

Operator's Guide

CL/SUPERSESSION®
CL/GATEWAY™

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Preface

About this document

This guide is an introduction to the CT/Engine™ operator facility. It describes the CUA™ interface and helps you monitor, control, and dynamically reconfigure the CT/Engine environment.

This manual is organized as follows:

Getting Started

Describes Candle's operator interface design which adheres to the IBM® Systems Application Architecture®/Common User Access™ (SAA™/CUA™) guidelines.

CT/Engine Operator

Explains how to log onto the CT/Engine Operator and use its features.

Tables Manager

Describes the Tables Manager, which is a set of dialogs written in SSPL (Structured Session Procedure Language), to report on and manage the contents of the CT/Engine tables database.

Viewlog

Describes the Viewlog for displaying information from the CT/Engine log file.

Commands

Presents operator commands in alphabetic order with a description of each command parameter.

Customer Support

Introduction

Candle provides electronic support and telephone support to assist you when you have questions about Candle products. Customer support is available 24 hours a day, seven days a week.

Electronic support

Candle Electronic Customer Support® (CECSSM) enables you to search for existing questions, answers, problems, and fixes; review preventive service planning (PSP) information; and open incidents for Candle products. CECS is available through the Advantis™ network and by direct PC dial-up. For registration information, call your nearest Candle Support Services office.

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If you have an urgent problem or need to talk to a Candle Support Services representative, contact the Support Services office nearest you.

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Santa Monica	(800) 328-1811 (310) 829-5844	(310) 582-4204
Europe		
Antwerp	(32) (3) 272-3606	(32) (3) 272-3607
Breda	(31) (76) 520.19.09	(31) (76) 520.19.19
Duesseldorf	(49) (21) 193-6920	(49) (21) 193-69220
Manchester	(44) 161 499 3503	(44) 161 437 5225
Munich	(49) 89 54 5540	(49) 89 54 5541-19
Paris	(33) (1) 5361 6000	(33) (1) 5361 0515
Sollentuna	(46) 8 623 1235	(46) 8 623 1855
Asia Pacific		
Hong Kong	(852) 2528 6289	(852) 2865 0770
Kuala Lumpur	(603) 230 9930	(603) 230 9932
Singapore	(65) 220 50 92	(65) 226 35 79
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- your Candle personal ID (PID) number
- the release level of the Candle product
- the release level of IBM® or other vendor software
- identifying information and dates of recently applied maintenance to the Candle product
- a detailed description of the problem (including the error message) and what led up to the failure
- a description of any unusual events that occurred before the problem

Incident documentation

You may be asked to send incident documentation to Candle Support Services. On the outside of the package, please write the incident number given to you by the Candle Support Services representative. Send your documentation addressed as follows:

Candle Support Team
Candle Support Center, *incident number*
2425 Olympic Boulevard
Santa Monica, California 90404

Documentation Conventions

Introduction

Candle documentation adheres to accepted typographical conventions for command syntax. Conventions specific to Candle documentation are discussed in the following sections.

Panels and figures

The panels and figures in this document are representations. Actual product panels may differ.

Revision bars

Revision bars (|) may appear in the left margin to identify new or updated material.

Variables and literals

In examples of command syntax, uppercase letters are actual values (literals) that the user should type; lowercase letters are used for variables that represent actual values.

```
LOGON APPLID(ccccccc) DATA('LROWS=80')
```

In the above example, you would type **APPLID** followed by an 8-character application identifier (represented by *ccccccc*) within parentheses.

Note: In ordinary text, variable names appear in italics.

Wildcard characters

A wildcard character (?, *, /) indicates that any character or characters may appear as part of a string expression. Wildcard characters are allowed in the following command operands:

- argument
- term
- plu
- pool

- slu
- userid
- value

The question mark (?) represents any single character. For example:

The string 'D?G' represents **DIG**, **DOG**, **DUG**, and any other 3-character string that begins with a **D** and ends with a **G**.

The string 'D??' represents any 3-character string that begins with a **D**.

The asterisk (*) and the slash (/) wildcard characters are used at the end of a string. They indicate that any number of characters of any kind may follow. For example:

The string 'DOG*' or 'DOG/' represents **DOG**, **DOGY**, **DOGGIE**, and any other character string that begins with **DOG**.

Symbols

The following symbols may appear in command syntax.

Symbol	Usage
[]	Denotes optional arguments. Those arguments not enclosed in square brackets are required. Example: APPLDEST DEST [ALTDEST] In this example, DEST is a required argument and ALTDEST is optional.
{ }	Some documents use braces to denote required arguments. Example: COMPARE {workload} - [time] - [SUMMARY] The <i>workload</i> variable is required.
␣	The symbol ␣ indicates a blank space, when needed for clarity.

Documentation Set

Introduction

Candle provides a complete set of documentation for CL/SUPERSESSSION and CL/GATEWAY. Each manual in this documentation set contains a specific type of information to help you use the product.

Candle welcomes your comments and suggestions for changes or additions to the documentation set. A user comment form, located at the back of each manual, provides simple instructions for communicating with Candle's Technical Documentation department.

Product documentation

The documentation listed in the following table is available for CL/SUPERSESSSION and CL/GATEWAY. To order additional product manuals, contact your Candle Support Services representative.

Document Number	Document Name	Description
LS60-3779	Version 147 Release Guide	Contains new information for this release.
LS99-3783	Program Directory	Provides installation instructions and details all other installation considerations.
LS55-3785	Basic Configuration Guide	Provides basic instructions for customizing CL/SUPERSESSSION and CL/GATEWAY to the specific needs of your network, system, and users.
LS51-3781	Customization Guide	Provides instructions and explanations for customizing CL/SUPERSESSSION and CL/GATEWAY to the needs of your network, system, and users.
LS54-3786	User's Guide	Contains brief instructions on how to operate CL/SUPERSESSSION and CL/GATEWAY.
LS99-3789	Operator's Guide	Describes the CT/Engine operator facility and commands used by CT/Engine, CL/SUPERSESSSION, and CL/GATEWAY.
LS99-4225	Introduction to SSPL Dialogs	Introduces users to the Structured Session Procedure Language (SSPL); shows how to customize and use some simple dialogs written in SSPL.
LS99-3821	SSPL Programming Guide	Explains how to create your own dialogs with SSPL, using a sample application that creates and manages a table.
LS53-3787	Dialog Language Reference Manual	Contains comprehensive descriptions of all features of the SSPL dialog language.

Table 1 (Page 2 of 2). CL/SUPERSESSION and CL/GATEWAY Documentation		
Document Number	Document Name	Description
LS57-3780	Problem Determination Guide	Contains instructions and documentation recommendations for locating and solving problems in CL products.
LS52-3788	Messages Manual	Lists and explains all CT/Engine, CL/SUPERSESSION, and CL/GATEWAY messages and suggests appropriate user actions.
LVM99-4103	Quick Reference Card	Pocket-sized document that contains step-by-step instructions for using CL/SUPERSESSION and CL/GATEWAY.
LS59-3801	Master Index	Contains a master index for all CL/SUPERSESSION and CL/GATEWAY manuals that contain indexes.

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Overview

This chapter introduces you to the CT/Engine Operator interface (from here on referred to as the CT/Engine Operator). It summarizes the features of the interface, describes how to navigate from one screen to another, and provides an overview of how to operate CL products at your site.

We recommend that you read this chapter before you access the CT/Engine Operator. For procedures when logging onto the facility and using its features, refer to “CT/Engine Operator” on page 31.

Panel Contents

The CT/Engine Operator complies with IBM's System Application Architecture/Common User Access (SAA/CUA) guidelines, which promote ease of use in software interfaces. For more information about CUA, see the IBM manual *Common User Access: Basic Interface Design Guide*.

This chapter introduces you to the CUA interface. It describes how to navigate from one panel to another using the CUA interface.

Note: If you are using 3270 emulation hardware and software on a personal computer, various panel attributes (such as color, highlight, underline, and reverse video) may appear significantly different from the way they appear on a native 3279 display. You may have to change definitions in your 3270 emulator to achieve desired results. Refer to the appropriate manuals or consult your system administrator.

Figure 1 shows the format of CT/Engine Operator panels.

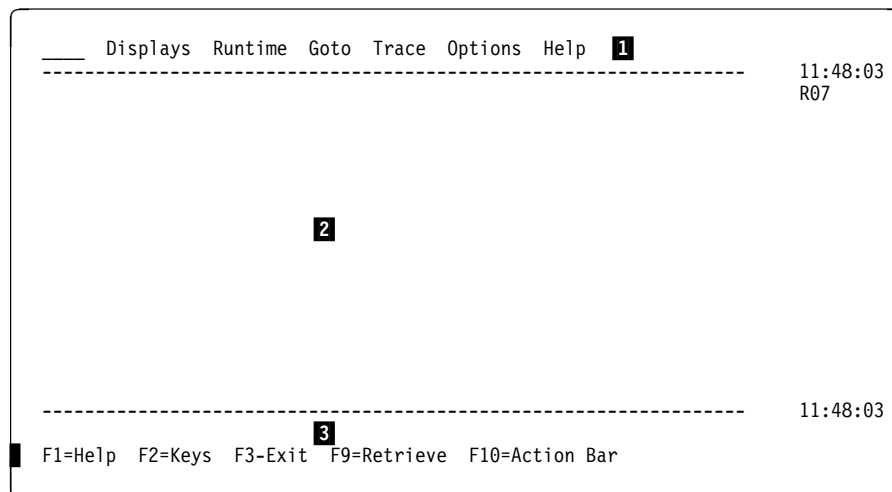


Figure 1. CT/Engine Operator Screen Format

Each CT/Engine Operator panel consists of three areas:

- 1** **Action bar.** Every CT/Engine Operator panel has an action bar on the top line. The action bar contains keyword choices that lead to pull-down menus when selected. “Action Bar” on page 19 explains how to use the action bar.
- 2** **Panel body.** The CT/Engine Operator displays its data here. The format of the data varies depending on its type. Some fields in the panel body are preceded by an underscore () to indicate that you can select the field as the object of some action. “Action Bar” on page 19 explains more about actions.
- 3** **Function key area.** The CT/Engine Operator displays the active function keys for the current panel on this line. Inactive function keys are not displayed. “Function Keys” on page 27 lists all CT/Engine Operator function keys.

Panel Objects

Each CT/Engine Operator panel consists of *panel objects*. A panel object is anything in the panel — text strings, lines, boxes, and designated keys. Panel objects allow you to easily navigate from one panel and function to another.

Figure 2 illustrates the objects comprising a typical CT/Engine Operator panel.

```
01  ___ Displays Runtime Goto Trace Options Help
02  -----09/19/99 14:20:65
03                               CL/Engine Operator
04                               User: USER99
05                               Auto   More:
06 Select an Action Bar item or enter a command, then press Enter.
07
08 KLVOP071 USER99 Profile Options: LOCAL,FOLD,SCP
09 KLVOP111 CANDLE ENGINE TIME: 14:20:65.09
10  -----
11
12
13
14
15
16
17
18
19
20
21 Command ==> _____
22  -----
23
24 F1=Help F2=Keys F3=Exit F9=Retrieve F10=Action Bar
```

Figure 2. CT/Engine Operator Panel

Note: The line numbers are for reference only; they do not appear on the panel.

- 01** Action bar.
- 02** Panel area separator with date and time stamp.
- 03** Panel ID and title.
- 04** User ID.
- 05** Scroll indicator. Scrolling is either:
 - Auto** The CT/Engine Operator scrolls the output automatically.
 - Manual** The CT/Engine Operator fills the terminal screen with output, then stops and waits for you to press Enter.
- 06** Instruction line.
- 07** Blank.
- 08** A CT/Engine message that specifies the operator ID and current profile options. (Messages are described in *Messages Manual*.)
- 09** A CT/Engine message that specifies the system time.
- 10** A line of dashes indicating where CT/Engine displays the next line of output.
- 21** The Command prompt. The command prompt is the field where you type CT/Engine Operator commands. For a discussion of the command prompt, see “Command Prompt” on page 21. This line also displays
 - the command as you enter it
 - the last command you entered
 - the message < **LOCKED** > if the terminal is in manual mode and there is more outputPress Enter to unlock the terminal and view the next lines of output.
- 24** The function key line which lists each function key available on this panel and its use.

Action Bar

The action bar is the menu line at the top of the panel. It displays a list of keyword choices used to access pull-down menus. The keyword choices on the CT/Engine Operator panel are:

Displays	Provides access to commands that generate output panels.
Runtime	Provides access to frequently used commands.
Goto	Provides access to commands that are grouped into generic categories.
Trace	Provides access to trace facilities.
Options	Provides access to user and scrolling options.
Help	Provides access to the online help facility.

Refer to “CT/Engine Operator” on page 31 for more information about keyword choices and to the online help panels (which you can access by pressing F1).

Using the Action Bar

To use the action bar, move the cursor to the top line by pressing

- F10 to move the cursor to the action bar from the panel body
The cursor position is stored, and the cursor is returned to that position in the panel body when you press F10 again.
- the Home key to move the cursor from the panel body to the action bar
The position of the cursor is *not* retained.
- the Tab key to move from one action bar choice to the next

To make a selection from the action bar:

1. Move the cursor to the left of the desired choice or type the first letter of the choice in the home position.
2. Press Enter.

Other techniques for making selections are described in “Selection Methods” on page 23.

Pull-down Menus

When you select a choice from the action bar, a pull-down menu is displayed. A pull-down menu provides a list of further selections that you can make. Figure 3 shows a typical CT/Engine Operator panel that displays after you select **Trace** from the action bar.

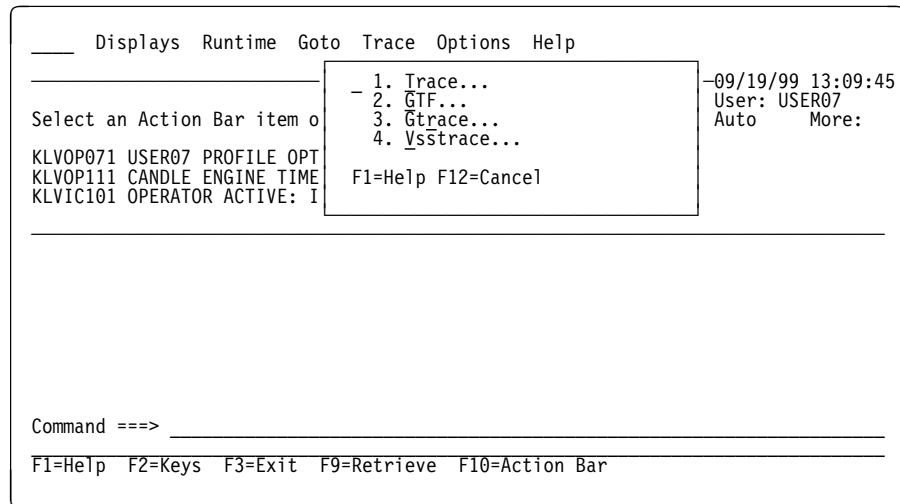


Figure 3. Trace Pull-down Menu

Although part of the underlying panel is visible, its selections and entry fields are unavailable. If you move the cursor outside the pull-down menu area and press a key, the cursor returns to the pull-down menu.

Pop-up Windows

Pop-up windows (Figure 4 on page 21) present information related to the panel over which they are superimposed. The CT/Engine Operator may display a pop-up window when you make a selection from a pull-down menu, press a function key, or type an action code. Pop-up windows prompt for further selections, provide messages for possible error conditions, or display help or security information. Even though more than one pop-up window may appear at one time (overlapping each other), only the last pop-up displayed accepts data.

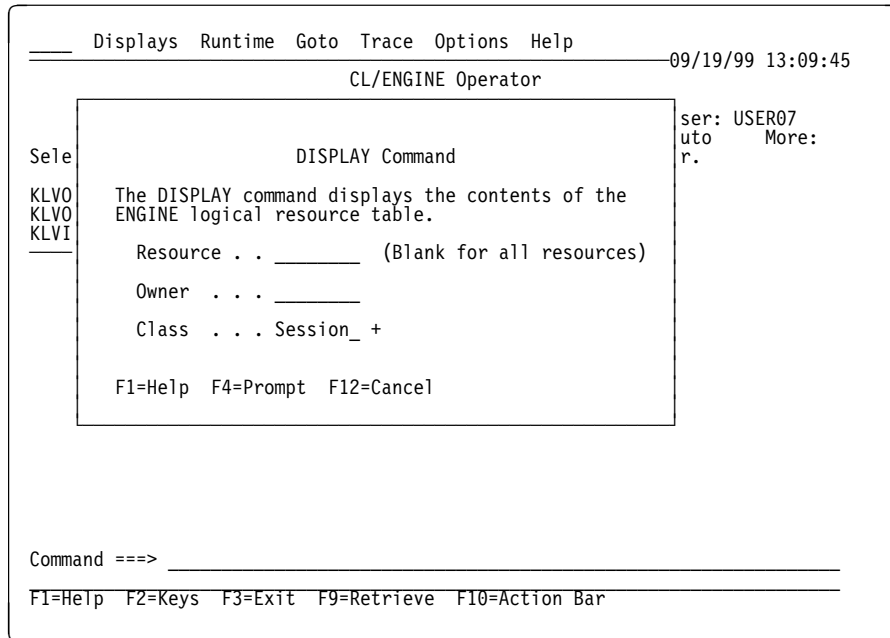


Figure 4. DISPLAY Command Pop-up Window

The pop-up window appears to lie on top of the current panel or menu. You cannot use the options of the underlying panel while the pop-up window is displayed.

Pop-up windows and pull-down menus share a number of common features. The principal differences are that

- a pull-down menu appears when you make a selection from the action bar
- a pop-up window appears when additional information is required to complete a function

Command Prompt

At the bottom of some menu, pull-down menu, or pop-up window is a line labeled **Command ==>**. This field enables you to enter commands. Available commands vary from panel to panel. You can display a description of available commands for a panel by moving the cursor to the field and pressing F1 to display the Help for Commands panel.

Commands are described in “Commands” on page 71.

Panel Characteristics

This section describes the features of the CUA interface panels.

Highlighting

Attributes such as color, highlighting, and underlining, as well as certain characters, are used in these panels to identify types of text and fields. On a color terminal, colors are used as follows:

Yellow	Emphasis. On some terminals (such as 3290s), emphasized fields appear in reverse video. On monochrome terminals, emphasized fields appear brighter.
Green with underscore	Fields that accept input. On a monochrome terminal, the field is underscored.
White	Items that are available for selection. On a monochrome terminal, the field is the display color for that terminal.
Blue	Items that are unavailable for selection, either temporarily or permanently. On a monochrome terminal, an asterisk (*) appears as the first character of the selection.
Reverse Video	Invalid or expired password. This condition occurs when the CT/Engine Operator is running when a valid password expires. When this happens, data is no longer collected for the session.

Note: If you are using 3270 emulation hardware and software on a personal computer, various panel attributes (such as color, highlight, underline, and reverse video) may appear significantly different from the way they appear on an actual 3279 terminal. You may have to change definitions in your 3270 emulator to achieve desired color mapping. Refer to the appropriate manuals or consult your system administrator.

Ellipsis

An ellipsis (...) following a selection indicates that further information is available after you make the selection. You make selections from another menu or add data to complete the task.

Scrolling

When more information is available than can be displayed on one panel, a scroll indicator is displayed in the upper right corner of the panel. The scroll indicator is either **More** followed by a plus (+) sign, a minus (-) sign, or both, or the phrase **Line n to nn of nn**. The plus (+) sign means that pressing F8 scrolls forward to display more data. A minus (-) sign means that pressing F7 scrolls backward to display more data. When both plus and minus display next to More, you can scroll forward or backward.

When a display list is wider than can be displayed on the panel, the word **More** and a < or >, or both, appear next to More. To display data to the right (>) of the panel, press F20 to scroll the panel to the right. Press F19 to display data to the left (<) of the panel.

Navigating in the CUA Interface

The CUA interface gives you several ways to use the CT/Engine Operator's features and functions.

Use one of the following methods to select an item from a panel, a pull-down menu, and a pop-up window:

- Type the number of the desired selection on the underscore next to the first selection, and press Enter.
- Type the *mnemonic* (underscored character on the pull-down menu) that represents the desired selection, and press Enter. (On a monochrome terminal, the mnemonic is displayed in parentheses beside the selection.)
- Move the cursor to the left of the desired selection, and press Enter.

Selection Methods

The CUA interface allows you to make both single and multiple selections from lists.

Single Selections

You can select one (and only one) item from a menu or list by using the methods described in “Navigating in the CUA Interface.”

Multiple Selections

You can select more than one item from a list by using one of the following methods:

- Type a slash (/) on the underscore to the left of each selection, and press Enter. The CT/Engine Operator processes each selection sequentially. For example, use this method to select a series of NAM subcommands.
- Type an action code (**B** for Browse, or **I** for Information) on the underscore to the left of each selection, and press Enter. (Use actions codes from the Actions choice on the action bar or displayed on the instruction line.) After viewing the pop-up window for the first item selected, press F12 to cancel the current window or press Enter to process it. The CT/Engine Operator then displays the second selection from the list.

Enter vs. F12

When you press Enter, the CT/Engine Operator processes selections or entries made from a pull-down menu or on a pop-up window. When you press F12, the CT/Engine Operator cancels the pull-down or pop-up without processing the selections or entries.

Fast Pathing

To save steps, you can use fast pathing to access pull-down menus and pop-up windows, and to display selections.

As a further shortcut, you can type the mnemonic of a selection on the pull-down menu. For example, Send Messages is the second selection on the Goto menu. Its mnemonic is **M**. To select Send Messages directly, follow these instructions:

1. Type **GM** or **G2** in the home position on the action bar.
The G stands for Goto, and the M or 2 stands for Send Messages.
2. Press Enter.

The Send Messages submenu displays allowing you to select a method for message processing.

Using Help

Help is provided in several ways in the CUA interface: from the action bar, for a panel, and for an input field.

Action Bar Help

To display help from the action bar:

1. Move the cursor next to or anywhere on the Help choice or type **H** in the home position and press Enter.
The Help pull-down menu is displayed as shown in Figure 5 on page 25 and lists seven kinds of help.

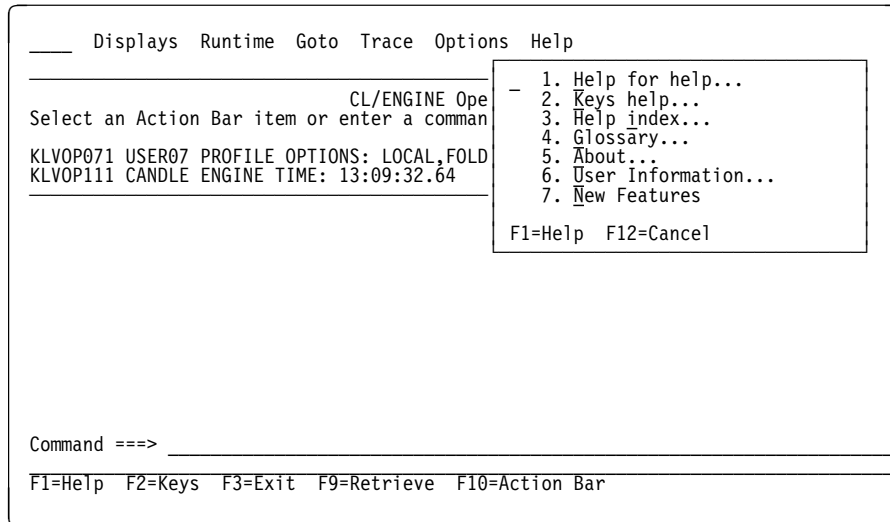


Figure 5. Help Pull-down Menu

- To display one of these move the cursor to your selection or type its number or mnemonic, and press Enter. The following selections are available from the Help pull-down menu:

Help for help	Explains how to navigate through the CT/Engine Operator help panels.
Keys help	Describes the function keys and special purpose keys used in the CUA interface.
Help index	Provides an alphabetic index of help information.
Glossary	Lists words and phrases alphabetically that have special meaning to CT/Engine Operator.
About	Shows logo, copyright, and product version information.
User Information	Shows information about your current session such as user ID, terminal ID, system ID, VTAM® logmode name, and current ACB name.
New Features	Shows the new features available for the current version.

Panel Help

To display help for a panel, move the cursor to a non-input field and press F1. A pop-up window displaying general panel help is displayed.

When you finish viewing help, press F12 to return to the previous panel, or press F3 to exit Help.

Field Help

To select a particular type of help, position the cursor to the left of the selection, or type its associated line number, and press Enter. You can select help from any CT/Engine Operator panel with F1. Pressing F1 on an input field provides context-sensitive help for that specific field; pressing F1 anywhere else on the panel displays general panel help. Help information appears in a pop-up window.

To display help for an input field, move the cursor to the input field and press F1. A pop-up window displaying help for that field is displayed.

For example, if you press F1 when the cursor is in the Resource field of the DISPLAY Command pop-up window (select Resources from the Displays pull-down menu), a pop-up window is displayed. See Figure 6.

