

Command Line reference

Navigation and files

cd	Changes directory. For example, cd movies moves to the movies folder. cd ~ moves to your home directory, cd / moves to the root directory, cd .. moves back one directory.
ls	Lists files. By itself, it lists the files in the current directory. ls movies lists the files in the directory movies . ls -a lists all files (including hidden ones), and ls -l lists more information about each file.
cp	Copies files. cp orig-file new-file copies orig-file to new-file .
wget	Downloads a file from the internet. To download the Google homepage to the current directory, use wget www.google.com .
df -h	Displays the amount of space left on the device.
pwd	Displays the current directory.
 	The pipe symbol is used to pass information from one program to another.

Finding files

find <location> <tests>	Useful flags include: -mtime <number> finds files modified in the last <number> days. <number> could be, for example, 2 (exactly two days ago), -2 (less than two days ago) or +2 (more than two days ago). -name <filename> finds files called <filename> . -iname <filename> matches files called <filename> but not case-sensitive. -writable finds files that are writable. There are many more options. See the man page for a detailed list. For example find / -mtime -2 -writable finds all files on the filesystem that were changed less than two days ago and are writable by the current user.
--	---

Command Line reference

Remote working

ssh	Log in to a remote computer using Secure SHell (SSH protocol). <code>ssh pi@192.168.1.2</code> will log in as user pi on the computer at the IP address 192.168.1.2. Note, this will only work if the remote computer has an SSH server running.
scp	Secure copy. <code>scp file pi@192.168.1.2 :/home/pi</code> will copy a file to the directory <code>home/pi</code> on the machine with 192.168.1.2. <code>scp pi@192.168.1.2:/home/pi/file.</code> will copy <code>/home/pi/file</code> from the machine 192.168.1.2 to the current directory. Note, this will only work if the remote machine has an SCP server running.

Wildcards

*	Matches any string of characters, or no characters.
?	Matches any single character.
[abc]	Matches a, b or c.
[!abc]	Matches any character except a, b or c.
[A-Z]	Matches any character in the range A–Z (that is, any upper-case letter).
[A-z]	Matches any character in the range A–z (that is, any upper- or lower-case letter).
[one, two]	Matches the words one and two.

Information about the computer

top	Displays the programs that are currently using the most CPU time and memory.
uname	Displays information about the kernel. <code>uname -m</code> outputs the architecture it's running on.
lscpu	Lists information about the CPU.
dmesg	Displays the kernel messages (can be useful for finding problems with hardware).

Text files

head	Displays the first 10 lines of a text file. Change 10 to any number with the -n flag. For example, dmesg head -n 15 displays the first 15 lines of the kernel message log.
less	Allows you to scroll through a text file.
cat	Dumps the contents of a text file to the terminal.
tail	Displays the last 10 lines of a text file. Can use the -n flag like head . Can also keep track of a file as it changes with the -f (follow) flag. For example, tail -n15 -f /var/log/syslog will display the final 15 lines of the system log file, and continue to do so as it changes.
nano	A user-friendly command line text editor (Ctrl+X exits and gives you the option to save changes).

Special keys

[Ctrl]+[C]	Kills whatever is running in the terminal.
[Ctrl]+[D]	Sends the end-of-file character to whatever program is running in the terminal.
[Ctrl]+[Shift]+[C]	Copies selected text to the clipboard.
[Ctrl]+[Shift]+[V]	Pastes text from the clipboard.

Installing software

tar xzvf file.tar.gz tar xjf file.tar.bz ./configure	When you unzip a program's source code, it will usually create a new directory with the program in it. cd into that directory and run ./configure . This will check that your system has everything it needs to compile the software.
make	This will compile the software.
make install (needs sudo)	This will move the newly compiled software into the appropriate place in your system so you can run it like a normal command.
apt-get	This can be used to install and remove software. For example, sudo apt-get install iceweasel will install the package iceweasel (a rebranded version of <i>Firefox</i>). sudo apt-get purge iceweasel will remove the package. apt-get update will grab an up-to-date list of packages from the repository (a good idea before doing anything). apt-get upgrade will upgrade all packages that have a newer version in the repository.
apt-cache search <keyword>	Will search the repository for all packages relating to keyword.