

# Linux Commands Cheatsheet

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## Quick reference for essential Linux commands

A comprehensive quick reference guide covering the most commonly used Linux commands. From file management and text processing to networking and system administration, this cheatsheet helps you find the right command fast. Click on any command to read the full tutorial.

### File Listing

View directory contents and file details.

<a href="#">ls</a>	List directory contents
ls -la	List all with details
ls -lh	Human readable sizes
ls -R	List recursively

### Navigation

Move between directories in the filesystem.

<a href="#">cd</a>	Change directory
cd ..	Go up one level
cd ~	Go to home
cd -	Go to previous dir
<a href="#">pwd</a>	Print working directory
<a href="#">pushd/popd</a>	Directory stack

## Create & Delete

Create and remove files and directories.

<a href="#">mkdir</a>	Create directory
<code>mkdir -p a/b/c</code>	Create nested dirs
<a href="#">touch</a>	Create empty file
<a href="#">rm</a>	Remove file
<code>rm -rf dir</code>	Remove dir recursively
<code>rmdir dir</code>	Remove empty dir

## Copy & Move

Copy, move, and link files.

<a href="#">cp</a>	Copy file
<code>cp -r src dest</code>	Copy directory
<a href="#">mv</a>	Move or rename
<a href="#">ln -s</a>	Create symlink

## File Viewing

Display and browse file contents.

<a href="#">cat</a>	Display contents
<a href="#">less</a>	View with pagination
<a href="#">head</a>	First N lines
<a href="#">tail</a>	Last N lines
<code>tail -f file</code>	Follow changes

## File Search

Find files by name, type, or date.

<a href="#">find</a>	Find files by criteria
<code>find . -name "*.txt"</code>	Find by name
<code>find . -type d</code>	Find directories
<a href="#">locate</a>	Quick search (db)

## Text Search

Search for patterns inside files.

<a href="#"><u>grep</u></a>	Search in file
<code>grep -r "text" dir</code>	Search recursively
<code>grep -i "text"</code>	Case insensitive
<code>grep -n "text"</code>	Show line numbers
<code>grep -v "text"</code>	Invert match

## File Info

Get information about files and commands.

<a href="#"><u>file</u></a>	Determine file type
<a href="#"><u>stat</u></a>	Display file status
<a href="#"><u>type</u></a>	Show command type
<a href="#"><u>which</u></a>	Locate a command
<a href="#"><u>whereis</u></a>	Locate binary/source
<a href="#"><u>basename</u></a>	Strip directory path

## Permissions

Manage file permissions and ownership.

<a href="#"><u>chmod</u></a>	Change permissions
<code>chmod 755 file</code>	Set rwxr-xr-x
<code>chmod +x file</code>	Add execute
<a href="#"><u>chown</u></a>	Change owner
<a href="#"><u>chgrp</u></a>	Change group
<a href="#"><u>chattr</u></a>	Change attributes
<a href="#"><u>umask</u></a>	Set default perms

## User Info

Display information about users.

<a href="#"><u>whoami</u></a>	Current username
<a href="#"><u>id</u></a>	User ID and groups
<a href="#"><u>who</u></a>	Logged in users
<a href="#"><u>w</u></a>	Who + what they do
<a href="#"><u>last</u></a>	Login history

## User Management

Create, modify, and delete users.

<a href="#"><u>useradd</u></a>	Create user
<a href="#"><u>userdel</u></a>	Delete user
<code>passwd user</code>	Change password
<a href="#"><u>usermod</u></a>	Modify user
<a href="#"><u>su</u></a>	Switch user
<a href="#"><u>sudo</u></a>	Run as root

## Group Management

Create and delete user groups.

<a href="#"><u>groupadd</u></a>	Create group
<a href="#"><u>groupdel</u></a>	Delete group

## Process Viewing

Monitor running processes.

<a href="#"><u>ps</u></a>	List processes
<code>ps aux</code>	All processes
<code>top</code>	Interactive viewer
<code>htop</code>	Better viewer
<a href="#"><u>pgrep</u></a>	Find by name
<a href="#"><u>pidof</u></a>	Find PID by name
<a href="#"><u>pstree</u></a>	Process tree

## Process Control

Terminate and manage processes.

<a href="#"><u>kill</u></a>	Terminate process
kill -9 PID	Force kill
<a href="#"><u>pkill</u></a>	Kill by name
killall name	Kill all by name
<a href="#"><u>timeout</u></a>	Run with time limit

## Background Jobs

Run and manage background processes.

cmd &	Run in background
bg	Background current
fg	Foreground current
jobs	List jobs
<a href="#"><u>nohup</u></a>	Immune to hangups
<a href="#"><u>at</u></a>	Schedule command

## Disk Usage

Check disk space and filesystem health.

