

**Basic Linux Commands**  
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**Unix/Linux Commands**

**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