivoli Information Management for z/OS. If your organization uses a database other than the one required by Tivoli, the entries in that database must be set up according to the guidelines explained in the *Tivoli Information Management for z/OS Planning and Installation Guide and Reference*.

If you have not defined a default database number in your user profile, or if you want to use a database other than the default, you must specify the one you want to use.

To select a database, you enter the database number during the prompting sequence. Usually you do this on panels similar to BLG1UT01, the Utility Entry Dialog panel.

Use this method to work with a single record from this database. You cannot create a search results list this way. The information shown on this panel causes record TRNRASX in database number 5 to appear for you to work with, if such a record exists.

```
BLG1UT01                UTILITY ENTRY DIALOG                UTILITY

Enter UTILITY information; cursor placement or input line entry allowed.

                        1. Database.....<R> 5
                        2. Record ID.....<R> trnrasx

                        To start the function, press Enter without field modification.

====>
```

The exercises that follow use database 5. To retrieve information from another database, just change the database number.

Searching for Information

When you do not have the record ID, or if you are looking for all records that contain certain information, you can identify the information you are looking for by building a search argument, as described in “Obtaining Information from a Database” on page 163.

Note: Once you have started a search by entering the SEARCH command, you cannot interrupt or stop it because the interrupt function is disabled while the search is running.

There are four ways to use search arguments to look for records:

Structured search

Select 6, for Inquiry, from the Primary Options Menu when the **Quick search?** field is set to NO in your user profile; a search argument is built for you as you respond to the panels during the prompting sequence. When you have all the search arguments built, you issue the SEARCH command.

Quick search

This is the shorter form of a structured search. Select 6, for Inquiry, from the Primary Options Menu when the **Quick search?** field is set to YES in your user profile, and a search argument is built for you as you respond to the data-entry and summary panels during the prompting sequence. After you build all the search arguments, you issue the SEARCH command.

Through a quick search, you can also search freeform text. For more information about searching freeform text, see “Searching Freeform Text” on page 229.

Freeform search

You issue the SEARCH command and specify a search argument with it.

Combined search

You can start defining the search argument by using a structured search or quick search, and then complete the argument in a freeform search.

To perform most searches, you will most likely use a structured or quick search. However, if you want to search a user database in the Information/MVS format (0, 1, 2, or 3) you must do a freeform search because of the structure of the databases.

When you search for records using a structured or quick search, you start on the Primary Options Menu appropriate for the kinds of records you are looking for. The following list shows what menu to start on for various record types:

Record Type	Primary Options Menu to Start On
Problem	BLG0EN20 Management application
Change	BLG0EN20 Management application
Configuration	BLG0EN20 Management application
Rules	BLG0EN20 Management application
Data Model	BLG0EN20 Management application
People	BLG0EN20 Management application
Solution	BLG0EN20 Management application
Validation	BLG0EN20 Management application
Index	BLG0EN10 System application
Map	BLG0EN10 System application
Privilege Class	BLG0EN10 System application
Stored Response Chain	BLG0EN10 System application
User databases	If the database is in Tivoli Information Management for z/OS format, use either menu, and specify the database number. If the database is in Information/MVS format, use a freeform search from any panel.

If necessary, use the procedure in “Selecting an Application” on page 38 to access the appropriate primary options menu.

To search for or display SRC records, you do not have to run Tivoli Information Management for z/OS with a particular privilege class. However, to search for or display other Tivoli Information Management for z/OS data, you must be working under a privilege class with the proper authority. (See “Choosing a Privilege Class” on page 49 for more information on how to select a privilege class.)

Note: If you use a freeform search, your search results list might include records that you are not authorized to work with. These records have an UNAUTHORIZED notation, and you cannot access them.

Performing a Structured Search

One method of searching for records is to use the prompting sequence that starts by selecting 6, for Inquiry, on the Primary Options Menu when your profile setting for **Quick search?** is set to NO. You proceed through a series of selection and assisted-entry panels. As you respond to each one, the data you enter is collected to form the search argument.

The first search example in “Obtaining Information from a Database” on page 163 used the structured search method. Be sure you are familiar with that example before continuing with other kinds of searching.

Performing a Quick Search

Another method of searching for records is to use the prompting sequence that starts by selecting 6, for Inquiry, on the Primary Options Menu when the profile setting for **Quick search?** is set to YES. Quick search presents you with data-entry panels similar to those used for record create and update operations. The data you enter in one or more fields on the quick search panels is collected to form the search argument. You may find that entering your search argument this way is faster than entering the same argument with a structured search because you can enter more data on a single data-entry panel, rather than proceeding through a series of selection and assisted-entry panels. All of the arguments are collected from your responses to the data-entry panels.

The second search example in “Obtaining Information from a Database” on page 163, used the quick search method of searching.

Note: You should have the **Quick search?** field set to YES in your user profile when you use the search panels provided for data model records and Tivoli Inventory and when you use the quick search options in the Integration Facility panels.

Performing a Freeform Search

If you want to search where the results will produce more than one record type, you cannot use the structured or quick search methods because they require you to select a specific record type.

Whenever you cannot do a structured or a quick search, you can perform a freeform search. For example, suppose you want to search for all records that were last altered by USER01. A structured or quick search begins on the Primary Options Menu for the Management application when you select option 6 for Inquiry. The next panel that appears is a selection panel where you must specify a record type for your search: either problem, change, configuration, or rules records. You do not care what kind of record has been altered by USER01; you want to see them all. So, you do not want to use the structured or quick search methods. A freeform search does not limit you to a single record type.

A freeform search can consist of one step: Enter the SEARCH command on the command line with a search argument. However, you must know how to enter the search argument correctly.

Understanding Keywords

You probably noticed when you looked at the search argument in “Obtaining Information from a Database” on page 163, that there are words and codes in the argument in addition to the data you requested. These extra words identify records and field types, and are called

keywords. Every record you create or update with Tivoli Information Management for z/OS contains these keywords.

```

BLG1TVCD                VIEW COLLECTED DATA                LINE 1 OF 1
INQUIRY  RECS=PROBLEM  REP=REPORTER  PERS/HOLLOWAY
*** BOTTOM OF DATA ***

Type DOWN or UP to scroll the panel, or type END to exit the panel.
====>

```

Three kinds of keywords can be used in a search argument:

Structured words

Are included in the argument when you select an option from a panel during a structured search or quick search. The visible phrase you see, which represents an s-word, contains an equal sign (=). For example, on the previous panel, REP=REPORTER is the visible phrase of an s-word.

Prefix words

Are included in the argument to identify which fields the data corresponds to. P-Words contain a slash (/) or an underscore character (_). For example, in the previous panel, PERS/HOLLOWAY is a p-word.

Freeform words

Are included in the argument to identify actual words that appear in record descriptions or description abstract fields.

Each kind of keyword can be included in the search argument when you do a search by selecting 6, for Inquiry, from the Primary Options Menu. However, when you do a freeform search, you work only with p-words and freeform words. In other words, you cannot use s-words in a freeform search.

Note: Although s-words are not used in a freeform search, it is possible to retrieve s-words as well as freeform words in your search. This will only happen if the freeform search argument contains SBCS Katakana characters in the range of X'BA' - X'BF' as the first character. Characters in the range of X'BA' - X'BF' are used to identify s-words.

Usually, the data contained in each record has prefix keywords identifying the field and data type. However, some fields, such as Description fields, have no prefix. You can still search for data in these fields by searching for the exact words in the field.

Searching for Information

For example, you can search for the word *training* in description fields as you did in “Displaying a Record from the Primary Options Menu” on page 54 by typing:

```
search =5 training
```

and pressing Enter.

```
BLG0EN20          --- PRIMARY OPTIONS MENU ---      APPLICATION: MANAGEMENT
OPTIONS:
  1. OVERVIEW.....Display general information and product enhancements.
  2. PROFILE.....Display or alter invocation or session defaults.
  3. APPLICATION....Change application, list available applications.
  4. CLASS.....Change current class, list available classes.
  5. ENTRY.....Create a record.
  6. INQUIRY.....Search for records.
  7. UTILITY.....Copy, display, print, delete, and update records.
  8. GLOSSARY.....Display a list of searchable words in the database.
  9. PMF.....Modify or create panels.

      Select an option, enter a command, or type QUIT to exit.

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====> search =5 training
```

You specify database 5 by entering =5 after the command. If you leave out the =5, you search the default database specified in your user profile. If 5 is your default database, you can enter just:

```
search training
```

The freeform word *training* limits the search to records with that word in the description field.

Note: If you are using logical database partitioning, you need to enter =5* instead of =5 if you want to search all partitions for which you have access.

BLG1TSRL, the Search Results List, lists all the records in database 5 whose Description field contains the word “training.”

Type **initialize** and press Enter to begin another example.

```

BLG1TSRL                      SEARCH RESULTS LIST                      LINE 1 OF 15

DATABASE: 5

   RECORD ID      DESCRIPTION ABSTRACT
   1. TRN850      RESPONSE TIME TOO SLOW ( TRAINING RECORD )
   2. TRN376      NEEDS ANOTHER DISK DRIVE ( TRAINING RECORD )
   3. TRN744      CANNOT ACCESS APPLICATION ( TRAINING RECORD )
   4. TRN100      BROKEN ON OFF SWITCH ( TRAINING RECORD )
   5. TRN200      COLOR CONVERGENCE PROBLEM ( TRAINING RECORD )
   6. TRN300      NEEDS TONER MAKES STREAKS ( TRAINING RECORD )
   7. TRN400      PRINTING TOO LIGHT ( TRAINING RECORD )
   8. TRN500      CANNOT BLOCKCOPY TEXT ( TRAINING RECORD )
   9. TRN600      PASSWORD DOES NOT WORK ( TRAINING RECORD )
  10. TRN700      PAPER JAM CANNOT BE FIXED ( TRAINING RECORD )
  11. TRN800      BROKEN DISK DRIVE ( TRAINING RECORD )
  12. TRN439      RESPONSE TIME TOO SLOW ( TRAINING RECORD )
  13. TRN559      GARBAGE ON MY PRINTOUTS ( TRAINING RECORD )
  14. TRN125      DOES NOT FILL UP SCREEN ( TRAINING RECORD )

Line Cmds: C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.

====> initialize

```

When you do a freeform search like this example, you must be sure that the freeform word you specify is the same as it appears in the database. Otherwise, if your keyword is spelled differently than the keyword in the record, the search results will not include that record.

You must also remember to include the prefix, if applicable, and take leading zeros into consideration. For example, if you want to search for record 3, you cannot find it by entering any of the following:

```

search 3
search rnid/3
search 00000003

```

You must enter:

```

search rnid/00000003

```

Entering dates and times in the proper formats for freeform searches is important.

- For dates, use the format YYYY/MM/DD, where YYYY is the year, MM is the month, and DD is the day.
- For time, use the format HH:MM, where HH is the hour and MM is the minute.

You must use these formats for freeform searches, even if you normally enter dates or times in different formats when you enter them in data fields.

During the exercise for structured searching, on page 166, a prefix appeared in the upper-right corner of BLG6REQN, the Reporter Name panel. That prefix is associated with the field into which you entered data for the search argument. The prefix is collected with the data as you enter it into the record. So when you search for that data, you must be sure that the same prefix is associated with the data in your search argument.

Searching for Information

For example, when you entered Holloway on the panel, the record contained the data PERS/HOLLOWAY.

```
+ BLG6REQN ----- REPORTER NAME ----- PERS/--+
|
| USE...Enter name of the person entering problem, change, etc.
|
| FORM...Up to 40 characters, including special characters and
|         embedded blanks. The entire value will be searchable as
|         a single piece of data. If you want to search or sort
|         records by last name, enter the last name first.
|
| EXAMPLES: Janet Cooper-King..Reply.....Cooper-King Janet
|           Tim Johnson.....Reply.....Johnson Tim
|           Default.....Reply.....=
|
+----- REPLY AS ILLUSTRATED -----+

====> holloway
```

As you become more familiar with Tivoli Information Management for z/OS, you learn which prefixes are associated with each type of data. See “P-Word Lists by Record Type” on page 269 or refer to the *Tivoli Information Management for z/OS Reference Summary* for a list of prefixes. Contact your program administrator (whose name should be recorded on page 265) for prefixes that are unique to your organization.

For this exercise, add another keyword to the same search argument you used before. This time, use a p-word: PERS/HOLLOWAY. Type

```
search =5 training
pers/holloway
```

In this case, you are searching for any records in database 5 that contain the word training in the description fields and the name Holloway in any field associated with the prefix PERS/.

Press Enter.

```

BLG0EN20          --- PRIMARY OPTIONS MENU ---      APPLICATION: MANAGEMENT

OPTIONS:

  1. OVERVIEW.....Display general information and product enhancements.
  2. PROFILE.....Display or alter invocation or session defaults.
  3. APPLICATION...Change application, list available applications.
  4. CLASS.....Change current class, list available classes.
  5. ENTRY.....Create a record.
  6. INQUIRY.....Search for records.
  7. UTILITY.....Copy, display, print, delete, and update records.
  8. GLOSSARY.....Display a list of searchable words in the database.
  9. PMF.....Modify or create panels.

          Select an option, enter a command, or type QUIT to exit.

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====> search =5 training pers/holloway

```

BLG1TSRL, the Search Results List panel, shows a list of all records that Tivoli Information Management for z/OS found that matched the search argument. Remember, you can use the line commands and block line commands to perform tasks with these records (as shown in “Understanding Line Commands” on page 178).

Type **initialize** and press Enter to begin another exercise.

```

BLG1TSRL          SEARCH RESULTS LIST                LINE 1 OF 3

DATABASE: 5

  RECORD ID      DESCRIPTION ABSTRACT
  1. TRN777      LARGE PAPER JAM ( TRAINING RECORD )
  2. TRN744      CANNOT ACCESS APPLICATION ( TRAINING RECORD )
  3. TRN200      COLOR CONVERGENCE PROBLEM ( TRAINING RECORD )
*** BOTTOM OF DATA ***

Line Cnds: C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.

====> initialize

```

Parenthetical Searching

To increase your ability to eliminate unwanted records from the results of freeform searches, you can use parentheses within freeform search arguments entered on the command line or in the ARG command entry area to specify the order in which arguments should be evaluated. Arguments placed within parentheses will be evaluated first. The parentheses can adjoin the arguments or be separated by one or more spaces. Following are explanations of three examples using parenthetical statement in freeform searches.

To find all records that were opened by Susan and are not closed OR are priority 1 and have not been assigned, enter:

```
SEARCH (PERS/SUSAN ~ STAC/CLOSED) | (PRIO/01 ~ PERA/. )
```

To find all records with a status of either INITIAL or OPEN that are either priority 01 or opened by the CEO department:

```
SEARCH ( STAC/INITIAL | STAC/OPEN ) ( PRIO/01 | GROS/CEO )
```

To find all records that meet either of the following conditions:

- Priority is 01
- Status is OPEN and both of the following are true:
 - Requester department is CEO or PAY
 - Priority is 01 or 02

```
SEARCH PRIO/01 | (STAC/OPEN (GROS/CEO | GROS/PAY) (PRIO/01 | PRIO/02))
```

Searching Logical Files

When you want to search databases that contain only freeform words, such as those in the Information/MVS format, you can only use a freeform search. A user database in the Information/MVS format is subdivided into logical files, similar to chapters in a book. Therefore, you can limit your search by specifying a logical file in the search argument.

For example, your organization has a user database numbered 1. It is subdivided into logical files A,B,C,D,E,F,G, and H. If you want to search logical file G for records containing the freeform word VTAM[®], type the logical file name after the database number in your search argument.

In this exercise, you search logical file G of database 1 for records that contain the freeform word VTAM. Type the logical file name after the database number:

```
search =1g VTAM
```

and press Enter.

If you want to search logical files B and G, specify

```
search =1bg VTAM
```

and press Enter.

```
BLG0EN20          --- PRIMARY OPTIONS MENU ---      APPLICATION: MANAGEMENT

OPTIONS:

  1. OVERVIEW.....Display general information and product enhancements.
  2. PROFILE.....Display or alter invocation or session defaults.
  3. APPLICATION...Change application, list available applications.
  4. CLASS.....Change current class, list available classes.
  5. ENTRY.....Create a record.
  6. INQUIRY.....Search for records.
  7. UTILITY.....Copy, display, print, delete, and update records.
  8. GLOSSARY.....Display a list of searchable words in the database.
  9. PMF.....Modify or create panels.

          Select an option, enter a command, or type QUIT to exit.

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====> search =1g VTAM
```

The results are shown on a search results list.

Performing a Combined Search

You can perform a combined search by using structured, prefix, and freeform words in the same search argument. A combined search helps you limit the scope of the search and tailor the results more specifically to your needs. The next example shows how you can combine a structured search with a freeform search.

With the **Quick search?** field in your user profile set to NO, start a search. Type **6** (for Inquiry), and press Enter.

```
BLG0EN20          --- PRIMARY OPTIONS MENU ---      APPLICATION: MANAGEMENT

OPTIONS:

  1. OVERVIEW.....Display general information and product enhancements.
  2. PROFILE.....Display or alter invocation or session defaults.
  3. APPLICATION...Change application, list available applications.
  4. CLASS.....Change current class, list available classes.
  5. ENTRY.....Create a record.
  6. INQUIRY.....Search for records.
  7. UTILITY.....Copy, display, print, delete, and update records.
  8. GLOSSARY.....Display a list of searchable words in the database.
  9. PMF.....Modify or create panels.

          Select an option, enter a command, or type QUIT to exit.

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====> 6
```

On BLG00001, the Tivoli Information Management for z/OS Inquiry panel, you are searching for problem records. Type **1** (for Problem), and press Enter.

```
+ BLG00001 ----- INQUIRY ----- 1 OF 1 ---+
|
| USE....Identify type of information to be added to the inquiry.
|
|  1.PROBLEM.....Enter data processing problem description.
|  2.CHANGE.....Enter change request for system/procedure.
|  3.CONFIGURATION.....Enter description of system configuration,
|                      financial data, or service organization.
|  4.RULES.....Enter description of escalation rules.
|  5.DATA MODEL.....Enter description of a data model.
|  6.PEOPLE.....Enter description of a person.
|  7.SOLUTION.....Enter solution data.
|
+----- SELECT ITEM -----+

====> 1
```

BLG0E000, the Problem Inquiry panel, appears. (If you are using the structured search path, this is the panel you will see. If you use the quick search path, panel BLG0E190 appears.) At this point, Tivoli Information Management for z/OS is already building a search argument in response to your entries on each panel. In this exercise, you want to display the search argument so you can modify or add to it, if necessary. Type **argument**, and press Enter.


```

+ BLG0E000 ----- PROBLEM INQUIRY ----- 1 OF 1-+
|
| OPTIONS:
|
|   1. REPORTER.....Reporter name, date, time, system, etc.
|   2. STATUS.....Assignee, status, date, priority, etc.
|   3. CLOSE.....Close date and time, resolver, code etc.
|   4. SYMPTOMS.....Detailed problem symptoms and aids.
|   5. RESOLUTION...Detailed problem resolution (FIX).
|   6. SUPPLEMENTAL..Dump data set names, documentation, etc.
|   7. CLASSES.....Privilege classes interested in problem.
|   8. CONTROL.....Record control: owner, enter date, etc.
|
+----- SELECT OPTION -----+

```

```
====> argument
```

BLG1TARG, the Argument -- Review or Modify Current Search Argument panel, has two parts. The top portion lists those keywords that you have already collected by responding to panels. In this exercise, you collected a keyword when you selected 1, for Problem record on BLG00001, the Management application Inquiry panel. This part of the argument cannot be modified and is referred to as *locked*.

The bottom portion of the panel lists those keywords that you can modify and provides space to enter prefix or freeform keywords to append to the locked argument.

Type:

```
pers/holloway
```

in the space provided (not the command line), and press Enter. Then type **search** on the command line and press Enter again to initiate the search.

Searching for Information

```
BLG1TARG      ARGUMENT -- REVIEW OR MODIFY CURRENT SEARCH ARGUMENT

REVIEW CURRENT LOCKED SEARCH ARGUMENT:
INQUIRY RECS=PROBLEM

                                                                    LINE 1 OF 10
***** ENTER OR MODIFY FREEFORM SEARCH ARGUMENT BELOW *****
PERS/HOLLOWAY

*** BOTTOM OF DATA ***

Type DOWN or UP to scroll the panel, or type END to exit the panel.

===> search
```

Tivoli Information Management for z/OS does a search using the collected search argument and the keywords you added. Results are displayed on **BLG1TSRL**, the Search Results List panel. Again, you can use the line commands or block line commands to perform tasks with the records listed. (See “Understanding Line Commands” on page 178.)

```
BLG1TSRL      SEARCH RESULTS LIST                                LINE 1 OF 3

DATABASE: 5

   RECORD ID   DESCRIPTION ABSTRACT
1. TRN777     LARGE PAPER JAM ( TRAINING RECORD )
2. TRN744     CANNOT ACCESS APPLICATION ( TRAINING RECORD )
3. TRN200     COLOR CONVERGENCE PROBLEM ( TRAINING RECORD )
*** BOTTOM OF DATA ***

Line Cnds: C=Copy D>Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.

===>
```

Limiting Your Search

The search argument you created in the previous exercise does not have many keywords. Sometimes, if there are not enough keywords to limit the search argument, the search generates a long list of records that matches the argument, but might not necessarily be the records you need. However, if you add more keywords to the search argument, the shorter search results list can produce records that are more likely to contain the specific information you want.

