# An A-Z Index of the **Linux** command line: bash + utilities.

## A

| | |
|---|---|
| & | Start a new process in the background |
| alias | Create an alias • |
| apropos | Search Help manual pages (man -k) |
| apt | Search for and install software packages (Debian/Ubuntu) |
| apt-get | Search for and install software packages (Debian/Ubuntu) |
| aptitude | Search for and install software packages (Debian/Ubuntu) |
| aspell | Spell Checker |
| at | Schedule a command to run once at a particular time |
| awk | Find and Replace text, database sort/validate/index |

## B

| | |
|---|---|
| basename | Strip directory and suffix from filenames |
| base32 | Base32 encode/decode data and print to standard output |
| base64 | Base64 encode/decode data and print to standard output |
| bash | GNU Bourne-Again SHell |
| bc | Arbitrary precision calculator language |
| bg | Send to background |
| bind | Set or display readline key and function bindings • |
| break | Exit from a loop • |
| builtin | Run a shell builtin |
| bzip2 | Compress or decompress named file(s) |

## C

| | |
|---|---|
| cal | Display a calendar |
| caller | Return the context of any active subroutine call • |
| case | Conditionally perform a command |
| cat | Concatenate and print (display) the content of files |
| cd | Change Directory |
| cfdisk | Partition table manipulator for Linux |
| chattr | Change file attributes on a Linux file system |
| chgrp | Change group ownership |
| chmod | Change access permissions |
| chown | Change file owner and group |

| | | |
|---|---|---|
| chpasswd | Update passwords in batch mode |
| chroot | Run a command with a different root directory |
| chkconfig | System services (runlevel) |
| cksum | Print CRC checksum and byte counts |
| clear | Clear the terminal screen/console (ncurses) |
| clear_console | Clear the terminal screen/console (bash) |
| cmp | Compare two files |
| comm | Compare two sorted files line by line |
| command | Run a command - ignoring shell functions • |
| continue | Resume the next iteration of a loop • |
| cp | Copy one or more files to another location |
| cpio | Copy files to and from archives |
| cron | Daemon to execute scheduled commands |
| crontab | Schedule a command to run at a later time |
| csplit | Split a file into context-determined pieces |
| curl | Transfer data from or to a server |
| cut | Divide a file into several parts |

## D

| | | |
|---|---|---|
| date | Display or change the date & time |
| dc | Desk Calculator |
| dd | Data Duplicator - convert and copy a file, write disk headers, boot records |
| ddrescue | Data recovery tool |
| declare | Declare variables and give them attributes • |
| df | Display free disk space |
| diff | Display the differences between two files |
| diff3 | Show differences among three files |
| dig | DNS lookup |
| dir | Briefly list directory contents |
| dircolors | Colour setup for 'ls' |
| dirname | Convert a full pathname to just a path |
| dirs | Display list of remembered directories |
| dos2unix | Windows/MAC to UNIX text file format converter |
| dmesg | Print kernel & driver messages |
| dpkg | Package manager (Debian/Ubuntu). |

| | | |
|---|---|---|
| | du | Estimate file space usage |

## E

| | | |
|---|---|---|
| | echo | Display message on screen • |
| | egrep | Search file(s) for lines that match an extended expression |
| | eject | Eject removable media |
| | enable | Enable and disable builtin shell commands • |
| | env | Environment variables |
| | ethtool | Ethernet card settings |
| | eval | Evaluate several commands/arguments |
| | exec | Execute a command |
| | exit | Exit the shell |
| | expand | Convert tabs to spaces |
| | export | Set an environment variable |
| | expr | Evaluate expressions |

## F

| | | |
|---|---|---|
| | false | Do nothing, unsuccessfully |
| | fdformat | Low-level format a floppy disk |
| | fdisk | Partition table manipulator for Linux |
| | fg | Send job to foreground |
| | fgrep | Search file(s) for lines that match a fixed string |
| | file | Determine file type |
| | find | Search for files that meet a desired criteria |
| | fmt | Reformat paragraph text |
| | fold | Wrap text to fit a specified width |
| | for | Expand *words*, and execute *commands* |
| | format | Format disks or tapes |
| | free | Display memory usage |
| | fsck | File system consistency check and repair |
| | ftp | File Transfer Protocol |
| | function | Define Function Macros |
| | fuser | Identify/kill the process that is accessing a file |

