VP TERMINAL EMULATION OF DEC VT100

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VP Series Training Guide Version 1.0 This publication could contain technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of this publication.

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Introduction

In today's office, professionals frequently use information stored in databases on mainframe computers. Such information may range from payroll data to the totals on last month's sales orders. Since these databases may be rather large, the information cannot be stored on your workstation. Instead, the information is stored in a mainframe computer and accessed through terminals that communicate directly with that computer.

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You can access data stored on a mainframe computer without leaving your workstation. This process is called *terminal emulation*. Your workstation can emulate International Business Machines (IBM) 3270, Digital Equipment Corporation (DEC) VT100, and Teletype Model 35 terminals.

You may want to use your workstation's terminal emulation capabilities if:

- You have easier access to a workstation than to a VT100 terminal
- You want to have more than one session on the same host computer at the same time
- You want to have several sessions with several computers at one time
- You want to transfer information from the mainframe to your workstation, or vice versa

This study guide shows how your workstation can be used to imitate the VT100 and VT52 terminals. It is designed to provide you with the general concepts and practice necessary to exchange information in your workstation documents with information on the mainframe computer.

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When you complete this self study guide, you should be able to:

- Retrieve a TTY icon from the directory
- Set properties for the VT100 icon
- Start an emulation session
- Enter data in the VT100 emulation window
- Use the VT100 set-up property sheet
- Use the VT100 keyboards and the PCR keyboard
- Use the VT100 auxiliary menu
- Transfer information to and from a host computer
- Stop an emulation session

Getting started

In order to use VT100 emulation, the External Communication Service must be running on a Xerox network server, and the VT100 emulation software must be running and product factored for your workstation. These are special options that are not purchased with every workstation and network. Check with your System Administrator to verify that these options have been purchased.

Figure 1-1 shows the network configuration necessary to run VT100 emulation.

You need a logon account to communicate with the mainframe computer. This logon account should consist of your name and a password. If you do not have a logon account, ask your System Administrator about getting one.

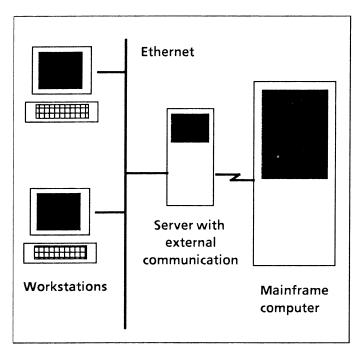


Figure 1-1 Network configuration

You also need a terminal emulator icon. Ask your System Administrator for the name of the terminal emulator icon for the mainframe that you wish to use. Additionally, you need to know the organization and domain of the icon, as well as port, modem, or terminal settings for the icon.

If you wish to transfer information from a host computer to a workstation document, the VP Document Editor software must be running on your workstation.

NOTE: This study guide does not teach you how to use the software available on the host computer. It focuses on how to make your workstation imitate a VT100 terminal. For information on using host software, check with your System Administrator.

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This self study guide is divided into chapters. Each chapter introduces a number of related concepts. When these concepts involve on-line practice, practice exercises are included. At the end of your training, you review all the skills taught with a final progress check.

When a term that is new or unique is introduced, it is italicized and placed in boldface type. You can find a more detailed explanation of each term in the "Glossary" tab of the VP Series reference library.

Beginning with this introduction, continue through each chapter sequentially, at your own pace, until you have mastered the skills taught. When it becomes necessary to put your training aside, stop the emulation session (refer to Chapter 8). Log on again when you are ready to resume your training.

Your training should take approximately two hours.

While you are completing this self study guide, it is advisable that you have the tab titled "VP TTY Emulation" in the VP Series reference library available for easy referral.

2. Retrieving a TTY icon

Overview

Before you can communicate with a mainframe computer, you need to place a TTY emulator icon on your desktop.

Each TTY emulator icon represents an access path from your network to one or more host computers. If an icon is associated with a phone, any host can be dialed up. However, if the icon is associated with a specific host computer, only that computer can be accessed.

When you complete this chapter, you should have a TTY emulator icon on your desktop that you can use in subsequent chapters of this self study guide.

