ANSI/VT100 Terminal Control Escape Sequences
[Status | Setup | Fonts | Cursor | Scrolling | Tabs | Erasing | Printing | Keyboard | Colours]
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Many computer terminals and terminal emulators support colour and cursor control through a system of escape sequences. One such standard is commonly referred to as ANSI Colour. Several terminal specifications are based on the ANSI colour standard, including VT100.
The following is a partial listing of the VT100 control set.
<ESC> represents the ASCII "escape" character, 0x1B. Bracketed tags represent modifiable decimal parameters; eg. {ROW} would be replaced by a row number.
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Device Status
The following codes are used for reporting terminal/display settings, and vary depending on the implementation:
Query Device Code   <ESC>[c
•   Requests a Report Device Code response from the device.
Report Device Code   <ESC>[{code}0c
•   Generated by the device in response to Query Device Code request.
Query Device Status   <ESC>[5n
•   Requests a Report Device Status response from the device.
Report Device OK   <ESC>[0n
•   Generated by the device in response to a Query Device Status request; indicates that device is functioning correctly.
Report Device Failure <ESC>[3n
•   Generated by the device in response to a Query Device Status request; indicates that device is functioning improperly.
Query Cursor Position<ESC>[6n
•   Requests a Report Cursor Position response from the device.
Report Cursor Position   <ESC>[{ROW};{COLUMN}R
•   Generated by the device in response to a Query Cursor Position request; reports current cursor position.
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Terminal Setup
The h and l codes are used for setting terminal/display mode, and vary depending on the implementation. Line Wrap is one of the few setup codes that tend to be used consistently:
Reset Device   <ESC>c
•   Reset all terminal settings to default.
Enable Line Wrap   <ESC>[7h
•   Text wraps to next line if longer than the length of the display area.
Disable Line Wrap   <ESC>[7l
•   Disables line wrapping.
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Fonts
Some terminals support multiple fonts: normal/bold, swiss/italic, etc. There are a variety of special codes for certain terminals; the following are fairly standard:
Font Set G0   <ESC>(
•   Set default font.
Font Set G1   <ESC>)
•   Set alternate font.
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Cursor Control
Cursor Home   <ESC>[{ROW};{COLUMN}H
•   Sets the cursor position where subsequent text will begin. If no row/column parameters are provided (ie. <ESC>[H), the cursor will move to the home position, at the upper left of the screen.
Cursor Up   <ESC>[{COUNT}A
•   Moves the cursor up by COUNT rows; the default count is 1.
Cursor Down   <ESC>[{COUNT}B
•   Moves the cursor down by COUNT rows; the default count is 1.
Cursor Forward   <ESC>[{COUNT}C
•   Moves the cursor forward by COUNT columns; the default count is 1.
Cursor Backward   <ESC>[{COUNT}D
•   Moves the cursor backward by COUNT columns; the default count is 1.
Force Cursor Position <ESC>[{ROW};{COLUMN}f
•   Identical to Cursor Home.
Save Cursor   <ESC>[s
•   Save current cursor position.
Unsave Cursor   <ESC>[u
•   Restores cursor position after a Save Cursor.
Save Cursor & Attrs <ESC>7
•   Save current cursor position.
Restore Cursor & Attrs   <ESC>8
•   Restores cursor position after a Save Cursor.
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Scrolling
Scroll Screen   <ESC>[r
•   Enable scrolling for entire display.
Scroll Screen   <ESC>[{start};{end}r
•   Enable scrolling from row {start} to row {end}.
Scroll Down   <ESC>D
•   Scroll display down one line.
Scroll Up   <ESC>M

- Scroll display up one line.

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Tab Control
Set Tab   <ESC>H
- Sets a tab at the current position.
Clear Tab   <ESC>[g
- Clears tab at the current position.
Clear All Tabs   <ESC>[3g
- Clears all tabs.

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Erasing Text
Erase End of Line   <ESC>[K
- Erases from the current cursor position to the end of the current line.
Erase Start of Line   <ESC>[1K
- Erases from the current cursor position to the start of the current line.
Erase Line   <ESC>[2K
- Erases the entire current line.
Erase Down   <ESC>[J
- Erases the screen from the current line down to the bottom of the screen.
Erase Up   <ESC>[1J
- Erases the screen from the current line up to the top of the screen.
Erase Screen   <ESC>[2J
- Erases the screen with the background colour and moves the cursor to home.

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Printing
Some terminals support local printing:
Print Screen   <ESC>[i
- Print the current screen.
Print Line   <ESC>[1i
- Print the current line.
Stop Print Log   <ESC>[4i
- Disable log.
Start Print Log   <ESC>[5i
- Start log; all received text is echoed to a printer.

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Define Key
Set Key Definition   <ESC>[{key};"{string}"p
- Associates a string of text to a keyboard key. {key} indicates the key by its ASCII value in decimal.

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Set Display Attributes
Set Attribute Mode   <ESC>[{attr1};...;{attrn}m
- Sets multiple display attribute settings. The following lists standard attributes:
- 0   Reset all attributes
- 1   Bright
- 2   Dim
- 4   Underscore
- 5   Blink
- 7   Reverse
- 8   Hidden
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-              Foreground Colours
- 30   Black
- 31   Red
- 32   Green
- 33   Yellow
- 34   Blue
- 35   Magenta
- 36   Cyan
- 37   White
-
-              Background Colours
- 40   Black
- 41   Red
- 42   Green
- 43   Yellow
- 44   Blue
- 45   Magenta
- 46   Cyan
- 47   White

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