<a href="#"><u>df</u></a>	Disk space
<a href="#"><u>du</u></a>	Directory size
du -h --max-depth=1	Subdir sizes
[free](/post/free-comma, "http", "networking"nd-in-linux/)	Memory usage
<a href="#"><u>fdisk</u></a>	Partition table
<a href="#"><u>fsck</u></a>	Check filesystem

## Network

Configure and test network connections.

<a href="#">ip a</a>	Show IP addresses
<a href="#">ifconfig</a>	Network interfaces
<a href="#">ping</a>	Test connectivity
<a href="#">curl</a>	Transfer data
<a href="#">wget</a>	Download file
<a href="#">dig</a>	DNS lookup

## SSH & Transfer

Secure remote access and file transfer.

<a href="#">ssh</a>	SSH connection
<code>ssh -p 22 user@host</code>	Custom port
<a href="#">scp</a>	Secure copy
<a href="#">rsync</a>	Sync files
<a href="#">sftp</a>	Secure FTP
<a href="#">ftp</a>	FTP transfer

## Network Tools

Advanced network diagnostics and scanning.

<code>ss -tulpn</code>	Listening ports
<code>netstat -tulpn</code>	Listening ports
<code>lsof -i :80</code>	What uses port 80
<a href="#">nmap</a>	Network scanner
<a href="#">nc</a>	Netcat utility
<a href="#">tcpdump</a>	Packet capture

## Archives

Create and extract compressed archives.

<a href="#">tar</a>	Archive files
<code>tar -czvf a.tar.gz dir</code>	Create tar.gz
<code>tar -xzvf a.tar.gz</code>	Extract tar.gz
<a href="#">gzip</a>	Compress file
<a href="#">gunzip</a>	Decompress file
<code>zip -r a.zip dir</code>	Create zip
<code>unzip a.zip</code>	Extract zip

## Text Processing

Transform and manipulate text data.

<code>sort file</code>	Sort lines
<code>uniq file</code>	Remove duplicates
<a href="#">wc</a>	Count lines/words
<a href="#">cut</a>	Cut columns
<a href="#">tr</a>	Translate chars
<a href="#">paste</a>	Merge lines

## Sed & Awk

Stream editing and pattern processing.

<code>sed 's/old/new/g'</code>	Find & replace
<code>sed -i 's/old/new/g'</code>	In-place replace
<a href="#">awk</a>	Pattern processing
<code>awk '{print \$1}'</code>	Print 1st field
<code>awk -F: '{print \$1}'</code>	Custom delimiter

## Pipes & Redirection

Connect commands and redirect output.

<a href="#">tee</a>	Read and write
<a href="#">xargs</a>	Build arguments
<a href="#">diff</a>	Compare files
cmd > file	Redirect output
cmd >> file	Append output
cmd 2>&1	Stderr to stdout

## System Info

Display system and hardware information.

<a href="#">uname -a</a>	System info
hostname	Show hostname
<a href="#">uptime</a>	System uptime
<a href="#">date</a>	Current date/time
<a href="#">dmesg</a>	Kernel messages
<a href="#">history</a>	Command history

## Timing & Scheduling

Schedule and time command execution.

<a href="#">time</a>	Measure runtime
<a href="#">watch</a>	Run repeatedly
[sleep](/post/how-to-us, "http", "networking"e-linux-sleep-command-to-pause-a-bash-script/)	Delay execution
<a href="#">at</a>	Schedule once
crontab -e	Schedule recurring

## System Control

Manage system power and settings.

<a href="#"><u>shutdown</u></a>	Shutdown system
<a href="#"><u>reboot</u></a>	Restart system
<a href="#"><u>sysctl</u></a>	Kernel parameters
<a href="#"><u>wall</u></a>	Broadcast message
<a href="#"><u>export</u></a>	Set env variable

## Package Management

Install and manage software packages.

<a href="#"><u>apt</u></a>	Debian packages
<code>apt install pkg</code>	Install package
<code>apt update</code>	Update package list
<a href="#"><u>rpm</u></a>	RPM packages
<code>yum install pkg</code>	RHEL/CentOS install
<code>dnf install pkg</code>	Fedora install

## Kernel Modules

Load and manage kernel modules.

<a href="#"><u>lsmod</u></a>	List modules
<a href="#"><u>modprobe</u></a>	Load module
<a href="#"><u>rmmod</u></a>	Remove module

## Bash Built-ins

Common shell built-in commands.

<a href="#"><u>echo</u></a>	Print text
<a href="#"><u>source</u></a>	Execute script
<a href="#"><u>read</u></a>	Read input
<a href="#"><u>printf</u></a>	Format output
<a href="#"><u>exit</u></a>	Exit shell
<a href="#"><u>wait</u></a>	Wait for process

## File Operations

Rename, delete, and edit files.

<a href="#"><u>rename</u></a>	Batch rename
<a href="#"><u>unlink</u></a>	Remove link
<a href="#"><u>nano</u></a>	Text editor