Retrieving the TTY icon

In the following exercise, you retrieve the TTY icon from the directory.

- **1. Open** the directory icon.
- 2. Open the network divider.

You need the organization, domain, and name of a TTY icon. You should get this information from your System Administrator, if you do not already have it.

3. Open the organization divider.

4. Open the domain divider.

A list of dividers appears (refer to Figure 2-1).

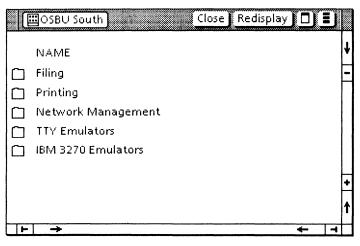


Figure 2-1 TTY emulator divider

If you do not see a TTY emulator divider, the TTY emulator software may not be installed and running. Refer to the sub-tab titled "Application Loader" in the VP Series reference library for more information. 5. Open the TTY emulator divider.

A list of TTY emulator icons appears (refer to Figure 2-2 for an example).

	TTY Emulators	Close Close All	
	NAME	DESCRIPTION	ŧ
	1200B-7-1-E		-
	1200B-8-1-N		
	300B-7-1-E		
	300B-8-1-N		
	Churchill-Port		
	Windy-Port	_	
	WindyD-Port		+
	X13		t
F	→	← [-]	

Figure 2-2 TTY emulator icons

- 6. Select the TTY emulator icon that you wish to use.
- 7. Copy the icon to your desktop.

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Summary

In this chapter, you studied how to retrieve a TTY emulator icon from the directory.

Do not delete the icon from your desktop. It will be used in the following chapters.

3. Setting TTY properties

Overview

The TTY property sheet is used to display and modify the properties of the TTY emulator icon. This chapter describes the properties of the TTY emulator icon, including port, modem, and terminal items. Your System Administrator can tell you how to set these properties.

When you complete this chapter, you should be able to access the TTY property sheet.

Accessing the TTY property sheet

In the following exercise, you open the TTY property sheet and set the appropriate properties.

1. Select the TTY emulator icon.

2. Press < PROP'S>.

The property sheet appears (refer to Figure 3-1).

TTY Properties	Done Cancel 🗋 🛢
Icon Name	Cyrus-VAX-Port
When Opening	DISPLAY OPTIONS
Port Items	
Port Name	Cyrus-VAX-Port
Phone Number	
Stop Bits	2
Character Length	8 bits
Parity	None
Modem Items	
Duplexity	Full
Line Speed	9600 bits per second
Terminal Items	
Туре	KSR35 VT100 PCR
Language	US ENGLISH UK ENGLISH 860 FRENCH 860 GERMAN
Screen Width	■ 80 columns
Screen Height	24 rows
	UPPERCASE ALWAYS AUTOWRAP
DEL / BS Key	Shift for DELETE BACKSPACE
Local Echo	ON OFF
Line Termination Sequence	ON OFF
Formatting	
XON/XOFF Method	NONE OVERFLOW LINE-BY-LINE
► →	← +

Figure 3-1 TTY property sheet

- **3. Study** the properties. They are discussed following step 7 of this procedure.
- 4. Select the port items desired.

NOTE: Port items can be changed only if the TTY emulator icon is using a local port on the External Communication Service. If a Communication Interface Unit (CIU) port is being used, only the phone number can be changed.

5. Select the modem items desired.

NOTE: Modem items can be changed only if the TTY emulator icon is using a local port on the External Communication Service. If a CIU port is being used, no changes can be made.

- 6. Select the terminal items desired.
- 7. Select [DONE] on the property sheet when you have finished.

The following is a list of the available properties. Consult your System Administrator for details on setting these properties for your particular icon. For additional information on these properties, refer to the tab titled "VP Terminal Emulation of DEC VT100" in the VP Series reference library.

Icon Name

Used to change the name of the emulator icon on your desktop. This allows each TTY icon to be uniquely named.

