

## 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.



## Privileges

**sudo *command*** - run *command* as root  
**sudo -s** - open a root shell  
**sudo -s -u *user*** - open a shell as *user*  
**sudo -k** - forget sudo passwords  
**gksudo *command*** - visual sudo dialog (GNOME)  
**kdesudo *command*** - visual sudo dialog (KDE)  
**sudo visudo** - edit /etc/sudoers  
**gksudo nautilus** - root file manager (GNOME)  
**kdesudo konqueror** - root file manager (KDE)  
**passwd** - change your password

## Display

**sudo /etc/init.d/gdm restart** - restart X and return to login (GNOME)  
**sudo /etc/init.d/kdm restart** - restart X and return to login (KDE)  
(file) **/etc/X11/xorg.conf** - display configuration  
**sudo dexconf** - reset xorg.conf configuration  
**Ctrl+Alt+Bksp** - restart X display if frozen  
**Ctrl+Alt+FN** - switch to tty *N*  
**Ctrl+Alt+F7** - switch back to X display

## System Services<sup>1</sup>

**start *service*** - start job *service* (Upstart)  
**stop *service*** - stop job *service* (Upstart)  
**status *service*** - check if *service* is running (Upstart)  
**/etc/init.d/*service* start** - start *service* (SysV)  
**/etc/init.d/*service* stop** - stop *service* (SysV)  
**/etc/init.d/*service* status** - check *service* (SysV)  
**/etc/init.d/*service* restart** - restart *service* (SysV)  
**runlevel** - get current runlevel

## Package Management<sup>1</sup>

**apt-get update** - refresh available updates  
**apt-get upgrade** - upgrade all packages  
**apt-get dist-upgrade** - upgrade with package replacements; upgrade Ubuntu version  
**apt-get install *pkg*** - install *pkg*  
**apt-get purge *pkg*** - uninstall *pkg*  
**apt-get autoremove** - remove obsolete packages  
**apt-get -f install** - try to fix broken packages  
**dpkg --configure -a** - try to fix broken packages  
**dpkg -i *pkg.deb*** - install file *pkg.deb*  
(file) **/etc/apt/sources.list** - APT repository list

## Network

**ifconfig** - show network information  
**iwconfig** - show wireless information  
**sudo iwlist scan** - scan for wireless networks  
**sudo /etc/init.d/networking restart** - reset network for manual configurations  
(file) **/etc/network/interfaces** - manual configuration  
**ifup *interface*** - bring *interface* online  
**ifdown *interface*** - disable *interface*

## Special Packages

**ubuntu-desktop** - standard Ubuntu environment  
**kubuntu-desktop** - KDE desktop  
**xubuntu-desktop** - XFCE desktop  
**ubuntu-minimal** - core Ubuntu utilities  
**ubuntu-standard** - standard Ubuntu utilities  
**ubuntu-restricted-extras** - non-free, but useful  
**kubuntu-restricted-extras** - KDE of the above  
**xubuntu-restricted-extras** - XFCE of the above  
**build-essential** - packages used to compile programs  
**linux-image-generic** - latest generic kernel image  
**linux-headers-generic** - latest build headers

## Firewall<sup>1</sup>

**ufw enable** - turn on the firewall  
**ufw disable** - turn off the firewall  
**ufw default allow** - allow all connections by default  
**ufw default deny** - drop all connections by default  
**ufw status** - current status and rules  
**ufw allow *port*** - allow traffic on *port*  
**ufw deny *port*** - block *port*  
**ufw deny from *ip*** - block *ip* address

## Application Names

**nautilus** - file manager (GNOME)  
**dolphin** - file manager (KDE)  
**konqueror** - web browser (KDE)  
**kate** - text editor (KDE)  
**gedit** - text editor (GNOME)

## System

**Recovery** - Type the phrase "REISUB" while holding down Alt and SysRq (PrintScrn) with about 1 second between each letter. Your system will reboot.  
**lsb\_release -a** - get Ubuntu version  
**uname -r** - get kernel version  
**uname -a** - get all kernel information

<sup>1</sup>. Prefix commands with sudo to run.