

Efficient Coding on Linux

Z.G

Messing around with Bash

- **Typing is not that big of issue :D**
 - Tab completion
 - Shortcuts
 - Ctrl + a: jumping to the very beginning of the cmdline
 - Ctrl + e : jumping to the very end of the cmdline
 - Ctrl + u: cut backwards until the very beginning
 - Ctrl + k: cut forwards until the very end
 - Ctrl + w: cut a word backwards
 - Ctrl + Y: paste
 - History recall
 - **history** [num] : #num last typed cmds
 - **![cmd | num]**: redo last cmd
 - More
 - <https://www.skorks.com/2009/09/bash-shortcuts-for-maximum-productivity/>
- **Extremely useful cmds**
 - **find** [dir] -name [name]
 - **grep** -rn [snippets] [dir/file]

RTHM

- **You don't need to remember everything**

- **man**

- vim-like interactive environment
 - unleash the power with searching
 - e.g. **man** git-cherry-pick

- **info**

- **info** pages usually give more detailed information about a command than its respective man pages.
 - **info** also allows navigation and links between pages.
 - howto: <http://www.cse.psu.edu/~deh25/cmpsc311/Instructions/UsingInfo.txt>

A quick peek at canonical unix filesystem

- <https://www.freedesktop.org/software/systemd/man/file-hierarchy.html>

Git: powerful version control

- **Personalized config makes ur life easy**

- /etc/gitconfig: applied to every user
 - `git config --system`
- ~/.gitconfig or ~/.config/git/config: values specific personally to you
 - `git config --global`
- .git/config: values specific to that single repository
 - `git config --local`

- **Useful alias**

- `git config --global alias.co checkout`
- `git config --global alias.br branch`
- `git config --global alias.ci commit`
- `git config --global alias.st status`

Vim: at a loss for words

- **Vim as language: precise edits**

- **[action][motion][object]**

- <https://benmccormick.org/2014/07/02/learning-vim-in-2014-vim-as-language/>
 - <https://www.youtube.com/watch?v=wLR5gYd6um0>

- **Common techniques**

- start vim
 - **vim +Lno file**: navigate to line #Lno when opening file
 - **vim +/[pattern] file**: navigate to the 1st occurrence of pattern when opening file
 - **vim -** : read from stdin (useful when capturing lengthy log output)
 - **vim -O file1 file2**: open file 1 2 in vertically split windows
 - vimdiff: **vimdiff file1 file2**
 - combined with ctags and searching path
 - demo time

Too many to be covered

- GDB
- Makefile
- Bash scripts