[DISPLAY OPTIONS]

Causes the option sheet to be displayed when the TTY icon is opened, allowing you to change options before starting the emulation session. If the TTY icon is opened with [DISPLAY OPTIONS] not selected, the TTY option sheet does not appear. In this case, the properties set on the TTY property sheet are used in the emulation session.

Port items

Port Name

Lists the port name as registered in the Clearinghouse Service. The port name cannot be changed.

Phone Number

Specifies the full phone number to be dialed for a connection to a host computer. This option is used only if the TTY icon is associated with a phone.

Some examples of phone numbers are as follows:

320-2433 213-320-2433 9-213-320-2433

Stop Bits

Specifies how each character is separated from the next character on the telephone line. This option cannot be changed from the workstation for CIU ports. See your System Administrator for the correct setting for your host computer.

Character Length

Specifies the number of bits that compose a character. This option may be set to 5, 6, 7, or 8 if the host connection is by a local port. This option cannot be changed from the workstation for CIU ports.

Parity

Designates the method used to check that data is not garbled in transmission. This option may be set to [EVEN], [ODD], or [NONE] if the host connection is by a local port. This option cannot be changed from the workstation for CIU ports.

Modem items

Duplexity

Specifies whether communication can occur in both directions simultaneously (full duplex) or in only one direction at a time (half duplex). The duplexity - is registered in the Clearinghouse Service and cannot be changed.

Line Speed

Specifies the rate at which data passes to and from the host computer - usually in bits sent per second. This option cannot be changed from the workstation for CIU ports. The communication hardware used in the TTY connection determines what values are legal, and whether or not they are electronically changeable. This option can be set to any baud rate if the host connection is by a local port.

Terminal items

Туре

Specifies which terminal this icon will actually emulate. You should select [VT100.] The other choices are supported only if you have purchased the appropriate emulation packages. (The VT52 mode runs as a component of the [VT100] emulator.)

Language

Specifies which of the TTY International Standard Organization (ISO) 646 standard character translation tables should be used.

Screen Width

Specifies the number of characters that will be placed on one line in the window. You may select any of the available choices. If [OTHER] is selected, then the screen may be set to any width from 10 to 132 characters.

Screen Height

Specifies the number of lines that will appear in the window. For VT100 emulation, 24 lines are allowed. This item cannot be changed.

Uppercase Always

Causes all lowercase alphabetical characters to be translated to uppercase before they are sent to the host.

Autowrap

Specifies that when a line in the window becomes full, the text will wrap around to the next line if this item is selected. If this option is not selected, the "extra" characters will overwrite the last position on the line.

DEL/BS Key

Specifies the placement of the delete and backspace functions on the DEL/BS key (the upper righthand key). The selection determines which function is performed in this key's shifted position.

Local Echo

Specifies whether the terminal should echo (display) the characters typed in, or if the host will send these characters back to the terminal to be displayed.

Line Termination Sequence (LTS)

Selecting [ON] causes an additional option to appear. This option specifies what character, or characters, will replace a carriage return (<CR>) just before it is sent to the host.

Formatting and Line Length

Specifies whether document formatting is to be simulated when text is moved or copied into the TTY window. Selecting [ON] causes the line length option to appear on the option sheet. This option specifies the number of characters in a line.

Tab Simulation

Specifies whether or not tabs are to be automatically converted to spaces when text is moved or copied into the TTY window. This option applies only if Formatting is on. Otherwise, this option is ignored.

XON/XOFF Method

Specifies the type of flow control the terminal should use. This option can be set to [NONE], [OVERFLOW], or [LINE-BY-LINE] if the host connection is by a local port. This option cannot be changed from the workstation for CIU ports.

Summary

In this chapter, you studied how to access the TTY property sheet and set the appropriate properties.

If you need more practice, complete the exercise again. Do not delete the TTY emulator icon from your desktop.

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Overview

Now that you have retrieved a TTY emulator and viewed its property sheet, you are ready to start an emulation session.

When you complete this chapter, you should be able to access the TTY option sheet and open the emulation window.

Accessing the TTY option sheet

In the following exercise, you access the TTY option sheet.