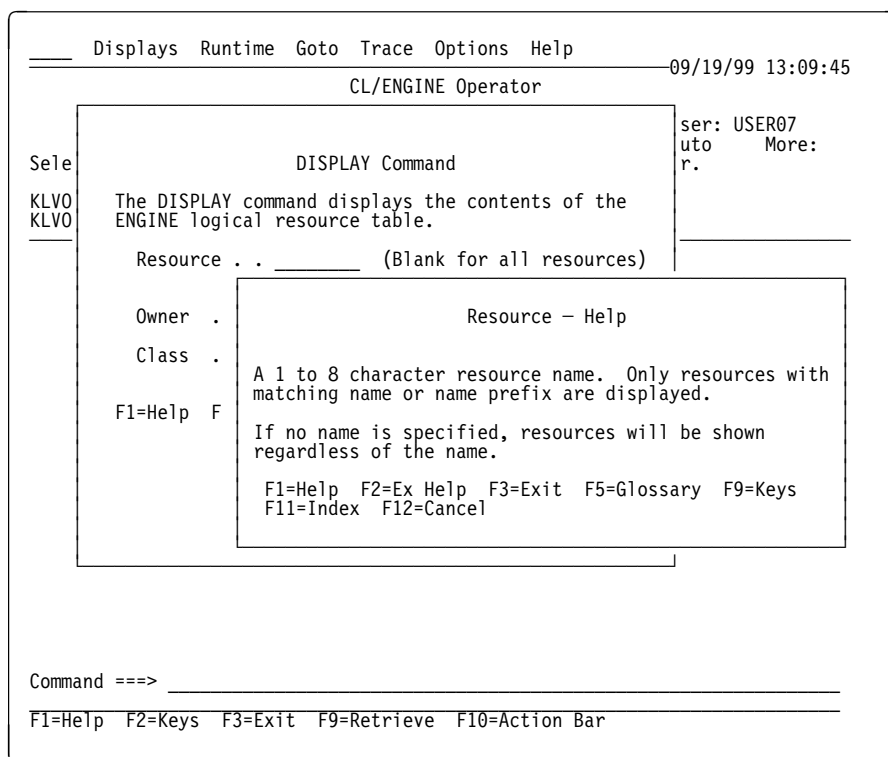


Figure 6. Resource Field Help Pop-up Panel

When you finish viewing help, press F12 to return to the previous panel, or press F3 to exit Help. If you position the cursor on the input fields for Resource, Owner or Class, you obtain help for these fields. If you move the cursor anywhere else on the panel and press F1, a general help panel for the DISPLAY command appears.

After you select help for a field, you can get extended help by pressing F2. The extended help facility provides general information about the feature or panel you are using. When you have finished viewing a help item, press F12 to return to the previous panel, or press F3 to exit Help.

You can also select help from the action bar by positioning the cursor next to or anywhere on the action bar item labeled **Help**, and pressing Enter. A pull-down menu displays a list of types of help (Figure 5 on page 25).

Highlighted Phrase Help

Additional help is provided for a phrase displayed in yellow within help text. (On a monochrome terminal, a phrase that has associated help is displayed in brighter contrast.)

To display help for a phrase:

1. Move the cursor to the highlighted phrase.
2. Press Enter.

A pop-up window containing help text is displayed.

3. Press F12 to return to the previous panel, or press F3 to exit Help.

You can obtain information about any entry shown in the list by moving the cursor in front of the entry and pressing Enter. To find a command or field name that is not on the display, press F6 and the Search pop-up window appears. Type the command or field name you want to find in the panel field, and press Enter.

Function Keys

Function keys are used to perform many tasks in the CT/Engine Operator. The keys and their uses are displayed at the bottom of each panel. Function keys have the same uses on all CUA interface panels. For example, pressing F1 displays a pop-up window containing help.

Only the function keys that are available for a panel are displayed. For example, panels with data that may continue over several screens display the backward and forward function keys, F7 and F8, while single-screen panels do not.

To display online descriptions of help, select **Keys help** from the Help pull-down menu.

General Function Keys

The following keys are generally active for all CT/Engine Operator panels:

F1 Help. Displays a help window for the current panel, window, or field.

F2 Keys. Toggles (turns on or off) the function key display at the bottom of the panel.

- F3** **Exit.** Exits the current panel, saving all changes and additions made in any of the fields.
- F4** **Prompt.** Displays a list of valid selections for an input field. Promptable fields are indicated by the presence of a plus (+) sign. Where there are only two valid selections for an input field, such as yes/no or on/off, F4 acts as a toggle, switching between the two selections.
- F7** **Bkwd.** Scrolls backward if more lines exist than can be displayed on the current panel. If no previous information exists, the CT/Engine Operator displays two asterisks (**) instead of the function key name.
- F8** **Fwd.** Scrolls forward if more lines exist than can be displayed on the current panel. If no additional information exists, the CT/Engine Operator displays two asterisks (**) instead of the function key name.
- F9** **Retrieve.** Retrieves the previous command issued and displays it on the command line.
- F10** **Action Bar.** Moves the cursor to the action bar at the top of the panel or back to where it was in the panel body the last time F10 was pressed.
- F12** **Cancel.** Closes the current pull-down menu or pop-up entry panel without processing it.

Tables Manager Function Keys

The Tables Manager allows you to view and manage the contents of the CT/Engine tables database (refer to “Tables Manager” on page 47). The following keys are specific to the Tables Manager:

- F21** **PrevRow.** Displays the previous row in the table. If the display is at the first variable, no action is performed.
- F22** **NextRow.** Displays the next row in the table. If the display is at the last row, no action is performed.

Help Function Keys

The following keys are specific to the Help system:

- F1** **Help for Help.** Displays information about the Help system.
- F2** **Extended Help.** Provides general information about the contents of the panel from which help was requested.
- F3** **Exit.** Exits the Help system.
- F5** **Glossary.** Displays an alphabetic list of glossary terms.

- F6 Search.** Searches the help index or glossary for specific topics or terms.
- F9 Keys.** Provides a list of frequently used function keys.
- F11 Index.** Displays an alphabetical list of help topics.

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Overview

There are two methods for entering CT/Engine operator command: through CUA interface panels and at the command prompt. See “Command Prompt” on page 21 for entering commands at the command prompt.

In this chapter you will learn how to log onto the CT/Engine operator, pull down menus on the CT/Engine operator panel, and enter commands through the CUA interface for the CT/Engine operator.

Commands are described in “Commands” on page 71.

Logging onto the CT/Engine Operator

To log onto the CT/Engine operator:

1. Select the CT/Engine operator facility from your CL/SUPERSESSION® selection list. (Refer to the *User's Guide* for procedures when adding a session to your selection list.)

The CT/Engine Logo Screen appears (refer to Figure 7).

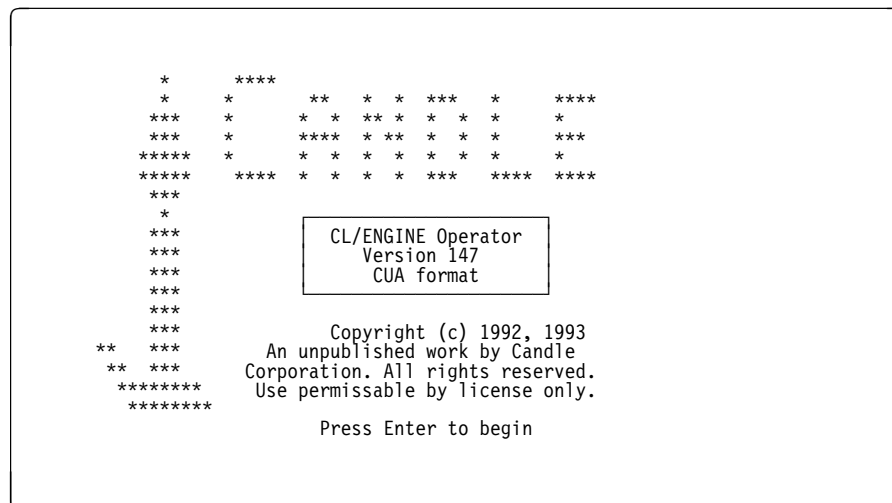


Figure 7. CT/Engine Logo Screen

2. Press Enter.

The Sign On Panel appears (refer to Figure 8 on page 33).


```

                                CL/Engine Operator - V147
                                CUA Format
                                Sign On Panel

Type the requested information, then press Enter.

Identification
Userid . . . . . _____
Password . . . . . _____
Change Password. . ___ + Yes/No

Additional Information
Group . . . . . _____
Account. . . . . _____

F1=Help  F3=Exit  F4=Prompt  F6=Panel ID

```

Figure 8. CT/Engine Sign On Panel

3. Type your user ID (1–8 characters).
4. Type your password (1–8 characters). Your password does not display as you type it.
5. If you must change your password, type Y (Yes) in the Change Password field. A pop-up window displays prompting you to type your new password and then retype it for confirmation.
6. Complete Additional Information. (Optional, depending on your site.)
 If your site uses an external security system such as RACF™ that requires additional information, contact your security administrator.
 - a. Type your security group ID in the Group field.
 - b. Type your security account number in the Account field.
7. Press Enter. The CT/Engine operator panel appears. (Refer to Figure 9 on page 34.)

```

_____ Displays Runtime Goto Trace Options Help
-----09/19/99 14:20:65
                          CL/ENGINE Operator
                          User: USER07
                          Auto   More:
Select an Action Bar item or enter a command, then press Enter.

KLVOP071 USER07 PROFILE OPTIONS:LOCAL,FOLD
KLVOP111 CL/ENGINE TIME: 14:20:65.09
-----

Command ==> _____
_____

F1=Help F2=Keys F3=Exit F9=Retrieve F10=Action Bar

```

Figure 9. CT/Engine Operator Panel

CT/Engine Operator Pull-down Menus

The action bar for the CT/Engine operator offers six choices, each of which has its own menu:

- Displays** Provides access to commands that display operator IDs, storage information, user and device status, resource table content, applications from CL/GATEWAY®, gateway and virtual session information, and lines of the ViewLog. Commands available from this menu do not update or modify existing information.

- Runtime** Provides access to commands used frequently while CT/Engine is running.

- Goto** Provides access to commands that are grouped into generic categories. Selections include ViewLog, message processing, and file and database functions.

- Trace** Provides access to the function that records events that are useful for problem determination.

- Options** Allows you to set preferences about panel display options and scrolling.

- Help** Provides access to online explanations for panels and fields. For more information, see “Using Help” on page 24.

Displays Pull-down Menu

When you select **Displays** from the CT/Engine operator panel action bar, a the Displays pull-down menu, shown in Figure 10, appears.

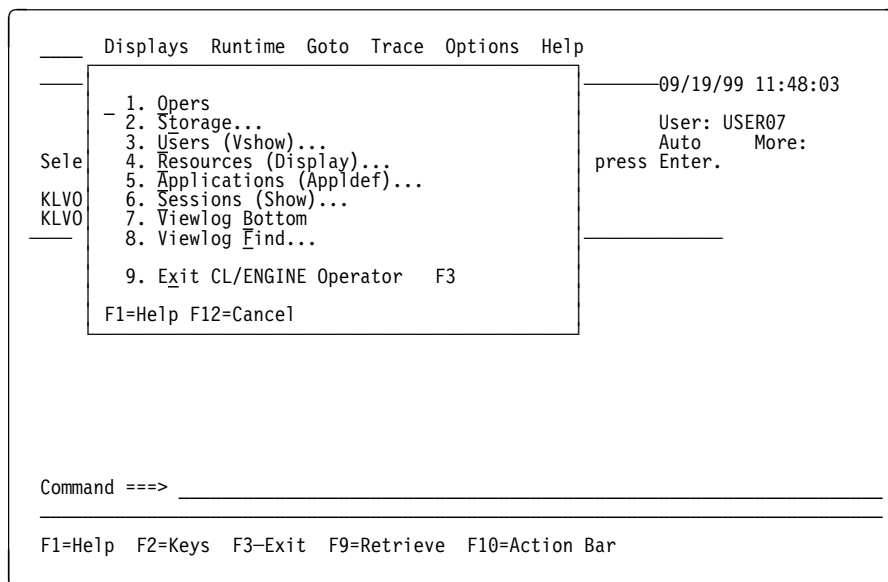


Figure 10. Displays Pull-down Menu

You select options from this menu to display information about the CT/Engine environment.

Opers	Displays all active CT/Engine operator IDs.
Storage	Displays information about CT/Engine such as panel use, module use, and units of work.
Users (Vshow)	Displays the status of CL/SUPERSESSION users or devices.
Resources (Display)	Displays the contents of the CT/Engine logical resource table.
Applications (Appldef)	Displays applications accessible from CL/SUPERSESSION and CL/GATEWAY.
Sessions (Show)	Displays gateway and virtual session information.
ViewLog Bottom	Displays the last 10 lines of the VIEWLOG.
ViewLog Find	Searches for and displays 10 lines of the VIEWLOG, starting from a specific date or time.
Exit CT/Engine	Logs off the CT/Engine operator.

Runtime Pull-down Menu

Select the **Runtime** action bar choice to display the pull-down menu shown in Figure 11.

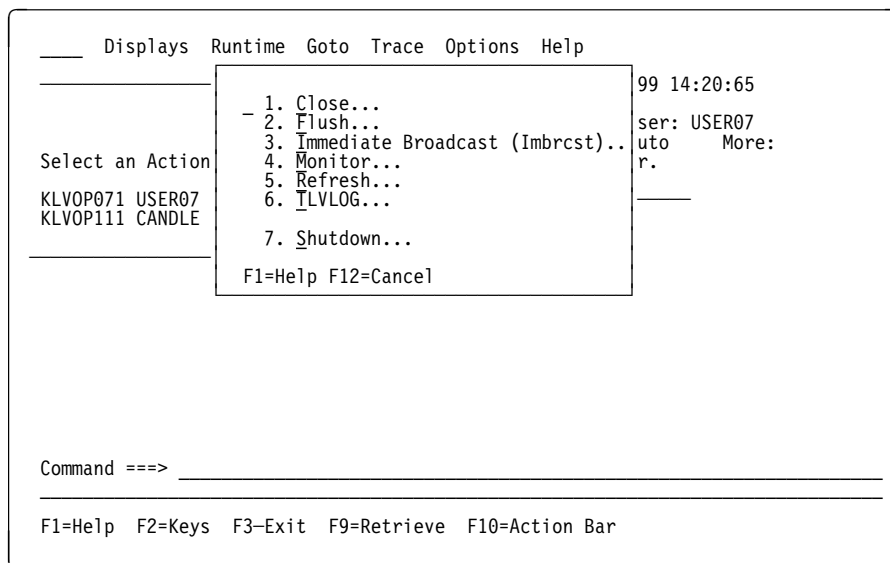


Figure 11. Runtime Pull-down Menu

You can use these commands throughout the day to execute CT/Engine functions.

- | | |
|--------------------------------------|--------------------------------------------------------------------------------------------|
| Close | Terminates an active application resource. |
| Flush | Forces all deferred VSAM writes to DASD. |
| Immediate Broadcast (Imbrcst) | Sends a message to a specified set of users. |
| Monitor | Varies the message types received by the CT/Engine Operator. |
| Refresh | Compiles a dialog or panel and causes the CT/Engine to execute this new version. |
| Shutdown | Terminates CT/Engine execution and stops the CT/Engine started task and its address space. |

Goto Pull-down Menu

Select the **Goto** action bar choice to display the Goto pull-down menu shown in Figure 12 on page 37.

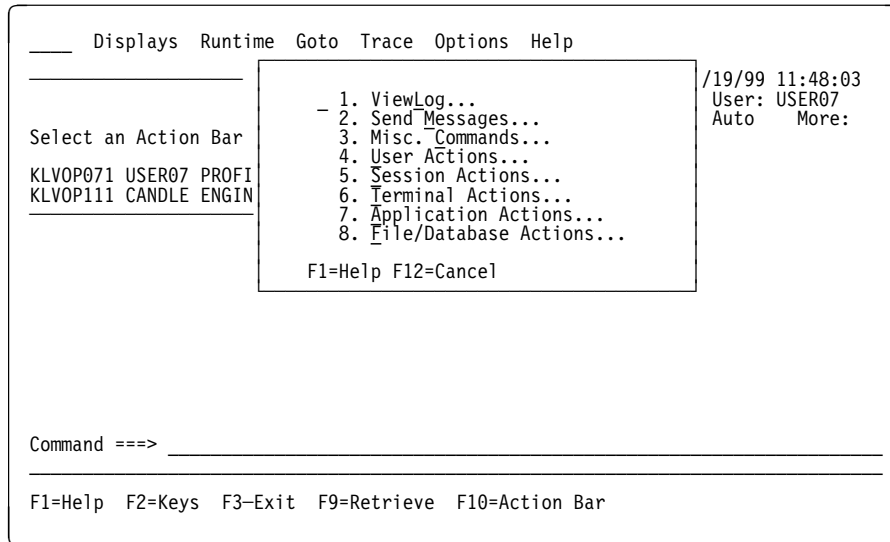


Figure 12. Goto Pull-down Menu

Use the Goto options to navigate to the following CT/Engine features and functions.

- | | |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| ViewLog | Displays information from the CT/Engine log file. You can also access this facility from the File/Database Actions panel (selection 8 on this menu). |
| Send Messages | Displays commands related to message processing. |
| Misc. Commands | Displays commands that are not listed under other categories. |
| User Actions | Displays user-related commands. |
| Session Actions | Displays session-related commands. |
| Terminal Actions | Displays terminal-related commands. |
| Application Actions | Displays application-related commands. |
| File/Database Actions | Displays commands that are related to file or database functions. |

ViewLog is described in detail in “ViewLog” on page 67. When you select any other option from this list, a submenu displays a list of commands. The following sections describe each of these submenus and their options.

Send Messages Submenu

When you select **Send Messages** from the Goto pull-down menu, a submenu similar to Figure 13 appears.

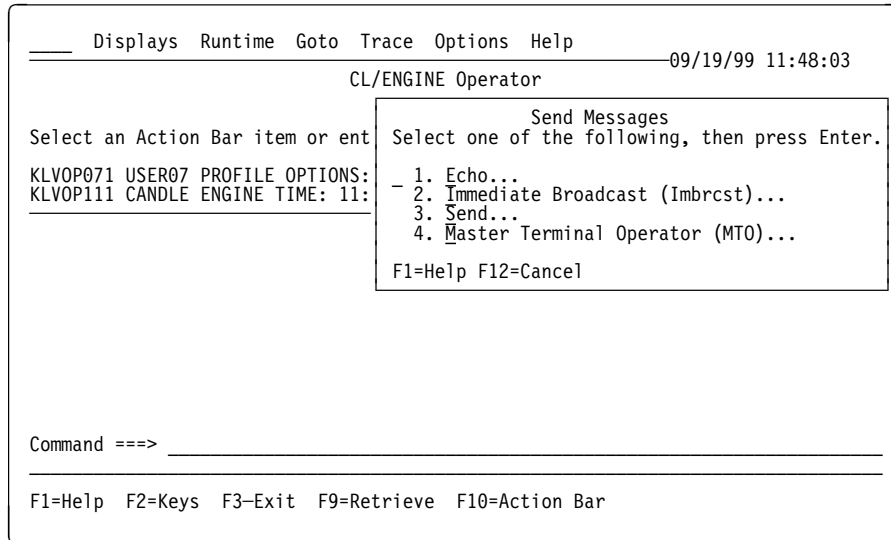


Figure 13. Send Messages Submenu

The message commands on this submenu are:

Echo Displays the ECHO command pop-up window that allows you to send text back to the issuing terminal. The text appears just below the messages on the first CT/Engine operator panel.

Immediate Broadcast (Imbrcst) Displays the IMBRCST command pop-up window that allows you to send a message to a specified set of users (a *broadcast group*).

Send Displays the SEND command pop-up window that allows you to send a message to one or all active CT/Engine operators.

Master Terminal Operator (MTO) Displays the MTO command pop-up window that allows you to send and receive IMS messages through CT/Engine.

For a complete explanation of these commands, see “Commands” on page 71.

Miscellaneous Commands Submenu

When you select **Misc. Commands** from the Goto pull-down menu, the Misc. Commands submenu, shown in Figure 14 on page 39, appears. This submenu lists commands that are not listed under other categories.

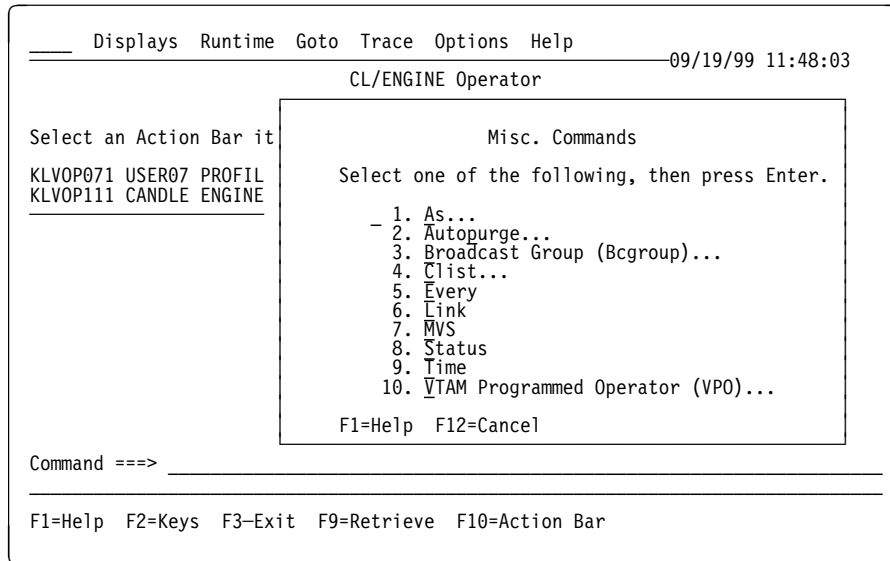


Figure 14. Miscellaneous Commands Submenu

The miscellaneous commands are as follows:

- As** Displays the AS command pop-up window that allows you to issue a CT/Engine command under another operator's ID.

- AutoPurge** Displays the AUTOPURGE command pop-up window. AUTOPURGE frees resources that are hung due to unknown reasons.

- Broadcast Group (Bcgroup)**
 Displays the BCGROUP command pop-up window. BCGROUP defines, alters, or deletes a message in a broadcast group.

- Clist** Displays the CLIST command pop-up window. The CLIST command issues commands contained in a TLVCMDS member.

- Every** Displays the EVERY command pop-up window that allows you to schedule a command for periodic execution.

- Link** Displays the LINK command pop-up window. LINK loads and executes a load module.

- MVS** Displays the MVS command pop-up window that allows you to issue any valid MVS command.

- Status** Executes the CT/Engine STATUS command that displays information related to CT/Engine (such as module usage, panel usage, threads). The status information displays on the primary CT/Engine operator panel.

- Time** Displays the system time on the primary CT/Engine operator panel.

VTAM Programmed Operator (VPO)

Displays the VPO command pop-up window that allows you to issue any valid VTAM command.

For a complete explanation of these commands, see “Commands” on page 71.

User Actions Submenu

When you select **User Actions** from the Goto pull-down, the User Actions submenu, shown in Figure 15, appears. This submenu lists user-related commands.

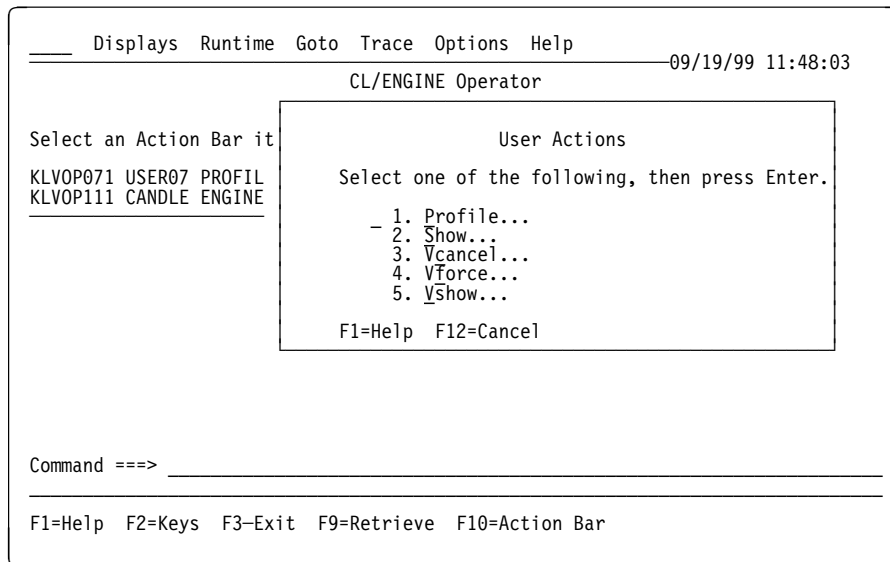


Figure 15. User Actions Submenu

Profile Displays the PROFILE command pop-up window. PROFILE allows you to display or modify the characteristics of the operator session.

Show Provides access to the SHOW command pop-up window that allows you to display gateway and virtual session information by resource type and/or user ID.

Vcancel Displays the VCANCEL command pop-up window. VCANCEL cancels the session of a selected user or users.

Vforce Displays the VFORCE command pop-up window. VFORCE cancels the terminal session of a single user.

Vshow Displays the VSHOW command pop-up window that allows you to display the status of selected CL/SUPERSESSION users or devices.

For a complete explanation of these commands, see “Commands” on page 71.

Session Actions Submenu

When you select **Session Actions** from the Goto pull-down menu, the Session Actions submenu, shown in Figure 16 on page 41, appears. This submenu provides access to session-related commands.

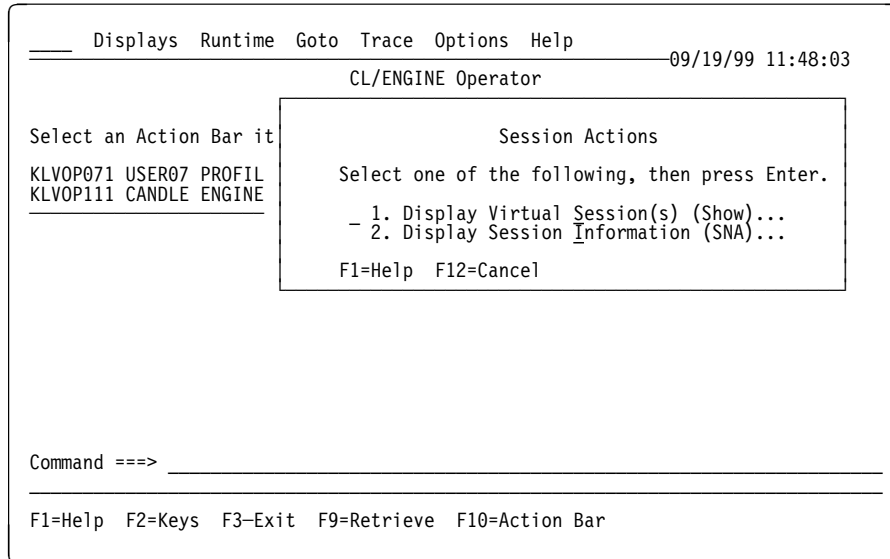


Figure 16. Session Actions Submenu

Display Virtual Session(s) (Show)

Provides access to the SHOW command pop-up window that allows you to display gateway and virtual session information by resource type and/or user ID.

