**Useful terminal commands in Ubuntu or Debian**

This is a compilation of my terminal commands in Ubuntu or Debian I consider useful. Many of these commands are compatible with other GNU/Linux distributions.

**1. Essential commands**

* Navigation: pwd, ls *path*, cd *folder\_path*. Definition of [path](http://en.wikipedia.org/wiki/path_%28computing%29) (computing).
* Help: man *command*, *command* --help, *command* -h, [Explainshell](http://explainshell.com/).
* Manipulation: cp, mv, rm, mkdir, ln.
* Permissions: chmod, chown, chgrp, su, sudo ([enable sudo on Debian](http://milq.github.io/enable-sudo-user-account-debian)).
* Display a line of text: echo, echo $PATH (show the content of variable [$PATH](http://en.wikipedia.org/wiki/path_%28variable%29)).
* Text editor: nano.
* Visualization: cat, more, less, head, tail.
* Redirect standard output to a file: *command* > *file*.
* Execute multiple commands (AND): *command1* && *command2* && *commandN*.
* Execute a command in the background: *command* &.
* Run an executable in the current directory that is not in your $PATH: ./*executable*.
* Run a [Bash](http://en.wikipedia.org/wiki/Bash_%28Unix_shell%29) script: bash *script.sh*. Executable with header #!/bin/bash.

**2. APT commands**

* Install a package locally: sudo apt-get install *./package.deb*.
* Install a package from the repository: sudo apt-get install *package*.
* Uninstall a package from the repository: sudo apt-get purge *package*.
* Remove packages that are no longer needed: sudo apt-get autoremove.
* Resynchronize the package index files from */etc/apt/sources.list*: sudo apt-get update.
* Install the newest versions of all packages from */etc/apt/sources.list*: sudo apt-get upgrade.

**3. Bash shortcuts**

* Autocomplete files, folders, commands, packages, etc.: Tab.
* List all available files, folders, commands, packages, etc.: Tab + Tab.
* Go to previous command: ↑, or Ctrl + P.
* Go to next command: ↓, or Ctrl + N.
* Search through previously used commands: Ctrl + R.
* Terminate the current process (SIGINT): Ctrl + C.
* Suspend the current process (SIGTSTP): Ctrl + Z.

**4. Basic commands**

* Show and/or admin current processes: jobs, ps, top.
* Send a signal to a process: kill.
* List files in databases that match a pattern: locate, sudo updatedb.
* Print lines matching a pattern from a text file: grep.
* Show/manipulate routing, devices, policy routing and tunnels: ip.
* OpenSSH SSH client with X11 forwarding: ssh *user*@*server* -X.
* Secure copy (remote file copy program): scp.

**5. Screen**

* Create a screen session: screen.
* Detach from the current screen session: Ctrl + A then D.
* List the screen session identification strings: screen -ls.
* Reattach to a screen session: screen -r *session\_id\_string*.
* Terminate the current screen session: exit, or Ctrl + A then :quit.
* Scroll up/down during session: Ctrl + A then Esc then ↑/↓/PgUp/PgDn.

**6. Other commands**

* Print newline, word, and byte counts for each file: wc.
* Extract an ISO file: 7z x *filename.iso*.
* Report faked system time to programs: faketime.
* Retrieves files from the web: wget.
* Print shared library dependencies: ldd *executable\_filename*.
* Make symbolic links: ln -s *input\_filename* *output\_link\_name*.
* List block devices: lsblk.
* Format USB stick as VFAT: sudo mkfs.vfat -I /dev/sd*x* -n *NAME* && sync.
* Restore disk from image: sudo dd bs=1M if=*im.iso* of=/dev/sd*x* && sync.
* Report disk space usage: df -H, du -hs *folder*.
* Compare files line by line: diff.

**7. FFmpeg**

* Convert image to 5 sec. video: ffmpeg -loop 1 -i 01.png -t 5 out.mp4.
* 15 images to 30 Hz 5 sec. video: ffmpeg -r 3 -i %03d.png -r 30 out.mp4.
* Resize video to 720p: ffmpeg -i input.webm -s 1280x720 output.webm.
* Fade in the first 25 frames and fade out the last 25 frames of a 1000-frame video: ffmpeg -i in.mp4 -vf 'fade=in:0:25, fade=out:975:25' out.mp4.
* Concatenate videos: ffmpeg -f concat -i *mylist.txt* -c copy out.mp4.

**9. Git**

Execute sudo apt-get install git to install Git in Debian based distributions.

* git clone *uri\_repository.git*: Clone a repository into a new directory.
* git pull: Incorporates changes from a remote repository into the current branch.
* git status: Show the working tree status.
* git add .: Update the index using the current content found in the working tree.
* git commit -m '*message*': Record changes to the repository.
* git push: Update remote references (*refs*) along with associated objects.

**9. SVN**

* Create new repository: svnadmin create *repository\_name*.
* Checkout: svn co svn+ssh://*user*@*server*/*path/to/repository*.
* Update working copy: svn update.
* Get status of current copy: svn status.
* Add all items recursively: svn add \*.
* Add an item (if folder, adds recursively): svn add *item\_name*.
* Delete an item (if folder, deletes recursively): svn delete *item\_name*.
* Commit with log message: svn commit -m '*message*'.

**10. Find**

* Find files and folders recursively in current directory: find ..
* Run files recursively in current *dir.*: find . -type f -exec file '{}' \;.
* Delete all *.svn* folders: find . -iname .svn -prune -exec rm -r '{}' \;.
* Copy all *png* files to *png*: find ./ -name \*.png -exec cp '{}' ./png \;.

**11. PDFtk**

* Join all PDF files into a new PDF file: pdftk \*.pdf cat output out.pdf.
* Join 3 PDF files: pdftk in1.pdf in2.pdf in3.pdf cat output out.pdf.
* Extract pages from a PDF: pdftk in.pdf cat 1 25-35 end output out.pdf.