1. Select the TTY emulator icon.

2. Press < OPEN>.

The TTY option sheet (refer to Figure 4-1) has the same properties as the TTY property sheet, except for the icon name and [DISPLAY OPTIONS].

TTY Options	Start Cancel
Port Items	+
Port Name	Cyrus-VAX-Port
Phone Number	
Stop Bits	2
Character Length	8 bits
Parity	None
Modem Items	
Duplexity	Full
Line Speed	9600 bits per second
Terminal Items	
Туре	KSR35 VT100 PCR
Language	US ENGLISH UK ENGLISH 860 FRENCH 860 GERMAN
Screen Width	80 columns
Screen Height	24 rows
	UPPERCASE ALWAYS AUTOWRAP
DEL/BS Key	Shift for DELETE BACKSPACE
Local Echo	ON OFF
Line Termination Sequence	ON OFF
Formatting	ON OFF
XON/XOFF Method	NONE OVERFLOW LINE-BY-LINE
⊢ →	► →

Figure 4-1 TTY option sheet

Settings defined on the option sheet are used only for the current emulation session. Closing the emulation window resets the properties to the settings previously defined on the TTY property sheet.

- 3. Change any of the properties as necessary.
- 4. Set the terminal type to [VT100].
- 5. Select [START] on the option sheet.

After [START] is selected, an attempt is made to connect with the host computer. If a connection is made, the emulation window opens. If any problems occur with the External Communication Service, port, modem, or host computer, an error message appears and the connection to the host computer is not made. If you fail to make a connection, report the problem to your System Administrator and try again later.

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The emulation window

The emulation window (refer to Figure 4-2) is divided into two areas, the status area and the text area.

Cyrus-VA	x-Port Local	KBD Locked	Record	Close	Make Docu	ment Mal	ke Screen 🔳	1 ∎] + -
ц О	L2 ()	L3	L4 ()	VT52 Node	Cursor App1	KeyPad App1	Graphics Node	
Welcome to Username:		11/750 in	SDD CP-10					•
							+	1

Figure 4-2 VT100 emulation window

Status area

LED indicator lights appear in the status area as shown in Figure 4-3. Solid circles are used to indicate which lights are on. These lights are for display only and cannot be selected with the mouse.

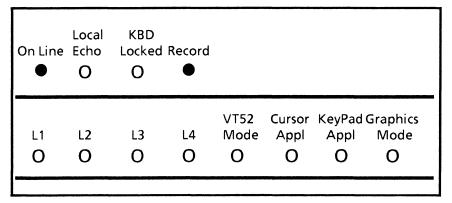


Figure 4-3 Status area

Text area

The text area is used to send information to, and receive responses from, the remote host. Text is entered directly by typing at the keyboard, or by copying it or moving it from a workstation document.

The text area contains 24 lines of information. The number of characters that appear on a line is determined by the Screen Width option set on the TTY option sheet.

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Each new line of text appears at the bottom line of the text area. When the window is full, the contents of the window are automatically scrolled up a line at a time. Although the text area can contain up to 24 lines of information, not all lines may be visible if the window is smaller than its standard size of 24 lines. In this case, the scroll bars may be used to bring any of the last 24 lines into view. Those lines that appeared before the last 24 lines cannot be scrolled back into view. However, any text scrolled out of the window can be recaptured in a workstation document by selecting [MAKE DOCUMENT]. (This command is covered in Chapter 8.)

Summary

In this chapter, you studied how to access the TTY option sheet, which opens the emulation window.

If you need more practice, complete the exercise again. Keep the emulation window open. You will use it in the next chapter.

VP SERIES TRAINING GUIDE

5. Accessing the VT100 set-up property sheet

Overview

When TTY emulation is used to emulate a VT100 terminal, an additional feature is provided that allows you to change various terminal properties any time during an actual session. On a VT100 terminal, this feature is known as set-up mode and is normally divided into two screens, set-up A and set-up B. In TTY emulation, this feature combines both set-up A and set-up B into one property sheet: the VT100 set-up property sheet.

After completing this chapter, you should be able to use the VT100 set-up property sheet.