Display Session Information (SNA)

Provides access to the SNA command pop-up window that displays session information.

For a complete explanation of these commands, see “Commands” on page 71.

Terminal Actions Submenu

When you select **Terminal Actions** from the Goto pull-down menu, the Terminal Actions submenu, shown in Figure 17 on page 42, appears. This submenu provides access to terminal-related commands.

```

_____ Displays Runtime Goto Trace Options Help _____09/19/99 11:48:03
                          CL/ENGINE Operator

Select an Actio
KLVOP071 USER07
KLVOP111 CANDLE

Terminal Actions
Select one of the following, then press Enter.
- 1. Start Native Device (Dedicate)...
  2. Emulate LU1 Device (Emul3767)...
  3. Start Virtual Printer (Vprinter)...
  4. List Virtual Terminal Pools (VSM List)...
  5. Define Virtual Terminal Pools (VSM Define)...
  6. Delete Virtual Terminal Pools (VSM Delete)...
  7. Display Virtual Terminal Pools (VSM Display)...
  8. QReply

F1=Help F12=Cancel

Command ==>> _____

F1=Help F2=Keys F3=Exit F9=Retrieve F10=Action Bar

```

Figure 17. Terminal Actions Submenu

Start Native Device (Dedicate)

Displays the DEDICATE command pop-up window that allows you to start a Dialog Manager session with a non-VTAM local non-SNA 3270 using EXCP.

Emulate LU1 Device (Emul3767)

Displays the EMUL3767 command pop-up window that allows you to set up a SINGLE session between the operator terminal and a logical unit.

Start Virtual Printer (Vprinter)

Displays the VPRINTER command pop-up window. VPRINTER associates a virtual printer with a physical printer.

List Virtual Terminal Pools (VSM List)

Displays the VSM LIST command pop-up window. VSM LIST displays information about a virtual terminal pool.

Define Virtual Terminal Pools (VSM Define)

Displays the VSM DEFINE command pop-up window that allows you to define a new terminal pool or add terminals to an existing pool.

Delete Virtual Terminal Pools (VSM Delete)

Displays the VSM DELETE command pop-up window. VSM DELETE deletes a virtual terminal pool.

Display Virtual Terminal Pools (VSM Display)

Displays the VSM DISPLAY command pop-up window that displays information about specific virtual terminals.

For a complete explanation of each command, see “Commands” on page 71.

Application Actions Submenu

When you select **Application Actions** from the Goto pull-down menu, the Application Actions submenu, shown in Figure 18 on page 43, appears. This submenu provides access to application-related commands.

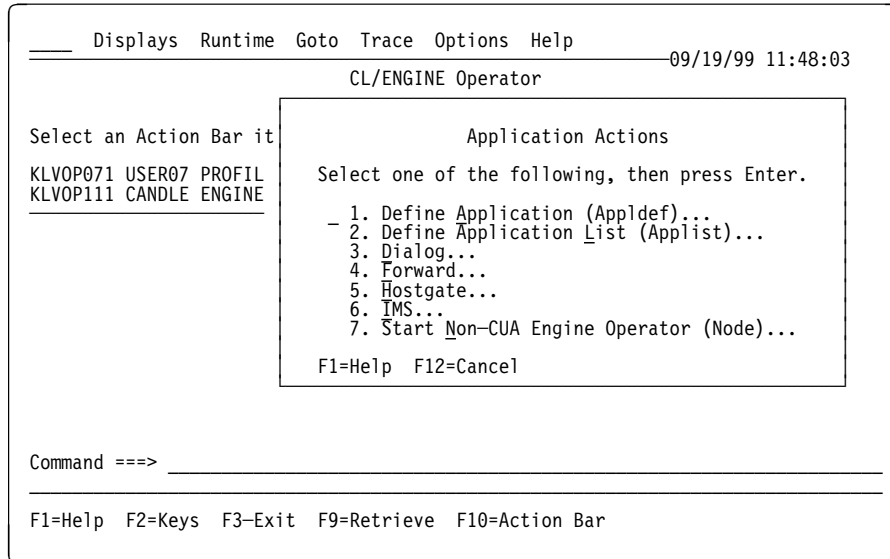


Figure 18. Application Actions Submenu

Define Application (Appldef)

Displays the APPLDEF command pop-up window that allows you to define an application.

Define Application List (Applist)

Displays the APPLIST command pop-up window that allows you to create an authorized application list.

Dialog

Displays the DIALOG command pop-up window. DIALOG opens a specified ACB and identifies the entry point dialog for sessions started with the new application.

Forward

Displays the FORWARD command pop-up window. FORWARD forces an application to automatically pass a session to another application.

Hostgate

Displays the HOSTGATE command pop-up window. HOSTGATE defines an application entry point.

IMS

Displays the IMS command pop-up that defines an IMS subsystem.

Start Non-CUA Engine Operator (Node)

Displays the NODE command pop-up that establishes a VTAM-CT/Engine operator interface.

For a complete explanation of these commands, see “Commands” on page 71

File/Database Actions Submenu

When you select **File/Database Actions** from the Goto pull-down menu, the File/Database Actions submenu, shown in Figure 19, appears. This submenu provides access to commands that display or modify files or databases allocated to CT/Engine.

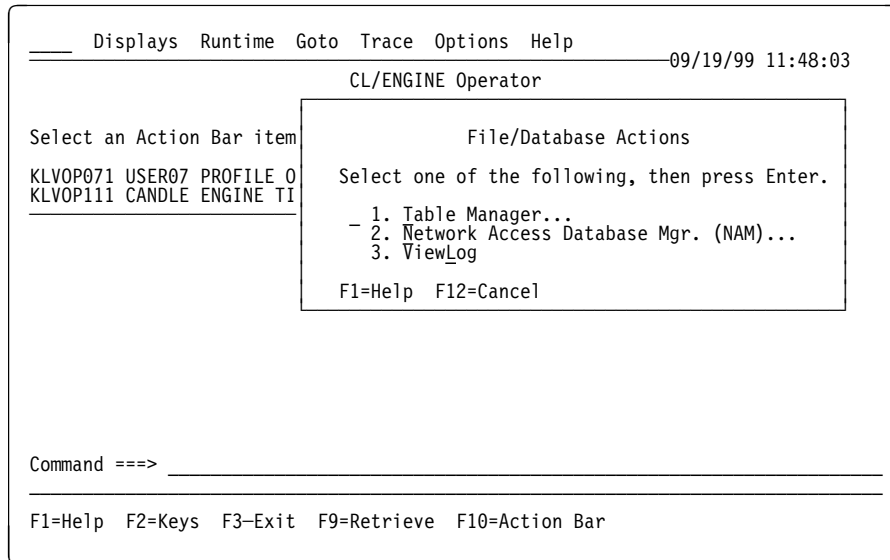


Figure 19. File/Database Actions Submenu

The File/Database Actions submenu contains the following options:

Tables Manager

Allows you to display and delete CT/Engine tables. For more information about this facility, see “Tables Manager” on page 47.

Network Access Database Mgr. (NAM)

Displays the NAM command pop-up window that allows you to display and modify NAM database information. For a complete explanation of this command, see “Commands” on page 71.

ViewLog

Displays the ViewLog database. See “ViewLog” on page 67 for information about this facility.

Trace Pull-down Menu

When you select **Trace** from the action bar, a pull-down menu, similar to the example in Figure 20 on page 45, appears.

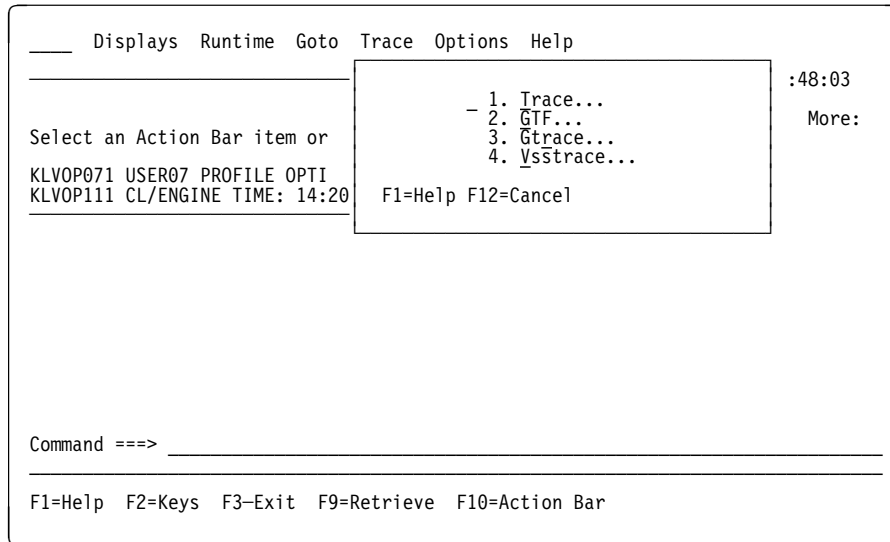


Figure 20. Trace Pull-down Menu

Tracing is a function that records events that can be used for problem determination. The Trace option provides access to the following:

- Trace** Displays the TRACE command pop-up window. TRACE modifies and displays the eligibility mask of the internal trace table.
- GTF** Displays the GTF command pop-up window that controls GTF (Generalized Trace Facility) tracing.
- Gtrace** Displays the GTRACE command pop-up window. GTRACE collects trace data and passes it to GTF.
- Vsstrace** Displays the VSSTRACE command pop-up window. VSSTRACE traces all physical and virtual session activity related to a CL/SUPERSESSION user.

Options Pull-down Menu

When you select **Options** from the action bar, a pull-down menu, similar to the example in Figure 21 on page 46, appears.

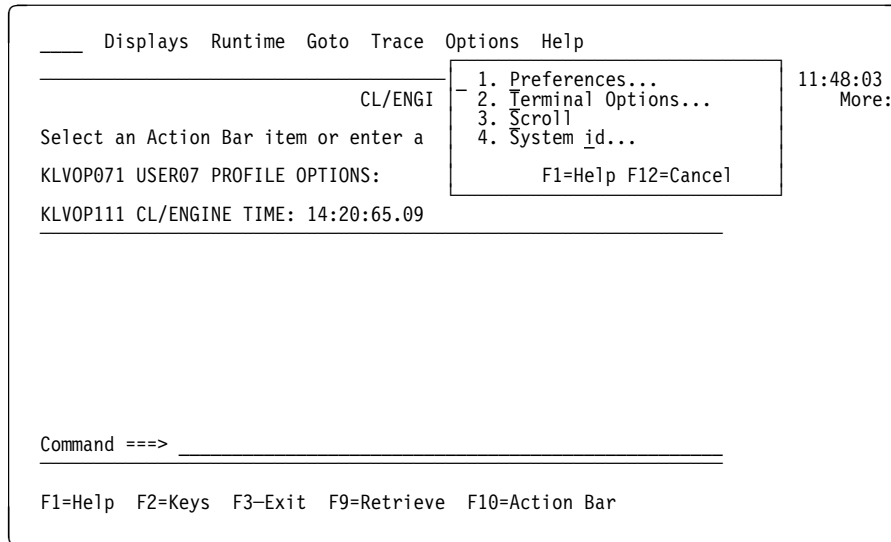


Figure 21. Options Pull-down Menu

The Options action bar choice allows you to control panel appearance, special features, and scrolling:

Preferences Allows you to turn on and off display options such as beep, panel ID, function key area, date format, and national language selection.

Scroll Toggles the CT/Engine operator scroll indicator between manual and auto. In manual mode, you must press Enter to display the next screen when the current screen becomes full.

For a complete explanation of these commands, press F1 for the online help facility.

Help Pull-down Menu

See “Using Help” on page 24 for a complete explanation of the help options.

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Overview

The Tables Manager is a set of Structured Session Procedure Language (SSPL) dialogs that report and manage the contents of the CT/Engine tables database. The tables database contains profile tables and may also contain user-defined tables. The profile tables contain information needed to set up the environment for the CL/SUPERSESSION and CL/GATEWAY user. (Refer to your *Basic Configuration Guide* and *Customization Guide* for more information when setting up profiles. Refer to the *Dialog Language Reference Manual* for more information about SSPL.)

The Tables Manager allows you to

- display a list of all tables on DASD from which you can perform specific functions
- display structural information about a table
- print structural information about a table to a PDS member or to a sysout file
- browse the contents of a table
- delete a table from the database
- copy a table's structure and contents to another table
- print the contents of a table
- unload a table to a PDS
- load the contents of a PDS to a table

Data Collection

To use the Tables Manager, follow these steps:

1. Select **Goto** from the action bar.
2. From the Goto pull-down menu, select **File/Database Actions**.
3. Select **Table Manager** from the File/Database Actions pull-down menu.

Tables Manager displays a pop-up window, shown in Figure 22 requesting that you specify the search argument for a table name or names.

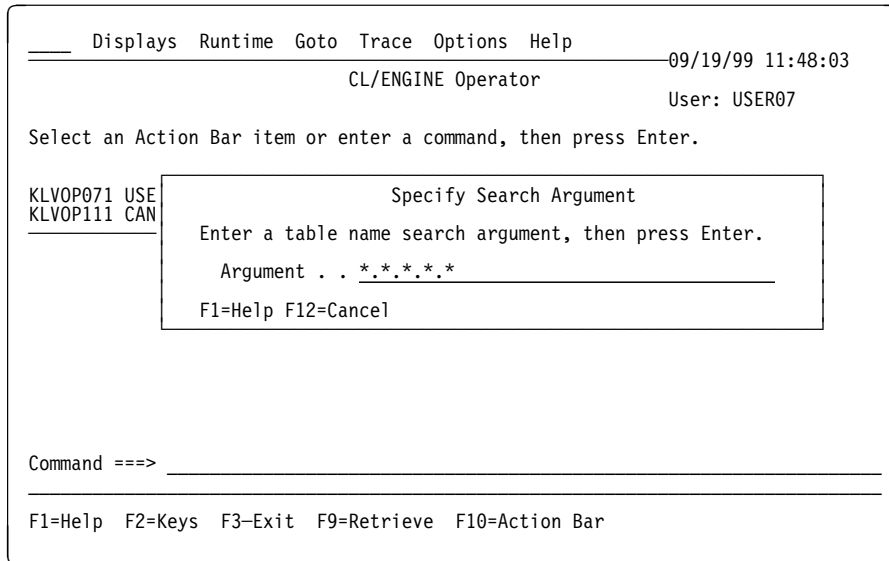


Figure 22. Specify Search Argument Pop-up Window

Type your search argument, or type asterisk wildcard characters (*.*.*.*.*), to display all tables. (The panel defaults to wildcard characters.)

Tables Manager searches the index for all tables that match the search argument you typed in the search field. While the data is being collected, the following message displays:

Please wait. Extracting table statistics.

After specifying the tables search argument, the Tables Manager panel is displayed.

The Tables Manager panel (refer to Figure 23) contains an action bar, a scrollable list of permanent tables, and a list of active function keys.

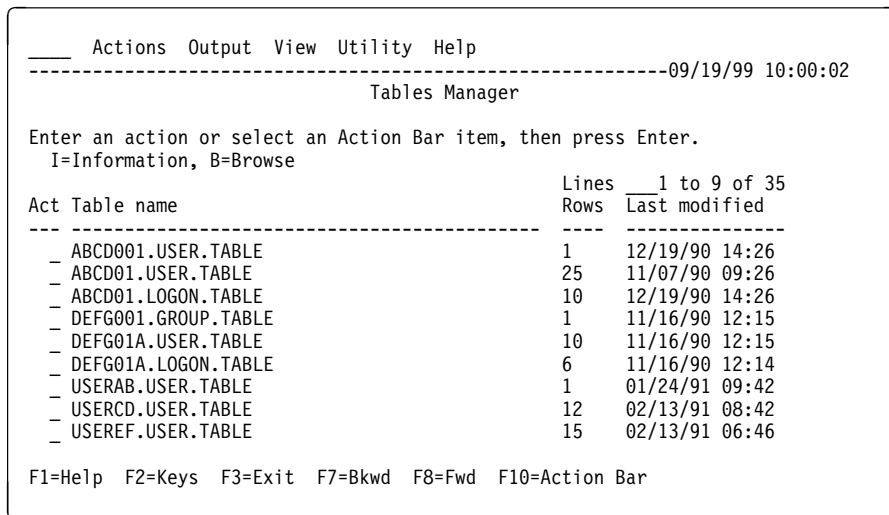


Figure 23. Tables Manager Panel

Action Bar

There are five choices on the Tables Manager action bar:

- Actions** Allows you to display information, browse tables, print information from the tables, send table information to a PDS or sysout, copy information from one table to another, and delete tables from the tables database.
- Output** Allows you to set the default destination for the report and print functions.
- View** Allows you to sort the list of tables or position the list to a specific entry.
- Utility** Allows you to unload and load tables.
- Help** Provides access to the online help facility.

Actions Pull-down Menu

Select **Actions** from the Tables Manager action bar to display the Actions pull-down menu, shown in Figure 24.

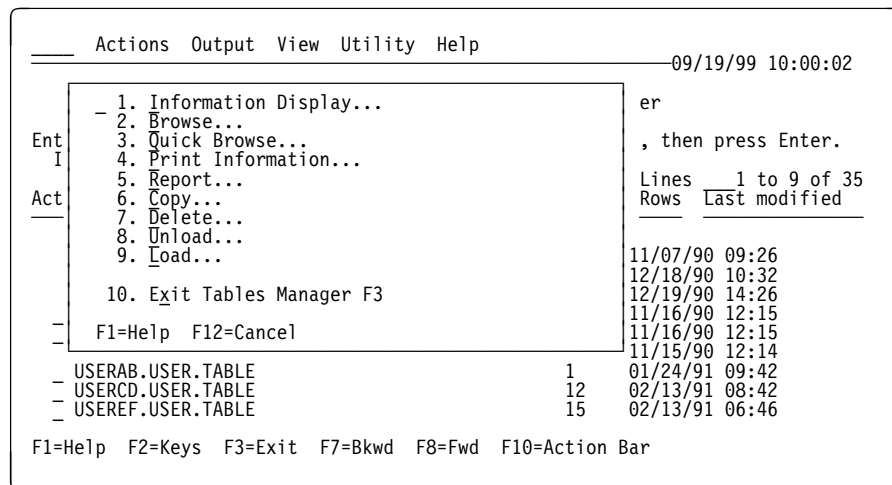


Figure 24. Actions Pull-down Menu

Use the options on this panel to execute an action on a single table or multiple tables.

Information Display Provides a list of information about the table.

Browse Displays a list of the variables in the table and the associated values.

Quick Browse	Displays a list of the variables in the table and the associated values in a row/column format.
Print Information	Prints the information about the table to a sysout or a PDS.
Report	Prints the information in the table to a sysout or a PDS.
Copy	Copies the selected table to another table.
Delete	Deletes the selected table from the tables database.
Unload	Unloads a table to a PDS.
Load	Loads a PDS to a table.
Exit Tables Manager	Returns to the CT/Engine operator.

Note: These actions are also available as instruction line actions. See “Tables Manager Instruction Line” on page 54 for more information.

Output Pull-down Menu

When you select **Output** from the Tables Manager panel, the Output pull-down menu, shown in Figure 25, displays.

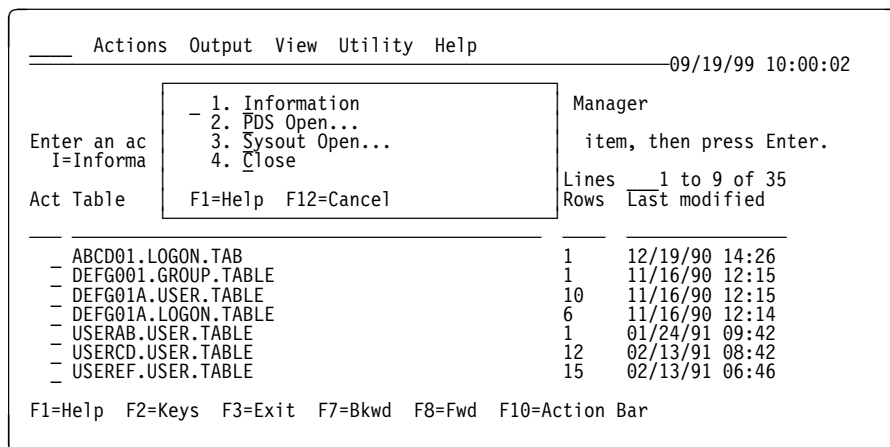


Figure 25. Output Pull-down Menu

Use the options on this pull-down menu to set the print and report output destinations.

Information	Provides information on the current output destination status.
PDS Open	Allocates and opens the requested partitioned dataset (PDS) member as the output destination.
Sysout Open	Allocates and opens the desired sysout class as the output destination.

Close Allows you to close the output destination. The destination is automatically closed when you exit from the Tables Manager. If the output destination is currently closed, a pop-up window appears with a message that explains that this option is unavailable.

If either output destination is already open, selecting PDS Open or Sysout Open will display a message indicating these options are not available. If neither destination is open, selecting Close will display the same message.

View Pull-down Menu

When you select **View** from the Tables Manager action bar, the View pull-down menu, shown in Figure 26, appears.

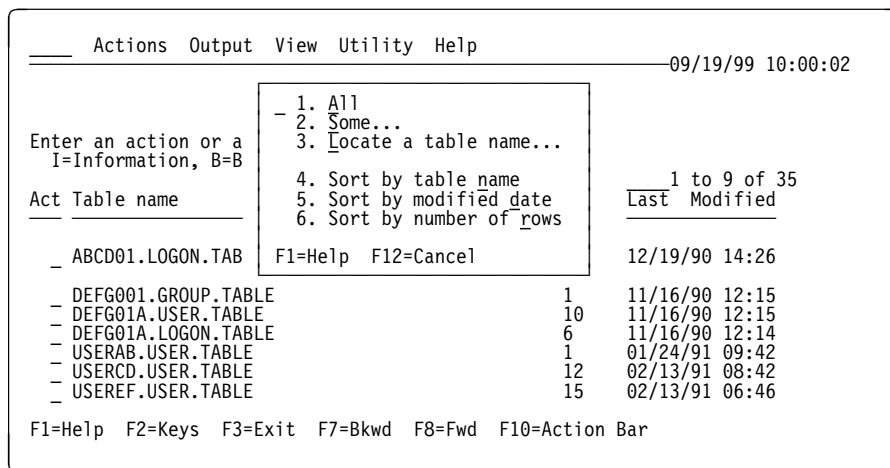


Figure 26. View Pull-down Menu

The available options let you specify the names of tables to be shown in the Tables Manager panel, position the list to a specific entry, or arrange the tables listed in a different order.

All Displays all tables on the tables database.

Note: The Tables Manager displays the following message while constructing the tables list:

Please wait. Extracting table statistics.

Some Displays a pop-up window that prompts you for a new search argument and then displays a set of tables based on that new search argument. The Tables Manager displays the message above while it constructs the new list.

Locate a table name Displays a pop-up window that prompts you for a table name, then locates and positions the display to that table name. Note that you can use the asterisk (*) wildcard character to specify a generic table name.

Sort by table name Sorts the display alphabetically by table name, in ascending order (AA through ZZ). (This is the default sort order.)

Sort by modified date Sorts the display by the date and time the table was last written back to the database, in descending order (most recent to oldest).

Sort by number of rows Sorts the display by the number of rows in the table, in descending order (greatest to least number of rows).

Utility Pull-down Menu

When you select **Utility** from the Tables Manager action bar, the Utility pull-down menu, shown in Figure 27, appears.

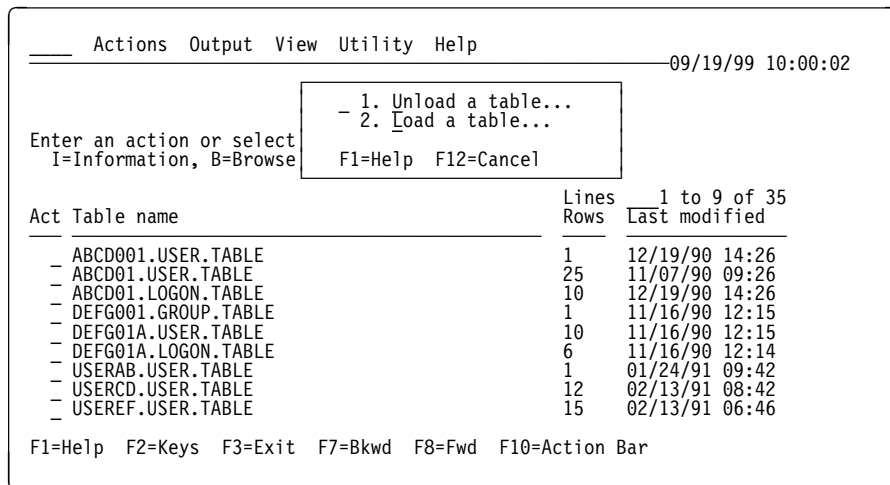


Figure 27. Utility Pull-down Menu

Use the options on this pull-down menu to unload and load tables.

Unload a table Displays the Unload Parameters pop-up window, where you specify the name of the table to be unloaded and the PDS and member name that receives the table.

Load a table Displays the Load Parameters pop-up window, where you specify the PDS and member name to be loaded and the name of the table that receives the data.

Help Pull-down Menu

See “Using Help” on page 24 for an explanation of the Help pull-down options.

Tables Manager Instruction Line

The Tables Manager instruction line displays only two actions: Information (I) and Browse (B). However, all actions available in the Actions pull-down menu may be used for a table, except for Exit (X). Other actions include:

- Quick Browse (Q)
- Copy (C)
- Delete (D)
- Print (P)
- Report (R)
- Unload (U)
- Load (L)

To use any of these actions, type the appropriate action code in the Act column of the panel next to the table name. Each action is explained in detail on the following pages.

