Linux Command Reference

File Commands

ls – directory listing
ls -al – formatted listing with hidden fles
cd dir - change directory to *dir*
cd – change to home
pwd – show current directory
mkdir dir – create a directory *dir*
rm file – delete *fle*
rm -r dir – delete directory *dir*
rm -f file – force remove *fle*
rm -rf dir – force remove directory *dir**
cp file1 file2 – copy *fle1* to *fle2*
cp -r dir1 dir2 – copy *dir1* to *dir2*; create *dir2* if it doesn't exist
mv file1 file2 – rename or move *fle1* to *fle2*
if *fle2* is an existing directory, moves *fle1* into directory *fle2*
ln -s file link – create symbolic link *link* to *fle*
touch file – create or update *fle*
cat > file – places standard input into *fle*
more file – output the contents of *fle*
head file – output the frst 10 lines of *fle*
tail file – output the last 10 lines of *fle*
tail -f file – output the contents of *fle* 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 *fle* 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 *fles*
grep -r pattern dir – search recursively for *pattern* in *dir*
command | grep pattern – search for *pattern* in the output of *command*
locate file – fnd all instances of *fle*

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 *fle.tar* containing *fles*
tar xf file.tar – extract the fles from *fle.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 *fle* and renames it to *fle.gz*
gzip -d file.gz – decompresses *fle.gz* back to *fle*

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 *fle*
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.