To add keywords to a search argument, you do not have to reconstruct the entire search argument. Enter the ARGUMENT command, as you did in the previous exercise, and add the keywords that will further define the search argument. Or, as an alternative to using ARGUMENT, you can use the **search** command to append freeform words and p-words to your search argument. Type SEARCH followed by a plus sign (+) and the keywords. The keywords you enter are appended to the existing search argument. For example, on panel BLG0E000 you could have typed **search +pers/holloway** to perform the search and to add the reporter name Holloway to your search argument.

Using Search Operators

To help you refine your requests for retrieving information from a database, Tivoli Information Management for z/OS provides search operators that allow you to define combinations of search arguments. For example, an AND operator lets you search for records that contain reporter as “holloway” AND machine type as “3279.” The only records that will be listed are those that contain both sets of data, “holloway” as reporter AND “3279” as machine type.

If you search for records that contain the names Holloway OR Yager, then records that contain one or both names are listed. The following operators enable you to use similar kinds of definitions for retrieving data:

Operator	Function
AND (space)	Logical AND
OR ()	Logical OR
NOT (~)	Logical NOT
hyphen (-)	Range operator, specifies range of values

The operator symbols above define an operation between two operands, while those below help define a single operand.

Operator	Function
period (.)	Specifies abbreviated keyword
asterisk (*)	Specifies position-ignore

Note: Do not abbreviate a keyword too much because the search may take longer than the allowed time. Taking too much time will cause the search to be canceled. If the search is canceled because it exceeded the allowed time, repeat the search without abbreviating the keyword as much as in the previous search.

Abbreviating a keyword too much can also create a search results list too large for Tivoli Information Management for z/OS to display. Tivoli Information Management for z/OS limits the number of records in a search results list to 32 767. If you create a search results list with more than 32 767 records, Tivoli Information Management for z/OS displays only 32 767 records.

When you use operators together in a search argument, the operators are processed left to right in the following order:

1. OR operators
2. AND and NOT operators
3. Hyphen (range), period (abbreviate keyword), and asterisk (position-ignore) operators.

Notes:

1. Arguments in parentheses will be processed first.
2. You can use a DBCS period to indicate abbreviation of a DBCS value.
3. You can use a DBCS asterisk to indicate “position ignore” of a DBCS character.
4. At least one space must precede the OR, NOT, and hyphen operators.
5. The OR, NOT and hyphen operators must be SBCS.

For example, if you specified the following search argument:

```
search date1 time1 | date2 time2
```

“time1 or date2” is processed first, and then those results are ANDed with date1 and time2. Examples of more useful arguments are::

```
search date1 | date2 time1 | time2
```

or

```
search (date1 time1) | (date2 time2)
```

The search would find records that had either date1 OR date2 AND either time1 OR time2.

Note: When entering actual dates for a freeform search, enter them in the format YYYY/MM/DD, where YYYY is the year, MM is the month, and DD is the day. When entering actual times for a freeform search, enter them in the format HH:MM, where HH is the hour, and MM is the minute.

A discussion of each operator follows. The examples provided include prefixes entered using the ARGUMENT command or the SEARCH and REPORT commands. Refer to the *Tivoli Information Management for z/OS Program Administration Guide and Reference* for the meanings of the prefixes used in these and subsequent examples.

Logical OR

The SBCS vertical bar (|) symbol (X'4F') allows you to specify Boolean OR logic as part of a search argument. The search function recognizes a match when at least one of the values is found. At least one space must precede the operator, but spaces are optional after the operator.

The SBCS OR operator must be placed between keywords. It cannot be specified as the first character in a search argument.

```
search pera/ford | pera/wilson
```

This search retrieves all records that are assigned to either Ford or Wilson.

Note: If your organization has installed graphic substitution characters, a different character may represent your OR operator. Contact your program administrator for the proper character to use for the OR operator.

Logical AND

An SBCS blank space () allows Boolean AND logic to be specified as part of a search argument. The logical operator AND is implied during the process of collecting data, and is used to add a new value to previously collected data, unless you specify a different relationship between values. The search function recognizes a match when both of the values are found.

```
search stac/open prio/02
```

This search retrieves all records that have a current status of open and a current priority of 02.

Logical NOT

The SBCS negate (\neg) symbol (X'5F') allows Boolean NOT logic to be specified as part of a search argument. The search function finds a match for each record that does not contain the value. At least one space must precede the operator, but spaces are optional after the operator.

```
search  $\neg$ stac/closed
```

This search retrieves all records that do not have a status of closed. Be sure the operator precedes the prefix, not the value. If the operator is misplaced, you may receive unpredictable search results, because it might be flagged as a syntax error by Tivoli Information Management for z/OS.

Another example is:

```
search A  $\neg$ B | C
```

This search retrieves all records that contain A and neither B nor C (remember, the processing order of operators gives a higher priority to the OR in the sequence, so the NOT applies to both B and C).

Note: If your organization has installed graphic substitution characters, a different character may represent your NOT operator. Contact your program administrator for the proper character to use for the NOT operator.

Generally, it is better to minimize your use of the NOT operator. Also, it is a good practice to place any NOT keywords after the other keywords.

When you use NOT logic as part of your search argument, keep in mind the differences between freeform searching, structured searching, and quick searching. If you specify a NOT operator in a freeform search argument, the search finds all records that do not contain the keyword.

For example, if you include the following keyword:

```
 $\neg$ stac/closed
```

in a freeform search argument, the search finds all records that contain a STATUS value where the value is other than closed, in addition to all records that contain no STATUS value at all.

In structured searching, you must use an assisted-entry panel to enter the value of the STATUS you want to search for. To get to this assisted-entry panel, you must make a selection on the previous panel in the prompting sequence. In a problem inquiry, for example, you first select PROBLEM STATUS to access the assisted-entry panel for entering the status you want.

If you specify `¬closed` as the STATUS value on the assisted-entry panel, the search finds all records that contain a STATUS value other than closed, the search misses any records with empty STATUS fields. This is a very important difference to keep in mind when you are using NOT logic to do freeform searching as opposed to structured searching or quick searching.

However, if you are accustomed to structured or quick searching, you can use structured searching or quick searching to locate records containing empty STATUS fields. On the assisted-entry panel for entering the STATUS value, enter:

```
¬. (NOT period)
```

This search finds only those records that do not contain a STATUS.

When you enter this search argument on the assisted-entry panel, the s-word associated with the entry also has NOT logic applied to it. Also, if the previous entry has the same s-word, it, too, has NOT logic applied. However, no entries before that one have NOT logic applied. This is important to consider if you use multiple assisted-entry panels. If the entry does not contain an s-word, then the s-word in the previous entry (if it has one) automatically has NOT logic applied to it. This processing is done because the actual search argument does not contain the prefixed entry. Only the s-word is used in the search. The s-word uniquely identifies the data.

Range of Values

The SBCS hyphen (-) symbol (X'60') permits a range of values to be specified as part of a search argument. The range symbol is specified as the delimiter between two responses. At least one space must precede the operator, but spaces are optional after the operator.

The first value represents the lower limit of the range and the second value represents the upper limit. An item is a match if it falls within the range (including the range limits).

The length of the lower limit must include the necessary leading zeros so that the lower limit value exactly matches the p-word in the database. For example,

```
search RNID/02 - 99
```

is not valid and finds no records, while

```
search RNID/00000002 - 99
```

locates records that have identifiers between 2 and 99 because the record ID is specified as the correct length, 8 digits.

The length of the upper range limit must be less than or equal to the length of the lower limit. Only the right-justified significant digits need to be specified for the upper limit. This

abbreviated form is expanded to the same length as the lower limit when the search argument is processed by right-justifying it over the lower limit value. In the previous example, the upper limit 99 would be expanded to RNID/00000099.

As another example, when you want to specify an outage of, for instance, 5 to 10 hours, you should enter 05 - 10 instead of 5 - 10.

Another example, showing dates, is:

```
search datt/1998/01/01 - datt/1998/02/01 (or datt/1998/01/01 - 02/01)
```

which retrieves change requests and activities that have a planned end date within the specified range (Jan. 1, 1998 through Feb. 1, 1998).

And one more example:

```
search devf/3270 - 9
```

This search argument retrieves all device types in the range 3270 to 3279.

Note: Mixed strings can be used in specifying a range of values. If the abbreviated form is used for the upper limit, the corresponding expanded form must be a valid mixed string.

You should also avoid abbreviating the upper limit of a range by using a period (.). Instead of the range DATE/1998/01/01 - 05/. which expands to DATE/1998/01/01 - DATE/1998/005/., you should specify DATE/1998/01/01 - 05/**.

If you choose to abbreviate the upper limit of a range, make sure that the upper limit does not contain a prefix word because this may yield unexpected results. For example, the range search NUMV/1234 - NUMV/5 expands to NUMV/1234 - NUMNUMV/5. In this case, a hexadecimal compare of the lower limit with the upper limit finds that the upper limit is not greater than the lower limit, and the following message results:

```
BLG05022W NUMV/1234 - NUMNUMV/5 is not a valid range.
```

In other cases, the expanded upper limit may pass the hexadecimal range comparison and produce a search results list, however the results may not be what is expected.

Abbreviated Keyword

The period (.) (either SBCS or DBCS form) abbreviates a keyword during a search and returns a match on any value that begins with the same characters as those that precede the period, regardless of the length of the value. The period is interpreted as an operator only when it is the last character of a keyword. For example,

```
search ABC.
```

This search argument retrieves all records that contain a keyword beginning with ABC, including records that contain the keyword “ABC” itself.

Another example:

Note: In the following examples, the characters < and > denote shift-out and shift-in characters respectively, and the W indicates that the letter following it is a DBCS character.

```
search <WRWEW.>
```

This search argument retrieves all records that contain a keyword beginning with “<WRWE”.

Another example:

```
search ABC<WGWRW.>
```

This search argument retrieves all records that contain a keyword beginning with “ABC<WGWR”.

Another example:

```
search dato/1998/05.
```

This search argument retrieves all records that contain a “date occurred” value in the month of May, 1998.

Another example:

```
search codu/oper.
```

This search argument retrieves all privilege class records that contain the IDs of eligible users beginning with the characters “OPER.”

Another example:

```
search codu/ABC<WSWUW.>
```

This search argument retrieves all privilege class records that contain the IDs of eligible users beginning with the characters “ABC<WSWU”.

Position-Ignore

The asterisk (*) (either SBCS or DBCS form) in place of a character causes Tivoli Information Management for z/OS to ignore that character position when performing a search. The asterisk can appear in any position except the first, and any number of times, in the keyword. For example,

```
search AB*
```

This search argument retrieves all records that contain a 3-character SBCS keyword beginning with AB. A match is a value of equal length.

Another example:

```
search <WDWIW*>
```

This search argument retrieves all records that contain a 3-character DBCS keyword beginning with <WDWI. A match is a value of equal length.

Another example:

```
search ab/s0*0a
```

This search argument retrieves all system ABENDs ending in 0A.

Another example:

```
search per*/thomas
```


This search argument retrieves all records that contain the name THOMAS with any of the person prefixes (PERA, PERC, PERR, PERS, or PERX). PER* includes fields such as assignee, coordinator, resolved by, reported by, and system specialist.

The position-ignore character does not ignore shift-out or shift-in characters. For example, the argument in:

```
search <WJWOWHWNW*WTWHWOWMMAWS>
```

would not match the string <WJWOWHWN><WTWHWOWMMAWS>.

Position-Ignore in a Range Search

Sometimes you may want to perform a search where the resulting search results list of records reflects one or more subsets of ranges within an overall range. The use of asterisks in range arguments implies subsets of ranges within an overall range. For example, you might want to search for all dates in 1998 that are between the first and second day of any month. If your argument accurately defines the search criteria, your search results list contains only records with a date that is either the first or second day of any month in 1998. If your argument inaccurately defines the search criteria, you will have either extra or missing records in the search results list. The list most likely contains extra records. The search results list of records always reflects the arguments supplied.

The * used in a range argument can be useful, but the search argument is fairly difficult to construct. Range arguments do not perform efficiently, so use range arguments carefully.

To demonstrate the previous example, consider the following six range arguments as possible ways of getting a search results list of records containing the date for the first and second day of any month in 1998:

ARG#	A	B
-----	---	---
1.	DATA/1998/01/01	- DATZ/1998/12/02
2.	DAT*/1998/01/01	- DATZ/1998/12/02
3.	DAT*/1998/01/01	- DAT*/1998/12/02
4.	DAT*/1998/**/01	- DAT*/1998/**/02
5.	DATA/1998/**/01	- DAT*/1998/**/02
6.	DATA*1998*01*01	- DATZ*1998*12*02

In this discussion:

Argn is one of the above range arguments 1 through 6.

segn is an argument segment.

ArgnA segn

is a portion of the range-low-end argument (left) bound by an asterisks or blanks from left to right.

ArgnB segn

is a portion of the range-high-end argument (right) bound by an asterisks or blanks from left to right. An argument without an asterisk has only one segment.

GLOSSARY (G)

is a searchable value cross-referenced in the SDIDS database data set.

For example:

Arg6A seg2 would refer to '1998' in the left-hand part of Argument 6 above.

Consider glossary value DATE/1998/01/01 and match it to Arguments 1 through 6.
Arg1A has one segment. G would be considered as a single segment also.
Arg6A has four segments. G would be considered in four positionally corresponding segments (DATE*1998*01*01).

The Tivoli Information Management for z/OS search function reads candidate-glossary values and tests them to determine if the values should be used or bypassed in reaching the final search list.

Example 1:

G=DATE/1998/01/01

Records containing G should be in the search results list.
It is in 1998 and is the first day of January.

Arg 1: DATA/1998/01/01 - DATZ/1998/12/02
G is greater than or equal to (\geq) Arg1A seg1
G is less than or equal to (\leq) Arg1B seg1
G meets the criteria and would be used.

Arg 2: DAT*/1998/01/01 - DATZ/1998/12/02
G \geq Arg2A seg1
G \geq Arg2A seg2
G \leq Arg2B seg1
G meets the criteria and would be used.
G would meet the criteria for Arg1 through Arg6 and would be used.

Records containing G would be included in the search results list.

Example 2:**G=DATE/1990/01/01**

Records containing G should not be in the search results list.
It is in the year 1990.

Arg 1: DATA/1998/01/01 - DATZ/1998/12/02

G >= Arg1A seg1

G <= Arg1B seg1

G meets the criteria.

Arg1 does not accurately define the search.

Records containing G would be included in the search results list.

An Argument without asterisks (*) cannot be used to solve this example.

Arg 2: DAT*/1998/01/01 - DATZ/1998/12/02

G >= Arg2A seg1

G < Arg2A seg2

G fails the criteria and would be bypassed.

Records containing G would not be included in the search results list.

Arg 3: DAT*/1998/01/01 - DAT*/1998/12/02

G >= Arg3A seg1

G < Arg3A seg2

G fails the criteria and would be bypassed.

Records containing G would not be included in the search results list.

Arg 4: DAT*/1998/**/01 - DAT*/1998/**/02

G >= Arg4A seg1

G < Arg4A seg2

G fails the criteria and would be bypassed.

Records containing G would not be included in the search results list.

Arg 5: DATA/1998/**/01 - DAT*/1998/**/02

G >= Arg5A seg1

G >= Arg5A seg2

G <= Arg5B seg1

G <= Arg5B seg2

G <= Arg5B seg3

G meets the criteria and would be used.

Arg5 does not accurately define the search.

Records containing G would be included in the search results list.

Arg 6: DATA*1998*01*01 - DATZ*1998*12*02

G >= Arg6A seg1

G < Arg6A seg2

G fails the criteria and would be bypassed.

Records containing G would not be included in the search results list.

Example 3:

G=DATE/1998/01/03

Records containing G should not be in the search results list.
It is not the first or second of the month.

Arg 1: DAT*/1998/01/01 - DATZ/1998/12/02

G >= Arg1A seg1

G >= Arg1A seg2

G <= Arg1B seg1

G meets the criteria and would be used.

Arg 1 does not accurately define the search.

Records containing G would be included in the search results list.

Arg 2: DAT*/1998/01/01 - DAT*/1998/12/02

G >= Arg2A seg1

G >= Arg2A seg2

G <= Arg3B seg1

G <= Arg2B seg2

G meets the criteria and would be used.

Arg 2 does not accurately define the search.

Records containing G would be included in the search results list.

Arg 3: DAT*/1998/**/01 - DAT*/1998/**/02

G >= Arg3A seg1

G >= Arg3A seg2

G >= Arg3A seg3

G <= Arg3A seg1

G <= Arg3A seg2

G > Arg3A seg3

G fails the criteria and would be bypassed.

Records containing G would not be included in the search results list.

Arg 4: DATA*1998*01*01 - DATZ*1998*12*02

G >= Arg4A seg1

G >= Arg4A seg2

G >= Arg4A seg3

G >= Arg4A seg4

G <= Arg4B seg1

G <= Arg4B seg2

G <= Arg4B seg3

G > Arg4B seg4

G fails the criteria and would be bypassed.

Records containing G would not be included in the search results list.

From the previous examples, the only valid search arguments that properly isolate the significant segments with asterisks are Arg2 and Arg4. However, Arg4 could be inaccurate depending on your glossary content. For instance, if G=DATA196001502, then it is not a date at all but would pass validation.

Searching for Fields

When using Tivoli Information Management for z/OS records, you might, on occasion, do a general search on a field just to see if the field is in the record. You might not care about the contents of the field, but just want to know if it contains any value at all.

There are two ways to do this search:

1. If you know the prefix for the field, you can supply the prefix on a SEARCH command and do the search. Enter the prefix with a period (.) instead of an associated value. The period can be either SBCS or DBCS.
2. If you do not know which prefix to use, you can do a structured search or quick search by selecting INQUIRY on the Primary Options Menu. When you get to the assisted-entry panel for the particular field, enter a period (.) instead of a value. The period may be either SBCS or DBCS.

Note: If the prefix you are searching for is used for more than one field, the freeform search finds all records of any type with any field that uses that prefix and has data in it. The structured search only finds records of the particular record type that you specify in the search that have data in that field.

The following examples show how to use both methods to search the reporter name field.

Examples of Searching for Fields

Suppose you want to find all problem records that contain a value in the **Reporter name** field. You can use the first method if you know that the prefix for reporter name is PERS/.

Issue the following command:

```
search pers/.
```

You will receive a list of all problem records containing a completed reporter name field.

For a specific DBCS example, issue the following command:

```
search pers/<W.>
```

You receive a list of all problem records containing a completed **Reporter name** field with a shift-out character in the first position.

If you want to find records that do not contain a reporter name, issue the following command:

```
search ~pers/.
```

Use the NOT symbol (~) *before* the prefix.

The important point in these examples is the use of the period instead of a value associated with the prefix. Because the period is the only character in the value, it searches for records containing anything in the field.

If you did not know the prefix to use in the above example, you could work through an INQUIRY prompting sequence until you come to the panel asking for reporter name. You could then enter the field's number on the input line, press Enter, and receive the assisted-entry panel for the **Reporter name** field.

Instead of entering a name on this panel, you could simply enter a period to search for any value in the field. Or, enter "~." to search for an empty reporter name field.

This concept of general searching has another useful purpose. Suppose you do not remember which prefixes represent fields containing person names. You do, however, remember that such prefixes begin with PER.

If you issue the following SEARCH command:

```
search per*/.
```

you receive a list of records containing any value in any person field, such as **Person assigned** (PERA/), **Person closed** (PERC/), **Reporter name** (PERS/), and similar fields.

To go a step further, suppose your name is Dickenson and you want to locate all records that mention your name in any person field (this does not include freeform text descriptions). You can issue the following command:

```
search per*/dickenson
```

which produces a list of records containing person fields with a value of DICKENSON.

Searching Mixed Case Data

In general, searches on data are not case sensitive and you typically do not have to care about what case you use as you are typing your search argument. For example, you could type any one of the following freeform search arguments and retrieve data, assuming there are records:

```
search stac/OPEN pera/wilson nasy/Acctg
search stac/open pera/wilson nasy/acctg
search stac/oPEN pera/wILSON nasy/aCctg
```

Behind the scenes, Tivoli Information Management for z/OS translates all of the arguments to uppercase before it does the search. By default, field data is stored in the Tivoli Information Management for z/OS database in uppercase. If the data is considered searchable (that is, if it is cognized), it is cognized in uppercase format as well.

As an option, your Tivoli Information Management for z/OS program administrator can specify that the data be **cognized in mixed case**. Your program administrator can specify that data be stored, displayed, and printed in another format. This flexibility enables your organization to produce reports that are easier to read, and to more easily exchange data with other software products¹. The available formats for storing data are as follows:

- Uppercase (the default)
- Lowercase
- First character in a string is uppercase, all others lowercase
- As entered by users
- In some other format specified by the program administrator

If your location makes use of these options, your program administrator may also define certain fields to be case sensitive for searching. If your program administrator has informed you that a certain field is stored and cognized in mixed case, you must enclose the freeform search argument for that field with single quotation marks, and specify the argument in the correct case as well. The quotation marks serve to tell Tivoli Information Management for z/OS that it needs to look for an exact case match on the argument. The quotation marks are not necessary for structured searches where you use data-entry fields to construct a search.