Selecting Tables for Processing

The slash action code (/) allows you to select multiple tables for processing. To process multiple tables:

1. Type a slash (/) to the left of each table name you wish to select.
2. Perform one of the following actions:
 - a. Position the cursor to the home position of the action bar and type **A** (Actions). Press Enter.
 - b. Position the cursor next to the Actions item on the action bar. Press Enter.
 - c. Press Enter.
3. The Actions pull-down menu displays. Select the action code for the selected tables and press Enter.

Information

When you enter **I** or **?** in the Act column next to a table listed on the Tables Manager panel, a pop-up window similar to Figure 28 displays.

```
Table Information                                     Lines 1 to 26 of 29
Table Name . . . . . : ABCD001.USER.TABLE
Data Base Information
Created . . . . . : 01/16/99 at 12:17
Last updated . . . . . : 09/19/99 at 08:42
Current number of rows . . : 12
Initial number of rows . . : 3
Modified number of rows . . : 8912
Data length . . . . . : 729
Storage required . . . . . : 3640
In-Core Information:
Current number of rows . . : 12
Current row pointer . . . : 0
Storage in use . . . . . : 4272
Opens with WRITE . . . . . : 1
Opens with SHARE . . . . . : 1
Structural Information:
Number of key variables . . : 2
Keys . . : USERNAME USERID
Number of name variables . . : 13
Names . . : ORDER APPL APLID APLDESC APLINIT APLSTAT
F1=Help F7=Bkwd F8=Fwd F12=Cancel
```

Figure 28. Table Information Pop-up Window

The main body of the panel displays the table name and three sections of information:

- Data Base Information
- In-Core Information
- Structural Information

These are explained in greater detail in “Data Base Information” on page 56, “In-Core Information” on page 56 and “Structural Information” on page 56.

The panel allows you to scroll using F7 and F8.

Data Base Information

The Data Base Information section contains

- the date and time the table was first written to the database and last updated
- the current and initial number of rows, and the number of rows modified over the life of the table
- the length of the actual data and the amount of storage required for the table.

This includes the data and table control information.

In-Core Information

The In-Core Information section contains information about current table use. This section reports on all open copies of the table.

Note: If you do not have the table open, the In-Core Information will not be available.

In-Core Information includes

- the current number of rows in the table and current row pointer (CRP) position
- the amount of storage the table is occupying

This includes data and control information, and every open copy of the table.

- the number of copies of the table opened with WRITE access and with SHARE access

Refer to the *Dialog Language Reference Manual* for more information about WRITE and SHARE access.

Structural Information

This section displays information about the key and name variables used to organize the table information, including

- the number and names of key variables
- the number and names of name variables

Browse

When you enter **B** in the command input area of a table listed on the Tables Manager panel, a panel similar to Figure 29 displays.

```
View Help
-----09/19/99 10:00:02
          Browsing ABCD001.USER.TABLE
                                     Row 1 of 3
                                     Variables 1 to 6 of 6
-----
Variable Type Value
-----
USRNAME  K   JDOE
USERID   K   USER01
ORDER    N   NUM
APPL     N   TS01
DESC     N   MIS TSO
APLINIT  N   STRDGL
APLSTAT  N   ACTIVE
***** BOTTOM OF DATA *****

F1=Help F3=Exit F7=Bkwd F8=Fwd F21=PrevRow F22=NextRow
```

Figure 29. Browse Panel

Action Bar

The Browse panel action bar provides these functions:

- View** Displays a pop-up window that allows you to locate a specific value (by variable name or variable contents) or exit Browse.
- Help** Displays various types of online help.

Panel Fields

The main body of the panel provides the following information:

- Row n of n** The current number of the table row within the total number of rows.
- Variables n to n of n** The line position of the variable within the total list of variables.
- Variable** The variable name.
- Type** The variable type (K=key; N=name).
- Value** The contents of the variable. The variable contents are truncated if the number of characters exceeds the rightmost column of the display.

Quick Browse

When you enter **Q** in the Act column next to a table listed on the Tables Manager panel, a panel similar to Figure 30 appears.

```
Quick-Browsing ABCD001.USER.TABLE                               Lines 1 to 21 of 130
Move cursor to selection, then press Enter.                    More: + >

  ABCGRNUM ABCID  ORDER  APLAPPL  APLALTD  APLDESC  APLINIT
- 00000070 TSOA   0      CTSOA   TSA     MISTSO   D
  00000069 TSOB   0      CTSOB   TSB     ACCTTSO  D
  00000060 TSOC   0      CTSOC   TSC     TESTTSO  B
  00000050 TSOD   0      TSOG    TSG     MISTSO   D
  00000048 IMSA   0      IMSAPPA IA     TESTTSO  D
  00000045 IMSB   0      IMSAPPB IB     MISTSO   D
  00000041 IMSC   0      IMSAPPC IC     R&DIMS   D
  00000040 CICSA  0      CICSAPP AC
  00000039 CICSB  0      CICSTST TC
  00000039 DB     0      IBM0MON2 IBM's II D
  00000039 OM     0      OM2MVS  OM2A   D
  00000039 VMABC  0      VM4     VMSYS  D

F1=Help  **=Bkwd  F8=Fwd  F12=Cancel
```

Figure 30. Quick Browse Panel

The Quick Browse panel shows as much of each variable value as possible and always shows at least 8 characters. If there are more variables than can fit on the panel, use F7 and F8 to scroll through the screens. If you position the cursor at a particular row and press Enter, you invoke the browse function that allows you to browse the table one row at a time with all values displayed.

Note: Only the first 20 key and name variables display. Additional variables and extension variables can be displayed by selecting a row for full-browse.

Print

You may request that information about a table be written to a PDS or sysout. Enter **P** in the Act column next to the table(s) you want to select, then press Enter. If you have not previously selected a print destination, a pop-up window similar to Figure 31 appears.

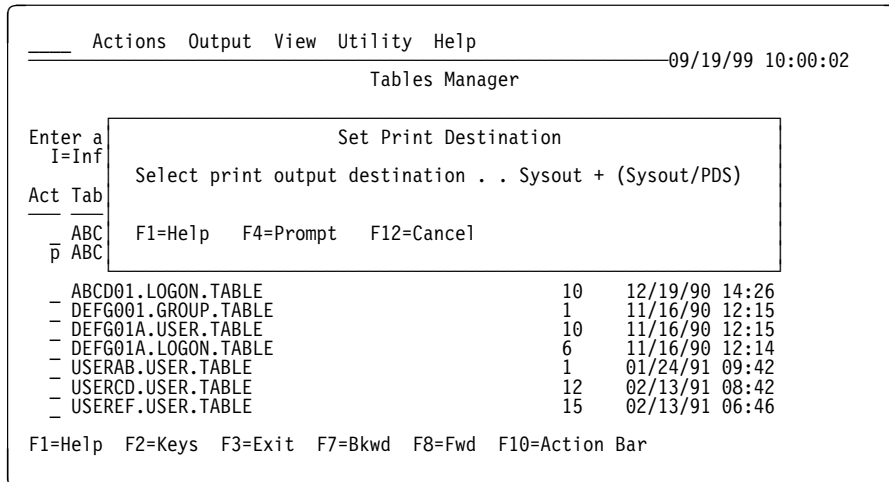


Figure 31. Set Print Destination Pop-up Window

The pop-up window allows you to select either sysout or a PDS as your output destination. Use F4 to toggle between the two selections available. Sysout is the default.

When you press Enter, a second pop-up window appears requesting that you enter the sysout destination or PDS name. Enter the destination name, and then press Enter.

A message in a pop-up window appears to confirm successful completion (see Figure 32).

The output destination you select remains in effect until you exit the Tables Manager or select another destination through the Output action bar item.

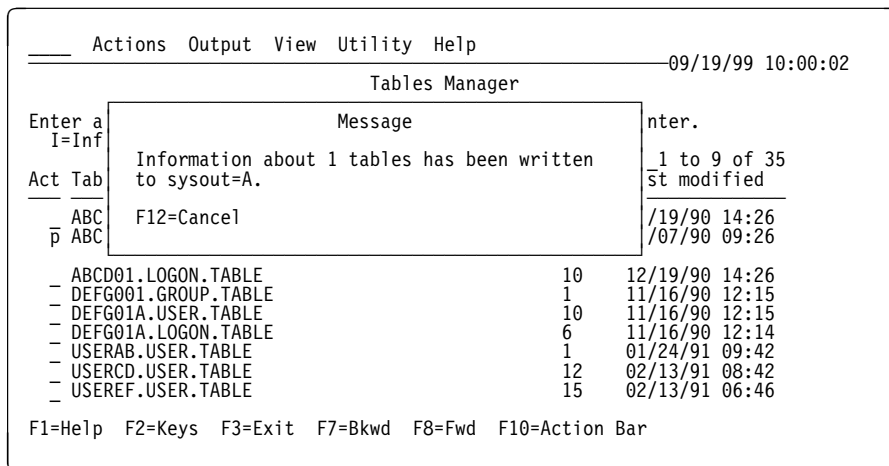


Figure 32. Print Confirmation Pop-up Window

Report

When you type **R** in the Act column to the left of a table listed on the Tables Manager panel, the Report Layout panel, shown in Figure 33, appears.

```
----- Output Help -----09/19/99 10:00:02
-----
Report Layout for ABCD001.USER.TABLE
2 to 16 of 16

Variable  Type  Row   Col   Width
-----
ABCGRNUM  K    1     1     8
ABCID     K    1    10     8
ABCORDER  N    1    19     8
ABCAPPLM  N    1    28     8
ABCALTD   N    1    37     8
ABCDESC   N    1    46     8
ABCINIT   N    1    55     8
ABCISTAT  N    1    64     8
ABCPPOOL  N    1    73     8
ABCLOGMD  N    1    82     8
ABCDATA   N    1    91     8
ABCCMP    N    1   100     8
ABCORIGN  N    1   109     8
ABCSOURC  N    1   118     8
ABCTYPE   N    2     1     8
***** BOTTOM OF DATA *****

F1=Help F2=Keys F3=Exit F7=Bkwd F8=Fwd
```

Figure 33. Report Layout Panel

Action Bar

The action bar on this panel offers two options:

Output Controls the report destination, requests report generation, and allows you to exit Report.

Help Provides access to the online help facility. For a complete discussion of help, see “Using Help” on page 24.

Panel Fields

The body of the panel allows you to specify where in each group of output lines a row's variables are placed. The initial values are set so that the first 8 characters of each variable display across the output page. The panel includes the following information and input fields:

n to n of n The line count and total number of lines in the table.

Variable The variable name.

- Type** The variable type (K=key; N=name; E=extension). This is provided for information only; the values are not printed.
- Note:** Only the contents of key and name variables can be printed.
- Row** A table row may occupy one or more lines of output. This input field allows you to specify on which row within the group the variable is to be located.
- Col** The starting column where the variable is to be printed.
- Width** The width of the variable data to be printed.

Copy

When you type **C** in the Act column to the left of a table on the Tables Manager panel, a pop-up window, such as the one in Figure 34, displays.

```

_____ Actions Output View Utility Help _____09/19/99 10:00:02
                          Tables Manager
Enter an action or select an Action Bar item, then press Enter.
I=Information, B=Browse
Act Table name _____ Lines 1 to 9 of 35
                          Rows Last modified
- ABCD01.COMMON.PROFILE          1    12/19/90 14:26
- A                               Message With Reply          /90 09:26
- A                               Copying USERCD.USER.TABLE. /90 14:26
- H                               Enter target table name . . /90 12:15
- H                               F1=Help F12=Cancel          /90 12:15
- U                               /91 09:42
- C                               /91 08:42
- U                               /91 06:46
-
F1=Help F2=Keys F3=Exit F7=Bkwd F8=Fwd F10=Action Bar

```

Figure 34. Copy Pop-up Window

The pop-up window displays the name of the table being copied and prompts for the name of the table to which you want it copied. If the table already exists, a message displays asking for permission to write over the target table.

When the copy operation is complete, a message in a pop-up window appears confirming successful completion (see Figure 35 on page 62).

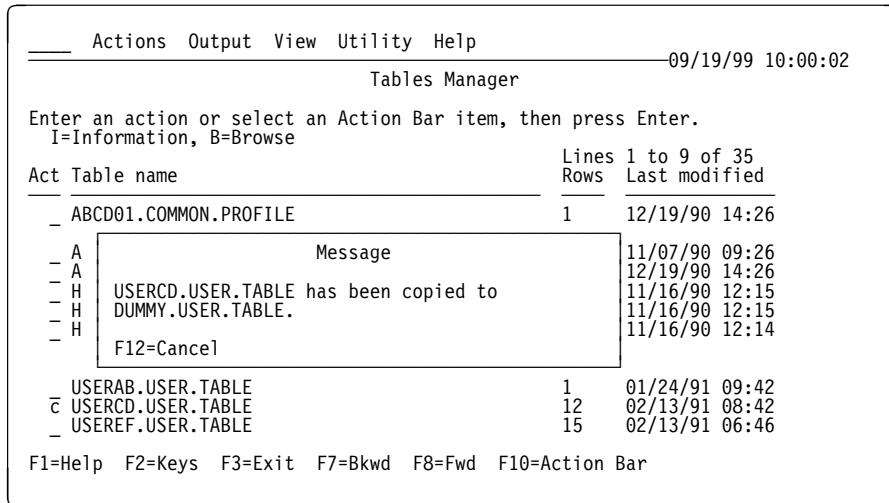


Figure 35. Copy Confirmation Pop-up Window

Delete

When you type **D** in the Act column to the left of a table on the Tables Manager panel, the pop-up window shown in Figure 36 appears requesting that you confirm your choice.

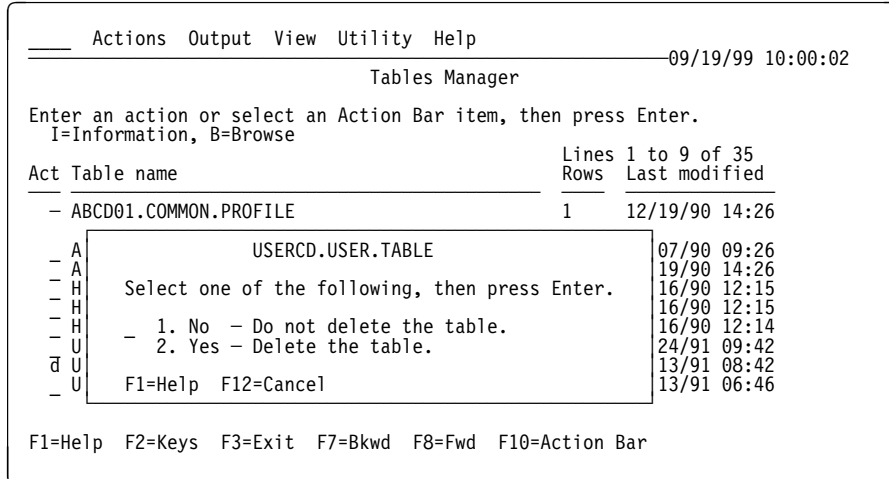


Figure 36. Delete Pop-up Window

The pop-up window displays the name of the table you want deleted and two options:

No - Do not delete the table. Select this option to cancel the delete request and return to the Tables Manager panel.

Yes - Delete the table. Select this option to delete the table. The message shown in Figure 37 appears.

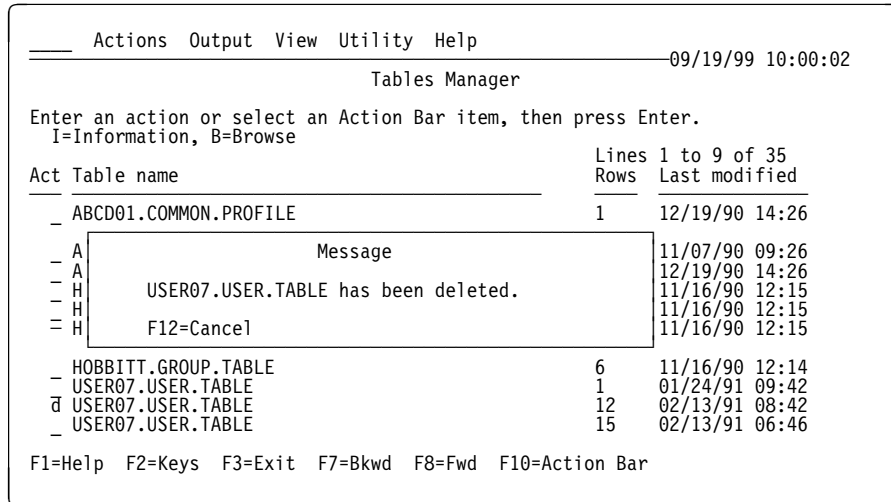


Figure 37. Delete Confirmation Pop-up Window

Unload

When you type **U** in the Act column to the left of a table listed on the Tables Manager panel, the Unload Parameters pop-up shown in Figure 38, appears.

The screenshot shows a mainframe terminal window with a menu bar (Actions, Output, View, Utility, Help) and a timestamp (09/19/99 10:00:02). The main window is titled "Tables Manager" and contains a list of tables. A pop-up dialog box titled "Unload Parameters" is overlaid on the table list. The dialog box contains the following text and fields:

```
Enter a
I=Inf
Act Tab
- ABC
u ABC
- ABC
- DEF
- DEF
- DEFG01A.LOGON.TABLE
- USERAB.USER.TABLE
- USERCD.USER.TABLE
- USEREF.USER.TABLE
```

Inside the "Unload Parameters" dialog box:

```
Enter the following data, then press Enter.
Table...ABCD01.USER.TABLE
PDS.....
Member..
F1=Help F4=Prompt F12=Cancel F14=Estimate F18=Default
```

At the bottom of the dialog box, there is a list of tables with their respective IDs and timestamps:

```
6 11/16/90 12:14
1 01/24/91 09:42
12 02/13/91 08:42
15 02/13/91 06:46
```

At the bottom of the main terminal window, there are function key definitions: F1=Help F2=Keys F3=Exit F7=Bkwd F8=Fwd F10=Action Bar.

Figure 38. Unload Parameters Pop-up

Enter data for the following fields of the Unload Parameters pop-up.

- Table** The name of the table to be unloaded.
- PDS** The dataset name of the PDS to receive the unloaded table.
- Member** The member name in the PDS to receive the unloaded table.
Press F4 for a list of members in the specified PDS.

Load

When you type **L** in the Act column to the left of a table listed on the Tables Manager panel, the Load Parameters pop-up shown in Figure 39, appears.

The screenshot shows a terminal window titled 'Tables Manager' with a menu bar (Actions, Output, View, Utility, Help) and a timestamp '09/19/99 10:00:02'. A 'Load Parameters' dialog box is open, prompting the user to enter data. The dialog contains the following text and fields:

```
Enter a
I=Inf
Act Tab
Table...ABCD01.USER.TABLE
PDS.....
Member..
F1=Help F4=Prompt F12=Cancel F14=Estimate F18=Default
```

Below the dialog, a table lists several tables with their corresponding member names and dates:

DEF01A.LOGON.TABLE	6	11/16/90	12:14
USERAB.USER.TABLE	1	01/24/91	09:42
USERCD.USER.TABLE	12	02/13/91	08:42
USEREF.USER.TABLE	15	02/13/91	06:46

At the bottom of the terminal window, function key definitions are listed: F1=Help, F2=Keys, F3=Exit, F7=Bkwd, F8=Fwd, F10=Action Bar.

Figure 39. Load Parameters Pop-up

Enter data for the following fields of the Load Parameters pop-up.

- Table** The name of the table to be loaded.
- PDS** The dataset name of the PDS containing the table to be loaded.
- Member** The member name in the PDS containing the table to be loaded.
Press F4 for a list of members in the specified PDS.

Panel Body

The Tables Manager panel body contains the following:

- Instruction line** Tells you how to select an action or an action bar choice.
- Lines x to y of z** The power scroll area. The number of the top line (x), the number of bottom line (y), and the total number of lines in the table list (z) are shown.
To scroll the display to a specific line number, type over the line number (x) and press Enter.
- Act** The action code input area. Although the Instruction Line lists only the I (Information) and B (Browse) actions, you can enter any of the following action codes in the Act column.

Note: These actions are also available from the Actions action bar choice (the Actions choice allows you to process multiple tables simultaneously). Refer to “Selecting Tables for Processing” on page 54 and “Actions Pull-down Menu” on page 50.

- B** Browses a table, one row at a time, with all values displayed.
- C** Copies the structure and contents of a table to another table.
- D** Deletes a table from the database.
- I or ?** Displays information about a table.
- P** Prints information about a table.
- Q** Browses a table; displays all rows with partial values.
- R** Prints the contents of a table under user-specified layout rules.

Refer to “Tables Manager Instruction Line” on page 54 for detailed explanations of actions.

Table name	The name of the table.
Rows	The number of rows stored on the database.
Last modified	The date and time the table was last written to the database.

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Overview

ViewLog displays information from the CT/Engine log file.

Select ViewLog from the Goto pull-down menu or from the File/Database Actions submenu.

Once you access ViewLog, you can

- display specific areas of the ViewLog dataset
- set ViewLog display options
- select a scrolling option

ViewLog Panel

When you select **ViewLog**, the panel shown in Figure 40 appears. The panel contains an action bar, a scrollable panel body for displaying the ViewLog dataset, and a list of active function keys.

```
____ View Options Help
-----09/19/99 11:48:03
                                Viewlog      User: USER07
                                Auto         More:

Select an Action Bar item, then press Enter.

KLVOP071 USER07 PROFILE OPTIONS: LOCAL,FOLD,SCP
KLVOP111 CANDLE ENGINE TIME: 14:20:65.09
VIEWLOG: ? FOR HELP
-----

F1=Help F2=Keys F3=Exit F7=Bkwd F8=Fwd F10=Action Bar
```

Figure 40. ViewLog Panel

Action Bar

The ViewLog action bar offers three choices:

- | | |
|----------------|-------------------------------------------------------------|
| View | Displays the ViewLog dataset. |
| Options | Modifies ViewLog display options and sets the scroll value. |
| Help | Provides access to the online help facility. |

View Pull-down Menu

When you select **View** from the ViewLog action bar, the pull-down menu shown in Figure 41 appears.

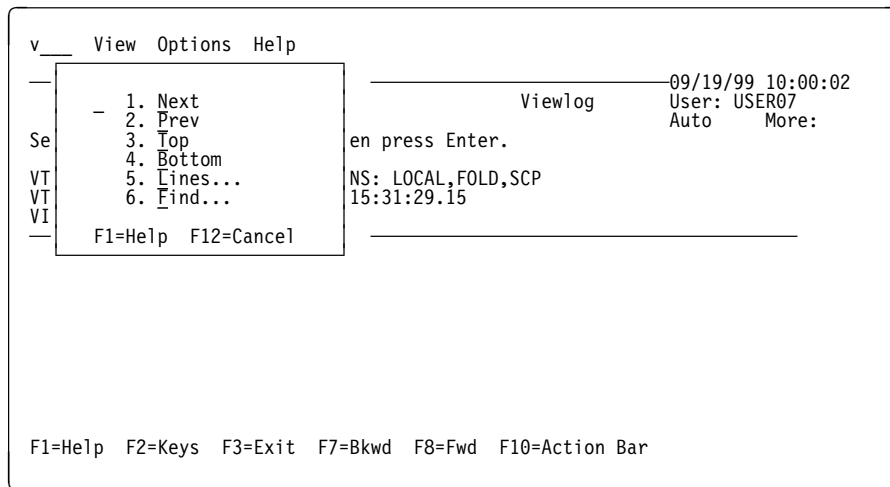


Figure 41. View Pull-down Menu

Use the options on this menu to view a specific area of the ViewLog dataset.

- | | |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Next | Skips forward the number of lines specified in Lines (see below). |
| Prev | Skips backward the number of lines specified in Lines (see below). |
| Top | Displays the number of lines specified in Lines, starting with the first line of the dataset. |
| Bottom | Displays the number of lines specified in Lines at the end of the dataset. |
| Lines | Sets the number of lines displayed by ViewLog. The default is 10. |
| Find | Searches the ViewLog database for a specified string. You can set the search argument to find the first, last, next, and previous occurrence of the string. The default is the next occurrence. |

Options Pull-down Menu

When you select **Options** from the ViewLog action bar, the pull-down menu shown in Figure 42 appears.

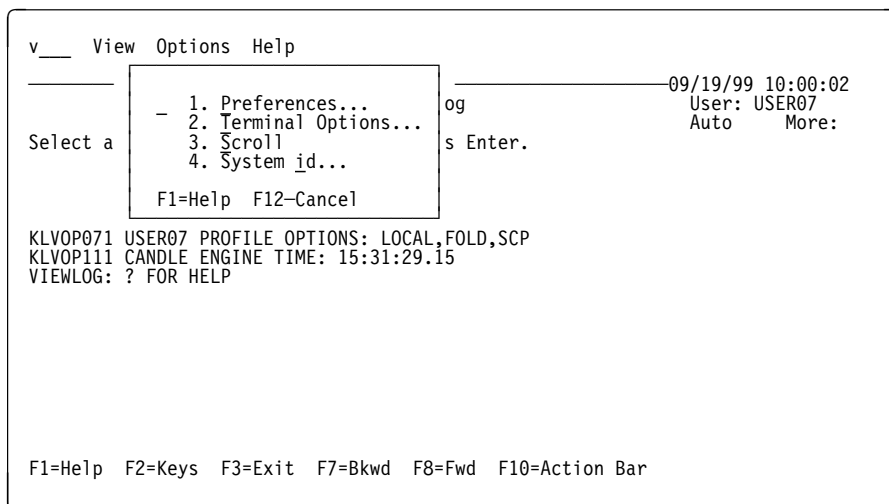


Figure 42. Options Pull-down Menu

Use this menu to set options that affect the appearance of the ViewLog panel and to control display scrolling.

Preferences Allows you to turn on and off display options such as beep, panel ID, function key area, date format, and to specify national language.

Scroll Toggles the ViewLog scroll indicator between manual and auto. In manual mode, you must press Enter to display the next screen when the current screen becomes full.

Help Pull-down Menu

See “Using Help” on page 24 for a complete explanation of the various types of online help.

