Logging into the console

Where the Raspbian operating system is configured to not automatically start the graphical desktop, your Raspberry Pi will start up with the boot messages then display a login prompt where you must enter a username and password to proceed.

The Raspbian system is supplied configured with a single default user named “pi” whose login password is “raspberry”. These can therefore be used at the login prompt to access the system at its Command-Line Interface (CLI). This is known as the “console” – historically describing the keyboard and monitor combination from the days before the mouse and graphical desktop. When a login attempt succeeds, a colorful user command prompt appears where you can enter commands to interact with the system.

1. Start up your Raspberry Pi and watch the boot process until a login prompt appears – type **pi** then hit Return

2. When the password prompt appears, type **raspberry** then hit Return – see the user prompt appear after system info

```
pi@raspberrypi:~ $
```

The Raspberry Pi user prompt contains several components describing your username **pi**, machine name **raspberrypi** and current file location ~ (tilde – an alias for the /home/pi directory). You can confirm your current location on the filesystem at any time by entering the command **pwd** (print working directory).

3. At the user prompt, type **pwd** then hit Return – see the current directory appear then another user prompt

```
pi@raspberrypi:~ $ pwd
/home/pi
pi@raspberrypi:~ $
```

Linux is case-sensitive so you must always observe correct capitalization. For example, **pi**, **Pi**, and **PI** are distinctly different.

The password will not be displayed as you type it at the password prompt – so it cannot be stolen from over your shoulder.

If you make a mistake entering the username or password you will simply be returned to the login prompt so you can try again.
…cont’d

You can discover the contents of the current directory by entering the command `ls` (list sorted). This displays a list of folders and files within the current directory, but not hidden system files. Like most Linux commands, “switches” can be added after the command to change how they respond. So with the `ls` command, adding a `-a` switch will display all content, including system files.

4. At the user prompt, type `ls` then hit Return – see the current directory contents appear

```
pi@raspberrypi ~ $ ls
desktop  python_games
pi@raspberrypi ~ $ 
```

5. Now, at the user prompt, type `ls -a` then hit Return – see the current directory contents including system files

```
pi@raspberrypi ~ $ ls -a
.
  .bashrc  Desktop  python_games
  .cache   .gvfs   .thumbnails
  .bash_history  .config  .local  .xauthority
  .bash_logout  .dbus  .profile  .xsessions-errors
pi@raspberrypi ~ $ 
```

You can clear past command results using the `clear` command and discover switches available for any command, plus what they achieve, using the `man` command followed by the command name, e.g. `man ls` to display the switches for the `ls` command.

It is important to recognize that Linux is designed as a multi-user system, so regular users cannot perform all tasks – some can only be performed by the system administrator (“root” or “superuser”). But for convenience you can temporarily assume superuser status to do something with the `sudo` command, for example to close Raspberry Pi with the `shutdown` command. This accepts a `-h` (halt) switch or a `-r` (reboot) switch, followed by a number indicating a delay in minutes, or zero for no delay.

6. Finally, at the user prompt, type `sudo shutdown -h 0` then hit Return – see the system close down immediately

```
pi@raspberrypi ~ $ sudo shutdown -h 0
```

Switches can be combined, so that `ls -al` is equivalent to `ls -a -l` as both will display all content in long format.

Notice that system content names are prefixed by a period, and onscreen the directories are blue color.

The system remembers your past commands – use the up and down arrow keyboard keys to scroll through them at the user prompt then hit Return to re-run your chosen past command.