## G

| | | |
|---|---|---|
| | gawk | Find and Replace text within file(s) |
| | getopts | Parse positional parameters |

| | | |
|---|---|---|
| getfacl | Get file access control lists |
| grep | Search file(s) for lines that match a given pattern |
| groupadd | Add a user security group |
| groupdel | Delete a group |
| groupmod | Modify a group |
| groups | Print group names a user is in |
| gzip | Compress or decompress named file(s) |

## H

| | |
|---|---|
| hash | Remember the full pathname of a name argument |
| head | Output the first part of file(s) |
| help | Display help for a built-in command • |
| history | Command History |
| hostname | Print or set system name |
| htop | Interactive process viewer |

## I

| | |
|---|---|
| iconv | Convert the character set of a file |
| id | Print user and group id's |
| if | Conditionally perform a command |
| ifconfig | Configure a network interface |
| ifdown | Stop a network interface |
| ifup | Start a network interface up |
| import | Capture an X server screen and save the image to file |
| install | Copy files and set attributes |
| iostat | Report CPU and i/o statistics |
| ip | Routing, devices and tunnels |

## J

| | |
|---|---|
| jobs | List active jobs • |
| join | Join lines on a common field |

## K

| | |
|---|---|
| kill | Kill a process by specifying its PID |
| killall | Kill processes by name |
| klist | List cached Kerberos tickets |

## L

| | |
|---|---|
| less | Display output one screen at a time |

| | | |
|---|---|---|
| let | Perform arithmetic on shell variables • | |
| link | Create a link to a file | |
| ln | Create a symbolic link to a file | |
| local | Create a function variable • | |
| locate | Find files | |
| login | Login to the computer | |
| logname | Print current login name | |
| logout | Exit a login shell • | |
| look | Display lines beginning with a given string | |
| lpc | Line printer control program | |
| lpr | Print files | |
| lprint | Print a file | |
| lprintd | Delete a print job | |
| lprintq | List the print queue | |
| lprm | Remove jobs from the print queue | |
| lsattr | List file attributes on a Linux second extended file system | |
| lsblk | List block devices | |
| ls | List information about file(s) | |
| lsof | List open files | |
| lspci | List all PCI devices | |

## M

| | |
|---|---|
| make | Recompile a group of programs |
| man | Help manual |
| mapfile | Read lines from standard input into an indexed array variable • |
| md5sum | Compute and check MD5 message digest |
| mkdir | Create new folder(s) |
| mkfifo | Make FIFOs (named pipes) |
| mkfile | Make a file |
| mkisofs | Create a hybrid ISO9660/JOLIET/HFS filesystem |
| mknod | Make block or character special files |
| mktemp | Make a temporary file |
| more | Display output one screen at a time |
| most | Browse or page through a text file |
| mount | Mount a file system |

| | | |
|---|---|---|
| mtools | Manipulate MS-DOS files | |
| mtr | Network diagnostics (traceroute/ping) | |
| mv | Move or rename files or directories | |
| mmv | Mass Move and rename (files) | |

## N

| | | |
|---|---|---|
| nc | Netcat, read and write data across networks | |
| netstat | Networking connections/stats | |
| nft | nftables for packet filtering and classification | |
| nice | Set the priority of a command or job | |
| nl | Number lines and write files | |
| nohup | Run a command immune to hangups | |
| notify-send | Send desktop notifications | |
| nslookup | Query Internet name servers interactively | |

## O

| | | |
|---|---|---|
| open | Open a file in its default application | |
| op | Operator access | |

## P

| | | |
|---|---|---|
| passwd | Modify a user password | |
| paste | Merge lines of files | |
| pathchk | Check file name portability | |
| Perf | Performance analysis tools for Linux | |
| ping | Test a network connection | |
| pgrep | List processes by name | |
| pkill | Kill processes by name | |
| popd | Restore the previous value of the current directory | |
| pr | Prepare files for printing | |
| printcap | Printer capability database | |
| printenv | Print environment variables | |
| printf | Format and print data • | |
| ps | Process status | |
| pushd | Save and then change the current directory | |
| pv | Monitor the progress of data through a pipe | |
| pwd | Print Working Directory | |

