

A-Z Linux Commands - Commands Directory With Description

Linux Commands directory here includes all Linux commands that can be used on various Unix/Linux like OS variants. The directory provides users with complete description about commands and how to use through **terminal** (Command Line) provided by Linux operating systems. In order to run these commands, just type the commands according to your requirements, pass the parameters, and press Enter key. Let's learn the commands alphabetically now.

Source: <https://servonode.com/a-z-linux-commands-directory>

A

- **access** : checks if a program has access to a file, also it can be used if file is existing or not
- **accton** : used for turning on or off the process for accounting or change info process accounting file
- **aclocal** : automatically generates aclocal.m4 files from configure.in file
- **acpi** : displays the battery and other ACPI details
- **acpi_available**: checks ACPI subsystem availability
- **acpid** : provides intelligent power-management on system and notifies the user-space programs about the ACPI events
- **adduser** : adds a user to a system
- **addgroup** : adds a group to a system
- **addr2line** : converts addresses into file names and line numbers
- **agetty** : manages physical or virtual terminals to allow multi-user access
- **alias** : instructs shell to replace a string with another while running commands
- **amixer** : it's a command-line mixer for ALSA sound-card driver
- **aplay** : it's a command-line audio player for ALSA
- **aplaymidi** : plays standard MIDI files by sending the content of MIDI file to ALSA
- **apropos** : helps users to remember the exact command
- **apt** : provides a high level CLI for package management system
- **apt-get** : helps in handling packages in Linux
- **aptitude** : opens built-in interface to interact with package manager of a system
- **ar** : creates, modifies and extract the files from archives
- **arch** : prints computer architecture
- **arp** : manipulates the system's ARP cache
- **aspell** : checks spelling in Linux
- **atd** : runs job scheduled for later execution
- **atrm** : removes specified job
- **atq** : displays the list of pending jobs
- **autoconf** : generates configuration scripts
- **autoheader** : creates a template file of C "define" or to create any other template header for configure to use
- **automake** : generates Makefile.in files compliant with the set GNU Coding Standards automatically
- **autoreconf** : creates buildable source code for Unix-like systems
- **autoupdate** : updates configure.in file in Linux system to a newer Autoconf
- **awk** : used for manipulating data and generating reports

B

- **banner** : prints the ASCII character string in large letter to normal output
- **basename** : strips folder details and suffixes from file names
- **batch** : used for reding commands from specific file and execute them when system load level drops below 1.5
- **bc** : used for command-line calculator
- **bg** : places foreground jobs in background
- **biff** : used as a mail notification for Unix, and notifies the user in command line when new mail arrives
- **bind** : sets Readline key bindings and variables
- **bison** : uses as a parser generator
- **break** : terminates the execution for a loop
- **builtin** : runs a shell builtin, passing it arguments, and to get the exit status
- **bzcmp** : invokes the cmp utility on bzip2 compressed files
- **bzdiff** : compares between bzip2 compressed files
- **bzgrep** : searches for a pattern or expression within bzip2 compressed files
- **bzip2** : compresses and decompresses the files
- **bzless** : it needs not to read entire input file before starting, so reads a large file faster
- **bzmore** : filters CRT viewing of bzip2 compressed files

C

- **cal** : used to see calendar of a month/year
- **case** : used as a helpful alternative to usage of if/elif conditions
- **cat** : helps to create, view and concatenate files
- **cc** : compiles C language codings and creates executables
- **ccrypt** : used to encrypt/decrypt data
- **cd** : used as a change directory command
- **cfdisk** : displays or manipulates the disk partition table through a text-based graphical interface
- **chage** : used to view and alter user password expiry details
- **chattr** : used to change attributes of a file within a directory
- **chfn** : stands for Change Finger, and used to change a user's name and other details
- **chgrp** : changes the group ownership of a file or folder
- **chkconfig** : lists all available services and view or update their run level settings
- **chmod** : change the access mode of a file
- **chown** : changes ownership or group of file/directory
- **chpasswd** : changes password of multipe users at a time
- **chroot** : changes the root directory
- **chrt** : manipulates the real-time attributes of a process
- **chsh** : change the user's current login shell
- **cksum** : displays a Cyclic Redunancy Check value
- **clear** : clears the terminal screen
- **cmp** : compares between files to justify if files are identical or not
- **col** : filters out reverse line feeds
- **colcrt** : formats the text processor output

