

TELNETW HELP INDEX

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COMMANDS

Click *Execute - Command Line* to display the CMD> prompt.

The standard syntax for emulator commands is:

CMD>COMMAND /OPTIONS argument(s)

Commands are entered at the CMD> prompt and are followed by the command options and arguments. All options begin with a slash (/). Multiple command arguments are separated by spaces. If the argument is a string of characters, then the options must immediately follow the command.

A command can be abbreviated to the minimum number of characters required to make it nonambiguous.

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<u>COMMAND</u>	FUNCTION
<u>ANSWER</u>	Answer a modem
<u>ASCRECEIVE</u>	Display the ASCII receive screen
<u>ASCSEND</u>	Display the ASCII send screen
<u>BREAK</u>	Send a break
<u>CLOSE</u>	Close a file
<u>CLS</u>	Clear screen (short form)
<u>CONTINUE</u>	Resume execution of next command
<u>DEFINE KEY</u>	Define a key
<u>DEFINE STATE</u>	Define a state
<u>DELAY</u>	Delay specified time
<u>DELETE SYMBOL</u>	Delete symbol(s)
<u>DIAL</u>	Dial a phone number
<u>DISPLAY</u>	Output data (VT format)
<u>DOS</u>	Execute DOS command
<u>DROPDTR</u>	Drop Data Terminal Ready (DTR)
<u>EMULATE</u>	Enter Emulation mode from command line
<u>ENDINTERACTIVE</u>	End interactive command mode
<u>ERASE SCREEN</u>	Erase the screen
<u>EXIT</u>	Exit to Windows
<u>FLUSH</u>	Flush receive buffer
<u>GOSUB</u>	Execute a subroutine within a command file
<u>GOTO</u>	Go to a command file label

<u>HANGUP</u>	Hang up the modem
<u>HELP</u>	Display Help
<u>IF</u>	Test condition
<u>INQUIRE</u>	Prompt for input
<u>INTERACTIVE</u>	Enter interactive command mode
<u>KERMIT</u>	Enter Kermit mode
<u>LOAD</u>	Load setup file
<u>LOG</u>	Create a log file
<u>MARGIN</u>	Display the split screen scrolling prompt
<u>MODEM</u>	Display the Modem Dialer
<u>ON ABORT</u>	Set condition for ON ABORT
<u>ON DEVICE_ERROR</u>	Set condition for ON DEVICE_ERROR
<u>ON DISCONNECT</u>	Set condition for ON DISCONNECT
<u>ON Error_Severity</u>	Set condition for ON error levels
<u>OPEN</u>	Open a file
<u>PRINT EJECT</u>	Eject printer page
<u>PRINT ON/OFF</u>	Continuous print on/off
<u>PRINT SCREEN</u>	Print the text screen
<u>PRINT/CONTROLLER</u>	Pass data directly to the printer
<u>QUIT</u>	Quit to Windows
<u>READ</u>	Read a string from the host or file
<u>REPLAY</u>	Replay an emulator Log file
<u>RETURN</u>	Return from a GOSUB command
<u>SAVE</u>	Save current setup information to disk
<u>SCAN</u>	Display the key names
<u>SCROLLBACK</u>	Enter Scrollback mode
<u>SEND</u>	Send ASCII text file or message to host
<u>SEND/ANSWERBACK</u>	Send Answerback message to host
<u>SEND/LINEFEED</u>	Send all line feeds to the host
<u>SET ABORT</u>	Set Abort key checking
<u>SET CDELAY</u>	Set delay for sending characters
<u>SET DEVICE_ERROR</u>	Set device error checking
<u>SET DISCONNECT</u>	Set disconnect checking
<u>SET EOF</u>	Set the End of File character
<u>SET HISTORY</u>	Set number of lines stored

<u>SET HOST</u>	Create a session to a remote node
<u>SET KEYBOARD</u>	Select the keyboard type
<u>SET LDELAY</u>	Set delay for sending lines
<u>SET MESSAGE</u>	Set message control
<u>SET ON</u>	Set error checking
<u>SET PRINTER</u>	Set printer options
<u>SET PRINTER PORT</u>	Set printer port
<u>SET TERMINAL</u>	Set terminal characteristics
<u>SET TURNAROUND</u>	Set a turnaround character
<u>SET VERIFY</u>	Set verify mode
<u>SHOW KEYS</u>	Show key and state definitions
<u>SHOW SYMBOL</u>	Display local and global symbol values
<u>STOP</u>	Terminate execution of all command files
<u>UNDEFINE KEY</u>	Delete a key definition
<u>UNDEFINE STATE</u>	Delete a state definition
<u>WAIT</u>	Wait for a host string
<u>WP ON/OFF</u>	Enable/Disable WordPerfect 4.2 mode
<u>WP5 ON/OFF</u>	Enable/Disable WordPerfect 5.x mode
<u>WRITE</u>	Write a string to the host or file
<u>XRECEIVE</u>	Display the XModem receive screen
<u>XSEND</u>	Display the XModem send screen

ABORTING

Emulator commands and command file execution are aborted by clicking *Execute - Abort* or pressing ABORT.

HOST EXECUTION

Emulator commands can be executed under host control using a DCS private control sequence.

CSI 5 | Command String ST

Note: CSI and ST are 8-bit characters. They can only be used on systems that support full 8-bit characters.

ESC [is the 7-bit equivalent of CSI.

ESC \ is the 7-bit equivalent of ST.

ANSWER

ANSWER (no arguments)

Waits for a call to be answered by the modem.

See also: **DIAL**

Example: DIAL #3 ! Dial entry #3 from phone book
DELAY 5 ! Delay five seconds
HANGUP ! Hangup the modem line
ANSWER ! Answer the return call
@LOGIN ! Run automated login command file

Dials a security modem, hangs up the connection and waits to answer the return call.

ASCRECEIVE

ASCRECEIVE (no arguments)

Displays the ASCII file transfer receive screen.

ASCSEND

ASCSEND (no arguments)

Displays the ASCII file transfer send screen.

BREAK

BREAK (no arguments)

Sends a 200 millisecond communications break to the COM port.

Options:

/LONG

Sends a long (3.5 second) break.

CLOSE

CLOSE logical-name[:]

Where: Logical-name is a DOS file logical assigned by the OPEN command.

Closes the logical name previously opened with the OPEN command.

If CLOSE is not issued, the logical name closes upon exit to Windows.

See also: **OPEN**

Options:

/ERROR=label

Process continues at the label if an error occurs.

Example: INQUIRE DATE "Enter current date and time: "

	!Get user input into DATE
OPEN/WRITE FILE1 DATA.LOG	! Open PC file DATA.LOG
WRITE FILE1 DATE	! Write DATE into file
CLOSE FILE1	! Close PC file

Puts a date and time stamp on a log file by opening the PC file DATA.LOG, writing the date, and closing the file. DATA.LOG can be added to later using the LOG/APPEND command.

CLS

CLS (no arguments)

Clears the screen. CLS is short for ERASE SCREEN.

See also: **ERASE SCREEN**

Example:	WRITE HOST "ls"	!UNIX command to list the files
	DELAY 3	!Delay for command to display
	INQUIRE FILENAME "Enter name of file to delete: "	
		!Prompt user for file to delete
	WRITE HOST "rm "FILENAME""	!Delete the specified file
	CLS	!Clear the screen

This Unix example lists the contents of a directory, removes the specified file from that directory, and clears the screen.

CONTINUE

CONTINUE (no arguments)

Resumes execution on the next line of a command file. Often used with the ON command to ignore error conditions.

Example: ON ERROR THEN CONTINUE

If an error occurs, the command file continues with the next line.

DEFINE KEY

DEFINE KEY [state_name] key_name = key_definition

Where: State_name is the name of the state(s) associated with the key. Up to five states can precede a key definition.

Key_name is the name of the key being remapped.

Key_definition is the new key definition. A key definition can consist of emulator functions (represented by tokens), and/or string information.

See also: **UNDEFINE KEY**

Options:

/NOECHO

Do not echo definition when the key is pressed.

/TERMINATE

Append a line terminator (carriage return).

Examples: DEFINE KEY F1 = PRTSCR

Defines F1 to function as the Print Screen token.

DEFINE KEY F1 = "<23>"

or

DEFINE KEY F1 = "<ETB>"

Defines F1 to function as the VAX/VMS refresh screen (Ctrl W).

DEFINE KEY F1 = CMD "@LOGIN<CR>"

Defines F1 to run the LOGIN.ECF command file.

DEFINE KEY /NOECHO NUMLCK = CMD "@TOGGLE<CR>"

Defines NUMLCK to run the TOGGLE.ECF file without displaying its commands.

DEFINE KEY /TERMINATE A^K = CMD "@KERMSSEND"

Defines Alt K to run a command file that sends a file to the host via Kermit.

DEFINE STATE

DEFINE STATE key_name = state_name

Where: Key_name is the name of the key being remapped.

State_name is the name of the state(s) associated with the key.

State names are user-defined and can contain any combination of alphanumeric characters, dollar signs and underscores. State definitions take precedence over key definitions if multi-defined.

See also: **UNDEFINE STATE**

Example: DEFINE STATE ESC = GOLD
DEFINE KEY GOLD P = PRTSCR

Defines the Esc key as the Gold state. When Esc P is pressed, the screen is printed.

DELAY

DELAY [dd:hh:mm:]ss

Delays the specified amount of time. All the fields, except seconds, are optional. Maximum value is 99:23:59:59.

DELAY is intended for command file use. It won't prevent TELNETW from accepting emulator commands sent from the host computer using a DCS private control sequence.

Options:

/NODISPLAY

Data received from the host is not displayed on the screen during the delay period.

/NOMESSAGE

Disables display of the delay message.

Examples: DELAY 5

Delays command file execution for five seconds.

```
@LOGIN  
DELAY/NODISPLAY 5  
WRITE HOST "ACCOUNTING"  
EXIT
```

Runs the command file LOGIN.ECF, prevents all login messages from displaying to the screen and starts an accounting application on the host.

```
LOG/OPEN SYSLOG.LOG  
DELAY/NOMESSAGE 23:59  
LOG/CLOSE SYSLOG.LOG
```

Opens a PC file SYSLOG.LOG, records host information for almost 24 minutes, then closes the file.

DELETE SYMBOL

DELETE SYMBOL symbol-name

Deletes a symbol name from the local and/or global symbol table. The name of a symbol is required. Wildcarding is supported. The default is /LOCAL.

Options:

/GLOBAL Deletes the symbol name from the global symbol table.

/LOCAL Deletes the symbol name from the local symbol table.

Examples: DELETE SYMBOL *A

Deletes all the local symbols that end with "A".

DELETE SYMBOL/GLOBAL VARI??

Deletes all the six letter global symbols that start with "VARI".

DIAL

DIAL number

Dials the phone number which can be an actual phone number including dashes and commas, a name in the phone book, or a directory entry number.

Examples: DIAL 9,1-333-111-2222

Dials 913331112222 with a one second delay after the 9.

DIAL VAX

Dials the number in the phone book for the entry named VAX.

DIAL #1

Dials the number in the first entry of the phone book.

DISPLAY

DISPLAY [[row,column]] [string-expression]

Where: String-expression is a quoted string, lexical, symbol, or combination of the above joined by plus signs (+) (i.e. "string" + symbol).

Displays single or multiple lines of text to the screen.

It can also process VT320 escape sequences, lexicals, and symbols as part of the string expression.

An initial cursor position can be optionally specified in brackets [] immediately following the command. If specified, the cursor moves to the position indicated before the string displays. A position of 0 positions the cursor at the current row or column.

By default, data is output to the screen. Data can be displayed on status line by using the /STATUS option. DISPLAY sends a carriage return and line feed unless the /NOCR option is used.

Note: Using cursor positioning while outputting data to the status line can produce unusual results.

See also: **INQUIRE**

Options:

/NOCR Do not send a carriage return and line feed.

/STATUS Sends the display string to the status line.

Examples: DISPLAY "Hello there"

Displays Hello there at the current cursor position.

DISPLAY/NOCR [0,40] "Hello there"

Displays "Hello there" at the current row, column 40 on the screen.

DISPLAY

or

DISPLAY ""

Outputs a carriage return and line feed at the current cursor position.

DISPLAY/STATUS "<ESC>[?3h" + "132 columns"

Sets the screen to 132 column mode, and displays 132 columns on the status line.

DOS

DOS [DOS command string]

Executes the DOS command string and returns to TELNETW.

If a string is not specified, the DOS prompt appears. Any valid DOS command can be entered at the DOS prompt. To exit from DOS, type EXIT followed by a carriage return.

If a DOS command is specified, TELNETW executes the DOS command and holds the DOS screen. Pressing any key returns to emulation mode.

When the DOS command is issued by the host computer or from a command file, TELNETW automatically returns to emulation mode without waiting for keyboard input.

Symbols can be used to assign DOS command strings to a more convenient form. For example, DIR ::= "DOS DIR" creates an emulator command that lists DOS directories. TNWINIT.ECF contains several symbol assignments for simulating DOS commands.

Options:

/NOWAIT When specified interactively, the DOS screen is not held until a key is pressed. The DOS command executes and returns to TELNETW without pausing. It has no effect when used in a command file.

Examples: DOS TYPE READ.TXT

Executes the DOS command TYPE and displays the file READ.TXT on the screen.

```
TYPE ::= "DOS TYPE"  
TYPE READ.TXT
```

Creates an ECL command TYPE, then displays the DOS file READ.TXT on the screen.

```
DOS/NOWAIT DEL TEST.LOG
```

Switches to DOS, deletes the TEST.LOG file, and returns to emulation mode.

DROPDTR

DROPDTR milliseconds

Drops the DTR (Data Terminal Ready) and RTS (Request to Send) modem control lines for the specified number of milliseconds. If the number is zero or missing DTR and RTS are dropped permanently.

EMULATE

EMULATE (no arguments)

Enters emulation mode from a command file. Pressing EXIT returns to the calling command file rather than to Windows.

This command can be used with ON DISCONNECT to enter emulation mode and return to a command file when the connection is lost or the user logs out.

Options:

/CASE

Forces case sensitivity for the return string comparison. /CASE is invalid without the /RETURN_STRING option.

/LABEL = command file label

Resumes execution of the command at the specified label. /LABEL is invalid without the /RETURN_STRING option.

/RETURN_STRING = string

Allows a command file to enter emulation mode and returns control to the command file when a specific string occurs.

Execution of the command file resumes at the line immediately following the EMULATE command unless the /LABEL option is used.

```
Example: 50: SET DISCONNECT
          ON DISCONNECT THEN GOTO 100
          EMULATE
          EXIT/EM
          100: DISPLAY "ATTEMPTING TO RECONNECT"
              @RECONNECT
              IF $STATUS GOTO 50
              DISPLAY "UNABLE TO RECONNECT"
              EXIT/EM
```

Monitors connect status. If the connection is lost the command file automatically tries to reconnect.

ENDINTERACTIVE

ENDINTERACTIVE (no arguments)

Terminates interactive mode. This command is not used in command files.

See also: **INTERACTIVE**

Example: `CMD>INTERACTIVE`
`CMD>SHOW KEYS`
`CMD>DEFINE KEY NUMLCK = PRTSCR`
`CMD>ENDINTERACTIVE`

This series of commands displays existing remap values of keys, then defines NUMLCK to print the screen. The ENDINTERACTIVE command returns the user to emulation mode.

ERASE SCREEN

ERASE SCREEN (no arguments)

Erases the screen.

See also: **CLS**

Example: ERASE SCREEN
DISPLAY [10,20] "1. Dial modem 1"
DISPLAY [11,20] "2. Dial modem 2"
DISPLAY [13,20] "3. Exit emulator"
INQUIRE [14,20] "Enter menu option number: "
...

Erases the screen before displaying a menu.

EXIT

EXIT [specific-error]

Where: Specific-error can be an error code, a quoted mnemonic identifier, or a symbol. (i.e., EXIT \$STATUS)

Terminates processing of the current command file.

EXIT's behavior differs depending on the usage (Interactive or command file mode). If used in Interactive mode without an error parameter, TELNETW exits. If used with a parameter, the message associated with the error parameter displays, and no other action is taken.

If used within a command file without a parameter, the EXIT command passes the error status to the calling routine. If error checking is enabled and an error parameter is provided, EXIT also prints the associated error message.

EXIT passes the status and severity codes of the error to the symbols \$STATUS and \$SEVERITY, respectively. It also saves the mnemonic for the error in the symbol \$STATUSID and the full error message in F\$MESSAGE. If the error message has displayed, bit 15 of the \$STATUS symbol will be set to 1.

See also: **ON**, **SET**, **QUIT**

Options:

/EM Exit TELNETW and return to Windows with the corresponding \$STATUS code passed to ERRORLEVEL. An exit leaves the modem control signals active.

Examples: CMD>EXIT

Exits TELNETW.

```
LOG FILELIST      ! Create FILELIST.LOG file
DELAY 1:00:00     ! Delay 1 hour
LOG/CLOSE         ! Close log file
EXIT              ! Exit to emulation mode
```

Opens FILELIST.LOG, captures host information for 1 hour, closes the log file, and exits to emulation mode.

```
@HANGUP
DELAY/NOMESSAGE 2
EXIT/EM
```

Runs the HANGUP command file, hides all messages and exits TELNETW.

FLUSH

FLUSH (no arguments)

Empties TELNETW receive buffer to the screen. Insures that all data received from the host is removed from the receive buffer and displayed on the screen.

See also: **WAIT**

GOSUB

GOSUB label_name

Transfers execution to a subroutine label located within the command file. Use the RETURN command to exit the subroutine and resume execution in the calling routine. The calling routine continues at the line following the GOSUB command. (Usable in command procedures only.)

See also: **IF**, **RETURN**

GOTO

GOTO label-name

Transfers program control to the statement following the specified label. (Usable in command procedures only.)

See also: **ON**, **IF**

HANGUP

HANGUP (no arguments)

Hangs up the current modem connection.

See also: **DIAL**

Example: SET DISCONNECT
DIAL #1
ON DISCONNECT THEN GOTO BYE_NOW
EMULATE
BYE_NOW:
HANGUP
EXIT/EM

Dials a phone book entry and monitors the connection status. When the connection is lost, the modem is hung up and TELNETW exits to Windows.

HELP

HELP [keyword]

Displays help for emulator operation, features, and commands.

Specifying HELP with no keywords displays *Help - Index*.

IF

IF condition THEN statement

Tests the value of an expression and executes the statement following the THEN keyword if the test is TRUE. If FALSE, the THEN statement is ignored, and execution continues with the next command line.

The expression is true if the result:

- 1) Has an odd integer value between 32767 and -32767.
- 2) Has a character string value that begins with any of the letters Y, y, T, or t.
- 3) Has an odd numeric string value between "32767" and "-32767".

The expression is false if the result:

- 1) Has an even integer value between 32767 and -32767.
- 2) Has a character string value that begins with any letter except Y, y, T, t.
- 3) Has an even numeric string value between "32767" and "-32767".

Rules:

- 1) Symbols used in IF statements are automatically substituted.
- 2) String comparison operators end in the letter S (.EQS., .LES., .GTS., etc.). Integer comparison operators do not end in the letter S (.EQ., .LE., .GT., etc.).
- 3) String comparisons are case sensitive. Therefore, CASE and case are considered unequal. To inhibit case sensitivity, create the symbol using an implied literal string (:). The string converts to all caps, and can then be compared. (For example, in the assignment upper := case, the value of upper converts to CASE.)

```
Example 1: COUNT = 0
          LOOP: COUNT = COUNT + 1
          ...
          IF COUNT .LE. 10 THEN GOTO LOOP
```

This routine loops 10 times.

```
Example 2: INQUIRE ANS "Want to continue [Y/N] (D:N)"
          IF .NOT. ANS THEN EXIT
```

This routine exits unless ANS = Y.

INQUIRE

INQUIRE [[row,column]] symbol-name [prompt-string]

Where: Prompt-string is a quoted string, lexical, symbol, or combination of the above joined by plus signs (+) (i.e. prompt-string = "string"+symbol).

Outputs a prompt string and waits for input. The input string is stored in the symbol-name specified. By default, the symbol-name is a local symbol. To make the symbol global, use the /GLOBAL qualifier.

Like DISPLAY, INQUIRE can process VT320 escape sequences, lexicals, and symbols in the prompt string.

An initial cursor position can be specified in brackets [] immediately following the command. If specified, the cursor moves to the position indicated before the prompt string displays. A cursor position of 0 places the cursor at the current row or column on the screen.

By default, INQUIRE uses the screen. However, INQUIRE uses the status line when the /STATUS option is specified.

Note: Using cursor positioning while outputting data to the status line can produce unusual results.

INQUIRE will not send a carriage return or line feed unless it is placed within the prompt string or the /CR option is used for a single line of text.

See also: **DISPLAY**

Options:

/CASE

By default, INQUIRE/KEY is not case sensitive. It will not return the S^ indicator with the key names for alphanumeric keys. Specifying /CASE returns the S^ indicator with uppercase alphanumeric keys. /CASE is only meaningful when used with the /KEY option.

/CR

Send a carriage return at the end of the prompt string.

/GLOBAL

The symbol name is defined as global.

/KEY

Reads a single key stroke and returns the ASCII key name for the key pressed. The key name returned is the same name displayed when the key is pressed while in Scan Mode. Key remapping is disabled when the /KEY option is used.

The /KEY option is useful for obtaining a single PC keystroke, such as an arrow key.

/LOCAL

The symbol name is defined as local. This is the default INQUIRE condition.

/MAX=count

Sets the maximum character count for an INQUIRE input line. If the input data exceeds the max count, the extra characters are ignored. The input line is not terminated until a carriage return is entered, unless the /TERMINATE option is specified.

/NOECHO

Input data is not echoed to the screen.

/STATUS

Send the prompt string to the status line.

/TERMINATE

Used with the /MAX option to allow an input line to terminate when the maximum character count is reached. When /TERMINATE is specified, input terminates on a carriage return or when the maximum number of characters is entered. /TERMINATE has no meaning when used without the /MAX option.

Example: TIME_STR="Enter Time:"
INQUIRE/GLOBAL [5,0] TIME TIME_STR

Positions cursor at the 5th line and current column and displays the prompt "Enter Time:". The user input string is stored in the global symbol TIME.

```
INQUIRE/STATUS TIME "World time: "
```

Outputs "World time:" to the status line and stores the input string in the local symbol TIME.

```
INQUIRE/GLOBAL/NOECHO PASSWD "Password: "
```

Displays the prompt string "Password:". The input string is stored in the global symbol PASSWD. The input string is not echoed when it is entered.

```
50:   INQUIRE/KEY KEYSTROKE "<CR> <LF>Enter Up Arrow Key: "  
      IF KEYSTROKE="UP" THEN GOTO 100  
      GOTO 50  
100:  DISPLAY "<CR> <LF>You just pressed the Up Arrow Key"  
      EXIT
```

Prompts the user to press the Up Arrow key. The name of the key pressed is stored in KEYSTROKE. A message is displayed once the correct key is pressed. Otherwise, it loops to the beginning for another key press.

```
WAIT/TIME_OUT=30 "Username:"  
WRITE HOST "SMITH"  
WAIT/TIME_OUT=30 "Password:"  
INQUIRE/LOCAL/NOECHO PASS "Enter your password: "  
WRITE HOST " ' ' PASS ' "  
PASS = " "  
EXIT
```

Begins the login process and prompts the user for the password. Stores user entry in PASS, sends it to the host, then erases the password from memory. Exits to emulation mode.

INTERACTIVE

INTERACTIVE (no arguments)

Sets interactive command mode. Interactive mode is used to enter consecutive commands without clicking *Execute - Command Line* each time. This command has little meaning in command files.

To cancel interactive mode, enter the END (ENDINTERACTIVE) command or Ctrl Z.

See also: **ENDINTERACTIVE**

Example: CMD>INTERACTIVE
CMD>SCAN
CMD>DEFINE KEY END = "<ETB>"
CMD>ENDINTERACTIVE

Enables the user to check key names before remapping a key temporarily.

KERMIT

KERMIT [kermit command string]

Enters Kermit mode. If the command is entered without a command string, the EM-Kermit> prompt appears.

If a command string is specified, TELNETW enters Kermit mode, issues the command, and returns to emulation mode.

Example: WRITE HOST "KERMIT"
WRITE HOST "SET FILE TYPE BINARY"
WRITE HOST "SERVER"
KERMIT SEND/END TEST.ECF
WRITE HOST
WRITE HOST "EXIT"

This VAX/VMS example starts Kermit in binary transfer mode, uploads the PC file TEST.EXE, and exits Kermit mode.

LOAD

LOAD setup

Loads the specified setup file. Allows emulator setup parameters to be changed from within a command file.

```
Example: 5: ERASE SCREEN
          DISPLAY [10,20] "1.  Connect to UNIX"
          DISPLAY [11,20] "2.  Connect to VMS"
          DISPLAY [12,20] "3.  Exit Emulator"
          INQUIRE [14,20] SYSTEM "Enter the menu option number: "
          IF SYSTEM .EQS. "1" THEN GOTO UNIX
          IF SYSTEM .EQS. "2" THEN GOTO VMS
          IF SYSTEM .EQS. "3" THEN GOTO EXIT
          GOTO 5          ! Improper selection made so go to beginning
UNIX:
LOAD UNIX
@ULOGIN
EXIT
VMS:
LOAD VMS
@VLOGIN
EXIT
EXIT:
EXIT/EM
```

Displays a menu of different host options. Depending on user input, the proper setup file is loaded, the user is logged on and returns to emulation mode, or TELNETW is exited.

LOG

LOG filename

Opens an emulator log file. A log file captures all data sent to the screen. If the file exists and /OVERWRITE or /APPEND is not specified, an error results. The default is /OPEN. The default log file extension is .LOG.

See also: **REPLAY**

Options:

/APPEND

Open a log file and append the log data to the end of file. If no file exists, one is created.

/CLOSE

Close the previously opened log file. The filename is not required.

/OPEN

Create a log file.

/OVERWRITE

Open a log file and overwrite any old copies. If no file exists, one is created.

/PROMPT

Displays the interactive log file prompt normally associated with the LOG function key. If logging is already enabled, LOG/PROMPT closes the log file and disables logging. If /PROMPT is used, any other option on the command line is ignored.

/SCREEN

Write the current screen contents to the previously opened log file. This option replaces cursor positioning escape sequences with spaces.

Examples: LOG TEST

Creates log file TEST.LOG. If TEST.LOG already exists, an error occurs.

LOG/CLOSE

Closes the log file.

LOG/OVER TEST

Opens TEST.LOG and overwrites any old copies.

INQUIRE TIME "Enter current date and time: "

OPEN/WRITE ERRORS ERRMESS.LOG

WRITE ERRORS TIME

CLOSE ERRORS

LOG/APPEND ERRMESS.LOG

WRITE HOST "BUILD"

WAIT "\$"

LOG/CLOSE ERRMESS.LOG

Creates a log file with a date and time stamp which captures error messages generated from running a VMS COM file.

