Unix Cheat Sheet

Help on any Unix command.

`man {command}`	Type **man rm** to read the manual for the **rm** command.
`whatis {command}`	Give short description of command.

List a directory

`ls {path}`	It's ok to combine attributes, eg **ls -laF** gets a long listing of all files with types.
`ls {path_1} {path_2}`	List both {path_1} and {path_2}.
`ls -l {path}`	Long listing, with date, size and permisions.
`ls -a {path}`	Show all files, including important .dot files that don't otherwise show.
`ls -F {path}`	Show type of each file. "/" = directory, "*" = executable.
`ls -R {path}`	Recursive listing, with all subdirs.
`ls {path} | more`	Show listing one screen at a time.

Change to directory

`cd {dirname}`	There must be a space between.
`cd ~`	Go back to home directory, useful if you're lost.
`cd ..`	Go back one directory.

Make a new directory

`mkdir {dirname}`

Remove a directory

`rmdir {dirname}`	Only works if {dirname} is empty.
`rm -r {dirname}`	Remove all files and subdirs. Careful!

Print working directory

`pwd`	Show where you are as full path. Useful if you're lost or exploring.

Copy a file or directory

`cp {file1} {file2}`	
`cp -r {dir1} {dir2}`	Recursive, copy directory and all subdirs.
`cat {newfile} >> {oldfile}`	Append newfile to end of oldfile.

Move (or rename) a file

`mv {oldfile} {newfile}`	Moving a file and renaming it are the same thing.
`mv {oldname} {newname}`	

Delete a file

`rm {filespec}`	**?** and ***** wildcards work like DOS should. "?" is any character; "*" is any string of characters.
`ls {filespec}` `rm {filespec}`	Good strategy: first list a group to make sure it's what's you think... ...then delete it all at once.

View a text file

`more {filename}`	View file one screen at a time.
`less {filename}`	Like **more**, with extra features.
`cat {filename}`	View file, but it scrolls.
`cat {filename} | more`	View file one screen at a time.

Edit a text file.

`gedit {filename}`	Basic text editor

Create a text file.

`cat > {filename}`	Enter your text (multiple lines with **enter** are ok) and press **control-d** to save.
`gedit {filename}`	Create some text and save it.

Compare two files

`diff {file1} {file2}`	Show the differences.
`sdiff {file1} {file2}`	Show files side by side.

Other text commands

`grep '{pattern}' {file}`	Find regular expression in file.
`spell {file}`	Display misspelled words.
`wc {file}`	Count words in file.
`wc -l {file}`	Count the number of lines in a file.

Make an Alias

`alias {name}='{command}'`	Put the command in 'single quotes'. More useful in your **.bashrc** file.

Wildcards and Shortcuts

`*`	Match any string of characters, eg **page*** gets page1, page10, and page.txt.
`?`	Match any single character, eg **page?** gets page1 and page2, but not page10.
`[...]`	Match any characters in a range, eg **page[1-3]** gets page1, page2, and page3.
`~`	Short for your home directory, eg **cd ~** will take you home, and **rm -r ~** will destroy it.

`.`	The current directory.
`..`	One directory up the tree, eg **ls ..**.

Pipes and Redirection

(You **pipe** a command to another command, and **redirect** it to a file.)

`{command} > {file}`	Redirect output to a file, eg **ls > list.txt** writes directory to file.
`{command} >> {file}`	Append output to an existing file, eg **cat update >> archive** adds update to end of archive.
`{command} < {file}`	Get input from a file, eg **sort < file.txt**
`{command} < {file1} > {file2}`	Get input from `file1`, and write to `file2`, eg **sort < old.txt > new.txt** sorts old.txt and saves as new.txt.
`{command} | {command}`	Pipe one command to another, eg **ls | more** gets directory and sends it to **more** to show it one page at a time.

System info

`date`	Show date and time.
`df`	Check system disk capacity.
`du`	Check your disk usage and show bytes in each directory.
`du -h`	Check your disk usage in a human readable format
`printenv`	Show all environmental variables
`uptime`	Find out system load.
`w`	Who's online and what are they doing?
`top`	Real time processor and memory usage

Unix Directory Format

Long listings (**ls -l**) have this format:

```
- file
d directory,                                          * executable
^   symbolic links (?)  file size (bytes)   file name   / directory
^           ^               ^                 ^       ^
drwxr-xr-x 11 valerie    16296  Mar  7 23:25 public_html/
-rw-r--r--  1 valerie      256  Mar  8 23:42 index.html
                                      ^
 ^^^        user permission  (rwx)      date and time last modified
    ^^^     group permission (rwx)
       ^^^  world permission (rwx)
```

DOS and UNIX commands

Action	**DOS**	**UNIX**
change directory	cd	cd
change file protection	attrib	chmod
compare files	comp	diff
copy file	copy	cp
delete file	del	rm
delete directory	rd	rmdir

directory list	dir	ls
edit a file	edit	pico
environment	set	printenv
find string in file	find	grep
help	help	man
make directory	md	mkdir
move file	move	mv
rename file	ren	mv
show date and time	date, time	date
show disk space	chkdsk	df
show file	type	cat
show file by screens	type filename | more	more
sort data	sort	sort