Help Topics for DEC VT240 Emulation

Help for VT240 Operating Mode

Set the operating mode to determine how the terminal responds to control sequences.

For additional information, select:

Operating Mode
VT100 Mode Terminal ID
Controls
Online / Local

Operating Mode

The Operating Mode may be set to VT200, 7-Bit Controls; VT200, 8-Bit Controls; 4010/4014 Mode; VT52 Mode; or VT100 Mode.

VT200, 7-Bit Controls is the default mode and executes standard ANSI functions.   This mode provides the full range of VT240 capabilities in an 8-bit communications environment with 7-bit controls.   This mode supports the DEC multinational character set or the national replacement character (NRC) sets.

These sets may be accessed from the keyboard or from the host.

This mode also provides some compatibility for VT100 and VT125 software.

VT200, 8-Bit Controls also executes standard ANSI functions.   This mode provides the full range of VT240 capabilities in an 8-bit communications environment with 8-bit controls.   This mode also supports the DEC multinational and NRC character sets, which can be accessed from the keyboard or with programmed control codes.

VT100 Mode provides a high degree of compatibility with the DEC VT102 terminal.   All data is restricted to 7 bits, and only ASCII, NRC, or special graphics characters are generated.

VT52 Mode provides compatibility with DEC's private functions and is similar to the VT100 terminal operating in VT52 mode.   Only VT52 keys may be used, and all data is restricted to 7 bits and generates only ASCII, United Kingdom or special graphics characters.

4010/4014 Mode is a graphics mode which executes Tektronix 4010/4014 functions.

VT100 Mode Terminal ID

This option may be set to VT240 ID, VT100 ID, VT101 ID, VT102 ID, or VT125 ID, and selects the device attributes response required by some applications.   The response lets the host know the operating characteristics of the terminal.

Controls

If set to Interpret Controls, the VT240 emulation processes control characters, but does not display them.

If set to Display Controls, the emulation displays all control characters without processing them.

If set to Display ReGIS, the emulation displays ReGIS commands on the bottom line of the monitor as the graphic screens are drawn.

Online / Local

If set to Online, the terminal can communicate with the host system.   Data entered at the keyboard is sent to the host, and data received from the host is displayed.

If set to Local, the host system is placed on hold.   Data entered at the keyboard is sent to the monitor, but not to the host.

Help for VT240 Status Line Definition

Determine the default setting for whether or not an information status line will be displayed when in the Session Window (online terminal emulation).

If a status line is to be displayed, determine the default setting for the date and time format to be used; and determine whether the DEC VT240 Status Line or the standard Softerm Status Line will be displayed.

For additional information, select:

Status Line Preference
Status Line Time Format
Status Line Display

Status Line Preference

If the VT240 Status Line is selected, the status information displayed will include Row and Column, Operating Mode, 80 or 132 Column Mode, Replace or Insert mode, Printer Status, Hold indicator, Keyboard Lock indicator, and LED indicators L1, L2, L3, and L4.

The standard Softerm Status Line displays some or all of the following:

- Online or Local mode
- Connect status
- Duplex setting
- Capture status
- Caps Lock key state
- Numeric Lock key state
- Date and Time or Connect Time

Status Line Time Format

Date/Time
Choose this setting for the status line to display the current date and time.

Connect Time
Choose this setting for the status line to display the length of time the connection has been established.

Status Line Display

On
The status line will be displayed when you are in the Session Window (online terminal emulation mode).

Off
The status line will not be displayed when you are in the Session Window (online terminal emulation mode).

Help for Printer Definitions

The Printer definitions provide the default settings for terminal functions whose destination is a print device.

Print Extent determines what portion of the screen is printed when the Shift PrtSc keyboard function is executed or a print screen command is received.

Print Terminator specifies if a form feed character is generated after the screen is printed.

Printer Mode lets the terminal perform several print operations selected from the keyboard or from the host.

New Line On Close Capture is used to enable or disable the automatic newline sequence (carriage return + line feed) when sending data to a printer.   Most users will prefer to leave this option disabled.

Append Disk Printer File On Close is provided primarily to handle hosts which initiate printing of small amounts of data on a frequent basis.   Most users will prefer to leave this option enabled.

Send Initialize / Deactivate String Once is used only by append printer operations which have been redirected to a disk file, and prevents the printer initialization and deactivation strings from being sent to the file each time it is opened and closed.

