

QCTerm

Escape Sequences/Current Functionality Chart

(Please see the bottom of this page for important notes.)

Terminal Control Sequences

Esc 1	1	Set tab
Esc 2	1	Clear tab
Esc 3	1	Clear all tabs
Esc l	1	Horizontal tab
Esc i	1	Backtab
Esc 4	1	Set left margin
Esc 5	1	Set right margin
Esc 9	1	Clear all margins
Esc E	1	Hard reset
Esc g	1	Soft reset
Esc Y	1	Display Functions mode on
Esc Z	1	Display Functions mode off
Esc b	1	Unlock keyboard
Esc c	1	Lock keyboard
Esc z	5	Initiate self test
Esc&q 0L	1	Unlocks all configuration menus
Esc&q 1L	1	Locks all configuration menus, in addition to modes: Modify All, Block, Remote, and Auto Linefeed
Esc&k 0\	5	Selects HP mode from EM100 mode
Esc&k 1\	5	Selects EM100 Mode from HP mode
Esc&k 1A	1	Auto Linefeed on
Esc&k 0A	1	Auto Linefeed off
Esc&k 1C	1	Caps Lock on
Esc&k 0C	1	Caps Lock off. Note: There are two Caps Lock modes in QCTerm. The "C" sequence sets the global caps lock condition for the PC and sets the Caps Lock light on the keyboard.
Esc&k 1D	1	Keyboard bell on
Esc&k 0D	1	Keyboard bell off
Esc&k 0J	5	60Hz CRT frame refresh rate

Esc&k 1J	5	50Hz CRT frame refresh rate
Esc&k 1K	1	Auto Keyboard Lock on
Esc&k 0K	1	Auto Keyboard Lock off
Esc&k 1L	1	Local Echo on
Esc&k 0L	1	Local Echo off
Esc&k 1M	1	Modify All on
Esc&k 0M	1	Modify All off
Esc&k 1P	1	Caps on
Esc&k 0P	1	Caps off. Note: There are two Caps Lock modes in QCTerm. The "P" sequence sets the caps lock condition only for this session and does not affect any other application on the PC, nor does it affect the Caps Lock keyboard light.
Esc&k 1Q	4	Key click on
Esc&k 0Q	4	Key click off
Esc&k 1R	1	Remote mode on
Esc&k 0R	1	Local mode on
Esc&k 1]	5	Print/Enter = Select key
Esc&k 0]	5	Print/Enter = Print key
Esc&f 0B	1	Store all entries in configuration menus fields, current state of function key labels (except "modes" function keys), tab stops, margins, and user definable key selections for later retrieval.
Esc&f 1B	1	Restore all values stored by the Esc&f 0B sequence

Cursor Control Sequences

Esc*dQ	1	Cursor on
Esc*dR	1	Cursor off
Esc*d0Q	1	Selects underline cursor
Esc*d1Q	1	Selects block cursor
Esc A	1	Cursor up
Esc B	1	Cursor down
Esc C	1	Cursor right
Esc D	1	Cursor left
Esc H	1	Cursor home up
Esc h	1	Cursor home up (ignoring transmit fields)
Esc F	1	Cursor home down
Esc G	1	Move cursor to left margin
Esc `	1	Sense cursor position (screen relative)
Esc a	1	Sense cursor position (absolute)

Esc&a<col>c<row>Y	1	Moves the cursor to column col and screen row on the screen (screen relative addressing)
Esc&a<col>c<row>R	1	Moves the cursor to column col and row in display memory (absolute addressing)
Esc&a ±<col>c±<row>Y	1	Moves the cursor to column col and row (on the screen) relative to its present position (col and row are signed integers). A positive number indicates right or upward movement and a negative number indicates left or downward movement.
Esc&a ±<col>c±<row>R	1	Moves the cursor to column col and row relative its present position in display memory (col and row are signed integers). A positive number indicates right or upward movement and a negative number indicates left or downward movement.
Esc&x 1C	1	Turn on Send Cursor Position mode
Esc&x 0C	1	Turn off Send Cursor Position mode