For example, if the Status, Assignee Name, and System Name fields are cognized in mixed case at your location, enter your freeform search argument as follows:

1. These options are not available if your organization uses non-Latin translate tables for national language support.

```
search 'STAC/OPEN' 'PERA/Wilson' 'NASY/Acctg'
```

When entering a case-sensitive freeform search argument, enter the prefix (e.g., STAC) in uppercase. Mixed case prefixes are not supported. In this example, records containing OPEN, Wilson, and Acctg would be returned. Records that do not match, such as those containing oPen, WILSON or acctg would not be returned, since they do not explicitly match the search criteria.

You need one set of quotation marks around each argument. Quotation marks used within an argument are treated as part of the argument.

If you need to search on both uppercase and mixed case field data, you can include both types of arguments; just be sure to enclose the mixed case field in single quotation marks. For example:

```
search groa/deptxy 'PERA/Wilson' dato/1998/10/07
```

Your program administrator should inform you which data fields are stored and cognized in mixed case, so that you can enter the appropriate argument.

If you need to enter freeform searches and do not know what fields are cognized in mixed case, you can enter the VIEW INTERNALS command at a data-entry panel (after typing data in the field in question). The resulting display would show B/M or P/M in the “Cognize” column if the field is cognized in mixed case, or B/U or P/U if the field is cognized in uppercase. For details on the output generated by the View command, see “Using Commands” on page 103.

For other methods of searching, such as structured searches or quick searches, you do not need to enter the single quotation marks in the data-entry fields as you build the argument, since the case sensitivity is built right into the assisted-entry panels associated with the data entry panels. The use of quotation marks to explicitly search on cognized data in mixed case is limited to freeform searches. If you use combined searches (to build a structured or quick search and then complete the argument in a freeform search), be sure to use the quotation marks in the freeform search part of your argument to find mixed case data. If you omit the quotation marks, the freeform search part of the argument is converted to uppercase.

Searching Fields Containing Blanks

In Tivoli Information Management for z/OS, certain fields may accept a text string that contains blank characters as part of the data. For example, in a problem record, you can enter a **Reporter Name** of Ann Marie Gomez (three words with two blanks). You could also enter the name as Ann/Marie/Gomez or Ann_Marie_Gomez, as you have done in the past, with some other character such as a slash or underscore separating the words. The following fields on Tivoli Information Management for z/OS panels accept blanks:

- Problem records

Reported by (PERS/)
Assignee Name (PERA/)

- Change records

Requested by (PERS/)
Assignee Name (PERA/)

- Activity records

- Requested by** (PERS/)
 - Assignee Name** (PERA/)

- Call records

- Name** (PERS/)
 - Assignee Name** (PERA/)

- (Call records can be entered through the Tivoli Information Management for z/OS Desktop application only.)

- People records

- Person Name** (PERNM/)
 - Company Name** (CO/)
 - Address 1** (ADDR/)
 - Address 2** (ADDR/)
 - City/State/Province** (CITY/)
 - Country** (CTRY/)
 - Postal code/ZIP** (PCOD/)

Your program administrator can define other fields that accept blanks for search purposes. An option called **Cognize unparsed string**, available to your administrator in the Panel Modification Facility (or when defining data attribute record panels) enables data to be stored as an unsplit string for searching. When this option is set to YES, the field value is treated as a single entity for search purposes, including special characters and embedded blanks. A string of words in a data field can be stored as an unsplit string in the database for searching. The string can be up to 16 or 32 characters long, depending on the key length setting of your SDIDS. When this option is set to YES, the entire string is stored in the database for searching, including the prefix if there is one. Blanks are accepted as part of the data, unlike regular string fields and multiple-response fields, where blanks actually separate individual pieces of data. When this option is set to NO, the data is split into a group of words delimited by blanks wherever a special character is found. Each word is stored independently in the database with a prefix if the field has a prefix. The assisted-entry panels for the fields previously listed indicate whether blanks are allowed when you enter or update data.

Although fields cognized as unparsed strings may accept more than 32 characters, the maximum length that is stored for searching is 16 or 32 characters (depending on your SDIDS key length), including the prefix if one exists. If your SDIDS is defined with a key length of 18 bytes, the maximum length is 16 characters including the prefix. If your SDIDS is defined with a key length of 34 bytes, the maximum length is 32 characters including the prefix. See “Effects of SDIDS Key Length Settings” on page 226 for more information about how database key length settings affect searching.

Note: If you want to be able to search for people by their last name or family name, it is recommended that you type names with the family name first; for example; Gomez Ann Marie. The subsequent examples in this section show use of this convention.

For example, suppose a **Reporter Name** field contains the value of 'Gomez Ann Marie'. When the **Cognize unparsed string** option is set to NO, the data is stored for searching as three separate words:

```
Gomez, Ann, Marie
```

When the option is set to YES, the data is stored as follows:

```
Gomez Ann Marie
```

When creating or updating records using these fields, you can enter the data with embedded blanks and special characters. The whole value is stored as a single entity for searching. If you were to look in the glossary, you would see the entry PERS/GOMEZ ANN MARIE. You would not see PERS/GOMEZ, PERS/ANN, or PERS/MARIE as you would with a standard string field or multiple response field.

When entering a search for data in a string field that is cognized as an unparsed string (the option is set to YES), note the following:

- If you are entering a structured search interactively in Tivoli Information Management for z/OS, enter the value including the blanks in the field. Data can be entered with embedded blanks or special characters. For example, if you enter Charles Norman in the **Person Name** field of a problem record, you will find all records containing PERS/CHARLES NORMAN but none that have PERS/NORMAN CHARLES. You can also perform abbreviated searches, such as CHARLES. to find records containing Charles Norman, Charles Berkley, Charleston, and so on to find anything that starts with Charles. For this reason, if you want to search for people by their family name, enter names with the family name first.
- If you are entering a freeform search interactively in Tivoli Information Management for z/OS, you must use asterisks (*) where the blanks would appear in the data. The asterisk serves as a wildcard character to match any character, including blanks. For instance, your freeform search would be:

```
se pers/Gomez*Ann*Marie
```

If you use blanks in your freeform search argument

```
se pers/Gomez Ann Marie
```

the words will be treated as separate arguments and you will not get correct search results.

Note: When searching fields that are cognized as unparsed strings, your searches can be precise because they reduce the likelihood that you will receive matches on unintended records. However, data consistency is important with these types of fields. If data containing multiple words is stored for search purposes as one string, you need to be careful about misspelling data when entering or updating records. For example, suppose three records are entered in the database with the **Reporter Name** field data shown:

```
Gomez Ann-Marie
Gomez Ann/Marie
Gomez Ana Marie
```

If your freeform search is `se pers/Gomez*Ann*Marie` or even `se pers/Gomez*Ann.`, you will not find the third record because of the misspelling in Ann's name. If this field is not cognized as an unparsed string, you could enter the search `se`

pers/Marie and find all three records. If the field is cognized as an unparsed string, the search se pers/Marie will not result in any matches.

Existing data in your database can be used in fields that are cognized as unparsed strings. If you already have a record containing Gomez/Ann/Marie and have automated tasks that enter data in that format, you can still use the data and those tasks. By using a wildcard character (*), a single search can find records containing names entered with slashes and any new values entered with blanks. A structured or freeform search for Gomez*Ann*Marie will find records containing Gomez/Ann/Marie and all records containing Gomez Ann Marie because the wildcard character matches either a slash (/) or a blank.

If you do not know what fields are cognized in mixed case, you can enter the VIEW INTERNALS command at a data-entry panel (after typing data in the field in question). The resulting display would show an asterisk in the “Cognize” column if the field is cognized as an unparsed string. For details on the output generated by the View command, see “Using Commands” on page 103.

More information about setting the **Cognize unparsed string** option is available in the *Tivoli Information Management for z/OS Panel Modification Facility Guide*.

Searching Dates and Times with Universal Time Processing

If your installer or program administrator has implemented the universal time processing feature in Tivoli Information Management for z/OS to enable you to switch time zones, there are certain things you need to be aware of before searching for records. If you are not sure whether the feature has been implemented, ask your program administrator. If you issue a HELP STATUS command and see a time zone symbol specified for TIME_ZONE, it is likely that the feature has been implemented and that your program administrator has defined the necessary relationships between the date and time fields you will be using.

Before learning how searches should be entered, you should first understand a bit more about time zone and universal time processing. With this feature, users in different countries or geographic regions sharing a database can enter and view dates and times in their own time zones, regardless of how or where the records were entered. For example, if a user in Boston enters a problem record at the following date and time:

Date: 04/30/2001 Time: 10:45

The data is stored in the record in universal time as:

Date: 2001/04/30 Time: 14:45

A user in Italy can see the record as:

Date: 30/04/2001 Time: 16:45

The time value is converted to Central European Time (16:45) for the user in Italy, reflecting the data in a time zone the user can readily understand.

Universal time is coordinated on the Prime Meridian (Greenwich, UK). The Prime Meridian is at 0 degrees, and there are longitudinal lines every 15 degrees for a total of 24 (360 degrees). Various territories have “offsets” from this 0 degree universal time. Italy is in a territory that has a standard time offset of +1. Boston is in a territory that has an offset of -5 (or -4, depending on whether Daylight Saving Time is in effect). The combination reflects a 6 (or 5) hour difference, so therefore, the value the user in Italy sees is 16:45 (or

15:45, again depending on Daylight Saving Time in Boston). To view the time zones and their offsets, you can display the TIMEZONE record on your system (DISPLAY R TIMEZONE).

When you enter a value in a date or time field that has been related for universal time processing, the data can be viewed in three ways: in internal format (*universal time*), in internal format in the local time originally entered into the record (*original local time*), and in the time zone and external format of the current user (*user's local time*). If you were to enter a record and view the internals of the record with the VIEW INTERNALS command, you would see these three values. (For a more detailed discussion of universal time processing, you can refer to the *Tivoli Information Management for z/OS Planning and Installation Guide and Reference*.)

To search dates and times when universal processing is enabled, do a structured search and enter the date and time in your own local time. Tivoli Information Management for z/OS will handle all of the time zone conversions automatically.

If you need to do freeform searches, see “Freeform Searches” on page 223 to learn more about universal time processing and how to enter freeform search arguments.

Deciding what type of search to perform

Because data is stored for searching in both the universal time format and in the original local time format, you need to decide what type of date and time data you want to search on. Searches can be entered to look for the following:

- If you are performing a freeform search, you can search for date and time values as they were *originally entered* into fields by a user.

For example, if you are on the east coast of the U.S. (Atlanta) on April 27, 2001, and open a problem report at 9 p.m. (21:00) that evening, the original local date associated with the record is 2001/04/27 and the original local time is 21:00. The original local date is stored in internal date format, which is YYYY/MM/DD, even though you may have typed it as 04/27/2001 (MM/DD/YYYY format) or in some other format in the field. If you visited another company location in Australia a week later, and pulled up the same problem record to update it, the *original local* date value is still 2001/04/27 for the date opened field and 21:00 for the time opened field. The fact that you are in Australia, and most likely using Tivoli Information Management for z/OS with a time zone for Australia, does not change the original local format of the data.

- If you are performing a structured search or a freeform search, you can search for date and time values as they are stored in *universal time*. However, if you are performing a freeform search, you must enter your parameter values in universal time. If you are performing a structured search, you can enter the parameter values in your local time and the values will be converted to universal time for you. For this reason, it is suggested that you use structured searches when searching for values stored in universal time.

This means you can find records for any point in time around the world (if your company had various geographic locations). This type of search is useful to get a “snapshot” of events that occurred at a point in time regardless of where the record was entered. For example, suppose three users in North America each enter a problem record at the same time, but the users are in different time zones:

```
Toronto user enters problem on: 03/18/2001 at 11:15 Toronto time (ET time zone)
St. Louis user enters problem on: 03/18/2001 at 10:15 St. Louis time (CT time zone)
Phoenix user enters problem on: 03/18/2001 at 09:15 Phoenix time (MST time zone)
```

As long as the universal time processing feature is enabled and your program administrator has defined a relationship between date and time fields, the original local values entered by these three users are stored internally, but Tivoli Information Management for z/OS *also* converts the information into universal time values. For example, the universal time values calculated are:

```
Toronto user: 11:15 is a 5 hr offset from UT. Universal time = 16:15
St. Louis user: 10:15 is a 6 hr offset from UT. Universal time = 16:15
Phoenix user: 09:15 is a 7 hr offset from UT. Universal time = 16:15
```

The universal date and time are determined by combining the entered value with the value of its related date or time field. The data is then adjusted by the universal time offset. By searching on the universal time value of 16:15, you can find all three records. If you simply searched on an original local time value of 11:15, for example, you would receive only one record in the search results. By searching on universal time values, you can find records associated with events occurring around the world.

Before searching on dates and times using universal time values, you should first check with your program administrator to ensure that the date and time fields you will be searching on have been "related" in Tivoli Information Management for z/OS so that the correct universal time values can be calculated. Otherwise, you can only search on the original local values. The following sections describe how you can perform searches using the freeform and the structured search methods.

Structured Searches

You can enter values in your own local date or local time form. This form is also called the *user's local* date or time form. Internally, the search is performed using the equivalent universal time values. For example, if you enter a structured search containing a date value of 03/18/2001 and time value of 11:15 for the related fields, Tivoli Information Management for z/OS uses the universal time equivalent values to find any matching records.

By default, a structured search performed against related field data performs a universal time search. It does *not* cause original local values to be searched. This means that the data you type in fields for a structured search is intended to represent *your* local date and time for the time zone in effect for you. If you type 05/15/2001 for the date and 11:30 for the time and you are in New York, and your selected time zone is ET (US, Canada Eastern time zone with daylight saving), the values you typed are converted into universal time. In universal time, the values you typed represent 2001/05/15 and 15:30. The universal time offset for the ET time zone (-5:00) is added to the time entered (11:30), adjusted for daylight saving (on May 15, New York is on Daylight Saving Time), and a universal time value of 15:30 is calculated. Tivoli Information Management for z/OS searches for records containing universal time values of 2001/05/15 and 15:30. So while you "think" in your own local time zone when entering the arguments for the structured search, Tivoli Information Management for z/OS uses universal time values to do the searching.

If necessary, you can switch time zones in the user profile to search records entered by another location. For example, if you are in New York on the phone with another Tivoli Information Management for z/OS user in Italy, and the user in Italy mentioned that a problem record that you need to update was opened yesterday at 11:00, it may simply be easier to switch to the time zone used by the user in Italy to run the structured search than to try to adjust your New York local time values to achieve the equivalent of 11:00 Italy time in universal time. (Your program administrator may choose, however, to restrict how

time zones can be used.) The point, however, is that you can assume different date and time perspectives by switching time zones. Generally, unless you have a real business need to switch time zones, you will most likely use the one that is for your particular location.

If you perform a structured search on universal time fields, you should be aware of the following limitations:

- For all users:
 - Wildcard (*) and truncation (.) characters are *not* allowed in search arguments.
- For users in time zones that observe Daylight Saving Time (DST):
 - A search which specifies a time or time range must also specify a date or date range in the related date field.
 - A date range specified with a related time value cannot include all or part of more than 5 calendar years. For example, a search from 01/01/2001 to 12/31/2005 is acceptable, whereas a search from 12/31/2001 to 01/01/2006 is not acceptable because it includes part of 6 calendar years.
 - A search will fail if its parameters fall *entirely* within the skipped hour when DST begins.
 - Search times that occur during the repeated hour when DST ends are assumed to occur during the first hour (the hour before DST ends). For example, a search range for 10/29/2000 01:30–03:30 using US Eastern Time as the time zone will find all records with a value between the "first" 1:30 and 3:30, a range of three hours that would include the 01:15 that occurs after DST ends.

These limitations are in place because the arguments for structured searches which meet these criteria and involve universal time fields are extremely complex and could cause significant system performance problems.

Freeform Searches

You can perform freeform searches in two ways:

- Search original local values.

To search original local values, enter normal search arguments that specify date or time data in internal format. This type of search will cause the values as they are originally entered by a user to be searched. For example, to search on problem records opened on April 27, 2001 at 3:30 p.m.:

```
se dato/2001/04/27 timo/15:30
```

- Search universal time values.

Note: Because of the complexity of freeform search arguments for universal time values, it is suggested (but not required) that you use structured searches instead of freeform searches when searching for universal time values. If you choose to use a freeform search for universal time values, you should be aware of the following.

To search universal time values, enter the search argument with a special ending character (either an **&** or a **%**, depending on the p-word) for the p-word of the related field:

```
se dato&2001/04/27 timo&15:30
```

In this example, the same p-words (dato and timo) are entered but an ampersand character is used instead of a slash. (If your p-words use the underscore character instead of the slash, substitute the percent sign % for the underscore character to search universal time values.) The ampersand tells Tivoli Information Management for z/OS to search the universal time values (not the original local values) stored in the database.

If you are performing a freeform search on universal time fields, be aware that records are only cognized in universal time and the local time of the person who entered the data. This has the following implications:

- A search for DATE/2001/02/20 TIME/12:00 will find all records entered on 02/20/2001 at noon in the local time of the person entering the data. This means you might find a record from noon Sydney time and another record from noon Paris time, even though these records were entered many hours apart.
- Time ranges that cross the universal time date boundary (such as 16:00 to 22:00 Eastern Time) require a complex universal time search argument. For this reason, it is suggested that you use structured searches when searching universal time values, because the structured search performs the universal time conversions automatically.

Because including every possible user's time zone in the search index could cause significant system performance problems, you cannot enter a freeform search argument specifically for user local values. As you can tell, freeform searches can be very powerful, but you need to consider carefully your search criteria before entering search arguments.

Using Ranges with Universal Time

Tivoli Information Management for z/OS supports the use of range arguments in both the structured search and freeform search methods. For example, a freeform search could be:
search dato&2001/01/01 - dato&2001/06/30

However, be aware that the amount of time it takes to return search results on your system will be significantly increased if you are performing a *structured* search and if *both* the following conditions apply:

- Your local time zone observes Daylight Saving Time
- You enter both date and time values in your structured search

A structured search meeting these conditions will cause Tivoli Information Management for z/OS to perform an excessive amount of internal conversions of dates and times. For this reason, it is suggested that you instead use a freeform search for an argument which meets these conditions, especially if that argument spans several years.

Note: In addition, for a structured search meeting the above two conditions, a date range specified with a related time value cannot include all or part of more than 5 calendar years. For example, a search from 01/01/2001 to 12/31/2005 is acceptable, whereas a search from 12/31/2001 to 01/01/2006 is not acceptable because it includes part of 6 calendar years.

Scenario Showing Search of Universal Time Values

In this scenario, users in three different time zones in standard time experience a problem simultaneously and enter a problem record with the date and time the problem occurred as follows:

- A user in Toronto enters 03/18/2001 11:15. The user is in the ET time zone (US, Canada Eastern time zone with daylight saving).
- A user in St. Louis enters 03/18/2001 10:15. The user is in the CT time zone (US, Canada, Mexico Central time zone with daylight saving).
- A user in Phoenix enters 03/18/2001 09:15. The user is in the MST time zone (US, Canada, Mexico Mountain time zone without daylight saving). (Phoenix never goes on Daylight Saving Time.)

Because the month is March, none of these time zones are on Daylight Saving Time.

Internally, the times entered by the Toronto, St. Louis, and Phoenix users are converted into universal time:

Toronto	11:15	5 hr offset from UT =	16:15
St. Louis	10:15	6 hr offset from UT =	16:15
Phoenix	09:15	7 hr offset from UT =	16:15

A user in New York (same time zone as Toronto) searches for those records. She enters a structured search and types 03/18/2001 and 11:15 as the date and time the problem occurred. The search is performed using the equivalent universal time values.

She could also have entered the following freeform search to find the same records:
se dato&2001/03/18 tino&16:15

All three records will be found by the search because the problems really did occur at the same time, even though the original local time values entered by the users were different. The ampersand character tells Tivoli Information Management for z/OS to find the data using universal time equivalents. This type of search can be useful if you need to find records associated with events occurring around the world.

For example, suppose your network support team installs a new network router, and the router was not installed successfully and problems occurred at many of your company's geographic locations. You may want to judge the impact of that installation by finding all the problems that occurred at a particular time (or time range) at all your company's locations. If you used the regular slash character in the freeform search instead (as shown below), the search would yield no matching records because 16:15 does not match the original local values of 11:15, 10:15, or 09:15.

se dato/2001/03/18 tino/16:15

Note: Your users may not have a need to enter searches that narrow in focus, but if they do, they should understand how freeform and structured searches are performed when working with related field data. If you choose to implement universal time processing, your Tivoli Information Management for z/OS administrator should be prepared to educate users on how to perform searches of date and time fields. The *Tivoli Information Management for z/OS User's Guide* also describes how to perform searching when universal time processing is enabled.

Effects of SDIDS Key Length Settings

If you do not get the results you expect from a search, it may be due to a limitation that was imposed on you by the system administrator when he or she set up the Tivoli Information Management for z/OS databases. Specifically, the setting of the key length of the *structured description index data set* (SDIDS) can affect what results are returned to you from a database search.

