

50 Most Commonly Used Linux Commands

The following table categorizes 50 of the most commonly used Linux commands by their purpose, along with common parameters and example usage.

File and Directory Management

Command	Description	Common Parameters	Example
ls	List directory contents	-l (long listing format), -a (include hidden files), -h (human-readable sizes)	ls -lah
pwd	Show the current working directory	None	pwd
cd	Change the current directory	~ (home directory), .. (parent directory)	cd ~/Documents
mkdir	Create a new directory	-p (create parent directories)	mkdir -p new_folder/sub_folder
mv	Move or rename files or directories	-i (prompt before overwrite), -v (verbose mode)	mv oldfile.txt newfile.txt
cp	Copy files or directories	-r (copy directories recursively), -i (prompt before overwrite)	cp -r folder1/ folder2/
rm	Remove files or directories	-r (remove directories recursively), -f (force removal)	rm -rf folder/
touch	Create an empty file or modify file timestamps	None	touch newfile.txt
ln	Create hard or symbolic links	-s (create symbolic link)	ln -s original.txt link.txt
cat	Display file contents	-n (number lines)	cat -n file.txt
less	View file contents one page at a time	/ (search within file)	less file.txt
head	Display the first few lines of a file	-n (number of lines)	head -n 10 file.txt
tail	Display the last few lines of a file	-n (number of lines), -f (follow the file as it grows)	tail -f log.txt
diff	Compare differences between files	-u (unified diff format)	diff -u file1.txt file2.txt
cmp	Compare two files byte by byte	None	cmp file1.bin file2.bin
comm	Show the differences and similarities between two files	None	comm file1.txt file2.txt
sort	Sort lines of text in a file	-r (reverse order), -n (numeric sort)	sort -rn numbers.txt
locate	Find files or directories	-i (case insensitive)	locate -i filename
chmod	Change file or directory permissions	u (user), g (group), o (others); r (read), w (write), x (execute)	chmod u+x script.sh
chown	Change the owner of a file or directory	user:group	chown user:group file.txt

File Compression and Archiving

Command	Description	Common Parameters	Example
tar	Archive files or extract files from an archive	-c (create archive), -x (extract archive), -v (verbose), -f (file name)	tar -cvf archive.tar file1 file2
zip	Compress files into a zip archive	-r (recursive)	zip -r archive.zip folder/
unzip	Extract files from a zip archive	-d (specify destination directory)	unzip archive.zip -d /path/to/extract/

System and Process Management

Command	Description	Common Parameters	Example
ps	Display currently running processes	aux (detailed process info)	ps aux
kill	Terminate a process	-9 (force kill)	kill -9 1234
top	Real-time display of system processes and resource usage	-u (filter by user)	top
htop	Interactive system monitoring tool	None	htop
df	Show disk space usage	-h (human-readable sizes)	df -h
du	Display disk usage of files or directories	-h (human-readable sizes), -s (summary)	du -sh folder/
service	Start or stop system services	start, stop, restart	service apache2 restart
mount	Mount a file system	-o (options like read-only)	mount /dev/sda1 /mnt
umount	Unmount a file system	None	umount /mnt

Network Management

Command	Description	Common Parameters	Example
ssh	Securely connect to remote hosts	-i (identity file)	ssh user@hostname
ifconfig	Configure or display network interfaces	None	ifconfig eth0
traceroute	Trace the network path to a destination host	None	traceroute google.com
ping	Test network connectivity	-c (specify number of packets)	ping -c 4 google.com
netstat	Display network connections	-tuln (list listening ports)	netstat -tuln
iptables	Manage firewall rules	None	iptables -L
wget	Download files from the web	-O (output file)	wget -O file.zip http://example.com/file.zip
curl	Transfer data via various protocols	-o (output file)	curl -o file.zip http://example.com/file.zip

System Information

Command	Description	Common Parameters	Example
uname	Display system information	-a (all information)	uname -a
whoami	Show the current logged-in user	None	whoami
history	Display command history	-c (clear history)	history

Search and Filtering

Command	Description	Common Parameters	Example
grep	Search for text patterns in files	-i (case insensitive), -r (recursive)	grep -ri "search_term" /path
find	Search for files or directories	-name (search by name), -type (file type)	find /path -name "*.txt"

Text Manipulation

Command	Description	Common Parameters	Example
echo	Output text or variables	None	echo "Hello, World!"
sort	Sort lines of text	-n (numeric sort), -r (reverse)	sort -nr file.txt

Environment and Task Automation

Command	Description	Common Parameters	Example
export	Set environment variables	None	export PATH=\$PATH:/new/path
crontab	Schedule tasks for automatic execution	-e (edit crontab), -l (list crontab)	crontab -e

Display and Clear Terminal

Command	Description	Common Parameters	Example
clear	Clear the terminal screen	None	clear