

Cursor control in PHP cli scripts

Control cursor in CLI scripts by echoing ANSI characters

```
echo "\033[100D";
```

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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
```

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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