The SDIDS is a key-sequenced VSAM data set that contains an index to the records stored in the database. It is used to speed up the search for records.

The SDIDS key length can be set to 18 or 34 bytes. With a key length of 18, your search argument can be up to 16 characters long. With a key length of 34, your search argument can be up to 32 characters long. The extra two bytes in the 18- and 34-byte key lengths are used by Tivoli Information Management for z/OS internally to prevent spanning and are not included as part of the searchable argument. The 34-byte key length enables you to do more exact searches, because Tivoli Information Management for z/OS is able to search on more characters in the argument.

For instance, suppose you have many people in your company with long names and similar names (e.g., Maryann Hoffman and Marylou Hoffman), and the practice at your company is to enter names without spaces. With an 18-byte SDIDS key, you get up to 16 characters of comparison on a search argument including the prefix:

```
search pers/hoffmanmaryann
```

```
search pers/hoffmanmarylou
```

In this example, the 16 characters are:

```
pers/hoffmanmary
```

With an 18-byte SDIDS key, if you enter more than 16 characters Tivoli Information Management for z/OS truncates the characters after the 16th character, and returns only those records that match up to 16 characters. Because Tivoli Information Management for z/OS is not able to distinguish between the two names, you will not get just the particular record you were looking for.

Using a 34-byte SDIDS key, if you wanted to get back hits on both names, you could enter the search argument with a period:

```
se pers/hoffmanmary.
```

Entering a period causes Tivoli Information Management for z/OS to ignore the remaining characters in the data record, and return the two matching items.

You could, through use of the 34-byte SDIDS key, enter PERS/HOFFMANMARYANN and get a more exact match. A 34-byte key enables you to search more explicitly on the longer names. Tivoli Information Management for z/OS uses the additional characters beyond the 16th character to do searching, and does not truncate the search argument starting with the 17th character. Therefore, the search PERS/HOFFMANMARYLOU would yield just Mary Lou's data records.

Report format tables, stored response chains, and terminal simulator panels or EXECs that do searches can also be affected by the key length defined for the SDIDS.

SDIDS key lengths are defined by the system administrator and require the BLGUT1 or BLGUT1M utility to be run if the key length is modified.

Using the Keyword Glossary

The keyword glossary in each database is a table that lists every keyword in the database. It also indicates the number of database entries that contain a given keyword. From this number, you can determine how many entries you would receive if you used a certain keyword in a search.

This glossary is an alphabetic list of all keywords, even those abbreviated, misspelled, or hyphenated by the originator, to enable you to specify the correct keywords needed to obtain certain information.

To display the glossary, issue the GLOSSARY command followed by the keyword where you want the display to begin, or select 8 (for Glossary) from the Primary Options Menu.

If you are using an immediate response chain (IRC) to view a keyword in the glossary, enter your IRC as:

```
glossary,2,keyword,,
```

where **keyword** is the keyword you want to view. Immediate response chains are described in “Using Immediate Response Chains” on page 235.

Viewing Records Sequentially

If, while you are looking at a specific record on a search results list, you decide to look at the records before and after it in the database, you can switch to sequential mode by using the ORDER command. In sequential mode, you examine entries in numerical order, based on their position in the database. The first record displayed on the search results list becomes the first record used in sequential order. You can then examine the surrounding items by using the NEXT and PREVIOUS commands.

Sequential mode might be useful when your search argument takes you into the middle of a question and answer (Q&A) log. Even though only one entry may have matched your keywords, the surrounding entries may be of interest.

To return to the search results list from the sequential display, use the END command as many times as needed. The current record pointer in the search results list is the same as when you issued the ORDER command.

Viewing an Entire File

Suppose you want to browse through the titles in a B file. Using the prefix RNID/, which prefixes record IDs, issue the command:

```
search =1 rnid/B0000001
```

which produces a search results list with one record, namely, record B0000001.

Now issue the ORDER command. A list of sequential titles beginning with B0000001 is displayed. You can use the DOWN and UP commands to browse through the list.

In the next example, you use sequential mode to view database entries related to a search request that you ran. You can, of course, view database entries independent of searching by using the `DISPLAY` command, but a faster way to view sequential records is to use the `ORDER`, `NEXT`, and `PREVIOUS` commands.

To establish sequential display mode, you must first do a search to create a search results list. When the search results list is displayed, enter the `ORDER` command to establish sequential mode. The first record displayed on the search results list becomes the first record used in sequential order.

For example, to sequentially display the records in a specific logical file, such as the B file, issue the command `SEARCH=1B`, which creates a list of all entries in the B file of database 1. Now issue the `ORDER` command to display the B titles in sequential order.

When you issue the `ORDER` command, a sequential titles list appears. Now you can use the `NEXT` and `PREVIOUS` commands for sequential browsing. Note that you cannot use the `NEXT` or `PREVIOUS` command to browse records until *after* you have done a search.

Searching Sequentially and by Search Results

In sequential mode, you examine entries in numerical order, based on their position in the database. Sequential mode causes viewing to be selected entry by entry from the total database.

In search results mode, you examine entries appearing in a search results list, regardless of their order in the database. Search results mode limits the entries to be viewed to those meeting the criteria specified on the last `SEARCH` command.

Every time you issue a new `SEARCH` command, the search results list is rebuilt. The current search results list remains valid if you switch to sequential mode to view some entries. It is possible to alternate between search results mode and sequential mode when selecting entries for display.

If you are in search results mode, you can enter sequential mode by issuing the `ORDER` command. You can return to search results mode by issuing an `END` command, which ends the sequential display. For example, suppose there is a search results list containing three entries:

- B0000002
- B0000006
- B0000010

If you are examining entry B0000006 in search results mode, and you issue the `NEXT` command, you are shown B0000010. If, before issuing the `NEXT` command, you had instead issued the `ORDER` command (thus entering sequential mode), you would have been shown entry B0000007 instead of B0000010 (assuming B0000007 was the next sequential entry in the database). You can issue the `END` command to return to search results mode.

11

Searching Freeform Text

This chapter:

- Explains how you can search the freeform text associated with your records
- Provides tips on doing searches of freeform text

The searching of freeform text can be done through the use of OS/390[®] Text Search, which is available with OS/390. A component of OS/390 Text Search, the Text Search Engine, can be used by Tivoli Information Management for z/OS to index and search the freeform text data associated with Tivoli Information Management for z/OS records. The Text Search Engine is available as part of OS/390 UNIX System Services.

Your Tivoli Information Management for z/OS program administrator may elect to take advantage of OS/390 Text Search to set up a solution knowledge base or to simply enable users to search the freeform text in records. A solution knowledge base is a repository of information (solution records) that people can use to help solve problems or to investigate items of interest for a particular purpose. For example, a help desk can use a solution knowledge base to search for symptoms of problems and find the best possible solutions for new problems. Whether or not a solution knowledge base exists at your location, you can still take advantage of freeform text searching if your program administrator has performed the necessary setup work for you to use OS/390 Text Search with the Tivoli Information Management for z/OS database. For more details about implementing OS/390 Text Search, refer to the *Tivoli Information Management for z/OS Program Administration Guide and Reference*.

Before you can use OS/390 Text Search, your Tivoli Information Management for z/OS data must be indexed by an administrator as described in *Tivoli Information Management for z/OS Program Administration Guide and Reference*. After the data is indexed, you can perform freeform text searches.

You must have the appropriate privilege class and authority to search the freeform text associated with the records and your signon must be permitted to access OS/390 UNIX[®] System Services.

For example, suppose you had the following freeform text associated with a problem record in your database. In this example, the data is being viewed through the Tivoli Information Management for z/OS host panel interface:


```

BLG1TTSA                Text Search Arguments                LINE 1 of 9
Use double quotation marks to group arguments together into search
phrases. Use Boolean operators AND, OR, AND NOT to separate search
phrases. Use parentheses to group search phrases and operators together.
Enter Text Search arguments below:
prodinfo AND link AND "ABC widget" AND NOT internet

*** BOTTOM OF DATA ***

Type DOWN or UP to scroll the panel, or type END to exit the panel.
===>
    
```

In this example, a search will be performed against the one-line abstract, description freeform text, and resolution freeform text for the words *prodinfo* and *link* and the term *ABC widget* but not *internet*.

To search on text containing one word or another, use the OR operator (for example, *prodinfo OR link*).

The AND NOT operator will exclude records containing the text in the search (in this case, the argument shown excludes all indexed records containing the word *internet*).

To search for a phrase containing blanks, type the phrase with the blank spaces (for example, "ABC widget"). Quotation marks are needed to search on a phrase containing multiple words separated by a blank space.

See "Search Tips" on page 232 for more information about entering freeform text search arguments.

You can enter the argument on one line as shown, or use the space provided to separate sections of the argument. (If you run out of space, scroll forward to get more blank lines.) However, if you need to use more than one line, be sure to "connect" the argument appropriately by including a Boolean operator. For example, do this:

```

prodinfo AND
link AND
"ABC widget"
AND NOT internet
    
```

Do not do this:

```

prodinfo
link
"ABC widget"
NOT internet
    
```

Type ;SE to perform the text search or type END and select the Search option to run the search from the previous inquiry panel. A list of matching record IDs is displayed on a search results list panel.

```
BLG1TSRL          Search Results List          Line 1 of 5

      Record ID   Description Abstract
1.   00000005    customer cannot access prodinfo files on LAN
2.   00000006    ABC widget distribution pgmabend
3.   00000007    link to internal procedure web site down
4.   00000009    communication links not working
5.   00000011    prodinfo on intranet not accessible
*** BOTTOM OF DATA ***

Line Cnds:  C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.

===>
```

To display a record, type **s** to the left of the record ID and press Enter.

Note: To display the record details, you must have display authority for the type of record listed.

You can also combine a freeform text search with a search of other field data in the record by supplying data in the desired fields. When the search is performed, the results of both the Text Engine search and Tivoli Information Management for z/OS search are displayed in the search results list.

Search Tips

When searching freeform text, consider using the following Boolean operators and techniques to help make your search more precise:

■ Boolean operators

The following are Boolean operators: AND, OR, AND NOT, and parenthesis (). If you need to include any of these in your search arguments, specify them in ALL CAPS format. Be sure to include spaces around the operator also. For example:

AND To find documents containing the words *printer*, *server*, and *fonts*, enter printer AND server AND fonts.

OR To find documents containing the word *typestyle* or *fonts*, enter typestyle OR fonts.

AND NOT

To find documents that do not contain specific text, use the AND NOT operator. For example, to find documents containing the word *hardware* but not the word *printers*, enter hardware AND NOT printers.

() To group parts of your query together for more complicated searching, use parentheses. For example, to find documents containing the word *hardware* and either *printers* or *workstations*, enter hardware AND (printers OR workstations).

■ Fuzzy searches

You can find character strings that are similar to the specified search term. For example, a search for *Extender* finds the mistyped word *Extendrrs*. You can also specify a required degree of similarity. If you use fuzzy searches, the first three characters must match.

- Phrases

Quotation marks are needed to search on a phrase containing multiple words separated by a blank space. For example, to find documents containing the phrase *token ring adapter* enter "token ring adapter" with double quotation marks. The Text Search Engine will find the words in the exact order entered.

- Special characters

There are no special rules to follow. The types of characters you can use are dictated by the index and language specified.

To mask a single character in a string, use the percent character (%). For example, to find documents containing the word *hardwire* or *hardware*, enter *hardw%re*.

- Wildcards

Use the asterisk (*) wildcard to search for occurrences of text that may include slight variations. For example, to find documents containing the words *window*, *windows*, or *windowing*, enter *window**.

- Case of text

Searches are not case-sensitive. A search for *window*, *Window*, or *WINDOW* is performed the same way.

The indexing and search in the indexes is based on n-grams; that is, limited-length character sequences. The analysis is not based on a dictionary, and there is no linguistic processing involved. This technology enables high-performance indexing, and search using both exact and fuzzy matching. This index not only supports English and European languages (documents in codepage 850), but it is also optimized for double-byte character set languages such as Japanese.

12

Using Response Chains

This chapter shows you how to use immediate response chains (IRCs) and stored response chains (SRCs) to move quickly through prompting sequences.

Response chains provide a quicker way to move through prompting sequences. A response chain consists of a linked series of responses to an anticipated series of prompting panels. There are two types of response chains:

- An *immediate response chain* is entered during the prompting sequence for immediate one-time processing.
- A *stored response chain* is a predefined, named set of panel responses that resides in the database and can be processed when it is called from the panel for which it was created.

Using Immediate Response Chains

As you worked through exercises in the previous chapters, you entered responses as each panel in the prompting sequence appeared. Now, instead of entering a response, seeing another panel, entering a response, seeing another panel, and so on, you can chain together the responses for several panels and issue them from one panel.

Of course, you must be familiar with the prompting sequence and the required responses. Once you become familiar with prompting sequences that you use repeatedly, you can chain the responses together easily. This chain is called an IRC.

Using IRCs, you can expedite the prompting process by skipping intermediate panels and by not having to move the cursor to each field of a data-entry panel. You can also intermix IRCs with responses to individual panels.

Working with an Immediate Response Chain

The first three panels of the problem-entry prompting sequence look like the panels shown here. (You used this sequence in “Creating a Record from the Primary Options Menu” on page 77.)

On BLGEN20, the Primary Options Menu, type **5** (for Entry).

On BLG00000, the Entry panel, type **1** (for Problem).

On BLG0B100, the Problem Reporter Entry panel, complete fields 1, 3, 4, 5, 14, and 15.

Using Immediate Response Chains

```
BLG0EN20          --- PRIMARY OPTIONS MENU ---  APPLICATION: MANAGEMENT

BLG00000          ENTRY                          1 OF 1

BLG0B100          PROBLEM REPORTER ENTRY        PROBLEM:_____

Enter problem reporter data; cursor placement or input line entry allowed.

 1. Reported by.....<R> _____          13. Problem type..... _____
 2. Reporter dept..... _____          14. Problem status....<R> _____
 3. Reporter phone..... _____          15. User problem number.. _____
 4. Date occurred..... _____          16. Initial priority.... _____
 5. Time occurred..... _____          17. Outage..... _____
 6. Network name..... _____          18. Rerun time..... _____
 7. System name..... _____          19. Network impact..... _____
 8. Program name..... _____          20. System impact..... _____
 9. Device name..... _____          21. Program impact..... _____
10. Key item affected... _____          22. Device impact..... _____
11. Date fix required... _____          23. User form number.... _____
12. Time fix required... _____          24. Location code..... _____
                                           26. Outage type..... _____

25. Description.....<R> _____

      When you finish, type END to save or CANCEL to discard any changes.

===>
```

Instead of responding to each panel individually, you can issue an immediate response chain from the Primary Options Menu to respond to them all at once. On the command line, type:

```
5,1,1,holloway,
3,555-8632,
4,=,5,=,
14,initial,
15,trn777
```

Note: For field 15, use your initials and the number 777. The example uses TRN777.

```

BLGOEN20          --- PRIMARY OPTIONS MENU ---      APPLICATION: MANAGEMENT

OPTIONS:

  1. OVERVIEW.....Display general information and product enhancements.
  2. PROFILE.....Display or alter invocation or session defaults.
  3. APPLICATION...Change application, list available applications.
  4. CLASS.....Change current class, list available classes.
  5. ENTRY.....Create a record.
  6. INQUIRY.....Search for records.
  7. UTILITY.....Copy, display, print, delete, and update records.
  8. GLOSSARY.....Display a list of searchable words in the database.
  9. PMF.....Modify or create panels.

          Select an option, enter a command, or type QUIT to exit.

          Tivoli Information Management for z/OS Version 7 Release 1
          5697-SD9 (C) Copyright IBM Corp., 1981, 2001.

====> 5,1,1,holloway,3,555-8632,4,=,5,=,14,initial,15,trn777

```

Here, you have responded with selection 5 to the first panel (Primary Options Menu), with selection 1 to the second panel, and on the data-entry panel you have entered each field number followed by a comma and the data you want to place in that field.

When you issue the IRC by pressing Enter, the data-entry panel appears with the data you supplied in the IRC. You can type more data, such as:

```

25,large paper
jam ( training
record )

```

and press Enter twice.

Then type **9** and press Enter to file the record.

```
BLG0B100                PROBLEM REPORTER ENTRY                PROBLEM: TRN777

Enter problem reporter data; cursor placement or input line entry allowed.

  1. Reported by.....<R> HOLLOWAY _____    13. Problem type..... _____
  2. Reporter dept..... _____              14. Problem status....<R> INITIAL
  3. Reporter phone..... 555-8632 _____    15. User problem number.. TRN777__
  4. Date occurred..... 12/18/1998 _____  16. Initial priority..... _
  5. Time occurred..... 09:40 _____        17. Outage..... _____
  6. Network name..... _____              18. Rerun time..... _____
  7. System name..... _____              19. Network impact..... _____
  8. Program name..... _____              20. System impact..... _____
  9. Device name..... _____               21. Program impact..... _____
 10. Key item affected... _____           22. Device impact..... _____
 11. Date fix required... _____           23. User form number..... _____
 12. Time fix required... _____           24. Location code..... _____
                                           26. Outage type..... _

25. Description.....<R> _____

      When you finish, type END to save or CANCEL to discard any changes.

====> 25,large paper jam ( training record )
```

Hints and Tips for Entering Immediate Response Chains

To create an IRC, type your responses to the current panel on the command line, along with your responses to any panels you know you will be responding to, in the order of their appearance in the prompting sequence, and press Enter. Use the following techniques:

- Be very careful of transpositional errors when typing IRCs; they can cause unpredictable results.
- Use an SBCS comma (,) to separate each response in the chain from the next response.
- If any of the panels to which you are responding in the IRC is a data-entry panel, enter the item number of the field you want to fill in, followed by a comma, followed by the data, and so on (as shown in “Three Data-Entry Methods” on page 23).
- When you enter a command, precede it with an SBCS semicolon (;) to distinguish it from possible data responses.
- When typing IRCs, obey the rules for data entry. If a data entry field translates entered data into uppercase format, do not expect your IRC to honor mixed case data for that field. Enter the data as it would be accepted at the data entry panel; otherwise, your IRC will be considered invalid and an assisted-entry panel will display to allow you to correct the data.
- To indicate that you choose not to enter any more data on a data-entry panel, enter nothing (null response) between commas (,) or issue the END command (;end). When you process the response chain, the panel that follows the data-entry panel in the prompting sequence is displayed on your screen, unless an error occurs during processing.

You can use a null response to indicate that a panel should be skipped while the response chain is running. In this case, enter an extra comma in the chain. If the null response is first, enter only one comma. For example, if you want to bypass the panel currently displayed and make an entry for the two subsequent panels, enter ,4,2

- You might run out of space on the command line when you enter an IRC. If that happens, press Enter to process the chain up to that point. The panel indicated by the last response in the chain is displayed, and you can continue your chain on the command line.
- If the program finds an error during the processing of an immediate response chain, it displays the panel for that response. The item in error also appears on the command line for you to correct. Any other response (for example, blanks, ERASE EOF key, or a command) causes the program to ignore the remainder of the response chain. This rule also applies to typing directly into multiple fields.
- You can assign an IRC to a PF key to make repetitive processing easier.

Using Stored Response Chains

Responses to the prompting sequence can be created in advance and stored for later use. This is called a *stored response chain* (SRC).

SRCs offer advantages for both inexperienced and experienced users. You can use SRCs to:

- Reduce the number of keystrokes and enter data faster
- Complete tasks more easily, because the procedure is standardized
- Minimize the possibility of error, because responses are predefined
- Reduce the number of interactive panels displayed to complete a task
- Quickly enter repetitious data, such as names, departments, and phone numbers.

Unlike an IRC that performs a task immediately, an SRC is stored to be processed at some other time.

Tivoli Information Management for z/OS helps you create an SRC by leading you through a prompting sequence of panels. As you work through the panels, your responses are collected into a record that becomes an SRC.

Note: You cannot use SRCs with list processor table panels.

In the following exercise, you create an SRC to enter data in a record. This SRC follows a prompting sequence similar to the one in “Creating a Record from the Primary Options Menu” on page 77. Follow the steps in the exercise to obtain a general understanding of SRCs. Contact your program administrator if you need additional information about creating and using SRCs.

You must be working under a privilege class that allows you to create SRCs to do the following exercise (see “Choosing a Privilege Class” on page 49 for details about selecting a privilege class). If you need to create SRCs in your job, but you are unable to work in a privilege class that allows you to do so, contact your program administrator (whose name and phone number should be recorded on page “Your Organization’s Procedures” on page 265).

To build an SRC that creates a record as you did in “Creating a Record from the Primary Options Menu” on page 77, start on the panel from which you will usually issue the SRC. For this exercise, start on the Primary Options Menu.

Type `generate` on the command line. Press Enter to start the prompts to create an SRC.

```
BLG0EN20          --- PRIMARY OPTIONS MENU ---      APPLICATION: MANAGEMENT

OPTIONS:

  1. OVERVIEW.....Display general information and product enhancements.
  2. PROFILE.....Display or alter invocation or session defaults.
  3. APPLICATION...Change application, list available applications.
  4. CLASS.....Change current class, list available classes.
  5. ENTRY.....Create a record.
  6. INQUIRY.....Search for records.
  7. UTILITY.....Copy, display, print, delete, and update records.
  8. GLOSSARY.....Display a list of searchable words in the database.
  9. PMF.....Modify or create panels.

          Select an option, enter a command, or type QUIT to exit.

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====> generate
```

BLG0U100, the SRC Description Entry panel appears. This panel collects information about the SRC you are going to create.