Accessing the VT100 set-up property sheet

To change VT100 set-up properties during an emulation session, select [SHOW TERMINAL PROPS] in the emulation window auxiliary menu. Make the desired changes on the resulting property sheet, and then select [DONE]. Changes made on the VT100 setup property sheet are retained if [SAVE DATA] is selected. These changes remain in effect either until they are changed or the icon is deleted. If [SAVE DATA] is not selected, then any changes made only last for the duration of the emulation session. In the following exercise, you access the VT100 set-up property sheet.

1. Select [SHOW TERMINAL PROPS] in the window auxiliary menu. The VT100 set-up property sheet appears (refer to Figure 5-1).

VT100 Set Up Propert	ies Done Cancel 🗖 🛃
NVR Option	SAVE DATA
Scroll	Jump
Cursor	UNDERLINE BLOCK
Margin Bell	ON OFF
Ansi / VT52	ANSI VT52
#/£	# £
Auto Wrap	ON OFF
LTS (New Line)	ON OFF
Parity	None
T & R Speed	9600 bits per second
Answer Back Message	
Screen Tabs	SET CLEAR
Column	9
Column	17
Column	25
Column	33
Column	41
Column	49
⊢ →	← -



- 2. Study the properties. They are discussed below.
- **3. Select** [DONE] on the property sheet when you are done studying the properties.

Following is a list of the available options. For additional information on these properties, refer to the tab titled "VP Terminal Emulation of DEC VT100" in the VP Series reference library.

NVR (nonvolatile read-only memory)

Selecting [SAVE DATA] sets the properties in the VT100 property sheet so they can be used past the current session. If [SAVE DATA] is not selected, then any properties set are only used for this session.

Scroll

Jump is the only scrolling provided. Upward scrolling places blank lines at the bottom of the window. Downward scrolling places blank lines at the top of the window.

Cursor

Provides a choice of two cursor shapes used to indicate the cursor position: the underline (__) or the open block (\Box).

Margin Bell

Turns the margin bell on or off. If the margin bell is turned on, the bell provides a warning sound when the cursor is eight characters from the end of the line.

Ansi/VT52

Switches the emulator to a VT100 or a VT52 terminal.

#/£

Determines which pound sign appears when <SHIFT> and <3> are pressed. There are two choices available: # and £.

Auto Wrap

Specifies that when a line in the window becomes full, the text will wrap around to the next line if this item is selected. If this option is not selected, the "extra" characters will overwrite the next position on the line.

LTS (Line Termination Sequence) Active

Provides an alternative means of changing the setting of this feature during a session. This option is the same as the Line Termination Sequence option on the TTY icon property sheet.

Parity

Provides the parity setting, based on the properties set in the TTY property sheet. This property cannot be changed.

T & R (Transmit and Receive) Speed

Provides the line speed setting, based on the property set in the TTY property sheet. This property cannot be changed.

Answer Back Message

Allows a message of up to 20 characters, including spaces and control characters, to be sent to the host when the host sends an ENQ.

Screen Tabs

Used to set the locations of tab stops for columns on a line. These tabs may be changed individually, or cleared and then reset.

Summary

In this chapter, you studied how to access the VT100 set-up property sheet. If you need more practice, complete the exercise again.

Overview

Whenever the selection is in the VT100 emulation window, your workstation keyboard is redefined as a VT100 keyboard. The function keys across the top of your keyboard are also redefined. This gives you full access to all ASCII control codes, plus the ESCAPE and BREAK keys. If you are interfacing with a PC-VT100 compatible computer, then your keyboard can also be redefined as a PCR keyboard.

When you complete this chapter, you should be able to use the redefined function keys as well as the VT100 and PCR keyboards.

Accessing the function keys

6.

In the following exercise, you access the function keys.

- 1. Point the mouse inside of the text area of the emulation window.
- 2. Click the left mouse button.

When you select inside the emulation window, your keyboard is redefined to a VT100 keyboard, and the function keys are redefined.

