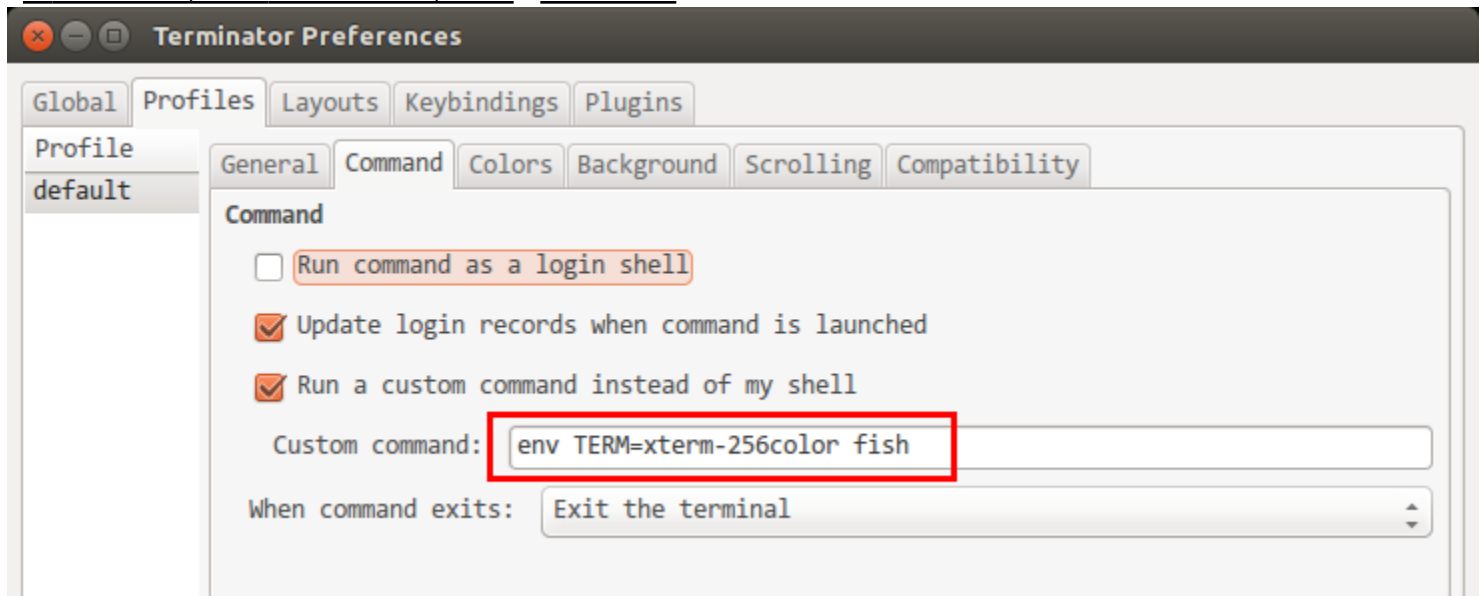


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Notes and marginalia from a programmer's journal

How to set TERM to xterm-256color

MARCH 18, 2015MARCH 18, 2015 / ASHWIN



(https://choorucode.files.wordpress.com/2015/03/20150318_terminator_xterm256color.png)

Problem

GNOME Terminal, **Terminator** and other terminal programs in X that are based on **VTE** set the **TERM** environment variable to **xterm**. Since they support 256 colors, **TERM** should actually be set to **xterm-256color**.

Why is this important? Vim and other terminal programs decide how many colors to support based on **TERM**. So, if Vim sees **xterm** it reverts to using 8 colors, instead of 256 colors. That is it sets its **t_Co** variable to **8** instead of **256**.

Wrong solution 1

One common solution to this problem is to add `set t_Co=256` to `.vimrc`.

This is a crude solution because you are overriding the capability of Vim to set colors based on the terminal type. For example, if you run Vim under the **virtual terminal (VT)** which supports only 8 colors, your `.vimrc` is now setting `t_Co` erroneously to 256!

Wrong solution 2

Another common solution is to set `TERM=xterm-256color` in `.bashrc` or similar shell initialization script. This is a wrong solution because you are setting a terminal capability in a shell!

Also, think what happens if you now run `screen` or `tmux` inside the shell. It will set its own terminal type in `TERM` and overrides your setting.

Correct solution

We first need to identify that this problem lies in VTE and the GNOME-based terminals that use it. This is a well known problem and distributions are mulling (https://fedoraproject.org/wiki/Features/256_Color_Terminals) over fixing (https://bugzilla.gnome.org/show_bug.cgi?id=640940) it. In the meanwhile, we can at least make sure that `TERM` is set to `xterm-256color` before a shell is invoked.

For example, in Terminator I do this by right-click -> Preferences -> Profiles -> Command -> Custom command and adding a `env TERM=xterm-256color fish` to set it before calling the Fish shell. You can add similar custom commands for Bash or in GNOME Terminal.

Reference: TERM Strings (<http://blog.sanctum.geek.nz/term-strings/>)

Tried with: Terminator 0.97 and Ubuntu 14.04

Tags: color, gnome terminal, term, terminator, vte, xterm

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