What's the Difference Between .bashrc, .profile, .bash_profile, ...?

By Xah Lee. Date: 2012-04-17. Last updated: 2016-01-26.

Shell Basics

- 1. Get System Info
- 2. Shell Basics
- grep, cat, awk, uniq
- 4. sort
- 5. traverse dir: find, xargs
- Compare Files/Dir: diff
- 7. dir size: du
- 8. View dir as a Tree
- tar gzip bzip2 xz7zip rar zip
- 10. wget, curl, GET, HEAD
- 11. Convert File Encoding

sys admin

- 1. Job Control
- 2. List Processes: ps
- 3. Monitor Processes: top
- 4. Monitor Processes: htop
- 5. How Much Memory is Free?
- 6. Users & Groups
- 7. File Permission System
- 8. Show Open Files: Isof
- 9. shutdown, sleep
- 10. Anti-Virus Software

Bash, Terminal

- 1. Bash Keybinding
- Color Prompt, Timestamp
- What's .bashrc, .profile, .bash_profile, ...?
- 4. How to use Virtual Console
- 5. Terminal Control Sequence Keys
- 6. Linux: Reset Terminal, Clear Screen History
- 7. tmux, remote server

[~/.bash_profile] is loaded when you login. It is read only once.

[~/.bashrc] is loaded everytime you start a shell (> for example: starting a terminal), but is not loaded when you login the first time.

Note: Some terminals (such as gnome-terminal) have option to "run command as login shell", meaning, if on, it'll load [~/.bash_profile] (or [~/.profile]) first, before running [~/.bashrc].

Note: on Mac OS X, the Terminal app starts as a login shell, so it runs ~/.bash_profile. Different unixes have different setup.

Here's a excerpt from man bash:

```
/etc/profile
The systemwide initialization file, executed for login shells
~/.bash_profile
The personal initialization file, executed for login shells
~/.bashrc
The individual per-interactive-shell startup file
~/.bash_logout
The individual login shell cleanup file, executed when a login shell exits
~/.inputrc
Individual readline initialization file
```

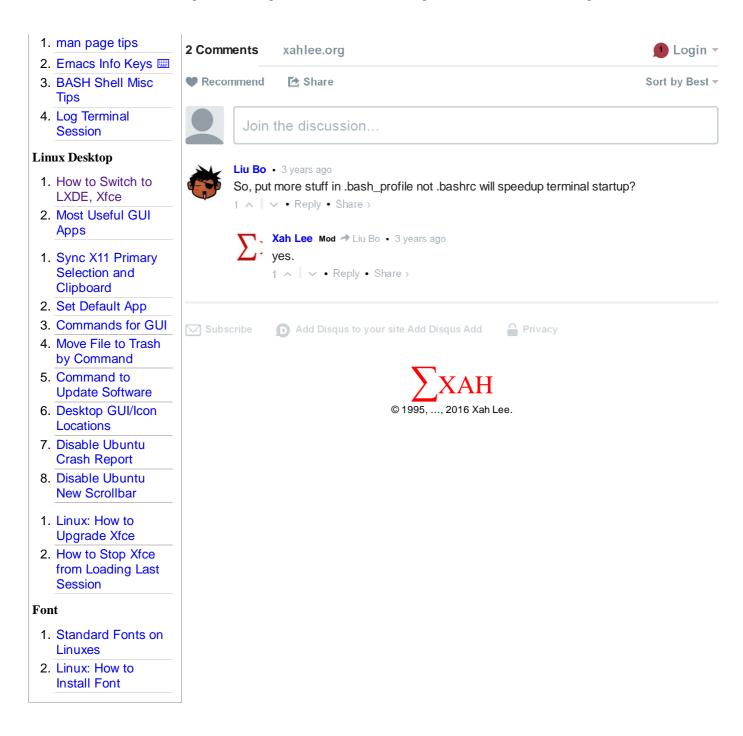
There's also {.login, .profile, ...}. These are basically legacy that bash may also read.

- The [.login] is legacy login init file for the original shell, the Bourne shell "sh". BASH (Bourne-Again SHell) is a mostly compatible extended version. On many unix systems, [/bin/sh] is hardlinked to [/bin/bash]. In Ubuntu Linux, 2006, [/bin/sh] is a sym link to [/bin/dash]. dash is new. "dash" is smaller and faster than bash, for running system startup scripts.
- The [.profile] is legacy shell init file for Bourne shell "sh".
- The [.csh] is init file for "csh" C shell. (basically, shell with C syntax.)
- The [.tcshrc] is init file for "tcsh" tcsh. (basically, improved csh)

See also:

- Bash Manual in Chapters; Using Emacs for Reading Info; Info Keys
- Linux: Most Frequently Used Shell Commands
- Linux: Most Important Keybinding for {Bash, Man, Terminal}
- Linux: Set Bash Shell Prompt to Color
- Linux: Keyboard Layout, Keymapping, Keybinding, Tools

back to Linux Tutorial



back to Linux Tutorial

2 von 2 25.04.2016 20:04