- **colrm** : removes selected columns from a file
- **column** : displays content in columns
- **comm** : compares between 2 files line by line and write to standard output
- **compress** : compresses and reduces the file size, the files are then available with .z extension
- **continue** : skips the iteration in for, while and until loop
- **cp** : copies files or directory
- **cpio** : copy files to and from archives
- **cpp** : used by C compiler automatically to transform your program before compilation
- **cron** : a utility tool by Linux OS that automates the scheduled task at a pre-determined time
- **crontab** : a list of commands which are intended to run on a regular schedule, also it's a name of a command to manage that list
- **csplit** : splits any file into many parts
- **ctags** : allows quick access across the files
- **cupsd** : it's a kind of scheduler for CUPS (Common Unit Printing System)
- **curl** : acts as a tool to transfer data from or to a server with supported protocols
- **cut** : cuts out the sections from each line of files and displays the result to standard output
- **cvs** : stores the history of a file

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D

- **date** : displays system date and time, also it can be used to manipulate that
- **dc** : evaluates arithmetic expressions in form of a postfix expression
- **dd** : it's a command line utility for Unix based OS used primarily to copy and convert files
- **declare** : deals with shell variables, and displays their values
- **depmod** : generates a list of dependency description of kernel modules and its associated map files
- **df** : displays information related to file systems about total or available space
- **diff** : displays the differences between files
- **diff3** : used to compare 3 files
- **dir** : list the contents within a directory
- **dirname** : removes the trailing forward slashes from the NAME and prints the remaining portion
- **dirs** : displays the list of currently remembered directories
- **disable** : used to stop printers or classes
- **dmesg** : examines the kernel ring buffer and print the message buffer of kernel
- **dmidecode** : retrieves the system's hardware related information
- **domainname** : returns the Network Information System (NIS) domain name of a host
- **dos2unix** : converts DOS text file to UNIX format
- **dosfsck** : diagnoses MS DOS file system for problems and tries to fix them
- **dstat** : retrieves information of the system like network connections, IO devices, etc
- **du** : tracks the files and directories consuming excessive amount of space on hard disk
- **dump** : backups the filesystem
- **dumpe2fs** : prints the super block and blocks group information for filesystem present on device

- **dumpkeys** : dumps keyboard translation tables

E

- **echo** : displays line of text or string passed as argument
- **ed** : launches the ed text editor
- **egrep** : treats the pattern as an extension regular expression and prints the line that matches the pattern
- **eject** : ejects a removable media
- **emacs** : opens an editor that has only editing mode
- **enable** : start the printers or classes
- **env** : prints environment variables, run a utility or command in custom environment
- **eval** : executes arguments as a shell command
- **ex** : It's a text editor, also referred as a line editor mode of vi editor
- **exec** : executes a command from the bash itself
- **exit** : exits the shell where it's currently active
- **expand** : converts tabs into spaces in a file, reads from standard input when no file is specified
- **expect** : works with scripts that expect user inputs, automates the task by providing inputs
- **export** : marks the environment variables to be exported to child-processes
- **expr** : evaluates a given expression and displays the output

F

- **factor** : prints the prime factors of provided numbers
- **fc** : list, edit or re-execute previous commands
- **fc-cache** : scans the font directories and creates font cache for applications that uses fontconfig for font handling
- **fc-list** : lists available fonts and font styles
- **fdisk** : allows creating and manipulating disk partition table
- **fg** : puts a background job in foreground
- **fgrep** : searches for a fixed character in a file
- **file** : determines the file types
- **find** : finds files and directories and do subsequent operations
- **finger** : looks up and provide user details who are logged in
- **fmt** : acts as a formatter to simplify and optimize files
- **fold** : wraps line in a file to a fixed width and prints it in standard output
- **for** : executes command for every element present in the list
- **free** : displays total free space available along with used memory and swap memory
- **fun** : allows to draw various type of patterns on terminal
- **function** : allows creating functions or methods

G

- **g++** : allows preprocessing, compilation, assembly and linking of source code to generate executable file
- **gawk** : scans pattern and processes language
- **gcc** : compiles C and C++ language

- **gdb** : helps to debug programs written in C, C++, Ada, and so on
- **getent** : retrieves the entries in databases
- **gpasswd** : used to administer */etc/group* and */etc/gshadow*
- **grep** : searches and displays all lines that matches specified pattern
- **groupadd** : creates new user group
- **groupdel** : deletes an existing group
- **groupmod** : modifies or changes an existing group
- **groups** : it's a collection of users, that makes it easy to manage users with same privileges
- **grpck** : verifies the integrity of groups information
- **grpconv** : creates a gshadow form the group
- **gs** : invokes Ghostscript
- **gunzip** : compresses or expands a file or a list of files
- **gzexe** : compresses executable files or uncompress them as well
- **gzip** : used to compress files, each file is compressed into single file