WRITE HOST "MAIL"

WRITE HOST "READ"

LOG/SCREEN MAIL
WRITE HOST "EXIT"

Captures a host mail message into MAIL.LOG.

MARGIN

MARGIN (no arguments)

Displays horizontal split screen scrolling prompt and ruler.

MODEM

MODEM (no arguments)

Displays the Modem Dialer

ON ABORT

ON ABORT THEN statement

Defines the action taken when *Execute - Abort* is clicked or ABORT is pressed while running a command procedure. The action is taken only if the command processor is enabled for abort error checking. Abort error checking is enabled (SET ABORT) by default.

An ON ABORT action remains in effect until one of the following occurs:

- 1) The command procedure exits, which resets to the ON ABORT condition previously specified.
- 2) Another ON ABORT command is executed.
- 3) The procedure executes the SET NOABORT command.

The default error condition is ON ABORT THEN STOP. If an ABORT action is specified, it overrides actions specified for previous levels, and sets the default action for any following sublevels to EXIT. The error codes and mnemonic identifier are stored in the global symbols \$STATUS, \$SEVERITY, and \$STATUSID, even if error checking is disabled (SET NOABORT).

See also: **SET ABORT**

ON DEVICE_ERROR

ON DEVICE_ERROR THEN statement

Defines the course of action when an error occurs from a peripheral device, such as a printer or a plotter. The action is taken only if device error checking is enabled (SET DEVICE_ERROR). By default, device error checking is disabled (SET NODEVICE_ERROR).

An ON DEVICE_ERROR action remains in effect until one of the following occurs:

- 1) The command procedure exits, which restores the previous ON DEVICE_ERROR condition.
- 2) Another ON DEVICE_ERROR command is executed.
- 3) The procedure executes the SET NODEVICE_ERROR command.

The default error condition is ON DEVICE_ERROR THEN STOP. If a DEVICE_ERROR action is specified, it overrides the actions specified for previous levels and sets the default action for any following sublevels to EXIT. When errors occur, the error codes and mnemonic identifier are stored in the global symbols \$STATUS, \$SEVERITY, and \$STATUSID, even if error checking is disabled (SET NODEVICE_ERROR).

See also: **SET_DEVICE_ERROR**

ON DISCONNECT

ON DISCONNECT THEN statement

Defines the course of action when the communications connection is lost.

When using an RS232 Serial connection, the Carrier Detect signal is monitored to determine the state of the connection. However, if Modem Control is disabled, the state of the connection will not be monitored.

When running over a network, the state of the network virtual circuit is monitored.

The specified action is taken only if disconnect error checking is enabled (SET DISCONNECT). By default, disconnect error checking is disabled (SET NODISCONNECT).

An ON DISCONNECT action remains in effect until one of the following occurs:

- 1) The command procedure exits, which restores the previous ON DISCONNECT condition.
- 2) Another ON DISCONNECT command is executed.
- 3) The procedure executes the SET NODISCONNECT command.

The default error condition is ON DISCONNECT THEN STOP. If a DISCONNECT action is specified, it overrides actions specified for previous levels, and sets the default action for any following sublevels to EXIT. When errors occur, the error codes and mnemonic identifier are stored in the global symbols \$STATUS, \$SEVERITY, and \$STATUSID, even if error checking is disabled (SET NODISCONNECT).

See also: **SET DISCONNECT**

ON ERROR_SEVERITY

ON error_severity THEN statement

Defines the course of action taken when an error occurs that is equal to or greater in severity than the specified error.

The default error condition is ON ERROR THEN EXIT. This condition tells the command process to CONTINUE when a WARNING error occurs, and execute an EXIT command when an ERROR or SEVERE_ERROR condition occurs. The action is taken only if error checking is enabled (SET ON). Error checking is enabled by default.

Severity keywords are listed in order of severity and summarize how the ON command controls error handling:

WARNING	Performed if a WARNING, ERROR, or SEVERE_ERROR occurs.
ERROR	Performed if an ERROR, or SEVERE_ERROR occurs unless otherwise specified. Does not affect the handling of warning errors.
SEVERE_ERROR	Performed if a SEVERE_ERROR occurs unless otherwise specified. Does not affect the handling of warning and error conditions.

An ON command action is executed only once. After the ON command action is taken, the ON action is reset to the default (ON ERROR THEN EXIT).

An ON command action can be specified for each active command level. The ON command action applies only within the command procedure in which it is executed. Upon exiting a command procedure, the prior ON error conditions are reestablished to their previous settings. The error codes and mnemonic identifier are stored in the global symbols \$STATUS, \$SEVERITY, and \$STATUSID, even if error checking is disabled (SET NOON).

Note: If the command file contains a GOTO command to a non-existent label, an EXIT command is executed, regardless of the current ON ERROR assignment.

See also: **SET ON**

OPEN

OPEN logical-name[:] file-specification

Where: Logical-name is the name to be used by other commands to reference the open file.

File-specification is the file to open and can include a full path name if desired. The default file extension is .DAT.

Opens a file for read, write, or append operations and assigns a logical name to the file. The OPEN command must precede a READ or WRITE command for file access. The file remains open until the CLOSE command is executed or an exit to Windows occurs. If the command procedure terminates before the file is closed, the file remains open.

The same file can be referenced by several open statements without first being closed. However, each open statement must use a different logical name.

Note: The logical name HOST does not have to be opened before reading or writing.

See also: **CLOSE**, **READ**, **WRITE**

Options:

/APPEND

Opens an existing file for write, starting at the end of the file. If the file does not exist, it is created.

If the /READ option is included with /APPEND, the file must already exist. If the file does not exist, an error occurs.

/ERROR=label

Continues the process at the label if an error occurs.

/READ

Opens an existing file for read only, and sets the file data pointer to the beginning of the file. /READ is the default for the OPEN command.

/WRITE

Creates a new file for write only. If the file already exists, it is overwritten when the first WRITE occurs.

If the /READ option is included with /WRITE, an existing file is opened for read and write, starting at the beginning of the file. When /READ is used with /WRITE, the file must already exist. If the file does not exist, an error occurs.

If the /APPEND option is used with /WRITE, the /WRITE option is ignored.

Examples: OPEN FILE2 DATA.TXT

Assigns DATA.TXT to the logical FILE2, and opens the file named DATA.TXT for reading. An error results if the file does not exist.

OPEN/WRITE FILE1 C:\TELNETW\TEST.DAT

Assigns TEST.DAT to the logical FILE1, and creates a file named TEST.DAT for writing.

```
TOP:  INQUIRE/STATUS FILE "Enter the data filename: "  
      OPEN/READ/APPEND/ERROR=ERR DATA 'FILE'  
      @PROCEDURE  
      CLOSE DATA  
      DISPLAY ""'FILE' has been updated."
```

EXIT

ERR:

DISPLAY "'FILE' does not exist"

GOTO TOP

Checks for the filename entered by the user. If the file exists, PROCEDURE.ECF is run. If the file does not exist, an error message displays and the command file starts again at label TOP.

REPLAY

REPLAY filename

Where: Filename is the name of an emulator log file.

Replays an emulator LOG file. The filename can contain a full path specification and has a default extension of .LOG.

See also: **LOG**

Options:

/PROMPT

Displays the interactive log file prompt normally associated with the REP (Replay) function key.

Example: REPLAY SESSION.LOG

Plays the Log file SESSION.LOG.

PRINT EJECT

PRINT EJECT (no arguments)

Ejects a page on the printer.

PRINT ON/OFF

PRINT on/off

Toggles Auto Print mode. In Auto Print mode, every line sent to the screen is also sent to the printer.

PRINT SCREEN

PRINT SCREEN (no arguments)

Prints the contents of the screen.

PRINT/CONTROLLER

PRINT/CONTROLLER state

Where: State is either ON or OFF.

Sets printer controller mode. In controller print mode, data passes through to the printer without displaying. Lines longer than 132 columns can be printed, and control characters passed, using the /CONTROLLER option.

QUIT

QUIT [specific-error]

Where: Specific-error can be an error code, a quoted mnemonic identifier, or a symbol. (i.e., QUIT \$STATUS)

Works exactly like the EXIT command except that QUIT drops the modem control signals. See EXIT for detailed description.

See also: **EXIT**

Options:

/EM Quit TELNETW with the corresponding \$STATUS code passed to ERRORLEVEL.

READ

READ logical-name[:] symbol-name

Where: Logical-name is the logical name assigned by an OPEN command or the HOST logical.

Reads an ASCII record from the logical into the specified symbol.

If the READ command references a DOS file, the file is read a record at a time. After each read, the file data pointer is positioned to the start of the next record. The maximum record size is 255 characters. Records are terminated by carriage returns. READ is not intended for use with binary files.

See also: **OPEN**, **WAIT**, **WRITE**

Options:

/END_OF_FILE=label

Control is transferred to the label when the end of the file is detected. If this option is not used, and the EOF character is encountered, the process continues at the /ERROR label specified. If neither option is specified, and the EOF character is encountered, the current ON condition is taken. Valid only with a DOS file logical.

/ERROR=label

If an error occurs, control is transferred to the label specified. If the /ERROR option is not used, the current ON condition action is taken.

/NODISPLAY

Does not display data as it is read. Valid only with the HOST logical.

/TIME_OUT=[hh:mm:]ss

Waits for data until the time specified. Valid only with the HOST logical. A timeout error occurs if no data is received from the host within the specified time period. The /TIME_OUT option can be specified simultaneously with the /ERROR option to redirect command execution.

RETURN

RETURN (no arguments)

Used to return from a subroutine called by the GOSUB command. Valid only with the GOSUB command.

See also: **GOSUB**

SAVE

SAVE [file_name]

Where: File_name is the name of a setup file.

Saves the current setup information to disk. If a filename is not included, the setup information is saved to the default setup file (TELNETW.SET).

The filename can contain a complete path specification. If the filename does not contain a path, the default TELNETW directory path is used.

Examples: SAVE

Saves the current setup configuration into TELNETW.SET in the TELNETW default directory.

SAVE VAX

Saves the current setup configuration into VAX.SET in the TELNETW default directory.

SAVE C:\TELNETW\UNIX

Saves the current setup into UNIX.SET in the \TELNETW subdirectory.

SAVE \TELNETW

Saves the current setup configuration into TELNETW.SET in subdirectory \TELNETW.

SCAN

SCAN (no arguments)

Enters keyboard scan mode. In scan mode, pressing a key displays its key name. Scan mode is useful for obtaining key names to use with the DEFINE KEY command. Press Ctrl Z to exit from scan mode.

SCROLLBACK

SCROLLBACK (no arguments)

Displays the text that is no longer visible on the screen. The amount of scrollback is determined in *Setup - Scrollback*.

SEND

SEND filename

Sends an ASCII text file to the host.

Flow control to the host is provided through character delay (SET CDELAY), line delay (SET LDELAY) and use of the turnaround character (SET TURNAROUND).

See also: **SET CDELAY**, **SET EOF**, **SET LDELAY**, **SET TURNAROUND**, **WRITE**

Options:

/ANSWERBACK

Send the answerback message specified in the *Setup - Terminal* dialog box to the host. Since the answerback message can be concealed, store your password in the answerback message when automatically sending it to the host in a command file.

Note: SEND/ANSWERBACK cannot be used with any other qualifiers.

/EOF

Sends an End of File marker at the end of the file. Ctrl Z is the default. The SET EOF command can be used to change the EOF character sent. To send an EOF character without sending data from the file, use SEND/EOF without specifying a filename.

/FILTER

Removes control characters.

Note: Filter passes CR, LF, VT, HT, and ESC.

/LINEFEED

Normally TELNETW does not send line feeds that are immediately preceded by a carriage return. If the /LINEFEED option is specified, all line feeds in the file are sent to the host.

SET ABORT

SET [NO]ABORT (no arguments)

Enables or disables error checking of *Execute - Abort* during execution of a command procedure.

The SET NOABORT command disables abort error checking and resets the ON ABORT error condition to STOP. The error codes and mnemonic identifier are still updated in the global symbols \$STATUS, \$SEVERITY, and \$STATUSID.

The SET ABORT and SET NOABORT commands apply to all command procedure levels. SET ABORT is the default. (Usable in command procedures only.)

Note: The SET NOABORT command is not recommended, since it can prevent a command procedure from exiting normally. For example, if a command procedure began to loop uncontrollably, control could not be regained from TELNETW to stop the command procedure.

See also: **ON ABORT**

Example: SET NOABORT
LOG SYSMESS
DELAY 15:00:00
LOG/CLOSE

Disables abort key checking, opens PC file SYSMESS.LOG, captures any host data for 15 hours, and closes the file.

SET CDELAY

SET CDELAY ms

Sets a character delay for the SEND and WRITE command. TELNETW delays the specified number of milliseconds after sending each character. Specify a character delay when it is necessary to slow down the data rate to prevent overrunning the host's terminal buffer. The default value is zero. Maximum value is 255 milliseconds.

See also: **SEND**, **SET LDELAY**, **SET TURNAROUND**, **WRITE**

SET DEVICE_ERROR

SET [NO]DEVICE_ERROR (no arguments)

Enables or disables device error checking. A device error can occur from a peripheral device connected to the serial or parallel port, such as a printer or a plotter.

The SET NODEVICE_ERROR command disables error checking and resets the ON DEVICE_ERROR condition to STOP. The error codes and mnemonic identifier are still updated in the global symbols \$STATUS, \$SEVERITY, and \$STATUSID.

The SET DEVICE_ERROR and SET NODEVICE_ERROR commands apply to all command procedure levels. SET NODEVICE_ERROR is the default. (Usable in command procedures only.)

See also: **ON DEVICE_ERROR**

SET DISCONNECT

SET [NO]DISCONNECT (no arguments)

Enables or disables error checking of the communications connection. Disconnect errors can occur when serial or network connections are lost.

The SET NODISCONNECT command disables error checking and resets the ON DISCONNECT error condition to STOP. The error codes and mnemonic identifier are still updated in the global symbols \$STATUS, \$SEVERITY, and \$STATUSID.

The SET DISCONNECT and SET NODISCONNECT commands apply to all command procedure levels. SET NODISCONNECT is the default. (Usable in command procedures only.)

See also: **ON DISCONNECT**

SET EOF

SET EOF value

Where: Value is the decimal value of the ASCII character. Ctrl Z (26) is the default.

Defines the End of File character sent by the /EOF option of the SEND command.

See also: **SEND**, **SET CDELAY**, **SET LDELAY**, **SET TURNAROUND**

SET HISTORY

SET HISTORY mode = number_of_lines

Where: Mode is /COMMAND_LINE or /LINE_EDIT.

Sets the number of input lines stored for command line or emulation mode line editing.

Setting the number of lines to 0, disables the storing and editing of input lines for the type of editing specified.

SET HOST

SET HOST

Creates a session to a remote node. This command must be used with one of the following options.

Options:

`/COM=port [session_name]`

Specifies a connection to a COM port, where port is 1 - 4. An optional session name can be specified. If the session name is unspecified, it defaults to COM1, COM2, COM3 or COM4.

Example: `SET HOST/COM=1`

Creates a session for COM1 and gives it the session name COM1.

`/NEXT`

Used without a node name. Causes TELNETW to suspend the current session and resume the next sequential session. Can only be used in multisession mode.

Example: `SET HOST/NEXT`

The SET HOST/NEXT command can be assigned to a key to allow session switching with a single key stroke. The TNWINIT.ECF file contains the following key definition:

```
DEFINE KEY A^ = CMD "SET HOST/NEXT/NOMESS"/TERM/NOECHO
```

Defines Alt . as the session switch key and suppresses all informational messages and command echoing. Error messages will display.

`/NOMESSAGE`

Suppresses the Node Connected information message.

SET KEYBOARD

SET KEYBOARD keyboard

Where: Keyboard is one of the following keyboard symbols:

KEYBOARD SYMBOL	DESCRIPTION
AT	Original AT configuration
ENHANCED	Enhanced
LK250/LK450	DEC VT320/PC

Clears all defined keys and restores the default keyboard configuration for the keyboard selected.

Options:

/NODEFAULTS

Clears all key definitions including the default key assignments, except Alt C (Command) and Backspace.

SET LDELAY

SET LDELAY secs

Sets a line delay for the SEND and WRITE commands. Specifies the number of seconds TELNETW should wait after sending a line before sending the next line. The default is zero. Maximum value is 255 seconds.

If a line delay and turnaround character is specified, TELNETW waits until it receives the turnaround character or the delay expires, whichever occurs first. If SET NOTURNAROUND is specified, TELNETW waits the full delay after each line.

See also: **SEND**, **SET CDELAY**, **SET TURNAROUND**, **WRITE**

SET MESSAGE

SET [NO]MESSAGE [message_type]

Where: Message_type is INFORMATIONAL, WARNING, ERROR, or SEVERE_ERROR.

Enables or disables the display of messages. The message_type determines the category of message affected. All messages below or equal to the message_type specified are affected. If no message_type options are provided, SET NOMESSAGE affects all messages.

Example: SET NOMESSAGE = WARNING

Disables informational warning messages.

SET ON

SET [NO]ON (no arguments)

Enables or disables error checking.

The SET NOON command disables error checking and error message display. However, the error codes and mnemonic identifier in the global symbols \$STATUS, \$SEVERITY, and \$STATUSID are updated.

The SET ON and SET NOON commands apply only to the current command level. IF the SET NOON is used in a command procedure that calls a second procedure, the default (SET ON) is used while executing the second command procedure. (Usable in command procedures only.)

See also: **ON Error Severity**

SET PRINTER

SET PRINTER keyword

SET PRINTER port

Where: Port is LPT1, LPT2, LPT3, COM1, COM2, COM3 or None.

Keyword is one of the choices listed in the table below.

Sends the printer control strings defined in *Setup - Printer*.

KEYWORD	DESCRIPTION
12CPI	Sends the Enable 12 CPI string to the printer.
16CPI	Sends the Enable 16 CPI (condensed mode) string to the printer.
CONDENSED	Sends the Enable 16 CPI (condensed mode) string to the printer.
DOUBLE	Sends the Double Wide string to the printer.
DRAFT	Sends the Enable Draft Quality string to the printer.
FORM	Enables the form feed option for every print screen.
INITIALIZE	Sends the Initialize string to the printer.
LETTER	Sends the Enable Letter Quality string to the printer.
NO12CPI	Sends the Disable 12 CPI string to the printer.
NO16CPI	Sends the Disable 16 CPI (condensed mode) string to the printer.
NOCONDENSED	Sends the Disable 16 CPI (condensed mode) string to the printer.
NODOUBLE	Sends the Disable Double Wide string to the printer.
NODRAFT	Sends the Disable Draft Quality string to the printer.
NOFORM	Disables the form feed option for every print screen.
NOLETTER	Sends the Disable Letter Quality string to the printer.
NOUD1	Sends the Disable User-Defined #1 string to the printer.
RESET	Sends the Reset string to the printer.
UD1	Sends the Enable User-Defined #1 string to the printer.

SET TERMINAL

SET TERMINAL characteristic

Sets the terminal characteristics.

Options:

/APPLICATION_KEYPAD

Specifies that the keypad keys send application control functions.

/DATA_BITS=bits

Where: Bits is 7 or 8.

Sets the number of communication data bits. The default is 8 data bits with parity = none.

/DEVICE=terminal

Where: Terminal is VT320_7, VT320_8, VT220_7, VT220_8, VT100, VT102, or VT52.

Selects the DEC terminal to emulate.

/[NO]ECHO

Controls display of input from the keyboard. If Echo is set, the data transmitted to the host is locally echoed to the computer screen. If NOECHO is set, the data is not echoed by TELNETW. In NOECHO mode the host computer is expected to echo the data. NOECHO is the default. ECHO should be set on half-duplex systems.

/INSERT

Sets the line editing mode to insert. Space is made for new characters that are entered into a line.

/LIMITED_TRANSMIT

Restricts the transmit speed from between 150 and 180 characters per second. Limited transmit can be necessary for some half-duplex systems.

/LINES=rows

Where: Rows is 24 - 50.

Sets the screen height to the desired number of rows.

/LOCAL

Sets TELNETW to local mode. In local mode, all characters entered from the keyboard are sent to the screen display processor. Data is not sent to the host and data received from the host is ignored.

/[NO]MODEM_CONTROL

Enables/disables carrier detect monitoring. Modem control should be disabled when using a direct connection.

/[NO]NEW_LINE

If enabled, generates a line feed whenever a carriage return is entered.

/NUMERIC_KEYPAD

Specifies that the keypad keys send numeric control functions.

/ONLINE

Allows TELNETW to communicate with the host. (Disable communications with the /LOCAL option.)

/OVERSTRIKE

Sets the line editing mode to overstrike. New characters entered into the line replace the existing characters. /OVERSTRIKE is the system default.

/[NO]PARITY=type

Where: Type is Odd, Even, Space, Mark or None.

Sets the communications parity. Setting /NOPARITY is the same as /PARITY=None. Parity = none and Data Bits = 8 is the recommended default.

/PORT=com-port

Where: Com-port is COM1, COM2, or COM3.

Selects the communications port.

/[NO]PROTOCOL=none

Selects the communications flow control protocol. Selecting /NOPROTOCOL is the same as /PROTOCOL=NONE. Xon/Xoff is the protocol used by DEC and most other host systems.

/SPEED=baud rate

Where: Baud rate is 75, 110, 150, 300, 600, 1200, 2400, 4800, 9600, 19200 or 38400.

Selects the communications speed.

/STOP_BITS=num

Where: Num is 1 or 2.

Sets the number of stop bits for each data word. One is the recommended setting.

/UNLIMITED_TRANSMIT

Does not limit the character transmit rate. This is the recommended setting. (The transmit rate can be restricted with the /LIMITED_TRANSMIT option.)

/[NO]WARNING_BELL

Enables/disables a warning bell for operating errors and receipt of a Ctrl G.

/WIDTH=columns

Where: Columns is 80 or 132.

Sets the screen width to 80 or 132 columns. In 132 column mode the screen displays all 132 characters on a line, or horizontally scrolls through the characters depending on the selection in *Setup - Display - 132 Column*.

/[NO]WRAP

Controls whether TELNETW generates a carriage return and line feed at the end of a line. The end of the line is determined by the /WIDTH option. If NOWRAP is specified, the characters written at the last column position overwrite each other. /WRAP is the default.

SET TURNAROUND

SET [NO]TURNAROUND value

Where: Value is the decimal value of the ASCII character or a quoted character. Line Feed (10) is the default.

Sets the turnaround character for the SEND command. When a turnaround character is specified, TELNETW waits for the turnaround character to be received from the host before sending the next line.

Turnaround characters perform flow synchronization and help prevent overrunning the host's terminal input buffer.

If a turnaround character is specified, the SEND operation could hang if a turnaround character is not received. Clicking on *Execute - Abort* terminates the operation. If a SET LDELAY is specified with the turnaround character, it is used as the maximum time TELNETW waits before sending the next line. (Affects the SEND and WRITE command only.)

See also: **SEND**, **SET CDELAY**, **SET LDELAY**

Example: SET TURNAROUND = 10
 or
 SET TURNAROUND = "<LF>"

Sets the turnaround character to a line feed.

SET VERIFY

SET [NO]VERIFY (no arguments)

When enabled, displays command lines of a command procedure as they execute. Also, enables the display of error messages regardless of whether error checking is disabled. The default is SET NOVERIFY.

Note: When HOLD is pressed, Ctrl V toggles SET VERIFY.

Options:

/STATUS Output command line display to the status line.

SHOW KEYS

SHOW KEYS (no arguments)

Displays all key definitions created with the DEFINE KEY and DEFINE STATE commands.

SHOW SYMBOL

SHOW SYMBOL [symbol-name]

Displays the local and global values for the specified symbol. If no symbol name is given, all the symbols from the local and global symbol table display. Wildcarding is supported; an asterisk (*) can be used for variable length substitution and a question mark (?) for single letter substitution. The default is SHOW SYMBOL /LOCAL/GLOBAL.

Note: Although SHOW SYMBOL displays local and global values, the local value of a symbol overrides the global value when referenced in a command procedure.

Symbol values display on the screen regardless of the message location.

See also: **DELETE SYMBOL**

Options:

/GLOBAL

Displays the value(s) from the global symbol table.

/LOCAL

Displays the value(s) from the local symbol table.

Examples: SHOW SYMBOL *A

Displays all the symbols that end with "A".

SHOW SYMBOL/LOCAL VARI??

Displays all the six letter local symbols that start with "VARI".

STOP

STOP (no arguments)

Terminates the execution of all command files.

See also: **EXIT**

UNDEFINE KEY

UNDEFINE KEY [state_name] key_name

Where: State_name is the state associated with the key.

Key_name is the name of the key to undefine.

Deletes the key definition for the key_name. If a state_name is specified, only the definition for the key associated with the named state is deleted.

Options:

/ALL Deletes all key definitions.

Example: UNDEFINE KEY/ALL

Restores all of the keys to their default definitions.

UNDEFINE STATE

UNDEFINE STATE state_name

Where: state_name is the state associated with the key.

Deletes the state_name specified. However, all key definitions associated with the state remain defined. Use the UNDEFINE KEY command to delete individual key definitions associated with the state.

Options:

/ALL Deletes all state definitions.

Example: UNDEFINE STATE/ALL
 Deletes all state definitions.

WAIT

WAIT [match-string-expression]

Where: Match-string-expression is a quoted string, lexical, symbol, or combination of the above joined by plus symbols (+) (i.e., "string" + symbol).

Waits for the match string expression to be received from the host. The string must match the host data exactly, but is not case sensitive unless the /CASE option is specified. WAIT is intended for command file use.

If the WAIT command is issued from the host, it does not prevent TELNETW from accepting additional host commands while it is waiting for the string.

See also: **READ**, **WRITE**

Options:

/CASE

Requires the comparison to be case sensitive.

/ERROR=label

Process continues at the label if an error occurs.

/NODISPLAY

Inhibits the display of data from the host.

/NOMESSAGE

Inhibits the display of the WAIT informational message.

/NOSTRING_DISPLAY [match-string-expression]

Inhibits the display of the match string.

/TIME_OUT=[hh:mm:]ss

Sets a time period to wait for the host string match. If the string is not received in the allotted time, the process continues with the next command line. Specifying a /TIME_OUT qualifier without a string will flush data received from the host until no data is received for the time specified. The /TIME_OUT option can be used with the /ERROR option.

WP

WP ON/OFF

Enables or disables WordPerfect version 4.2 mode. In WP 4.2 mode, TELNETW's keyboard assignments are altered to emulate the PC version of WordPerfect. Keyboard remapping is enabled in WP mode.

