

Linux Quick Reference

File/Directory Basics

| | |
|--------------|------------------------------|
| ls | List files |
| cp | Copy Files |
| mv | Rename Files |
| rm | Delete files |
| ln | Link Files |
| cd | Change directory |
| pwd | Print current directory name |
| mkdir | Create directory |
| rmdir | Delete directory |

File Viewing

| | |
|-------------|----------------------------------|
| cat | Output file(s) contents |
| less | Page through file(s) |
| head | Output beginning of file |
| tail | Output end of file |
| nl | Output file and add line numbers |
| od | Output binary file as text |
| xxd | Output binary file as text |
| gv | View Postscript/PDF files |
| xpdf | View PDF files |
| xdvi | View TeX DVI files |

File Creation

| | |
|-----------------|--|
| emacs | Text Editor |
| vim | Text Editor |
| kedit | GUI Text Editor |
| gedit | GUI Text Editor |
| kate | GUI Text Editor |
| bluefish | GUI Text, HTML editor |
| ooffice | Edit Word, Excel, PowerPoint documents |
| abiword | Edit Word Documents |
| gnumeric | Edit Excel Documents |
| split | Split a file into pieces |

File Properties

| | |
|---------------|---------------------------------|
| file | Identify file types |
| touch | Change file timestamps |
| chmod | Change file access permissions |
| chown | Change file owner |
| chgrp | Change file group |
| stat | Display file attributes |
| wc | Count bytes/words/lines |
| du | Display disk usage |
| chattr | Change advanced file attributes |
| lsattr | List advanced file attributes |

File Location

| | |
|----------------|-----------------------------|
| find | Locate specific files |
| locate | Locate files via a database |
| which | Locate commands |
| whereis | Locate standard files |

Text Manipulation

| | |
|--------------|---|
| grep | Output line matching regular expression |
| sed | Edit input stream line by line |
| awk | Text processing |
| cut | Extract columns |
| paste | Append columns |
| tr | Translate characters |
| sort | Sort lines |
| uniq | locate identical lines |
| tee | Copy stdin to a file and to stdout |
| join | Join the lines of two files |

File Comparison

| | |
|---------------|----------------------------|
| diff | Compare files line by line |
| comm | Compare sorted files |
| cmp | Compare files byte by byte |
| md5sum | Compute MD5 checksum |

File Compression

| | |
|-----------------|------------------------------|
| gzip | Compress files (GNU Zip) |
| compress | Compress files (Unix) |
| bzip2 | Compress files (Block Zip) |
| zip | Compress files (Windows Zip) |

Disk and Filesystems

| | |
|--------------|-----------------------------|
| df | Show free disk space |
| mount | Make a disk accessible |
| fsck | Check for filesystem errors |
| sync | Flush disk caches |
| dd | Low level file copy |

Backups and Remote Storage

| | |
|------------------|--------------------------------|
| dump | Backup a disk |
| restore | Restore a disk dump |
| tar | Read/Write file archives |
| mkisofs | Build a CD/DVD filesystem |
| growisofs | Burn a disk directory to DVD |
| cdrecord | Burn a CD |
| dvdrecord | Burn a DVD |
| rsync | Remotely mirror a set of files |
| mt | Control a tape drive |

Spelling

| | |
|---------------|---------------------------|
| look | Look up spelling |
| aspell | interactive spell checker |
| ispell | interactive spell checker |
| spell | Check spelling in file(s) |

Printing

| | |
|------------------------------|---|
| lp | Print file(s) |
| cancel | Remove print job(s) |
| lpstat | Display queue(s) status |
| lpadmin | Configure printers |
| lptions | Displays or set printer options |
| lpr | Print file(s) |
| lpq | Display queue(s) status |
| lprm | Remove print job(s) |
| http://localhost:631/ | Local URL used to communicate with the CUPS daemon. |

Processes

| | |
|----------------|-------------------------|
| ps | list processes |
| who | list who is logged in |
| uptime | Display the system load |
| top | Monitor processes |
| free | Display free memory |
| kill | Terminate processes |
| killall | Terminate processes |
| pkill | Terminate processes |
| nice | Set process priority |
| renice | Change process priority |

Scheduling Jobs

| | |
|----------------|--------------------------------|
| sleep | Wait for a specified time |
| watch | Run a program at set intervals |
| at | Schedule a job |
| crontab | Schedule repeated jobs |

Hosts

| | |
|-------------------|------------------------------------|
| date | Display the date and time |
| uname | Display system information |
| hostname | Display/set the system's host name |
| ifconfig | Display/set network information |
| route | Display/set routing tables |
| host | Look up DNS |
| dig | Look up DNS |
| ping | Check if a host is reachable. |
| traceroute | View network path to a host |
| netstat | Display network connections |

Programming

| | |
|---------------|--|
| gcc | The C and C++ compiler |
| cpp | The C preprocessor |
| g77 | The Fortran 77 compiler |
| gpc | The Pascal Compiler |
| perl | The Perl interpreter |
| python | The Python interpreter |
| bash | The shell command language interpreter |
| make | A utility to build executable files |
| ar | A utility to build library archives |
| nm | List symbols from object files |