3. Log on to the host computer, using your assigned name and password.

The VT100 function key window appears (refer to Figure 6-1). <CHG KBD> changes the keyboard, <SHOW> displays the keyboard window, <ESCAPE> provides the escape character, and <BREAK> issues the break signal. The four keys on the right control the cursor.



Figure 6-1 VT100 function keys

Accessing the VT100 keyboards

There are two keyboards available in VT100 emulation.

In the following exercise, you view the two keyboards.

- **1.** Hold down < KEYBOARD >.
- Press the function key corresponding to <SHOW>.

The keyboard window appears, displaying the main VT100 keyboard (refer to Figure 6-2).

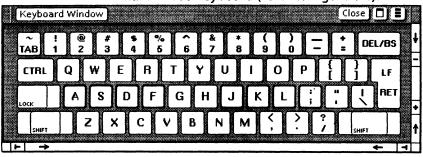


Figure 6-2 Main VT100 keyboard

- **3. Release** < KEYBOARD >.
- 4. Press the function key corresponding to <CHG KBD>.

The keyboard window now displays the alternate VT100 keyboard (refer to Figure 6-3).

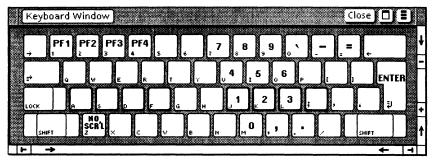


Figure 6-3 Alternate VT100 keyboard

5. Press the function key corresponding to <CHG KBD> again.

You are back to the main VT100 keyboard.

Using the alternate keyboard

When you are typing from either keyboard, you can easily access the other keyboard for a few characters.

In the following exercise, you access the alternate keyboard.

1. Hold down the function key corresponding to <CHG KBD>.

The keyboard window is now displaying the alternate keyboard.

- 2. Press <7>.
- 3. Release the function key corresponding to <CHG KBD>.

As you can see from the keyboard window, the keyboard interpretation is back to the main VT100 keyboard.

If you press one or more other keys while holding down the function key corresponding to <CHG KBD>, the keyboard interpretation is only changed temporarily.

4. Select [CLOSE] in the keyboard window.

Using the PCR keyboard

When you are interfacing with a PC-VT100 compatible computer, you can access a PCR keyboard if you select [PCR] as the terminal type in the TTY option sheet.

In the following exercise, you use the PCR keyboard. (Perform this exercise only if you are interfacing with a PC-VT100 compatible computer.)

1. Select inside the emulation window.

The PCR function key window appears (refer to Figure 6-4). Pressing the function key corresponding to <ALT> generates a multiple byte escape sequence of: 33, 134, 101 (octal).

Figure 6-4 PCR function keys

- 2. Hold down <KEYBOARD>.
- 3. Press the function key corresponding to <SHOW>.

The keyboard window appears, displaying the main VT100 keyboard.

4. Press the function key corresponding to <CHG KBD>.

The keyboard window now displays the PCalternate keyboard (refer to Figure 6-5).

- 5. Release <KEYBOARD>.
- 6. Close the keyboard window.

Refer to the tab titled "VP Terminal Emulation of DEC VT100" in the VP Series reference library for a detailed description on the PCR auxiliary keyboard and how to use it.

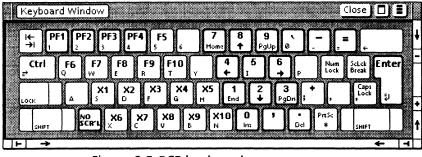


Figure 6-5 PCR keyboard

Using the cursor

The cursor in the emulation window appears as an underscore or as a block. Text entered into the window appears at the cursor position. The current selection must be in the emulator window for text to be entered. When the current selection is in the window, the cursor shade is dark. Otherwise, the cursor is gray.

When the terminal emulator is in full-screen edit mode (for example, when you are running a text editor on the host computer), the cursor can be moved to any position in the text area. The cursor can be moved by using the mouse to select inside the window, or by using the cursor control keys. If the terminal emulator is not in full-screen edit mode, the cursor appears at the bottom lefthand corner of the window.

NOTE: [ENABLE MOUSE CURSOR] must be selected in the VT100 auxiliary menu before the mouse can be used to position the cursor.