Display Control Sequences

Esc&w 12F	2	Turns on display
Esc&w 13F	2	Turns off display
Esc S	1	Roll up
Esc T	1	Roll down
Esc U	1	Next page
Esc V	1	Previous page
Esc&w 6f 80X	1	Selects 80-column display (default)
Esc&w 6f 132X	1	Selects 132-column display
Esc&w 6f 200X	1	Selects 200-column display (QCTerm only)
Esc*d 0E	1	Normal display (default)
Esc*d 1E	1	Inverse display
Esc&k 0[5	Smooth scroll off
Esc&k 1[5	Smooth scroll on
Esc l	1	Memory Lock mode on
Esc m	1	Memory Lock mode off

Editing Sequences

Esc J	1	Clear display from cursor to end of memory
Esc K	1	Clear line from cursor to end of line
Esc L	1	Insert line
Esc M	1	Delete line
Esc N	1	Start Insert Character with wraparound mode

Esc Q	1	Start Insert Character (without wraparound)
Esc R	1	End Insert Character mode
Esc O	1	Delete character with wraparound
Esc P	1	Delete character (without wraparound)
Esc&s 1B	1	Selects YES for the SPOW (B) field of the Terminal Configuration menu
Esc&s 0B	1	Selects NO for the SPOW (B) field of the Terminal Configuration menu
Esc&s 1C	1	Selects YES for the InhEolWrp (C) field of the Terminal Configuration menu
Esc&s 0C	1	Selects NO for the InhEolWrp (C) field of the Terminal Configuration menu

Format Mode Sequences

Esc W	1	Format mode on
Esc X	1	Format mode off
Esc [1	Starts an unprotected field
Esc {	1	Starts a transmit-only field
Esc]	1	Ends an unprotected field

Status Sequences

Esc ^	1	Return terminal primary status
Esc ~	1	Return terminal secondary status
Esc *s ^	1	Returns a five-byte string indicating the terminal identity: 70092
Esc *s1234<x> ^	1	Returns a version-identifying string in the form: QCTERM-V3.2, where <x> is any numeric character, 0-9.
Esc *s<x> ^	1	Returns terminal capabilities
		<x> = Capability
		-1 Alphanumeric capabilities
		-2 Graphics capabilities
		-3 Amount of RAM memory
		-4 Interface capabilities
Esc *y ^	1	Returns downloadable character set capabilities
Esc&p 4 ^	1	Requests the status of the printer

Remapping the Enter Keys

Esc &f1m149P<!154>	1	Keyboard Enter = Enter
Esc &f1m149P<!149>	1	Keyboard Enter = Return
Esc &f1m149P<>	1	Keyboard Enter = Return
Esc &f211P<!149>	1	Numeric Enter = Return
Esc &f211P<!154>	1	Numeric Enter = Enter
Esc &f211P<!150>	1	Numeric Enter = Tab
Esc &f211P<!211>	1	Numeric Enter = Tab
Esc &f211P<>	1	Numeric Enter = Tab
Esc &fR	1	Resets the Enter keys so that Keyboard Enter = Return and Numeric Enter = Return
Esc &f1S	1	"Smart Return ON". When in Block Mode, and the "Smart Return" attribute is enabled, the Keyboard Enter key automatically becomes an HP ENTER key. When a Block Mode screen is exited, the Keyboard Enter key drops back to its default mode. (QCTerm only)
Esc &f0S	1	"Smart Return OFF". (QCTerm only)

Data Transfer Operations Sequences

Esc f	4	Disconnect modem (lowers DTR line for two seconds)
Esc @	1	Pauses the terminal for one second
Esc 0	1	Copy terminal memory to the currently selected destination(s)
Esc d	1	Sends a block of data to the computer. The block starts at the cursor position and ends at a block terminator or the end of terminal memory.
Esc&p B or 0B	4	Copy cursor line from display to printer
Esc&p F or 0F	4	Copy display, from cursor line to last displayed line, to printer.
Esc&p M or 0M	4	Copy memory, from cursor line to end of display memory to printer.
Esc&p 3D (or 3U)	1	Selects display as the destination device. <i>Please see the notes at the bottom of this section.</i>
Esc&p 4D (or 4U)	1	Selects printer as the destination device. <i>Please see the notes at the bottom of this section.</i>
Esc&p 5D (or 5U)	1	Selects disc file as the destination device. <i>Please see the notes at the bottom of this section.</i>