Enter data into the fields (using one of the techniques in “Three Data-Entry Methods” on page 23).

The entries you should make in each field are explained below:

```
BLG0U100          SRC DESCRIPTION ENTRY              SRC: CREATEPB

Enter SRC description data; cursor placement or input line entry allowed.

  1. SRC name.....<R> CREATEPB
  2. Transfer-to class..... _____
  3. Contact name..... SMITHSON _____
  4. Contact phone..... 555-6866 _____
  5. Contact department..... FINANCE _____
  6. Location code..... R44 _____
  7. SRC execute class..... TRNCLASS
  8. Description.....<R> CREATE A PROBLEM RECORD _____

          When you finish, type END to save or CANCEL to discard any changes.

====>
```

1. SRC name

Input is required. Enter a unique name. The book uses “createpb” for this exercise; you should use something different, perhaps your initials and “cpb”.

2. Transfer-to class

This is the existing privilege class that will own the record. Leave blank for this exercise.

3. Contact name

Enter your name.

4. Contact phone

Enter your telephone number.

5. Contact department

Enter your department name or number.

6. Location code

Enter a code that identifies your location.

7. SRC execute class

Enter the privilege class that will be allowed to use this SRC. If you do not enter a value, *all* users can use this SRC.

8. Description

Input is required. Enter a line of text that describes what this SRC does.

The SRC name, the transfer-to class, and the SRC execute class can be mixed strings of 1 to 8 bytes in length, beginning with an SBCS alphabetic or a shift out (SO) character. The SBCS characters in the remaining part can be alphanumeric, and the characters #, @, \$, & and / can be used.

Note: Whichever code page is used, use the X'5b' code point for that code page rather than the \$.

After you have typed the data, type END on the command line, and press Enter.

BLG0U000, the SRC Summary panel, appears. At the bottom is a list of tasks you can perform to further define the SRC.

For this exercise, type **3** (for Generate reply sequence), and press Enter.

```
BLG0U000                SRC SUMMARY                SRC: CREATEPB

Contact name..... SMITHSON                Location code..... R44
Contact phone..... 555-6866                Transfer-to class....
Contact department.... FINANCE                SRC execution class... TRNCLASS

Description..... CREATE A PROBLEM RECORD

Select one of the following, or type CANCEL to discard your changes.

1. Description.
2. SRC execution classes.
3. Generate reply sequence.
8. Freeform text and notes.

====> 3
```

The options you can select on BLG0U000, the SRC Summary Panel, are:

1. Description

Returns you to the SRC Description Entry panel.

2. SRC execution classes

Allows you to enter up to 18 privilege classes that can use the SRC.

3. Generate reply sequence

Returns you to the panel from which you issued the GENERATE command in order to start collecting responses for the SRC.

8. Freeform text and notes

Allows you to enter a freeform textual description of the SRC.

When you select **3** (for Generate reply sequence), you return to the panel from which you entered the GENERATE command. Now you begin specifying responses for the SRC. For this example, respond to the panels as if you were actually creating a problem record. The hints and tips list, page 250, provide additional guidelines to consider when entering an SRC. As you respond, Tivoli Information Management for z/OS collects your responses to store as part of the SRC.

Continue defining the SRC by typing **5** (for Entry) on the Primary Options Menu and pressing Enter.

From this point on, your responses to panels are being collected to create an SRC.


```

BLG0EN20          --- PRIMARY OPTIONS MENU ---      APPLICATION: MANAGEMENT

OPTIONS:

  1. OVERVIEW.....Display general information and product enhancements.
  2. PROFILE.....Display or alter invocation or session defaults.
  3. APPLICATION...Change application, list available applications.
  4. CLASS.....Change current class, list available classes.
  5. ENTRY.....Create a record.
  6. INQUIRY.....Search for records.
  7. UTILITY.....Copy, display, print, delete, and update records.
  8. GLOSSARY.....Display a list of searchable words in the database.
  9. PMF.....Modify or create panels.

          Select an option, enter a command, or type QUIT to exit.

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====> 5

```

On BLG00000, the Tivoli Information Management for z/OS Entry panel, type **1** (for Problem).

```

+ BLG00000 ----- ENTRY ----- 1 OF 1+
|
| USE...Identify the type of description (record) to be entered.
|
| 1.PROBLEM.....Enter data processing problem description.
| 2.CHANGE.....Enter change request for system/procedure.
| 3.CONFIG.....Enter description of system configuration,
|                financial data, or service organization.
| 4.RULES.....Enter description of escalation rules.
| 5.DATA MODEL.....Enter description of a data model.
| 6.PEOPLE.....Enter description of a person.
| 7.SOLUTION.....Enter solution record.
|
+----- SELECT ITEM -----+

====> 1

```

Enter data into the fields on BLG0B100, the Problem Reporter Entry panel, by typing:

```

1,holloway,
3,555-8632,
4,=,5,=,
14,initial,25,?

```

When this SRC is processed, the first panel you see is the assisted-entry panel for the description field. All of the other data from the SRC will be in the record. An SBSCS

Using Stored Response Chains

question mark suspends processing of an SRC temporarily so Tivoli Information Management for z/OS can collect input from the user at the terminal. The question mark signals a diversion, and the processing of the SRC is diverted to the terminal for input. After a response is made to the field containing the question mark, the SRC continues.

```
BLG0B100                PROBLEM REPORTER ENTRY                PROBLEM: _____

Enter problem reporter data; cursor placement or input line entry allowed.

  1. Reported by.....<R> _____                13. Problem type..... _____
  2. Reporter dept..... _____                14. Problem status...<R> _____
  3. Reporter phone..... _____                15. User problem number.. _____
  4. Date occurred..... _____                16. Initial priority..... _
  5. Time occurred..... _____                17. Outage..... _____
  6. Network name..... _____                18. Rerun time..... _____
  7. System name..... _____                19. Network impact..... _____
  8. Program name..... _____                20. System impact..... _____
  9. Device name..... _____                21. Program impact..... _____
 10. Key item affected... _____                22. Device impact..... _____
 11. Date fix required... _____                23. User form number..... _____
 12. Time fix required... _____                24. Location code..... _____
                                           26. Outage type..... _

25. Description.....<R> _____

      When you finish, type END to save or CANCEL to discard any changes.

====> 1,holloway,3,555-8632,4,=,5,=,14,initial,25,?
```

This is where you want this SRC to stop. Therefore, type **end generate** and press Enter.

You are finished collecting responses for the SRC.

```
BLG0B100                PROBLEM REPORTER ENTRY                PROBLEM: _____

Enter problem reporter data; cursor placement or input line entry allowed.

  1. Reported by.....<R> HOLLOWAY _____                13. Problem type..... _____
  2. Reporter dept..... _____                14. Problem status...<R> INITIAL
  3. Reporter phone..... 555-8632 _____                15. User problem number.. _____
  4. Date occurred..... = _____                16. Initial priority..... _
  5. Time occurred..... = _____                17. Outage..... _____
  6. Network name..... _____                18. Rerun time..... _____
  7. System name..... _____                19. Network impact..... _____
  8. Program name..... _____                20. System impact..... _____
  9. Device name..... _____                21. Program impact..... _____
 10. Key item affected... _____                22. Device impact..... _____
 11. Date fix required... _____                23. User form number..... _____
 12. Time fix required... _____                24. Location code..... _____
                                           26. Outage type..... _

25. Description.....<R> ? _____

      When you finish, type END to save or CANCEL to discard any changes.

====> end generate
```

On BLG0U001, the SRC Summary panel, you can select other options to further define the SRC (as explained below) or you can enter 9 File SRC record to save the SRC. File the SRC by typing 9 (for File SRC record) on the command line and pressing Enter.

```

BLG0U001                SRC SUMMARY                SRC: CREATEPB

Application name..... _____      Entry priv. class..... _____
Starting panel name.... _____      Date entered..... _____
Transfer-to class..... _____      Time entered..... _____
Contact name..... SMITHSON              Date last altered.... _____
Contact phone..... 555-6866             Time last altered.... _____
Owning priv. class..... _____      User last altered.... _____

Description..... CREATE A PROBLEM RECORD

Select one of the following, type END to save your changes, or type CANCEL
to discard your changes.

    1. Description.
    2. SRC execution classes.
    3. Change contents of SRC.
    4. Final SRC responses.

    8. Freeform text and notes.
    9. File SRC record.

====> 9

```

The options on BLG0U001, the SRC Summary panel, allow you to further define the SRC:

1. Description

This selection lets you modify the description of the SRC.

2. SRC execution classes

This selection lets you add to or change a list of privilege classes authorized to use this SRC.

3. Change contents of SRC

This selection lets you modify the prompting sequence and responses used in the SRC.

4. Final SRC responses

This selection lets you append responses to the SRC. When you process the SRC these responses are processed after the initial reply sequence.

8. Freeform text and notes

This selection lets you make notes about the SRC by entering freeform text.

9. File SRC record

This selection files the SRC record in the database for future processing.

Hints and Tips for Generating Stored Response Chains

Consider these hints and tips when you enter SRCs:

- Start generating SRCs on the panel from which they will be started.
- You can create SRCs that can be run from any panel simply by starting the SRC with the INITIALIZE or SUSPEND command.

Warning: If you create an SRC with the INITIALIZE command as the first command, any data you entered in your current prompting sequence is lost when you start the SRC.

When you start an SRC that starts with INITIALIZE, the SRC is automatically started at the Primary Options Menu.

When you start an SRC that starts with SUSPEND, your current prompting sequence is suspended, and you start another prompting sequence at the Primary Options Menu. Be sure your SRC contains the responses for that prompting sequence, starting with the Primary Options Menu. (See “Using Commands” on page 103, for descriptions of how to use RESUME and SUSPEND.)

- Do not begin an SRC on a panel that is used in more than one panel flow because SRCs must follow the same panel flow every time they run. Some assisted-entry panels are used more than once; therefore, you cannot start an SRC from one of those panels.
- You can include commands as well as panel responses in the SRC. Any commands you want to collect into an SRC must be preceded by two semicolons, for example, `;;REPORT =5 arg arg ...`. A command issued without `;;` is processed immediately.
- The only SRCs that can be run from any panel are those that begin with the `;;INITIALIZE` or `;;SUSPEND` commands.
- If you enter a valid command while generating an SRC, the command takes effect immediately.
- Do not collect the BACK, CHANGE, EXECUTE, GENERATE, RECALL, and CANCEL commands into an SRC.
- You can collect the PROFILE and REPORT commands from anywhere within an SRC.
- Enter the responses in the exact order in which you would respond to the panels in a prompting sequence. You can also enter a valid IRC as a response.
- Enter an SBCS question mark (?) on the command line of any panel that you want displayed when you later run the SRC. For example, if you create an SRC to update a record, you can put a ? on BLG0B100, the Problem Reporter Entry panel. Later, when you use the SRC, that panel is displayed so you can update the data on it.
- Enter an SBCS question mark (?) as the response to any field for which you want an assisted-entry panel to be displayed. For example, if you create an SRC to create a record, you can enter a ? in the record ID field. That way, when you later use the SRC to create a record, the assisted-entry panel is displayed for record ID so you can enter that data.
- Enter an SBCS not symbol (↵) where you want to remove the data from a field. For example, if you created an SRC to update a record, and you enter a ↵ in the location code field, the location code is replaced with a blank when you later use the SRC to update a record.
- You can include the FILE selection, which stores all records, as part of the SRC. When you select FILE during the generation of an SRC, it becomes the last response in the SRC and causes SRC generation to end. Then the system displays the SRC Update Summary panel. However, the record *is* filed when you run this SRC.
- If you are generating an SRC and you receive a message that the SRC generation was stopped, and if you were not finished, you can do one of the following:

- Continue entering an IRC in the final response area of the SRC (select Final SRC Responses from the SRC Summary panel),
 - Issue the EXECUTE command to continue processing.
 - Enter an IRC or the command to process another SRC in the freeform response area of the SRC.
- If you enter END, ;END, or ;;END on a panel while in generate mode, the response that is collected depends upon the panel type and what effect the END command has on the panel. For example, END, ;END, or ;;END from the Problem Summary panel causes the problem record to be filed when the SRC is started.
 - Collecting any other command, such as ;;SEARCH, ends the generate process. The system displays the SRC Update Summary panel, BLG0U001.
 - When the system finds a terminal simulator panel (TSP), the system displays message BLG06038I to inform you that a TSP has been found and the TSP is not run during SRC generation. SRC generation can continue. The TSP runs when the SRC runs.

Producing Reports with Stored Response Chains

An SRC can be used for creating a report by including the REPORT command in the SRC. Precede the REPORT command with two semicolons and include the database number (for example, ;;REPORT =5). You can also include a search argument on the REPORT command.

Issuing the ;;REPORT command during the generate process causes the system to display the output destination panels.

Specifically, the system displays the profile panels (such as BLG0P502 and BLG0P521) pertaining to the attributes and destination for the output data sets. Any values you change on these panels while you are collecting responses into the SRC override the profile values when these panels appear during SRC processing.

Overriding the profile values means the report that is produced during the processing of an SRC, is not required to use the values in the profile only. The ability to use other values is important because you may not know the profile values of all the users who will use the SRC. You can ensure that the data set attributes for the report are appropriate without worrying about users' profiles.

Set up the correct output destination values for the report output when you create the SRC, so that users can run the SRC without any problems.

If you enter a GENERATE command to create an SRC during the report dialog of the REPORT command, the generate process ends when you fill in the last output destination panel, such as BLG0P511, BLG0P521, and BLG0P531.

To avoid having the SRC end at the destination panel, you can collect a ;;REPORT command into the SRC by preceding the REPORT command with two semicolons and including the database number (for example, ;;REPORT =5). Collecting a ;;REPORT command into the SRC continues the SRC collect process and allows you to put more than one REPORT command into the SRC.

Processing Stored Response Chains

Once an SRC is created, you can process it. In most cases, you can only process the SRC from the panel from which it was originally generated. The SRC you just created is started on the Primary Options Menu for the Management application.

On the Primary Options Menu, start the SRC by typing **execute createpb**. Press Enter.

```
BLG0EN20          --- PRIMARY OPTIONS MENU ---      APPLICATION: MANAGEMENT

OPTIONS:

  1. OVERVIEW.....Display general information and product enhancements.
  2. PROFILE.....Display or alter invocation or session defaults.
  3. APPLICATION...Change application, list available applications.
  4. CLASS.....Change current class, list available classes.
  5. ENTRY.....Create a record.
  6. INQUIRY.....Search for records.
  7. UTILITY.....Copy, display, print, delete, and update records.
  8. GLOSSARY.....Display a list of searchable words in the database.
  9. PMF.....Modify or create panels.

          Select an option, enter a command, or type QUIT to exit.

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====> execute createpb
```

The last panel in the sequence defined by the SRC appears. Remember the last item in the SRC was the divert character (?) so Tivoli Information Management for z/OS is expecting user input. Type a description of your problem record on the command line, and press Enter.

```

+ BLG6DSAB ----- DESCRIPTION ABSTRACT ----- FREEFORM --+
|
| USE...Enter description of record. Please note restrictions.
|
| FORM...Freeform textual data, maximum of 45 characters.
|
| NOTE...Any commands issued here must be preceded by a ';'.
|       Commas are not allowed and periods are treated as
|       blanks. Words greater than 16 characters will be
|       truncated to 16 characters (for inquiries only).
|
+----- REPLY AS ILLUSTRATED -----+

====> paper won't stay in printer
    
```

After you enter the problem description, you return to the entry panel. You can continue entering data as you usually do when creating a record.

```

BLG0B100                PROBLEM REPORTER ENTRY                PROBLEM: _____
Enter problem reporter data; cursor placement or input line entry allowed.

 1. Reported by.....<R> HOLLOWAY _____    13. Problem type..... _____
 2. Reporter dept..... _____              14. Problem status...<R> INITIAL
 3. Reporter phone..... 555-8632 _____     15. User problem number.. _____
 4. Date occurred..... 10/13/1998             16. Initial priority..... _
 5. Time occurred..... 09:42:22               17. Outage..... _____
 6. Network name..... _____              18. Rerun time..... _____
 7. System name..... _____               19. Network impact..... _____
 8. Program name..... _____              20. System impact..... _____
 9. Device name..... _____               21. Program impact..... _____
10. Key item affected... _____           22. Device impact..... _____
11. Date fix required... _____           23. User form number..... _____
12. Time fix required... _____           24. Location code..... _____
                                           26. Outage type..... _

25. Description.....<R> PAPER WON'T STAY IN PRINTER _____

      When you finish, type END to save or CANCEL to discard any changes.

====>
    
```

Hints and Tips for Processing Stored Response Chains

The following guidelines apply when you are processing SRCs:

- You can use EXECUTE without an SRC name if you do not know the SRC name.
When you issue EXECUTE without an SRC name, a list of SRCs that can start from the current panel is displayed. SRCs that can start from any panel are marked with an asterisk.
- You can process SRCs only under the privilege class for which they were created or under a class that is in the list of SRC Execution classes for this SRC.
If you issue EXECUTE without an SRC name, you get a list of the SRCs that you can start from the current panel in your current privilege class. Listed also are SRCs that you can start from any privilege class.
- Process the SRC from the panel that it was created for.
You can determine the start panel for an SRC by displaying the SRC record. The SRC Summary panel contains a field for the start panel.
- You can start SRCs that begin with INITIALIZE or SUSPEND from any panel you want.
Any data you are in the process of collecting is lost if the SRC starts with INITIALIZE.
- You can add an IRC response to the EXECUTE command.
When you add an IRC to the EXECUTE command, the IRC is used to complete any fields where the SRC has a question mark. When the SRC finishes, any responses left in the IRC are processed. If something prevents the complete processing of the SRC, the remainder of the SRC and the entire IRC are ignored.
- Remember that:
 - Generation of an SRC ends if you use END to file or to make a file selection.
 - Processing of an SRC ends if you issue any command during its processing.

13

Working with Table Displays

This chapter:

- Describes the structure of a table display
- Describes the various ways information appears on a table display
- Tells you how to scroll information on a table display

Understanding Table Displays

A table display is a type of panel that Tivoli Information Management for z/OS uses to display certain types of data, such as tables, lists, or help text. Some table displays contain large amounts of data that cannot be displayed all at once on the screen. You can scroll (move) the data to view what is not displayed on the screen. See “Scrolling Table Displays” on page 255.

Data can be shown on a table display in a number of ways. The following examples demonstrate some ways you might see a table display as you work with Tivoli Information Management for z/OS.

Data can be displayed in one column, usually a column of text as shown on a help panel.

```

BLG2BU00                                PROBLEM SUMMARY HELP                                LINE: 1 OF 107

Selected information from the problem record being created, copied, or
updated is shown on the summary panel. If you are creating a new
record, the information serves as a reminder about the data you have
already entered. If you are copying or updating a record, review the
information to ensure that you are working with the correct record.

A selection list is shown at the bottom of the panel. Choose one of
the items to enter information or update data about the problem, or to
file the record. The available selections are:

REPORTER DATA
  To enter one or more of the following:
    Date fix required          Problem type
    Date occurred             Program impact
    Description                Program name

Type DOWN or UP to scroll the panel, or type END to exit.

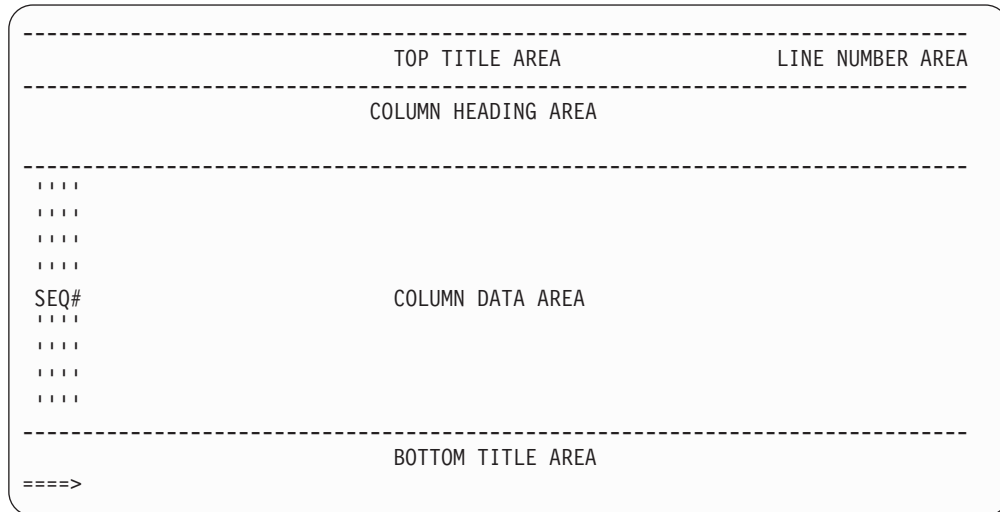
====>

```


Learning the Format of Table Displays

Table displays have similar formats; however, the format of a table display depends on its contents. The format of a typical table display is shown below.