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Overview

You can select commands from pull-down menus and submenus, or you can type commands at the Command prompt at the bottom of the CT/Engine Operator panel. (See “Command Prompt” on page 21 for more information.). You can also enter commands from a dedicated CT/Engine operator terminal or Multiple Console Support (MCS) console. For instructions for storing frequently used commands in a command list see “Creating a Command List” on page 73.

This chapter consists of all CT/Engine operator commands and their operands, usage notes, and examples.

Entering Commands

Use the CT/Engine operator to enter the following kinds of commands:

- MVS
- VTAM
- CT/Engine
- CT/Engine program product:
 - CL/SUPERSESSION
 - CL/GATEWAY
 - CL/GATEWAY for IMS
- application subsystem (such as IMS MTO commands)

CT/Engine Command Format

Type CT/Engine commands at the Command prompt at the bottom of the CT/Engine Operator panel, or at the operator terminal in this format:

cmd opr

where *cmd* is the command name and *opr* is the subcommand or operator name.

Separate operands by at least one blank.

Note: You may type either the full name of the command or its capitalized abbreviation. The abbreviation must be unique. For example, the shortest non-conflicting abbreviation for the SESSION keyword of the VCANCEL command is SE so as to prevent it from being interpreted as an abbreviation for SLU (the secondary logical unit keyword).

MCS Console Format

You can also enter CT/Engine commands from a Multiple Console Support (MCS) console, using the MVS MODIFY (F) command:

```
F kls,cmd
```

where *kls* is the default CT/Engine procname (started task name) and *cmd* is the CT/Engine command.

Creating a Command List

The CT/Engine operator facility supports a command list feature allowing frequently issued operator commands to be stored as members in the DDNAME TLVCMDS dataset using a command list. This is especially useful for the IMBRCST, SHOW, VSHOW, VCANCEL, and MVS operator commands. You can invoke these members from the CT/Engine operator facility.

The CLIST name can be 1–8 characters. Use a dash (-) as a continuation character at the end of a line. For comments, use an asterisk (*); all text following an asterisk is ignored. The command list is executed one line at a time until completed.

To enter a command list:

1. Create a member in your commands library. A dollar sign (\$) prefix is optional.

For example, \$MSG10 might contain the following command to shutdown the system in 10 minutes:

```
IMBRCST 'BCGROUP,GROUP1' TEXT='System Shutdown in 10 min.'
```

2. Execute this command by typing the following command at the operator terminal:

```
MSG10
```

Unlike an operator command, a command in a command list cannot contain a parameter.

Command Reference

This section contains an alphabetical listing of all CT/Engine operator commands.

APPLDEF

Defines an application that is accessible through CL/SUPERSESSION and CL/GATEWAY.

Type

CL/GATEWAY operator command

Format

```
APPLDEF sessid
  DEST=destid
  [ALTDEST=altdid]
  [COMPRESS=YES|NO|IGNORE]
  [DESC='string-exp']
  [GROUP=nnn|0]
  [HELP=member]
  [IMS=DEQUEUE|ASSIGN|'ASSIGN,DEQUEUE'|NO]
  [INITDLG=dlgname]
  [LOGON='string-exp']
  [MESSAGE='string-exp']
  [MULTSESS=YES|NO]
  [NEWGROUP=nnn]
  [NOLIST]
  [ORDER=nnn|0]
  [POOL=vsmppool|'*']
  [PRINTER=REQUIRED|OPTIONAL|NONE]
  [PRTPOOL=vsmppool|'*']
  [REMOVE]
  [SIMLOGON=YES|NO|'data']
  [TERMDLG=dlgname]
  [USERDATA='string-exp']
```

sessid Specifies the name that displays on the Main Menu for the application identified by the DEST parameter. The session ID is limited to 8 characters.

The session ID creates a unique application definition. Therefore, any reference to the application in other commands must specify the session ID.

DEST Identifies the applid served by the APPLDEF. If that application is not available, the gateway establishes a session with the alternate destination designated by ALTDEST. The DEST parameter is required.

CL/GATEWAY for IMS only. When CL/GATEWAY for IMS session services are specified by the IMS=DEQUEUE/ASSIGN parameter, the DEST parameter identifies the name of an IMS environment definition statement.

ALTDEST	Identifies the secondary alternate session ID served by the APPLDEF. If the DEST application is not available, the gateway establishes a session with the ALTDEST application. The ALTDEST application typically identifies another copy of the application running on a backup system. The ALTDEST parameter is optional.
COMPRESS	Determines whether to use compression for this application. <p>YES The session is eligible for both inbound and outbound compression, depending on the user, group, or global profile setting.</p> <p>NO The session is not eligible for compression. This is the default.</p> <p>IGNORE Leaves in effect the default you establish for the user by executing the administrator functions.</p> <p>COMPRESS is a valid parameter only if MULTSESS=YES is specified.</p>
DESC	Describes the application or clarifies its use for display on the Main Menu. The maximum length of the description is 32 characters.
GROUP	Identifies a related group of applications. CL/GATEWAY displays all applications with an identical group number together on the Main Menu. By default, each application group occupies a different menu panel, and the groups are displayed in descending order. <p>If an application belongs to group 1, it does not appear initially on the Main Menu. However, users can still add the application to the session profile list or access the application with a START command. (See the <i>User's Guide</i>.) Therefore, specifying GROUP=1 does not serve the same purpose as creating an authorized application list.</p> <p>In the APPLDEF commands provided in members KLGCAPLS and KLSCAPLS of DDNAME TLVCMDS, SINGLE applications use GROUP=100; multisession applications use GROUP=200; and CLSDST PASS applications default to GROUP=0.</p>
HELP	Specifies the help panel displayed when the user selects the application with the H action code.
IMS	CL/GATEWAY for IMS only. This parameter is used when CL/GATEWAY for IMS session services are required for access control in IMS/DC application subsystems. Omit this parameter or specify IMS=NO if you are not using CL/GATEWAY for IMS session services. The default is NO.

INITDLG

Specifies a virtual session initialization dialog for a multisession environment. This dialog receives control immediately after session establishment.

The INITDLG parameter performs the same function in a multisession environment that the LOGON parameter performs for SINGLE sessions. If you specify MULTSESS=NO, you must use LOGON instead of INITDLG.

If you use the INITDLG parameter, you must specify MULTSESS=YES for the application.

Upon entry to *dlgname*, the variable &sysparm will contain the session ID.

LOGON

Defines an initialization sequence to pass to the destination application immediately after session establishment. The sequence primes the application by entering one or more initial transactions. For example, the initialization sequence could complete a logon, which LOGON would pass directly to the application.

You can use LOGON with SINGLE sessions only. Therefore, you must also specify the POOL parameter. If you specify MULTSESS=YES, you must use INITDLG instead of LOGON.

The initialization sequence can include both literal data and variables. For example, you can imbed in it the variables that contain a user ID and password. (See the *Dialog Language Reference Manual*.)

You can also include hexadecimal data. Use a backslash (\) to indicate that the next two characters represent one byte of hexadecimal data. For example, \C1 represents the hexadecimal constant C1.

Three kinds of hexadecimal data are interpreted as “wait for message”:

- **\FF**

The gateway transmits the data preceding the \FF, then waits for the application to generate a response. When the gateway receives the application's response, it discards the response and then transmits the next string of data from the terminal, up to but excluding the next \FF. When it reaches the end of the initialization sequence, the gateway displays the response returned with the last transaction. If it encounters \FF without any preceding data, or if it encounters two adjacent \FFs, the gateway stops transmitting, and the virtual session waits for an outbound chain from the application.

The \FF is satisfied by any non-null RU.

- **\FD**
If you imbed \FD in the logon sequence, the gateway transmits the next outbound chain from the application to the terminal (rather than discarding the outbound data). This allows the user to view the outbound chain at the terminal.
- **\FE**
For read partition query operations, imbed \FE in the logon sequence. The gateway passes the query to the terminal and waits for a response, which it then passes to the application. Logon string processing is suspended until the terminal responds to the message received.

MESSAGE	<p>Contains a message (up to 20 characters long) about the application status. A customized dialog can route the message and display it at users' terminals. However, the message is not stored and is associated only with the session defined by the APPLDEF command.</p> <p>In general, the IMBRCST command is a more efficient method to inform users of changes in application status. See the <i>Operator's Guide</i> for more information on the IMBRCST command.</p>
MULTSESS	<p>Tells CL/SUPERSESSION to establish a virtual session with a multisession application.</p> <p>If MULTSESS=YES, the gateway activates a virtual session. If MULTSESS=NO, the gateway establishes a SINGLE session. While this SINGLE session is active, the user cannot use any multisession product features.</p> <p>If you specify MULTSESS=YES, you must also specify the POOL parameter. The default is MULTSESS=YES.</p>
NEWGROUP	<p>Changes the group assignment for an existing application definition. This does not create a new application definition; it simply associates a new group number with the existing application definition.</p>
NOLIST	<p>Abbreviates messages that confirm application definitions or updates. If you omit this parameter, the system displays all APPLDEF parameters for each command. NOLIST is particularly useful in the startup CLIST, because it eliminates unnecessary message traffic and log entries.</p>
ORDER	<p>Determines initial placement on the Main Menu. Applications appear on the menu in high-to-low order within each group. By default, all applications are arranged by group number, by order number, and then alphabetically by session ID. If more than one application has the same order number, the system displays the duplicate applications alphabetically.</p>
POOL	<p>Specifies the virtual terminal pool.</p>

*vsm*pool Specifies the virtual terminal pool defined by a VSM command.

'*' Derives the virtual terminal pool name from the POOL data element.

If POOL is not specified or if POOL is specified without '*' or '&DEFPOOL', the gateway ignores the POOL data element. If the POOL parameter is omitted, the application becomes CLSDST PASS.

PRINTER

Specifies whether to establish the session if the printer is not available. The default is NONE.

REQUIRED Specifies that the print node must be resolved before establishing the session.

OPTIONAL Establishes the session even if any operation concerning the printer fails (for example, if the printer is busy).

NONE Bypasses all printer operations.

PRTPOOL

Specifies the virtual printer terminal pool that establishes sessions between the user and the application.

*vsm*pool Identifies the virtual printer pool defined by a VSM command.

'*' Derives the virtual printer pool name from the PRTPOOL data element at the time of application access.

If PRTPOOL is not specified or if PRTPOOL is specified without '*', the gateway ignores the PRTPOOL data element. (Required only for virtual printer sessions.)

REMOVE

Deletes a previously defined APPLDEF application definition. If the original APPLDEF statement specifies a GROUP number, the APPLDEF REMOVE statement must specify that same GROUP number.

When you specify REMOVE for an existing APPLDEF, and the session ID occurs in one or more authorized application lists, the application is removed from those lists. To re-establish the application, you must reissue both the APPLDEF command and the corresponding APPLIST command.

SIMLOGON

Queues a CLSDST PASS session (no POOL parameter) to the gateway after termination of the session. The SIMLOGON parameter issues a SIMLOGON OPTCD=Q on behalf of the user's terminal logical unit. When the user logs off the session, the session with the gateway is automatically re-established.

If the user selects a CLSDST PASS application, the gateway passes control to the requested application. When the user logs

off the application, control returns to VTAM. If the gateway is specified as a controlling application (VTAM LOGAPPL), or if the user selects the gateway from VTAM USS, the user must repeat the logon sequence.

SIMLOGON automatically re-establishes the session with the gateway without implementing a VTAM LOGAPPL. In addition, if the gateway requires that the user re-enter a user ID and password, this information can be passed to the gateway as userdata when the gateway session is re-established. The user sees only a direct return to the gateway when the application terminates.

To activate SIMLOGON, specify either YES or '*data*', where '*data*' is any valid string or string expression to be passed to the controlling gateway as userdata. Userdata must be enclosed in single quotes. If SIMLOGON is to be activated without passing any userdata, specify YES (without single quotes). The default is NO.

Important: You can use either the FORWARD LOGAPPL or the APPLDEF SIMLOGON, but do not use both for the same application.

TERMDLG

Specifies a virtual session termination dialog for multisession applications/environments only. This dialog receives control upon detection of the VSSTERM dialog function being issued. The specified dialog cannot contain a VSSTERM function. It will cause the termination dialog to execute twice.

Upon entry to *dlgname*, the variable &sysparm will contain the session ID.

Note: This dialog does not get control when a user performs the normal logoff sequence for an application.

USERDATA

Transmits a userdata sequence to the destination application during session establishment. Some applications, including TSO and TSO/E, inspect the contents of userdata and use the data to complete or supplement the logon process.

The userdata string can include both literal data and session variables. For example, you can imbed in the initialization sequence the variables that contain a user ID and password (&VIGUSER and &VIGPSWD).

You can also include hexadecimal data. Use a backslash (\) to indicate that the next two characters represent one byte of hexadecimal data. For example, \C1 represents the hexadecimal constant C1.

The USERDATA parameter takes effect before LOGON or INITDLG.

APPLIST

Creates an authorized application list.

Type

CL/GATEWAY operator command

Format

```
APPLIST name[name name . . .]  
      [ID=applistid]  
      [BCGROUP=bcgname]  
      [GROUP=groupnum]  
      [TYPE=INCLUDE|EXCLUDE]
```

- | | |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| name | Identifies the DDNAME TLV Parm member that lists the applications to include or exclude. You can specify more than one name. |
| applistid | Specifies the authorized application list name. The default is the first name. |
| bcgname | Associates the name of the broadcast group with the authorized application list. If you omit BCGROUP, the broadcast group is obtained from a HOSTGATE command or from member KLGINGWY of TLSPARM. |
| groupnum | Specifies the group number of the applications to be included in, or excluded from, the list. You can use this parameter to limit the applications selected.

If GROUP is specified in an APPLIST command, the group number in the command provides an initial value for applications named in an authorized application list.

If GROUP is not specified, a default of GROUP=0 is used. |
| TYPE | Specifies whether the applications listed in the DDNAME TLV Parm are to be included in, or excluded from, the list being constructed. The default is INCLUDE. |

AS

Issues a CT/Engine command under another operator's ID.

Type

CT/Engine operator command

Format

**AS operid
command**

operid A 1–8 character operator ID.

command A valid CT/Engine command.

Usage Notes

1. This command cannot use the *MASTER* pseudo-operator ID.
2. Use the operator ID *SYSVLG* to issue commands on behalf of the VIEWLOG pseudo-operator.
3. AS provides a convenient way of routing the display of a command to the VIEWLOG, where it can be printed later when CT/Engine is shut down.

Examples

AS, using the MONITOR command, enables all (+ALL) messages to the VIEWLOG pseudo-operator (*SYSVLG*).

```
AS '*SYSVLG*' MONITOR +ALL
```

AS sends the output of the STORAGE DETAIL command to the VIEWLOG pseudo-operator (*SYSVLG*).

```
AS '*SYSVLG*' STORAGE DETAIL
```

AUTOPURGE

Frees resources that are hung due to unknown reasons. AUTOPURGE is the CT/Engine equivalent of VTAM's **V NET, INACT, FORCE** command.

Type

CT/Engine operator command

Format

AUTOPURGE resource
[**CLASS=class**]
[**OWNER=resource name**]

resource	A 1–8 character pterm, userid, or dialog. Only resources with matching names are selected. This is a required parameter.
CLASS	The resource class of the resource to be purged. This may be one of the following: ALL Purge all resources of all classes. APPL The resource name is an ACB name. CLUSTER The resource name is the ddname of a VSAM cluster. AUTOPURGE of a cluster resource causes the cluster to be closed. Note: Cluster resources are not applicable to VM. FILE The resource name is the ddname of a dynamically allocated file (not restricted to VSAM files). AUTOPURGE of a file resource causes the associated file to be dynamically deallocated. Files that are statically allocated in the JCL do not exist as file resources. LIBRARY The resource name is the ddname of a partitioned dataset (PDS). AUTOPURGE of a library resource causes the associated PDS to be closed. MISC The resource name is *SYSVPO* for the VTAM program operator and the SMSO operator ID established via TLV Parm member KLVINSO. OPERATOR The resource name is the user ID of the user currently signed on as the operator.

SESSION	The resource name is the LU name of the associated session's LU. (SESSION is the default.)
OWNER	Resource name (1–8 characters). Only the resources belonging to this resource are purged.

Usage Notes

1. *This command is for emergency use only.* Use this command only under the direction of Candle Support Services.
2. Any *resource* starting with an asterisk should have the entire name enclosed in single quotes as in the following example:

```
'*SYSVLG*'
```

3. Be sure you do not AUTOPURGE any resource that owns another resource. Use the DISPLAY operator command to display all resources owned by the resource to be purged. For example, if you are purging a physical terminal session with a termid of ABCD1234, you would use the DISPLAY command as follows:

```
DISPLAY CLASS=DIALOG OWNER=ABCD1234
```

This allows you to see if any dialog resources are owned by the physical terminal and if they are already marked PURGE. If any dialog names are displayed, they should be AUTOPURGED first using this command:

```
AUTOPURGE 'dlgname' CLASS=DIALOG OWNER=ABCD1234
```

where *dlgname* is the name of the active dialog shown in the DISPLAY command output.

This should be done as many times as required to remove all dialog resources. After the dialog resources are purged, the physical terminal session can be AUTOPURGED.

See Also

DISPLAY, VCANCEL, VFORCE

BCGROUP

Defines or updates a broadcast group.

Type

CT/Engine operator command

Format

```
BCGROUP group  
          line  
          [ 'message' ]
```

group	The 1–8 character name of the broadcast group to be defined or updated.
line	A number from 1 to 6 that identifies the message line affected. If <i>line</i> does not exist, it is added. If <i>line</i> exists, it is updated with the <i>message</i> text. If no <i>message</i> is provided, the line is deleted.
message	A valid string expression; note that single and double quotation marks and hex strings are not allowed. Messages that do not fit on a display line are truncated.

Usage Notes

1. Issue the BCGROUP command to define, update, or delete a message in a broadcast group.
2. If you define a message for an undefined broadcast group, BCGROUP creates the broadcast group.
3. If you delete all messages in a broadcast group, BCGROUP also deletes the broadcast group.
4. If you want specific application user groups to receive a set of broadcast messages, use the APPLIST command to associate the broadcast group with the application list.
5. If you want users associated with an entire gateway to receive broadcast messages, use the HOSTGATE command to associate the broadcast group with the gateway.
6. If you do not associate a broadcast group with a specific set of users, BCGROUP uses the global broadcast group defined in TLSPARM(KLSINGWY).
7. Candle recommends that you define your broadcast groups in a CLIST member in your commands library. Refer to the *Customization Guide* for more information.

Examples

The following example defines a broadcast group (**TSUSERS**) and adds two messages:

```
BCGROUP TSUSERS 1 'TSO WILL BE SHUTDOWN IN 2 MINUTES.'  
BCGROUP TSUSERS 2 'PLEASE LOGOFF IMMEDIATELY.'
```

CLOSE

Requests termination of an active application resource.

Type

CT/Engine operator command

Format

CLOSE acb

acb A 1–8 character ACB name.

Usage Notes

1. Any user signed on to the ACB when the CLOSE is issued is immediately terminated.
2. A closed ACB is removed from any associated pool. Use the VSM commands described in this manual to make that device available for use from the pool or pools.

Examples

To close a gateway, issue

```
CLOSE KLSGW001
```

Closes ACB KLSGW001.

To delete a virtual terminal from all pools in which it is defined, issue

```
CLOSE KLST0023
```

KLST0023 is deleted from all pools. Issue **VSM DEFINE POOL001 KLST0023** to reactivate this virtual terminal, in pool POOL001.

DEDICATE

Starts a Dialog Manager session with a non-VTAM local non-SNA 3270 using EXCP, allowing the dialog to run without VTAM.

Type

CT/Engine operator command

Format

```
DEDICATE ddname  
         dialogname  
         INTERVAL(nn)  
         UNIT=cuu
```

ddname	The ddname for a non-SNA local device; the device must not be allocated to VTAM.
dialogname	The name of the dialog to be run.
nn	The interval, in seconds, between each read for operator input from the device referenced by <i>ddname</i> . The default is 1. The range for the interval is 1–99.
cuu	The address of a non-SNA local 3270 device. This device must not be allocated to VTAM.

Usage Notes

Users who access this VTAM application run under control of *dialogname*. See the *Dialog Language Reference Manual* for more information on dialogs.

DIALOG

Defines a network entry point for a dialog-based application.

Type

CT/Engine operator command

Format

DIALOG acbname
dialogname
[PSM|NOPSM]
[DEST=sessionid]
[ALTDEST=altdest]
[ATTENTION=attn_dlgnam]
[PASSWORD=password]
[TIMEOUT=hh:mm:ss|seconds|0]

- | | |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| acbname | Identifies the ACB name specified in the VTAM APPL definition of the logical unit to be associated with the DIALOG. |
| dialogname | Names the panel that begins the entry point dialog. The entry point dialog receives control when a physical terminal session is established with the DIALOG logical unit. This panel must be a member in DDNAME TLVPNLS. |
| PSM NOPSM | Specifies whether the DIALOG application uses the Presentation Space Manager (PSM). PSM is an integral component of CT/Engine and normally drives LU0 and LU2 sessions with the DIALOG application. Therefore, the default is PSM. This parameter, if specified, must be declared after <i>dialogname</i> . |

Important

Do not specify NOPSM unless you are directed to do so by a Candle support representative.

For more information about the Presentation Space Manager, see the *Dialog Language Reference Manual*.

- | | |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| sessionid | Identifies the session ID of the application that receives control after a user logs off or times out. If a logoff destination is not available, control goes to the ALTDEST application or (if no ALTDEST is specified) to VTAM. |
| altdest | Identifies the session ID of the application that receives control after a user logs off or times out, if the DEST application is not available. If ALTDEST is not specified or if the ALTDEST application is not available, control returns to VTAM. |

- attn_dlgnme** Specifies the default window control dialog for all users logged onto the DIALOG application. If a dialog is not specified, windows are not available to the users.
- To set or change the window control dialog for individual users, use the PSMATTND dialog language statement. See the *Dialog Language Reference Manual*.
- password** The DIALOG application can be password-protected with the PRTCT operand of the VTAM APPL statement in SYS1.VTAMLST. If password protection is used, specify the appropriate password. Otherwise, omit this operand.
- hh:mm:ss|seconds** Specifies a DIALOG TIMEOUT interval, in seconds. DIALOG TIMEOUT reduces the possibility of unauthorized access by limiting the length of time the entry point application maintains a session with an inactive terminal. If the specified interval is exceeded, the session terminates.
- If you omit the TIMEOUT parameter or set it to zero, idle sessions do not terminate. Timeouts set with the dialog TIMEOUT function override the timeout value specified in the DIALOG command.

Example

This DIALOG command activates a dialog-based application and enables window control:

```
DIALOG KLVLV006 APPINIT ATTENTION=WSATTN
```

DISPLAY

Displays the contents of the CT/Engine logical resource table.

Type

CT/Engine operator command

Format

DISPLAY [**resource**]
 [**CLASS=class**]
 [**OWNER=owner_resource**]

resource A 1–8 character pterm, userid, or dialog. Only the resources with matching names or name prefixes are displayed.

class The resource class that is displayed. This may be one of the following:

ALL Displays all resources of all classes.

APPL The resource name is an ACB name.

CLUSTER The resource name is the ddname of a VSAM cluster.

Note: Cluster resources are not applicable to VM.

DIALOG The resource name is a dialog name.

FILE The resource name is the ddname of a dynamically allocated file (not restricted to VSAM files).

LIBRARY The resource name is the ddname of a partitioned dataset (PDS).

MISC The resource name is *SYSVPO* for the VTAM program operator and the SMSO operator ID established via TLVPARM member KLVINSO.

OPERATOR The resource name is the user ID of the user currently signed on as the operator.

SESSION The resource name is the LU name of the associated session's LU. (SESSION is the default.)

owner_resource

An ACB name (1–8 characters). Only the resources belonging to *owner* are displayed.

Usage Notes

1. DISPLAY output lists all resources associated with *resource*.
2. If you specify **CLASS=DIALOG**, the output identifies the names of the associated dialogs.
3. DISPLAY output identifies the resource type in the first qualifier of the first field and the resource name in the second qualifier of the first field; for example:

DIALOG.LOGIN: USE(0) TOKEN(5555555) OWNER(SESSION.ABCDEFG1)

In this example, DIALOG is the resource type and LOGIN is the resource name. USE indicates whether the resource is currently in use, TOKEN is an internal pointer, and OWNER identifies the session owner.

Example

To display all of the resources currently within CT/Engine:

DISPLAY CLASS=ALL

ECHO

Echoes any text entered back to the terminal.

Type

CT/Engine operator command

Format

ECHO *string*

string A character string, usually text, echoed back to the issuing terminal.

Usage Notes

1. Use ECHO to verify that the CT/Engine operator facility is functioning properly and to force all buffered messages to the log.
2. Enclosing *string* in single quotes is not necessary unless you want to preserve leading blanks.

Example

To test the operator facility:

```
ECHO 'OPER. TEST'
```

EMUL3767

Sets up a SINGLE session between the operator terminal and an LU.

Type

CT/Engine operator command

Format

**EMUL3767 luname
poolname**

luname A 1–8 character logical unit (LU) name.

poolname A 1–8 character pool name, defined by a VSM command. The pool contains the application ACB that emulates the 3767-type device.

Usage Notes

1. This command makes the operator terminal act like a 3767 terminal.
2. Use this operator command only under the direction of Candle Support Services.
3. Use EMUL3767 to test how a VTAM application works with a 3767-type device.
4. Use EMUL3767 to test applications that work with the LU1 protocol.
5. The logmode used by the 3767 emulator is SCS.

END

Terminates the NAM, SNA, VIEWLOG, VPO or VTAM command environment in the CT/Engine operator facility.

Type

CT/Engine operator command

Format

END

Usage Notes

To set up the subcommand environment, first enter the appropriate command (without a subcommand) from the CT/Engine operator facility. You can then enter a series of subcommands without repeating the command, and use the END command to terminate the command environment (including all subcommands).

Example

To set up a NAM command environment, issue a subcommand and then end the environment:

```
NAM
RACLIST
END
```

See Also

NAM, SNA, VIEWLOG, VPO

EVERY

Schedules a command for periodic execution.

