

## File Commands

**ls** – directory listing  
**ls -al** – formatted listing with hidden files  
**cd *dir*** – change directory to *dir*  
**cd** – change to home  
**pwd** – show current directory  
**mkdir *dir*** – create a directory *dir*  
**rm *file*** – delete *file*  
**rm -r *dir*** – delete directory *dir*  
**rm -f *file*** – force remove *file*  
**rm -rf *dir*** – force remove directory *dir* \*  
**cp *file1 file2*** – copy *file1* to *file2*  
**cp -r *dir1 dir2*** – copy *dir1* to *dir2*; create *dir2* if it doesn't exist  
**mv *file1 file2*** – rename or move *file1* to *file2*  
 if *file2* is an existing directory, moves *file1* into directory *file2*  
**ln -s *file link*** – create symbolic link *link* to *file*  
**touch *file*** – create or update *file*  
**cat > *file*** – places standard input into *file*  
**more *file*** – output the contents of *file*  
**head *file*** – output the first 10 lines of *file*  
**tail *file*** – output the last 10 lines of *file*  
**tail -f *file*** – output the contents of *file* as it grows, starting with the last 10 lines

## Process Management

**ps** – display your currently active processes  
**top** – display all running processes  
**kill *pid*** – kill process id *pid*  
**killall *proc*** – kill all processes named *proc* \*  
**bg** – lists stopped or background jobs; resume a stopped job in the background  
**fg** – brings the most recent job to foreground  
**fg *n*** – brings job *n* to the foreground

## File Permissions

**chmod *octal file*** – change the permissions of *file* to *octal*, which can be found separately for user, group, and world by adding:

- 4 – read (r)
- 2 – write (w)
- 1 – execute (x)

Examples:

**chmod 777** – read, write, execute for all  
**chmod 755** – rwx for owner, rx for group and world  
 For more options, see **man chmod**.

## SSH

**ssh *user@host*** – connect to *host* as *user*  
**ssh -p *port user@host*** – connect to *host* on port *port* as *user*  
**ssh-copy-id *user@host*** – add your key to *host* for *user* to enable a keyed or passwordless login

## Searching

**grep *pattern files*** – search for *pattern* in *files*  
**grep -r *pattern dir*** – search recursively for *pattern* in *dir*  
***command* | grep *pattern*** – search for *pattern* in the output of *command*  
**locate *file*** – find all instances of *file*

## System Info

**date** – show the current date and time  
**cal** – show this month's calendar  
**uptime** – show current uptime  
**w** – display who is online  
**whoami** – who you are logged in as  
**finger *user*** – display information about *user*  
**uname -a** – show kernel information  
**cat /proc/cpuinfo** – cpu information  
**cat /proc/meminfo** – memory information  
**man *command*** – show the manual for *command*  
**df** – show disk usage  
**du** – show directory space usage  
**free** – show memory and swap usage  
**whereis *app*** – show possible locations of *app*  
**which *app*** – show which *app* will be run by default

## Compression

**tar cf *file.tar files*** – create a tar named *file.tar* containing *files*  
**tar xf *file.tar*** – extract the files from *file.tar*  
**tar czf *file.tar.gz files*** – create a tar with Gzip compression  
**tar xzf *file.tar.gz*** – extract a tar using Gzip  
**tar cjf *file.tar.bz2*** – create a tar with Bzip2 compression  
**tar xjf *file.tar.bz2*** – extract a tar using Bzip2  
**gzip *file*** – compresses *file* and renames it to *file.gz*  
**gzip -d *file.gz*** – decompresses *file.gz* back to *file*

## Network

**ping *host*** – ping *host* and output results  
**whois *domain*** – get whois information for *domain*  
**dig *domain*** – get DNS information for *domain*  
**dig -x *host*** – reverse lookup *host*  
**wget *file*** – download *file*  
**wget -c *file*** – continue a stopped download

## Installation

Install from source:

**./configure**  
**make**  
**make install**  
**dpkg -i *pkg.deb*** – install a package (Debian)  
**rpm -Uvh *pkg.rpm*** – install a package (RPM)

## Shortcuts

**Ctrl+C** – halts the current command  
**Ctrl+Z** – stops the current command, resume with **fg** in the foreground or **bg** in the background  
**Ctrl+D** – log out of current session, similar to **exit**  
**Ctrl+W** – erases one word in the current line  
**Ctrl+U** – erases the whole line  
**Ctrl+R** – type to bring up a recent command  
**!!** – repeats the last command  
**exit** – log out of current session

\* use with extreme caution.