The column heading area and the column data area comprise the scroll area on a table display.



Each area of the table display has its own purpose:

Top title area

The top portion of the table display. This area typically contains the title of the panel and other related information. The top title area cannot be modified or scrolled and appears the same way on each panel.

Line number area

The right side of the first line in the top title area. It is generally of the form “line x of y”. This area displays the current line number (shown by x) and the total number of lines (shown by y) for the data displayed in the scroll area.

Scroll area

The scroll area contains the data you want to use. Sometimes the data does not fit in the scroll area, and you must use the scrolling commands to view the data. A scroll area contains the following parts:

Column heading area

This area contains headings for the data shown in the column data area. The column headings do not move when you scroll up or down. However, when you scroll left or right, they move to stay above the columns they label. If the table display is only one column, the column heading does not move when you scroll left or right.

Column data area

This area contains the data you want displayed. The data is formatted into columns based on the type of table display. On some panels, the data is shown in only one column, which simplifies your scrolling process. On other panels, the data is divided into columns.

Sequence number and line command area

On some table displays, each line in the scroll area is assigned a sequence number up to 8 digits long. The line command area is part of the sequence number field that appears on the left edge of the table display. You can issue line commands by typing over the sequence number. Be sure to read the bottom title on a panel to learn which line commands are valid on that panel.

Bottom title area

This area occupies the last lines of the panel and contains instructions for responding to or leaving the panel. This area appears on each display and cannot be scrolled.

Note: The **message line** and **command line** are not considered part of the table display.

Understanding Logical Lines and Physical Lines

Table displays show lines of data within the column data area. A line of data is called a *logical line*. Sometimes the logical line of data is too long to fit on one *physical line* of a panel (or physical line of a column on the panel).

On some panels the logical line is divided and displayed on more than one physical line. Logical lines are divided among more than one physical line when you specify in your user profile that the **Fold output columns** field is set to **SPLIT** or **FORMAT**. In that case, the data that could not be displayed, because it is contained in a long logical line, is shown in the last column on other physical lines.

The folding option is set to **NO** for this panel.

You must scroll to the right to see the rest of the information under **Customer name**.

BLGXXXXX		YOUR ORGANIZATION'S PANEL			LINE 1 OF 11	
DATABASE 5:						
THIS MONTH	NEXT MONTH	BOX CARS TOTAL	FLAT CARS TOTAL	TANK CARS TOTAL	CUSTOMER NAME	
5	4	1	3	0	- AMERICAN SHIPPING	
3	1	1	0	0	- AMERICAN MAN CLOTH	
10	10	7	2	1	- AMERICAN MAN CLOTH	
6	7	1	5	1	- AMERICAN MAN CLOTH	
6	7	7	0	0	- AMERICAN WOMAN CLO	
9	10	6	3	1	- AMERICAN WOMAN CLO	
3	3	1	0	2	- INTERNATIONAL TRUC	
6	2	0	2	0	- INTERNATIONAL TRUC	
2	6	3	3	0	- PINEGREEN PAPER DA	
2	6	3	3	0	- PINEGREEN PAPER NE	
====>						

Here is the same panel with the folding option set to **FORMAT**.

The entire **Customer name** field is shown.

```

BLGXXXXX                YOUR ORGANIZATION'S PANEL                LINE 1 OF 11

DATABASE 5:

THIS MONTH  NEXT MONTH  BOX CARS  FLAT CARS  TANK CARS  CUSTOMER NAME
TOTAL      TOTAL      TOTAL      TOTAL      TOTAL

5           4           1           3           0           - AMERICAN SHIPPING
INDUSTRIES
3           1           1           0           0           - AMERICAN MAN
CLOTHING INC.
AUSTIN
10          10          7           2           1           - AMERICAN MAN
CLOTHING INC.
BOSTON
6           7           1           5           1           - AMERICAN MAN
CLOTHING INC.
STLOUIS
6           7           7           0           0           - AMERICAN WOMAN
CLOTHING DALLAS
9           10          6           3           1           - AMERICAN WOMAN
CLOTHING ATLANTA

====>

```

With the folding option set to `FORMAT`, the line is broken between words and the rest of the logical line is displayed on the next physical line. Words are delimited by spaces and nulls. Any `SO` and `SI` characters appearing in mixed data are also treated as word delimiters. If you set the folding option to `SPLIT`, the line is broken when you run out of room on that line, regardless of whether it is in the middle of a word. Words are split, and the remainder of the word with the rest of the logical line is displayed on the next physical line.

Folding affects only the data in the last column. However, if you have specified folding for a one-column display, the data folds even when the column is vertically repeated. Folding observes the following DBCS integrity requirements:

- No DBCS character can be split into its component bytes.
- An `SO` or `SI` character must appear immediately before or after (respectively) any DBCS portion of the fields.

The successive component fields are joined by a single SBCS space when format-folded data is collected and stored in the database. Splitting also observes the integrity of DBCS data. No DBCS character will be split. Any adjoining `SI/SO` characters created during the concatenation of fold extents are removed when split-folded data is collected and stored in the database.

Scrolling Table Displays

Whether the table display has one column or many, you need to know how to scroll the data up and down or right and left in order to display it on the screen.

You can scroll table displays by using *scrolling commands*. There are particular situations where you need to learn some techniques to help you use the scrolling commands effectively. The following list explains the use of each command. Later in this chapter you learn how these commands scroll lines and columns on different types of table displays.

DOWN

Accesses any information that follows the data presently being shown.

- UP** Accesses any information that comes before the data presently being shown.
- RIGHT**
Accesses any information that appears to the right of the data presently being shown.
- LEFT** Accesses any information that appears to the left of the data presently being shown.
- FIND** Lets you locate a particular phrase, word, or part of a word anywhere in the entire table display.

“Using Commands” on page 103 provides more information on how to issue these commands. You can define your PF keys to make it easier to issue these commands. Enter ISPF KEYS and follow the instructions on the panels, or when using the enhanced panel style, refer to the *Tivoli Information Management for z/OS Program Administration Guide and Reference* for information on changing keylists.

Scrolling Logical Lines and Physical Lines

You issue the UP and DOWN commands to scroll the lines of a table display up or down. If you just say UP or DOWN, Tivoli Information Management for z/OS checks your user profile to see how far up or down to scroll. See “Modifying Your User Profile” on page 41 for more information.

You can specify how much to scroll when you issue these commands. If you issue the commands with a number, such as UP 5, the data scrolls that many logical lines. However, when you specify half a screen, such as DOWN HALF, or a full page, such as UP PAGE, the data scrolls physical lines.

This is an important distinction, because you might scroll past data without knowing that you have done so. For example, when the last physical line of a panel contains only the first half of a logical line, the other half of the logical line is not displayed. If you issue UP with a number to scroll the next logical line to the top of the panel, you will miss the second half of the previous logical line.

In addition to PAGE, HALF, or a number, you can include the CSR operand when you issue the UP or DOWN commands. CSR scrolls the logical line marked by the cursor to the bottom or top of the screen.

Also, to scroll to either end of the data, you can issue UP MAX, DOWN MAX, or DOWN LAST.

When you scroll up and down a table display that shows data in columns, the title of the panel, the constant block data area, the headings of each column, and the bottom title area do not scroll with the data.

Scrolling works differently on table displays that display one column vertically repeated. The data scrolls like one column of data. For example, if a table display contained data in one column vertically repeated twice, you could see what looks like three columns of data. The first column might contain lines 30 through 45, the second, lines 46 through 60, and the last, lines 61 through 75. If you issued UP 5, each column would scroll five lines. Lines from the bottom of the first column would scroll to the top of the second, and lines from the bottom of the second, to the top of the third. The DOWN command scrolls, in a similar way, the data shown in a vertically repeated column.

Scrolling Columns

You can issue the RIGHT and LEFT commands to scroll the columns of data in a table display to the right or to the left. When you issue a number with the commands, such as RIGHT 7 or LEFT 16, the data columns scroll right or left by that number of characters. If you enter no number, Tivoli Information Management for z/OS checks your user profile to see how far to the right or left to scroll.

You can also use the HALF, PAGE, CSR, or MAX operands to scroll right or left. If you issue RIGHT CSR or LEFT CSR, the data scrolls and the character marked by the cursor moves to an edge of the scroll area.

If you issue RIGHT or LEFT and include the COLUMN operand, only the data in the column marked by the cursor scrolls. If you are authorized, you can specify that some columns are *permanent* and some columns are *nonpermanent* for certain table displays. Permanent columns do not scroll when you issue RIGHT or LEFT unless you use the COLUMN operand and mark the column with the cursor.

When you scroll left or right, the column headings scroll if the column data scrolls.

Refer to “Using Commands” on page 103 for more information about the scrolling commands.

Displaying and Updating DBCS Scrolled Data

If the display field on your screen is too small to accommodate the associated data field, the integrity of mixed data will be observed as follows:

- No DBCS character can be split into its component bytes.
- An SO or SI character must appear immediately before or after (respectively) any DBCS portion of the fields.

As your data can be scrolled horizontally, this integrity is applied to data on both the left and right sides of the screen.

If you do not update any SO/SI characters that have been specifically introduced during display compensation, these characters are replaced by the original display when the data is updated in the database.

If you have updated any SO/SI characters, the following occurs:

- If the SO has been updated, the byte to the left of the SO will be replaced with an SI.
- If the SI has been updated, the byte to the right of the SI will be replaced with an SO.

Getting Output from Tivoli Information Management for z/OS

The values you define in your user profile for the print output destination and the report output destination control where the output is sent. You have three choices:

- SYSOUT (hard copy or formatted softcopy, local or remote destination)
- DSNAME (softcopy)
- DDNAME (hard copy or softcopy, depending on how you allocate DDNAME)

You can get three kinds of output from Tivoli Information Management for z/OS:

- Output from the database
- Output from TSPs or TSXs
- Output from panels

This chapter explains the choices you have for print and report output destinations and describes the three kinds of output.

Output Destinations

You can control the destination for print and report output through output destination specifications in your user profile. Both types of output can be routed to:

- SYSOUT
- DSNAME
- DDNAME

Print Output Destination Specification

Your user profile settings control your print output destination. See “Modifying Your User Profile” on page 41 for information on how to modify your user profile.

Session control defaults on the Profile Summary panel allows you to specify the destination for the output produced by the PRINT command. You specify the destination in the **Output Destination Print** field on the Session Defaults panel. If you specify a destination in this field, Tivoli Information Management for z/OS knows where to send your output every time and does not prompt you for the information. If you leave the field blank, the first time you issue a PRINT command in a Tivoli Information Management for z/OS session, Tivoli Information Management for z/OS also allocates a data set for the output.

You can keep this data set open or free it. You can use the FREE PRINT command or a setting in your user profile to free this data set. See “Printing a Record from the Primary Options Menu” on page 58 and “Reading Command Syntax” on page 107 for more

information on the FREE command. If you keep the print data set open, the next time you issue the PRINT command, Tivoli Information Management for z/OS appends to the same data set.

Print output destination on the Profile Summary panel contains selections that allow you to modify the characteristics of the three output destinations: SYSOUT, DSNNAME, and DDNAME. You do not have to set up any of these selections if you do not intend to use them.

Session control defaults for the print operation enable you to specify whether your print data set should remain open or be freed after each print operation. You can free your print data set by performing one of the following actions:

- Change the value in the **Print operation** field in your profile to **free**
- Issue the FREE PRINT command
- Quit your Tivoli Information Management for z/OS session
- Change your print output destination

Report Output Destination Specification

Specifying the report output destination is very similar to specifying the print output destination. However, the report destination data set is closed after each report. Therefore, if you want to write multiple reports to the same data set, you must specify a disposition of MOD when you allocate the data set.

Routing Output to SYSOUT

If you want to send your output to a printer or use Advanced Function Printing™ (AFP™), choose **SYSOUT** as the destination. If you are specifying a print output destination, this choice takes you to panel BLG0P410, Print Output Destination Entry. If you are specifying a report output destination, this choice takes you to panel BLG0P510, Standard Report Output Destination Entry.

The **Output descriptor name** field allows you to take advantage of AFP to print DBCS characters or to print special forms. The name that you specify in this field must match a DDNAME that is defined on the OUTPUT statement in the JCL you used to start Tivoli Information Management for z/OS. This DDNAME points to a library member that contains statements to format the output. The member can also contain statements to route the output to a remote destination.

For more information about the OUTPUT JCL statement and AFP, refer to the *OS/390 MVS JCL Reference*.

If you do not want to use AFP, you can still route your output to a remote user ID or a remote work station or node. The **Remote work station/node** and **Remote user ID** fields on this panel allow you to send your output to a remote user ID on a remote workstation or node.

Routing Output to DSNNAME

If you want to send your output to a data set, choose **DSNNAME** as the destination. If you are specifying a print output destination, this choice takes you to panel BLG0P420, Print Data Set Destination Entry. If you are specifying a report output destination, this choice takes you to panel BLG0P520, Standard Report Data Set Destination Entry.

Routing Output to DDNAME

If you want to send your output to a printer or to a data set depending upon how you allocate DDNAME, choose **DDNAME** as the destination. If you are specifying a print output destination, this choice takes you to panel BLG0P430, Print DDNAME Destination Entry. If you are specifying a report output destination, this choice takes you to panel BLG0P530, Standard Report DDNAME Destination Entry.

DDNAME output is accomplished by using the TSO ALLOCATE command. This command:
 ALLOC FI(ddname) DA(*) SHR

writes the specified *ddname* to your terminal. However, this command:

ALLOC FI(ddname) DA(data set name) OLD

writes the same *ddname* to your specified *data set name*. For more information on TSO allocation, refer to the *TSO Command Reference*.

Production of Output

Listed below are some of the ways that you can produce information for the various kinds of Tivoli Information Management for z/OS output.

Output from a Database

You can produce output from a database in a number of ways:

Print a record

Print a record by issuing the PRINT command, or by entering the P line command on a search results list. The output goes to your print output destination.

Print ALL

Print ALL prints all the data on a table panel, whether it is a help panel, search results list panel, or any other scrollable panel. The output goes to your print output destination.

Report of a record

You can get a report by issuing the REPORT command. The output goes to your report output destination.

Output from TSPs and TSXs

You can produce output from TSPs and TSXs in a number of ways:

TRACE

The TSP TRACE function shows the flow of your TSP. The output is determined by how you allocate DDNAME BLGTRACE. For more information about TRACE, refer to the *Tivoli Information Management for z/OS Terminal Simulator Guide and Reference*.

The TSP TRACE function does not apply to TSXs. To trace a TSX, use the REXX tracing facility.

PRINT

This function enables you to print the screen, messages, or control information produced while executing a TSP or TSX. The output is determined by how you allocate DDNAME SYSPRINT.

Output from Panels

You can produce output from panels in a number of ways:

FLOW

This command produces a list of all the panels that get loaded from the time you activate it (by issuing the command FLOW ON) until the time you turn it off (FLOW OFF). The output is determined by how you allocate DDNAME BLGFLOW.

ISPF print

This command is the equivalent to issuing the PRINT command in ISPF. The current panel is printed to the ISPF list data set.

Panel print

You can print the internals and externals of a panel in one of two ways: You can put a P in the line command area of the panel you want to print in the PMF Panel List function. Or, you can select a Panel Content report in PMF. For more information, refer to the *Tivoli Information Management for z/OS Panel Modification Facility Guide*. The report goes to your report output destination.

PMF reports

You can select option 5 from the PMF main menu. This gives you a list of the available PMF reports. Each report you choose sends output to your report output destination.

Quick Reference Table for Output

The following table gives you a quick way to determine characteristics of Tivoli Information Management for z/OS output.

Table 3. OUTPUT Characteristics

	Print Output DEST ¹	Report Output DEST	Data Definition Name	ISPF List Data Set	Output immediately available?	Output available after DEST change?	Output available outside Tivoli Information Management for z/OS? ²
FLOW command			BLGFLOW		No	No	Yes
TRACE (TSP function) ³			BLGTRACE		No	No	Yes
PRINT (TSP or TSX function)			SYSPRINT		No	No	Yes
PRINT Record ⁴	X				No	Yes	Yes
PRINT ALL ⁴	X				No	Yes	Yes
ISPF PRINT				X	No	No	Yes
Report of records		X			Yes	Yes	Yes
Panel print		X			Yes	Yes	Yes
Panel report		X			Yes	Yes	Yes
Notes:							
1. DEST = destination							
2. Output available after leaving a Tivoli Information Management for z/OS session.							
3. If you enter the FREE TRACE command, output is immediately available.							
4. If you enter the FREE PRINT command output is immediately available.							



Your Organization's Procedures

This chapter can help you to keep track of the local procedures and conventions that your organization follows. You can record this information on the charts provided and refer to them in the future.

Before you start, record the name and telephone number of your program administrator for quick reference.

<p>Local Contact:</p> <p>Program Administrator: _____</p> <p>Telephone Number: _____</p>

Getting Started

Use the procedure below to get started on Tivoli Information Management for z/OS. Record the CLIST set up by your organization on the line provided.

<p>Starting Tivoli Information Management for z/OS:</p> <ol style="list-style-type: none">1. Log on to MVS.2. Choose ISPF option number: _____ or Enter CLIST named: _____
--

Numbering a Record

Each record must have a unique record ID. Your organization may already have a procedure for assigning ID numbers to records. If so, write that procedure below. To find out what that procedure is, call your program administrator.

<p>Record ID Numbering Procedure:</p> <hr/> <hr/> <hr/> <hr/> <hr/> <p>Note: If you do not assign an ID to a record, Tivoli Information Management for z/OS automatically assigns a numeric ID.</p>

Data-Entry Conventions

Just as your organization may have standard numbering procedures for records, it may also have standard procedures for entering specific kinds of data in the database.

Having a standard method for entering similar kinds of data makes it easier to search for data after it is stored in the database. For example, if you entered someone's name as JOHNSMITH, then next time entered JSMITH, and again entered SMITHJ, it would be difficult to find all records that contained the name JOHN SMITH.

Your organization recognizes the importance of having data-entry conventions. Some of the panels on which you enter data have fields that accept data in a specific format and, therefore, do not let you enter data improperly. However, this type of data checking cannot be done on all types of data. Therefore, your organization has established data-entry conventions for you to follow when entering data into records. Write the conventions on the next page so you can easily refer to them whenever you enter data.

Data-entry conventions:

Names:

Dates:

Times:

Product names:

Machine types:

Location codes:

Department names:

Other data:

B

P-Word Lists by Record Type

A p-word represents the type of data you enter during a prompting sequence. Tivoli Information Management for z/OS attaches a p-word to each data field.

You can use p-words when you build search arguments with the ARGUMENT, SEARCH, and REPORT commands. When you enter a keyword-search argument, you must include an SBCS slash (/) or SBCS underscore (_) after the p-word to indicate where it ends.

Note: All Tivoli-supplied p-words end with a slash (/) delimiter.

The p-words for all of the Tivoli Information Management for z/OS applications share certain characteristics. Understanding the following similarities can help you use the keyword search function more efficiently:

- The same p-word can be assigned to more than one field. For example, PH/ is the p-word for all telephone numbers, regardless of the fields the numbers appear in, and PERA/ is the p-word for problem and activity assignees.
- The first 2 or 3 characters in a p-word are often the same for similar types of data. For example, the prefixes for dates begin with DAT; those for times begin with TIM; and those for status begin with STA. PERA/, PERC/, PERM/, PERR/, PERS/, and PERX/ all refer to person names. This allows search parameters such as PER/ to match all different assignee types.

In the Tivoli Information Management for z/OS database, a p-word value is connected to a field value. For example, if you enter the name Smith in the assignee field on a panel, Tivoli Information Management for z/OS connects the p-word PERA/ to the value Smith: PERA/SMITH. To search for assignees named Smith, use the p-word PERA/SMITH.

Note: Some name fields and other string fields are stored for searching as unparsed strings. For information about how you should perform searches with these types of fields, see “Searching Fields Containing Blanks” on page 217.

This section contains lists of p-words organized by record type. For a list of p-words associated with Tivoli Inventory data, or data model records that are shipped with Tivoli Information Management for z/OS, refer to the *Tivoli Information Management for z/OS Data Reporting User's Guide*.