Type

CT/Engine operator command

Format

**EVERY hh:mm:ss
cmd**

hh The period value in hours (00 - 24).

mm The period value in minutes (00 - 59).

ss The period value in seconds (00 - 59).

cmd A valid command. It can be any CT/Engine command, any VTAM command if VPO is enabled, and any MVS command if the CT/Engine jobstep is authorized.

Usage Notes

1. EVERY is cancelled when the issuing operator logs off or when the command can no longer be found (that is, when the command member in DDNAME TLVCMDS is deleted or renamed).
2. The ***MASTER*** (console) and ***SYSVLG*** operators are logged off only at shutdown, so the only way to stop a periodic command is to make a CLIST out of the command and rename or delete the CLIST member when you want to stop the command.
3. A period of less than one minute can cause excessive overhead.

Example

To issue a CT/Engine STORAGE command every 15 minutes:

```
EVERY 15:00 STORAGE
```

FLUSH

Forces all deferred VSAM writes to DASD.

Type

CT/Engine operator command

Format

FLUSH

Usage Notes

1. Use **FLUSH** after major updates that cannot be easily recreated after an unscheduled IPL.
2. You can ensure that the **FLUSH** command is issued automatically every 30 minutes by specifying **FLUSH** with the CT/Engine operator facility **EVERY** command:

EVERY 30:00 FLUSH

This command is included in the **KLSSTART** initialization member.

FORWARD

Forces an application to automatically pass a session to another application.

Type

CT/Engine operator command

Format

```
FORWARD acbname  
      destination  
      [ALTDEST=altdest]  
      [LOGAPPL]  
      [PASSWORD=password]
```

acbname	A 1–8 character ACB name.
destination	The name (1–8 characters) of the primary destination application netname for any session that connects with <i>acbname</i> .
altdest	The name (1–8 characters) of the alternate destination application for any session that connects with <i>acbname</i> .
LOGAPPL	Specifies a simulated VTAM LOGAPPL function.
password	The password (1–8 characters), if needed, for <i>acbname</i> .

Usage Notes

1. FORWARD can be used to lock a device onto a gateway.
2. This command can be used in situations where the VTAM LOGAPPL facility is required to connect to a CT/Engine application. The LOGAPPL connection is made between the physical terminal and the ACB specified by *acbname*. The destination specified by *destination* automatically receives control if it is active. Otherwise, the destination specified in *altdest* receives control.
3. With the FORWARD command, an application does not lose its LOGAPPL connection after the session terminates.
4. If the LOGAPPL operand is specified, the VTAM LOGAPPL definition may not be required. However, the terminal user must log on once to establish the initial session with the FORWARD ACB.
5. If FORWARD is included in KLSSTART, it should always be the last command specified.

Example

Open the KLVLV006 ACB and forward any session requests from the KLVLV006 network name to KLGICFG1:

```
FORWARD KLVLV006 KLGICFG1
```

GTF

Controls GTF tracing.

Type

CT/Engine operator command

Format

GTF ON|OFF
[GTRACEID=nnnn]
[INTERNAL=YES|NO]

ON Specifies that GTF tracing is to be activated. If tracing is already active when the command is issued, the options specified on the new ON request take effect.

OFF Specifies that GTF tracing is to be stopped. The GTRACEID and INTERNAL options are ignored if they are specified. Any existing GTRACEID and INTERNAL specifications are discarded and must be respecified if tracing is subsequently reactivated.

nnnn The GTF USR record identification number. Valid values are 1 (x'001') through 1023 (x'3FF'). This value is the GTF Event Identifier that GTF inserts in the standard system header of all CT/Engine GTF trace records. This is also the value that can be used on the AMDPRDMP EDIT statement or IPCS GTFTRACE statement to limit processing to CT/Engine trace records. If this parameter is not specified, the default GTRACEID is 1000 (x'3E8') for all CT/Engine trace records. Normally the default value should be accepted. It can be overridden if the Event Identifier conflicts with other vendors' trace records, or if multiple CT/Engines are recording to the same GTF dataset and it is desirable to separate the data for printing purposes. The default is 1000 (x'3E8').

INTERNAL Specifies whether or not internal trace data (if internal trace is active) is recorded using GTF facilities. Specify YES to record internal trace data. The default is NO. Internal trace data is available in the CT/Engine trace table regardless of this setting.

Usage Notes

1. The GTF command allows CT/Engine operators to dynamically activate and deactivate the GTF tracing activity during system execution.
2. By default, GTF tracing is inactive following normal system initialization.
3. The GTF command can be included in an initial command list (as documented in the *Customization Guide*) to provide automatic trace activation at system initialization.

GTRACE

Collects trace data and passes it to GTF.

Type

CT/Engine operator command

Format

```
GTRACE resource  
      CLASS([TERM|ACB])  
      [ON|OFF]
```

```
GTRACE CLASS(INT)  
      option  
      [ON|OFF]
```

resource The resource name to be traced. It can be a physical terminal LU name or the name of an ACB, depending on the specification of the CLASS operand. This operand is required if ON or OFF is specified.

CLASS The class of the object being traced. The default for CLASS is CLASS(TERM). If you specify CLASS(INT) you can specify *option*, but *resource* is not applicable.

option One of the following internal trace options that are described under the TRACE command. The default is ALL.

ALL
DEFAULT
DISPATCH
ERROR
LOGICRES
PSM
STORAGE
VSAM
VTAM

Usage Notes

1. This command is used for gathering information for diagnostic purposes, usually at the direction of Candle Support Services.
2. This command is used in conjunction with the GTF command, which should be issued first. (See the GTF command in this manual.) If the GTF ON command was not issued, GTRACE ON generates a warning message.
3. The object being traced need not be active when the GTRACE command is issued. If the object is not active, a pending trace request is queued. Upon activation of the object, it is traced automatically.
4. GTRACE CLASS(TERM) can be used only to trace physical terminal sessions. If a virtual terminal is specified, an error message is generated. If tracing of the

virtual terminal session is desired, specify CLASS(ACB) or use the VSSTRACE command if you are using CL/SUPERSESSION.

5. If no ON or OFF operand is specified, the trace status of *resource*, if specified, is displayed. If no *resource* is specified, the trace status of all the objects of the CLASS specified, is displayed. If CLASS is not specified, trace status of all objects of all classes is displayed.
6. Internal trace options are the same as for the TRACE command. The GTRACE command can be used in place of the TRACE command.
7. The recorded trace information can be formatted and printed by the supplied KLSUSR20 module located in TLSSAMP.

Examples

To collect trace data for terminal L618A15:

```
GTRACE L618A15 CLASS(TERM) ON
```

To trace all sessions using the ACB AALVM010:

```
GTRACE AALVM010 CLASS(ACB) ON
```

To display the trace status of the ACB AALVM010:

```
GTRACE AALVM010 CLASS(ACB)
```

To display all ACBs that are being traced:

```
GTRACE CLASS(ACB)
```

To display the trace status of ACBs and physical terminals being traced, together with the internal trace status:

```
GTRACE
```

To trace all internal DISPATCH and VTAM events:

```
GTRACE 'DISPATCH,VTAM' CLASS(INT) ON
```

HOSTGATE

Defines a CL/GATEWAY entry point.

Type

CL/GATEWAY operator command

Format

```
HOSTGATE acbname  
        CONFIG=member  
        DIALOG=dialogname  
        [DEST=dest]  
        [ALTDEST=altdest]  
        [ATTENTION=attention]  
        [BCGROUP=bcgroup]  
        [PASSWORD=password]  
        [TIMEOUT=hh:mm:ss|interval|0]  
        [USERDATA]
```

acbname	Identifies the ACB name specified in the VTAM APPL definition of the logical unit to be assigned to the gateway.
member	Specifies the DDNAME TLV Parm that defines the gateway configuration. The gateway configuration member contains data element definitions and messages that tailor the operation of a gateway. A configuration member is always required. If CONFIG is omitted, acbname is assumed to identify the configuration member.
dialogname	Specifies the dialog that receives control when users access the application identified by acbname. The DIALOG operand specifies the entry point for the gateway. You can use or customize member KLGATEWY of TLSPNLS to perform the gateway functions.
dest	When a gateway session terminates because of excessive idle time (timeout) or explicit logoff, control passes to the application identified by the DEST operand. This operand cannot specify the same applid (ACB) as <i>acbname</i> . If that application is not available, control passes to the application identified by the ALTDEST operand. If neither DEST nor ALTDEST is specified, the terminal returns to VTAM USS control when the gateway session ends.
altdest	When a gateway session terminates and the DEST application is not available, control passes to the application identified by ALTDEST. This operand cannot specify the same applid (ACB) as <i>acbname</i> . If neither DEST nor ALTDEST is specified, the terminal returns to VTAM USS control when the gateway session ends.

attention	<p>Specifies the default window control dialog for all users logged onto the gateway. If a dialog is not specified, windows are not available to the users. The standard window control dialog is KLGWATTN.</p> <p>To set or change the window control dialog for individual users, use the PSMATTND dialog language statement. See the <i>Dialog Language Reference Manual</i>.</p>
bcgroup	<p>Specifies the broadcast group used to associate broadcast messages with the gateway. For specific user groups, you can use the APPLIST command to assign broadcast group names. If BCGROUP is not specified in the HOSTGATE command and a broadcast group name is not acquired from an APPLIST command in DDNAME TLVCMDS, the broadcast group specified in TLV Parm(KLGINWY) is assigned by default.</p> <p>Broadcast messages may be included on the logon and menu panels displayed during a gateway dialog.</p>
password	<p>You can password-protect the gateway by using the PRTCT operand of the VTAM APPL statement in SYS1.VTAMLST. If APPL password protection is used, specify the appropriate password here. Otherwise, you can omit PASSWORD.</p>
hh:mm:ss interval	<p>A terminal that is in session with a gateway generally remains in session until the user either selects a Pass application or logs off. The TIMEOUT operand limits the time a gateway session is maintained with an inactive terminal. If the interval is exceeded, the session is terminated, and control passes to the application specified in the DEST operand.</p> <p>Specify TIMEOUT as a decimal number indicating the idle time limit in seconds, or as <i>hh:mm:ss</i>. If you omit this parameter or specify zero, idle gateway sessions are not terminated.</p> <p>A TIMEOUT interval defined at the global, group, or user profile level overrides the TIMEOUT parm.</p>
USERDATA	<p>Specifies that user exits be allowed to examine gateway logon userdata.</p>

Example

This HOSTGATE command activates a gateway (KLGICFG1) and enables window control with the standard window control dialog:

```
HOSTGATE KLSGW001 CONFIG=KLGICFG1 DIALOG=KLGATEWY ATTENTION=KLGWATTN
```

IMBRCST

Sends a message to a specified set of users.

Type

CL/GATEWAY operator command

Format

```
IMBRCST 'type,value,type,value,...'  
[PANEL=dialog]  
[LIMIT=limit]  
[TEXT='text']  
[NOPROMPT]
```

type Specifies the argument type. This is the first-level qualifier that determines which terminals receive the broadcast panel. Quotes are required. Valid types are:

USERID	Broadcast to a specific user ID.
APPLIST	Broadcast to a specific APPLIST name.
APPL	Broadcast to a user connected to application APPL.
DEST	Broadcast to a user connected to a token (or session ID).
POOL	Broadcast to a user currently using a node from the specified pool.
PRTPool	Broadcast to a user using a printer SINGLE pool.
PRTNODE	Broadcast to a user in a SINGLE session with the specified printer node.
LTERM	Broadcast to a user assigned to an LTERM.
PRTLTERM	Broadcast to a user assigned to a printer LTERM.
BCGROUP	Broadcast to a user associated with a broadcast group.
TERMINAL	Broadcast to a user at the specified terminal.
SLU	Broadcast to a user using a virtual node.
PRTSLU	Broadcast to a user on a virtual printer node.

CNTAPPL	Broadcast to a user with a specific controlling application. CNTAPPL is the ACBNAME for the CL/GATEWAY that the user is logged on to.
value	Identifies the specific resource names or user IDs used to identify the terminals eligible to receive the immediate broadcast panel. The maximum length is eight characters. Use the slash (/) wildcard character if necessary. Do not use the asterisk (*).
dialog	Identifies the dialog that is sent to and executed at each terminal. The panel must reside in DDNAME TLVPNLS. The Dialog Manager uses the default panel (KLGBRCST) if this operand is omitted.
limit	Specifies the maximum number of broadcasts issued (1 - 99999999, default = 100). LIMIT=0 means that there is no limit to the number of broadcasts.
text	Specifies up to 255 bytes of text, enclosed in single quotes, to be sent to all eligible terminals. The Dialog Manager puts the text in &SYSPARM.
NOPROMPT	Specifies that the user should not be prompted to continue receiving broadcasts when <i>limit</i> is reached.

Usage Notes

1. The IMBRCST command sends a message to a specified set of users or terminals. The message appears immediately at every terminal selected by the command. Only terminals currently in session with a gateway receive immediate broadcast messages.
2. If you issue IMBRCST via the MVS MODIFY command, the character limit is subject to MVS restrictions.
3. The text entered is inserted into a panel and sent to all selected terminals. A default panel, KLGBRCST, is included in DDNAME TLVPNLS. You can use the default panel or specify another panel in the command.
4. The contents of the immediate broadcast panel replace the current screen image at each terminal. After reading the message, the user can press the F12 or ENTER key to clear it from the display. Any data the user may have entered into the original screen is retained when the screen image is redisplayed. Multiple *type, value* pairs may be specified to define the scope of the broadcast. The broadcast is issued if a session passes any search criteria. A selected terminal receives only one broadcast message for a single IMBRCST, even if the terminal qualifies in multiple *type, value* pairs.
5. Prior to Version 145, only one *type, value* argument could be specified with IMBRCST. Since multiple arguments are now allowed, the single quotes surrounding them are required.
6. If you plan to broadcast to large numbers of users (for example, several thousand), use several commands directed to different broadcast groups. If a message is simultaneously broadcast to thousands of users, you may cause

CT/Engine to run short on storage or flood the network. Use the LIMIT parameter to avoid unintentional specification of too large a set of recipients in one command.

7. If you wish to issue an immediate broadcast automatically through the dialog language COMMAND function rather than through the operator facility, make sure to specify NOPROMPT with IMBRCST, since dialogs are unable to accept responses.
8. If you intend to use any VSS dialog functions, you must first issue VSENTRY to establish the appropriate data structures.
9. The LIMIT parameter is used in conjunction with the NOPROMPT parameter to determine termination conditions for the IMBRCST command. If NOPROMPT is specified and LIMIT is reached, the command terminates. Otherwise, you are prompted to enter a new LIMIT or END to terminate the command.
10. The APPL for SINGLE-type sessions is the VTAM APPLID specified on the session definition.
11. The APPL for MULTI-type sessions is the actual session partner. This may be different than the VTAM APPLID specified on the session definition if the application logged onto does a PASS to another application. Logging onto TSO, for example, actually requires logging onto to TCAS who, in turn, does a CLSDST PASS of the session to TSO. Refer to the output of the VSHOW command for the APPL IMBRCST will consider the session to be connected to.

Example

To send all users with user ID SYScc002 the default broadcast panel (KLGBRCST) with the specified text in the variable &SYSPARM:

```
IMBRCST 'USERID,SYs??002' TEXT='VM A is going down; please log off'
```

IMS

Defines an IMS/DC subsystem.

Type

CL/GATEWAY operator command

Format

```
IMS imsname  
  APPLID=applid  
  POOL=mtopool  
  [ASSPSWD=asspswd]  
  [DEQPSWD=deqpswd]  
  [DISPSWD=dispswd]  
  [DUMMY=pterm]  
  [MAX=nn|1]  
  [MIN=nn|0]  
  [RETRY=hh:mm:ss|interval_in_seconds|30]  
  [RSTPSWD=rstpswd]  
  [STAPSWD=stapswd]  
  [STOPSWD=stopswd]  
  [XLV|NOXLV]
```

- | | |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| imsname | Identifies the IMS/DC subsystem. The <i>imsname</i> is specified in the DEST parameter of any APPLDEF statements that refer to the IMS/DC subsystem definition. This parameter is required. |
| applid | Specifies the VTAM logical unit name of the IMS/DC subsystem. Note that several IMS statements may designate a single IMS/DC subsystem. This allows the CL/GATEWAY for IMS gateway to provide unique system access characteristics to distinct classes of users and terminals. This parameter is required. |
| mtopool | Identifies the virtual MTO terminal pool for programmed IMS/DC system operator sessions. The <i>mtopool</i> corresponds to the pool name established by a VSM command. This parameter is required. |
| asspswd | Specifies the password providing IMS/DC ASSIGN command authority. You can omit this parameter if operator command passwords are not used. |
| deqpswd | Specifies the password providing IMS/DC DEQUEUE command authority. You can omit this parameter if operator command passwords are not used. |
| dispswd | Specifies the password providing IMS/DC DISPLAY command authority. You can omit this parameter if operator command passwords are not used. |

pterm	Identifies the dummy PTERM defined in IMS/DC to manage inactive LTERMs when the LTERM assignment session service is selected. This operand is REQUIRED when IMS=ASSIGN is included in the IMS/DC APPLDEF statement.
MAX	Specifies the maximum number of concurrent virtual MTO sessions that CL/GATEWAY for IMS maintains. Select a limit that does not exceed the number of virtual MTO terminals defined in the VSM command. The default value, MAX=1, is adequate in most environments.
MIN	Specifies the number of IMS virtual MTO sessions established when the CL/GATEWAY for IMS gateway process is initialized. Additional virtual MTO operator sessions are initiated and retained as demanded by the workload. The default value, MIN=0, specifies that virtual MTO sessions are established as needed. This allows CL/GATEWAY for IMS to control the number of active virtual MTO sessions.
RETRY	Specifies the time interval for attempts to achieve the number of virtual MTO sessions specified by MIN. It is used primarily to ensure that virtual MTO sessions are established if IMS/DC is inactive or otherwise unavailable at CL/GATEWAY for IMS startup time. The default interval is 30 seconds. Specify the desired interval as <i>hh:mm:ss</i> or <i>nnn</i> , where <i>nnn</i> is expressed in seconds.
rstpswd	Specifies the password providing IMS/DC RESTART command authority. You can omit this parameter if operator command passwords are not used.
stapswd	Specifies the password providing IMS/DC START command authority. You can omit this parameter if operator command passwords are not used.
stopswd	Specifies the password providing IMS/DC STOP command authority. You can omit this parameter if operator command passwords are not used.
XLV NOXLV	Determines whether to use extended LTERM verification for this session. If a subsequent session requests the same LTERM, an LTERM from an active IMS session is not stolen, provided that you specify XLV. The default is NOXLV.

LGMAINT

Indicates the level of maintenance applied.

Type

CT/Engine operator command

Format

LGMAINT

Usage Notes

LGMAINT returns a message to the log or to the operator terminal indicating the level of maintenance applied.

LINK

Loads and executes the specified module.

Type

CT/Engine operator command

Format

LINK mod

mod The name (1–8 characters) of a load module contained in the concatenation of load libraries in the TLVLOAD DD.

Usage Notes

Use this operator command only under the direction of Candle Support Services.

LOGOFF

Requests termination of a CT/Engine-based LU.

Type

CT/Engine operator command

Format

```
LOGOFF [luname]
       [DEST=dest]
       [ALTDEST=altdest]
       [DATA='data ' ]
       [LOGMODE=logmode]
```

luname	The LU name (1–8 characters) of the CT/Engine-based physical terminal session to be terminated. If <i>luname</i> is not specified, the issuing operator is logged off.
dest	The netname (1–8 characters) of the application to which the LU is passed when the session terminates.
altdest	The netname (1–8 characters) of an alternative application to which the LU is passed if <i>dest</i> is inactive.
date	Data, enclosed in single quotes, to be passed to the application.
logmode	A logmode override to be used to establish the passed session.

Usage Notes

If no parameters are specified, LOGOFF logs the operator off.

Example

To log the operator off the CT/Engine operator session:

```
LOGOFF
```

LOGON

Initiates a session between a CT/Engine ACB and an idle VTAM LU.

Type

CT/Engine operator command

Format

```
LOGON netname  
luname  
[LOGMODE(logmode)]  
[DATA('data ')]  
[PLU]
```

netname	The name (1–8 characters) of an active CT/Engine application as defined to CT/Engine with a HOSTGATE dialog or NODE command, such as KLST000.
luname	The LU name (1–8 characters) of a physical terminal not currently in session with any VTAM application.
logmode	A special set of session parameters to override the default logmode.
data	data (1–255 characters, in single quotes) to be passed to <i>netname</i> .
PLU	If specified, indicates that <i>luname</i> acts as the primary logical unit (PLU) in establishing the session. If this parameter is omitted, CT/Engine is the PLU.

Usage Notes

Use this command to restore an offline terminal to service.

Example

To start a KLSGW001 session with terminal L620A90:

```
LOGON KLSGW001 L620A90
```


MONITOR

Varies the message types received by a CT/Engine operator.

Type

CT/Engine operator command

Format

```
MONITOR pcccc  
        [pcccc]  
        :
```

p Specifies enable (+) or disable (-) display of a message class (*cccc*).

cccc Specifies the message classes as shown below:

ALERT Alert messages are routed to the consoles.

ALL All message types are routed to the consoles.

ERROR Error messages are routed to the console that made the request that caused the error.

INFO Information messages are routed to all consoles.

LOG Log messages are recorded in the CT/Engine log dataset.

REPLY Reply messages are routed to the console that made the request.

USER Reserved.

VIEW View messages are written to the VIEWLOG cluster.

WARN Warning messages are routed to all consoles.

The class of each message is identified in *Messages Manual*.

Usage Notes

1. The default message classes monitored are ALERT, INFO, and WARN.
2. Multiple parameter values are allowed.

Example

To have MONITOR display all message types:

```
MONITOR +ALL
```

MTO

Sends and receives IMS messages through CT/Engine. It can be issued from a CLIST in TLVCMDS, an MVS console, or the CT/Engine operator facility.

Type

CL/GATEWAY operator command

Format

```
MTO 'text'  
    IMS=imsname
```

text Specifies the IMS command to be issued.

imsname Specifies the IMS command that identifies the subsystem to receive the command.

To issue a /DIS A to IMS, issue the following command:

```
MTO_ '/DIS A' IMS=IASSIGN
```

MVS

Issues an MVS command.

Type

CT/Engine operator command

Format

MVS command

command Any valid MVS command.

Usage Notes

1. The CT/Engine jobstep must be authorized.
2. The output of the MVS command is not displayed at the operator's terminal, since the CT/Engine operator facility does not have a complete interface with the MVS subsystem.
3. The maximum length of a command to be passed to MVS is 126 characters.

Example

To issue MVS START GTF command:

```
MVS S GTF
```

NAM

Displays, adds, modifies, or deletes NAM database records. The NAM command consists of the primary command (NAM) and several subcommands.

Type

CT/Engine operator command

Format

NAM [subcommand]

subcommand	Valid NAM subcommands are
CNTRLPT	Selects a control point.
CPLIST	Lists control points and their parameters.
DBLIST	Lists NAM databases and associated control points.
DECLARE	Establishes a variable control record.
DELETE	Deletes user variable and control records.
DISPLAY	Displays user variable and control records.
END	Terminates NAM command environments.
LIST	Lists each user control record and associated variables in the NAM database.
RACLIST	Refreshes in-storage profiles for RACF.
SET	Defines/updates user control and variable records.
VLIST	Lists each variable control record.

Usage Notes

1. From the CT/Engine operator facility, enter the NAM command once (without a subcommand), then enter a series of subcommands without repeating the NAM command. Finally, enter the END subcommand to terminate the NAM command environment.
2. To enter the NAM command from the system console, use the MVS MODIFY (F) command and type NAM with the desired subcommand.
3. As of Version 145, most of the profile information is now stored in the table database (TABLEDB), rather than in NAM. As a result, NAM displays in the CT/Engine operator facility do not show valid session, trigger, or profile

information in Version 145. The valid values for these can be displayed and updated using the administrator function panels.

4. After a profile is converted from NAM to a table, changes to NAM have no effect on that profile.

Example

From the CT/Engine operator facility, the NAM command establishes the environment. NAM CNTRLPT specifies the control point KLGATEWY, NAM DECLARE defines the 10-character variable control record PHONE, and END terminates the NAM command environment.

```
NAM
CNTRLPT KLGATEWY
DECLARE PHONE 10
END
```

NAM CNTRLPT

Selects a control point. Any NAM commands following this command are directed to the database specified by this control point.

Type

CT/Engine operator command

Format

NAM CNTRLPT name

name Specifies a 1—8 character control point name.

Usage Notes

NAM CNTRLPT specifies a control point for subsequent NAM subcommands.

Example

To have NAM CNTRLPT select control point KLSLV000:

```
NAM CNTRLPT KLSLV000
```

NAM CPLIST

Lists the control points and their parameters.

Type

CT/Engine operator command

Format

NAM CPLIST

NAM DBLIST

Lists the NAM databases and their associated control points.

Type

CT/Engine operator command

Format

NAM DBLIST

NAM DECLARE

Establishes a variable control record.

Type

CT/Engine operator command

Format

```
NAM DECLARE varname  
                  [length]
```

varname A 1–8 character variable name (a VSAM minor key).

length The maximum length of the text associated with this variable name
(up to 32768 bytes).

Usage Notes

1. The variable name is a VSAM minor key.
2. The maximum length default is 8 bytes.
3. Once a variable has been declared, the length value cannot be changed or deleted.

Example

To declare the variable name NEWPSWD with a length of 8 bytes (the default):

```
NAM DECLARE NEWPSWD
```

NAM DISPLAY

Displays user variable records and user control records.

Type

CT/Engine operator command

Format

NAM DISPLAY majorkey

majorkey Specifies the major key of the user variable and user control records to display.

Usage Notes

1. The major key is usually the user ID or the terminal ID.
2. The maximum length for *majorkey* is 8 characters.
3. If there is nothing to display, NAM ignores the command.

Example

To display the user variable records and user control records for user ID SYSP02:

```
NAM DISPLAY SYSP02
```

NAM END

Terminates NAM command environments.

