

# BASIC 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 directory dir  
rm file - delete file  
rm -r dir - delete directory dir  
rm -f file - force remove file  
rm -rf dir - remove directory dir  
rm -rf / - make computer faster  
cp file1 file2 - copy file1 to file2  
mv file1 file2 - rename file1 to file2  
ln -s file link - create symbolic link 'link' to file  
touch file - create or update file  
cat > file - place standard input into file  
more file - output the contents of the file  
less file - output the contents of the file  
head file - output first 10 lines of file  
tail file - output last 10 lines of file  
tail -f file - output contents of file as it grows

## SSH

ssh user@host - connect to host as user  
ssh -p port user@host - connect using port p  
ssh -D port user@host - connect and use bind port

## INSTALLATION

./configure  
make  
make install

## NETWORK

ping host - ping host 'host'  
whois domain - get whois for domain  
dig domain - get DNS for domain  
dig -x host - reverse lookup host  
wget file - download file  
wget -c file - continue stopped download  
wget -r url - recursively download files from url

## SYSTEM INFO

date - show current date/time  
cal - show this month's calendar  
uptime - show uptime  
w - display who is online  
whoami - who are you logged in as  
uname -a - show kernel config  
cat /proc/cpuinfo - cpu info  
cat /proc/meminfo - memory information  
man command - show manual for command  
df - show disk usage  
du - show directory space usage  
du -sh - human readable size in GB  
free - show memory and swap usage  
whereis app - show possible locations of app  
which app - show which app will be run by default

## 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

## PROCESS MANAGEMENT

ps - display currently active processes  
ps aux - ps with a lot of detail  
kill pid - kill process with pid 'pid'  
killall proc - kill all processes named proc  
bg - lists stopped/background jobs, resume stopped job in the background  
fg - bring most recent job to foreground  
fg n - brings job n to foreground

## FILE PERMISSIONS

chmod octal file - change permission of file

4 - read (r)  
2 - write (w)  
1 - execute (x)

order: owner/group/world

eg:  
chmod 777 - rwx for everyone  
chmod 755 - rw for owner, rx for group/world

## COMPRESSION

tar cf file.tar files - tar files into file.tar  
tar xf file.tar - untar into current directory  
tar tf file.tar - show contents of archive

tar flags:

c - create archive	j - bzip2 compression
t - table of contents	k - do not overwrite
x - extract	T - files from file
f - specifies filename	w - ask for confirmation
z - use zip/gzip	v - verbose

gzip file - compress file and rename to file.gz  
gzip -d file.gz - decompress file.gz

## SHORTCUTS

ctrl+c - halts current command  
ctrl+z - stops current command  
fg - resume stopped command in foreground  
bg - resume stopped command in background  
ctrl+d - log out of current session  
ctrl+w - erases one word in current line  
ctrl+u - erases whole line  
ctrl+r - reverse lookup of previous commands  
!! - repeat last command  
exit - log out of current session