Print Extent

The Print Extent option determines what portion of the screen is printed when the Shift PrtSc keyboard function is executed or a print screen command is received.   If this option is specified as Full Screen, the full screen will be printed.   If this option is specified as Scrolling Region, only the area defined in the current scrolling region will be printed.

Print Terminator

The Print Terminator option specifies if a form feed character is generated after the screen is printed using the keyboard function or when a print screen command is received.   If this option is specified as Form Feed, a form feed character (0C hex) is appended to the data sent to the printer by the print screen function.   If this option is specified as None, no form feed is included.

Printer Mode

This option may be set to Normal, Auto or Controller.

If set to Normal, you can select all local printing functions from the keyboard.

Auto print mode prints the current display line when the cursor moves to the next line.

In Controller mode, the host computer has direct control of the printer.   Characters received from the host go directly to the printer.

New Line On Close Capture

Function: Enable or disable the automatic newline sequence (carriage return + line feed) when sending data to a printer.   Most users will prefer to leave this box unchecked.

This option works with all data Capture to Printer operations. Softerm normally appends a newline sequence to the end of a data capture.   However, when transmitting data, some hosts will initiate a capture, send a line of data, terminate capture, and repeat the process until all data has been transmitted. Appending the newline sequence each time would destroy the data's format.   Leave this option unchecked to stop the automatic newline sequence from being appended and to maintain the data's format.

Append Disk Printer File On Close

Function: This option is provided primarily to handle hosts which initiate printing of small amounts of data on a frequent basis.   Most users will prefer to leave this option checked.

Important: The action of this function depends on the selected Print Path and whether or not a print device is busy.

Case 1:   The Print Path uses a valid printer.

If the printer is available, all print activities (such as a capture to print or a host-initiated print function) will be sent to the printer.

If Append Disk Printer File on Close is disabled and the printer is not available (either off line, busy, etc.), all print activities (such as a capture to print or a host-initiated print function) will be sent to a temporary disk file.   Each time the print activity is turned off, the temporary file will be closed.

If Append Disk Printer File on Close is enabled and the printer is not available (either off line, busy, etc.), all print activities (such as a capture to print or a host-initiated print job) will be sent to a temporary disk file.   Each time the print activity is turned off, the temporary file will, in effect, remain open.   When printing is turned on again, the data will be appended to the existing file.

The temporary file will be closed when one of the following happens:

1.   You turn capture off from the File menu;
2.   You clear the Append Disk Printer File on Close option;
3.   You exit the Session Window; or
4.   You exit Softerm.

Case 2:   The Print Path uses a Disk printer with the "Automatically Create Unique Disk Print File" option checked.   **Important:**   If a Disk printer is given a user-specified file name, append is assumed and this setting does not affect the file.

If Append Disk Printer File on Close is disabled, every time the print activity is stopped, the disk file will be closed.   Each new print activity will overwrite the disk file.

If Append Disk Printer File on Close is enabled, every time the print activity is stopped, the disk file will, in effect, remain open.   Subsequent print activity initiation will append the new data to the original file.

The disk file will be closed when one of the following happens:

1.   You turn capture off from the File menu;
2.   You clear the Append Disk Printer File on Close option and close the capture;
3.   You exit the Session Window;   or
4.   You exit Softerm.

Send Initialize / Deactivate String Once

Important: This setting works only with append printer operations which are redirected to a disk file. This includes a Print Path which uses a Disk printer.

When this option is enabled, the printer initialization and deactivation strings will be sent to the printer file only once.

If this option is not enabled, the printer initialization and deactivation strings will be sent to the printer file each time it is opened and closed.

Help for Video Definitions

These options let you set default values which affect the appearance and behavior of the display.

For more information, select:

Cursor Type
Number of Columns
Screen Display
Cursor Displayed
New Line
Scroll
Auto Wrap
Page Mode
CR after LF
LF after CR
Enable Margin Bell
Enable Warning Bell
Clear Display

Cursor Type

The cursor displayed during online terminal emulation may be Underline, Partial Block, Half Block Top, Half Block Bottom, Centerline, or Full Block.

Number of Columns

If **80** is selected, the emulation will be initialized in 80-column mode.   If **132** is selected, the emulation will be initialized in 132-column mode.