Esc&p 6D (or 6U)	1	Selects printer as the destination device. (identical to the 4D sequence) <i>Please see the notes at the bottom of this section.</i>
Esc&p <x> W <datastring>	2	Transfers <x> bytes of the data string from the computer to the selected destination device in binary form (<x> is a decimal value in the range 1-256)
Esc&p W<datastring>	2	Transfers the data string in ASCII form, from the computer to the printer selected as the destination device. The string is terminated either by the 256th byte or by an ASCII line feed character.
Esc&p <y> <a>dD	2	Copies <y> amount of data to destination devices <a> and . As many destinations as desired can be specified. <y> = What is to be copied b Copy line in which the cursor is located to destination(s) f Copy from line in which the cursor is located to last line visible on page to destination(s) m Copy from line in which the cursor is located to end of display memory to destination(s) <a>, = Destination devices 3 Display 4 Printer 5 Disc File 6 Printer (same as 4)
Esc&p <x>d<y>p<z>C	1	Performs action <z> on external device <x> <z> = Action 0 Generate a form feed 1-10 Ignored 11

Turn on log bottom mode
 12
 Turn on log top mode
 13
 Turn off any logging mode
 14-19
 Ignored
 20
 Turn on Record mode; <y> is the ASCII decimal value (1-127) used to end Record mode

 <x> = Destination device

 3
 Display
 4
 Printer
 5
 Disc File
 6
 Printer (same as 4)

Esc%p <a>fh<c>N

1 Sets printing parameters for your PC's printer. <a> sets output font size, 1-24 points. 1 = indicates presence of QCTerm page headers, 0 = no headers. <c> sets number of print copies, 1-99. (QCTerm only)

Notes: In the very earliest HP terminals, internal tape drives were present. The commands such as "advance tape", "skip eof", etc. to drive those devices were marked with a "u" (unit) designation. Transfer operations were marked with an "s" (source) and "d" (destination) designations. Over the years, with the disappearance of the terminal-based tape drives and the number of HP terminal emulators that have been built, the "d" and "u" designations have become confused. Although HP no longer supports the "u" designation, *Reflection* does, and thus so do we. In effect, the "u" and "d" designations have now become equivalents of one another.

The same is true of the "4d" and "6d" designations. Originally, the "4" value represented the terminal's external printer and the "6" the later (on some models) internal printer. These two values are now also considered to be equivalents in your

Data Terminal Configuration Sequences

Esc&k 1B	1	Block mode on
Esc&k 0B	1	Block mode off
Esc&k 0I	1	Data byte = 7 data bits and one parity bit
Esc&k 1I	1	Data byte = 8 data bits (no parity bit)
Esc&s 1A	1	Selects YES for the Xmit Fnctn (A) field
Esc&s 0A	1	Selects NO for the Xmit Fnctn (A) field
Esc&s 1D	1	Selects LINE for the Line/Page (D) field
Esc&s 0D	1	Selects PAGE for the Line/Page (D) field
Esc&s 1G	1	Selects YES for the InhHndShk (G) field
Esc&s 0G	1	Selects NO for the InhHndShk (G) field
Esc&s 1H	1	Selects YES for the Inh DC2 (H) field
Esc&s 0H	1	Selects NO for the Inh DC2 (H) field
Esc&s 1N	1	Selects YES for the Esc Xfer (N) field
Esc&s 0N	1	Selects NO for the Esc Xfer (N) field

Alternate Character Set Selection

Esc) <x>	3	Selects <x> as the character set
		<x>
		@
		Base Set
		B
		Line Drawing Set

Function Key Sequences

Esc p	1	Default definition for user definable function key F1
Esc q	1	Default definition for user definable function key F2
Esc r	1	Default definition for user definable function key F3
Esc s	1	Default definition for user definable function key F4
Esc t	1	Default definition for user definable function key F5
Esc u	1	Default definition for user definable function key F6
Esc v	1	Default definition for user definable function key F7
Esc w	1	Default definition for user definable function key F8