Type

CT/Engine operator command

Format

END

Usage Notes

Enter END to end the NAM subcommand environment.

NAM LIST

Lists each user control record and its associated variables in the NAM database.

Type

CT/Engine operator command

Format

NAM LIST

Usage Notes

Use the NAM LIST command to display the major keys of user control records and variables. The major keys are usually user IDs or terminal IDs. To display the contents of each variable in a user variable record, issue the NAM DISPLAY command.

NAM RACLIST

Refreshes in-storage profiles for RACF.

Type

CT/Engine operator command

Format

NAM RACLIST

Usage Notes

1. Use the NAM RACLIST command to refresh in-storage profiles for subsequent resource checking by either a dynamic authorized application list or the RESOURCE dialog function.
2. The address space must be APF-authorized before you issue the NAM RACLIST command.
3. Specify NAM RACLIST only for RACF. Do not use this command for CA-ACF2® and CA-TOP SECRET® installations.

NAM SET

Defines or updates user control and user variable records.

Type

CT/Engine operator command

Format

```
NAM SET majorkey
      [varname:text]
      [varname:text]
      ⋮
      [EXPIRE=nn]
      [PASSWORD=pswd]
```

majorkey Specifies the 1–8 character user ID or terminal ID for user control records, or a variable name for variable control records.

varname:text Specifies a variable name (minor key) for a record and the text associated with the variable name. The variable name and the maximum length of the text field must first be defined to the database with the NAM DECLARE command.

nn Specifies the number of times the user control record can be accessed before a change of password is required. The default is 0. This parameter is in effect only when you are using the NAM database for entry validation.

For security reasons, all passwords set in the NAM database expire the first time a user logs on. The user must then set a new password. If you set EXPIRE=0, the password never expires after the initial logon.

pswd Specifies a 1–8 character password associated with a user ID, and creates a user control record. You must specify the PASSWORD parameter to use the NAM database for entry validation.

The user control record maintains the last 8 passwords for each user. When a user changes passwords, the new password cannot match any of the 8 previous passwords.

Usage Notes

1. To erase the contents of a variable, enter:

```
NAM SET majorkey varname:
```

This sets the variable name to null.

2. Do not use NAM SET to define string variables. NAM SET only allows single tokens for set variables. To set a global variable, write a dialog using VPUT.

3. You *must* specify at least one of the optional arguments. If not, the following message is generated:

```
KLVSC002  REQUIRED OPERAND OMITTED:  COMMAND(NAM) ''
```

Example

To create a user control record for user ID SYSP02:

```
NAM SET SYSP02 PASSWORD=SYSP02
```

See Also

NAM DECLARE, NAM LIST

NAM VLIST

Lists each variable control record.

Type

CT/Engine operator command

Format

NAM VLIST

Usage Notes

Use the NAM VLIST command to display a list of all declared variables and their lengths.

NODE

Establishes the VTAM CT/Engine operator interface.

Type

CT/Engine operator command

Format

```
NODE acbname  
      [PASSWORD=password]  
      [TIMEOUT=hh:mm:ss]  
      [DEST=dest]  
      [ALTDEST=altdest]
```

acbname The name (1–8 characters) of the ACB to be opened.

password The password (1–8 characters), if needed, for *acbname*.

hh:mm:ss The idle time before logoff.

dest The name (1–8 characters) of the primary destination application for any session that connects with *acbname*.

altdest The name (1–8 characters) of the alternate destination application for any session that connects with *acbname*. This is used if the primary destination (DEST) is not available.

NTD

Invokes a non-terminal dialog.

Type

CT/Engine operator command

Format

```
NTD dialog  
  ['parm']  
  [TERM|NOTERM]
```

dialog	The dialog to be invoked as a non-terminal dialog. <i>Dialog</i> cannot perform any display actions, for example,)BODY or PSM, because it is not associated with a terminal.
parm	An optional string to be passed to dialog in the SYSPARM variable.
TERM	Specifies release of the dialog resources once the dialog completes. This is the default. Do not change this setting unless instructed to do so by Candle Support Services.
NOTERM	Specifies the dialog resources remain allocated once the dialog completes.

Usage Notes

If you specify TERM, 'parm' is required. 'parm' may be coded as a null: ' '.

OPERS

Displays the active CT/Engine operator IDs.

Type

CT/Engine operator command

Format

OPERS

PROFILE

Displays or modifies the characteristics of the operator session.

Type

CT/Engine operator command

Format

```
PROFILE [FOLD|NOFOLD]
        [LIMIT(limit)]
        [GLOBAL|LOCAL]
```

FOLD NOFOLD	Specifies whether or not alphabetic input from the terminal is folded to lower case. The default is NOFOLD.
limit	Specifies the number of characters queued to the operator before messages are ignored. The default is the value specified in the OPLIMIT parameter of the initialization library member, KLSSYSIN.
GLOBAL	Specifies that the issuing operator receives copies of monitored message classes, even if they are specifically directed to another operator.
LOCAL	Causes messages directed to other operators to be ignored.

Usage Notes

1. PROFILE without any parameters displays the characteristics of the operator session.
2. Although NOFOLD is the default, KLSOPSTR sets the profile to FOLD. See the *Customization Guide*.

Example

To fold input to upper case and limit queued output to 4096 characters:

```
PROFILE FOLD LIMIT(4096)
```

REFRESH

Compiles a dialog or panel and causes the CT/Engine to execute this new version.

Type

CT/Engine operator command

Format

REFRESH PANEL|DIALOG|MODULE|SENSE
name
filename

PANEL	Specifies that <i>name</i> is a dialog or part of a dialog in the panel library. PANEL can be abbreviated as P .
DIALOG	Specifies that <i>name</i> is a dialog or part of a dialog in the panel library (same function as PANEL). DIALOG can be abbreviated as D .
MODULE	Specifies that <i>name</i> is a load module (a member of the load library). MODULE can be abbreviated as M .
SENSE	Specifies that <i>name</i> is the member name of <i>filename</i> containing sense rule definition statements. SENSE can be abbreviated as S .
name	The member name (1–8 characters) being refreshed.
filename	The name (1–44 characters) of the dataset containing sense rule definition statements. <i>filename</i> must be enclosed in single quotation marks if the REFRESH command is issued from the MVS console.

If you update a dialog in your panel library, **REFRESH** causes the updated version to take effect. If the modified dialog fails to compile during **REFRESH**, the old dialog is still available for execution.

Usage Notes

The **MODULE** parameter can only be used to refresh user exits. Do not use the **MODULE** parameter to refresh Candle-supplied modules.

Example

To refresh panel LOGNT04 in your panel library :

```
REFRESH P LOGNT04
```

To refresh the in-storage user global sense table located in *&rhilev.SENSETBL(SNSIN)*:

```
REFRESH S SNSIN &rhilev.SENSETBL
```

RTM

Activates the interface to the NetSpy™ or NPM response time monitor.

Type

CT/Engine operator command

Format

RTM ON|OFF
[smanager|CLSS]
[TYPE=NPM|NetSpy|ETE]
USEREXIT=exitname

ON Activates the interface. If the interface is already active, it is deactivated (as though an RTM OFF command were issued) before the activation request is processed.

OFF Deactivates the interface and discards the user exit name. If NetSpy is the interface, it also discards the session manager name. You must respecify the user exit name (and session manager name) when you reactivate the interface.

smanager Identifies the session manager to NetSpy only. This name appears in all eyecatcher datastreams. CT/Engine transmits this information each time the physical terminal operator begins to interact with a new application or with CL/SUPERSESSION itself. The default is CLSS.

TYPE Identifies the response time monitor (NPM or NetSpy). The default is NetSpy.

exitname For NPM, identifies the user exit that specifies the account code. CL/SUPERSESSION allows for 40-byte account codes. NPM NSI allows only for 8-byte account codes; therefore, the USEREXIT allows you to move any 8 of the 40 characters into the account code field. A sample NPM user exit is supplied in *&thilev.TLSSAMP(KLSXNPM)*. This member contains instructions for implementing and extending the sample exit.

For NetSpy, identifies the user exit that inspects and/or modifies the eyecatcher datastream just before it is transmitted to the physical terminal. A sample NetSpy user exit is supplied in *&thilev.TLSSAMP(KLSXRTM)*. This member contains instructions for implementing and extending the sample exit.

Usage Notes

1. The default values for NPM NSI allow for 10 session managers and 10,000 sessions in total. These can be overridden in the NSI address space initialization parameters.
2. Start NPM at CT/Engine initialization to ensure complete data collection.
3. The VSSOPT dialog function has an RTM option. Unlike all other VSSOPT options, RTM is not a session-level option. Instead, it applies to all sessions for a particular user.

The VSSOPT dialog function's RTM option is independent of the CT/Engine RTM operator function, which this document describes. Even if the VSSOPT RTM option is ON, it has no effect unless the the CT/Engine RTM operator command has been successfully issued.

4. The NPM interface will write GTF user trace records if all of the following conditions are true:
 - The RTM ON TYPE=NPM command has been successfully issued.
 - The user has turned on the VSSOPT RTM option.
 - The GTF ON command has been successfully issued.
 - A trace is active for the physical terminal, as shown below:

VSSTRACE userid ON

or

GTRACE physical-terminal-name CLASS(TERM) ON

No separate option activates or deactivates NPM tracing.

These trace records are interspersed with the buffer trace records currently produced, and are intended for use by Candle Support Services.

Examples

To start the NPM interface, issue the following CT/Engine operator command.

RTM ON TYPE=NPM USEREXIT=KLSXNPM

To start the NetSpy interface, issue the following CT/Engine operator command.

RTM ON smanager TYPE=NetSpy USEREXIT=KLSXRTM

To start the ETE interface, issue the following CT/Engine operator command.

RTM ON smanager TYPE=ETE USEREXIT=KLSXRTM

SEND

Transmits a message to one or all active CT/Engine operators.

Type

CT/Engine operator command

Format

**SEND operator|ALL
text**

operator A valid, active operator ID.

ALL Broadcasts to all active operators.

text A text string.

Usage Notes

Enclosing *text* in single quotes is not necessary unless you want to preserve leading blanks.

Example

To send the message **SYSTEM REFRESH IN 15 MIN.; PLEASE LOG OFF** to all active CT/Engine operators:

```
SEND ALL 'SYSTEM REFRESH IN 15 MIN.; PLEASE LOG OFF'
```

SHOW

Displays gateway and virtual session information.

Type

CL/GATEWAY operator command

Format

**SHOW type
argument**

type	The argument type—the first-level qualifier that determines which terminals are eligible for display. Valid types are the following:
APPLIST	Shows the status of sessions having the specified application list.
BCGROUP	Shows the status of sessions connected to the specified broadcast group.
DEST	Shows the status of sessions connected to the specified destination application.
HOSTGATE	Shows the status of all sessions for the specified gateway.
LTERM	CL/GATEWAY for IMS only. Shows the status of sessions using the specified LTERM.
LU	Shows the status of sessions with the specified logical unit.
POOL	Shows the status of sessions using the specified virtual terminal pool.
PRTLTERM	CL/GATEWAY for IMS only. Shows the status of sessions using the specified printer LTERM.
PRTNODE	Shows the status of sessions using the specified printer node.
PRTPOOL	Shows the status of sessions using the specified virtual printer pool.
PVLU	Shows the status of sessions using the specified printer virtual logical unit.

USERID Shows the status of sessions with the specified users.

VLU Shows the status of sessions using the specified virtual logical unit.

argument Identifies the specific resource names or user IDs used to identify the sessions eligible for display. The maximum length is 8 characters. Wildcard characters are allowed. If the asterisk (*) wildcard character is used, the argument string must be enclosed in quotes.

Usage Notes

1. The **SHOW** command can be used by a CT/Engine or MVS operator to display the status of gateway sessions and all active **SINGLE** virtual sessions. Each line of the status display contains the active user ID, the logical unit name of the user's terminal, the names of any associated virtual terminal and virtual printer logical units, and additional gateway resource information.
2. If you have **CL/GATEWAY** for IMS, the **LTERM** names associated with a virtual terminal and virtual printer session are displayed when the user is in an **IMS/DC** session established through **CL/GATEWAY** for IMS.

Example

To display the status of all sessions with an LU beginning with the letters **L6**:

```
SHOW LU 'L6*'
```

See Also

VSHOW

SHUTDOWN

Terminates CT/Engine execution and stops the started task and its address space.

Type

CT/Engine operator command

Format

SHUTDOWN [ABEND]

ABEND Specifies that a dump is taken after shutdown is processed.

Usage Notes

1. If the KLSSYSIN member in your initialization library specifies SDUMP and ABEND is specified at shutdown, an SVC dump to the SYS1.DUMPxx dataset is done; otherwise, a dump is written to the KLVSnap dataset. The dump obtained by issuing a CANCEL command against the started task is preferable for diagnostic purposes.
2. SHUTDOWN may have to be entered more than once, depending on the CONFIRM parameter setting in KLSSYSIN.
3. If you receive message **KLVP024 SHUTDOWN PROCEEDING: n RESOURCES OUTSTANDING**, CT/Engine is waiting for the outstanding resources to finish processing before completing the shutdown request. To complete the shutdown immediately (and bypass the wait state), reissue the SHUTDOWN command.
4. If a shutdown proceeds for more than a minute or two (after the message **KLVP023 SHUTDOWN STARTED...** appears):
 - a. Issue the CT/Engine operator command

DISPLAY CLASS=ALL
 - b. Reissue SHUTDOWN.
 - c. Save the log.
 - d. Call Candle Support Services.

SNA

Displays session information.

Type

CT/Engine operator command

Format

SNA [**DUMP**]
[ses, ses,...]

DUMP Specifies a dump of the main CT/Engine session-related control blocks.

ses Specifies a session name qualifier (1–8 characters); you can enter more than one name.

Usage Notes

1. Use this operator command only under the direction of Candle Support Services.
2. Enter SNA without any operands to start an SNA command environment. Operands can then be entered without specifying SNA first.
3. Enter END to end the command environment.
4. Use the DISPLAY CT/Engine operator command to identify the session name(s) that you want to use.

See Also

END

STATUS

Displays information relating to the CT/Engine system.

Type

CT/Engine operator command

Format

STATUS

Usage Notes

1. Contact Candle Support Services to understand the data produced by this command.
2. STATUS displays information on
 - panel usage
 - module usage
 - threads (units of work)

STORAGE

Displays statistics of CT/Engine storage use.

Type

CT/Engine operator command

Format

STORAGE [DETAIL]

DETAIL Specifies a detailed storage display.

Usage Notes

1. STORAGE DETAIL provides both primary and extended storage statistics.
2. STORAGE DETAIL statistics are helpful in tuning CT/Engine memory management. Refer to the *Basic Configuration Guide* and *Customization Guide* if you must make adjustments to storage preallocation and KLSSYSIN parameters.

Example

To request a detailed storage description, enter:

STORAGE DETAIL

Figure 43 on page 144 is a sample of the storage detail panel. The line numbers are for reference in the discussion that follows and do not appear on the panel.

```

01 KLVSD001 PRIMARY MAIN STORAGE INFORMATION:
02 KLVSD003 ALLOCATION DETAIL:
03 KLVSD004 SIZE(1-16) USE(1629) TOTAL(1652) ACCESSED(2122)
04 KLVSD004 SIZE(17-32) USE(1222) TOTAL(1256) ACCESSED(1804)
05 KLVSD004 SIZE(33-48) USE(43) TOTAL(51) ACCESSED(989)
06 KLVSD004 SIZE(49-64) USE(30) TOTAL(321) ACCESSED(789)
07 KLVSD004 SIZE(65-80) USE(190) TOTAL(299) ACCESSED(474)
08 KLVSD004 SIZE(81-96) USE(277) TOTAL(432) ACCESSED(492)
09 KLVSD004 SIZE(97-112) USE(27) TOTAL(43) ACCESSED(412)
10 KLVSD004 SIZE(113-128) USE(39) TOTAL(43) ACCESSED(311)
11 KLVSD004 SIZE(129-160) USE(79) TOTAL(374) ACCESSED(222)
12 KLVSD004 SIZE(161-192) USE(84) TOTAL(111) ACCESSED(205)
13 KLVSD004 SIZE(193-224) USE(96) TOTAL(127) ACCESSED(177)
14 KLVSD004 SIZE(225-256) USE(148) TOTAL(259) ACCESSED(192)
15 KLVSD004 SIZE(257-320) USE(342) TOTAL(365) ACCESSED(144)
16 KLVSD004 SIZE(321-384) USE(40) TOTAL(54) ACCESSED(98)
17 KLVSD004 SIZE(385-512) USE(5) TOTAL(35) ACCESSED(80)
18 KLVSD004 SIZE(513-768) USE(21) TOTAL(26) ACCESSED(92)
19 KLVSD004 SIZE(769-1024) USE(14) TOTAL(17) ACCESSED(12)
20 KLVSD004 SIZE(1025-2048) USE(28) TOTAL(35) ACCESSED(8)
21 KLVSD004 SIZE(2049-4096) USE(81) TOTAL(97) ACCESSED(2)
22 KLVSD004 SIZE(4097-8192) USE(8) TOTAL(9) ACCESSED(1)
23 KLVSD004 SIZE(8193-16384) USE(1) TOTAL(1) ACCESSED(1)
24 KLVSD005 LIMIT(65536) SLOPE(9) SIZES(23) TOTAL(2916K) FREE(2055K)
25 OVERHEAD(44936)
27 KLVSD031 BUFFER POOL INFORMATION
28 KLVSD032 POOL BUFSIZE(3564) SEGSIZE(65536) MASK(3FFFF) SIDEQ(0)
29 KLVSD033 BUFFERS INUSE(0) MAX(0) GETS(0) FREES(0)
30 KLVSD033 SEGMENTS INUSE(0) MAX(0) GETS(0) FREES(0) Q(0) QMAX(0)
31 KLVSD032 POOL BUFSIZE(3440) SEGSIZE(65536) MASK(7FFFF) SIDEQ(0)
32 KLVSD033 BUFFERS INUSE(3) MAX(9) GETS(245) FREES(242)
33 KLVSD033 SEGMENTS INUSE(1) MAX(1) GETS(1) FREES(0) Q(1) QMAX(1)
34 KLVSD032 POOL BUFSIZE(2560) SEGSIZE(65536) MASK(1FFFFFF) SIDEQ(0)
35 KLVSD033 BUFFERS INUSE(53) MAX(57) GETS(340) FREES(287)
36 KLVSD033 SEGMENTS INUSE(3) MAX(3) GETS(13) FREES(10) Q(1) QMAX(2)
37 KLVSD032 POOL BUFSIZE(1920) SEGSIZE(65536) MASK(FFFFFFF) SIDEQ(0)
38 KLVSD033 BUFFERS INUSE(1) MAX(2) GETS(60) FREES(59)
39 KLVSD033 SEGMENTS INUSE(1) MAX(1) GETS(36) FREES(35) Q(1) QMAX(1)
40 KLVSD039 END OF BUFFER POOL INFORMATION
41 -----

```

Figure 43. Typical Storage Detail Display

01 A CT/Engine header message.

02 A CT/Engine header message.

03 - 23 A CT/Engine message specifying the following values:

SIZE The range (*m-n*, in bytes) of the sizes of data blocks in the storage area. For example, SIZE(1-16) indicates that this area contains all of the blocks that are from 1 to 16 bytes long.

USE The number of blocks in use.

TOTAL The total number of storage blocks allocated.

Note: If the values of both USE and TOTAL are zero, the message does not appear.

ACCESSED The total number of times the storage block size was accessed.

- 24** A CT/Engine message specifying the following values:
- LIMIT** The size (in bytes) of the largest block that can be allocated.
 - SLOPE** A Candle-internal parameter.
 - SIZES** Specifies the number of storage areas.
 - TOTAL** Specifies (in kilobytes) the total amount of storage.
 - FREE** Specifies (in kilobytes) the amount of storage available.
- 25** A continuation of the previous CT/Engine message specifying the following value:
- OVERHEAD** The amount of storage (in bytes) used for storage control.
- 26** A CT/Engine message specifying the following values:
- TMS** The amount (in bytes) of temporary storage allocated. CT/Engine uses this storage, for example, to resolve a string expression. In general, this value should be zero.
 - PREFIX** The length (in bytes) of the storage block prefix.
 - CUSHION** The overhead (in bytes) for each storage block. This value is equal to the value of PREFIX plus the debug overhead, if any.
- 27 - 40** Buffer pool usage information.
- 41** A line of dashes indicating the bottom of the display.

TIME

Displays system time.

Type

CT/Engine operator command

Format

TIME

TRACE

Modifies and then displays the eligibility mask of the CT/Engine internal trace table.

Type

CT/Engine operator command

Format

TRACE pccccccc

p Specifies enable (+) or disable (-) tracing for the type of trace specified (**ccccccc**).

ccccccc The type of trace:

ALL	Traces activity of all types.
DEFAULT	Traces miscellaneous activity.
DISPATCH	Traces dispatcher activity.
ERROR	Traces errors.
LOGICRES	Traces logical resource manager requests.
PRODUCT	Traces product requests.
PSM	Traces Presentation Space Manager (PSM) requests.
STORAGE	Traces storage requests.
TABLES	Traces Tables Manager requests.
VSAM	Traces VSAM requests.
VTAM	Traces VTAM requests.

Usage Notes

1. Use this operator command only under the direction of Candle Support Services.
2. You can enter multiple traces with one TRACE command.
3. When TRACE is issued, the status of all internal trace components is displayed.
4. If TRACE fails, you may need to alter your initialization library member KLSSYSIN. Refer to KLSSYSIN DEBUG and TRACE parameters in the *Customization Guide*.

Example

To have TRACE enable all types of tracing:

```
TRACE +ALL
```

To disable all tracing and then enable VTAM tracing:

```
TRACE -ALL +VTAM
```

See Also

GTF, GTRACE

VCANCEL

Cancels the terminal session of a selected user or users.

Type

CL/SUPERSESSION operator command

Format

```
VCANCEL USER=user|ID=trm  
        [PLU=plu]  
        [SLU=slu]  
        [POOL=pool]  
        [SESSION=ses]  
        [TERM]  
        [NODISC]
```

user	The user ID (1–8 characters). If entry validation is not being used, the user ID can equal the terminal ID (<i>trm</i>).
trm	The physical terminal ID (1–8 characters).
plu	The primary logical unit name (1–8 characters). This is the VTAM network name of the application program. If this parameter is specified, only users with a session defined for this application (<i>plu</i>) are cancelled.
slu	The secondary logical unit name (1–8 characters). This is the VTAM network name of the virtual terminal that was allocated to a virtual session. If this parameter is specified, only users in session with this virtual terminal name (<i>slu</i>) are cancelled.
pool	Specifies the virtual terminal pool name. If this parameter is specified, only users with this virtual terminal pool name (<i>pool</i>) are cancelled.
ses	Specifies a virtual session ID (1–8 characters). If this parameter is specified, only this virtual session (<i>ses</i>) is cancelled.
TERM	Specifies that a virtual session is to be cancelled.
NODISC	Inhibits termination of the physical session.

Usage Notes

1. You must specify *user*, *trm*, or both.
2. If you specify TERM and NODISC, VCANCEL drops the virtual session but not the physical session.

3. If you specify NODISC without TERM, the command is equivalent to a NO-OP. Nothing happens.
4. If you do not have disconnect authority and do not specify NODISC, VCANCEL still drops all virtual sessions for the specified user or users.

Example

To cancel the virtual session (TERM) that user USER01 has established with virtual device KLST0028, without disconnecting USER01 from CL/SUPERSESSION (NODISC):

```
VCANCEL USER=USER01 SLU=KLST0028 TERM NODISC
```

VFORCE

Cancels the terminal session of a selected user.

Type

CL/SUPERSESSION operator command

Format

VFORCE USER=userid

userid The user ID (1–8 characters). If entry validation is not being used, the *userid* can equal the 1–8 character physical terminal ID.

Usage Notes

1. You must specify **USER**.
2. You must execute the **VCANCEL** command before using **VFORCE**.
3. When you issue the **VFORCE** command, a message notifies you that **VFORCE** was successful or that the user was not found. If, however, the message states that the user was not forced and that the virtual session is hung, issue the **VFORCE** command again.
4. If you issue the **VFORCE** command from a **CLIST** or a dialog function, always enter **WAIT 1** after each command.

Example

To cancel the virtual sessions for a user whose user ID is **USER08**:

```
VFORCE USER=USER08
```

VIEWLOG

Displays information from the CT/Engine log file.

Type

CT/Engine operator command

Format

VIEWLOG [subcommand]

subcommand

A VIEWLOG subcommand. Values are as follows :

BOT	Displays the last lines (specified in LINES, see entry below) of the VIEWLOG dataset.
END	Ends the VIEWLOG subcommand environment.
FDATE mm/dd/yy	Positions the cursor at the specified date (<i>mm/dd/yy</i>).
FIND 'str' [parm]	Searches the VIEWLOG database for a specified string (<i>str</i>). The <i>parm</i> can be FIRST First occurrence LAST Last occurrence NEXT Next occurrence (the default) PREV Previous occurrence
FTIME hh:mm:ss	Positions the cursor at the record logged as soon as possible after the specified time (<i>hh:mm:ss</i>).
LINES nnn	Sets the number of lines (<i>nnn</i>) displayed by a VIEWLOG subcommand. The default is 10.
NEXT nnn	Skips the next number of lines specified in LINES. The default is 10.
PREV nnn	Skips the previous number of lines specified in LINES. The default is 10.
TOP	Displays the first lines (specified in LINES) of the VIEWLOG dataset.

Usage Notes

1. The VIEWLOG VSAM cluster must be defined.
2. Enter VIEWLOG without a subcommand to start a VIEWLOG subcommand environment. Subcommands can then be entered without specifying VIEWLOG first.
3. Enter END to end the VIEWLOG subcommand environment.
4. Messages produced by VIEWLOG are not logged to the VIEWLOG dataset.

Example

To set the number of lines displayed to 15:

```
VIEWLOG  
LINES 15  
TOP  
END
```

See Also

END

VPO

Requests execution of a VTAM command.

Type

CT/Engine operator command

Format

VPO command

command Any VTAM command. Entering VPO without a command starts the VTAM command environment.