WP5

WP5 ON/OFF

Enables or disables WordPerfect 5.x mode. WP OFF also disables WP 5.x mode.

Example: UNDEFINE KEY/ALL ! Delete all key remapping
WP5 ON ! Turn WP 5.x mode on
WRITE HOST "WP" ! Start WP on the host
WP5 OFF ! Turn WP 5.x mode off
@EMINIT ! Redefine the remapped keys
EXIT ! Exit to emulation mode

This is useful if there is extensive key remapping in TNWINIT.ECF and you want to use WordPerfect. It will undefine the keys, enable WP mode, and work in interactive mode. When WordPerfect is exited, the command file again takes control, exits WP mode and runs TNWINIT.ECF to redefine the keys.

WRITE

WRITE logical-name[:] [string-expression]

Where: Logical-name is a DOS file logical assigned by the OPEN command, or the HOST logical. HOST is a special predefined symbol that points to the COM port selected for communications.

String-expression is a quoted string, lexical, symbol, or combination of the above joined by plus signs (+) (i.e. "string" + symbol).

Writes the string expression to the logical name, followed by a carriage return. The maximum record size that can be sent to a logical name is 255 characters.

If information is written to a file, the file pointer is positioned after the data written.

Flow control is provided through character delay (SET CDELAY) and line delay (SET LDELAY).

See also: **OPEN**, **READ**, **WAIT**

Options:

/ERROR=label

Process continues at the label if an error occurs.

/NOCR

No carriage return is sent after the string. Valid only with the logical HOST. (Generally used to slow communications to the host. A following carriage return is sent separately.)

/UPDATE

Specifies that the data previously READ is to be overwritten. It is valid only when rewriting the previous record read. The new data string must be the same length as the previous string or an error results. Valid only with a DOS file logical that has been opened with the /READ and /WRITE options.

Examples: WRITE HOST

Sends a carriage return to the host. (Also the same as WRITE HOST "")

```
WRITE HOST "SET X:=="ABC""
```

Sends SET X:=="ABC" to the host.

```
P1 = XRAY.DAT  
WRITE HOST " TYPE "P1"
```

Sends TYPE XRAY.DAT to the host.

```
READ FILE2 DATA  
WRITE/UPDATE FILE2 TEXT
```

Reads the first record from the logical name FILE2 into the symbol DATA. Then replaces the data just read with the information in symbol TEXT. The data read, and the data in TEXT must be the same length. The DOS file must have been opened using /READ and /WRITE.

XRECEIVE

XRECEIVE (no arguments)

Displays the XModem file transfer receive screen.

XSEND

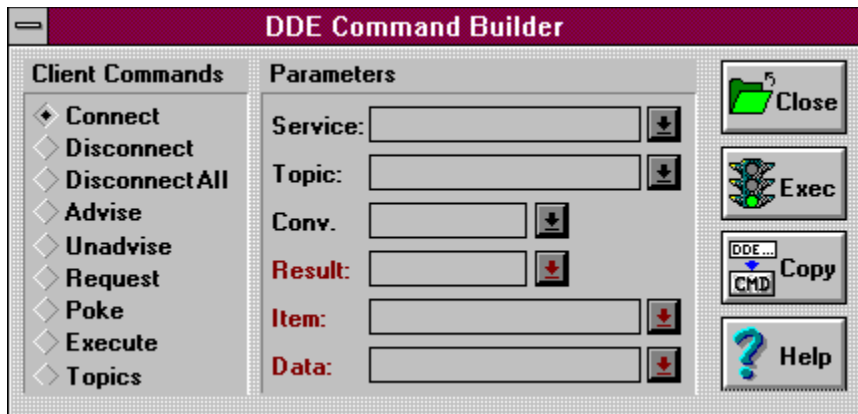
XSEND (no arguments)

Displays the XModem file transfer send screen.

DIALOG BOXES

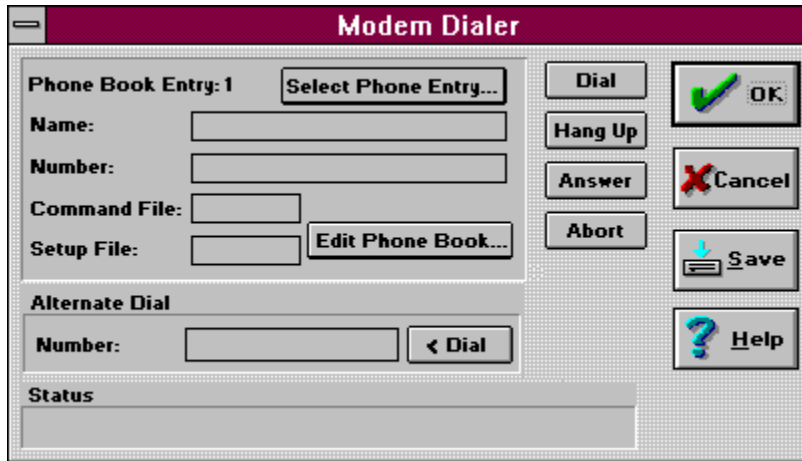
DDE Command Builder

The DDE Command Builder dialog box is used to select and execute DDE commands. See Appendix F in the Reference Manual for more information.



Modem Dialer

The Modem Dialer is used to make a modem connection to the host computer.



See also: [Select Phone Book Entry](#) [Phone Book](#)

Alternate Dial

Enters a modem phone number directly into the Modem Dialer.

Phone Book Entry

Shows the entry number, name, phone number, command file and setup file of the currently selected phone book entry. These fields cannot be edited. To edit phone book entries, you must select *Edit Phone Book...*

Status

Displays dialing, modem connection, and error messages.

Abort Button

Cancels a call that is in progress. *Abort* cannot be used after the "Connection successful" message is displayed in the *Status* box.

Answer Button

Readies TELNETW to answer an incoming call.

Dial Button

Dials the currently displayed phone book entry.

<<Dial Button

Dials the *Alternate Dial* number.

Edit Phone Book... Button

Displays the Phone Book dialog box. Phone book entries are added, edited and deleted in this menu.

Hang Up Button

Hangs up a modem connection.

Select Phone Entry... Button

Displays the Select Phone Book Entry dialog box. The Modem Dialer current entry is selected from this menu.

Name

The number's reference name. The name must start with an alphabetical character but can include any non-control character. The maximum length is 15 characters.

This field is optional.

Number

The number to dial. The phone number can include dashes or spaces for readability, or any valid Hayes command. The maximum length is 35 characters.

Softkey references can be included. Softkeys are convenient for entering your phone card number into the dialing sequence.

Enter a P as the first digit of the number for pulse dialing. Otherwise, tone dialing is used.

Command File

A command file specification can be entered to execute automatically after a successful connect. Command file names can be eight characters long. Do not enter the .ECF extension.

Setup File

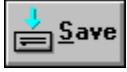
A setup file specification can be entered. If specified, the setup file will load prior to dialing the number.



Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.



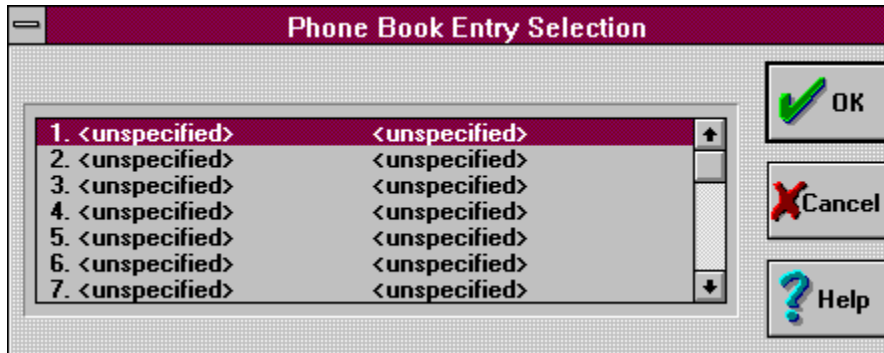
Saves the current entry number as the default. Each time the Modem Dialer is displayed, this default entry appears as the current entry.



Displays Help on the Modem Dialer dialog box. Click on any field to find helpful information.

Phone Book Entry Selection

The Phone Book Entry Selection dialog box is used to select a previously saved phone book entry. The selected entry displays in the Modem Dialer.





Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.



Displays Help on the Phone Book Entry Selection dialog box. Click on any field to find helpful information.

Phone Book

The Phonebook is used to store the phone numbers for the Modem Dialer.

Phone Book

Current Entry: 1

Name:

Number:

Command File:

Setup File:

1. DCS, Inc.	303-447-9251
2.	303-000-1111
3. Vax	909-456-7890
4. Unix	800-937-8263
5. <unspecified>	<unspecified>
6. <unspecified>	<unspecified>
7. <unspecified>	<unspecified>

Current Entry

Clicking on an *<unspecified>* entry in the list selects the current entry.

Name

An optional name can be entered as part of the entry. Enter a name as a reference for the entry.

The name must start with an alphabetical character but can include any non-control character. The maximum length for the name is 15 characters.

Number

Enter the phone number to dial. The phone number can include spaces or dashes for readability. A comma can be entered to specify a delay. The maximum length for a phone number is 35 characters.

Softkey

References to softkeys can be included in the phone number string to insert a phone card number, access code or credit card information into a dialing sequence. Softkeys are referenced in a number with the the following syntax:

<S:n>

Where: n is the number of the Softkey string.

Example: Current Softkey: **1 *70**

Softkey #1 is defined, in *Setup - Keyboard - Softkeys*, to disable call waiting.

Number: **<S:1>1709-444-9999**

When the entry containing this number is dialed, Softkey 1 is expanded and the command to disable call waiting is sent to the telephone system before dialing the number.

If pulse dialing is desired, enter a P as the first digit of the phone number. Otherwise tone dialing is used.

Command File

An optional command file specification can be entered as part of the entry. If a command file is entered it will be executed automatically.

Command filenames can be up to eight characters long. Do not enter a filename extension: the default .ECF extension is assumed.

Setup File

An optional setup file specification can also be entered as part of the entry. If a setup file is entered, it will be loaded before dialing the number.

Delete Button

To delete a phone book entry, click on the listed entry to be deleted so that it is highlighted. Then, click the *Delete* button.

Clear All Phone Book Entries Button

To clear the entire phone book click the *Clear All Phone Book Entries* button. A dialog box appears with the following notice:

Are you sure you want to erase all your phone book entries?

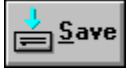
Click the *Yes* button to confirm the clear operation or click the *No* button to abort it.



Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.



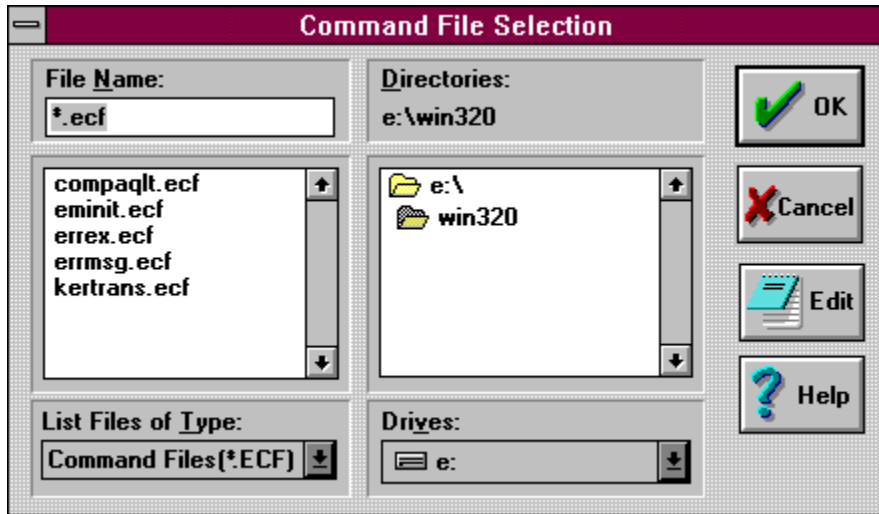
Saves the phonebook entries in the file, TNWDIR.DAT. Saving a phonebook doesn't save any other setup information.



Displays Help on the Phone Book dialog box. Click on any field to find helpful information.

Command File Selection

This dialog box is used to select and execute a command file.



File Name

Selects the command file to execute.



Executes the selected command file.



Exits the dialog box without saving any changes.



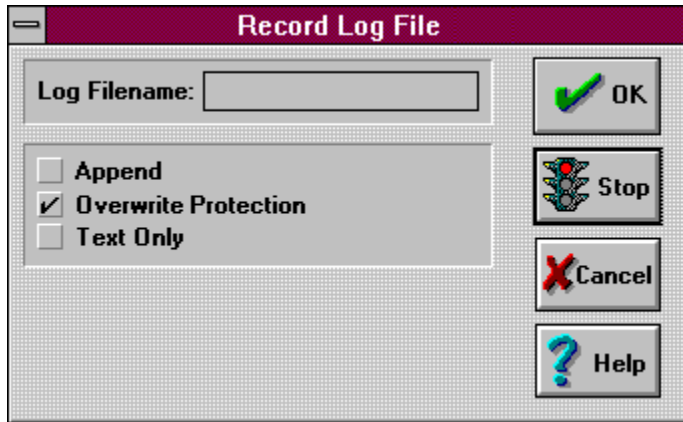
Launches Windows Notepad.



Displays Help on the Command File Selection Setup dialog box. Click on any field to find helpful information.

Record Log File

The Log feature records all data sent to TELNETW from the host into a file on the PC.



The image shows a dialog box titled "Record Log File" with a dark red header bar. The dialog contains a text input field for "Log Filename:" with a small cursor icon. Below this are three checkboxes: "Append" (unchecked), "Overwrite Protection" (checked), and "Text Only" (unchecked). On the right side, there are four buttons: "OK" with a green checkmark icon, "Stop" with a traffic light icon (red light lit), "Cancel" with a red X icon, and "Help" with a blue question mark icon.

Append

Selects append mode. If selected, the data recorded is appended to the end of the existing log file.

Log Filename

Specifies the name of the log file where the data is recorded.

Overwrite Protection

When enabled, prompts for overwrite confirmation if the specified log file already exists.

Text Only

Records only the text and ignores the control characters.



Opens the log file and enables recording. LOG appears on the status line.



Stops recording and closes the log file.



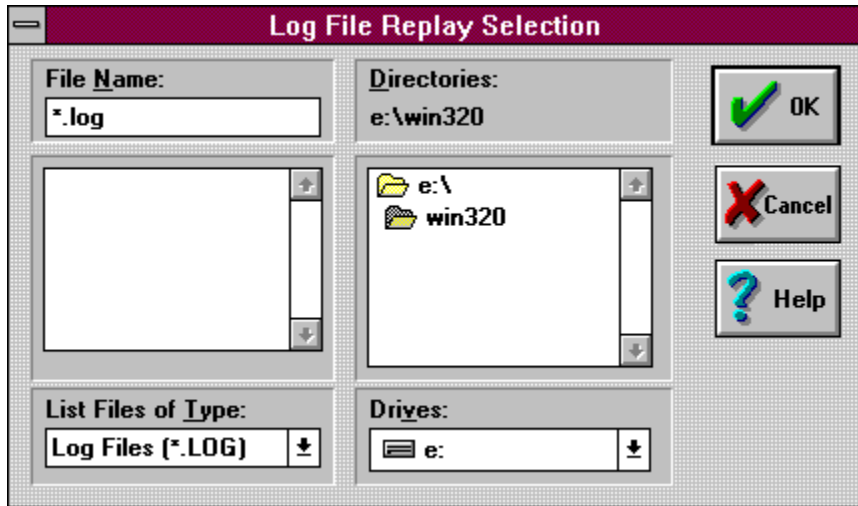
Exits the dialog box without saving any changes.



Displays Help on the Record Log File dialog box. Click on any field to find helpful information.

Log File Replay

This dialog box allows you to replay an existing log file.



Log File Replay

Select or enter the name of the log file to replay.



Replays the log file.



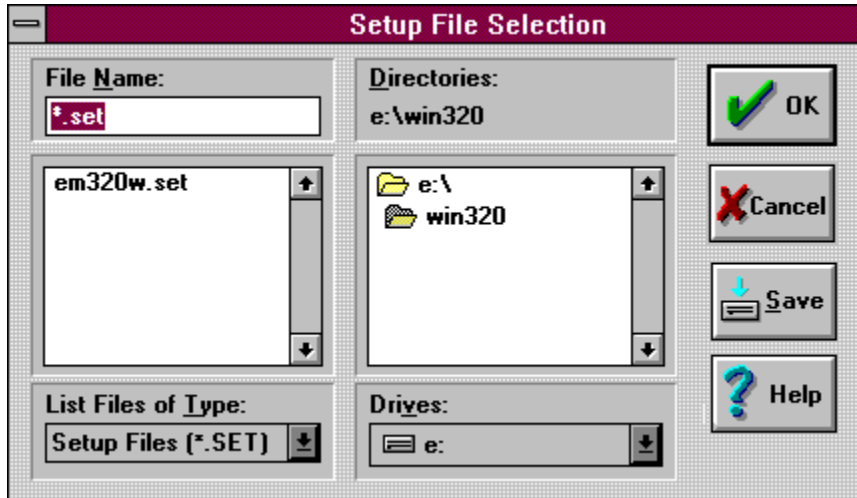
Exits the dialog box without saving any changes.



Displays Help on the Log File Replay dialog box. Click on any field to find helpful information.

Setup File Selection

Setup files contain all of the *Setup* dialog box selections. The Setup File Selection dialog box is used to load a different setup file, or create a new setup file with the current setup menu selections. A setup file must have the .SET extension for it to be recognized by TELNETW.



Setup Filename

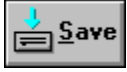
Select or enter the name of the setup file to load or save.



Loads the specified setup file's menu selections.



Exits the dialog box without saving any changes.



Saves the setup selections to the file, TELNETW.SET.



Displays Help on the Setup File Selection dialog box. Click on any field to find helpful information.

ASCII Transfer - Receive File Selection

Before attempting to receive a file from the host computer system, be sure the ASCII Setup is properly configured.

Information on ASCII file transfer can be found in Chapter 7 (File Transfer) of the Reference Manual.

XModem Transfer - Receive File Selection

Before attempting to receive a file from the host computer system, be sure the XModem Setup is properly configured.

Information on XModem file transfer can be found in Chapter 7 (File Transfer) of the Reference Manual.

ASCII Transfer - Send File Selection

Before attempting to send a file to the host computer system, be sure the ASCII Setup is properly configured.

Information on ASCII file transfer can be found in Chapter 7 (File Transfer) of the Reference Manual.

XModem Transfer - Send File Selection

Before attempting to send a file to the host computer system, be sure the XModem Setup is configured properly.

Information on XModem file transfer can be found in Chapter 7 (File Transfer) of the Reference Manual.

Kermit Transfer - Receive File Selection

Before attempting to receive a file from the host computer system, be sure the Kermit Setup is properly configured.

Information on Kermit file transfer can be found in Chapter 7 (File Transfer) of the Reference Manual.

Kermit Transfer - Send File Selection

Before attempting to send a file to the host computer system, be sure the Kermit Setup is configured properly.

Information on Kermit file transfer can be found in Chapter 7 (File Transfer) of the Reference Manual.

ASCII Transfer - Receive File Selection

Before attempting to receive a file from the host computer system, be sure the ASCII Setup is properly configured.

Information on ASCII file transfer can be found in Chapter 7 (File Transfer) of the Reference Manual.

XModem Transfer - Receive File Selection

Before attempting to receive a file from the host computer system, be sure the XModem Setup is properly configured.

Information on XModem file transfer can be found in Chapter 7 (File Transfer) of the Reference Manual.

ASCII Transfer - Send File Selection

Before attempting to send a file to the host computer system, be sure the ASCII Setup is properly configured.

Information on ASCII file transfer can be found in Chapter 7 (File Transfer) of the Reference Manual.

XModem Transfer - Send File Selection

Before attempting to send a file to the host computer system, be sure the XModem Setup is configured properly.

Information on XModem file transfer can be found in Chapter 7 (File Transfer) of the Reference Manual.

Kermit Transfer - Receive File Selection

Before attempting to receive a file from the host computer system, be sure the Kermit Setup is properly configured.

Information on Kermit file transfer can be found in Chapter 7 (File Transfer) of the Reference Manual.

Kermit Transfer - Send File Selection

Before attempting to send a file to the host computer system, be sure the Kermit Setup is configured properly.

Information on Kermit file transfer can be found in Chapter 7 (File Transfer) of the Reference Manual.

Print Screen

Prints the entire contents of the screen.

Print Auto

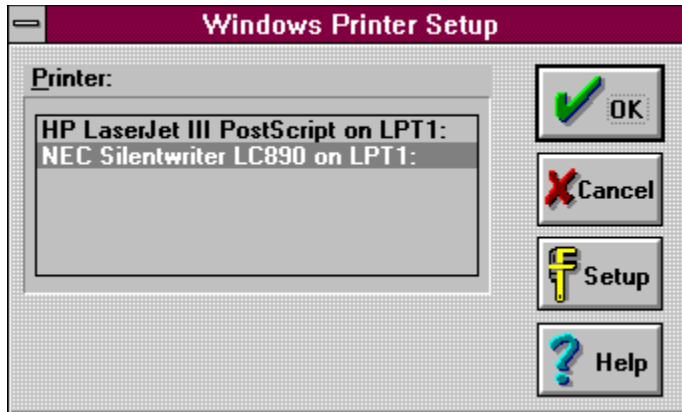
Sends each line of text displayed on the screen to the printer.

Print Controller Mode

Passes all host information directly to the printer without displaying it on the screen.

Windows Printer Setup

This dialog box contains a list of printers selected for Microsoft Windows. See the Microsoft Windows documentation for detailed information.





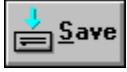
Displays the Printer Setup dialog box.



Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.



Saves the setup selections to the file, TELNETW.SET.



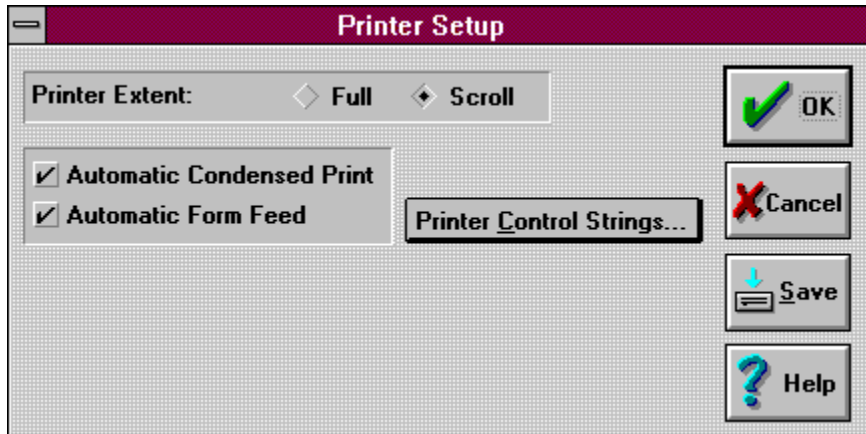
Displays Help on the Windows Printer Setup dialog box. Click on any field to find helpful information.

Exit

Exits TELNETW, closes the application window, and disconnects all sessions.

Printer Setup

The Printer Setup selects various options for the printer.



Automatic Condensed Print

Enables automatic print compression when printing in 132 column mode. TELNETW sends the Set 16 CPI (characters per inch) string prior to all print operations. At the end of the print operation, the Reset 16 CPI String is sent to the printer.

Automatic Form Feed

If enabled, the printer is sent a form feed after every print screen.

Printer Extent

Controls the screen area printed by a print screen operation.

Full All of the characters on the screen print.

Scroll Only the contents of the scrolling region print.

Printer Control Strings

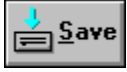
Click the **Printer Control Strings...** button to display the Printer Control Strings dialog box.



Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.



Saves the setup selections to the file, TELNETW.SET.

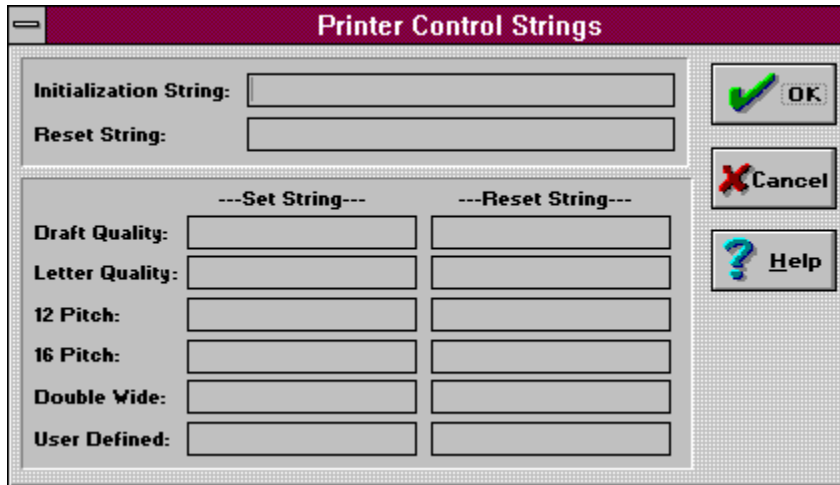


Displays Help on the Printer Setup dialog box. Click on any field to find helpful information.




Printer Control Strings

Printer Control Strings define the character strings used to control various printer functions. Most printer control strings have an enable and disable string that selects a printer feature and a disable string that deselected a printer feature.

The printer strings can include any ASCII control character. Refer to Appendix C (ASCII Control Code Table) to locate the correct control character mnemonic.



	--Set String--	--Reset String--
Initialization String:	<input type="text"/>	<input type="text"/>
Reset String:	<input type="text"/>	<input type="text"/>
Draft Quality:	<input type="text"/>	<input type="text"/>
Letter Quality:	<input type="text"/>	<input type="text"/>
12 Pitch:	<input type="text"/>	<input type="text"/>
16 Pitch:	<input type="text"/>	<input type="text"/>
Double Wide:	<input type="text"/>	<input type="text"/>
User Defined:	<input type="text"/>	<input type="text"/>

Buttons:   

12 Pitch String

- Set Selects 12 characters per inch. The 12 CPI string is sent by the SET PRINTER 12CPI command.
- Reset Resets 12 characters per inch. It is sent by the SET PRINTER NO12CPI command.

16 Pitch String

Set Selects 16, 16.5, or 17 characters per inch (condensed mode). The 16 CPI string is sent by the SET PRINTER 16CPI or SET PRINTER CONDENSED command.

Reset Resets 16 CPI mode. It is sent by the SET PRINTER NO16CPI or SET PRINTER NOCONDENSED command.