Screen Display

If **Normal** is selected, the foreground and background screen colors are displayed normally. If **Reverse** is selected, the foreground and background colors are reversed.

Auto Wrap

Note: This parameter also is called Automatic New Line.

When enabled, this option specifies that the cursor should automatically move to the first character position in the next line when data is entered in the last position on the current line.   If the current line is the last line on the screen and scrolling is enabled, the screen will scroll.

If this option is disabled, the cursor will stick at the last position of the current line.   Additional data entered or received will overwrite the display position until a cursor movement command, such as a carriage return, is processed.

CR after LF

If this option is enabled, Softerm automatically performs a carriage return function (cursor to first display position) in addition to a linefeed function (cursor down one line) whenever a linefeed character (0A hex) is received.   If this option is disabled, no additional processing is performed for linefeed characters.

Page Mode

This option sets the scrolling mode of the terminal.   When Page Mode is enabled, scrolling is disabled and functions which normally cause scrolling will cause a wraparound to the top row.

When Page Mode is disabled, scrolling is enabled and the cursor will continue to scroll down one line at a time, each time the cursor is sent past the column limit on the last line of the displayed screen area.

Note: Page Mode is dependent on the Auto Wrap option being enabled.

LF after CR

If this option is enabled, Softerm automatically performs a linefeed function (cursor down one line) in addition to a carriage return function (cursor to first display position) whenever a carriage return character (0D hex) is received.   If this option is disabled, no additional processing is performed for carriage return characters.

Enable Margin Bell

If checked, the audible alarm is sounded when a character is entered at column 74. If not checked, no alarm is issued.

Cursor Displayed

If this option is enabled, the text cursor will be displayed.

New Line

If this option is enabled, the PC's Enter key will send a carriage return-line feed sequence.   If not checked, the Enter key sends only a carriage return.

Scroll

If this option is checked, the speed at which new lines appear on the screen is limited, causing a smooth, steady scroll.

If not checked, scrolling is disabled.

Enable Warning Bell

If this option is enabled, the bell will sound when a BEL (CtrlG) character is received from the host; after a compose character error; when errors occur while you are using local editing, and when Session Support Utility errors occur (the bell sounds twice).

Clear Display

If this option is enabled, the terminal screen will be cleared each time it is accessed from the Terminal Emulation Settings dialogs.

Help for Keypad Modes

The option Keypad Modes allows the default operating mode of the numeric keypad and cursor keys to be selected.

For additional information, select:

Keypad Mode
Cursor Keys Mode

Keypad Mode

If set to Numeric and the Numeric Lock key is On, the keypad will generate numbers.   If the Numeric Lock key is Off, the keypad will generate Local Edit Functions.

If set to Application and the Numeric Lock key is On, the special keypad applications mode is enabled and generates special code sequences.   If the Numeric Lock key is Off, the keypad will generate Local Edit Functions unless used with the Alt key, in which case an Application Mode sequence will be generated.

Note: The host may override the setting of this option.

Cursor Keys Mode

This option may be set to ANSI or Application and determines what codes are transmitted by the cursor keys.

If set to ANSI, standard ANSI cursor control sequences are transmitted.

If set to Application, special alternate sequences are transmitted.

Help for Break Enabled Mode

This option determines if the BREAK function is enabled.   If this option is set to No, the BREAK function is disabled.

Break Enabled

If this option is set to No, the BREAK function is disabled.

Help for Tab Stop Settings

Default tab stops are set every 8 columns beginning with column 9.   To change tab stop settings, use the cursor keys to select the approprite tab position and press Space to toggle the setting, or click on the appropriate tab position to toggle the setting.

Help for Answerback Message

If an Answerback string is defined, it can be transmitted automatically when requested, and it can be transmitted manually by a keyboard function.

For additional information, select:

Auto-answerback On Connect
Answerback Message

Auto-answerback On Connect

If enabled, the answerback string will be transmitted automatically whenever a new connection is made.

If not checked, it is not transmitted.

Answerback Message

Displayable and non-displayable ASCII character codes may be included in an answerback string.

To enter non-displayable ASCII character codes, such as [CR] for Carriage Return, use the acronym listed in the ASCII column in ASCII Character Codes

The answerback string can contain up to 30 actual characters.

Help for User Preference Settings

User Preference Settings let you set whether or not the host system can change User Key and User Features settings.