Privilege Class Records

Field Name	P-Word
Authority level	AUTH/
Class name	RNID/
Contact dept.	GROC/
Contact name	PERC/
Contact phone number	PH/
Date entered	DATE/
Date last altered	DATM/
Entry priv. class	CLAE/
Location code	LOCC/
Owning class	CLAO/
Time entered	TIME/
Time last altered	TIMM/
Transfer-to class	CLAT/
Eligible user	CODU/
User last altered	USER/

Stored Response Chain (SRC) Records

Field Name	P-Word
Contact dept.	GROC/
Contact name	PERC/
Contact phone	PH/
Date entered	DATE/
Date last altered	DATM/
Entry class	CLAE/
Execution class	CLAX/
Location code	LOCC/
Owning class	CLAO/
SRC name	RNID/
Starting panel name	PAID/
Time entered	TIME/
Time last altered	TIMM/
Transfer-to class	CLAT/
User last altered	USER/

Validation Records

Field Name	P-Word
Validation record name	RNID/
Contact name	PERC/
Contact phone number	PH/
Contact department	GROC/
Location code	LOCC/
Validation data	VDTA/
Date entered	DATE/
Time entered	TIME/
Entry class	CLAE/
Date last altered	DATM/
Time last altered	TIMM/

User last altered USER/

Problem Records

Field Name	P-Word
Analysis entry point	MEP/
Assignee dept.	GROA/
Assignee name	PERA/
Assignee phone	PH/
Assignment number	COUX/
Assignment status	STAA/
APAR number	APAR/
APAR/PTF status	STAF/
Bill of Material	BOMF/
Bypass available	MISB/
Card name	CLF/
Card name	CLS/
Cause change number	RNCX/
Cause code	CODC/
Checkout application ID	APPL/
Circuit phone number	PH/
Cluster name	CLSN/
Component APARed	PIDS/
Console output	LOCX/
Current phase	CODP/
Current priority	PRIO/
Customer PD time	INTC/
Data set type	DSTN/
Date assigned	DATA/
Date closed	DATR/
Date entered	DATE/
Date finished	DATF/
Date fix required	DATD/
Date last altered	DATM/
Date last refreshed	DATRF/
Date occurred	DATO/
Date opened	DATX/
Date rep. notified	DATN/
Date started	DATB/
Device impact	IMPD/
Device name	COMD/
Device part	PNF/
Device part	PNS/
Device type	DEVS/
Device type	DEVF/
Diagnostic output	LOCX/
Dump data set	DST*/
Duplicate count	COUD/
EC announcement	ECAF/
EC announcement	ECAS/
EC number	LVLS/
Entry priv. class	CLAE/

Problem Records

Environment condition	ENVF/
Environment condition	ENVS/
Error code	CODE/
Escalation level	ESCL/
External symptom	SYMC/
Feature name	FEAN/
Feature number	FEAF/
Feature number	FEAS/
Fix available	MISX/
Fix change numbers	RNCR/
Gateway ID	GWID/
Graph/log data	LOCX/
Halt	HL/
Initial priority	PRII/
Input data	LOCX/
Interested class	SP**/
I/O command codes	IOPS/
IPCS record number	NUMX/
Item number	PNF/
Key item affected	COMK/
Line/loop speed	NUMS/
Line/loop type	TYPX/
Location code	LOCC/
Loop ID	CODA/
Major unit	MAUF/
Major unit	MAUS/
Message identifier	MS/
Minor unit	MIUF/
Minor unit	MIUS/
Network impact	IMPN/
Network name	COMN/
Non-IBM device type	OVDS/
Notify user ID	NOTID/
Operator form	LOCX/
Original problem no.	RNPD/
Outage	INTO/
Outage type	TYPO/
Output data	LOCX/
Overlay	OVS/
Owning priv. class	CLAO/
Problem no.	RNID/
Problem status	STAC/
Problem type	TYPE/
Procedure name	DOCX/
Program identity	PIDF/
Program identity	PIDS/
Program impact	IMPP/
Program name	COMX/
PTF number	PTFF/
Publication identity	PUBF/
Publication identity	PUBS/
Record format	RECFM/

Record organization	RECO/
Record type	RECS/
Repair time	INTX/
Reported by	PERS/
Reporter dept.	GROS/
Reporter phone	PH/
Request for EC	REAF/
Request for EC	REAS/
Request for price quote	RPQF/
Request for price quote	RPQS/
Rerun time	INTR/
Resolved by	PERR/
Resolver dept.	GROR/
Resolver phone	PH/
Resolver class	CLAR/
Serial number	NUMX/
Signal	SIG/
Software ABEND code	AB/
Software address	ADRS/
Software APAR number	PZFF/
Software APAR number	PZFS/
Software component	PIDF/
Software component	PIDS/
Software field	FLDF/
Software field	FLDS/
Software fix distrib.	FDF/
Software fix distrib.	FDS/
Software level	LVLF/
Software level	LVLS/
Software operation code	OPCF/
Software operation code	OPCS/
Software PTF	PTFF/
Software PTF	PTFS/
Software register	REGF/
Software register	REGS/
Software return code	PRCF/
Software return code	PRCS/
Software routine name	RIDF/
Software routine name	RIDS/
Software statement	PCSF/
Software statement	PCSS/
Source listing	LOCX/
Status or codes	STA/
System impact	IMPS/
System name	NASY/
SMP listing	LOCX/
Target date	DATT/
TEC Event ID	TECID/
Time assigned	TIMA/
Time closed	TIMR/
Time entered	TIME/
Time finished	TIMF/

Problem Records

Time fix required	TIMD/
Time last altered	TIMM/
Time last refreshed	TIMRF/
Time occurred	TIMO/
Time opened	TIMX/
Time started	TIMB/
Total time	INTX/
Trace data	LOCX/
Tracked by	PERC/
Tracker dept.	GROC/
Tracker phone	PH/
Transfer-to class	CLAT/
TSD record ID	PMREC/
TSD site ID	OSITE/
TSD user ID	TUSER/
User form number	NUMX/
User last altered	USER/
User modification	MODU/
Vendor number	NUMV/
Vendor PD time	INTV/
Vendor PMR number	NUMX/
Vendor priority	STAP/
Vendor status	STAV/
Wait state	WS/

Change Records

Field Name	P-Word
Actual duration	INTO/
Actual effort	EFA/
Actual impact	IMPA/
Actual start date	DATB/
Actual start time	TIMX/
Affected device	COMA/
APAR number	PZFS/
Approval pending	SP**/
Approval provided	SA**/
Approval rejected	SR**/
Approval status	STAP/
Approval status (pending, approve, reject)	
	APST/ (for list data BLGLAPST)
Approver (pending, approved, rejected)	
	SPAR/, SAAR/, SRAR/ (for list data BLGLAPVR)
Approver priv. class	CL**/
Assignee dept.	GROA/
Assignee name	PERA/
Assignee phone	PH/
Backup plan used	MISX/
Bill of material	BOMF/
Bill of material	BOMS/
Change number	RNID/
Change reason	CODR/

Change status	STAC/
Change type	TYPE/
Checkout application ID	APPL/
Closed by	PERR/
Closer dept.	GROR/
Closer phone	PH/
Closer priv. class	CLAR/
Corequisites	RNCC/
Completion code	CODC/
Completion date	DATF/
Completion time	TIMF/
Coordinator dept.	GROC/
Coordinator name	PERC/
Coordinator phone	PH/
Current phase	CODP/
Current priority	PRIO/
Date assigned	DATA/
Date entered	DATE/
Date last altered	DATM/
Date req. notified	DATN/
Date required	DATD/
Device feature	FEAF/
Device feature	FEAS/
Device name	COMD/
Device part	PNC/
EC level	LVLF/
EC level	LVLS/
ECA number	ECAF/
ECA number	ECAS/
Entry class	CLAE/
Estimated duration	INTE/
Estimated effort	EFE/
Gateway ID	GWID/
Generic card name	CLS/
Initial priority	PRII/
Key item affected	COMK/
Location code	LOCC/
Network name	COMN/
Owning class	CLAO/
Planned end date	DATT/
Planned end time	TIMT/
Planned start date	DATP/
Planned start time	TIMP/
Prerequisites	RNCP/
Price quotation	RPQF/
Price quotation	RPQS/
Problem fixed	RNPR/
Procedure name	DOCX/
Program name	COMX/
REA number	REAF/
REA number	REAS/
Requested by	PERS/

Change Records

Requester dept.	GROS/
Requester phone	PH/
Reviewer	CLAX/ (for list data)
Reviewer priv. class	CLAX/
Risk assessment	IMPR/
Software component	PIDF/
Software component	PIDS/
Software level	LVLF/
Software level	LVLS/
Software PTF	PTFF/
Software PTF	PTFS/
Software routine	RIDF/
Software routine	RIDS/
Subset number	SS/
System name	NASY/
TEC Event ID	TECID/
Time assigned	TIMA/
Time last altered	TIMM/
Time entered	TIME/
Time required	TIMD/
Transfer-to class	CLAT/
Unexpected problems	MISP/
Upgrade/tape ID	FDF/
Upgrade/tape ID	FDS/
User form number	NUMX/
User last altered	USER/
User modification	MODU/

Activity Records

Field Name	P-Word
Activity name	NAMA/
Activity number	RNID/
Activity reason	CODR/
Activity status	STAC/
Activity type	TYPE/
Actual duration	INTO/
Actual effort	EFA/
Actual impact	IMPA/
Actual start date	DATB/
Actual start time	TIMX/
Assignee dept.	GROA/
Assignee name	PERA/
Assignee phone	PH/
Backup plan used	MISX/
Closed by	PERR/
Closer dept.	GROR/
Closer phone	PH/
Closer priv. class	CLAR/
Corequisites	RNCC/
Completion code	CODC/
Completion date	DATF/

Completion time	TIMF/
Contact dept.	GROS/
Contact name	PERC/
Contact phone	PH/
Current phase	CODP/
Current priority	PRIO/
Date assigned	DATA/
Date entered	DATE/
Date last altered	DATM/
Date req. notified	DATN/
Date required	DATD/
Device name	COMD/
Entry class	CLAE/
Estimated duration	INTE/
Estimated effort	EFE/
Initial priority	PRII/
Key item affected	COMK/
Location code	LOCC/
Network name	COMN/
Owning class	CLAO/
Parent change number	RNOR/
Planned end date	DATT/
Planned end time	TIMT/
Planned start date	DATP/
Planned start time	TIMP/
Prerequisites	RNCP/
Program name	COMX/
Requested by	PERS/
Requester dept.	GROS/
Requester phone	PH/
Risk assessment	IMPR/
System name	NASY/
Time assigned	TIMA/
Time entered	TIME/
Time last altered	TIMM/
Time required	TIMD/
Transfer-to class	CLAT/
Unexpected problems	MISP/
User last altered	USER/

Configuration Records

Hardware Component Records

Field Name	P-Word
Center ID	RNDR/
Circuit number	PH/
Component ID	RNID/
Component owner	DEPO/
Component status	STAC/
Connection type	TYPX/
Contact dept.	GROC/

Configuration Records

Contact name	PERC/
Contact phone	PH/
Current book value	FEEB/
Current market value	FEEV/
CICS® ID	COMX/
Date entered	DATE/
Date altered	DATM/
Date of status	DATC/
Date shipped	DATV/
Device type & model	DEVS/
Direction of flow	DIRF/
Display class	DISC/
Entry priv. class	CLAE/
Feature names	NAFE/
Financial ID	RNFR/
Generic device type	TYPD/
Hardware EC levels	LVLS/
Lease begin date	DATX/
Lease end date	DATX/
Line interface address	TYPX/
Line phone number	PH/
Line protocol	TYPX/
Line set type	TYPX/
Line speed	NUMX/
Line type	TYPX/
Location code	LOCC/
Loop ID	CODA/
Loop speed	NUMS/
Loop type	TYPX/
LTERM ID (IMS)	COMX/
Maintenance interval	INTX/
Microcode EC level	LVLX/
Model link ID	RNMR/
Network name	COMN/
Node name	COMX/
Number of ports	NUMT/
Order number	NUMX/
Owning class	CLAO/
Program name	COMX/
Purchase date	DATX/
Secondary service ID	RNSV/
Secondary supp. grps.	SSGP/
Secondary system ID	RNSS/
Serial number	NUMX/
Service ID	RNSR/
Sub diagram marker 1	SDM1/
Sub diagram marker 2	SDM2/
Sub diagram marker 3	SDM3/
Sub diagram marker 4	SDM4/
Sub diagram marker 5	SDM5/
Sub diagram marker 6	SDM6/
Sub diagram marker 7	SDM7/

Sub diagram marker 8	SDM8/
System ID	RNSY/
Time entered	TIME/
Time last altered	TIMM/
Transfer-to class	CLAT/
Up connected to	RNU1/
User last altered	USER/
VPA/VLA number	VPAN/
VPA/VLA sequence no.	VPAS/

Hardware Connection Records

Field Name	P-Word
Cable length	NUMX/
Cable number	NUMC/
Channel number	NUML/
Component from	RNOR/
Component to	RNCT/
Connection ID	RNID/
Connection status	STAC/
Connection type	TYPX/
Date entered	DATE/
Date last altered	DATM/
Date from	DATX/
Date to	DATJ/
Device address	NUMA/
Entry priv. class	CLAE/
Generic device to	TYPD/
Owning class	CLAO/
Path ID	CODL/
Port ID	CODO/
Port number	NUMN/
Shift number	NUMW/
Time entered	TIME/
Time last altered	TIMM/
Transfer-to class	CLAT/
User last altered	USER/

Hardware Feature Records

Field Name	P-Word
Contact dept.	GROC/
Contact name	PERC/
Contact phone	PH/
Date entered	DATE/
Date last altered	DATM/
Date of status	DATC/
Entry priv. class	CLAE/
Feature ID	RNID/
Feature name	NAFE/
Feature number	NUMX/
Feature owner	DEPO/
Feature status	STAC/

Configuration Records

Feature type	TYPE/
Financial ID	RNFR/
Hardware EC levels	LVLS/
Lease begin date	DATX/
Lease end date	DATX/
Location code	LOCC/
Microcode EC level	LVLX/
Owning class	CLAO/
Purchase date	DATX/
Parent component ID	RNOR/
Serial number	NUMX/
Time entered	TIME/
Time last altered	TIMM/
Transfer-to class	CLAT/
User last altered	USER/
VPA/VLA number	VPAN/
VPA/VLA sequence no.	VPAS/

Hardware Subcomponent Records

Field Name	P-Word
Center ID	RNDR/
Contact dept.	GROC/
Contact name	PERC/
Contact phone	PH/
Date entered	DATE/
Date last altered	DATM/
Date of status	DATC/
Entry priv. class	CLAE/
Hardware EC levels	LVLS/
Financial ID	RNFR/
Hdware compon. link	RNOC/
Lease begin date	DATX/
Lease end date	DATX/
Location code	LOCC/
Maintenance interval	INTX/
Microcode EC level	LVLX/
Owning class	CLAO/
Purchase date	DATX/
Serial number	NUMX/
Service ID	RNSR/
Subcomponent ID	RNID/
Subcomponent owner	DEPO/
Subcomponent status	STAC/
Subcomponent type	TYPE/
System ID	RNSY/
Time entered	TIME/
Time last altered	TIMM/
Transfer-to class	CLAT/
User last altered	USER/
VPA/VLA number	VPAN/
VPA/VLA sequence no.	VPAS/

Model Hardware Component Records

Field Name	P-Word
Center ID	RNDR/
Circuit number	PH/
Component ID	RNID/
Component owner	DEPO/
Component status	STAC/
Connection type	TYPX/
Contact dept.	GROC/
Contact name	PERC/
Contact phone	PH/
Current book value	FEEB/
Current market value	FEEV/
Date entered	DATE/
Date last altered	DATM/
Date of status	DATC/
Device type & model	DEVS/
Direction of flow	DIRF/
Display class	DISC/
Entry priv. class	CLAE/
Feature names	NAFE/
Financial ID	RNFR/
Generic device	TYPD/
Line interface address	TYPX/
Line phone number	PH/
Line protocol	TYPX/
Line set type	TYPX/
Line speed	NUMX/
Line type	TYPX/
Loop ID	CODA/
Loop speed	NUMS/
Loop type	TYPX/
Maintenance interval	INTX/
Owning class	CLAO/
Secondary service ID	RNSV/
Secondary supp. grps.	SSGP/
Secondary system ID	RNSS/
Service ID	RNSR/
System ID	RNSY/
Time entered	TIME/
Time last altered	TIMM/
Transfer-to class	CLAT/
User last altered	USER/

Model Hardware Feature Records

Field Name	P-Word
Contact dept.	GROC/
Contact name	PERC/
Contact phone	PH/
Date entered	DATE/
Date altered	DATM/

Configuration Records

Date of status	DATC/
Entry priv. class	CLAE/
Feature ID	RNID/
Feature name	NAFE/
Feature number	NUMX/
Feature owner	DEPO/
Feature status	STAC/
Feature type	TYPE/
Financial ID	RNFR/
Maintenance interval	INTX/
Owning class	CLAO/
Parent component ID	RNOR/
Storage class	TYPS/
Time entered	TIME/
Time last altered	TIMM/
Transfer-to class	CLAT/
User last altered	USER/

Model Hardware Subcomponent Records

Field Name	P-Word
Center ID	RNDR/
Contact dept.	GROC/
Contact name	PERC/
Contact phone	PH/
Date entered	DATE/
Date altered	DATM/
Date of status	DATC/
Entry priv. class	CLAE/
Financial ID	RNFR/
Model component link	RNOC/
Owning class	CLAO/
Service ID	RNSR/
Subcomponent ID	RNID/
Subcomponent owner	DEPO/
Subcomponent status	STAC/
Subcomponent type	TYPE/
System ID	RNSY/
Time entered	TIME/
Time last altered	TIMM/
Transfer-to class	CLAT/
User last altered	USER/

Software Component Records

Field Name	P-Word
Center ID	RNDR/
CICS TRANS ID	NUMX/
Component ID	RNID/
Component owner	DEPO/
Component status	STAC/
Contact dept.	GROC/
Contact name	PERC/

Contact phone	PH/
Date entered	DATE/
Date altered	DATM/
Date of status	DATC/
Display class	DISC/
Entry priv. class	CLAE/
Execution type	TYPR/
Feature name	NAFE/
Financial ID	RNFR/
Fix level	LEVF/
IMS TRANS ID	NUMX/
License begin date	DATX/
License end date	DATX/
Location code	LOCC/
Model link ID	RNMR/
Modification level	LEVM/
Network name	COMN/
Node name	COMX/
Order number	NUMX/
Owning class	CLAO/
Program name	COMX/
Program type	TYPP/
Program version	LVLX/
Release level	LVLS/
Secondary service ID	RNSV/
Secondary supp. grps.	SSGP/
Secondary system ID	RNSS/
Service ID	RNSR/
Software FMID	LVLS/
Source language	MISX/
System ID	RNSY/
Time entered	TIME/
Time last altered	TIMM/
Transfer-to class	CLAT/
Up connected to	RNU1/
User last altered	USER/
Vendor component #	NUMX/

Software Connection Records

Field Name	P-Word
Compon. connect. up	RNU*/
Component from	RNOR/
Component to	RNCT/
Connection ID	RNID/
Connection status	STAC/
Connection type	TYPX/
Date entered	DATE/
Date from	DATX/
Date altered	DATM/
Date to	DATJ/
Device address	NUMA/

Configuration Records

Entry priv. class	CLAE/
Owning class	CLAO/
Program type	TYPP/
Shift number	NUMW/
Time entered	TIME/
Time last altered	TIMM/
Transfer-to class	CLAT/
User last altered	USER/

Software Feature Records

Field Name	P-Word
Contact dept.	GROC/
Contact name	PERC/
Contact phone	PH/
Date entered	DATE/
Date altered	DATM/
Date of status	DATC/
Entry priv. class	CLAE/
Feature ID	RNID/
Feature name	NAFE/
Entry owner	DEPO/
Feature status	STAC/
Feature type	TYPE/
Financial ID	RNFR/
Fix level	LEVF/
License begin date	DATX/
License end date	DATX/
Location code	LOCC/
Modification level	LEVM/
Owning class	CLAO/
Parent Component ID	RNOR/
Program version	LVLX/
Release level	LVLS/
Source language	MISX/
Time entered	TIME/
Time last altered	TIMM/
Transfer-to class	CLAT/
User last altered	USER/
Vendor component #	NUMX/

Model Software Component Records

Field Name	P-Word
Center ID	RNDR/
Component ID	RNID/
Component owner	DEPO/
Component status	STAC/
Contact dept.	GROC/
Contact name	PERC/
Contact phone	PH/
Date entered	DATE/
Date altered	DATM/

Date of status	DATC/
Display class	DISC/
Entry priv. class	CLAE/
Execution type	TYPR/
Feature name	NAFE/
Financial ID	RNFR/
Fix level	LEVF/
Modification level	LEVM/
Owning class	CLAO/
Program type	TYPP/
Program version	LVLX/
Release level	LVLS/
Secondary service ID	RNSV/
Secondary supp. grps.	SSGP/
Secondary system ID	RNSS/
Service ID	RNSR/
Source language	MISX/
System ID	RNSY/
Time entered	TIME/
Time last altered	TIMM/
Transfer-to class	CLAT/
User last altered	USER/
Vendor component #	NUMX/

Model Software Feature Records

Field Name	P-Word
Contact dept.	GROC/
Contact name	PERC/
Contact phone	PH/
Date entered	DATE/
Date altered	DATM/
Date of status	DATC/
Entry priv. class	CLAE/
Feature ID	RNID/
Feature name	NAFE/
Feature owner	DEPO/
Feature status	STAC/
Feature type	TYPE/
Financial ID	RNFR/
Fix level	LEVF/
Modification level	LEVM/
Owning class	CLAO/
Parent	RNOR/
Program version	LVLX/
Release level	LVLS/
Source language	MISX/
Storage class	TYPS/
Time entered	TIME/
Time last altered	TIMM/
Transfer-to class	CLAT/
User last altered	USER/

