

# LINUX CHEAT SHEET

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## Essential shortcuts

Ctrl+Alt+F1 Switch to the first text terminal.

Ctrl+Alt+Fn (n=1..6) Switch to the nth text terminal.

Ctrl+Alt+F7 Switch to the first GUI terminal.

Ctrl+Alt+Fn (n=7..12) Switch to the nth GUI terminal.

Ctrl+Alt+BkSpC Kill the current X-windows server.

Ctrl+Alt+Del Shut down the system and reboot.

Ctrl+C Kill the current process.

Ctrl+Z Send the current process to the background.

## Getting help

`command --help` Display a brief help on a command.

`man topic` Display the contents of the system manual pages on the topic (e.g. `man ls`). Press Q to quit the viewer.

`help command` Display brief info on a bash built-in command.

## Working with commands

`;` Run several commands sequentially. Example: `mkdir monkey; mv ~/monkey.txt ~/monkey/`

`&&` Run commands only if the previous ones succeed. Example: `apt-get update && apt-get dist-upgrade`

`||` Run a command only if the previous one fails. Example: `ping 127.0.0.1 || echo "Server down"`.

`$()` Use the output of a command into another command. Example: `mkdir$(date "+%Y-%m-%d")`

`|` Use the output of one command as input for another. Example: `ls -l | less`

`ls` Redirect a command's output to a file. Example: `ls -lF > listing.txt`

`>>` Append a command's output to a file. Example: `ls -lF >> listing.txt`

`<` Use a file as input for a command. Example: `echo < listing.txt`

## Working with files and directories

`pwd` Display the name of the current directory.

`touch [file]` Change the date/time stamp of the file to the current time. Create an empty file if the file does not exist.

`ls` List the content of the current directory.

`ls --color` Display contents in color

`ls -a` View hidden files and folders.

`cd` Change directory.

`cd ~` Switch to the home directory.

`cd -` Go to previous directory.

`cd ..` Go one directory up.

`cp [source] [destination]` Copy files. Use

`cp -R [source] [destination]` Copy the contents of the source directory.

`mv [source] [destination]` Move or rename files.

`ln [source] [destination]` Create a hard link called *destination* to the file called *source*.

`ln -s [source] [destination]` Create a symbolic link called *destination* to the file called *source*.

`rm` Remove (delete) files.

`rm -rf` Remove files and directories that aren't empty.

`mkdir` Create a new directory.

`mkdir -p [dir1/dir2/dir3]` Create a new directory and any necessary subdirectories.

`rmdir` Remove an empty directory.

## Viewing files

`cat` View the content of a text file one page a time.

`cat [file1] [file2]` Concatenate files.

`cat [file 1] [file2] > [file3]` Concatenate files to another file.

`less` Scroll through a content of a text file. Press Q when done.

`head` View the first 10 line of a file.

`tail` View the last 10 lines of a file.

## Archiving and compression

`zip` Compress files or directories using zip.

`zip [0-9]` Choose a compression level.

`zip -e` Encrypt the contents of a zip file.

`unzip` Unzip files.

`tar -cf` Archive files with tar.

`tar -zcvf` Archive and compress files with tar and gzip.

`tar -zxvf` Untar and uncompress files.

## Finding files

`locate [text]` Find the file, name of which contains the string *text*.

`locate -i` Find ignoring case.

`grep` Search inside text files for patterns.

`grep -i` Search ignoring case.

`grep -w` Search for whole words only.

`grep -n` Show line numbers where words appear in files.

`grep | grep` Search for words inside search results.

`find` Find files.

`find -name` Find files by name.

`find -user` Find files by ownership.

`find -type` Find files by file type.

`find -exec` Execute a command on every found file.

## Shell

`history` View the command-line history.

`!!` Run the last command again.

`![##]` Run a previous command by its number (use `history` to find command's number).

`alias` Display all command aliases.

`alias [alias]=[command]` Create a new temporary alias.

`alias [alias name]=[command]` Create a new permanent alias.

`unalias` Remove alias.

## Monitoring system resources

`ps aux` View all currently running processes.

`ps axjf` View a process tree.

`top` View a dynamically updated list of the currently running processes (sorted by cpu usage).

`free` Show memory usage (in kilobytes).

`free -m` Show memory usage in megabytes.

`df` Show disk usage.

`df -h` Show disk usage in human-readable form.

`du` Show disk space used by a directory.

`du -h` Show disk space in human-readable form.