For additional information, select:

User Keys
User Features

User Keys

If this option is set to **Unlocked**, the user key definitions can be altered from the host.

If this option is set to **Locked**, user key definitions cannot be altered.

User Features

These include light/dark screen, tab stops, and keyboard lock.

If this option is set to **Unlocked**, the host can change the user preference features.

If this option is set to **Locked**, the host cannot alter user preference features.

Help for Keyboard Dialect

The emulation option Keyboard Dialect is used to respond to a request from the host.   In general, you should set this option to match the layout of your keyboard.   The options available are: North American, British, Flemish, Canadian (French), Danish, Finnish, German, Dutch, Italian, Swiss (French), Swiss (German), Swedish, Norwegian, French/Belgian, Spanish and Portuguese.

Keyboard Dialect

From the drop-down list box, select one of the available dialects and choose OK.

Note: Appropriate dialects are keyboard dependent.

Help for Graphics Set-Up

These options let you define graphics characteristics.

For additional information, select:

Graphics Cursor
Macrograph Report
Best Fit Line Pattern

Graphics Cursor

If Graphics Cursor is enabled, the diamond cursor will be displayed.   If it is not enabled, the diamond cursor will not be displayed.

Macrograph Report

If Macrograph Report is enabled, the ReGIS interpreter will be able to report the contents of a specified macrograph location.   If this option is not enabled, the report command option will be disabled.

Best Fit Line Pattern

This option is specific to the Softerm VT240 emulation and allows you to speed up your display.

If precise line placement is not a factor, enable Best Fit Line Pattern to use the operating system's line patterns and speed up the display.

If precise line placement is necessary, leave this option disabled.

Help for Graphics Color Set-Up

The VT240 contains four output map RAM locations.   Each location stores both a monochrome intensity value (for monochrome monitors) and a color value (for color monitors).   Note that this emulation does not support the monochrome mapping.

These options let you change the values for these locations.

The four output map locations are selected from the Color Index list and the associated colors are selected from the Color list.   Note that the colors follow the HLS (hue/lightness/saturation) model.

For additional information, select:

Color Index
Color

Color Index

The four output map locations are identified as Color 0 through Color 3.   When you select the map location to which you want to assign a different color, the Color list changes to reflect the currently-assigned value.

Color

Assign any of the 64 available colors to the selected output map location.

Help for 4010 / 4014 Set-Up

These options let you define Tektronix 4010/4014 graphics characteristics.

For additional information, select:

Character Mode
CR Effect
LF Effect
Del Implies Lo Y
GIN Terminator

Character Mode

If Character Mode is set to Aligned Characters, four small character sizes are used.   If set to Enlarged Characters, two larger character sizes are used.

CR Effect

CR Effect may be set to CR, or CR-LF, and selects whether or not a received carriage return also causes a line feed.

LF Effect

LF Effect may be set to LF or LF-CR, and selects whether or not a received line feed also causes a carriage return.

Del Implies Lo Y

If Del Implies Lo Y is enabled, the ASCII code associated with the DEL control character can be a possible low Y value in 401X-series coordinate specifications.   If set to Ignore, DEL as low Y for graphics mode is disabled.

GIN Terminator

GIN Terminator may be set to None, CR, or CR-EOT, and selects whether or not to send a terminator after the Graphic Input mode address.   If set to None, no terminator is sent.   If set to CR, a carriage return is sent; and if set to CR- EOT, a carraige return and an End-Of-Transmission character are sent.

ASCII Character Codes

These characters, codes and functions can be inserted in many of Softerm's string entry fields.   The first 32 codes (0 through 31 decimal), also called the non-displayable characters, often are used as control codes. They can be entered in a text field by typing the code's acronym (listed in the ASCII column) between square brackets.