Network

| | |
|--------------------|--|
| ssh | Securely log into remote hosts |
| telnet | Log into remote hosts |
| scp | Securely copy files between hosts |
| sftp | Securely copy files from a file repository |
| ftp | Copy files from a file repository |
| thunderbird | GUI email/news client |
| evolution | GUI email client |
| mutt | Text-based email client |
| mail | Unix text-based email client |
| firefox | Web browser |
| mozilla | Web browser |
| lynx | Text-only web browser |
| wget | Download web pages to disk |
| slrn | Usenet news reader |
| gaim | Instant messaging/IRC |
| talk | Unix chat |
| write | Send messages to a terminal |
| mesg | Control talk/write |

Audio and Video

| | |
|-------------------|-------------------------|
| grip | Play and rip audio CDs |
| xmms | Play audio files |
| cdparanoia | Rip audio CDs |
| audacity | edit audio files |
| xcdroast | Burn CDs |
| dvdauthor | Create DVDs |
| lame | Create mp3 audio files |
| mpg321 | Command line mp3 player |
| mplayer | Movie player |
| mencoder | Movie encoder |

Linux Quick Reference

Graphics and Drawing

| | |
|--------------------|--|
| netpbm | Graphics manipulation tools |
| ImageMagick | Graphics manipulation tools |
| gimp | Image manipulation program |
| dia | Diagram drawing program |
| inkscape | Scalable Vector Graphics (SVG) editing program |

Desktop Publishing

| | |
|------------------------------------|------------------------------------|
| scribus | WYSIWYG desktop publishing program |
| TEX | Typesetting Program |
| L^AT_EX | Typesetting Program |

Help

| | |
|-----------------------|---------------------------------------|
| man | On-line reference manuals |
| info | On-line info documents |
| /usr/share/doc | Documentation supplied with packages. |

Manual Sections

| | |
|-------------|---|
| man1 | User programs. |
| man2 | System calls. |
| man3 | Library functions and sub-routines. |
| man4 | Special files—device files, etc. |
| man5 | File formats—system files, output files, etc. |
| man6 | Games. |
| man7 | Miscellaneous Manual pages. |
| man8 | System administration Programs |

User Files

| | |
|------------------------|--|
| ~ | User's home directory. |
| ~/.namerc | Program <i>name</i> 's configuration file. |
| ~/.bashrc | Bash configuration file. |
| ~/.bash_profile | Login Bash configuration file. |
| ~/.mailcap | MIME applications. |
| ~/.Xdefaults | X Window clients configuration file. |
| ~/.xsession | X Session configuration file. |

Linux File System

| | |
|------------------------|--|
| / | The "root" directory contains everything. |
| /boot | The boot loader and kernel binary. |
| /bin | Essential command programs. |
| /sbin | Essential system programs. |
| /dev | Device files. |
| /etc | System configuration files. |
| /lib | Essential shared libraries and kernel modules. |
| /media | Mount point for removeable media |
| /mnt | Temporary mount point |
| /opt | Add-on application software packages |
| /srv | Data for services provided by this system |
| /tmp | Temporary files |
| /var | Variable data |
| /home | User's home directories. |
| /lost&found | Recovered corrupt files (see fsck). |
| /proc | Information on current running processes. |
| /sys | Information on system hardware. |
| /usr | User secondary hierarchy |
| /usr/src | Kernel source and documentation |
| /usr/X11R6 | Contains the X Window System files |
| /usr/bin | User programs |
| /usr/include | System header files |
| /usr/lib/ | Program shared libraries |
| /usr/local | Locally installed programs hierarchy. |
| /usr/sbin | Essential system programs. |
| /usr/tmp | User space temporary files. |
| /usr/share | Architecture independent files. |
| /usr/share/doc | Package specific documentation. |
| /usr/share/man | Manual Pages |

| | |
|-------------------------|--|
| /etc/X11 | Contains files for X Windows. |
| /etc/apt | Contains files for Debian's APT package manager |
| /etc/cups | Contains files for the Common UNIX Printing System (CUPS). |
| /etc/fstab | Configuration file for 'mounting' filesystems. |
| /etc/passwd | Contains information about users. |
| /etc/group | Lists user groups and their members. |
| /etc/hostname | Contains the hostname of the machine. |
| /etc/shadow | Shadow password file. Contains encrypted passwords. |
| /etc/hosts | Contains a list of known hosts. |
| /etc/hosts.allow | List of hosts allowed to access the system. |
| /etc/hosts.deny | List of hosts not allowed to access the system. |
| /etc/inittab | Boot-time system configuration/initialization script. |
| /etc/init.d | Contains the scripts run at boot time. |

Debian Package Manager

| | |
|-------------------------|---|
| dpkg | Medium-level package manager |
| dpkg-query | Query the database of installed packages. |
| dpkg-reconfigure | reconfigure an already installed package. |
| dpkg-deb | Tool to manipulate .deb packages. |
| apt-get | Advanced Package Tool (APT) package handling utility. |
| apt-cache | APT cache manipulator. |
| aptitude | Terminal interface to the APT system. |
| synaptic | Graphical interface to the APT system. |
| alien | Convert or install an alien binary package. |