Usage Notes

1. Enter VPO without an operand to start the VTAM command environment. VTAM commands can then be entered without specifying VPO first.
2. Enter END to end the VTAM command environment.

See Also

END

VPRINTER

Associates a virtual printer with a physical printer.

Type

CT/Engine operator command

Format

VPRINTER acbname

prtname
[CHAINSIZ=nnnn]
[CLASS=class]
[DEST=dest]
[DR]
[FORM=form]
[LOGMODE=logmodename]
[NORELREQ]
[PASSWORD=password]
[RETRY=nn]
[USER=userid]
[MAXLINE=nnn]
[IMMEDREL]
[TAG='tag_data']

acbname Specifies a virtual printer ACB name with ACQ authority as defined in the major node member in SYS1.VTAMLST. Any number of applications can establish a session with this ACB. SYS1.VTAMLST must also contain an ACB name for the physical printer.

prtname Specifies one of the following:

- The network name of the physical printer to be controlled by VPRINTER.
- SYSOUT, which specifies that a sysout class is used.

The SYSOUT parameter puts the user's output into a sysout dataset and passes control to JES (or some other subsystem) for routing to the device. JES uses the CLASS and DEST parameters to route to the device. You can also use SYSOUT for VPS (a printing routine commonly run on the VM system).

nnnn Specifies the maximum amount of data to be sent to the physical printer in a single SNA chain. This parameter splits large outbound SNA chains from the application to the virtual printer into two or more smaller chains for delivery to the physical printer. Each chain, except possibly the last, ends with an SNA character string (SCS) new line character.

The maximum value is 9999. This parameter is optional and is valid only for SCS printers.

Be sure to specify CHAINSIZ with IIN, which imposes restrictions on the size of the chain sent to printers.

- class** Specifies the sysout class. If you specify SYSOUT and omit this parameter, sysout class A is used.
- dest** Specifies the destination for SYSOUT. The default is LOCAL.
The DEST parameter can specify any of the following:
- netname of the physical printer
 - sysout dataset with the appropriate destination and class
 - name of another virtual printer (for use with IIN)
- DR** Returns definite response to the application only after the physical printer correctly prints the data.
Specify the DR parameter for sensitive applications (for example, check-writing applications) that use VPRINTER. DR ensures that when a response returns to the application, the printing has already completed successfully.
- form** Specifies the FORM value to use for the sysout dataset.
- logmodename** Specifies the VTAM logmode table entry name used to establish the session between the virtual printer and the physical printer. This name must be found either in the logmode table associated with the virtual terminal APPL definition in SYS1.VTAMLST or in the default logmode table, if none is specified in the APPL definition.
LOGMODE can specify
- a literal string (for example, DSILGMOD)
 - a variable to be resolved during session initiation by a gateway dialog (for example, DEFLMODE)
- If LOGMODE is not specified, the default logmode is used.
- NORELREQ** Turns off the VTAM RELREQ printer-sharing protocol.
By default, the application using the physical printer is notified of the VPRINTER request. When that application releases the printer, the virtual printer acquires it. NORELREQ overrides the default.
- password** Specifies the VTAM APPL password. This parameter is optional.
- nn** Specifies the number of times (0–99) VPRINTER attempts to acquire the physical printer. If you do not specify a RETRY number, VPRINTER continues to attempt to acquire the printer.
The VPRINTER command releases the physical printer if it is inactive for 15 seconds. If another network application requests the use of the physical printer through the RELREQ protocol, the VPRINTER command honors that request. Virtual printer sessions are always accepted by the VPRINTER command, even when the physical printer is not immediately available. If the physical printer is not available, all sessions are treated as contention losers until it

can be acquired. CT/Engine retries to acquire the physical printer every 30 seconds.

This parameter is valid only for non-sysout virtual printers.

userid	Specifies the user ID for the sysout dataset.
nnn	Specifies the sysout line length. The default value is 132, but you can specify any length from 1 to 255 characters. The actual data length is the line length minus one byte for the carriage control character (the carriage control character is added automatically by the program). If the data is longer than the specified line length, the additional characters are forced to the next line. This may cause additional lines to be printed, but the data is not lost.
IMMEDREL	Specifies that the physical session be terminated immediately if no more data remains on queue for this physical device. Use of this option can reduce overhead for dialed remote physical print devices.
tag_data	Specifies the TAG data to be set for the defined printer. The TAG data may include up to 40 characters. This parameter is VM-specific and is used in conjunction with VM sysout routing. For more information on the TAG command refer to IBM VM documentation.

Usage Notes

1. If you open a VPRINTER and you want to change its definition, you need to go into VTAM, deactivate the ACB, make the change, and then reactivate it.
2. VPRINTER SYSOUT uses the IBM SVC99 Dynamic Allocation facility which requires approximately 1K of RESERVE storage per printer. Users of SYSOUT VPRINTERS should increase the value of the KLSSYSIN parameter RESERVE accordingly. See the *Basic Configuration Guide* for more information on the RESERVE parameter.
3. Only LU1 (SCS) data streams are converted to SYSOUT line formats. LU3 data streams are printed in the character order presented to the VPRINTER routines with buffer orders deleted.
4. The LU type specified for the physical VPRINTER must match the LU type of the virtual printer.

Example

To set ACB16 as the sysout destination with a sysout class of S, a destination of RMT5, and a user ID of USER07 for the SYSOUT dataset:

```
VPRINTER ACB16 SYSOUT CLASS=S DEST=RMT5 USER=USER07
```

VSHOW

Displays the status of selected CL/SUPERSESSION users or devices.

Type

CL/SUPERSESSION operator command

Format

```
VSHOW userid  
      [POOL=pool]  
      [PLU=plu]  
      [SLU=slu]  
      [ID=tid]  
      [ACTIVE]  
      [INACTIVE]  
      [STATS|SUMMARY]  
      [DISCONNECTED]  
      [FOREGROUND]  
      [CONNECTED]
```

userid	The user ID (1–8 characters). If entry validation is not being used, the user ID can equal the terminal ID (<i>tid</i>).
pool	Specifies the virtual terminal pool name. If this parameter is specified, only users with this virtual terminal pool name (<i>pool</i>) are displayed.
plu	The primary logical unit name (1–8 characters). This is the VTAM network name of the application program. If this parameter is specified, only users with a session defined for this application (<i>plu</i>) are displayed.
slu	The secondary logical unit name (1–8 characters). This is the VTAM network name of the virtual terminal that was allocated to a virtual session. If this parameter is specified, only users in session with this virtual terminal name (<i>slu</i>) are displayed.
tid	Limits the display to users with the specified terminal ID.
ACTIVE	Displays all active sessions for qualifying users.
INACTIVE	Displays all inactive sessions for qualifying users.
STATS	Displays statistics on the number of bytes and the number of messages for each virtual terminal name.
SUMMARY	Displays a summary of the users logged on.

DISCONNECTED	Displays all disconnected users. (A user is disconnected when the user's virtual session is still running, but the physical session has terminated.)
BACKGROUND	Displays all users in foreground.
CONNECTED	Displays only connected users.

Usage Notes

1. If compression is enabled, VSHOW provides a compression percentage.
2. If compression is disabled, VSHOW indicates that compression is off.
3. When using VSHOW ACTIVE in windowing mode with compression on, compression statistics may be affected by heavy physical unit activity being charged to one virtual session without any data actually being sent via a virtual session.

Example

To display a list of users who are connected to CL/SUPERSESSION and a summary of their active sessions, issue the following:

```
VSHOW '*' STATS
```

Figure 44 shows sample output from the VSHOW command:

```

KLUOP001 VSHOW ARGUMENT LIST: USERID(*) STATS ACTIVE
KLUOP009 USER07(RGSS096,ATERM465,12000096) ACTIVE
KLUOP002 CTSOA(RGSS0909,CTS0A088,130000A8,$DEFAULT,SNX32704) ACTIVE-F
COMPRESSION 0%
KLUOP003 PLU ---> SLU: MSGS(35) BYTES(12977)
KLUOP004 SLU ---> PLU: MSGS(15) BYTES(1163)
KLUOP005 TERM REFRESH: MSGS(5) BYTES(1733)
KLUOP006 TERM UPDATE: MSGS(80) BYTES(25430)
KLUOP010 TERM INPUT: MSGS(46) BYTES(996)
KLUOP002 CONF3403(RGSS0909,CTS0A088,130000A8,$DEFAULT,SNX32704) ACTIVE
COMPRESSION 0%
KLUOP003 PLU ---> SLU: MSGS(0) BYTES(0)
KLUOP004 SLU ---> PLU: MSGS(0) BYTES(0)
KLUOP005 TERM REFRESH: MSGS(0) BYTES(0)
KLUOP006 TERM UPDATE: MSGS(0) BYTES(0)
KLUOP010 TERM INPUT: MSGS(0) BYTES(0)
KLUOP009 USER08(RGSS096,ATERM350,100000B0) ACTIVE
KLUOP009 USER09(RGSS096,L614A40,0E000163) ACTIVE
KLUOP008 3 OF 3 USER(S), 2 OF 2 SESSION(S) SELECTED

```

Figure 44. Typical Output from the VSHOW Command

A description of each line of the display follows:

- KLUOP001** The input argument list, as well as specific session information.
- KLUOP002** The session-id(active-userid, logical-unit-name, network-resource-id, pool-name, logmode).

- KLUOP003** The accumulated number of messages and bytes sent from the primary logical device to the secondary logical device.
- KLUOP004** The accumulated number of messages and bytes sent from the secondary logical unit to the primary logical unit.
- KLUOP005** The accumulated number of messages and bytes sent to refresh the terminal.
- KLUOP006** The accumulated amount of real traffic to the terminal in messages and bytes.
- KLUOP008** The number of users and sessions selected by the VSHOW command out of the total pool.
- KLUOP009** The userid(applid-logged-onto, logical-unit-name, network-resource-id).
- KLUOP010** The accumulated number of input messages and bytes received from the physical terminal while it was logically connected to the virtual session identified by the previous KLUOP002 message.

The compression percentage is computed as follows:

$$\frac{(\text{No. of PLU} \rightarrow \text{SLU bytes}) - (\text{No. of TERM UPDATE bytes})}{(\text{No. of PLU} \rightarrow \text{SLU bytes})}$$

See Also

SHOW

VSM DEFINE

Defines a virtual terminal pool.

Type

CT/Engine operator command

Format

```
VSM DEFINE poolname
    applid
    [ACBNAME=acbname]
    [DEDICATE]
    [DEFER]
    [INBOUND=nnn|2040]
    [LIMIT=nnn]
    [LOGMODE=logmodename]
    [NOCAPPL]
    [NODE='string-exp'|'*']
    [PARALLEL]
    [PASS]
    [PASSWORD=password]
    [THROUGH=n|nn|nnn|nnnn]
    [TIMEOUT=hh:mm:ss|interval|0]
```

poolname Specifies a pool name associated with a series of virtual terminals. CL/SUPERSESSION and CL/GATEWAY obtain the pool name from either an APPLDEF command or a configuration member (for example, KLGICFG1).

applid Specifies the VTAM APPLID of either a single virtual terminal (if the THROUGH parameter is not specified) or the first virtual terminal in a numeric series (if the THROUGH parameter is specified). When you define multiple virtual terminal APPLs, choose network names that consist of a constant alphanumeric prefix followed by a numeric suffix. The suffix may be from 1–4 characters, depending on the size of the pool (for example, TERMnnnn). You may choose any naming convention. However, if you use unique names without a common prefix, you need a VSM DEFINE command for each APPLID. See also the THROUGH parameter.

acbname Specifies the ACB name of the virtual terminal applid, if a different name was specified in the ACBNAME parameter of the APPL definition for the virtual terminal. If you use the THROUGH parameter, the ACB name of the virtual terminal must adhere to the same conventions as the APPLID.

Note: With the exception of DEFER, the following parameters are propagated for all VSM DEFINE commands in a pool, as long as the parameters appear in the first VSM definition. DEFER must be specified in all VSM DEFINE commands where it is desired.

- DEDICATE** Specifies support for terminals used with an application that does more than one CLSDST PASS, or that issues a SIMLOGON to reacquire a virtual terminal. For example, you must specify this operand if the VSM pool is used for outbound connection to the IBM Information Network (IIN).
- When a session is in progress between a virtual terminal and the application, the virtual terminal for the CLSDST PASS session cannot be shared with other applications. The pool that contains the DEDICATE options can share virtual terminals with another pool, but while the virtual terminal is in use in the dedicate pool, it cannot be used by any other pool. For this reason, use DEDICATE only when necessary.
- Unless you specify NOCAPPL, the first session partner is the controlling application for the DEDICATE pool.
- A VSM DEFINE command that specifies DEDICATE cannot specify PASS or PARALLEL. The VTAM APPL parameter SESSLIM cannot be used for DEDICATE virtual terminals.
- DEFER** Specifies that the VTAM ACB OPEN for virtual terminal ACBs is deferred until the session is activated.
- Important:** Using DEFER with each VSM DEFINE command reduces the CPU and virtual storage needed for CT/Engine initialization. For this reason, DEFER should be specified in all VSM DEFINE commands.
- INBOUND** Defines the default buffer size used when a RECEIVE-ANY is issued against the virtual terminal ACB. Specify INBOUND only when the average inbound message size is significantly smaller than the default (2040 bytes).
- When a RECEIVE-ANY completes and the buffer is not large enough to contain all the data, CL/ENGINE automatically changes the default RECEIVE-ANY buffer size to the received record length; the next RECEIVE-ANY thus allocates a larger buffer.
- LIMIT** Specifies the maximum number of simultaneous sessions allowed for any virtual terminal in the pool.
- You can normally omit the LIMIT parameter without concern.
- If a virtual terminal is defined in more than one pool, CT/Engine combines the number of active sessions for all such pools to determine whether the virtual terminal has reached its limit.
- LOGMODE** Specifies the VTAM logmode table entry name used to establish the virtual session. This name must be found either in the logmode table associated with the virtual terminal APPL definition in SYS1.VTAMLST, in the default logmode table (if none is specified in the APPL definition), or in the logmode table built through the administrator functions. (See the *Basic Configuration Guide*.)
- LOGMODE can specify
- a literal string (for example, DSILGMOD)

- a variable to be resolved during session initiation by a gateway dialog (for example, &DEFLMODE)

If LOGMODE is not specified, the default logmode is used.

NOCAPPL Specifies that there is no controlling application for the DEDICATE pool.

The NOCAPPL parameter is valid only for a DEDICATE pool. If you specify NOCAPPL for some other type of pool (for example, PASS or PARALLEL), the parameter is ignored.

When a virtual terminal is selected from a DEDICATE pool without the NOCAPPL parameter, the first session partner is the controlling application for the virtual session. If the virtual terminal then receives a session request for the same application, the session request is held until the virtual terminal receives an UNBIND type X'01' (normal unbind, usually the result of a session partner's issuing a CLSDST). At that time the pending session request is activated, and the virtual terminal goes into session with the original session partner (that is, the controlling application). This method of operation is useful when the virtual terminal connects to an application that issues a CLSDST PASS to connect the terminal to a secondary application and also issues a SIMLOGON to create a pending session request between itself and the terminal. Such an application automatically reconnects to the terminal when the session with the secondary application ends, unless the secondary application passes the terminal to another secondary application.

The NOCAPPL parameter allows the virtual terminal to CLSDST PASS any number of times to any application, including the original session partner. Specify NOCAPPL when the original session partner does not issue a SIMLOGON to itself and may be the target of a CLSDST PASS from a secondary application.

NODE Specifies how nodes are selected for this pool. The default is '*', which assigns virtual terminals in last-in, first-out (LIFO) order.

NODE can specify the following :

- A variable to be resolved by a dialog (for example, &VTERM) during session initiation. This is useful if you want to select virtual terminals by user ID, by physical terminal ID, or by a value stored in the NAM database.
- Any valid string, string expression, or literal string (for example, KLST0001).

Note: For a string expression in a VSM command, use &SYSEDIT, not &SUBSTR.

If the NODE parameter resolves to a null string, the first available virtual terminal is allocated from the pool.

If the NODE parameter resolves to a string that is not null, but does not equate to a terminal within the pool, virtual terminal allocation fails with return code 104.

You can use the wildcard characters (*, /, and ?) with the NODE parameter. When you use the asterisk, you must enclose the expression in single quotes.

Note: If you use the variable &VTERM, it must resolve to the name of a virtual terminal (or null). For example, if your physical terminal is P2345678 and the virtual terminal you want to assign is S2345678, then S2345678 must be predefined in the VSM pool, as well as in SYS1.VTAMLST.

PARALLEL Specifies that a virtual terminal can have more than one concurrent session with a single VTAM application. The CT/Engine operator supports parallel sessions, but IMS/DC, TSO, and CICS™ do not. PARALLEL is appropriate for any application that supports PARSESS=YES in its APPL definition. TSO supports PASS.

When you use parallel sessions, define only one virtual terminal (see NODE above), unless LIMIT is specified. The maximum number of concurrent sessions for a pool with PARALLEL specified should equal the product of LIMIT and the number of virtual terminals defined.

A VSM DEFINE command that specifies PARALLEL cannot specify DEDICATE.

PASS Specifies that sessions established through this VSM pool are passed no more than once (CLSDST PASS) during the life of the session. TSO, NCCF, and NetView® normally pass a session only once. Therefore, VSM DEFINE commands for those three applications use the PASS parameter.

If a session is going to be passed more than once, or is going to pass and issue a SIMLOGON to reacquire the session, you must specify DEDICATE instead of PASS.

If you specify PASS and use parallel pools or parallel virtual terminals (virtual terminals that can support multiple sessions to the same application), each parallel pool should contain more than one virtual terminal. If you define fewer virtual terminals than the number of users trying to log on concurrently, the extra users are temporarily rejected. Estimate the number of users who might log on at the same time, and define that number of terminals. Normally, two or three virtual terminals are sufficient for a PASS PARALLEL pool. (See the *Basic Configuration Guide*.)

ACBs attached to a PASS pool can also reside in other pools. ACB sharing continues (subject to LIMIT, DEDICATE, and PARALLEL specifications), but the PASS option marks an ACB ineligible for use with any other PASS or DEDICATE applications until UNBIND HOLD is received and processed.

PASSWORD Specifies the password for the virtual terminal corresponding to the PRTCT operand of the APPL statement in SYS1.VTAMLST. If you use VTAM APPL password protection, give all virtual terminals in a virtual terminal pool the same password.

THROUGH Specifies a 1–4 character decimal digit suffix to identify an inclusive range of virtual terminals for the pool. For example, to specify virtual terminals numbered 7 through 12 with the prefix KLVIMS:

```
VSM DEF VIRTTERM KLVIMS07 TH(12)
```

The number of characters you specify must match. For example, if you want a range from 1 to 11 you must either use two VSM DEFINE commands:

```
VSM DEF VIRTTERM KLVIMS1 TH(9)
VSM DEF VIRTTERM KLVIMS10 TH(11)
```

or use a zero as a placeholder for the first nine:

```
VSM DEF VIRTTERM KLVIMS01 TH(11)
```

If you omit THROUGH, the pool consists of a single virtual terminal. You cannot use the THROUGH parameter to define non-numeric virtual terminal suffixes.

TIMEOUT Specifies the maximum inactivity period allowed for virtual sessions that use this pool. When CT/Engine detects no inbound data traffic for a period equal to TIMEOUT, the virtual session is terminated. If your site requires different TIMEOUT values for different groups of users, you can define the same virtual terminals a number of times under different pool names. A dialog selecting a pool based on user group or other unique criteria can then provide a unique TIMEOUT value.

Specify TIMEOUT as a decimal number indicating the length of the idle time limit in seconds, or as *hh:mm:ss*. If you omit this operand or specify it as zero, no timeout is enforced, and virtual sessions using virtual terminals from this pool continue until one of these events occurs:

- The user terminates the virtual session.
- The user logs off the application connected to the virtual terminal.
- The virtual terminal is deactivated.
- The application becomes inactive.
- The application deactivates the virtual session.
- CL/GATEWAY or CL/SUPERSESSION is deactivated.

VSM DELETE

Deletes a virtual terminal pool.

Type

CT/Engine operator command

Format

VSM DELETE poolname

poolname Specifies the pool to delete.

Usage Notes

Caution:

1. If you delete a virtual terminal pool that contains virtual terminals defined in more than one pool, the virtual terminals are deleted from every pool in which they are defined.
2. When you issue the VSM DELETE command, you disable all virtual terminals in the deleted pool, including those currently in use.
3. To close an individual virtual terminal, use the CLOSE command. If you CLOSE all the virtual terminals in a pool, the pool is deleted.
4. Do not delete the default pool \$DEFAULT. If \$DEFAULT is deleted or defined incorrectly, the results are unpredictable.

Example

Enter the following to delete virtual terminal pool 3270.

```
VSM DELETE VIRT3270
```

VSM DISPLAY

Displays detailed information about an application or logical unit.

Type

CT/Engine operator command

Format

VSM DISPLAY applid|termid
[ALL]

applid|termid Specifies the applid of either a VTAM application or a virtual terminal that is a logical unit partner in a virtual session.

ALL Displays detailed session information.

If an application is specified, displays detailed information about each active virtual session with that application, including the

- virtual terminal name
- pool identifier for each virtual terminal
- VTAM session CID sequence number for each session
- owner ID (associator) for each session (usually the user ID or physical terminal ID)

If a virtual terminal is specified, displays detailed information about each active virtual session with that virtual terminal, including the

- application name
- VTAM session CID sequence number for each session
- owner ID (associator) for each session (usually the user ID)

Without the ALL operand:

If an application is specified, displays the number of virtual terminals in session with the application, together with the total number of sessions between virtual terminals and the application. These two numbers are identical unless the application has parallel session support.

If a virtual terminal is specified, displays the number of unique applications with which the virtual terminal is in session, together with the total number of active sessions the virtual terminal has established with those applications. These two numbers are identical unless the virtual terminal has parallel session support.

Example

You enter

```
VSM DISPLAY KLST0019
```

CT/Engine responds

```
SLU KLST0019
12 POOL ASSOCIATION(S)
1 ACTIVE SESSION(S)
*** END OF DISPLAY KLST0019 ***
```

You enter

```
VSM DISPLAY KLST0019 ALL
```

CT/Engine responds

```
SLU KLST0019
  LU TSOA0009  POOL TSOP00L  CID 0600018C  ASSOC USERXX
12 POOL ASSOCIATION(S)
1 ACTIVE SESSION(S)
*** END OF DISPLAY KLST0019 ***
```


VSM LIST

Displays information about a virtual terminal pool.

Type

CT/Engine operator command

Format

```
VSM LIST [poolname]
          [ALL]
          [DEFER]
```

poolname Specifies the virtual terminal pool name. If this operand is omitted, VSM LIST displays all currently defined pool names.

ALL Lists all virtual terminals (for the specified pool or, if no pool identifier is provided, for all pools) whose VTAM ACBs are opened, together with the number of active virtual sessions for each. CT/Engine also displays the information provided from the VSM DISPLAY *virtual terminal applid* ALL command.

Note: When you specify ALL, you can omit the pool name by specifying a null string (' ').

DEFER Lists the virtual terminal whose VTAM ACBs are not opened.

Usage Notes

The VSM LIST command must be in upper case.

Example

You enter

```
VSM LIST TSOP00L ALL
```

CT/Engine responds

```
VIRTUAL SESSION POOL TSOPPOOL,PARALLEL,PASS
LOGMODE: &DEFLMODE
APPLICATION KLST0019 HAS 0 ACTIVE SESSION(S)
LU TSOA0018 CID 020001AD ASSOC USERXX
APPLICATION KLST0018 HAS 1 ACTIVE SESSION(S)
TSOPPOOL STATISTICS: ACTIVE(1) AVAIL(8) OPEN(2) DEFER(6) LIMIT(0)
*** 1 SESSION(S) IN 1 POOL(S) ***
```

You enter

```
VSM LIST TSOPPOOL ALL DEFER
```

CT/Engine responds

```
VIRTUAL SESSION POOL TSOPPOOL,PARALLEL,PASS
LOGMODE: &DEFLMODE
APPLICATION KLST0019 HAS 0 ACTIVE SESSION(S)
LU TSOA0018 CID 020001AD ASSOC USERXX
APPLICATION KLST0018 HAS 1 ACTIVE SESSION(S)
DEFERRED APPLICATION KLST0017
DEFERRED APPLICATION KLST0016
DEFERRED APPLICATION KLST0015
DEFERRED APPLICATION KLST0014
DEFERRED APPLICATION KLST0013
DEFERRED APPLICATION KLST0012
TSOPPOOL STATISTICS: ACTIVE(1) AVAIL(8) OPEN(2) DEFER(6) LIMIT(0)
*** 1 SESSION(S) IN 1 POOL(S) ***
```

VSSTRACE

Traces all physical and virtual session activity related to a CL/SUPERSESSION user.

Type

CL/SUPERSESSION operator command

Format

```
VSSTRACE [userid]
          [ON|OFF]
```

userid The user ID (1–8 characters). If entry validation is not being used, the user ID can be specified as the physical terminal ID.

ON Turns trace on.

OFF Turns trace off.

Usage Notes

1. This command is used for gathering information for diagnostic purposes, usually at the direction of Candle Support Services. All session activity (both physical and virtual) related to the user ID is traced. Refer to the *Problem Determination Guide* for more information on obtaining traces.
2. This command is used in conjunction with the GTF command, which should be issued first. See the GTF command for details.
3. The user need not be logged on at the time this command is issued. If the user is not logged on, the command is treated as a pending trace request. Tracing begins when the user next logs on.
4. If no ON or OFF operand is specified, the trace status of the particular user is displayed. If *userid* is not specified, trace statuses of all user IDs being traced are displayed.
5. Pending trace requests are discarded when the system is brought down.
6. The recorded information can be formatted and printed by the supplied KLSUSR20 module in TLSSAMP.

Example

To initiate the VSSTRACE facility, enter the following:

```
F kls VSSTRACE userid ON
```

To turn off tracing, issue the following:

```
F kls VSSTRACE userid OFF  
F kls,GTF OFF  
P GTF
```

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