Summary

In this chapter, you studied how to:

- Access the redefined function keys for VT100 emulation
- Access the VT100 keyboards
- Access the PCR keyboard

If you need more practice, complete the exercises again. Keep the emulation window open. It will be used in the next chapter.

Overview

The VT100 emulation window auxiliary menu contains a number of options.

When you complete this chapter, you should be able to access the VT100 auxiliary menu.

Using the VT100 auxiliary menu

In the following exercise, you access the emulation window auxiliary menu.

- 1. Place the pointer over the emulation window's auxiliary menu symbol.
- 2. Hold down the left mouse button.
- 3. Study the menu items. They are discussed below.
- 4. Release the mouse button.

The following menu items are available:

[ENABLE/DISABLE LOCAL ECHO]

Controls whether or not the emulator echoes each character sent to the host. Its setting is reflected in the Local Echo indicator in the status area.

[ENABLE/DISABLE ONLINE]

Controls whether the emulator runs offline locally or runs connected to a remote host. Its setting is reflected in the OnLine indicator in the status area.

[ENABLE/ DISABLE MOUSE CURSOR]

Selecting [ENABLE MOUSE CURSOR] allows you to move the cursor by selecting anywhere in the text area. A series of VT100 cursor-positioning escape sequences, which are sent to the host, reposition the cursor to the new selection point. Selecting [DISABLE MOUSE CURSOR] allows you to select anywhere in the window without changing the cursor position.

[RESET MODES]

Turns off the following VT100 modes and their corresponding indicator lights: VT52 Mode, Cursor Appl, KeyPad Appl, and Graphics Mode.

[RECORD/DON'T RECORD DATA]

Allows you to control when incoming data is recorded to the backing file. Since it can be turned on or off at any time, it provides you with the option of not recording data that you do not wish to save. Performance is increased slightly when [DON'T RECORD DATA] is selected, since the data is not recorded in the backing file. When [RECORD DATA] is selected, data is placed in the backing file as it is scrolled out of the TTY window. The data in this file can be transferred to a workstation document as described in the next chapter.

[SHOW TERMINAL PROPS]

Displays the VT100 set-up property sheet.

Summary

In this chapter, you studied how to access the VT100 auxiliary menu.

If you need more practice, complete the exercise again. Keep the emulation window open. It will be used in the next chapter.

Overview

Your workstation provides an easy means of transferring information between a document and a host computer. For example, you can transfer a list of commands from a document to the host computer for execution. Or, you can transfer information from a document to be stored in a database on the host computer. Commands and information can also be transferred from the host computer to any document on your workstation.

When you complete this chapter, you should be able to transfer information to and from a host computer.

Transferring data to a host computer

Existing text from a document can be copied or moved into a TTY emulation window. To transfer text into the window, select the text in the document, press < COPY> or < MOVE>, and then select inside the TTY emulation window. The copied or moved text appears at the terminal's current cursor position or at the selected point, depending on whether the mouse cursor in the VT100 auxiliary menu has been disabled or enabled.

Text is copied or moved as follows:

- Select the text to be copied or moved.
- Press <COPY > or <MOVE >.
- Select inside the emulation window.

The text appears at the new position selected by the mouse if the mouse cursor item is enabled. Otherwise, the text appears at the last terminal cursor position.

The characters appear exactly as if they had been typed into the TTY emulation window. Most text properties (such as font or size) are ignored. There are certain formatting properties, however, that are affected by the Formatting option on the TTY property sheet.

Characters that are unknown (foreign) to the host are converted to question marks.

If you are copying or moving text into the emulation window and wish to cancel the transmission, press <STOP>.

Transferring data to a document

You cannot copy or move information directly out of a TTY emulation window into a document using <COPY> or <MOVE>. Instead, you must select [MAKE DOCUMENT] or [MAKE SCREEN] in the emulation window.

When you select [MAKE DOCUMENT], all of the information that has appeared on the screen since [MAKE DOCUMENT] was last selected is captured and placed in a document. This allows you to get a record of your entire session.

