

BASIC

Navigate in file system:

Get where we are:

- **pwd** [print working directory]
Shows where we are in the file system.
- **ls** [list]
List files and folders in the actual folder (where we are).

ls [list] parameters:

Other shortcuts (aliases) with ls command with parameters.

- **llt** (ls -lrth) [-l long] [-r reverse] [-t time] [-h human readable]
List files and folders in the actual folder, in a "special format".
 - **ll** (ls -lrt) [-l long] [-r reverse] [-t time]
List files and folders in the actual folder, in a "special format".
 - **ls / llt / ll -a** [-a all]
List files and folders in the actual folder, in a "special format", showing hidden files too.
 - **ls /path/example/**
ls command supports showing other directories in the given path, not just the current one.
- **tree**
It is a command line program, what can show file structure in a very nice way.

Moving in file system:

- **cd** [change directory] path/example/
Jumps to the given path.
 - **cd ..**
Jumps one level up in the file system based on the current position.
 - **cd ~** [cd /home/\$USER]
Jumps to your home folder.
 - **pushd** [push directory] path/example/
Jumps to the given directory (like cd), but stores your current position.
 - **popd** [pop directory]
Jumps back to the stored (pushd) position.
- **Editing / View files with vim editor** - Vi IMproved, a programmers text editor
- vim filename
- ESC mode** - command mode:
- :w [save file]
 - :wq [save and exit]
 - q [exit (if file not modified)]
 - q! [exit without saving]
 - 0 [jump begin of the line]
 - \$ [jump end of the line]
- INSERT mode**
- navigate with arrows [up - down - right - left]

ACCESS TO RPITOOLS FUNCTIONS

RPITOOLS SERVICES:

- oledinterface** -h -> oled service command line control
With -h or --help print the available options.
With this command it controls the oled display framework.
- rgbinterface** -h -> rgb command line control
With -h or --help print the available options.
With this command it controls the RGB led framework.
- hapticinterface** -h -> vibre motor cmd line control
With -h or --help print the available options.
With this command it controls the vibre motor or haptic engine on the extension shield framework.
- sysmonitor** -h -> system monitoring tool
With -h or --help print the available options.
With this command you can monitor the operating system.
- diskhandler** -h -> external disks handling based on fstab
With -h or --help print the available options.
With this command you can access and control the external drives e.g. HDD, pendrive, SD card.
- confighandler** -h -> config handler based on rpitools_config.cfg
With -h or --help print the available options.
With this command you can access for the rpitools environment parameters.
- mysshfs** -> built in sshfs based on rpitools_config.cfg
With -h or --help print the available options.
With this command you can mount your preset sshfs server.
- update_rpitools** -> update your repository
With -h or --help print the available options.
With this command you can update the rpitools environment and services.
- confhelper** -> interactive config handler for easy modifications.
With -h or --help print the available options.
With this command you can edit your rpitools main configuration.

PROFESSIONAL

MANAGE GUI and PROCESSES:

- startxbg** -> start gui in the background
Start graphic environment (PIXEL). On HDMI.
- pkill x** -> stop gui
Stop graphic environment (PIXEL). On HDMI.
- startvnc** -> start vnc service
Start vnc graphical remote access.
- kodibg** -> start kodi media center
Start KODI media player. On HDMI.
- htop**
Command line system performance monitor ("graphic").

ps aux

Command line system process monitor.

kill <pid>

Stop running process by process id (pid)

SERVICES MANAGEMENT

systemctl status <service_name>

Show status of the given service (daemon).

sudo systemctl restart <service_name>

Restart the given service (daemon).

sudo systemctl start <service_name>

Start the given service (or daemon).

sudo systemctl stop <service_name>

Stop the given service (or daemon).

RASPBIAN SYSTEM CONFIGURATION FILES:

ll ~/rpitools/config/

```
lrwxrwxrwx 1 pi pi 25 May 29 20:12 apache2.conf -> /etc/apache2/apache2.conf
lrwxrwxrwx 1 pi pi 17 May 29 20:12 cmdline.txt -> /boot/cmdline.txt
lrwxrwxrwx 1 pi pi 16 May 29 20:12 config.txt -> /boot/config.txt
lrwxrwxrwx 1 pi pi 19 May 29 20:12 dphys-swapfile -> /etc/dphys-swapfile
.
.
.
```

OLED AVAILABLE PAGES AND EXAMPLES:

ll ~/rpitools/gpio/oled_128x64/lib/pages/

```
-rw-r--r-- 1 pi pi 1.8K May 29 20:12 page_0.py
-rw-r--r-- 1 pi pi 1.8K May 29 20:12 page_1.py
-rw-r--r-- 1 pi pi 1.7K May 29 20:12 page_2.py
-rw-r--r-- 1 pi pi 1.5K May 29 20:12 page_3.py
.
.
.
```