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H

- **halt** : instructs the hardware to stop all CPU functions
- **hash** : maintains a hash table of recently executed applications
- **hdparm** : retrieves statistics about hard disk, after writing intervals, acoustic management and DMA settings
- **head** : prints the top N number of data of provided input
- **help** : displays information about shell built-in commands
- **hexdump** : filters and displays specified files in a readable specified format
- **history** : used to see previously executed commands
- **host** : performs DNS lookup operations
- **hostid** : displays the Host's ID in hexadecimal format
- **hostname** : obtains the DNS, and sets system's hostname or NIS domain name
- **hostnamectl** : offers a API to control Linux system hostname and alter its related settings
- **htop** : a command line utility allowing users to monitor system's vital resources or server's processes in real time
- **hwclock** : a tool for accessing the hardware clock, which is also called as Real time Clock (RTC)

I

- **iconv** : converts text in one encoding to another encoding
- **id** : finds out user and group names and numeric IDs
- **if** : execute commands based on specified conditions
- **ifconfig** : configures the kernel-resident network interfaces
- **iftop** : a network analyzing utility used by administrators to view bandwidth related stats
- **ifup** : brings the network interface up and allows it to transfer and receive data
- **import** : captures a screenshot of any active pages and gives the output as image file
- **info** : reads documentation in infor format and gives detailed information for a command
- **insmod** : inserts modules into kernel
- **install** : used for copying files and set attributes

- **iostat** : monitors system input/output statistics for devices and partitions
- **iotop** : displays and monitor disk IO usage and retrieves a table of existing IO utilization by processes
- **ip** : performs a number of network administration tasks
- **ipcrm** : removes some IPC resources
- **ipcs** : displays information on the inter-process communication facilities for which calling process has read access
- **iptables** : used for setting up and maintain tables for Netfilter firewall for IPV4
- **iptables-save** : saves the current iptables rules in a specified file
- **iwconfig** : displays parameters and wireless statistics that are extracted from */proc/net/wireless*

J

- **join** : a utility to join lines of two files based on a keyfield present in both files
- **journalctl** : used for viewing systemd, kernel and journal logs

K

- **kill** : used for killing processes manually

L

- **last** : displays list of all users logged in and out since the file */var/log/wtmp* was created
- **less** : used to read content of text file one screen at a time
- **let** : evaluates arithmetic expressions on shell variables
- **ln** : create links between files
- **locate** : finds the file by name
- **look** : displays the lines beginning with a provided string
- **lsblk** : displays details about block devices, basically those files which indicates devices connected to system
- **lshw** : generates the detailed information of system's hardware configuration from various files in */proc* directory
- **lsmod** : displays the status of modules in the Linux kernel
- **lsuf** : provides a list of files that are open
- **lsusb** : displays information about USB buses and connected devices

M

- **mailq** : Prints the mail queue
- **man** : displays the user manual for any command
- **md5sum** : verifies data integrity using MD5
- **mkdir** : creates directory/directories
- **modinfo** : displays information about a Linux Kernel module
- **more** : used for viewing text files in command prompt
- **mount** : mounts the filesystem found on a device

- `mpstat` : reports processor related statistics
- `mv` : used for moving one or more files or directories from one place to another

N

- `nc` : It's also used as netcat, a networking tool, security tool or network monitoring tool
- `netstat` : displays various network related information
- `nmcli` : allows users to control NetworkManager
- `nslookup` : it's a network administration tool for querying DNS to obtain IP address

O

- `od` : converts the content of inputs in different formats with octal format as default

P

- `passwd` : changes the user account passwords
- `paste` : joins file horizontally
- `pidof` : finds out the process IDs of a specific application
- `ping` : checks the network connectivity between host and server
- `pinky` : it's a user information lookup command to provide details of all logged users
- `pmap` : displays the memory map of a process
- `poweroff` : sends ACPI signal to system to power down
- `printf` : displays the provided string, number, etc on the terminal
- `ps` : lists the currently running processes and their PIDs
- `pwd` : prints the path of active directory