NOTE: [RECORD DATA] must be initially selected from the system auxiliary menu for the data to be recorded.

When you select [MAKE SCREEN], the text in the emulation window is captured and placed in a document.

Once [MAKE DOCUMENT] or [MAKE SCREEN] has been selected, a document icon (with the emulator icon name and a time stamp) containing the captured information appears on your desktop. That document icon is the same as any other workstation document. It can be renamed, opened, reformatted, and copied or moved into a folder. The document is named with the TTY icon's name, followed by a time stamp. For example, a document created from a TTY icon labeled LAX XC might be named as follows:

LAX XC of 4-Feb-86 11:46:52PST

NOTE: Selecting [MAKE DOCUMENT] automatically paginates the document.

In the following exercises, you transfer information to a document. If you are familiar with how to use the programs on your host computer, complete this exercise. Otherwise, proceed to the next chapter.

- 1. Select [RECORD DATA] in the window auxiliary menu.
- 2. Prepare a document containing text that can be used by the program on your host computer. For example, you might write the commands that initiate a session.
- **3.** Select the text you want to copy into the emulation window from the document.
- 4. Press <COPY>. Copying information into the window ensures that the correct information is entered and eliminates rekeying existing information.
- 5. Select a destination inside the emulation window. The text then appears inside the emulation window. If your copied text includes commands for the host computer to execute, notice that the commands are executed in order.
- 6. Select [MAKE DOCUMENT] in the emulation window menu. A document icon should appear on your desktop in a short time.

NOTE: The icon may appear behind the emulation window, so you may have to move the window to see the icon.

- 7. Open the icon. The icon contains all of the textual information from the current session, regardless of whether or not it currently appears on the screen.
- 8. Select [MAKE SCREEN] in the emulation window menu. An icon should appear on your desktop in a short time.
- **9. Open** the icon. The icon contains only the text that appeared in the emulation window.
- **10.** Delete all practice documents (the document you created and the ones resulting from [MAKE DOCUMENT] and [MAKE SCREEN]).

NOTE: It is not possible to copy or move information from one place in the emulation window to another place in it, just as it is not possible to copy or move information on the actual VT100 terminal.

Summary

In this chapter, you studied how to transfer information to and from a host computer.

If you need more practice, complete the exercise again. Keep the emulation window open. It will be used in the next chapter.

Stopping an Emulation Session

Overview

To stop an emulation session, you log off from the host computer and then close the emulation window. Merely closing the emulation window does not automatically log you off from the host computer. This is very important because some host computers will continue to charge you for logon time if you fail to log off.

When you complete this chapter, you should be able to stop an emulation session.

Stopping the emulation session

In the following exercise, you stop the emulation session.

- 1. Log off from the host computer.
- 2. Select [CLOSE] in the emulation window.

Summary

In this chapter, you studied how to stop the emulation session.

If you need more practice, complete the exercise again. Do not delete the TTY emulator icon from your desktop. It will be used in the final progress check.

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10. Progress check

In this self study guide, you used your workstation to emulate a VT100 terminal. Now you are going to test your knowledge by completing each of the following tasks. Refer to the following pages for detailed information on how to perform this exercise. When you are finished, close and delete all practice documents.

- 1. Open a connection with a host computer through a VT100 emulation window.
- 2. Display the VT100 keyboard through the keyboard window.
- 3. Run one of the programs available on your host computer through the emulation window.
- 4. Move all of the information in the emulation window into a document.
- 5. End the emulation session.

Answers to progress check

The numbers in parentheses indicate the sections in which you will find details on each procedure.

1. To open a connection: (4)

Select the TTY icon.

Press < OPEN >.

Select [START] in the emulation window option sheet.

Log on to the host computer.

2. To display the VT100 keyboard: (6)

Select inside the emulation window.

Press the function key corresponding to <SHOW>.

3. To run a program on the host computer: (8)

The steps here depend on the particular program you are running.

4. To move information from a window to a document: (8)

Select [MAKE DOCUMENT] in the emulation window.

5. To end the emulation session: (9)

Log off the host computer.

Select [CLOSE] in the emulation window.