Bash - The Basics

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Overview

Terminals and Shells

Terminal emulators - *"A program that emulates a video terminal within some other display architecture"* - en.wikipedia.org/wiki/Terminal_emulator

Examples on OS X:

- ► Terminal (preinstalled)
- ► iTerm 2 - iterm2.com
- ► Terminator

Terminals run shells e.g. Bash, Zsh, Ksh, fish

Terminals and Shells

Bash - **"GNU Bourne-Again SHell"**

GNU - *"A Unix-like operating system. That means it is a collection of many programs: applications, libraries, developer tools, even games"* - gnu.org

Bourne SHell - The Bourne shell (sh). Developed by Stephen Bourne at Bell Labs in 1977 for Version 7 Unix - en.wikipedia.org/wiki/Bourne_shell

We can use shells like Bash to run programs

Commonly used programs

```
man, ls, cat, cp, mv, rm, rmdir, mkdir, chmod, ln,
sudo, !, echo, pwd, diff, history, find, ssh, scp,
less, grep
```

Open your terminal emulator...

man

man - format and display the on-line manual pages

```
$ man ls
```

pwd and ls

pwd - return working directory name ls - list directory contents

```
$ pwd
$ ls
$ ls -al
```

cat and less

cat - concatenate and print files
less - read files

```
$ cat README.md
$ less README.md
```

mv and copy

`mv` - move files

`cp` - copy files

```
$ mv source target
$ cp source target
```

rm, rmdir, mkdir

```
rm - remove directory entries
rmdir - remove directories
mkdir - make directories

$ rm file
$ rmdir directory
$ mkdir directory
```

sudo

sudo - execute a command as another user (or, "Shut Up and DO")

```
$ touch /etc/foo.txt
$ sudo touch /etc/foo.txt
$ rm /etc/foo.txt
$ rm touch /etc/foo.txt
```

Pipes