

## 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.

