

# UNIX/LINUX REFERENCE CARD

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## Basic File and Directory Manipulation

**ls** ..... List directory contents  
**cp** ..... Copy files  
**mv** ..... Move/rename files  
**rm** ..... Remove files  
**shred** ..... Destroy data in files  
**ln** ..... Link files  
**cd** ..... Change directory  
**pwd** ..... Print present working directory  
**mkdir** ..... Make directory  
**rmdir** ..... Remove directory

## File Viewing

**cat** ..... Concatenate files and print to stdout  
**more** ..... Page through files  
**less** ..... Page through files  
**nl** ..... Number lines of files  
**od** ..... Prints file in octal and other formats

## File Text Manipulation

**grep** ..... Search text for matching patterns  
**cut** ..... Remove sections from each line of files  
**paste** ..... Merge lines of files  
**tr** ..... Translate or delete characters  
**join** ..... Join lines of files on a common field  
**split** ..... Split file into pieces  
**csplit** ..... Split file into sections by context lines  
**sort** ..... Sort lines  
**uniq** ..... Remove duplicate lines from sorted file  
**fmt** ..... Simple optimal text formatter

## File Properties

**stat** ..... Display file status  
**wc** ..... Count bytes/words/lines  
**du** ..... Estimate disk usage  
**file** ..... Manipulate file attributes  
**touch** ..... Change file timestamps  
**chown** ..... Change file owner  
**chgrp** ..... Change file group  
**chmod** ..... Change file protections

## File and Commands Location and Help

**find** ..... Locate files  
**locate** ..... Locate files via index  
**which** ..... Locate commands  
**apropos** ..... Locate commands by keyword lookup  
**man** ..... Find and display online help page  
**whereis** ... Locate bin, src and man files for command

## File Compression

**gzip** ..... Compress/decompress files (LZ77)  
**bzip2** ..... Compress/decompress files (BWT)  
**[un]zip** .... (De-)Compress files (PKZIP compatible)

## File Comparison and Patching

**diff** ..... Compare files line by line  
**patch** ..... Apply changes from a diff file  
**comm** ..... Compare sorted files  
**cmp** ..... Compare files byte by byte  
**md5sum** ..... Compute and check MD5 message digest

## Disks and Filesystems

**df** ..... Show free disk space  
**mount** ..... Make a disk accessible  
**fck** ..... Check a disk for errors  
**sync** ..... Synchronizes filesystem buffers and disk  
**quota** ..... Check disk quota for current user

## Backups and Remote Storage

**mt** ..... Control a tape drive  
**dump** ..... Back up a disk  
**restore** ..... Restore a dump  
**tar** ..... Read/write (compressed) tape archives  
**rsync** ..... Mirror a set of files  
**dar** ..... Archive a disk

## Environment

**env** ..... Display environment variables  
**echo** ..... Print variable  
**export** ..... Write environment variables (Bash)  
**set** ... Write environment variables with more options  
**unset** ..... Unset environment variables

## Scheduling Jobs

**sleep** ..... Delay for specified time  
**watch** ..... Run programs at set intervals  
**at** ..... Schedule a job  
**cron** ..... Clock daemon  
**crontab** ..... Schedule repeated jobs for cron  
**expect** ... Automates tasks using interactive programs

## Printing

**lpr** ..... Print files  
**lpq** ..... View print queue  
**lprm** ..... Remove print jobs

## Processes

**ps** ..... List all processes  
**w** ..... List users' processes  
**uptime** ..... View system uptime  
**top** ..... Monitor processes  
**xload** ..... Monitor system load  
**kill** ..... Terminate processes  
**nice** ..... Run process with modified priority  
**renice** ..... Alter running process' priority

## Hosts

**uname** ..... Print system information  
**hostname** ..... Print the system's hostname  
**ifconfig** ..... Set/display network information  
**host** ..... Look up DNS  
**whois** ..... Look up domain registrants  
**ping** ... Check reachability and response time of a host  
**traceroute** ..... View network path to a host

## File Editing

**vim** ..... Text editor  
**gvim** ..... Forks a GUI version of ViM  
**emacs** ..... Text editor  
**sed** ..... GNU stream text editor

## Spelling Operations

**ispell** ..... Check spelling interactively  
**look** ..... Look up spelling

## Networking

**ssh**.....Securely log into remote hosts  
**scp**.....Securely copy files between hosts  
**sftp**.....Securely copy files between hosts  
**wget**.....Retrieve a url to disk  
**curl**.....Retrieve a url to disk  
**gaim**.....Instant messaging  
**talk**.....Linux/Unix Chat  
**write**.....Send messages to a terminal  
**mesg**.....Enable/prohibit talk/write  
**finger**.....Display information about users  
**who**.....Show who is logged in  
**last**.....Displays login and logout information

## Email, News and Web Browsing

**pine**.....Terminal-based email and news program  
**mutt**.....Terminal-based email program  
**mail**.....Minimal mail client  
**links**.....Text-only web browser  
**firefox**.....GUI web browser

## Text Processors and Viewers

**latex**.....Compiles LaTeX → TeX DVI  
**pdflatex**.....Compiles LaTeX → PDF  
**bibtex**.....Compiles BiBTeX files  
**gv**.....View Postscript/PDF files  
**xdvi**.....View TeX DVI files  
**dvips**.....Prints/converts TeX DVI files  
**ps2pdf**.....Converts Postscript → PDF  
**antiword**.....Converts MS Word → ASCII

## Image Manipulation/Display

**xv**.....Image viewer for X  
**qiv**.....Fast gdk/imlib image viewer for X  
**feh**.....Fast imlib2 image viewer for X  
**display**.....ImageMagick: display image  
**convert**.....ImageMagick: convert image  
**identify**.....ImageMagick: display file image info  
**import**....ImageMagick: save screen/window as image  
**compare**.....ImageMagick: compare images  
**xfig**.....Tool for drawing figures  
**transfig**.....Converts fig → portable LaTeX figure  
**gimp**.....GNU image manipulation program

## Development

**cscope**.....Interactively examine a C program  
**gcc**.....Compiles C and C++ code  
**gdb**.....Debugger for C and C++  
**javac**.....Compiles Java code  
**jdb**.....Debugger for Java  
**awk**.....Pattern scanning and processing language  
**perl**.....Perl programming language  
**python**.....Python programming language  
**ruby**.....Ruby programming language  
**matlab**.....Technical computing language  
**mathematica**.....Mathematical computing language  
**R**.....Data analysis language

## Encryption

**pgp**.....Public key encryption program  
**gpg**.....GnuPG: an encryption tool like PGP

## Terminal Emulators

**xterm**.....Standard terminal emulator for X  
**rxvt**.....Lightweight terminal emulator for X  
**mrxvt**.....Multi-tab enabled version of rxvt

## Miscellaneous

**alias**.....Create shorthand for a series commands  
**su**.....Allows you to run a shell as another user  
**sudo**.....Lets you execute a command as another user  
**nohup**.....Lets a program run after you log out

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