Double Wide String

- | | |
|-------|---|
| Set | Enables double wide character print mode. The Double Wide String is sent by the SET PRINTER DOUBLE command. |
| Reset | Disables double wide character print mode. It is sent by the SET PRINTER NODOUBLE command. |

Draft Quality String

Set Enables draft quality print mode. The Draft Quality String is sent by the SET PRINTER DRAFT command.

Reset Resets draft quality mode. It is sent by the SET PRINTER NODRAFT command.

Initialization String

The initialization string can be used to select a printer connected to a printer sharing device and select a printer feature, such as condensed print, prior to sending the printer data.

The initialize string is sent to the printer, at the beginning of printer output, when the following occurs:

- 1) *File - Print Auto* is clicked, and the Print Auto control sequence is received.
- 2) *File - Print Screen* is clicked.
- 3) *File - Print Controller Mode* is clicked, and the Print Controller mode control sequence is received.
- 4) A Print Cursor Line control sequence is received.
- 5) The SET PRINTER INITIALIZE command is issued.
- 6) A printer ON command is entered.

Letter Quality String

Set Enables letter quality print mode. The Letter Quality String is sent by the SET PRINTER LETTER command.

Reset Resets letter quality mode. It is sent by the SET PRINTER NOLETTER command.

Reset String

The Reset String can be used to deselect a printer attached to a printer sharing device and reset a printer feature that was enabled by the initialize string.

The Reset String is sent to the printer, at the end of a print operation, when the following occurs:

- 1) The *File - Print Auto* is reset, and a Reset Auto Print control sequence is received.
- 2) The end of a Print Screen is reached.
- 3) The *File - Print Controller Mode* is reset, and a Reset Controller mode control sequence is received.
- 4) A Print Cursor Line control sequence is finished.
- 5) A SET PRINTER INITIALIZE command is issued.
- 6) A printer OFF command is entered.

User-Defined String

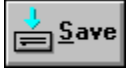
- Set The string sent when the SET PRINTER UD1 command is issued. The User-Defined String selects a printer feature not covered by one of the other printer control strings.
- Reset Resets the feature selected by the enable string. It is sent by the SET PRINTER NOUD1 command.



Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.



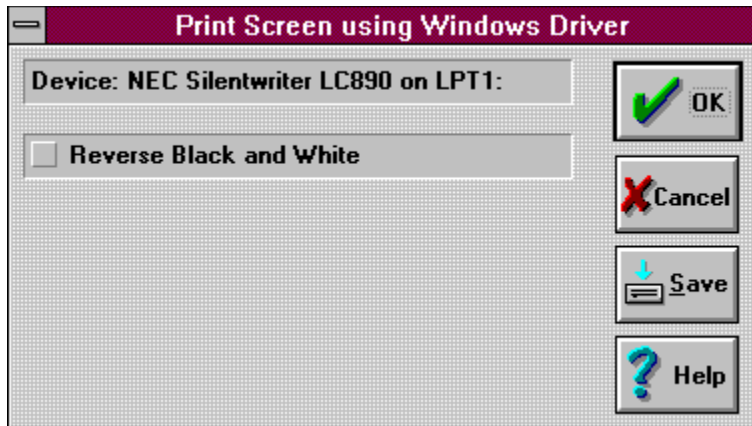
Saves the setup selections to the file, TELNETW.SET.



Displays Help on the Printer Control Strings dialog box. Click on any field to find helpful information.

Print Screen Using Windows Driver

Sends a copy of the screen to the selected Microsoft Windows printer.



Device

Displays the status of the printing device.

Reverse Black and White

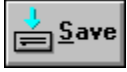
Normal printing is black text on a white background. This option places white text on a black background.



Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.



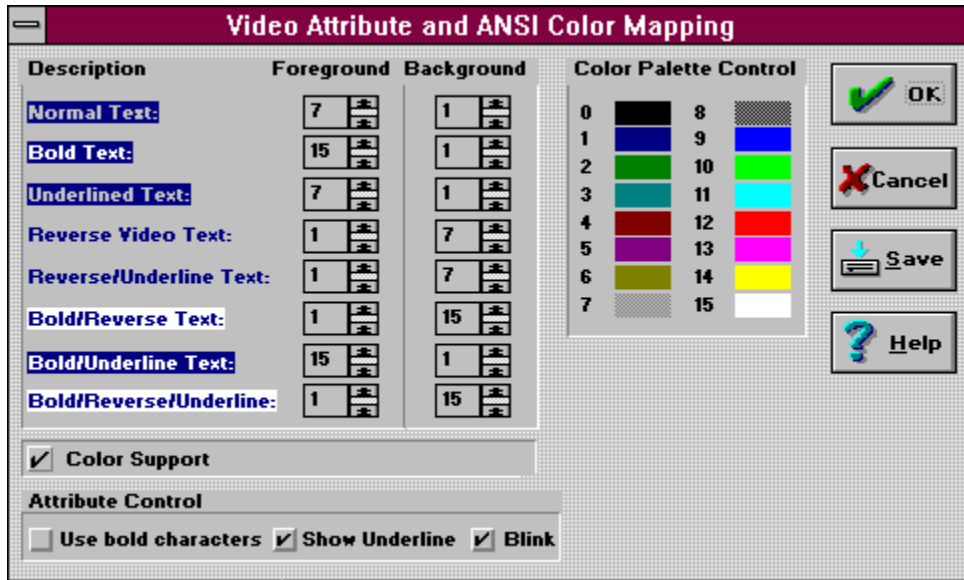
Saves the setup selections to the file, TELNETW.SET.



Displays Help on the Print Screen using Windows Driver dialog box. Click on any field to find helpful information.

Video Attribute and ANSI Color Mapping

Selects the color options for the emulator.



Color Palette Control

The color palette shows the possible colors for text foreground and background.

Color Support

TELNETW can display the screen in the normal black text on a white background, or you can map colors to different text attributes.

If Color Support is selected, TELNETW displays separate colors for background, text, and video attribute combinations.

Color Support should be disabled (default) on PCs with monochrome monitors that emulate a color graphics monitor.

Selecting Colors

Foreground and background colors can be selected for attributes such as, normal, bold, reverse and underlined.

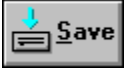
To select the colors, position the cursor to the foreground or background column of the video attribute to be set. Click on the up or down arrow until the number matches the desired color in the Color Palette Control.

Attribute Control

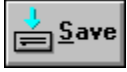
In addition to assigning colors to video attributes, attributes can be enabled to display as follows:

- Bold Bolds the characters by increasing font width.
- Underline Draws a line under the characters.
- Blink Blinks the characters.

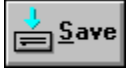
Attribute Control options affect both color and monochrome systems.



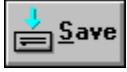
Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.



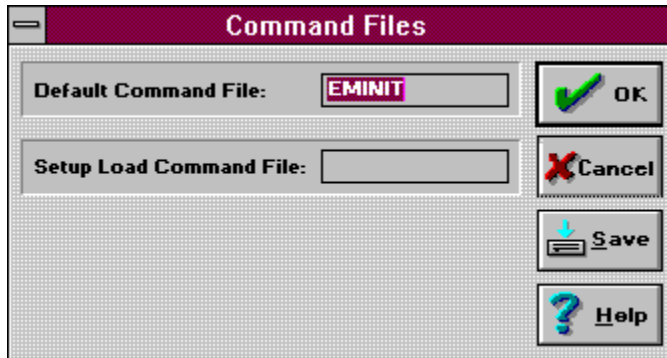
Saves the setup selections to the file, TELNETW.SET.



Displays Help on the Video Attribute and ANSI Color Mapping dialog box. Click on any field to find helpful information.

Command Files

Determines which command files are to be executed when the emulator loads.

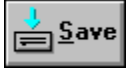


Default Command File

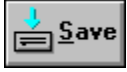
The name of the command file to be executed automatically when TELNETW loads.

Setup Load Command File

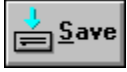
Specifies a command file to execute when an alternate setup file is loaded. This configuration is useful for changing parameters not saved in a setup file, such as define keys.



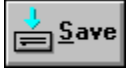
Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.



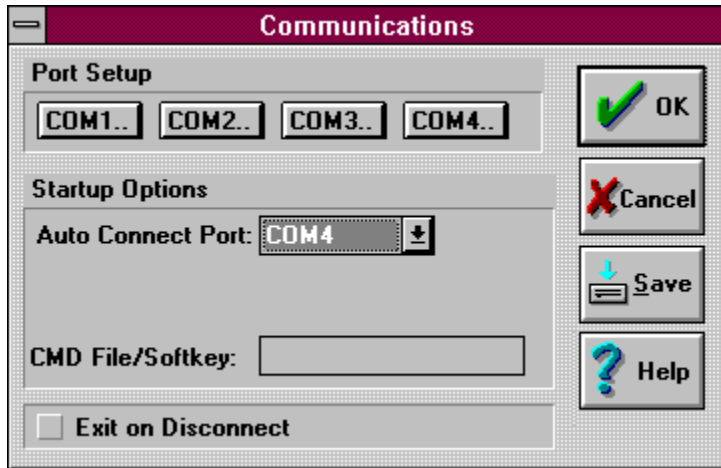
Saves the setup selections to the file, TELNETW.SET.



Displays Help on the Command Files dialog box. Click on any field to find helpful information.

Communications

Selects the communications options to be used for a connection to the emulator.



Auto Connect Port

Selecting an Auto Connect Port doesn't create an immediate connection. Instead, it tells TELNETW to automatically create a connection to the specified port whenever it is loaded.

Port Setup Buttons

Click on one of the COM buttons to select a communications port. The Port Setup dialog box for the selected COM port displays.

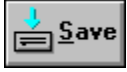
See also: [Port Setup](#)

Exit on Disconnect

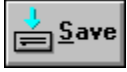
Exits the emulator as soon as the session (instance) is disconnected.

Cmd File/Softkey

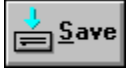
When TELNETW starts and auto connects to a port, the command file or softkey specified is executed. If an Auto Connect Port is not selected, the CMD File/Softkey option is ignored.



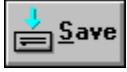
Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.



Saves the setup selections to the file, TELNETW.SET.



Displays Help on the Communications dialog box. Click on any field to find helpful information.

Port Setup

Selects the parameters for the selected port. You can select different parameters for each port.

The screenshot shows a 'Port Setup' dialog box with the following settings:

- Baud Rate:** 19200 (selected)
- Parity:** None (selected)
- Data Bits:** 8 (selected)
- Stop Bits:** 1 (selected)
- Protocol:** XON/XOFF (selected)
- Return Key:** CR (selected)
- Checkboxes:** In IR Redirection, Local Echo, Modem Control, and Transmit Limited are all unchecked.

Buttons on the right include OK (with a green checkmark), Cancel (with a red X), and Help (with a question mark). A warning message states: '← You must disconnect before changing' above a 'Receive Buffer Control...' button. A footer note says: 'These are settings for the current connection'.

Baud Rate

Selects the speed for the communications port. Available baud rates are 19200, 9600, 4800, 2400, 1200, 600, 300, 110, and 75.

Parity

Selects Even, Mark, None, Odd, or Space as the parity for the data word.

Even Even parity.

Mark Forces parity bit to a one.

None No parity bit. Use this setting when using eight data bits.

Odd Odd parity.

Space Forces parity bit to a zero. Recommended for 7-bit environments that don't require odd or even parity.

Data Bits

Selects seven or eight data bits. Seven bits is usually required when parity is set to odd or even.

Stop Bits

Sets the number of stop bits for each data word to one or two. One is the correct setting for most systems.

Protocol

Selects Xon/Xoff, RTS/CTS, or None as the communications flow control protocol.

- | | |
|----------|---|
| None | Disables all receive buffer control. In this mode, characters are lost if TELNETW can't process characters fast enough to prevent the receive buffer from overflowing. Set the receive buffer size above 3168 characters. |
| RTS/CTS | A hardware flow control mode. When the "Stop" level is reached, TELNETW drops the RTS (Request To Send) modem control signal. When the receive buffer character count falls below the "Start" level, RTS is enabled. If CTS is disabled, TELNETW cannot send characters. |
| Xon/Xoff | The flow control method used by all DEC computers and most other computer systems. Xon/Xoff sends a DC3 (Ctrl S) character to the host when the receive buffer reaches the "Stop" level. When the receive buffer character count falls below the "Start" level, a DC1 (Ctrl Q) is sent to the host. |

Return Key

The Return Key selects the characters sent to the host when the Return key is pressed.

CR Sends a carriage return.

CR/LF Sends a carriage return and line feed.

New Line Sends a carriage return and line feed. If a line feed is received from the host, a carriage return is added.

Int 14 Redirection

Determines whether or not the serial port is redirected to an INT 14 redirection.

Local Echo

Sends the data transmitted to the host computer to the PC's screen. Local Echo should be enabled when communicating with half-duplex computer systems.

Modem Control

Determines if the modem connect status is monitored. Disable modem control when using a direct connection to the host computer unless the port is configured for full modem control. Modem Control is recommended when using a modem.

- Disabled The modem status signals are not monitored. However, TELNETW always raises the DTR and RTS modem signals when loaded. The status line shows ONLINE when Modem Control is disabled.
- Enabled Monitors the carrier detect line. If the connection terminates, the status line changes to OFFLINE and the message "CONNECTION LOST" appears.

Transmit Limited

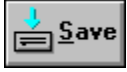
Enables or disables limited transmit speed.

- Enabled Limited transmit restricts TELNETW transmit speed from between 150 and 180 characters per second, regardless of the actual baud rate. This places a nominal interrupt burden on the host computer's operating system. Limited transmit may be necessary for proper communication with some half-duplex systems; this is particularly true for proper operation of the Softkeys.
- Unlimited Doesn't limit the transmit rate. TELNETW sends characters as fast as the baud rate allows. This is the normal mode of operation.

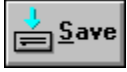
Receive Buffer Control... Button

Displays the Receive Buffer Control dialog box.

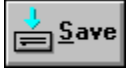
See also: [Receive Buffer Control](#)



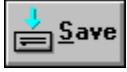
Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.



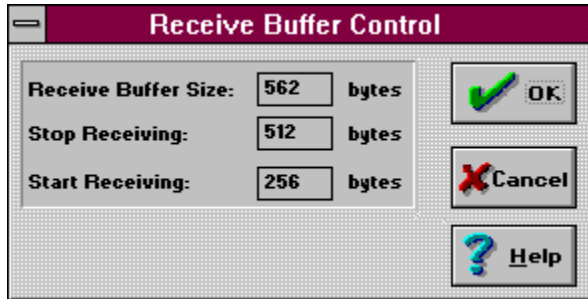
Saves the setup selections to the file, TELNETW.SET.



Displays Help on the COM Port Setup dialog box. Click on any field to find helpful information.

Receive Buffer Control

Sets the size of the receive buffer, and determines the start/stop levels for flow control modes.



The image shows a dialog box titled "Receive Buffer Control" with a dark red header. The dialog contains three input fields for buffer settings, each followed by the unit "bytes". To the right of these fields are three buttons: "OK" with a green checkmark icon, "Cancel" with a red X icon, and "Help" with a blue question mark icon.

Parameter	Value	Unit
Receive Buffer Size:	562	bytes
Stop Receiving:	512	bytes
Start Receiving:	256	bytes

Buttons: OK, Cancel, Help

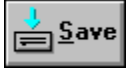
Receive Buffer Size

Determines the size of the receive buffer. Values from 400 to 65535 characters are valid. Receive buffer space is allocated from free memory. If insufficient memory exists, an error message is displayed.

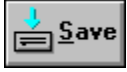
Stop Receiving / Start Receiving

Determines the receive buffer control start/stop levels for Xon/Xoff and RTS/CTS flow control modes.

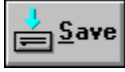
Special applications may require tuning of these parameters. In this case, some guidelines must be met. Stop Receiving must be at least 50 characters above Start Receiving and 50 bytes below the total buffer size.



Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.



Displays Help on the Receive Buffer Control dialog box. Click on any field to find helpful information.

Network Setup

Information on this dialog box is discussed in detail in your four page Network Supplement.

Network Setup


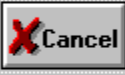

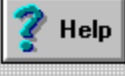
Information on this dialog box is discussed in detail in your four page Network Supplement.

Network Setup

Information on this dialog box is discussed in detail in your four page Network Supplement.

Dynamic Data Exchange (DDE)

Dynamic Data Exchange (DDE)

Server Name <input type="text" value="EM320W"/>	Timeout Client: <input type="text" value="7"/>	
<input type="checkbox"/> Append Instance		
<input checked="" type="checkbox"/> Server Enable		
		

Append Instance

When enabled, appends an instance number to the end of the server name. The instance executed first is assigned number one.

Server Enable

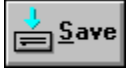
Allows TELNETW to act as a DDE server.

Server Name

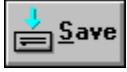
The name that TELNETW responds to as a server.

Timeout

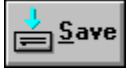
The time that TELNETW waits, after sending a message to the client, to receive an acknowledgement.



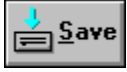
Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.



Saves the setup selections to the file, TELNETW.SET.



Displays Help on the DDE dialog box. Click on any field to find helpful information.

Display Setup

Selects options that affect the way the features appear or act on the screen.

The screenshot shows a dialog box titled "Display Setup" with a grey background and a dark red title bar. The dialog is organized into several sections:

- Character Set:** Radio buttons for "Multi-National" (selected) and "Latin".
- Columns:** Radio buttons for "80" (selected) and "132".
- Cursor:** Radio buttons for "Visible" (selected) and "Invisible".
- Cursor Type:** Radio buttons for "Underline" and "Block" (selected).
- Pound Sign:** Radio buttons for "#" (selected) and "£".
- Scrolling:** Radio buttons for "Fast" (selected) and "Slow".

Below these are several checkboxes:

- Host Writable Status Line
- Show Cursor Row/Column
- Auto Wrap
- Reverse Screen
- Full Screen 132 Column Mode

At the bottom left, there are three numeric input fields with up/down arrows:

- Display Lines: 24
- Jump Scrolling: 2
- Slow Scroll Delay: 150 msec.

At the bottom right, there is a button labeled "Tabs...".

On the right side of the dialog, there are four buttons stacked vertically:

- OK (with a green checkmark icon)
- Cancel (with a red X icon)
- Save (with a floppy disk icon)
- Help (with a question mark icon)

Auto Wrap

Enables or disables Auto Wrap. If disabled, the characters written to the last column of the screen overwrite each other. If enabled, the next received character after a full line wraps to the beginning of the next line.

Character Set

Selects the DEC supplemental character set. DEC Multinational is normally selected.

Columns

Sets the display width to 80 or 132 columns.

Cursor

Selects visible or invisible cursor.

Cursor Type

Selects a block or underline cursor.

Display Lines

Selects the number of lines that are displayed on the emulation screen.

Jump Scrolling

Determines the number of lines scrolled when updating the screen.

Pound Sign

Selects the American or British pound symbol as the character used for Shift 3. This is a VT100 compatibility option which is interpreted in VT320 mode. It is the equivalent of selecting the British National Replacement Character Set.

Reverse Screen

Disables or enables reverse video screen display on monochrome systems.

Scrolling

Determines if the screen scrolling is fast or slow.

Fast Fast corresponds to the VT320 Jump Scroll mode.

Slow Slow scroll is substituted for the VT320 smooth scroll. In Slow Scroll mode, TELNETW delays after each line feed to slow the display scroll speed. The length of the delay is determined by the Slow Scroll Delay option.

Slow Scroll Delay

The amount of time, in milliseconds, TELNETW delays before scrolling a new line of text onto the display. This parameter is ignored unless Slow Scroll mode is set. A maximum value of 999 milliseconds (approximately 1 second) is allowed.

Full Screen 132 Column Mode

This option can only be enabled when using the VGA (640 x 480) or EGA (640 x 350) Windows driver.

If enabled, TELNETW uses a special font that intermixes characters 4 and 5 dots wide to produce the highest resolution 132 display possible on an EGA or VGA. This font always produces a full-width emulation window. If disabled, all characters are written using a 4 dot wide font. This font doesn't produce a full-width emulation window and offers better performance than the full screen font. However, it is not as readable.

Host Writable Status Line

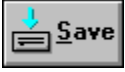
Enabling the status line adds one line to the emulation window and allows the host program to write on the line.

Show Row/Column Position

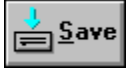
Displays the cursor's current row and column position on the status line.

Tab Settings

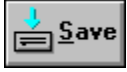
Click on *Tab...* to display the Tab Settings dialog box.



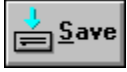
Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.



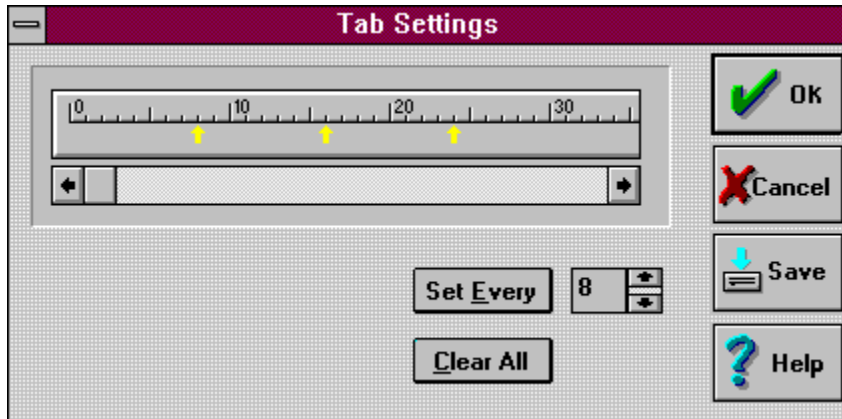
Saves the setup selections to the file, TELNETW.SET.



Displays Help on the Display Setup dialog box. Click on any field to find helpful information.

Tab Settings

The Tab Settings dialog box is used to select the location of the tabs.

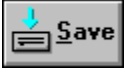


Every Button

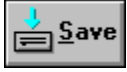
Sets tabs to every numbered position as specified.

Clear All Button

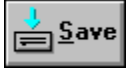
Clears all tab settings.



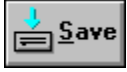
Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.



Saves the setup selections to the file, TELNETW.SET.



Displays Help on the Tab Settings dialog box. Click on any field to find helpful information.

ASCII FileTransfer Setup

Sets the parameters used for ASCII file transfer.

The screenshot shows a dialog box titled "ASCII Setup" with a maroon header bar. The dialog is divided into several sections:

- General Settings:**
 - Command Delay: 0
 - Host Prompt String: ><CR><NUL>
 - Host Cancel Character: <^C>
 - End of File String: <^Z>
- ASCII Send Setup:**
 - Outgoing Character Delay: 0 msec. Echo Check
 - End of Line Delay: 0 msec. Pad Null Lines
 - Turnaround Character: <LF> Strip Line Feed
- Advanced Options:**
 - Overwrite Protection on Received File
 - Send and Receive Command Strings...

On the right side of the dialog, there are five buttons: OK (with a green checkmark), Cancel (with a red X), Save (with a blue arrow and floppy disk icon), Help (with a blue question mark), and a button with a blue question mark icon.

Command Delay

Some operating systems, such as RSX11M, cannot accept file transfer commands as fast as TELNETW sends them. Entering a Command Delay (in milliseconds) slows down the rate that command lines are sent. A delay of 1000 delays TELNETW one second after issuing each command. A maximum delay of 9.999 seconds can be entered.

End of File String

The EOF string selected is sent to the host at the end of the data. The selection for most Digital operating systems is Ctrl Z.

Host Cancel Character

If a file receive is aborted, TELNETW sends this character to the host end the file transfer.

Host Prompt String

TELNETW searches for this string while receiving a file. When the string is encountered, the file transfer is terminated. Enter the host prompt for your system.

This field is used during file receive only.

Overwrite Protection

Prevents the overwriting of an existing PC file without operator confirmation.

Echo Check

Waits for the echo from each character transmitted before sending a new character.

End of Line Delay

Inserts a delay after each data line transmitted to the host. Normally set to zero.

Outgoing Character Delay

Some systems, especially half-duplex systems, cannot accept characters at the full baud rate. This problem can be overcome by entering a Character Delay. One to 99 milliseconds of delay can be entered for each character transmitted.

Pad Null Lines

If enabled, TELNETW pads empty lines of text by inserting a single space before the carriage return.

Strip Line Feed

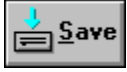
Setting this option strips all line feeds that follow carriage returns. Set to ON for most systems.

Turnaround Character

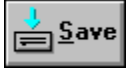
Prevents data overrun and insures that each line transmitted is received by the host, TELNETW waits for a Turnaround Character to be echoed by the host after sending each carriage return.

Send and Receive Command Strings Button

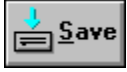
Displays the ASCII Send and Receive Command Strings dialog box.



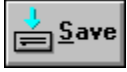
Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.



Saves the setup selections to the file, TELNETW.SET.



Displays Help on the ASCII Setup dialog box. Click on any field to find helpful information.

Send and Receive Command Strings

The image shows a dialog box titled "ASCII Send and Receive Command Strings". At the top, there are two buttons: "Show Receive Cmds" and "Show Send Cmds". Below these is a section labeled "Receive Commands" containing five numbered input fields. The first field contains the text "type ". To the right of the input fields are three buttons: "OK" (with a green checkmark icon), "Cancel" (with a red X icon), and "Help" (with a blue question mark icon).

ASCII Send and Receive Command Strings

Show Receive Cmds Show Send Cmds

Receive Commands

1. type "
- 2.
- 3.
- 4.
- 5.

OK Cancel Help

Show Receive Cmds Button

Displays the receive commands. See Appendix A for receive commands for different operating systems.

RECEIVE COMMANDS

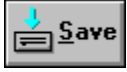
The receive commands start a utility on the host that transmits a file to the terminal port.

Show Send Cmds Button

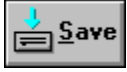
Displays the send commands. See Appendix A for send commands for different operating systems.

SEND COMMANDS

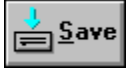
The transmit commands start a utility on the host that creates a file and receives data from the terminal port.



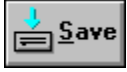
Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.



Saves the setup selections to the file, TELNETW.SET.



Displays Help on the ASCII Send and Receive Command Strings dialog box. Click on any field to find helpful information.

Kermit FileTransfer Setup

Sets the parameters used for Kermit file transfer.

The screenshot shows the 'Kermit Setup' dialog box with the following settings:

- Error Checking:** Checksum 1 Checksum 2 CRC
- Overwrite Protection:** None Prompt Rename
- Partial Files:** Keep Discard
- Prefixing:**
 - Request 8-bit Prefixing
 - Repeated Character
 - Control Character Prefix:** #
 - 8-bit Character Prefix:** &
 - Repeat Character Prefix:** ~
- End of Line Character:** <CR>
- Handshake Character:** <NUL>
- Packet Size:** 1000
- Pad Count:** 0
- Pad Character:** <NUL>
- Maximum Retries:** 9
- Start of Packet:** <^A>

Buttons on the right side: OK (green checkmark), Cancel (red X), Save (floppy disk), Help (question mark). A 'Set Default Kermit Settings' button is located at the bottom left.

