Multiplexing
the XFCE Terminal Emulator

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> **This page is still under construction. All scripts do work, however.**
>
> TODO: Write up remaining article text.

Introduction

Lately, I have become a frequent user of the `xfce4-terminal` terminal emulator on Xubuntu LTS. I use it mainly to launch `hg` Mercurial push & pull distributed version control commands. My text based journal and `remind calendar` also automatically launch terminal emulators to keep a watchful eye on their respective `hg` push & pulls whilst synchronising with my server.

However, with this increased terminal use, the overlapping pile of identically labelled «Terminal» buttons on my open windows bar started to annoy me. How am I supposed to retrieve the right terminal when they are all named the same?

I tried using more often [Shift] [Ctrl] [T] to open tabs in already existing terminal windows. That solution was still not good enough, though.

Consequently, I had a swift look at the established terminal multiplexers GNU `screen`, `tmux` and `byobu`. These applications sure ought to have their merit, but in my experience, the terminal multiplexers simply get too much in my way.

Luckily, GNU/Linux applications very much resemble raw minerals; some love and a good polishing job will turn them into really shiny *wannahave* gems. XFCE's default terminal emulator `xfce4-terminal` is no different in that respect. It suffices to issue a quick `man xfce4-terminal` to list the vast array of little used command line arguments that await discovering. This very same information is also available from the online XFCE documentation.

Screenshot

With this information, a «multiplexer» script was written; i.e. an augmented script version of the original `xfce4-terminal` executable with automatic multiplexing added. Below screenshot shows what the `xfce4-terminal` multiplexer looks like. Subsequent calls to `xfce4-terminal` are opened in new and automatically labelled tabs in one and the same window.
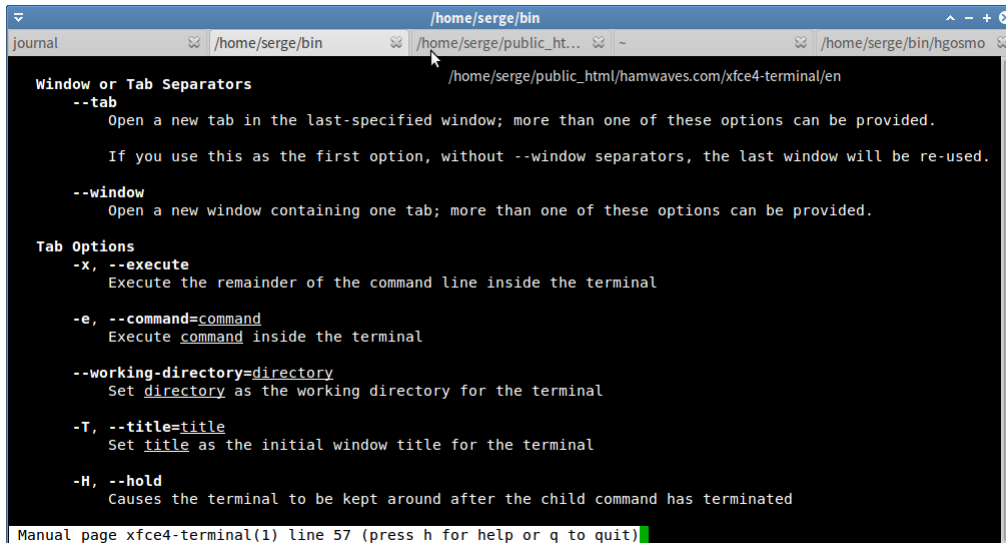

Figure 1: The multiplexed `xfce4-terminal`; subsequent calls to the terminal are opened in new and automatically labelled tabs in this very same window.

Setting up ~/bin

Still interested? Fine! To proceed, we need to make sure that versions of executables in your personal `~/bin` directory are found first by the system. They need to take preference upon execution over the packaged versions bearing the same name. If you have not done so yet, create your very own `~/bin` directory. Having such a personal `~/bin` directory on your system is quite handy, also for other projects. If done properly, it will by no means upset your system. So, feel safe to go ahead.

```
$ cd
$ mkdir bin
```

If you are using a relatively modern GNU/Linux distribution, you stand a high chance it will feature a `~/.profile` file which already contains a `PATH` variable putting `$HOME/bin` first. If this is the case, simply disregard the remainder of this section.

If this is not the case, add the following line as the last line to your `~/.bashrc` configuration file:

```
PATH="$HOME/bin:$PATH"; export PATH
```

Required packages

`xfce4-terminal`, `wmctrl`, `egrep`, `pidof` Beware, `pidof` is not available in all GNU/Linux distributions! You may try your luck with `pgrep`, even though it is not a real drop-in replacement.

```
$ touch ~/bin/xfce4-terminal
$ chmod +x ~/bin/xfce4-terminal
```

The xfce4-terminal multiplexer script

Download: xfce4-terminal

License: GNU GPL version 3

Configuring the desktop

What rests to be done

Preferred terminal emulator

For new terminal tabs appropriate titles

In `Settings → Preferred Applications → Utilities → Terminal Emulator`, put:

```
xfce4-terminal --command="%s" --title="%s"
```

This change takes immediately effect; logging in and out of the session is not required.

Terminal launcher

In a `Terminal Emulator` launcher, just put: (Default is: `exo-open --launch TerminalEmulator`.)

```
xfce4-terminal
```

SpaceFM

In Xubuntu LTS, I prefer SpaceFM as the default file manager, over Thunar. At the SpaceFM menu bar, select `View → Preferences → Advanced → Terminal`, put:

```
xfce4-terminal --title="%D"
```

vimrc

As a bonus, In `.vimrc`, put:

```
command! Terminal :call system("xfce4-terminal --working-
directory='".expand("%:p:h")."' &")
noremap  <silent> <F4> :Terminal<CR>
vnoremap <silent> <F4> <ESC>:Terminal<CR>
inoremap <silent> <F4> <ESC>:Terminal<CR>
```

Conclusion

hope that XFCE and Xubuntu developers will pick up this idea.