

Command line tips and tricks

Enjoy working on the command line!

NEH Institute “Advanced Digital Editing”

Week 1, day 5

July 15: 4pm - 5.30pm

Outcomes

- Work more easily on the CLI
- Understanding the `bashrc` file
- Create aliases to improve your workflow

Useful stuff

- Tap completion
- `$ ctrl + c` abort the current process
- `$ ctrl + r` run through the history of the commands (keep typing ctrl + r)
- `$ ctrl + a` go to the beginning of the line
- `$ ctrl + e` go to the end of the line
- `$ ctrl + u` erase the whole line
- `$ ctrl + d` exit the shell and close the CL window

Useful stuff

The Bashrc file

- A shell script that is invoked when you open your shell
- Located in the home directory and is normally hidden
 - `$ ~/.bashrc`
- You can use it for customizing and configuring your shell
 - Set system parameters
 - Set environment variables
 - Create aliases (shortcuts)
 - ...

Useful stuff

How to set up your bashrc file:

- Navigate to your root directory (with `$ cd ~`)
- Double check if you don't already have a bashrc file:
 - List all files, including hidden files (`$ ls -a`)
- It should be there, if not: create it
 - `$ touch ~/.bashrc` (Mac)
 - `$ copy > ~/.bashrc` (Git bash)
 - Or alternatively `$ cat > ~/.bashrc` (Git bash)
- Open your bashrc in your text editor
 - `$ nano ~/.bashrc`
 - `$ open ~/.bashrc` (Mac)
 - `$ start ~/.bashrc` (Git bash on Windows)

Useful stuff

Aliases

- An alias is a substitute for a complete command (like a shortcut);
- Example of aliases:
 - Add flags to ls command
 - Add -i to rm command
 - Shortcut to open programs
 - ... ?
- Aliases are added to your bashrc file

Useful stuff

Aliases pt.1

Let's create some aliases

- Open your `bashrc` file in your favorite text editor
- `alias ls="ls -lisa -GFh"`
- `alias oxy = "open -a 'Oxygen XML Editor'"`
- `alias profile = "open -a 'Sublime Text' ~/.bashrc"`
- ...

Useful stuff

Aliases pt. 2

- Save your .bashrc file
- Source it on the CLI: `$ source ~/.bashrc`
- Try out the alias you just created!
- Repeat process:
 - Open .bashrc file
 - Create an alias
 - Save and source

Fun stuff

Shorten your command prompt:

- Add the line `PS1="[your-preferred-command-prompt]"` to your Bashrc file
- Save your Bashrc file
- Switch to your command line
- Type `$ source ~/.bashrc`
- You should now see your new command prompt!

Fun stuff

- Add color to your CLI (Mac only, git bash has it already)
 - Use the `-G` flag with the `ls` command
 - Set the `CLICOLOR` environment variable in your `bash_profile`: add `export CLICOLOR=1` to your `bash_profile` (followed by a `save` and a `source ~/.bash_profile` on the CLI)
 - Configure the colors with the `LSCOLORS` variable: `$ export LSCOLORS=[ExFxCxDxBxegegabagaced]`
 - Handy tool for color setting: <https://geoff.greer.fm/lscolors/>

Fun stuff

- Tree shows the directory's tree on the CLI
 - Install with `$ brew install tree` (Mac only!)
 - `$ tree`
 - `$ tree [folder]`
- Fortune: displays a fortune cookie saying when opening shell (Mac only)
 - Install fortune: `$ brew install fortune`
 - Add fortune to your bashrc
 - Save your bashrc
 - Source your bashrc on the command line: `$ source ~/.bashrc`
 - Close shell
 - Restart shell

References and further reading

- A concise overview of what a bashrc file is:
<https://www.w3schools.io/terminal/bash-bashrc-file/>
- A bashrc customization guide:
<https://www.freecodecamp.org/news/bashrc-customization-guide/>
- Find your question on [stackoverflow](#), an open platform for software development and related matters