End of Line Character

The control character that indicates the end of a line (packet terminator).

Error Checking

The type of error checking used. Select Checksum 1, Checksum 2, or CRC. CRC is recommended, but not supported by all systems.

Handshake Character

Used for half-duplex systems that require a handshake or turnaround character. The default value is none. Normal values for the turnaround character are Xon, Xoff, CR, LF, or Bell.

Maximum Retries

The number of times Kermit attempts a packet retransmission before giving up. Nine is the default.

Overwrite Protection

Prevents the inadvertent overwriting of PC files.

None No protection.

Prompt Prompts for confirmation whenever overwriting would occur.

Rename Automatically inserts a number as the last character of the filename. Each time the file is renamed, the number is incremented by one.

Packet Size

Sets the maximum number of characters in a Kermit data packet. The recommended default is 1000 bytes. The maximum is 3000 bytes. Sizes over 94 require Long Packet support from the host Kermit program.

Pad Character

The character that pads outgoing packets. Normally padding is not required. However, it is useful when working with half-duplex or slow host systems. Null is the default character. Pad characters are not sent if the pad count is zero.

Pad Count

The number of pad characters sent prior to sending the packet. Padding is seldom required. The default is zero.

Partial Files

Creates partially complete files when receiving a file from a host system and an error occurs.

Discard Tells Kermit to delete partially complete files.

Keep Tells Kermit to save the data received before the error occurred.

Start of Packet

The control character indicating the start of a Kermit packet. SOH (Ctrl A) is the default character. Change this field only when the host Kermit program requires a different character. If the Start of Packet character is incorrect, TELNETW Kermit won't be able to communicate with the host Kermit.

8-Bit Character Prefix

The character indicating that an 8-bit character follows. The default (&) is used on all known Kermit implementations.

Control Character Prefix

The character that indicates control encoding. The default character (#) is used by all known Kermit implementations.

Repeat Character Prefix

The character indicating that a repeated character sequence follows. The default (~) is used by all known Kermit implementations.

Repeated Character

Enables or disables repeated character encoding which compresses data transmission by substituting a count field for a string of repeated characters. This results in a significant reduction in packet transmissions. Normally repeated character encoding should be enabled. Even when the host program doesn't support repeated character encoding, its use is negotiated automatically by the two Kermit programs.

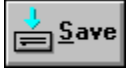
Request 8-Bit Prefixing

Allows the transmission of binary files over communication paths limited to a 7-bit data path, by encoding 8-bit data into two 7-bit characters. There are two choices for the Request 8-Bit option:

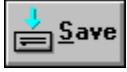
- Disabled Doesn't request 8-bit prefixing but allows it when the host requests it.
- Enabled Requests 8-bit prefixing. If odd, even, mark, or space parity is selected, 8-bit prefixing is requested automatically.

Set Default Kermit Settings... Button

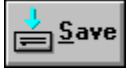
Resets all selections to the default values.



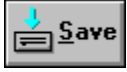
Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.



Saves the setup selections to the file, TELNETW.SET.



Displays Help on the Kermit Setup dialog box. Click on any field to find helpful information.

XModem File Transfer Setup

Sets the parameters used for XModem file transfer.

The screenshot shows the XModem Setup dialog box with the following settings:

- Command Mode:** Radio buttons for **Auto** (selected) and **Manual**.
- Error Checking:** Radio buttons for **CRC** (selected) and **Checksum**.
- Overwrite Protection on Received Files**
- Command Delay:** A text box containing the value **0**.
- Show Receive Cmds** and **Show Send Cmds** buttons.
- Receive Commands:** A list of four text boxes:
 1. `xmodem`
 2. `s "`
 3. (empty)
 4. (empty)

On the right side of the dialog, there are four buttons: **OK** (with a green checkmark), **Cancel** (with a red X), **Save** (with a floppy disk icon), and **Help** (with a question mark icon).

Command Delay

Some operating systems, such as RSX11M, cannot accept file transfer commands as fast as TELNETW sends them. Entering a Command Delay (in milliseconds) slows down the rate that command lines are sent.

Command Mode

Determines whether TELNETW automatically issues the host commands to start the XModem program.

Error Checking

Selects the type of error checking used when transmitting files: CRC or Checksum.

Overwrite Protection on Received File

If enabled, prompts for confirmation before overwriting an existing PC file.

Show Receive Commands Button

Displays receive commands.

TELNETW automatically starts the host transmit program if Auto mode is selected. Enter the receive file commands necessary to start the host transmit program. Next, enter any commands required to begin the send file sequence.

Enter a **single** asterisk in place of the filename (The actual filename is substituted when the commands are issued).

If the host program requires an exit command, enter it last.

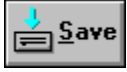
Contact your System Manager or Operations staff if you need help setting up the receive commands.

Show Send Commands Button

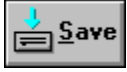
Displays send commands.

The send file command setup is fundamentally the same as the receive command setup. Input the commands necessary to start the host transmit program, to receive a file, and then to exit.

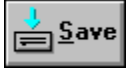
Use a **single** asterisk in place of the filename. (The actual filename is substituted when the commands are issued).



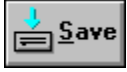
Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.



Saves the setup selections to the file, TELNETW.SET.



Displays Help on the XModem Setup dialog box. Click on any field to find helpful information.

International Setup



Window Keyboard Driver

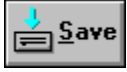
Displays the name of the Windows keyboard driver.

Character Set Mode

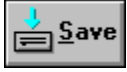
Selects the DEC Multinational character set, or the 7-bit character set selected in the *National Character Set* option.

National Character Set

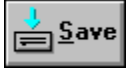
Selects the 7-bit National Replacement Character Set.



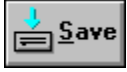
Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.



Saves the setup selections to the file, TELNETW.SET.



Displays Help on the International Setup dialog box. Click on any field to find helpful information.

Key Behavior

Key Behavior		
Backspace Key: <input checked="" type="checkbox"/> Delete <input type="checkbox"/> Backspace	<input checked="" type="button" value="OK"/>	
IBM Keypad: <input checked="" type="checkbox"/> Numeric <input type="checkbox"/> Arrows		
DEC Options		
Cursor Pad: <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Application		
Keypad: <input checked="" type="checkbox"/> Numeric <input type="checkbox"/> Application	<input checked="" type="button" value="Cancel"/>	
Menu Bar Accelerator Key Operation		
<input type="checkbox"/> Off <input type="checkbox"/> ALT Key Only <input checked="" type="checkbox"/> ALT Key Plus Letter Key	<input checked="" type="button" value="Save"/>	
	<input checked="" type="button" value="Help"/>	

Backspace Key

Backspace Sets the Backspace key to generate the backspace (08 Hex) code and Shift Backspace to generate the delete (7F Hex) code.

Delete Sets the Backspace key to generate the delete (7F Hex) code and Shift Backspace to generate the backspace (08 Hex) code.

IBM Keypad

Uses the unshifted IBM keypad keys 2, 4, 6, and 8 (keypad arrow keys) as numeric keypad keys or arrow keys. The IBM Keypad parameter determines the initial function of the 2, 4, 6, and 8 keypad keys.

- Arrows The keypad 2, 4, 6, and 8 keys generate the VT320 arrow key codes. The Shift 2, 4, 6, and 8 keys generate the numeric values. The status line shows ARROWS when the keypad is in this mode.
- Numeric The keypad 2, 4, 6, and 8 keys generate the VT320 codes for the numeric values. The codes generated depend upon the VT320 Keypad mode in effect (Numeric or Application). The Shift 2, 4, 6, and 8 keys generate the VT320 arrow key codes. The status line shows NUMERIC when the keypad is in this mode.

Cursor Pad

Allows manual control of the codes generated by the VT320 cursor pad. The cursor pad is normally controlled by the host computer. This setup parameter is **not** saved in the setup file. Each time TELNETW is loaded it is set to the default value - Normal.

Application The keypad generates control sequences used by application programs.

Normal The keypad generates the numeric values printed on the keys.

Keypad

Allows manual control of the codes generated by the VT320 keypad. The Keypad mode is normally controlled by the host computer. This setup parameter is **not** saved in the setup file. Each time TELNETW is loaded it is set to the default value - Numeric.

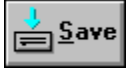
Application The keypad generates control sequences used by application programs.

Numeric The keypad generates the numeric values printed on the keys.

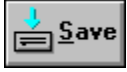
Menu Bar Accelerator Key Operation

Specifies the operation of the accelerator keys.

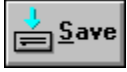
Alt Key Only	Pressing and releasing the Alt key moves the cursor up to the menu bar. The arrow keys or the underlined letter can then be used to select the option of interest.
Alt Key + Letter Key	Pressing the Alt key plus the underlined letter of the menu bar option displays the associated drop down menu or dialog box.
Off	Uses the mouse to make menu bar selections. All default emulator key definitions are available when this option is selected.



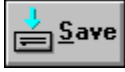
Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.



Saves the setup selections to the file, TELNETW.SET.



Displays Help on the Key Behavior dialog box. Click on any field to find helpful information.

Margin/Warning Bells

Margin/Warning Bell

Margin Bell

Warning Bell

 OK

 Cancel

 Save

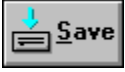
 Help

Margin Bell

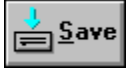
If enabled, the margin bell sounds when the cursor is eight columns from the end of the current line. The Margin Bell only sounds during input.

Warning Bell

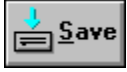
If enabled, TELNETW generates a bell tone for operating errors and receipt of a Ctrl G character.



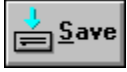
Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.



Saves the setup selections to the file, TELNETW.SET.



Displays Help on the Margin/Warning Bells dialog box. Click on any field to find helpful information.

Softkeys



Current Softkey

Allows user-defined strings to be entered into Softkeys 1 - 12 (defaults are Ctrl F1 - Ctrl F12). The strings are sent to the host computer by pressing the keys assigned as Softkeys. A maximum of 62 characters can be entered. The string can contain carriage returns, line feeds, control characters, and Softkey commands.

Select a Current Softkey number, position the typing cursor and enter the strings.

Accept Changes to Current Softkey Button

Saves the softkey contents.

Discard Changes to Current Sofkeys Button

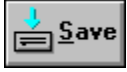
Ignores any changes you have made, or exits that softkey without entering a string.

Erase Current Softkey Button

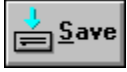
Clears the contents of an individual softkey.

Clear All Softkey Entries Button

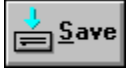
Clears the contents of all defined softkeys.



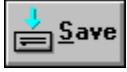
Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.

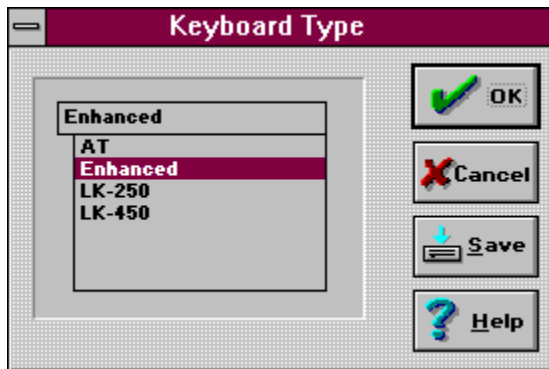


Saves the setup selections to the file, TELNETW.SET.



Displays Help on the Softkeys dialog box. Click on any field to find helpful information.

Keyboard Type



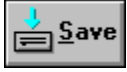
Keyboard

Selects the keyboard type and establishes the default key assignments.

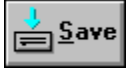
AT Selects the AT keyboard configuration.

Enhanced Selects the Enhanced keyboard.

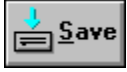
LK250/LK450 Selects a DEC LK250 or LK450 keyboard.



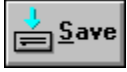
Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.



Saves the setup selections to the file, TELNETW.SET.



Displays Help on the Keyboard Type dialog box. Click on any field to find helpful information.


Log File Replay Setup


Log File Replay Setup

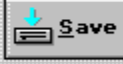
Replay Rate:


Pause on Clear Screen
 Pause on Every Page

Pause on:

 OK

 Cancel

 Save

 Help

Pause On

This parameter is used to enter a comparison string. When the string is matched by data in the replay file, a replay pause occurs. The string can be up to 25 characters in length and can include control characters. To disable the comparison string, clear the field by pressing the Del key.

Pause on Clear Screen

Pauses the log file replay each time the screen is cleared.

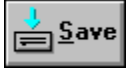
Pause on Every Page

Pauses the log file replay when a new page of text is scrolled onto the screen.

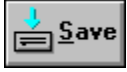
Replay Rate

Sets the speed rate of replay for log files.

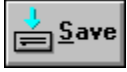
KEY	APPROXIMATE RATE
1	300 baud
2	1200 baud
3	2400 baud
4	4800 baud
5	9600 baud
6	Maximum



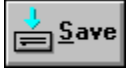
Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.



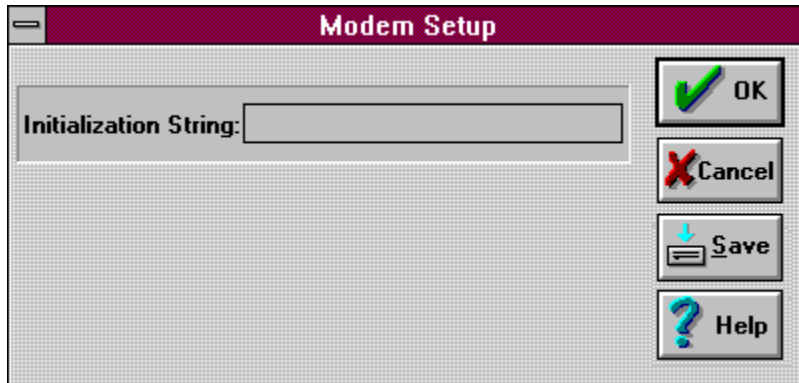
Saves the setup selections to the file, TELNETW.SET.



Displays Help on the Log File Replay dialog box. Click on any field to find helpful information.

Modem Setup

Sets the initialization string used by the Modem Dialer.



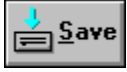
Initialization String

The Initialization String is sent to the modem prior to the dialing commands. It can be used to set or adjust modem parameters. Otherwise, it is not needed and should be left blank.

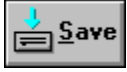
Example: Init String ATS7=45S10=1000

Where: S7=45 Changes the time the modem waits, after dialing, for a carrier from the remote modem, to 45 seconds.

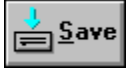
S10=1000 Changes the loss of carrier detect time to 1 second (1000 milliseconds).



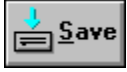
Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.



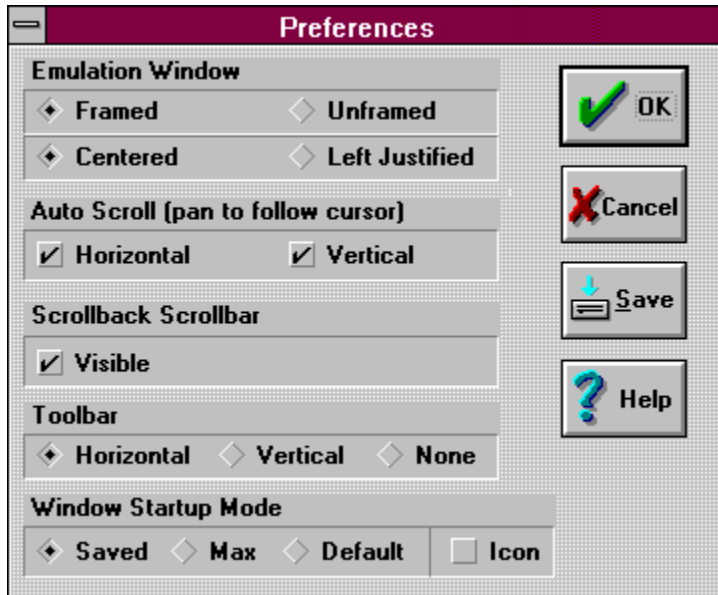
Saves the setup selections to the file, TELNETW.SET.



Displays Help on the Modem Setup dialog box. Click on any field to find helpful information.

Preferences

Sets the options that affect the emulation window.



Auto Scroll (pan to follow cursor)

Enables or disables scrolling to follow the cursor when it is positioned outside the window.

Emulation Window

Selects the way the emulation window looks on the screen.

Scrollback Scrollbar

Enables or disables the display of scrollbars for scrollback.

Toolbar

Selects the display location of the toolbar.

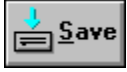
Show Scroll Bars

Enables or disables the scroll bar display when the window is too small to display the current information.

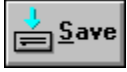
Window Startup Mode

Determines the display mode of the application window after starting TELNETW.

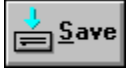
- Default Windows determines the initial size and location of the application window.
- Icon Starts as an icon. When expanded, Windows determines the size and location.
- Maximize The application window displays at its maximum size.
- Saved Uses the size and position information saved by clicking on *Save Window Position*.



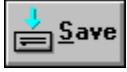
Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.



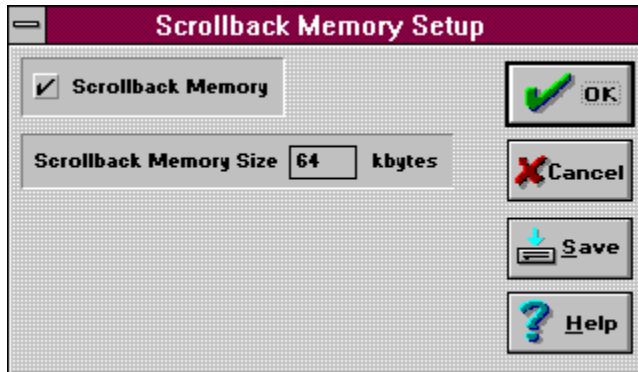
Saves the setup selections to the file, TELNETW.SET.



Displays Help on the Preferences dialog box. Click on any field to find helpful information.

Scrollback Memory Setup

Sets the size of scroll memory.



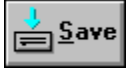
Scrollback Memory

Disables or enables scrollback memory. If enabled, lines of text that scroll off the screen are saved in memory.

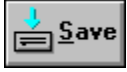
Scrollback Memory Size =

Sets the size of scroll memory in K-bytes. The minimum is 10 K-bytes and the maximum is 64 K-bytes.

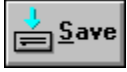
If Scroll Memory is enabled when the size is changed, the memory size is modified immediately. If there is insufficient free memory, the request is down-sized to available memory. If the allocation fails entirely, an error message displays.



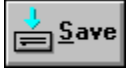
Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.



Saves the setup selections to the file, TELNETW.SET.



Displays Help on the Scrollback Memory dialog box. Click on any field to find helpful information.

Terminal Setup

Terminal Setup

DEC Emulation

VT320
 VT220
 VT102
 VT100
 VT52

VT200/300 Options

7-bit Key Code
 8-bit Key Code





Answerback

Auto Answerback Conceal Message

Message:

Terminal Status: Online Local
User Defined Keys: Lock Unlock
User Features: Lock Unlock

Control Sequence Debug

 **OK**
 **Cancel**
 **Save**
 **Help**

Control Sequence Debug

Control Sequence Debug mode is a substitute for VT320 Display Controls mode.

When debug mode is enabled, and DEBUG is pressed, VT320 control sequences display on the bottom line of the screen before they are executed. Pressing any key executes the sequence. Pressing DEBUG again allows control sequences to execute without being displayed.

Terminal Status

Selects Online or Local mode. In Local mode, TELNETW doesn't send data to the host or process data received from the host. However, any keys typed are echoed to the screen. Online mode allows TELNETW to communicate with the host system.

User-Defined Keys (UDKs)

Locks or unlocks the user-defined keys. Locking the keys prevents downloading and protects the current key contents. UDKs can be locked by the host system but can only be unlocked through the setup menu. When the keys are unlocked, the host can download function keys F1 - F20 with user-defined strings.

User Features

Locks or unlocks TELNETW User Preference Features, which include:

- Slow or Fast Scroll
- Normal or Reverse Screen

Selecting Lock instructs TELNETW to ignore any control sequences that affect the User Preference Features.

Auto Answerback

Enables or disables the sending of the Answerback Message automatically when a communication connection is established. Modem Control must be ON if Auto Answerback is enabled. Disable is the default value.

Conceal Message

If Conceal Answerback is selected, the Answerback Message is not displayed on the screen. Instead, the word " Concealed>" appears in place of the message. Once an Answerback Message is concealed, it can only be made visible by entering a new message.

Message

The Answerback Message is sent on receipt of an ENQ code, clicking *Execute - Send Answerback*, or entering the SEND ANSWERBACK command. It is generally used as a security measure by host computer systems to identify certain terminals or users.

VT320

Emulates a DEC VT320 terminal. In this mode TELNETW interprets all 7-bit and 8-bit control sequences and displays multinational characters.

This is the recommended mode for combined VT102, VT220 and VT320 operation since it offers compatibility with VT100 applications while providing the full range of VT320 features.

VT220

Emulates a DEC VT220 terminal. All VT320 programming features are available. When VT220 is selected, the terminal identifies itself as a VT220 instead of a VT320.

VT102

Emulates the DEC VT102 and identifies itself as a VT102 terminal to the host. All VT102 control sequences are emulated. This mode is recommended for VT100 emulation.

VT100

Emulates the VT102 terminal. However, it identifies itself as a VT100 with AVO and a printer. This mode is for use with programs that require the VT100 identification sequence. All VT102 control sequences are emulated in this mode.

VT52

Emulates the older DEC VT52 terminal.

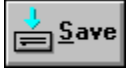
7-bit

TELNETW sends only 7-bit control sequences to the host, but still interprets all 7-bit and 8-bit control sequences and characters received.

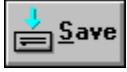
8-bit

Eight-bit control sequences are transmitted to the host computer by TELNETW.

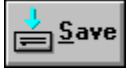
Note: VT320 8-bit mode is not a communication setting. It is an operating environment. To select 8-bit communications, configure TELNETW to 8 Data Bits and No Parity.



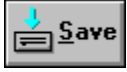
Exits the dialog box and saves your selections until you exit TELNETW.



Exits the dialog box without saving any changes.



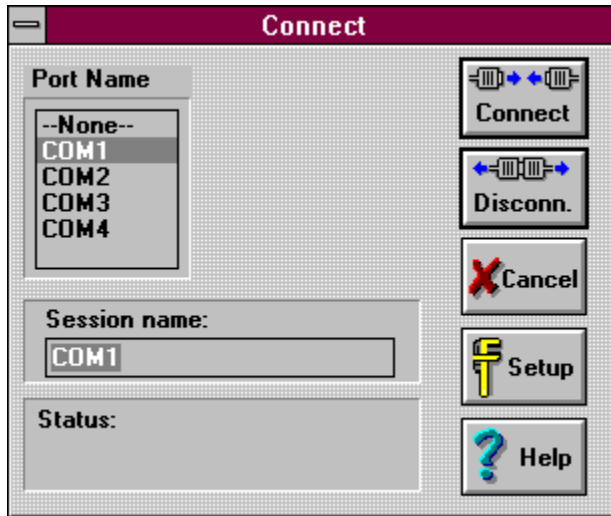
Saves the setup selections to the file, TELNETW.SET.



Displays Help on the Terminal Setup dialog box. Click on any field to find helpful information.

Connect

Makes a connection to the emulator.



Port Name

Selects the COM port. Available options are; COM1, COM2, COM3, COM4 and None.

Session Name

If the default session name is unacceptable, enter a new name in the Session Name input box.

Status

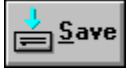
Displays the connection status.



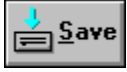
Creates a connection.



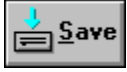
Disconnects a session.



Displays the COM Port Setup dialog box.



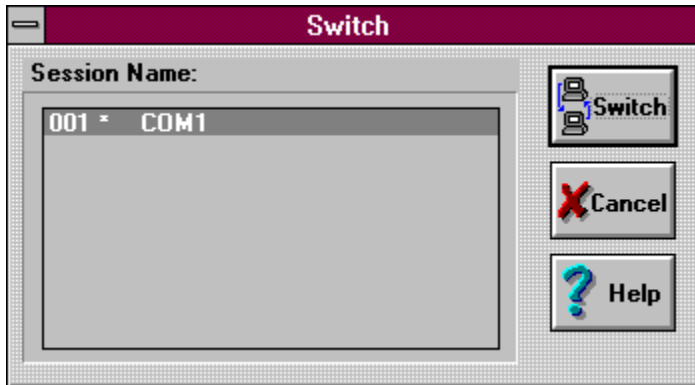
Exits the dialog box without saving any changes.



Displays Help on the Connect dialog box. Click on any field to find helpful information.

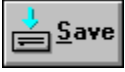
Switch

Switches between instances of the emulator.

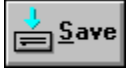


Session Name

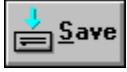
Lists the number and the name of all open sessions.



Switches between sessions.



Exits the dialog box without saving any changes.



Displays Help on the Switch dialog box. Click on any field to find helpful information.

KERMIT

Before using Kermit, a Kermit file transfer program must be installed on the host computer.

Aborting

Commands

Command Line Examples

File Formats

Networks

Overview

Receive Files

Receive File Status

Send Files

Send File Status

ABORTING

Kermit file transfers can be aborted in the following ways.

- 1) A single file can be interrupted without affecting the transfer of the next file by clicking on *Skip File*.
- 2) A graceful abort terminates the transfer by using the correct protocol procedure. In this case, clicking on *Abort* or pressing Alt A. However, this may not work if the host Kermit is hung or in an incorrect state.

COMMANDS

TELNETW Kermit commands can be entered several ways.

Note: The KERMIT command may be abbreviated to the minimum number of characters to make it non-ambiguous.

- 1) From the emulation screen by clicking *File - Kermit Cmd Line* or pressing KERMIT (default is Alt K).

Example: Click on *File - Kermit Cmd Line*
EM-Kermit>

- 2) By issuing the KERMIT command on the emulator command line.

Example: Click on *Execute - Command Line*
CMD>KERMIT
EM-Kermit>

- 3) Entering Kermit commands at the emulator command prompt preceded by the word KERMIT.

Example: Click on *Execute - Command Line*
CMD>KERMIT SEND TEST.DAT

- 4) From an emulator command file.

