



## Unix/Linux Command Reference

### File commands

<code>ls</code>	Directory listing
<code>ls -al</code>	Formatted listing with hidden files
<code>cd dir</code>	Change directory to dir
<code>cd</code>	Change to home
<code>pwd</code>	Show current directory
<code>mkdir dir</code>	Create a directory dir
<code>rm file</code>	Delete file
<code>rm -r dir</code>	Delete directory dir
<code>rm -f file</code>	Force remove file
<code>rm -rf dir</code>	For remove directory dir
<code>cp file1 file2</code>	Copy file1 to file2
<code>cp -r dir1 dir2</code>	Copy dir1 to dir2; create dir2 if it doesn't exist
<code>mv file1 file2</code>	Rename or move file1 to file2. If file2 is an existing directory, moves file1 into directory file2
<code>ln -s file link</code>	Create symbolic link link to file
<code>touch file</code>	Create or update file
<code>cat &gt; file</code>	Places standard input into file
<code>more file</code>	Output the contents of file
<code>head file</code>	Output the first 10 lines of file
<code>tail file</code>	Output the last 10 lines of file
<code>tail -f file</code>	Output the contents of file as it grows, starting with the last 10 lines

### Process Management

<code>ps</code>	display all currently active processes
<code>top</code>	display all running processes
<code>kill pid</code>	kill process id pid
<code>killall proc</code>	kill all processes named proc *
<code>bg</code>	lists stopped or background jobs; resume a stopped job in the background
<code>fg</code>	Brings the most recent job to the foreground
<code>fg a</code>	brings job a to the foreground

### File Permissions

<code>chmod octal file</code>	change the permissions of file to octal, which can be found separately for user, group, and world by adding: <ul style="list-style-type: none"><li>• 4 – read (r)</li><li>• 2 – write (w)</li><li>• 1 – execute (x)</li></ul> <b>Examples:</b> <b><code>chmod 777</code></b> – read, write, execute for all <b><code>chmod 755</code></b> – rwx for owner, rx for group and world. For more options, see <b>man chmod</b> .
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### SSH

<code>ssh user@host</code>	connect to host as user
<code>ssh -p port user@host</code>	connect to host on port port as user
<code>ssh-copy-id user@host</code>	add your key to host for user to enable a keyed or passwordless login

### Searching

<code>grep pattern files</code>	search for pattern in files
<code>grep -r pattern dir</code>	search recursively for pattern in dir
<code>command   grep pattern</code>	search for pattern in the output of command
<code>locate file</code>	find all instances of file

### System Info

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

### Compression

<code>tar cf file.tar files</code>	create a tar named file.tar containing files
<code>tar xf file.tar</code>	extract the files from file.tar
<code>tar czf file.tar.gz files</code>	create a tar with Gzip compression
<code>tar xzf file.tar.gz</code>	extract a tar using Gzip
<code>tar cjf file.tar.bz2</code>	create a tar with Bzip2 compression
<code>tar xjf file.tar.bz2</code>	extract a tar using Bzip2
<code>gzip file</code>	compresses file and renames it to file.gz
<code>gzip -d file.gz</code>	decompresses file.gz back to file

### Network

<code>ping host</code>	ping host and output results
<code>whois domain</code>	get whois information for domain
<code>dig domain</code>	get DNS information for domain
<code>dig -x host</code>	reverse lookup host
<code>wget file</code>	download file
<code>wget -c file</code>	continue a stopped download

### Installation

Install from source:

<code>./configure</code>	
<code>make</code>	
<code>make install</code>	
<code>dpkg -i pkg.deb</code>	install a package (Debian)
<code>rpm -Uvh pkg.rpm</code>	install a package (RPM)

### Shortcuts

<code>Ctrl+C</code>	halts the current command
<code>Ctrl+Z</code>	stops the current command, resume with fg in the foreground or bg in the background
<code>Ctrl+D</code>	log out of current session, similar to exit
<code>Ctrl+W</code>	erases one word in the current line
<code>Ctrl+U</code>	erases the whole line
<code>Ctrl+R</code>	type to bring up a recent command
<code>!!</code>	repeats the last command
<code>exit</code>	log out of current session
<code>*</code>	use with extreme caution