



A printable PDF version of the cheat sheet is included on this month's cover CD set.

# Linux commands cheat sheet

With this list of basic Linux commands and sample usages, you'll never have to worry about forgotten commands again. The items contained within brackets are optional, and type `man <command>` at a shell for more information.

Command	Description	Usage	Example	Example description	Equivalent Windows command
alias	Create an alias	alias [name=['value']]	alias la='ls -la --color=auto'	Creates an alias for the ls command which displays a detailed list with different file types in different colours.	N/A
cat	Display the contents of a file	cat [options] [file1] [file2] ...	cat index.html	Displays the contents of the index.html file.	type
cd	Change directory	cd [-LP] [directory]	cd /usr/local/bin	Changes the /usr/local/bin directory.	cd
chgrp	Change group ownership	chgrp [options] group file1 file2 ...	chgrp apache index.html	Changes the group ownership of the index.html file to the apache group.	N/A
chmod	Change access permissions	chmod [options] mode file1 file2 ...	chmod 755 script.cgi	Changes the permissions of script.cgi so that everyone can execute and read it, but only the owner can write to it.	attrib
chown	Change file owner and group	chown [options] new-owner file1 file2 ...	chown root index.html	Changes the ownership of the index.html file to root.	N/A
cmp	Character-by-character compare between two files	cmp [options] from-file to-file	cmp index.html default.htm	Compares each character in index.html and default.htm, and displays the differences.	comp
cp	Copy one or more files to another location	cp [options] source destination	cp index.html index.html.bak	Makes a second copy of the index.html file in the same directory. The new copy has the BAK extension.	copy, xcopy
df	Display free disk space	df [options] [file]	df	Displays the used and free disk space on all mounted filesystems.	dir
du	Estimate file space usage	du [options] [file]	du	Displays the disk usage of the current directory.	dir
echo	Display message on screen	echo [options] [string]	echo Hello World!	Displays the Hello World! message on the screen.	echo
env	Display, set or remove environment variables	env [options] [name=value] [command [args]]	env HOME=/home/username	Changes the HOME environment variable to /home/username.	set
exit	Exit the shell	exit	exit	Exits from the current shell.	N/A
free	Display memory usage	free [options]	free -s 5	Displays current memory usage, updating the display every five seconds.	N/A
fsck	Filesystem consistency check and repair	fsck [options] [filesystem]	fsck /dev/hda1	Performs a filesystem check on the first partition of the primary master IDE drive.	chkdsk
grep	Search file(s) for lines that match a given pattern	grep [options] string [file1] [file2] ...	grep "search string" /home/*	Searches all files in /home for the occurrence of the "search string".	N/A
gzip	Compress or decompress named file(s)	gzip [options] file	gzip index.html	Compressed index.html into a file named index.html.gz.	N/A
kill	Stop a process from running	kill [options] pid	kill 1234	Terminates the process with id 1234. Use ps to determine a processes id.	kill
less	Display content one screen at a time	less [options]	cat index.html   less	Displays the index.html file on the screen, one screen at a time.	more

Command	Description	Usage	Example	Example description	Equivalent Windows command
ln	Make links between files	ln [options] target [linkname]	ln -s /var/www/html /home/user/website	Creates a shortcut named website from the user's home directory to the /var/www/html directory.	shortcut
locate	Find files	locate [options] string	locate perl	Searches filesystem databases for files containing the term perl.	dir /s
ls	List information about file(s)	ls [options] [file/directory]	ls -la /var/www/html	Prints a detailed list of all files and directories located in the /var/www/html directory.	N/A
man	Help manual	man [options] [command]	man man	Displays the manual for the man command.	N/A
mkdir	Create new folder(s)	mkdir [options] directory	mkdir html	Creates a directory named html under the current directory.	md
mount	Mount a file system	mount [options] [device/directory]	mount cdrom	Mounts the CD-ROM drive.	N/A
mv	Move or rename files or directories	mv [options] source destination	mv index.html /var/www/html	Moves the index.html file from the current directory to /var/www/html.	move
nice	Set the priority of a command or job	nice [options] [comand [args]]	nice -n 19 httpd	Runs the httpd process with the lowest possible priority (-20 is the highest priority).	N/A
passwd	Modify a user password	passwd [options]	passwd	Prompts you to change the password for the current user. It will prompt for the old password first.	N/A
ping	Sends and echo packet to a host	ping [options] host	ping www.apcmag.com	Continually sends echo packets to the www.apcmag.com host.	ping
ps	Process status	ps [options]	ps -ef	Displays full list of all running processes.	mem
pwd	Print working directory	pwd [options]	pwd	Prints the directory the terminal is presently in.	cd
rm	Remove files	rm [options] file1 file 2 ...	rm -rf /var/www/html	Forces the removal of the /var/www/html directory and all files and subdirectories inside it.	del
rmdir	Remove folder(s)	rmdir [options] directory1 directory2 ...	rmdir /var/www/html	Removes the /var/www/html directory (assuming it's empty).	rd
shutdown	Shutdown or restart Linux	shutdown [options] when [message]	shutdown -r 20:00	Reboots the system at 8pm.	shutdown
sleep	Delay for a specified time	sleep [number]	sleep 30	Pauses for 30 seconds – useful in some scripts.	sleep
su	Substitute user identity	su [options] [user-name [args]]	su	Switches to the root user.	su, runas
tail	Output the last part of files	tail [options] [file1] [file2] ...	tail /var/log/error.log	Displays the last 10 lines of the error log.	N/A
tar	Tape archiver	tar [options] file1 [file2] ...	tar -czvf archive.tar.gz /var/www/html	Compresses the contents of the /var/www/html directory into a gzipped tarball named archive.tar.gz.	N/A
touch	Change file timestamps	touch [options] file1 ...	touch /var/www/html/index.html	Updates the timestamp on /var/www/html/index.html, or creates the file if it doesn't exist.	touch
top	List processes running on the system	top [options]	top	Provides an automatically-updating list of the most CPU intensive processes running on the system.	N/A
traceroute	Trace route to host	traceroute [options] host [packetsize]	traceroute www.apcmag.com	Prints a list of all routers (and IP addresses) that IP datagrams pass through en route to the www.apcmag.com server.	tracert
umount	Unmount a device	umount [options] [device/directory]	umount cdrom	Unmounts the CD-ROM drive.	N/A
unalias	Remove an alias	unalias [options] [name]	unalias la	Removes the alias named la.	N/A
uname	Print system information	uname [options]	uname -a	Prints all system information relating to the machine and OS.	N/A
which	Locate a program file in the user's path	which [options] file ...	which perl	Same as locate, but restricts the search to the user's path.	N/A