Example: Click on *Execute - Command Line*
CMD>@SENDIT.COM

Where: SENDIT.COM contains:
KER SEND *.DAT
END

Before issuing TELNETW Kermit commands, the Kermit program should be running on the host computer.

The following table lists the available emulator Kermit commands. For a list of the commands available on your host Kermit, please see your host Kermit manual or help system.

COMMAND	FUNCTION
<u>BYE</u>	Logout the host and exit to Windows
<u>CONNECT</u>	Return to Emulation mode
<u>DOS</u>	Execute DOS command
<u>END</u>	End Kermit server session
<u>EXIT</u>	Exit to Windows
<u>FINISH</u>	Tell server to exit
<u>GET</u>	Receive files from server
<u>HELP</u>	Lists Kermit commands
<u>LOGOUT</u>	Tell server to logout
<u>RECEIVE</u>	Non-server receive file

SEND

Sends file to remote Kermit

BYE

BYE (no arguments)

Tells the remote server to logout, exits TELNETW, and terminates the host session.

CONNECT

CONNECT (no arguments)

Exits from emulator Kermit mode and returns to host Kermit mode. Does not send any commands to the host Kermit. (Equivalent to pressing KERMIT or clicking *File - Kermit Cmd* while in host Kermit mode).

DOS

DOS [DOS command string]

Displays an EM DOS Shell window.

If a DOS command string is not specified, an active EM DOS Shell window appears. Any valid DOS command can be entered at the DOS prompt. To exit from DOS, type EXIT.

If a DOS command is specified, an active EM DOS Shell window displays the result of the command. Click on the upper left corner of the window and select Close to return to emulation mode.

When a DOS command is issued by the host computer or from a command file, TELNETW automatically returns without waiting for keyboard input.

END

END (no arguments)

Tells the host server to exit and returns to Emulation mode. The host returns to the Kermit prompt or to the system prompt. The action taken depends on the host Kermit implementation.

EXIT

EXIT (no arguments)

Exits to Windows without sending any commands to the host Kermit.

FINISH

FINISH (no arguments)

Tells the host server to exit. TELNETW remains in Kermit mode. The host returns to the Kermit prompt or to the system prompt. The action taken depends on the host Kermit implementation.

GET

GET [switches] s-file [d-file]

Sends a GET command to the server. The server then sends the file(s) matching the s-file (source) specification to the PC.

The optional d-file (destination) specification renames the source file to the d-filename on the PC.

To receive multiple files, separate the filenames with commas or use wildcards.

Examples: GET *.DAT \DATA*. *
GET *.DAT \DATA\
GET *.DAT \DATA

Transfers all .DAT files from the host to the \DATA subdirectory.

Options:

/END Terminates server mode and returns to emulation mode after successful file transfer.

/EOF Stores a DOS End of File character (Ctrl Z) as the last character of the files transferred.

/LOGOUT Terminates the host session and returns to emulation mode after successful file transfer.

HELP

HELP (no arguments)

Displays *Help - Kermit*.

LOGOUT

LOGOUT (no arguments)

Same as the BYE command.

RECEIVE

RECEIVE [switches] [d-file]

Receives files from a host running Kermit in non-server mode. Before a RECEIVE command can be issued, the SEND command must be given to the host Kermit. Wildcarding is supported. When using wildcards in the host SEND command, do not specify a destination filename. A destination filename is only required if you wish to rename the host file being sent.

Example: RECEIVE \DATA\

Transfers all files sent to the PC's \DATA subdirectory. When using the RECEIVE command, you must include the trailing backslash (\) on the path specification.

Options:

/EOF Store a DOS End of File Character (Ctrl Z) as the last character of the file.

SEND

SEND [switches] s-file [d-file]

Sends the source files specified to the host Kermit. Works with server or non-server Kermit programs. If the host Kermit isn't in server mode, issue the RECEIVE command to the host Kermit before issuing the SEND command.

The file can be renamed or sent to a particular directory on the host by supplying the optional destination field.

Example: SEND *.DAT [TEST]

 Transfers all .DAT files to the [TEST] subdirectory on a VMS host.

If host directory strings are used in destination file specification, the host Kermit shouldn't translate filenames. To disable filename translation, issue the following command to the host Kermit:

 SET FILE NAMING UNTRANSLATED

Note: The command's syntax may vary on other systems or it may not be supported.

Options:

/END Terminates server mode and returns to emulation mode after successful file transfer.

/LOGOUT Terminates the host session and returns to emulation mode after successful file transfer.

/NOEOF Do not send an EOF (Ctrl Z) character to the host even if the Ctrl Z is in the DOS file.

COMMAND LINE EXAMPLES

GET Examples

Example 1: \$KERMIT

```
Kermit>SERVER  
Click on Execute - Command Line  
CMD>KERMIT  
EM-Kermit>GET TEST.DAT  
EM-Kermit>END  
Kermit>EXIT
```

Receives the file TEST.DAT from the host, ends server mode and exits the host Kermit.

Example 2: \$KERMIT

```
Kermit>SERVER  
Click on Execute - Command Line  
CMD>KERMIT GET/END ABC.DAT,DEF.DAT  
Kermit>EXIT
```

Receives files ABC.DAT and DEF.DAT from the host, ends server mode and exits the host Kermit.

Example 3: \$KERMIT

```
Kermit>SERVER  
Click on Execute - Command Line  
CMD>KERMIT GET/END *.*  
Kermit>EXIT
```

Requests all the files in the host's default directory, ends server mode and exits the host Kermit.

Example 4: \$KERMIT

```
Kermit>SERVER  
Click on File - Kermit Cmd Line  
EM-Kermit>GET/END [VAXDIR]X.DAT  
Kermit>EXIT
```

Receives file X.DAT from the VAX directory [VAXDIR], ends server mode and exits the host Kermit.

Example 5: \$KERMIT

```
Kermit>RECEIVE  
Click on File - Kermit Cmd Line  
EM-Kermit>GET TEST.TXT  
EM-Kermit>CONNECT  
Kermit>EXIT
```

Receives file TEST.TXT from the current host directory and exits the host Kermit.

SEND Examples

Example 1: \$KERMIT

```
Kermit>SERVER  
Click File - Kermit Cmd Line  
EM-Kermit>SEND/END X.DAT [VAXDIR]X.DAT  
Kermit>EXIT
```

Sends file X.DAT to the [VAXDIR] directory on the VAX, ends server mode and exits the host VAX Kermit.

Example 2: \$KERMIT
Kermit>RECEIVE
Click *File - Kermit Cmd Line*
EM-Kermit>SEND \FILES*. *
EM-Kermit>CONNECT
Kermit>EXIT

Sends all the files in the \FILES directory to the host, ends server mode and exits the host Kermit.

Example 3: \$KERMIT
Kermit>SERVER
Click *Execute - Command Line*
CMD>KERMIT
EM-Kermit>SEND TEST.DAT
EM-Kermit>END
Kermit>EXIT

Sends the file TEST.DAT to the host, ends server mode and exits the host Kermit.

Example 4: \$KERMIT
Kermit>SERVER
Click *Execute - Command Line*
CMD>KERMIT SEND/END ABC.DAT,DEF.DAT
Kermit>EXIT

Sends files ABC.DAT and DEF.DAT to the host, ends server mode and exits the host Kermit.

Example 5: \$KERMIT
Kermit>SERVER
Click *Execute - Command Line*
CMD>KERMIT SEND/END \FILES*. *
Kermit>EXIT

Sends all the files in the \FILES directory to the host, ends server mode and exits the host Kermit.

FILE FORMATS

The following information is taken from the VAX/VMS Kermit users guide and may not be accurate for your host system. Please check the Kermit User Manual for your host computer system.

VAX Kermit supports three types of file formats: text (ASCII), binary, and fixed length - 512 byte records. The default format is ASCII. If you are transferring files that are not text files, you must tell the VAX Kermit program.

Specify binary when sending non-ASCII files that move between systems. Use binary when backing up a PC directory to a VAX directory. WordPerfect document files also require binary format.

Use fixed format when moving VAX executable files between systems or when 512 fixed length files are required.

Use the following host Kermit commands to set the file format when inside VAX Kermit:

```
SET FILE TYPE ASCII  
SET FILE TYPE BINARY  
SET FILE TYPE FIXED
```

NETWORKS

Normally Kermit sends binary files using 8-bit bytes. However, many PC and telephone networks do not support full 8-bit transmission. This limits file transfers to 7-bits of data per byte.

Kermit can still transfer binary files over these networks by using 8-bit prefixing. Eight bit prefixing encodes the status of the 8th bit into a separate 7-bit character. Eight bit prefixing is enabled in *Setup - File Transfer - Kermit*. If odd, even, mark, or space parity is selected, 8-bit prefixing is automatically requested.

OVERVIEW

TELNETW Kermit supports the following features:

- Long Packet Support
- Checksum 1, Checksum 2, and CRC error checking
- Repeat count prefixing (data compression)
- 8-bit prefixing
- Wildcarding
- Interruption
- Host server support
- Automatic file renaming
- Text and binary files

TELNETW supports the large packet size Kermit standard and allows a maximum packet size of 3000 bytes. The emulator default packet size is set in *Setup - File Transfer - Kermit*.

To transfer files with long packets, the host program must also support long packets. If the host does not, then Kermit negotiates the packet size to 94 bytes or less. The packet size negotiated for the transfer appears on the Kermit file transfer status screen.

File transfers with a packet size of 1000 are 60 percent faster than transfers with a packet size of 94 bytes.

RECEIVE FILES

Server Mode

Before attempting to receive a file, be sure the Kermit Setup is properly configured.

To receive a file:

- 1) Put the host into Server mode.

Example: \$KERMIT
Kermit-32>SERVER

Starts the Server on a VAX/VMS host.

- 2) Click on *File - Receive - Kermit...* to display the Receive File Selection dialog box.
- 3) Enter the filename(s) to receive into the From input box. A complete host directory and file specification can be entered. Wildcards are supported.
- 4) Enter the name of the host file to be created or overwritten on the PC into the To input box. If the host filename is left blank, the PC file is assigned the same name as the host file. If the host filename is an invalid PC filename, then a PC filename must be specified.
- 5) Receive the files. The following options can be enabled before receiving files.

End Automatically terminates Server mode when the transfer is complete.

Logout Automatically terminates Server mode and logs off the host.

To receive the selected files, click on *Get*. Once the transfer begins, the Receive File Status dialog box is displayed.

- 6) Select more files or terminate Server mode.

After the file transfer is complete, you may return to the File Selection dialog box by clicking on *Cancel*. You may then select additional files to transfer.

To terminate Server mode and end the transfer, click on *End*.

- 7) When the transfer is complete click on *Cancel* to return to the Receive File Selection dialog box.

Non-Server Mode

To receive a file:

- 1) Prepare the host Kermit to send files.

Example: \$KERMIT
Kermit-32>SEND

- 2) Click on *File - Receive - Kermit...* to display the Receive File Selection dialog box.
- 3) Enter the filename(s) to receive into the From input box. A complete host directory and file specification can be entered. Wildcards are supported.
- 4) Enter the name of the host file to be created or overwritten on the PC into the To input box. If the host filename is left blank, the PC file is assigned the same name as the host file. If the host filename is an invalid PC filename, then a PC filename must be specified.
- 5) To receive the selected files, click on *Receive*. Once the transfer begins, the Receive File Status dialog box is displayed.

RECEIVE FILE STATUS

Whenever a transfer is in progress, the Receive File Status dialog box appears. The Receive File Status dialog box displays useful information and allows some additional control over the transfer.

The Receive File Status dialog box displays information about the file transfer:

The byte count (in K Bytes) of data transferred.

The current packet count and packet size.

The total time of the transfer.

The number of times Kermit has retransmitted or not acknowledged (NAKed) a packet.

The Status (i.e., transferred or not transferred) and the transfer time is displayed for each file. If more than fifty messages appear, the oldest lines are discarded to make room for more. The top line of the Status box displays the message "Note: Prior messages have been discarded..."

Error messages may also appear in this field.

These options are available during the transfer:

To skip a file (when multiple files are selected), click on *Skip File*.

Click on *Retry* to manually retransmit the packet. Normally this feature is not required since TELNETW Kermit includes automatic retry logic. However, a manual retransmit is useful for speeding up error recovery.

Click on *End* to send the END Server mode command.

To stop the transfer, click on *Abort* or press Alt A. The message "ABORT INTERRUPT" appears in the Status box.

SEND FILES

Server Mode

Before attempting to send a file to the host computer system, be sure the Kermit Setup is properly configured.

To send a file:

- 1) Put the host into Server mode.

Example: \$KERMIT
Kermit-32>SERVER

Starts the Server on a VAX/VMS host.

Note: To send binary files, the host Server must be in binary mode. See your host Kermit documentation for detailed information.

- 2) Click on *File - Send - Kermit...* to display the Send File Selection dialog box.
- 3) Enter the PC filename(s) to send into the From input box. Wildcards and path names can be used. If wildcards are used, pressing Return will update the PC Files list to display the selected files.

To select files using the mouse, click on the desired directory in the PC Directories list. Next, select a file from the PC Files list by clicking once on the name. Click on the name again to deselect the file.

Multiple files can be selected by clicking on more than one filename. As the files are selected, they are highlighted. When multiple files are selected, the message "<Multiple Files Selected>" is displayed in the From input box.

Note: If a filename is double-clicked, the file is selected and the transfer begins.

- 4) Enter the name of the file to be created on the host in the To [Host File] input box. If the host filename is left blank, the host file is assigned the same name as the PC file.

To send multiple files to a host directory that is not the default directory, enter the host directory specification into the To input box. Do not include a file specification.

- 5) Send the files. The following options can be enabled before sending files.

End Automatically terminates Server mode when the transfer is complete.

Logout Automatically terminates Server mode and logs off the host.

Click on *Send* to send the selected files. Once the transfer begins, the Send File Status dialog box is displayed.

- 6) Select more files or terminate Server mode.

After the file transfer is complete, you may return to the File Selection dialog box by clicking on *Cancel*. You may then select additional files to transfer.

To terminate Server mode and end the transfer, click on *End*.

- 7) When the transfer is complete, click on *Cancel* to return to the Send File Selection dialog box.

Non-Server Mode

To send a file:

- 1) Prepare the host Kermit.

Example: \$KERMIT
Kermit-32>RECEIVE

Host Kermit is ready to receive files.

- 2) Click on *File - Send - Kermit...* to display the Send File Selection dialog box.
- 3) Enter the PC filename(s) to send into the From input box. Wildcards and path names can be used. If wildcards are used, pressing Return will update the PC Files list to display the selected files.

To select files using the mouse, click on the desired directory in the PC Directories list. Next, select a file from the PC Files list by clicking once on the name. Click on the name again to deselect the file.

Multiple files can be selected by clicking on more than one filename. As the files are selected, they are highlighted. When multiple files are selected, the message <Multiple Files Selected> is displayed in the From input box.

Note: If a filename is double-clicked, the file is selected and the transfer begins.

- 4) Enter the name of the file to be created on the host in the To [Host File] input box. If the host filename is left blank, the host file is assigned the same name as the PC file.

To send multiple files to a host directory that is not the default directory, enter the host directory specification into the To input box. Do not include a file specification.

Send the selected files by clicking on *Send*. Once the transfer begins, the Send File Status dialog box is displayed.

SEND FILE STATUS

Whenever a transfer is in progress, the Send File Status dialog box appears. The Send File Status dialog box displays useful information and allows some additional control over the transfer.

The Send File Status dialog box displays information about the file transfer:

The byte count (in K Bytes) of data transferred.

The current percentage of data transferred. When the box is filled, the transfer is complete.

The current packet count and packet size.

The estimated time of the transfer and the amount of time remaining in the transfer.

The number of times Kermit has retransmitted or not acknowledged (NAKed) a packet.

The Status (i.e., transferred or not transferred) and the transfer time is displayed for each file. Error messages may also appear in this field.

These options are available during the transfer:

To skip a file (when multiple files are selected), click on *Skip File*.

Click on *Retry* to manually retransmit the packet. Normally this feature is not required since TELNETW Kermit includes automatic retry logic. However, a manual retransmit is useful for speeding up error recovery.

Click on *End* to send the END Server mode command.

To stop the transfer, click on *Abort* or press Alt A. The message "ABORT INTERRUPT" appears in the Status box.

PROGRAMMING SEQUENCES

ANSI Color Sequences

DCS Private Sequences

VT320 Sequences

VT100 Sequences

VT52 Sequences

ANSI COLOR SEQUENCES

TELNETW supports ANSI color mode in addition to video attribute color mapping. Video attribute color mapping is mapping of colors to normal VT320 monochrome attributes such as bold, reverse video, and underline. Video attribute mapping is configured by clicking *Setup - Color Mapping*.

ANSI color support allows the character, character cell, and screen background colors to be selected directly by sending control sequences from the host.

ANSI colors are selected through extensions to the VT320 Set Character Attributes control sequence.

Set Character Attributes and ANSI Colors

<CSI> Ps;Ps...m

Character Attributes

Ps = 0	Resets all colors and video attributes to defaults
Ps = 1	Bold on.
Ps = 4	Underscore on. Always uses the selected colors.
Ps = 5	Blink on
Ps = 7	Reverse video on. Always uses the selected colors.
Ps = 22	Bold off, normal intensity
Ps = 24	Underscore off
Ps = 25	Blink off
Ps = 27	Reverse video off, positive image

Character Colors (low intensity unless bolded)

Ps = 30	Black
Ps = 31	Red
Ps = 32	Green
Ps = 33	Yellow (displays as brown unless bolded)
Ps = 34	Blue
Ps = 35	Magenta
Ps = 36	Cyan
Ps = 37	White
Ps = 39	White

Character Cell Color (always low intensity colors)

Ps = 40	Sets the cell color to the current background color
Ps = 41	Red
Ps = 42	Green
Ps = 43	Yellow (displays as brown)
Ps = 44	Blue
Ps = 45	Magenta
Ps = 46	Cyan
Ps = 47	White
Ps = 49	Sets the cell color to the current background color

Direct Index Control Using a Prefix

< index	Specifies the character color index
= index	Specifies the character cell color index
> index	Specifies the screen background index

ANSI Color Indexes

0 = black
1 = red
2 = green
3 = yellow
4 = blue

5 = magenta
6 = cyan
7 = white

The following examples use the command DISPLAY to locally test the character attributes and colors.

Examples: CMD>DISPLAY "<CSI>1;35mBold magenta characters<CSI>0m"
or

CMD>DISPLAY "<CSI>1;<5mBold magenta characters<CSI>0m"

Displays the character string in bold magenta characters at the current cursor position.

CMD>DISPLAY "<CSI>5;7mReverse blinking characters<CSI>25m"

Displays the character string using the blink attribute, 5, and the reverse video attribute, 7. After the characters are displayed, the blink is turned off, 25. Subsequent characters display in reverse video.

CMD>DISPLAY "<CSI>1;33;43mYellow chars in brown cell<CSI>0m"

Displays the character string using the bold attribute and character color 33 to give yellow characters. The character cell color, 43, shows as brown directly around each character.

PRIVATE SEQUENCES

ESCAPE SEQUENCE	FUNCTION
CSI 0;0	Enable Status Line
CSI 0;1	Disable Status Line
CSI 0;2	Erase Status Line
CSI 0;3;Pc ..String..<ST>	Write Status Line
CSI 2;n	Set/Reset Local Echo
CSI 2;1;n	Enable/Disable Exit
CSI 3;n	Set/Reset WP mode
CSI 4;p	Set Printer Port
CSI 5 ..Cmd String..<ST>	Do Emulator Command
CSI 6	Request Product ID

VT320 PROGRAMMING SEQUENCES

C1 Control

Character Attributes

Character Sets

Compatibility Level

Cursor Movement

Editing

Erase

LEDs

Line Size

Modes

Printing

Reports

Reset

Scrolling Region

Tab Stops

User-Defined Keys

C1 CONTROL

ESCAPE SEQUENCE

ESC space F

ESC space G

FUNCTION

7-bit C1 control transmission

8-bit C1 control transmission

CHARACTER ATTRIBUTES

ESCAPE SEQUENCE	FUNCTION
CSI Ps;... m	Character attributes
Ps = 0	All attributes off
Ps = 1	Bold on
Ps = 4	Underscore on
Ps = 5	Blink on
Ps = 7	Reverse Video on
Ps = 2 2	Normal Intensity
Ps = 2 4	Not Underscored
Ps = 2 5	Not Blinking
Ps = 2 7	Positive Image
CSI " q	All Non-graphic off
CSI 0 " q	All Non-graphic off
CSI 1 " q	All Non-erasable on
CSI 2 " q	All Non-erasable off

CHARACTER SETS

ESC <Intermediate> <Final>

Intermediate

TO SELECT	USE
------------------	------------

94 Character Set

G0	(
----	---

G1)
----	---

G2	*
----	---

G3	+
----	---

96 Character Set

G1	-
----	---

G2	.
----	---

G3	/
----	---

Final

TO SELECT	USE
------------------	------------

ASCII (94)	B
------------	---

DEC Supplemental Graphic (94)	%5
-------------------------------	----

ISO Latin-1 Supplemental (96)	A
-------------------------------	---

User-preferred supplemental (94)	<
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DEC Special Graphic	0
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British National Replacement (94)	A
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COMPATIBILITY LEVEL

ESCAPE SEQUENCE	FUNCTION
CSI 61"p	Level 1 (VT100)
CSI 62"p	Level 3 (VT300 8-bit)
CSI 62;0"p	Level 3 (VT300 8-bit)
CSI 62;1"p	Level 3 (VT300 7-bit)
CSI 62;2"p	Level 3 (VT300 8-bit)
CSI 63"p	Level 3 (VT300 8-bit)
CSI 63;0"p	Level 3 (VT300 8-bit)
CSI 63;1"p	Level 3 (VT300 7-bit)
CSI 63;2"p	Level 3 (VT300 8-bit)

CURSOR MOVEMENT

ESCAPE SEQUENCE	FUNCTION
CSI Pn A	Up
CSI Pn B	Down
CSI Pn C	Right
CSI Pn D	Left
CSI PI;Pc H	Direct cursor addressing
CSI PI;Pc f	Direct cursor addressing
CSI H	Home
CSI f	Home
IND	Index
ESC D	Index
NEL	New Line
ESC E	New Line
RI	Reverse Index
ESC M	Reverse Index
ESC 7	Save cursor attributes
ESC 8	Restore cursor attributes

EDITING

ESCAPE SEQUENCE	FUNCTION
CSI Pn P	Delete Pn characters
CSI Pn @	Insert Pn characters
CSI Pn L	Insert Pn lines
CSI Pn M	Delete Pn lines

ERASE

ESCAPE SEQUENCE FUNCTION

CSI Pn X	From cursor for the next Pn characters
CSI K	Cursor to end of line
CSI 0 K	Cursor to end of line
CSI 1 K	Beginning of line to cursor
CSI 2 K	Entire line
CSI J	Cursor to end of screen
CSI 0 J	Cursor to end of screen
CSI 1 J	Beginning screen to cursor
CSI 2 J	Erase entire screen
CSI ? K	Selective erase to end of line
CSI ? 0 K	Selective erase to end of line
CSI ? 1 K	Selective erase from beginning of line
CSI ? 2 K	Selective erase entire line
CSI ? J	Selective erase to end of screen
CSI ? 0 J	Selective erase to end of screen
CSI ? 1 J	Selective erase from top of screen
CSI ? 2 J	Selective erase entire screen

LEDS

ESCAPE SEQUENCE	FUNCTION
CSI Ps;Ps q	Programmable LEDs
Ps = 0	All LEDs off
Ps = 1	L1 on
Ps = 2	L2 on
Ps = 3	L3 on
Ps = 4	L4 on

LINE SIZE

ESCAPE SEQUENCE FUNCTION

ESC #3	Double height - top half
ESC #4	Double height - bottom half
ESC #5	Single width - single height
ESC #6	Double width - single height

MODES

ESCAPE SEQUENCE		FUNCTION
SET	RESET	MODE NAME
CSI 2h	CSI 2I	Keyboard Action
CSI 4h	CSI 4I	Insert/Replace
CSI 12h	CSI 12I	Send/Receive
CSI 20h	CSI 20I	Line feed/new line
CSI ?1h	CSI ?1I	Cursor key
	CSI ?2I	VT52
CSI ?3h	CSI ?3I	Column
CSI ?4h	CSI ?4I	Scrolling
CSI ?5h	CSI ?5I	Screen
CSI ?6h	CSI ?6I	Origin
CSI ?7h	CSI ?7I	Auto Wrap
CSI ?8h	CSI ?8I	Auto repeat
CSI ?9h	CSI ?9I	Interlace
CSI ?18h	CSI ?18I	Form Feed
CSI ?19h	CSI ?19I	Screen Print
CSI ?25h	CSI ?25I	Text cursor
CSI ?42h	CSI ?42I	Character Set
CSI ?66h	CSI ?66I	Numeric keypad
CSI ?67h	CSI ?67I	Backarrow key
CSI Ps \$ }		Select status display
Ps = 0		main display
Ps = 1		status line
CSI Ps \$ ~		Select status line type
Ps = 0		none
Ps = 1		indicator
Ps = 2		host-writable
ESC =	ESC >	Keypad

PRINTING

ESCAPE SEQUENCE	FUNCTION
CSI i	Print Screen
CSI 0i	Print Screen
CSI 4i	Print Controller mode off
CSI 5i	Print Controller mode on
CSI ?1i	Print Cursor Line
CSI ?4i	Auto Print mode off
CSI ?5i	Auto Print mode on

REPORTS

Reports are sent by the emulator in response to requests from the host computer.