For example, a Carriage Return can be included in a string by typing the acronym and placing it between square brackets, such as:

        [CR]

Hex	Dec	ASCII	Name	Keyboard
00	0	[NUL]	null	Ctrl
01	1	[SOH]	start heading	Ctrl A
02	2	[STX]	start text	Ctrl B
03	3	[ETX]	end text	Ctrl C
04	4	[EOT]	end transmission	Ctrl D
05	5	[ENQ]	enquire	Ctrl E
06	6	[ACK]	acknowledge	Ctrl F
07	7	[BEL]	bell	Ctrl G
08	8	[BS]	backspace	Ctrl H
09	9	[HT]	horizontal tab	Ctrl I
0A	10	[LF]	line feed	Ctrl J
0B	11	[VT]	vertical tab	Ctrl K
0C	12	[FF]	form feed	Ctrl L
0D	13	[CR]	carriage return	Ctrl M
0E	14	[SO]	shift out	Ctrl N
0F	15	[SI]	shift in	Ctrl O
10	16	[DLE]	data link escape	Ctrl P
11	17	[DC1]	device control 1	Ctrl Q
12	18	[DC2]	device control 2	Ctrl R
13	19	[DC3]	device control 3	Ctrl S
14	20	[DC4]	device control 4	Ctrl T
15	21	[NAK]	negative ack	Ctrl U
16	22	[SYN]	synchronous idle	Ctrl V
17	23	[ETB]	end trans block	Ctrl W
18	24	[CAN]	cancel	Ctrl X
19	25	[EM]	end medium	Ctrl Y
1A	26	[SUB]	substitute	Ctrl Z
1B	27	[ESC]	escape	Esc
1C	28	[FS]	file separator	Ctrl \
1D	29	[GS]	group separator	Ctrl]
1E	30	[RS]	record separator	Ctrl ^
1F	31	[US]	unit separator	Ctrl _
20	32		space	Space Bar
21	33	!	exclamation	!
22	34	"	quotation	"
23	35	#	number sign	#
24	36	$	dollar sign	$
25	37	%	percent sign	%
26	38	&	ampersand	&
27	39	'	apostrophe	'
28	40	(	open parenthesis	(
29	41	)	close parenthesis	)

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2A    42        *       asterisk             *
2B    43        +       plus sign            +
2C    44        ,       comma                ,
2D    45        -       minus                -
2E    46        .       period               .
2F    47        /       slash                /
30    48        0       zero                 0
31    49        1       one                  1
32    50        2       two                  2
33    51        3       three                3
34    52        4       four                 4
35    53        5       five                 5
36    54        6       six                  6
37    55        7       seven                7
38    56        8       eight                8
39    57        9       nine                 9
3A    58        :       colon                :
3B    59        ;       semicolon            ;
3C    60        <       less than            <
3D    61        =       equal to             =
3E    62        >       greater than         >
3F    63        ?       question mark        ?
40    64        @       at sign
41    65        A       A                    A
42    66        B       B                    B
43    67        C       C                    C
44    68        D       D                    D
45    69        E       E                    E
46    70        F       F                    F
47    71        G       G                    G
48    72        H       H                    H
49    73        I       I                    I
4A    74        J       J                    J
4B    75        K       K                    K
4C    76        L       L                    L
4D    77        M       M                    M
4E    78        N       N                    N
4F    79        O       O                    O
50    80        P       P                    P
51    81        Q       Q                    Q
52    82        R       R                    R
53    83        S       S                    S
54    84        T       T                    T
55    85        U       U                    U
56    86        V       V                    V
57    87        W       W                    W
58    88        X       X                    X
59    89        Y       Y                    Y
5A    90        Z       Z                    Z
5B    91        [       open bracket         [
5C    92        \       backslash            \
5D    93        ]       close bracket        ]
5E    94        ^       circumflex           ^
5F    95        _       underscore           _
60    96        `       grave accent         `
61    97        a       a                    a
62    98        b       b                    b
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63   99      c       c                    c
64   100     d       d                    d
65   101     e       e                    e
66   102     f       f                    f
67   103     g       g                    g
68   104     h       h                    h
69   105     i       i                    i
6A   106     j       j                    j
6B   107     k       k                    k
6C   108     l       l                    l
6D   109     m       m                    m
6E   110     n       n                    n
6F   111     o       o                    o
70   112     p       p                    p
71   113     q       q                    q
72   114     r       r                    r
73   115     s       s                    s
74   116     t       t                    t
75   117     u       u                    u
76   118     v       v                    v
77   119     w       w                    w
78   120     x       x                    x
79   121     y       y                    y
7A   122     z       z                    z
7B   123     {       open brace           {
7C   124     |       line                 |
7D   125     }       close brace          }
7E   126     ~       tilde                ~
7F   127     [RUB]   rubout (delete)      Shift Backspace
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