

# UNIX COMMANDS

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## Contents

|          |  |          |
|----------|--|----------|
| <b>1</b> | <b>Unix commands</b>                         | <b>1</b> |
| 1.1      | Exploration . . . . .                        | 1        |
| 1.2      | Principe général . . . . .                   | 1        |
| 1.3      | Exploration2 . . . . .                       | 1        |
| 1.4      | Affichage . . . . .                          | 1        |
| 1.5      | Gestion fichiers . . . . .                   | 2        |
| 1.6      | astuces générales . . . . .                  | 2        |
| 1.7      | Editer fichier texte . . . . .               | 2        |
| 1.8      | More . . . . .                               | 2        |
| 1.9      | Compression . . . . .                        | 2        |
| 1.10     | Install more command line programs . . . . . | 2        |
| <b>2</b> | <b>bash</b>                                  | <b>2</b> |

## 1 Unix commands

### 1.1 Exploration

`ls` #what's there  
`ls -l` #with an option  
`ls -t -h` #with more options  
`ls -thor` #with even more options  
`man ls` #what are the options (q = quit; d = next page; ; arrows = scrolling; h = list of all possible commands)

### 1.2 Principe général

`nomcommande -option1 -option2 -optionN... paramètre objet`

### 1.3 Exploration2

`pwd` #where are we  
`cd` #move somewhere else (default to home)  
`cd ..` #move back  
`cd ../Applications` #move back, then forward  
`cd ~` #move home, `cd /` #move to root

### 1.4 Affichage

`echo` #afficher à l'écran un message  
`cat` #afficher à l'écran le contenu d'un fichier  
`head` #afficher à l'écran les premières lignes  
`tail` #afficher à l'écran les dernières lignes  
`less` #afficher à l'écran un fichier page par page  
`clear` #essayer le terminal

## 1.5 Gestion fichiers

`mkdir` #create empty directory  
`touch` #create empty file  
`mv` #move  
`cp` #copy  
`rm` #careful remove  
`rmdir` #careful remove empty directory  
`rm -r` #very careful.. remove recursive  
`chmod` #change mode of file  
`ssh` #secure shell (remote connection)  
`scp` #secure copy (remote connection)  
`sudo` #superuser do  
`top` #who is running what? `kill` #kill a process  
`wc` #wordcount `curl` #get stuff from web (MACOS native) or `wget` (MACOS non-native)  
`history` revoir les commandes récentes

## 1.6 astuces générales

`>` #the redirect  
`|` #the pipe!  
`*` #anything (special character: for literal \*, use \\*)  
`?` #anyone character (special character)  
`Ctrl+A` #beginning of line  
`Ctrl+E` #end of line  
utilisation de la touche tab pour autocomplète `alias` #créer des commandes personnalisées  
Allons modifier le `.bash_profile` (e.g. `nano ~/.bash_profile`)  
`open`

## 1.7 Editer fichier texte

`nano`  
`open`

## 1.8 More

`grep -options 'pattern' file` #regular expressions

## 1.9 Compression

`gzip`  
`gunzip`  
`tar`

## 1.10 Install more command line programs

example: <https://github.com/rec3141/rec-genome-tools/blob/master/bin/fastagrep.pl> copy-paste  
make executable  
symbolic link it to the bin Lets' try it!

# 2 bash

`bash` (let's look at `'/Users/jerry/Dropbox/CSBQ/workshop/unix_workshop/bash_cmd2'`)