R

- `ranlib` : generates index to archive
- `rcp` : copy file/files from one computer to other
- `read` : reads the total number of bytes from file descriptor into buffer
- `readelf` : gets information of ELF files
- `readlink` : prints resolved symbolic links or canonical file names
- `reboot` : instructs system to restart or reboot
- `rename` : used for renaming file or files
- `reset` : used for initializing terminal when a program dies and leaves the terminal abnormal
- `restore` : restores files from backup created with dump
- `return` : exits from a shell function
- `rev` : reverse the lines character wise

- **rm** : removes objects like files, directories, symbolic links, etc
- **rmdir** : removes empty directory/directories
- **rmmod** : removes a module from kernel
- **route** : allows users to work with IP/kernel routing table
- **rsync** : a utility that syncs files and directories between two hosts

S

- **sar** : monitors Linux system's resources
- **scp** : copy files between servers using secured protocol
- **screen** : launches and uses multiple shell sessions from a single ssh session
- **script** : makes typescript or records all terminal activities
- **scriptreplay** : replays typescript/terminal_activity stored in log file
- **sdiff** : compares two files and writes the results to standard output
- **sed** : used as a command to find, filter, text substitute, replace and manipulate texts
- **select** : creates a numbered menu from which a user can select desired option
- **seq** : generates numbers from FIRST to LAST in increasing order
- **setuid** : runs a program in a new session
- **shift** : shifts/moves the command line arguments to one position left
- **showkey** : prints the standard output either the scan codes, or key code or ascii code
- **shred** : deletes a file completely from storage
- **shutdown** : instructs the system to shutdown
- **sleep** : creates a dummy job that helps in delaying the execution
- **source** : reads and executes the content of a file passed as an argument in current shell script
- **sort** : sorts the files in a particular order
- **split** : splits the large file into smaller files
- **ssh** : used as a secure protocol to connect to a remote server
- **strace** : a utility to monitor, diagnose, and instruct
- **stty** : changes and prints terminal line settings
- **sudo** : used as a prefix to run commands that only superusers are allowed to run
- **sum** : finds the checksum and count the blocks of a file
- **sync** : synchronizes cached writes to persistent storage
- **systemctl** : examines and controls the state of "systemd" system and service manager

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T

- `tac` : concatenates and prints file in reverse
- `tail` : prints the last N number of data provided in input
- `tar` : creates and extracts the archive files
- `tee` : reads the standard input and writes it in standard output
- `time` : executes a command and prints the summary of real time user CPU time, and many more
- `top` : provides a dynamic real time view of running system
- `touch` : creates, changes and modifies timestamps of a file
- `tr` : a utility allowing users to translate or delete characters
- `tracepath` : traces path to destination discovering MTU along the path
- `traceroute` : prints the route that a data packet takes to reach host
- `tree` : a listing program to produce depth indented listing of files
- `tty` : displays the information related to terminal
- `type` : describes how its arguments would be translated if used as command

U

- `uname` : displays the information about system
- `unexpand` : converts each spaces into tabs writing the output to standard output
- `uniq` : a utility that reports or filters out the repeated lines in file
- `unix2dos` : converts a Unix text file to DOS format
- `until` : executes a command till it meets the command mentioned in “until” command
- `uptime` : finds out the time for how long the system is active
- `useradd` : adds user accounts to system
- `usermod` : used for changing properties of a user in Linux
- `username` : provides a set of commands to fetch user name and its settings
- `users` : shows the list of usernames who are currently logged in
- `userdel` : deletes a user account and related files

V

- `vi` : it's a default text editor that comes with Unix operating system
- `vmstat` : provides information about processes, memory, paging, block, IO, and many more
- `vnstat` : allows administrators to monitor network parameters

W

- w : shows logged on users and their activity details
- wall : displays a message or contents of a file
- watch : executes a program periodically and shows the output in fullscreen
- wc : finds out number of lines, word count, byte, and characters count in specified files
- wget : used for downloading files from server even when the users are not logged on to system
- whatis : used for getting one-line manual page descriptions
- which : locates the executable file associated with given command
- while : executes a command repeatedly as long as this command returns true
- who : gets information about currently logged in user on system
- whoami : displays the username of current user
- write : communicates with other users by copying lines from one user's terminal to others

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X

- xargs : builds and executes commands from standard input
- xdg-open : opens a file or URL in the user's preferred app

Y

- yes : prints a continuous output stream of a given STRING

Z

- zdiff : invokes the diff program on files compressed by gzip
- zdump : prints the current time in specified zone
- zgrep : searches out expression from a given file even if it's compressed
- zip : it's a compression and file packaging utility for Unix

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