Esc j	1 Display user key menu and begin user key definition mode (modified from normal presentation)
Esc k	1 End User Key Definition mode and restore normal display
Esc&j<x>	<p>1 Performs operation <x></p> <p style="padding-left: 40px;"><x></p> <p style="padding-left: 40px;">A Display the modes set of function key labels</p> <p style="padding-left: 40px;">B Enable the user function keys (The user key labels are displayed.)</p> <p style="padding-left: 40px;">C Disable screen messages (turn off message window and redisplay function key labels)</p> <p style="padding-left: 40px;">@ Remove the function key labels form the screen</p> <p style="padding-left: 40px;">S Disables the user/system keys</p> <p style="padding-left: 40px;">R Enables the user/system keys</p>
Esc&j<x>L<message>	1 Remove the key labels from the screen and display the character string <message> of length <x>. Depending on the selections made with the Esc&j<x>D sequence (below), the terminal may beep at the end of the displayed message.
Esc&j C	1 Remove <message> from the screen and restore the current key labels.
Esc&f<attr>a <key>k <lbl len>d <str len>L <label> <string>	<p>1 Defines the attributes for the function key <key></p> <p style="padding-left: 40px;"><attr></p> <p style="padding-left: 40px;">0 Normal (N) (default)</p> <p style="padding-left: 40px;">1 Local only (L)</p> <p style="padding-left: 40px;">2 Transmit only (T)</p> <p style="padding-left: 40px;"><key></p>
	1-8

F1 to F8 function key

<lbl len>

Number of characters in the label. The label length plus the string length must be less than or equal to 255 characters. Only the first 16 characters (32 if all are muted characters) are used in the label. (Default = 0).

<str len>

Number of characters in the string. A length of -1 clears the label. The label length plus the string length must be less than or equal to 255 characters. Only the first 80 characters (160 if all are muted characters) are used in the string.

<label>

The label is entered at this point in the sequence. (Default = no label).

<string>

The character string is entered at this point in the sequence. It may contain display enhancements and character set changes. (Default = no string).

Esc&j <x>D

1 <x> selects combinations of: (i) bell rings after the message is displayed, (ii) CR transmitted, and/or (iii) function key labels restored

<x>

0

Labels restored

1

Esc&f <x>E		Bell rings, Labels restored
	2	CR sent, Labels restored
	3	Bell rings, CR sent
	1	Executes the function assigned to function key <x>
	<x>	
	1-8	F1-F8 function key

Display Enhancement Sequences

Esc&d<char>	1	Selects the display enhancement indicated by <char> to begin at the present cursor position
		<char>
		@
		End Enhancement
	A	Blink
	B	Inverse
	C	Blink, Inverse
	D	Underline
	E	Blink, Underline
	F	Inverse, Underline
	G	Blink, Inverse, Underline
	H	HalfBright
	I	Blink, Half Bright
	J	Inverse, Half Bright
	K	Blink, Inverse, Half Bright
	L	Underline, Half Bright
	M	Blink, Underline,

		HBright
	N	Inverse, Underline, HBright
	O	Blink, Inverse, Underline, HBright
	S	Secure Field
Esc&ds <char>	1	Enables a security field and any other enhancements selected by <char>.

QCTerm Debug Sequences

Esc&k1234X	1	Begins communications debug mode. All incoming and outgoing data is logged into the file c:\aics\temp\debug.txt, a standard ASCII text file. When communications debug mode is on, the communications panel at the bottom of QCTerm's screen lights up in red. (Disabled in version 0.90q & higher)
Esc-	1	Resets the debug mode listed above. (Disabled in version 0.90q & higher)

Notes on Current Status (middle column above) of Display Enhancement Sequences

- 1 = fully supported
- 2 = not yet supported
- 3 = we simply haven't decided yet
- 4 = not likely to be supported
- 5 = will not be supported/inapplicable to *QCTerm*

Spaces are shown in some of the escape sequences above for clarity, however no space should be used in escape sequences, unless specifically shown as an integral part of the sequence. To indicate that a space is required in a sequence, the sequence is written as *Sp*.

Optional parameters are placed within angle brackets, < >. The only exception to this notation occurs in the Enter Key remapping escape sequences. The angle brackets there are an integral part of the sequences.

If the body of an escape code consists of more than one character set and ends in a letter, *the terminating letter must be capitalized*; otherwise the escape code will not be recognized as such. For example, Esc&dA (*not* Esc&da).