HOST DIRECTIVES **EM REPORTS**
(host to EM) (EM to host)

Primary Device Attributes

CSI c	or	CSI ? Psc ; Ps1 ; ...Psn c	
CSI 0 c		Psc	Operating level
		1,6	level 1 (VT100)
		62,63	level 3 (VT300)
		Ps1...Psn	Extensions
		1	132 columns
		2	printer port
		6	selective erase
		7	soft character set
		8	user-defined keys

Secondary Device Attributes

CSI > c	or	CSI > Pp ; Pv ; Po c	
CSI > 0 c		Pp	Identification code
		24	VT320
		Pv	Firmware version
		Po	Hardware options
		0	no options

Operating Status

CSI 5 n	CSI 0 n	No malfunction
	CSI 3 n	Malfunction

Cursor Position

CSI 6 n	CSI PI ; Pc R	
	PI	Line number
	Pc	Column number

Printer Status

CSI ? 15 n	CSI ? 13 n	No printer
	CSI ? 10 n	Printer ready
	CSI ? 11 n	Printer not ready

UDK Status (VT300 mode only)

CSI ? 25 n	CSI ? 20 n	UDKs unlocked
	CSI ? 21 n	UDKs locked

Keyboard Dialect

CSI ? 26 n	CSI ? 27 ; Pd n	
	Pd	Keyboard dialect
	1	North American

HOST DIRECTIVES **EM REPORTS**
(host to EM) (EM to host)

Terminal State Reports (VT300 mode only)

CSI Ps \$ u		DCS 1\$s D..D<checksums 1 and 2> ST
Ps	Report request	D..D Report data
0	ignored	
1	terminal state report	

Restore terminal state

DCS Ps \$ p D..D ST
Ps Data string format
0 error
1 terminal state report
D..D Restored data

Presentation State Reports (VT300 mode only)

CSI Ps \$ w DCS 1 \$ u D..D ST Cursor information report
Ps Report request D..D Data string
0 error
1 cursor information report
2 tab stop report DCS 2 \$ u D..D ST Tab stop report
D..D Tab stops

Restore presentation state

DCS Ps \$ t D...D ST
Ps Data string format
0 error
1 cursor information report
2 tab stop report
D...D Data string

Mode Settings (VT300 mode only)

CSI Pa \$ p CSI Pa ; Ps \$ y
Pa ANSI mode Pa ANSI mode
Ps Mode state
0 unknown state
1 set
2 reset
3 permanently set
4 permanently reset

CSI ? Pd \$ p CSI ? Pd ; Ps \$ y
Pd DEC private mode Pd DEC private mode
Ps Mode state
0 unknown state
1 set
2 reset
3 permanently set
4 permanently reset

Set mode

CSI Pa ; ...Pa h
Pa ANSI mode

CSI ?Pd ; ...Pd h
Pd DEC private mode

Reset mode

CSI Pa ; ...Pa l
Pa ANSI mode

CSI ? Pd ; ... Pd l
Pd DEC private mode

ANSI MODES

Pa MODE
2 Keyboard action

DEC PRIVATE MODES

Pd MODE
1 Cursor keys

3	Control representation	2	ANSI
4	Insert/replace	3	Column
10	Horizontal editing	4	Scrolling
12	Send/receive	5	Screen
20	Line feed/new line	6	Origin
		7	Autowrap
		8	Autorepeat
		18	Print form feed
		19	Printer extent
		25	Text cursor enable
		42	NRC set
		66	Numeric keypad
		67	Backarrow key
		68	Keyboard usage

Control Function Settings (VT300 mode only)

DCS \$ q D..D ST	DCS Ps \$ r D..D ST
D..D Intermediate and/or final characters of function.	Ps Request validity
	0 invalid request
	1 valid request
	D..D Intermediate and/or final characters of function.

Cursor Settings

ESC 7	Save cursor
ESC 8	Restore cursor

User-preferred Supplemental Set (VT300 mode only)

CSI & u	DCS 0 ! u % 5 ST	DEC Supplemental Graphic
DCS 1 ! u A ST	ISO Latin-1 supplemental	

RESET

ESCAPE SEQUENCE	FUNCTION
ESC c	Hard terminal reset
CSI ! p	Soft terminal reset

SCROLLING REGION

ESCAPE SEQUENCE	FUNCTION
CSI Pt; Pb r	Define scroll region

TAB STOPS

ESCAPE SEQUENCE	FUNCTION
HTS	Set tab at current column
ESC H	Set tab at current column
CSI g	Clear at current column
CSI 0 g	Clear at current column
CSI 3 g	Clear all tabs

USER-DEFINED KEYS

ESCAPE SEQUENCE

DCS Pc;PI | ky1/st1;ky2/st2;...kyn/stn ST

VT100 PROGRAMMING SEQUENCES

Character Attributes

Character Sets

Cursor Movement

Erase

LEDs

Line Size

Modes

Reports

Reset

Scrolling Region

Tab Stops

CHARACTER ATTRIBUTES

ESCAPE SEQUENCE	FUNCTION
ESC [Ps;... m	Character attributes
Ps = 0	All attributes off
Ps = 1	Bold on
Ps = 4	Underscore on
Ps = 5	Blink on
Ps = 7	Reverse video on

CHARACTER SETS

ESCAPE SEQUENCE FUNCTION

G0	G1	
ESC (A	ESC) A	UK set
ESC (B	ESC) B	US ASCII set
ESC (0	ESC) 0	Special Graphics set
ESC (1	ESC) 1	Alternate ROM
ESC (2	ESC) 2	Alternate ROM Special Graphics set

CURSOR MOVEMENT

ESCAPE SEQUENCE	FUNCTION
ESC [Pn A	Up
ESC [Pn B	Down
ESC [Pn C	Right
ESC [Pn D	Left
ESC [Pl;Pc; H	Direct cursor addressing
ESC [Pl;Pc; f	Direct cursor addressing
ESC D	Index
ESC E	New line
ESC M	Reverse index
ESC 7	Save cursor - attributes
ESC 8	Restore cursor - attributes

ERASE

ESCAPE SEQUENCE	FUNCTION
ESC [K	Cursor to end of line
ESC [0 K	Cursor to end of line
ESC [1 K	Beginning of line to cursor
ESC [2 K	Entire line
ESC [J	Cursor to end of screen
ESC [0 J	Cursor to end of screen
ESC [1 J	Beginning of screen to cursor
ESC [2 J	Erase entire screen

LEDS

ESCAPE SEQUENCE	FUNCTION
ESC [Ps;Ps q	Programmable LEDs
Ps = 0	All LEDs off
Ps = 1	L1 on
Ps = 2	L2 on
Ps = 3	L3 on
Ps = 4	L4 on

LINE SIZE

ESCAPE SEQUENCE	FUNCTION
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ESC #3	Double height - top half
ESC #4	Double height - bottom half
ESC #5	Single width - single height
ESC #6	Double width - single height

MODES

ESCAPE SEQUENCE		FUNCTION
SET	RESET	MODE NAME
ESC[20h	ESC[20I	Line feed/new line
ESC[?1h	ESC[?1I	Cursor key
ESC[?3h	ESC[?3I	Column
ESC[?4h	ESC[?4I	Scrolling
ESC[?5h	ESC[?5I	Screen
ESC[?6h	ESC[?6I	Origin
ESC[?7h	ESC[?7I	Wraparound
ESC[?8h	ESC[?8I	Auto repeat
ESC[?9h	ESC[?9I	Interlace
ESC 1	ESC 2	Graphic process option
ESC =	ESC >	Keypad

REPORTS

ESCAPE SEQUENCE	FUNCTION
ESC [6 n	Invoke cursor position
ESC [Pl;Pc R	Respond cursor position
ESC [c	Invoke status report
ESC [0 c	Invoke status report
ESC [?1; Ps c	Respond status report
ESC Z	Invoke What are you
ESC [?1; Ps c	Respond What are you
Ps = 0	Base VT100
Ps = 1	STP
Ps = 2	AVO
Ps = 3	AVO and STP
Ps = 4	GPO
Ps = 5	GPO and STP
Ps = 6	GPO and AVO
Ps = 7	GPO, STP, and AVO

RESET

ESCAPE SEQUENCE	FUNCTION
ESC c	Reset

SCROLLING REGION

ESCAPE SEQUENCE	FUNCTION
ESC [Pt; Pb r	Define scroll region

TAB STOPS

ESCAPE SEQUENCE	FUNCTION
ESC H	Set tab at current column
ESC [g	Clear at current column
ESC [0 g	Clear at current column
ESC [3 g	Clear all tabs

VT52 PROGRAMMING SEQUENCES

ESCAPE SEQUENCE	FUNCTION
ESC A	Cursor up
ESC B	Cursor down
ESC C	Cursor right
ESC D	Cursor left
ESC F	Enter graphics mode
ESC G	Exit graphics mode
ESC H	Cursor to home position
ESC I	Reverse line feed
ESC J	Erase to end of screen
ESC K	Erase to end of line
ESC Y	Direct cursor address
ESC Z	Identify
ESC =	Enter alternate keypad mode
ESC >	Exit alternate keypad mode
ESC <	Enter ANSI mode
ESC ^	Enter auto print mode
ESC _	Exit auto print mode
ESC W	Enter printer controller mode
ESC X	Exit printer controller mode
ESC]	Print screen
ESC V	Print cursor line

DROP DOWN MENUS

Edit

Execute

File

Help

Connect

Setup

EDIT

The *Edit* drop down menu lists the Windows Clipboard functions.



Copy

Copies selected text to the Clipboard.

Paste

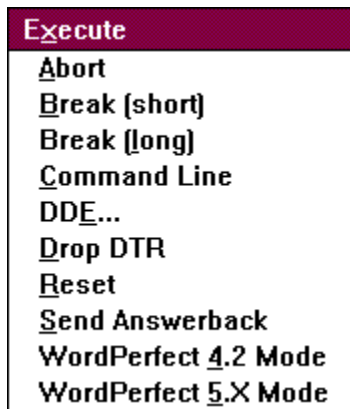
Places a copy of the current Clipboard contents at the current cursor position.

Send

Sends the contents of the clipboard to the host computer. Carriage returns are sent at the end of each line.

EXECUTE

The *Execute* drop down menu lists different TELNETW commands and features.



Abort

Aborts file transfers, emulator commands and command file execution.

Break (short)

Sends a 200 millisecond communications break to the communications port.

Break (long)

Sends a 3.5 second break to the communications port.

Command Line

Displays the TELNETW command line prompt (CMD>). Emulator commands and command files are executed at the CMD> prompt.

Drop DTR

Drops the Data Terminal Ready (DTR) and Request to Send (RTS) modem control signals.

Reset

The following occurs during a reset:

The scrolling region is set to 24 lines.

The UDKs are cleared.

Down-line loaded characters are cleared.

The screen is erased and the cursor is set to [1,1].

Video attributes are set to normal.

All characters are set to erasable.

The default character set is selected.

Send Answerback

Sends the Answerback message to the host. The Answerback message is specified in the *Setup - Terminal* menu.

WordPerfect 4.2 Mode

Toggles WordPerfect 4.2 mode on and off. A checkmark appears next to the option when it is enabled. In WP mode, the VAX/VMS WordPerfect version 4.2 can be operated using the PC keystrokes.

WordPerfect 5.x Mode

Toggles WordPerfect 5.x mode on and off. A checkmark appears next to the option when it is enabled. In WP5 mode, the VAX/VMS WordPerfect version 5.x can be operated using the PC keystrokes.

FILE

The *File* drop down menu lists different features requiring filename input.

File
<u>C</u> ommand...
Record <u>L</u> og File...
Replay Log File...
S <u>e</u> tup...
<u>R</u> eceive ▶
<u>S</u> end ▶
<u>K</u> ermit Cmd Line
<u>P</u> rint Screen
Print <u>A</u> uto
Print <u>C</u> ontroller Mode
Print <u>U</u> sing Windows Driver
Printer <u>S</u> etup...
<u>W</u> indows Printer Setup...
<u>E</u> xit

Receive

Click on *File - Receive*, then click on *ASCII*, *Kermit* or *XModem*. The Receive File Selection dialog box for the selected protocol displays.

Send

Click on *File - Send*, then click on *ASCII*, *Kermit* or *XModem*. The Send File Selection dialog box for the selected protocol displays.

Kermit Cmd Line

Displays the TELNETW Kermit command line.

Exit

Exits TELNETW and closes the application window.

HELP

The *Help* drop down menu lists the online help options.

Help
<u>I</u>ndex
K<u>e</u>rmit
<u>K</u>eyboard
<u>U</u>sing Help
<u>A</u>bout VT320

About VT320

Displays the TELNETW information dialog box. The version number and release date of the TELNETW that is installed on your PC is given.

Index

Lists all TELNETW help topics. Cross-referencing and searching are supported.

Kermit

Displays help for Kermit file transfer.

Keyboard

Displays help for the various keyboard configurations.

Using Help

Gives instructions on using the Microsoft Windows Help feature. See the Microsoft Windows documentation for detailed information on the Help feature.

SETUP

The *Setup* menu contains different categories that customize TELNETW to your PC and host computer.

Setup
<u>C</u> olor Mapping...
<u>C</u> ommand Files...
<u>C</u> ommunications...
<u>D</u> D <small>E</small> ...
<u>D</u> isplay...
<u>F</u> ile Transfer ▶
<u>I</u> nternational...
<u>K</u> eyboard ▶
<u>L</u> og Replay...
<u>M</u> odem...
<u>P</u> references...
<u>S</u> crollback...
<u>T</u> erminal...
<u>S</u> ave

File Transfer



Keyboard



Save

Saves the setup configurations.

Connect

Connect
<u>C</u>onn. / Disc.
<u>D</u>ial
<u>S</u>witch

COMMON PROBLEMS

If you have been unable to communicate successfully with the host computer or with your modem, here are some of the common problems.

No response when any key is pressed

Incorrect COM (serial) port selected in *Setup - Communications*.

Incorrect baud rate selected in *Setup - Communications - Port Setup*.

Flow control is off on the Host system. Press Ctrl Q (Xon) to clear the flow control.

More than one serial communications interface is assigned the same COM port. Look at the jumpers on the serial board to make sure that each is set for a unique COM port. Consult the serial board documentation.

Incorrect RS232 cable. Try another cable, or try attaching a "null modem" cable.

Garbage characters appear on the screen

A DOS memory resident program or a Windows background program is causing a conflict. Or, there may be interrupt conflicts from a caching program, keyboard driver or screen saver. Try removing all TSRs and drivers from CONFIG.SYS and AUTOEXEC.BAT memory. Exit all other Windows programs. If this fixes the problem, reload each individually (or in small groups), until the conflicting program is discovered.

Incorrect baud rate selected *Setup - Communications - Port Setup*.

Incorrect parity selection. Most full screen editors require TELNETW to be set to 8-bits/ No parity, or 7-bits/Space parity. Be sure the host and TELNETW are set to the same combination.

Bad modem connection.

Dropping characters

The host system does not use Xon/Xoff flow control. Increase the receive buffer size or reduce the baud rate.

A DOS memory resident program or a Windows background program is causing a conflict. Or, there may be interrupt conflicts from a caching program, keyboard driver or screen saver. Try removing all TSRs and drivers from CONFIG.SYS and AUTOEXEC.BAT memory. Exit all other Windows programs. If this fixes the problem, reload each individually (or in small groups), until the conflicting program is discovered.

The PC has a hardware problem. If possible, try running the emulator on another PC.

More than one serial communications interface is assigned the same COM port. Look at the jumpers on the serial board to make sure that each is set for a unique COM port. Consult the serial board documentation.

COMMON PROBLEMS WITH MODEMS

Modem does not respond or **"Modem not ready or did not respond correctly" appears dialing a number using the modem dialer**

Modem is not connected properly.

Incorrect baud rate selected in *Setup - Communications - Port Setup*.

Modem requires uppercase commands.

Modem needs to be reset. Switch the modem off, then on. For internal modems, switch the PC off, wait a moment, then turn it back on.

Incorrect COM port selected in *Setup - Communications - Port Setup*.

Modem switches are set incorrectly.

Modem does not echo commands to the screen

The modem switches are set for No Echo or the modem is programmed for No Echo. Set the command echo switch on the modem to the echo position or send the modem the Echo On command. The Echo On command for most Hayes modems is ATE1.

The Modem Dialer program sets the modem to No Echo. Therefore, after using the Modem Dialer with a Hayes modem, an ATE1 command is required to enable command echo.

The status line indicates "ONLINE" when the modem is not connected to a host computer

Modem Control has not been enabled in *Setup - Communications - Port Setup*.

The Carrier Detect line from the modem is high (on). Often, if the modem is off or not connected to the PC, the Carrier Detect line will be detected as high. (The word 'high' refers to a voltage level: high = on, low = off).

The cable is wired incorrectly. Try another cable.

The modem will not hang up when I drop DTR by clicking *Execute - Drop DTR*

The modem switches are set to ignore the DTR signal - change the modem switches.

Some modems, such as the Anchor Signalman Mark XII, ignore the DTR lead. Be sure your modem is not one of these. This type of modem can be hung up by using the +++ Online command, waiting 1 second for the OK, and then issuing an ATZ command. The Modem Dialer hangs up these types of modems automatically.

DTR is not wired correctly in the RS232 cable. Try another cable.

"Already connect to host (modem's carrier detect is high)" appears when trying to dial

You already have an active modem connection.

The modem switches are set to force Carrier Detect on. Carrier Detect is the signal that indicates a connection. Check your modem manual for the switch that controls the Carrier Detect signal. Set the switch so the Carrier Detect signal follows the state of the connection (not forced high).

If connected to a network, phone system, or modem that always forces Carrier Detect on, turn Modem Control off to use the modem dialer. The Modem Control option is located in *Setup - Communications - Port Setup*.

Note: When Modem Control is off, the status of the connection is not monitored. If the connection is lost, you will not receive a message.

KEYBOARDS



AT Keyboard



DEC LK250/LK450 Keyboard



Enhanced Keyboard

Token List

TOKEN LIST

EM TOKEN

ABORT	Emulator Abort Key
ANSBK	Send Answerback Message
ASCRCV	ASCII Receive File
ASCSEND	ASCII Send File
BREAK	Sends Short Break
CMD	Emulator Command Line
COPY	Copy selected text to Clipboard
DEBUG	Debug On/Off
DROP_DTR	Drops DTR for 2 Seconds
HELP	Emulator Help
HSLF	Horizontal Scroll Left-Fine
HSLC	Horizontal Scroll Left-Coarse
HSRF	Horizontal Scroll Right-Fine
HSRC	Horizontal Scroll Right-Coarse
MARGIN	Set Horizontal Scroll Margin
MODEM	Modem Dialer
KERMIT	Kermit Mode
LBREAK	Sends a Long Break
LEDIT	Line Edit Mode
LOG	Log File
PASTE	Paste information from Clipboard
REP	Log File Replay
SCRBCK	Scrollbar Display
SEND	Send selected text to host
SKEY1-SKEY12	Softkey 1-Softkey 12
VSD	Vertical Scroll Down
VSU	Vertical Scroll Up
XMRCV	XModem Receive File
XMSEND	XModem Send File

EMULATOR FUNCTION

VT320 TOKEN

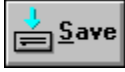
PF1	PF1
PF2	PF2
PF3	PF3
PF4	PF4
KP0-KP9	Keypad 0-9
KPCOM	Keypad Comma
KPENT	Keypad Enter
KPMIN	Keypad Minus
KPPER	Keypad Period

VT320 KEY

DO	Do
FIND	Find
INSHER	Insert Here
NXTSCR	Next Screen
PRVSCR	Previous Screen
REMOVE	Remove
SELECT	Select
VTHELP	Help

UP	Up Arrow
DOWN	Down Arrow

LEFT	Left Arrow
RIGHT	Right Arrow
BS	Backspace
COMPOSE	Compose
DEL	Delete
ESC	Escape
HOLD	Hold Screen
LF	Line Feed
PRTAUTO	Auto Print Mode
PRTCTL	Controller Print Mode
PRTSCR	Print Screen
SETUP	Setup Dialog Box
UDK1-UDK20	UDK 1-20
VTF6-VTF20	F6-F20



AT KEYBOARD

To use the AT keyboard, select AT in *Setup - Keyboard - Keyboard Type*.

VT FUNCTION	KEY	VT320 TOKEN
PF1	Esc	PF1
PF2	Num Lock	PF2
PF3	Scroll Lock	PF3
PF4	Sys Req	PF4
Keypad Numbers	Keypad 0-9	KP0-KP9
Keypad Comma	Keypad Minus	KPCOM
Keypad Enter	Keypad Plus	KPENT
Keypad Minus	Prtsc	KPMIN
Keypad Period	Keypad Period	KPPER
Do	Alt Scroll Lock	DO
Find	Alt Keypad 7	FIND
Insert Here	Alt Keypad 8	INSHER
Next Screen	Alt Keypad 6	NXTSCR
Previous Screen	Alt Keypad 5	PRVSCR
Remove	Alt Keypad 9	REMOVE
Select	Alt Keypad 4	SELECT
VT Help	Alt Num Lock	VTHELP
Up Arrow	Shift Keypad 8 or F5	UP
Down Arrow	Shift Keypad 2 or F6	DOWN
Left Arrow	Shift Keypad 4 or F7	LEFT
Right Arrow	Shift Keypad 6 or F8	RIGHT
Backspace	Shift Del	BS
Compose	Alt F1	COMPOSE
Delete	Del	DEL
Escape	F2	ESC
Hold	F1	HOLD
Line Feed	Shift Return	LF
Print Auto	Alt F4	PRTAUTO
Print Control Mode	(not assigned)	PRTCTL
Print Screen	F4	PRTSCR
Setup	F3	SETUP
User-defined Keys	Alt Shift 6-Alt Shift 0 Alt Shift Q-Alt Shift P	UDK6-UDK10 UDK11-UDK20
VT Function Keys	Alt 6-Alt 0 Alt Q-Alt P	VTF6-VTF10 VTF11-VTF20
EM FUNCTION	KEY	EM TOKEN
Abort	Alt A	ABORT
Break-Long	Alt Shift B	LBREAK
Break-Short	Alt B	BREAK
Command Mode	Alt C	CMD
Debug On/Off	Alt `	DEBUG
Drop DTR	Alt D	DROP_DTR
Help (Emulator)	Alt H	HELP

Horizontal Scroll Left	Ctrl F7 (Coarse)	HSLC
	Alt F7 (Fine)	HSLF
Horizontal Scroll Right	Ctrl F8 (Coarse)	HSRC
	Alt F8 (Fine)	HSRF
Kermit File Transfer	Alt K	KERMIT
Line Edit Mode	Alt Return	LEDIT
Log File On/Off	Alt L	LOG
Log File Replay	Alt ;	REP
Modem Dialer	Alt M	MODEM
Screen Scrollback	Alt S	SCRBCK
Softkeys	Ctrl F1-F12	SKEY1-SKEY12
Vertical Scroll Down	Alt F6	VSD
Vertical Scroll Up	Alt F5	VSU



DEC LK250/LK450 KEYBOARD

The DEC LK250 and LK450 keyboards provide perfect DEC VT320 function key emulation.

Note: When either keyboard is used on an IBM AT or compatible, TELNETW automatically switches the keyboard between DEC and PC Mode. However, the PC or XT cannot send the mode switch command to the keyboard. If you are using the LK250 on a PC or XT, use Alt F17 to manually switch the keyboard between modes.

VT FUNCTION	KEY	VT320 TOKEN
PF1	PF1	PF1
PF2	PF2	PF2
PF3	PF3	PF3
PF4	PF4	PF4
Keypad Numbers	Keypad 0-9	KP0-KP9
Keypad Comma	Keypad Comma	KPCOM
Keypad Enter	Keypad Enter	KPENT
Keypad Minus	Keypad Minus	KPMIN
Keypad Period	Keypad Period	KPPER
Do	Do	DO
Find	Find	FIND
Insert Here	Insert Here	INSHER
Next Screen	Next	NXTSCR
Previous Screen	Prev	PRVSCR
Remove	Remove	REMOVE
Select	Select	SELECT
VT Help	Help	VTHELP
Up Arrow	Up Arrow	UP
Down Arrow	Down Arrow	DOWN
Left Arrow	Left Arrow	LEFT
Right Arrow	Right Arrow	RIGHT
Backspace	Shift Backspace	BS
Compose	Alt F1	COMPOSE
Delete	Backspace	DEL
Escape	Compose	ESC
Hold	F1	HOLD
Line Feed	Shift Return	LF
Print Auto	Alt F2	PRTAUTO
Print Screen	F2	PRTSCR
Setup	F3	SETUP
User-Defined Keys	Shift F6-Shift F20	UDK6-UDK20
VT Function Keys	F6-F20	VTF6-VTF20
EM FUNCTION	KEY	EM TOKEN
Abort	Alt A	ABORT
Break-Long	Alt Shift B	LBREAK
Break-Short	Alt B	BREAK
Command Mode	Alt C	CMD

Debug On/Off	Alt `	DEBUG
Drop DTR	Alt D	DROP_DTR
Help (Emulator)	Alt H	HELP_
Horizontal Scroll Left	Ctrl Left Arrow (Coarse)	HSLC
	Alt Left Arrow (Fine)	HSLF
Horizontal Scroll Right	Ctrl Right Arrow (Coarse)	HSRC
	Alt Right Arrow (Fine)	HSRF
Kermit File Transfer	Alt K	KERMIT
Line Edit Mode	Alt Return	LEDIT
Log File On/Off	Alt L	LOG
Log File Replay	Alt ;	REP
Modem Dialer	Alt M	MODEM
Screen Scrollback	Alt S	SCRBCK
Softkeys	Ctrl F1-F12	SKEY1-SKEY12
Vertical Scroll Down	Alt Down Arrow	VSD
Vertical Scroll Up	Alt Up Arrow	VSU



ENHANCED KEYBOARD

The Enhanced keyboard closely resembles an actual VT320 keyboard. Therefore, TELNETW can provide near-perfect VT320 keyboard emulation.

VT FUNCTION	KEY	VT320 TOKEN
PF1	Num Lock	PF1
PF2	Keypad Slash	PF2
PF3	Keypad Asterisk	PF3
PF4	Keypad Minus	PF4
Keypad Numbers	Keypad 0-9	KP0-KP9
Keypad Comma	Pause	KPCOM
Keypad Enter	Keypad Enter	KPENT
Keypad Minus	Keypad Plus	KPMIN
Keypad Period	Keypad Period	KPPER
Do	Scroll Lock	DO
Find	Insert	FIND
Insert Here	Home	INSHER
Next Screen	Page Down	NXTSCR
Previous Screen	End	PRVSCR
Remove	Page Up	REMOVE
Select	Delete	SELECT
VT Help	Print Screen	VTHELP
Up Arrow	Up Arrow	UP
Down Arrow	Down Arrow	DOWN
Left Arrow	Left Arrow	LEFT
Right Arrow	Right Arrow	RIGHT
Backspace	Shift Backspace	BS
Compose	Alt F1	COMPOSE
Delete	Backspace	DEL
Escape	Esc	ESC
Hold	F1	HOLD
Line Feed	Shift Return	LF
Print Auto	Alt F2	PRTAUTO
Print Screen	F2	PRTSCR
Setup	F3	SETUP
User-Defined Keys	Shift F6-Shift F12	UDK6-UDK12
	Alt Shift F3-Alt Shift F10	UDK13-UDK20
VT Function Keys	F6-F12	VTF6-VTF12
	Alt F3-Alt F10	VTF13-VTF20
EM FUNCTION	KEY	EM TOKEN
Abort	Alt A	ABORT
Break-Long	Alt Shift B	LBREAK
Break-Short	Alt B	BREAK
Command Mode	Alt C	CMD
Debug On/Off	Alt `	DEBUG
Drop DTR	Alt D	DROP_DTR

Help (Emulator)	Alt H	HELP
Horizontal Scroll Left	Ctrl Left Arrow (Coarse)	HSLC
	Alt Left Arrow (Fine)	HSLF
Horizontal Scroll Right	Ctrl Right Arrow (Coarse)	HSRC
	Alt Right Arrow (Fine)	HSRF
Kermit File Transfer	Alt K	KERMIT
Line Edit Mode	Alt Return	LEDIT
Log File On/Off	Alt L	LOG
Log File Replay	Alt ;	REP
Modem Dialer	Alt M	MODEM
Screen Scrollback	Alt S	SCRBCK
Softkeys	Ctrl F1-F12	SKEY1-SKEY12
Vertical Scroll Down	Alt Down Arrow	VSD
Vertical Scroll Up	Alt Up Arrow	VSU

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ANSI

American National Standards Institution. The standard command codes for color and character attributes.