## Q

| | | |
|---|---|---|
| | quota | Display disk usage and limits |
| | quotacheck | Scan a file system for disk usage |
| **R** | | |
| | ram | ram disk device |
| | rar | Archive files with compression |
| | rcp | Copy files between two machines |
| | read | Read a line from standard input • |
| | readarray | Read from stdin into an array variable • |
| | readonly | Mark variables/functions as readonly |
| | reboot | Reboot the system |
| | rename | Rename files |
| | renice | Alter priority of running processes |
| | remsync | Synchronize remote files via email |
| | return | Exit a shell function |
| | rev | Reverse lines of a file |
| | rm | Remove files |
| | rmdir | Remove folder(s) |
| | rsync | Remote file copy (Synchronize file trees) |
| **S** | | |
| | screen | Multiplex terminal, run remote shells via ssh |
| | scp | Secure copy (remote file copy) |
| | sdiff | Merge two files interactively |
| | sed | Stream Editor |
| | select | Accept user choices via keyboard input |
| | seq | Print numeric sequences |
| | set | Manipulate shell variables and functions |
| | setfacl | Set file access control lists. |
| | sftp | Secure File Transfer Program |
| | sha256sum | Compute and check SHA256 (256-bit) checksums |
| | shift | Shift positional parameters |
| | shopt | Shell Options |
| | shuf | Generate random permutations |
| | shutdown | Shutdown or restart Linux |
| | sleep | Delay for a specified time |

| | | |
|---|---|---|
| | slocate | Find files |
| | sort | Sort text files |
| | source | Run commands from a file '.' • |
| | split | Split a file into fixed-size pieces |
| | ss | Socket Statistics |
| | ssh | Secure Shell client (remote login program) |
| | stat | Display file or file system status |
| | strace | Trace system calls and signals |
| | su | Substitute user identity |
| | sudo | Execute a command as another user |
| | sum | Print a checksum for a file |
| | suspend | Suspend execution of this shell • |
| | sync | Synchronize data on disk with memory |
| **T** | | |
| | tabs | Set tabs on a terminal |
| | tail | Output the last part of a file |
| | tar | Store, list or extract files in an archive |
| | tee | Redirect output to multiple files |
| | test | Evaluate a conditional expression |
| | time | Measure Program running time |
| | timeout | Run a command with a time limit |
| | times | User and system times |
| | tmux | Terminal multiplexer |
| | touch | Change file timestamps |
| | top | List processes running on the system |
| | tput | Set terminal-dependent capabilities, colour, position |
| | traceroute | Trace Route to Host |
| | trap | Execute a command when the shell receives a signal • |
| | tr | Translate, squeeze, and/or delete characters |
| | true | Do nothing, successfully |
| | tsort | Topological sort |
| | tty | Print filename of terminal on stdin |
| | type | Describe a command • |
| **U** | | |

| | | |
|---|---|---|
| ulimit | Limit user resources • | |
| umask | Users file creation mask | |
| umount | Unmount a device | |
| unalias | Remove an alias • | |
| uname | Print system information | |
| unexpand | Convert spaces to tabs | |
| uniq | Uniquify files | |
| units | Convert units from one scale to another | |
| unix2dos | UNIX to Windows or MAC text file format converter | |
| unrar | Extract files from a rar archive | |
| unset | Remove variable or function names | |
| unshar | Unpack shell archive scripts | |
| until | Execute commands (until error) | |
| uptime | Show uptime | |
| useradd | Create new user account | |
| userdel | Delete a user account | |
| usermod | Modify user account | |
| users | List users currently logged in | |
| uuencode | Encode a binary file | |
| uudecode | Decode a file created by uuencode | |

## V

| | | |
|---|---|---|
| v | Verbosely list directory contents ('ls -l -b') | |
| vdir | Verbosely list directory contents ('ls -l -b') | |
| vi | Text Editor | |
| vmstat | Report virtual memory statistics | |

## W

| | | |
|---|---|---|
| w | Show who is logged on and what they are doing | |
| wait | Wait for a process to complete • | |
| watch | Execute/display a program periodically | |
| wc | Print byte, word, and line counts | |
| whereis | Search the user's $path, man pages and source files for a program | |
| which | Search the user's $path for a program file | |
| while | Execute commands | |
| who | Print all usernames currently logged in | |

| | | |
|---|---|---|
| whoami | Print the current user id and name ('id -un') | |
| wget | Retrieve web pages or files via HTTP, HTTPS or FTP | |
| write | Send a message to another user | |
| X | | |
| xargs | Execute utility, passing constructed argument list(s) | |
| xdg-open | Open a file or URL in the user's preferred application. | |
| xxd | Make a hexdump or do the reverse | |
| xz | Compress or decompress .xz and .lzma files | |
| yes | Print a string until interrupted | |
| zip | Package and compress (archive) files | |
| . | Run a command script in the current shell | |
| !! | Run the last command again | |
| # | Comment / Remark | |