Vendor component # NUMX/

Hardware Financial Records

Field Name	P-Word
Charge out account	NUMX/
Charge out rate	NUMX/
Component count	COUC/
Date entered	DATE/
Date altered	DATM/
Depreciation method	TYPX/
Depreciation period	INTX/
Device type & model	DEVS/
Entry priv. class	CLAE/
Financial name	NAFI/
Financial ID	RNID/
Financial type	TYPF/
Generic device type	TYPD/
Lease type	TYPL/
Maintenance class	CODS/
Manufacturer	GROM/
Marketing rep.	PERX/
Marketing rep. phone	PH/
Max. accrual %	NUMX/
Max. accrual period	INTX/
Max. VPA quantity	VPAM/
Min. VPA quantity	VPAQ/
Min. maintenance rate	FEEX/
Monthly charge	FEER/
Owning class	CLAO/
Purchase option %	NUMX/
Purchase price	FEEP/
Residual value	FEEU/
Serv. charge out rate	NUMX/
System specialist	PERX/
System specialist phone	PH/
Time entered	TIME/
Time last altered	TIMM/
Transfer-to class	CLAT/
User last altered	USER/
Vendor name	GROV/
VPA contact name	PERC/
VPA contact phone	PH/
VPA duration	VPAD/
VPA name	CODV/
VPA number	VPAN/
VPA start date	DATB/

Software Financial Records

Field Name	P-Word
Additional charge DSLO	FEEG/
Basic license identifier	CODB/

Basic license location	LOCC/
Date entered	DATE/
Date altered	DATM/
Entry priv. class	CLAE/
Financial ID	RNID/
Financial name	NAFI/
Initial license charge	FEED/
Install license applies	MISX/
License type	TYPL/
Location license applies	MISX/
LPSA charge	FEEL/
Maintenance class	CODS/
Marketing rep.	PERX/
Marketing rep. phone	PH/
Max. VLA quantity	VPAM/
Min. VLA quantity	VPAQ/
Multiple license count	COUC/
Multiple license charge	FEEM/
One time charge	FEEC/
Owning class	CLAO/
Periodic lic. charge	FEER/
Periodic charge inter.	INTT/
Process charge	FEEX/
System specialist	PERX/
System specialist phone	PH/
Test period	INTX/
Time entered	TIME/
Time last altered	TIMM/
Transfer-to class	CLAT/
Upgrade lic. charge	FEEF/
User last altered	USER/
Vendor name	GROV/
VLA contact name	PERC/
VLA contact phone	PH/
VLA duration	VPAD/
VLA name	CODV/
VLA number	VPAN/
VLA start date	DATB/

System Records

Field Name	P-Word
Center ID	RNDR/
Contact dept.	GROC/
Contact name	PERC/
Contact phone	PH/
Date entered	DATE/
Date altered	DATM/
Emergency phone	PH/
Entry priv. class	CLAE/
Location code	LOCC/
Manager phone	PH/

Configuration Records

Operator phone	PH/
Owning class	CLAO/
System ID	RNID/
System manager	PERM/
System name	NASY/
Time entered	TIME/
Time last altered	TIMM/
Transfer-to class	CLAT/
User last altered	USER/

Service Records

Field Name	P-Word
Date entered	DATE/
Date altered	DATM/
Entry priv. class	CLAE/
Hardware rep.	PERX/
Hardware rep. phone	PH/
Off-shift phone	PH/
Owning class	CLAO/
Service ID	RNID/
Service name	NASE/
Service org. name	NAMX/
Service phone	PH/
Software rep.	PERX/
Software rep. phone	PH/
Time entered	TIME/
Time last altered	TIMM/
Transfer-to class	CLAT/
User last altered	USER/

Data Center Records

Field Name	P-Word
Center ID	RNID/
Center name	NADC/
Date entered	DATE/
Date altered	DATM/
Emergency phone	PH/
Entry priv. class	CLAE/
Help phone	PH/
Home phone (ops. mgr.)	PH/
Home ph. (shift 1, 2, 3)	PH/
Location code	LOCC/
Off shift phone	PH/
Operations mgr.	PERM/
Operations mgr. phone	PH/
Owning class	CLAO/
Time entered	TIME/
Time last altered	TIMM/
Transfer-to class	CLAT/
User last altered	USER/
1st shift manager	PERM/

1st shift phone	PH/
2nd shift manager	PERM/
2nd shift phone	PH/
3rd shift manager	PERM/
3rd shift phone	PH/

Rules Records

Field Name	P-Word
Date entered	DATE/
Date last altered	DATM/
Duration	INTX/
Entry priv. class	CLAE/
ID to notify	USRN/
Inc./dec. priority	RPID/
Initial priority	PRII/
Key item affected	COMK/
Location code	LOCC/
Node to notify	COMX/
Priority adjustment	RADJ/
Problem type	TYPE/
Record number	RNID/
Time entered	TIME/
Time last altered	TIMM/
User last altered	USER/

Call Records

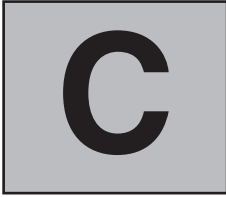
Field Name	P-Word
Address 1	ADDR/
Address 2	ADDR/
Associated problem	RNAP/
Call FAX number	FAX/
Call ID	RNID/
Call taker dept	GROA/
Call taker ID	ASID/
Call taker name	PERA/
Call taker phone	PH/
Call type	TYPJ/
Caller's ID	CAID/
City/State/Province	CITY/
Company name	CO/
Date entered	DATE/
Date last altered	DATM/
Department	GROS/
End date	DATF/
End time	TIMF/
Entry priv. class	CLAE/
Name	PERS/
Phone	PH/
Postal code/ZIP	PCOD/
Start date	DATB/

Call Records

Start time	TIMB/
Status	STAC/
Time entered	TIME/
Time last altered	TIMM/
User last altered	USER/

People Records

Field Name	P-Word
Address 1	ADDR/
Address 2	ADDR/
City/State/Province	CITY/
Company name	CO/
Country	CTRY/
Date entered	DATE/
Date last altered	DATM/
E-mail address	EADD/
Fax number	PHFX/
Mobile phone number	PHMO/
Pager number	PHPG/
People identifier	RNID/
Person department	DEPT/
Person name	PERNM/
Person role	ROLE/
Phone number	PHNM/
Postal code/ZIP	PCOD/
Preferred contact method	PNOT/
Time entered	TIME/
Time last altered	TIMM/
TSD site ID	OSITE/
TSD user ID	TUSER/
User last altered	USER/



Relating Publications to Specific Tasks

Your data processing organization can have many different users performing many different tasks. The books in the Tivoli Information Management for z/OS library contain task-oriented scenarios to teach users how to perform the duties specific to their jobs.

The following table describes the typical tasks in a data processing organization and identifies the Tivoli Information Management for z/OS publication that supports those tasks. See “The Tivoli Information Management for z/OS Library” on page 297 for more information about each book.

Typical Tasks

Table 4. Relating Publications to Specific Tasks

If You Are:	And You Do This:	Read This:
Planning to Use Tivoli Information Management for z/OS	Identify the hardware and software requirements of Tivoli Information Management for z/OS. Identify the prerequisite and corequisite products. Plan and implement a test system.	<i>Tivoli Information Management for z/OS Planning and Installation Guide and Reference</i>
Installing Tivoli Information Management for z/OS	Install Tivoli Information Management for z/OS. Define and initialize data sets. Create session-parameters members.	<i>Tivoli Information Management for z/OS Planning and Installation Guide and Reference</i> <i>Tivoli Information Management for z/OS Integration Facility Guide</i>
	Define and create multiple Tivoli Information Management for z/OS BLX-SPs.	<i>Tivoli Information Management for z/OS Planning and Installation Guide and Reference</i>
	Define and create APPC transaction programs for clients.	<i>Tivoli Information Management for z/OS Client Installation and User's Guide</i>
	Define coupling facility structures for sysplex data sharing.	<i>Tivoli Information Management for z/OS Planning and Installation Guide and Reference</i>
Diagnosing problems	Diagnose problems encountered while using Tivoli Information Management for z/OS	<i>Tivoli Information Management for z/OS Diagnosis Guide</i>

Table 4. Relating Publications to Specific Tasks (continued)

If You Are:	And You Do This:	Read This:
Administering Tivoli Information Management for z/OS	Manage user profiles and passwords. Define and maintain privilege class records. Define and maintain rules records.	<i>Tivoli Information Management for z/OS Program Administration Guide and Reference</i> <i>Tivoli Information Management for z/OS Integration Facility Guide</i>
	Define and maintain USERS record. Define and maintain ALIAS record. Implement GUI interface. Define and maintain command aliases and authorizations.	<i>Tivoli Information Management for z/OS Program Administration Guide and Reference</i>
	Implement and administer Notification Management. Create user-defined line commands. Define logical database partitioning.	<i>Tivoli Information Management for z/OS Program Administration Guide and Reference</i>
	Create or modify GUI workstation applications that can interact with Tivoli Information Management for z/OS. Install the Tivoli Information Management for z/OS Desktop on user workstations.	<i>Tivoli Information Management for z/OS Desktop User's Guide</i>
Maintaining Tivoli Information Management for z/OS	Set up access to the data sets. Maintain the databases. Define and maintain privilege class records.	<i>Tivoli Information Management for z/OS Planning and Installation Guide and Reference</i> <i>Tivoli Information Management for z/OS Program Administration Guide and Reference</i>
	Define and maintain the BLX-SP. Run the utility programs.	<i>Tivoli Information Management for z/OS Operation and Maintenance Reference</i>
Programming applications	Use the application program interfaces.	<i>Tivoli Information Management for z/OS Application Program Interface Guide</i>
	Use the application program interfaces for Tivoli Information Management for z/OS clients.	<i>Tivoli Information Management for z/OS Client Installation and User's Guide</i>
	Create Web applications using or accessing Tivoli Information Management for z/OS data.	<i>Tivoli Information Management for z/OS World Wide Web Interface Guide</i>

Table 4. Relating Publications to Specific Tasks (continued)

If You Are:	And You Do This:	Read This:
Customizing Tivoli Information Management for z/OS	Design and implement a Change Management system. Design and implement a Configuration Management system. Design and implement a Problem Management system.	<i>Tivoli Information Management for z/OS Problem, Change, and Configuration Management</i>
	Design, create, and test terminal simulator panels or terminal simulator EXECs. Customize panels and panel flow.	<i>Tivoli Information Management for z/OS Terminal Simulator Guide and Reference</i> <i>Tivoli Information Management for z/OS Panel Modification Facility Guide</i>
	Design, create, and test Tivoli Information Management for z/OS formatted reports.	<i>Tivoli Information Management for z/OS Data Reporting User's Guide</i>
	Create a bridge between NetView [®] and Tivoli Information Management for z/OS applications. Integrate Tivoli Information Management for z/OS with Tivoli distributed products.	<i>Tivoli Information Management for z/OS Guide to Integrating with Tivoli Applications</i>
Assisting Users	Create, search, update, and close change, configuration, or problem records. Browse or print Change, Configuration, or Problem Management reports.	<i>Tivoli Information Management for z/OS Problem, Change, and Configuration Management</i>
	Use the Tivoli Information Management for z/OS Integration Facility.	<i>Tivoli Information Management for z/OS Integration Facility Guide</i>
Using Tivoli Information Management for z/OS	Learn about the Tivoli Information Management for z/OS panel types, record types, and commands. Change a user profile.	<i>Tivoli Information Management for z/OS User's Guide</i>
	Learn about Problem, Change, and Configuration Management records.	<i>Tivoli Information Management for z/OS Problem, Change, and Configuration Management</i>
	Receive and respond to Tivoli Information Management for z/OS messages.	<i>Tivoli Information Management for z/OS Messages and Codes</i>
	Design and create reports.	<i>Tivoli Information Management for z/OS Data Reporting User's Guide</i>



Tivoli Information Management for z/OS Courses

Education Offerings

Tivoli Information Management for z/OS classes are available in the United States and in the United Kingdom. For information about classes outside the U.S. and U.K., contact your local IBM® representative or visit <http://www.training.ibm.com> on the World Wide Web.

United States

IBM Education classes can help your users and administrators learn how to get the most out of Tivoli Information Management for z/OS. IBM Education classes are offered in many locations in the United States and at your own company location.

For a current schedule of available classes or to enroll, call 1-800-IBM TEACH (1-800-426-8322). On the World Wide Web, visit:

<http://www.training.ibm.com>

to see the latest course offerings.

United Kingdom

In Europe, the following public courses are held in IBM's central London education centre at the South Bank at regular intervals. On-site courses can also be arranged.

For course schedules and to enroll, call Enrollments Administration on 0345 581329, or send an e-mail note to:

contact_educ_uk@vnet.ibm.com

On the World Wide Web, visit:

<http://www.europe.ibm.com/education-uk>

to see the latest course offerings.



Where to Find More Information

The Tivoli Information Management for z/OS library is an integral part of Tivoli Information Management for z/OS. The books are written with particular audiences in mind. Each book covers specific tasks.

The Tivoli Information Management for z/OS Library

The publications shipped automatically with each Tivoli Information Management for z/OS Version 7.1 licensed program are:

- *Tivoli Information Management for z/OS Application Program Interface Guide*
- *Tivoli Information Management for z/OS Client Installation and User's Guide **
- *Tivoli Information Management for z/OS Data Reporting User's Guide **
- *Tivoli Information Management for z/OS Desktop User's Guide*
- *Tivoli Information Management for z/OS Diagnosis Guide **
- *Tivoli Information Management for z/OS Guide to Integrating with Tivoli Applications **
- *Tivoli Information Management for z/OS Integration Facility Guide **
- *Tivoli Information Management for z/OS Licensed Program Specification*
- *Tivoli Information Management for z/OS Master Index, Glossary, and Bibliography*
- *Tivoli Information Management for z/OS Messages and Codes*
- *Tivoli Information Management for z/OS Operation and Maintenance Reference*
- *Tivoli Information Management for z/OS Panel Modification Facility Guide*
- *Tivoli Information Management for z/OS Planning and Installation Guide and Reference*
- *Tivoli Information Management for z/OS Program Administration Guide and Reference*
- *Tivoli Information Management for z/OS Problem, Change, and Configuration Management**
- *Tivoli Information Management for z/OS Reference Summary*
- *Tivoli Information Management for z/OS Terminal Simulator Guide and Reference*
- *Tivoli Information Management for z/OS User's Guide*
- *Tivoli Information Management for z/OS World Wide Web Interface Guide*

Note: Publications marked with an asterisk (*) are shipped in softcopy format only.

Also included is the Product Kit, which includes the complete online library on CD-ROM.

To order a set of publications, specify order number SBOF-7028-00.

Additional copies of these items are available for a fee.

Publications can be requested from your Tivoli or IBM representative or the branch office serving your location. Or, in the U.S., you can call the IBM Publications order line directly by dialing 1-800-879-2755.

The following descriptions summarize all the books in the Tivoli Information Management for z/OS library.

Tivoli Information Management for z/OS Application Program Interface Guide, SC31-8737-00, explains how to use the low-level API, the high-level API, and the REXX interface to the high-level API. This book is written for application and system programmers who write applications that use these program interfaces.

Tivoli Information Management for z/OS Client Installation and User's Guide, SC31-8738-00, describes and illustrates the setup and use of Tivoli Information Management for z/OS's remote clients. This book shows you how to use Tivoli Information Management for z/OS functions in the AIX[®], CICS, HP-UX, OS/2[®], Sun Solaris, Windows NT, and OS/390 UNIX System Services environments. Also included in this book is complete information about using the Tivoli Information Management for z/OS servers.

Tivoli Information Management for z/OS Data Reporting User's Guide, SC31-8739-00, describes various methods available to produce reports using Tivoli Information Management for z/OS data. It describes Tivoli Decision Support for Information Management (a Discovery Guide for Tivoli Decision Support), the Open Database Connectivity (ODBC) Driver for Tivoli Information Management for z/OS, and the Report Format Facility. A description of how to use the Report Format Facility to modify the standard reports provided with Tivoli Information Management for z/OS is provided. The book also illustrates the syntax of report format tables (RFTs) used to define the output from the Tivoli Information Management for z/OS REPORT and PRINT commands. It also includes several examples of modified RFTs.

Tivoli Information Management for z/OS Desktop User's Guide, SC31-8740-00, describes how to install and use the sample application provided with the Tivoli Information Management for z/OS Desktop. The Tivoli Information Management for z/OS Desktop is a Java-based graphical user interface for Tivoli Information Management for z/OS. Information on how to set up data model records to support the interface and instructions on using the Desktop Toolkit to develop your own Desktop application are also provided.

Tivoli Information Management for z/OS Diagnosis Guide, GC31-8741-00, explains how to identify a problem, analyze its symptoms, and resolve it. This book includes tools and information that are helpful in solving problems you might encounter when you use Tivoli Information Management for z/OS.

Tivoli Information Management for z/OS Guide to Integrating with Tivoli Applications, SC31-8744-00, describes the steps to follow to make an automatic connection between NetView and Tivoli Information Management for z/OS applications. It also explains how to customize the application interface which serves as an application enabler for the NetView Bridge and discusses the Tivoli Information Management for z/OS NetView AutoBridge. Information on interfacing Tivoli Information Management for z/OS with other Tivoli management software products or components is provided for Tivoli Enterprise Console, Tivoli Global Enterprise Manager, Tivoli Inventory, Tivoli Problem Management, Tivoli Software Distribution, and Problem Service.

Tivoli Information Management for z/OS Integration Facility Guide, SC31-8745-00, explains the concepts and structure of the Integration Facility. The Integration Facility provides a task-oriented interface to Tivoli Information Management for z/OS that makes the

Tivoli Information Management for z/OS applications easier to use. This book also explains how to use the panels and panel flows in your change and problem management system.

Tivoli Information Management for z/OS Master Index, Glossary, and Bibliography, SC31-8747-00, combines the indexes from each hardcopy book in the Tivoli Information Management for z/OS library for Version 7.1. Also included is a complete glossary and bibliography for the product.

Tivoli Information Management for z/OS Messages and Codes, GC31-8748-00, contains the messages and completion codes issued by the various Tivoli Information Management for z/OS applications. Each entry includes an explanation of the message or code and recommends actions for users and system programmers.

Tivoli Information Management for z/OS Operation and Maintenance Reference, SC31-8749-00, describes and illustrates the BLX-SP commands for use by the operator. It describes the utilities for defining and maintaining data sets required for using the Tivoli Information Management for z/OS licensed program, Version 7.1.

Tivoli Information Management for z/OS Panel Modification Facility Guide, SC31-8750-00, gives detailed instructions for creating and modifying Tivoli Information Management for z/OS panels. It provides detailed checklists for the common panel modification tasks, and it provides reference information useful to those who design and modify panels.

Tivoli Information Management for z/OS Planning and Installation Guide and Reference, GC31-8751-00, describes the tasks required for installing Tivoli Information Management for z/OS. This book provides an overview of the functions and optional features of Tivoli Information Management for z/OS to help you plan for installation. It also describes the tasks necessary to install, migrate, tailor, and start Tivoli Information Management for z/OS.

Tivoli Information Management for z/OS Problem, Change, and Configuration Management, SC31-8752-00, helps you learn how to use Problem, Change, and Configuration Management through a series of training exercises. After you finish the exercises in this book, you should be ready to use other books in the library that apply more directly to the programs you use and the tasks you perform every day.

Tivoli Information Management for z/OS Program Administration Guide and Reference, SC31-8753-00, provides detailed information about Tivoli Information Management for z/OS program administration tasks, such as defining user profiles and privilege classes and enabling the GUI user interface.

Tivoli Information Management for z/OS Reference Summary, SC31-8754-00, is a reference booklet containing Tivoli Information Management for z/OS commands, a list of p-words and s-words, summary information for PMF, and other information you need when you use Tivoli Information Management for z/OS.

Tivoli Information Management for z/OS Terminal Simulator Guide and Reference, SC31-8755-00, explains how to use terminal simulator panels (TSPs) and EXECs (TSXs) that let you simulate an entire interactive session with a Tivoli Information Management for z/OS program. This book gives instructions for designing, building, and testing TSPs and TSXs, followed by information on the different ways you can use TSPs and TSXs.

Tivoli Information Management for z/OS User's Guide, SC31-8756-00, provides a general introduction to Tivoli Information Management for z/OS and databases. This book has a series of step-by-step exercises to show beginning users how to copy, update, print, create, and delete records, and how to search a database. It also contains Tivoli Information Management for z/OS command syntax and descriptions and other reference information.

Tivoli Information Management for z/OS World Wide Web Interface Guide, SC31-8757-00, explains how to install and operate the features available with Tivoli Information Management for z/OS that enable you to access a Tivoli Information Management for z/OS database using a Web browser as a client.

Other related publications include the following:

Tivoli Decision Support: Using the Information Management Guide is an online book (in portable document format) that can be viewed with the Adobe Acrobat Reader. This book is provided with Tivoli Decision Support for Information Management (5697-IMG), which is a product that enables you to use Tivoli Information Management for z/OS data with Tivoli Decision Support. This book describes the views and reports provided with the Information Management Guide.

IBM Redbooks™ published by IBM's International Technical Support Organization are also available. For a list of redbooks related to Tivoli Information Management for z/OS and access to online redbooks, visit Web site <http://www.redbooks.ibm.com> or <http://www.support.tivoli.com>

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