ASCII

American Standard Code for Information Interchange.
ASCII is the character set used by most computers.

Asynchronous

A communications mode that uses variable time intervals between characters in a message.

Baud

A unit of data communications rate that signifies the speed of the transmitted data bits. One bit of data per second equals one baud. 1200 bits of data per second equals 1200 baud.

Binary

The method of representing numbers in base two.

Bit

Bit is short for binary digit. A bit is the smallest information unit in a computer system. The value of a bit is either 0 or 1. Eight bits equals one byte.

Byte

A sequence of eight adjacent bits operated upon as a unit.

Character Attribute

Display features that affect the appearance of characters on the screen, (i.e., bold, blink, underline,...)

Character Set

A group of graphics characters stored as a unit in the terminal.

Cursor

A bar of light indicating where the next character is going to appear on the screen.

Default

The standard setting used if no options are chosen or if a necessary parameter is omitted.

Default Directory

The current DOS directory. It is the directory used for file operations if no other directory path is specified.

Dialog Box

A box that either requests or provides information. Some present warnings or explain why a command can't be completed. Dialog box is used synonymously with menu.

DEC Multinational Character Set

The emulator's default character set. The DEC Multinational set consists of the ASCII and DEC Supplemental sets.

DEC Special Graphics Character Set

The DEC Special Graphics set is comprised of ASCII characters and special symbols. It is also referred to as the VT100 Line Drawing Character set.

DEC Supplemental Graphics Character Set

One of two character sets that comprise the DEC Multinational set. The DEC Supplemental set contains foreign characters and special symbols.

Download

The movement of files from the host to the emulator.

Echo

The character that appears on the screen in response to a typed character indicating that the computer has received and processed the data sent to it.

Full-Duplex

A data link capable of carrying data in both directions simultaneously.

Half-Duplex

A data link capable of carrying data in only one direction at a time.

Hardcopy

A permanent copy of the displayed data.
Hardcopy usually refers to a print or plot.

Host System

A computer or terminal server that is connected to the emulator.

ISO Latin-1 Supplemental Character Set

An eight-bit multinational character set. The ISO Latin-1 set consists of 96 graphics characters, most of which are similar to the DEC Supplemental Graphics set. This set can only be used in VT300 mode.

K-Byte (KB)

Kilobyte. A kilobyte is equal to 1024 bytes of information.

Kermit

A file transfer protocol, developed by Columbia University. Kermit is designed to support file transfer between nearly all types of computer systems.

Kermit ensures reliable, error-free transmissions, despite telephone and data line noise.

Local Echo

Online response of a character within the terminal that is indicated on the display. Local Echo is required in lieu of computer response echo.

Mode

The operating state of the terminal.

Modem

A contraction of the words modulator-demodulator. A modem modulates and demodulates signals transmitted and received over a phone line. A modem is used at the host and terminal end of a connecting telephone line.

National Replacement Character Set (NRC)

TELNETW supports twelve NRC sets. Each 7-bit character set contains 94 graphic characters. The NRC sets resemble the ASCII character set. However, some ASCII characters are replaced for a particular European language or dialect,

Online

The state of operation in which the emulator can communicate with the host system.

Packet

A Kermit file transfer term defined as a piece of file or document. Kermit breaks a file into groups of information, called packets, before transmission. When all the packets are received, the file transfer is complete.

Parity Bit

In 7-bit data communications, the eighth bit in a byte used for error detection. A parity bit is added to the end of a byte so the total number of 1s is either always even (even parity), or odd (odd parity); and the total number of bits is eight.

Port

The portion of the computer used for transmission or reception of data.

Protocol

A set of rules governing orderly communications between devices.

Remote Host

The terminal or mainframe that the emulator is talking to.

Remote Server

A remote host in server mode.

Root Directory

The directory that the PC starts in immediately after booting.

Example: C:\

Scrollback

A feature that allows a user to view text that has scrolled off the screen.

Server Mode

A state of readiness for unlimited file transfer. Without server mode, only one file transaction can take place. Server mode must be exited when file transfer is complete.

Session

An active connection between the emulator and a host.

Softkey

A softkey is a function key that can be loaded with ASCII text strings. Each string can contain control characters, delays, programming commands or references to command files.

When a softkey is pressed, the softkey string is transmitted to the communications port and any softkey commands encountered are executed.

Strapable Options

Strapable options are standard options that involve a simple wired plug that can be easily changed.

Transparent Mode

An operating mode that displays control codes as graphic characters, in order to debug applications.

Transparent

mode is also known as Displays Control mode.

Upload

The movement of files from the emulator to the host.

XModem

A communications protocol used for file transfer. XModem is a public domain protocol that was written by Ward Christiansen.

LOGGING AND REPLAY

Logging

The LOG function writes all data that appears on the screen into a log file on the disk. The log file contains all screen data and control sequences received by TELNETW.

To record a log file:

- 1) Click *File - Record Log File*.
- 2) Enter a filename. The log filename can include a complete DOS path specification. If a filename extension is not specified, TELNETW assigns .LOG.
- 3) Click on *Append* to add new log information to the end of an existing log file.
- 4) Click on *Overwrite Protection* to be notified if the file already exists.
- 5) Click the *OK* button.
- 6) To end the log file, click on *File - Record Log File*. To stop recording, click on *Stop*.

Replay

The Replay function allows a previously recorded log file to be played back offline from the host computer system.

The log file can be replayed at six different rates. It can also be programmed to stop on every page, new screen, or user defined string. The replay can also be paused at anytime using HOLD.

To start the replay operation:

- 1) Click *File - Replay Log File*.
- 2) Enter the name of the log file in the *Filename* field. The log filename can include a complete DOS path name.
- 3) Click the *OK* button.
- 4) Terminate replay by clicking on *Stop*, or answering Q to the replay Pause prompt.

Options

Setup - Log File Replay includes several options that control the operation of the Replay function.

RATE

Selects the replay speed.

KEY	RATE
1	300 baud
2	1200 baud
3	2400 baud
4	4800 baud
5	9600 baud
6	Maximum

PAUSE ON CLEAR SCREEN

Pauses the replay prior to executing any control sequence that causes an erase from the first column

of the top margin to the last column of the bottom margin.

PAUSE ON EVERY PAGE

Pauses the replay each time a new page of text is scrolled. This option may not work correctly with log files that display text using direct cursor positioning.

PAUSE ON USER DEFINED STRING

The replay pauses when the data in the log file matches the user-defined string. The user-defined string can be 25 characters in length and include any control character.

To disable, clear the user-defined string.

Pause Actions

When a replay pause occurs, the following message appears:

Replay Pause (CR = Continue, Q = Quit, P = Print Screen)

Press carriage return to continue, Q to terminate the replay operation, or P to print the screen. The following function keys can also be pressed during a pause.

TOKEN	FUNCTION
SETUP	Setup
PRTAUTO	Auto Print On/Off
PRTSCR	Print Screen
DEBUG	Control Sequence Debug On/Off
HSLF	Scroll Left (Fine)
HSLC	Scroll Left (Coarse)
HSRF	Scroll Right (Fine)
HSRC	Scroll Right (Coarse)
MARGIN	Set Horizontal Scroll Margin

Consult the Keyboard section for the token key assignments of a particular keyboard.

Programming

Some experimentation with the replay programming may be necessary to achieve the desired results. The following are guidelines for setting programming options:

Select the desired replay rate and use HOLD to stop the replay at the desired places.

Selecting *Pause on Every Page* in *Setup - Log File Replay* causes a replay pause after each page of text.

MENU DRIVEN APPLICATIONS

Pauses for menu driven applications require some consideration. The display techniques vary widely between programs. One or more options may be required simultaneously to program the desired pauses.

Selecting *Pause on Clear Screen* in *Setup - Log File Replay* works for many menu driven applications by causing an automatic pause before clearing each screen.

Many menu programs clear the screen one line at a time. These programs will not pause when the screen is cleared.

If the replay does not pause when the screen is cleared, examine the application screens for a string that appears near the bottom of every screen. Enter the string in the *Pause on _____* field in *Setup - Log File Replay*.

SCREEN SCROLLBACK

All lines that scroll off the screen are kept in a scrollback buffer. To view this text, click on the vertical scrollbar. The scrollbar is made visible in the Preferences dialog box.

SOFTKEYS

The twelve available softkeys are represented by the token names SKEY1 - SKEY12. Softkeys are functions keys that can be loaded with ASCII text strings. Each string can contain control characters, delays, programming commands, or references to command files. A maximum of 62 characters can be entered as a softkey string.

When a softkey is pressed, the string is transmitted to the COM port and any softkey commands encountered are executed. Softkey Pauses and Waits display a message on the status line of the screen whenever they are executed.

To abort the execution of a Softkey at any time, click on *Execute - Abort*.

Softkeys are defined in *Setup - Keyboard - Softkeys*.

Softkey Programming Commands

Command	Action
<P:n>	Pause n seconds.
<B:>	Short break (200 milliseconds).
<B:L>	Long break (2 seconds).
<K:>	Invoke Kermit. The Kermit prompt appears immediately after the K command is executed.
<W:ssssss>	Wait for string ssssss. Causes TELNETW to wait until the specified string occurs in the receive data. The string can be 25 characters long. The comparison is not case sensitive.
<S:c>	Sends character c out the communications port. Used to send < or > characters since they normally cannot be sent.
<@command file>	Executes the command file specified. The filename can include a DOS path specification.

Examples

Example 1: <CR><W:Username:>NAME<CR>PASSWORD<CR>

Automatically logs onto the host.

Where: <CR> is the character sent when the carriage return is pressed.
<W:Username:> is the Softkey Wait command. This command causes TELNETW to wait until the string "USERNAME:" (not case sensitive) occurs in the receive data.
NAME is the name sent to the host after the string "USERNAME:" has been received.
PASSWORD is a password.

Example 2: ATDT4441234<CR><P:10><CR>NAME<CR>PASSWORD<CR>

Automatically dials a modem and logs onto the host.

Where: ATDT4441234 gives the autodial command.
<CR> is the character sent when the carriage return is pressed.
<P:10> gives a 10 second pause.
NAME is the username.

PASSWORD is a password.

Example 3: KERMIT<CR>SET FILE TYPE BIN<CR>SERVER<CR><K:>

Sets up a Kermit transfer for a binary SEND or RECEIVE command.

Softkeys and the Modem Dialer

Softkeys can be executed automatically by the Modem Dialer. To execute a softkey when connecting to a host computer, enter the softkey number in the command file field in the Modem Dialer. The format for a softkey number is:

<S:n>

Where: n is the number of the softkey.

Softkeys can also be inserted as part of a phone number in a phone book entry. When the Modem Dialer is dialing the number, it expands the Softkey and sends the contents to the modem. Softkeys are useful for storing phone card number and other dialing information.

WORDPERFECT

TELNETW includes a WordPerfect (WP) mode that can be utilized when running VAX/VMS WordPerfect versions 4.2 or 5.x.

When WP mode is activated, the VAX version of WordPerfect can be operated using the same keystrokes as the PC version of WordPerfect. The emulation is so exact that you can use your PC WordPerfect template when operating with the VAX version.

Note: Key remapping is enabled while in WP mode. Key definitions created with the DEFINE KEY command override WordPerfect key assignments.

To disable defined keys, issue the UNDEFINE KEY/ALL command before entering WP mode. This command can be sent by the host.

After exiting WP mode, the command file containing the key definitions must be read again to restore the previous key definitions.

Entering WordPerfect Mode

To enter WP mode:

Click *Execute - WordPerfect 4.2 or WordPerfect 5.x.*

or

Type WP ON or WP5 ON at the CMD> prompt.

When WP mode is enabled, WP appears on the status line.

WP mode can be invoked from the host computer by sending one of the following commands:

CSI 3 ; 1 | WordPerfect Version 4.2 mode

or

ESC [3 ; 1 |

CSI 5 | WP5 ON ST WordPerfect Version 5.x mode

or

ESC [5 | WP5 ON ESC \

Terminating WordPerfect Mode

To terminate WP mode:

Click *Execute - WordPerfect 4.2 or WordPerfect 5.x.*

or

Type WP OFF at the CMD> prompt.

WP mode can be terminated from the host computer by sending:

CSI 3 ; 0 |

or

ESC [3 ; 0 |

Operation of WordPerfect Mode

To simulate the PC version of WordPerfect, TELNETW sends the appropriate VT320 keystrokes to the VAX for each WP key pressed.

Since many of the WP assignments overlap normal TELNETW assignments, several TELNETW keys do not operate in WP mode. If an TELNETW key is not assigned to a WP function it works normally.

Since the TELNETW default key assignments for Auto Print, and Print Screen are overridden in WP mode, use the menu bar options instead.

USING THE COMMAND LANGUAGE

The Emulation Command Language (ECL) is a command/script language similar to DCL, Digital's Command Language for VAX/VMS.

The Command Language can be used to automate both simple and complex tasks by creating files that contain ECL scripts. These files are called command files.

Some tasks that can be automated with command files include:

- Dialing and login
- File transfer
- Management of host programs
- Data logging and analysis

[Command Syntax](#)

[Command Execution](#)

COMMAND SYNTAX

Emulator commands appear in uppercase letters (e.g., WRITE HOST). The standard syntax for emulator commands is:

COMMAND /OPTIONS(s) argument(s)

Note: Arguments shown in brackets, [], are optional.

A command can be abbreviated to the minimum number of characters required to make it nonambiguous.

Multiple command arguments are separated by spaces.

Options begin with a slash (/) and can be used anywhere in the command.

Examples: UNDEFINE/ALL KEY
SEND DATA.TXT /FILTER

The UNDEFINE example shows the option directly following the command. The SEND example places the option at the end of the entire command. Both are valid.

If the argument is a string of characters, the options must immediately follow the command. Character string arguments (referred to as strings) must be enclosed in quotation marks.

Example: DISPLAY/NOCR "Hello there"

Shows an option with a string argument. The option directly follows the command, and the string (Hello there) is enclosed in quotes.

COMMAND EXECUTION

Emulator commands can be executed from the following:

- Command line prompt
- Key definition
- Host computer
- Command file

Command Line Execution

To execute a command from the command line:

- 1) Click on *Execute - Command Line* or press CMD (default is Alt C). The CMD> prompt displays on the status line.
- 2) Enter the command or command file specification at the command prompt.

Example 1: CMD>HANGUP

Hangs up a modem connection.

Example 2: CMD>DEFINE KEY F1 = KERMIT

Temporarily defines key F1 to display the EM-Kermit> prompt. This key definition is deleted upon exit.

Entering Multiple Commands

A series of commands can be given by entering interactive command mode. In interactive mode, the command prompt reappears after each command is executed. The INTERACTIVE command enters interactive mode.

To terminate interactive mode, use the ENDINTERACTIVE command.

Key Definition Execution

Individual commands can be defined to keys.

Example: CMD>DEFINE KEY C^C = CMD "ERASE SCREEN<CR>"

Defines Ctrl C to give the ERASE SCREEN command.

If this key is used often, you can enter the DEFINE KEY command into the default command file. Unless otherwise specified in *Setup - Command Files*, this file is TNWINIT.ECF.

Executing from the Host

Emulator commands can be executed under host control using a DCS private control sequence.

CSI 5 | ..Command String.. ST

Note: CSI and ST are 8-bit characters that can only be used on systems that support full 8-bit characters.

ESC [is the 7-bit equivalent of CSI.

ESC \ is the 7-bit equivalent of ST.

Example: CSI 5 | HANGUP ST

or

ESC [5 | HANGUP ESC \

The host uses these commands in programs, script or command files to hang up a modem connection.

Command Files

Command files are text files containing emulator commands. Command files are useful for automating tasks such as file transfers, logins, and defining keyboard configurations.

Command files can be executed from the following:

- Command line prompt
- Key definition
- Host computer
- Modem dialer
- Command file
- Softkey

Specifying a Command File

Prefixing a filename with an at symbol (@) tells TELNETW to expect a command file. TELNETW automatically appends the default extension of .ECF to the filename if one is not specified. The file name can also include a path specification.

Command files are assigned to a default directory by equating the TNW_DIR symbol to the desired path specification. Insert the symbol assignment into AUTOEXEC.BAT.

Example: SET TNW_DIR=C:\CMDFILES

Specifies the C:\CMDFILES directory as the default location for command files.

Specifying a path name in the command file specification overrides the default path name.

Default Command File

Enter the name of the command file in the *Default Command File* field. This file executes whenever the emulator is loaded. Do not enter the @ symbol, or a filename extension. The default extension, .ECF, is appended.

The Default Command File is TNWINIT.ECF. Enter any commands to be executed every time the emulator is started, such as key remapping into this file.

Command Line Execution

A command file can be executed at the CMD> prompt.

- 1) Click on *Execute - Command Line*. The CMD> prompt displays.
- 2) Type the @ followed by the name of the command file.
- 3) Press Return.

Example: CMD>@LOGIN

Executes a command file named LOGIN.ECF.

Key Definition Execution

A key can be defined to execute the command file using the DEFINE KEY command.

Example: DEFINE KEY F1 = CMD "@LOGIN<CR>"

or

DEFINE KEY F1 = CMD "@LOGIN" /TERM

Defines F1 to execute the command file LOGIN.ECF.

Executing from the Host

An emulator command file can be executed from the host computer system through a DCS private control sequence.

CSI 5 | @command file specification ST

Note: CSI and ST are 8-bit characters. They can only be used on systems that support full 8-bit characters.

ESC [is the 7-bit equivalent of CSI.

ESC \ is the 7-bit equivalent of ST.

Example: CSI 5 | @MODEM ST

or

ESC [5 | @MODEM ESC \

The host uses the above commands in programs, script or command files to run the MODEM.ECF file.

Modem Dialer Execution

Each entry in the Modem Dialer Phone Book can have an associated command file. Once a modem connection is made, the command file executes automatically.

- 1) Click on *Connect - Dial* to display the Modem Dialer.
- 2) Click on the *Edit Phone Book...* button to display the Phone Book.
- 3) Select a phone book entry. This becomes the current entry.
- 4) Enter the name of the Command File. Note that a path specification cannot be given.
- 5) Click the *Accept Changes* button.
- 6) Save the Phone Book and you return to the modem dialer. The next time this phone book entry is dialed, the command file executes after the connection is made.

Nested Command Files

To specify a command file from within a command file, precede the command file name with the @ symbol. After a nested command file is completed, it returns to the next line of the calling command file.

Softkey Execution

To execute a command file from within a softkey, enter the command:

<@filename>

The command file executes when the softkey is pressed. The softkey definition can include other softkey characters or commands before and after the command file specification.

Comments

Comments are used to document and clearly state the purpose of the file and each line of the emulator command. They are prefixed with the exclamation point (!). Any data to the right of the exclamation point is ignored.

Example: ! This command file logs onto a VAX/VMS system and
! changes to the TEST directory.
WAIT "Username:" ! wait for host prompt
WRITE HOST "USER" ! send username to host
WAIT "Password:" ! wait for host prompt
WRITE HOST "USER_TEST" ! send password to host
! change to test directory
WRITE HOST "SET DEF [.TEST]"
EXIT ! exit command file

Aborting Commands

Emulator commands and command file execution are aborted by clicking *Execute - Abort*.

MODEM DIALER

TELNETW includes a Modem Dialer for all Hayes and Hayes compatible modems, as well as all internal or external modems. Modems incompatible with the Hayes dialing protocol are programmed by typing the modem commands on the keyboard or storing them in emulator command files.

Click on *Connect - Dial* to display the Modem Dialer dialog box.

The Modem Dialer can store up to 15 numbers in a phone directory, dial a number, answer an incoming call, and hang up a connection.

Dialing

You can dial your modem by selecting an existing phone book entry, or entering a number in the Alternate Dial option.

Once a connection is established, TELNETW automatically returns to Emulation mode. If the phone book entry includes a setup file, the setup file loads before dialing. If the entry includes a command file or softkey reference, it executes as soon as Emulation mode is entered.

If a connection is made, the following messages appears:

```
Connected to "name"  
Connection successful  
  (then)  
Returning to emulation mode
```

If a connection cannot be made, the following message appears:

```
No connection - call failed
```

The Modem Dialer sends several commands to the modem when dialing a number to insure that the modem is in the correct programming state. As a result, once the Modem Dialer is used, the modem does not echo modem commands and reports status as numeric digits.

To restore the modem to its default state, send the modem a reset command from the keyboard by typing ATZ while in Emulation mode.

SELECTING A PHONE BOOK ENTRY

To select an entry from the phone book:

- 1) Click on *Select Phone Entry...* to display the Phone Book Entry Selection dialog box displays.
- 2) Click on the desired entry.
- 3) Click the *OK* button. The selected entry displays in the Modem Dialer.
- 4) Click the *Dial* button. The following Status box messages appear:

```
Calling "name"  
Dialing "number"
```

ALTERNATE DIAL

The *Alternate Dial* option is used for entering a modem phone number directly into the Modem Dialer dialog box.

For example, you always try dialing phone book entry 1 first. If it is busy, you choose a second number. Entering an *Alternate Dial* number gives immediate access to both modem numbers at once.

- 1) Position the typing cursor at the *Alternate Dial Number* option and enter the phone number.

- 2) Click the <<*Dial* button.

Note: There are two Dial buttons. The <<*Dial* button is used only for the Alternate Dial number.

Aborting a Call

Click the *Abort* button to cancel a call in progress.

A call CANNOT be aborted after the following message appears:

Connection successful

Hanging up a Connection

To hang up (terminate) a connection from the Modem Dialer:

- 1) Click the *Hang Up* button. The following message appears:

Hanging up connection

The program attempts to hang up the modem by dropping DTR. If this is unsuccessful, the program sends a series of disconnect commands to the modem. This insures that the Modem Dialer can hang up all Hayes compatible or nearly Hayes compatible modems.

If the hang up is successful, the following message appears:

Call terminated

If the program senses that the Carrier Detect line from the modem is still on after performing the hang up sequence, the following message appears:

Hang up failed

Answering an Incoming Call

The Modem Dialer can wait for an incoming call from another computer (i.e., PC to PC communications) and answer it automatically.

To wait for an incoming call:

- 1) Click the *Answer* button. The following message appears:

Waiting for incoming call - (press ABORT to cancel)

- 2) When the program detects connect status from the modem, the following message appears:

Call answered - returning to emulation mode

Phone Book

Click the *Edit Phone Book...* button in the Modem Dialer to display the Phone Book dialog box.

The phone book has room for 15 entries. The only required entry is a phone number. Name, command file and setup file specifications are optional.

There is only one phone book for TELNETW. There is not a separate phone book for each setup file.

ADDING A PHONE BOOK ENTRY

To add an entry to the phone book.

- 1) Click on an <unspecified> entry to select the current entry.
- 2) An optional name can be entered in the Name field as part of the entry. The name must start with an alphabetical character but can include any non-control character. The maximum length is 15

characters.

- 3) Enter a phone number. The phone number can include spaces or dashes for readability. A comma can be entered to specify a delay. The maximum length is 35 characters.

Softkey references can be included to insert a phone card number or other information into a dialing sequence. These are discussed in detail later in this section.

Phone numbers are normally dialed using tone dialing. For pulse dialing, enter a P as the first digit of the phone number.

- 4) An optional command file specification can be entered as part of the entry. If a command file is entered it will be executed automatically.

Command filenames can be up to eight characters long. Do not enter a filename extension: the default .ECF extension is assumed.

- 5) An optional setup file specification can also be entered as part of the entry. If a setup file is entered, it will be loaded before dialing the number.

- 6) Click the *Save* button. Phone book entries are saved into a file called TNWDIR.DAT. Saving a phone book does not save any other setup information.

EDITING A PHONE BOOK ENTRY

To edit a phone book entry:

- 1) Click on the listed entry to be edited. Then, enter the new information.
- 2) Click the *Accept Changes* button if the information is satisfactory. Otherwise, click the *Discard Changes* button to return to the original entry information.
- 3) Click the *Save* button to modify the phone book.

DELETING A PHONE BOOK ENTRY

To delete a phone book entry:

- 1) Click on the listed entry to be deleted, then click the *Delete* button.
- 2) Click the *Save* button to modify the phone book file.

CLEARING THE PHONE BOOK

To clear the entire phone book:

- 1) Click the *Clear All Phone Book Entries* button. A box appears with the following notice:
Are you sure you want to erase all your phone book entries?
- 2) Click on *Yes* to confirm the clear operation or *No* to abort it.

SAVING THE PHONE BOOK

Once you have entered one or more phone numbers, save the directory:

- 1) Click the *Save* button in the Phone Book dialog box. The entire phone directory is saved in the TNWDIR.DAT file.

Clicking the Modem Dialer *Save* button also saves the phone book.

Note: The save operation does not save the contents of any of the setup menus.

USING SOFTKEYS IN PHONE BOOK ENTRIES

Softkeys can be used inside phone book entries to insert telephone access codes and credit card

dialing information into the *Number* option.

To place a Softkey reference into a number, use the following syntax:

<S:n>

Where: n is the number of the Softkey string.

Example: Current Softkey: 1 *70

Softkey #1 is defined, in *Setup - Keyboard - Softkeys*, to disable call waiting.

Number: <S:1>1709-444-9999

When the entry containing this number is dialed, Softkey 1 is expanded and the command to disable call waiting is sent to the telephone system before dialing the number.

Other Considerations

MODEM SWITCHES

When using a modem, enable the Modem Control option in *Setup - Communications - Port Setup*.

Note: If Modem Control is disabled, the Modem Dialer does not monitor the Carrier Detect line from the modem. This allows dialing on communications systems or modems that force Carrier Detect on.

The following are the recommended settings for Hayes compatible modems:

- Select DTR support
- Select English result codes (vs. Numeric)
- Enable result codes
- Enable answering incoming calls
- Enable Carrier Detect to reflect the connection status (vs. Forced high)

USING THE KEYBOARD TO DIAL

All modems can be programmed directly from Emulation mode by typing the modem commands on the keyboard.

For example, typing ATDT1112222 followed by a carriage return instructs a Hayes compatible modem to tone dial the number 111-2222.

Note: As some modems require uppercase letters, set Caps Lock on before dialing from the keyboard.

