Chapter C

Create an SD card with the Raspoid OS image

The most widely used operating system for the Raspberry Pi is called "Raspbian". This OS is based on Debian and is officially supported by the Raspberry Pi Foundation. Our Raspoid OS image is based on Raspbian and includes all needed parts to work with all the examples and tutorials presented around the Raspoid project, including OpenCV, Wifi hotspot using an Edimax dongle[1], VNC server, Java 8, etc.

Notes

- We spoke here about an "SD card". Depending on your Raspberry Pi version, it could be an SD card or a micro SD card (most recent version of the Raspberry Pi). Pay attention to this. Meanwhile, we strongly recommend you to use a recent version of the Raspberry Pi (all our tests are made with Raspberry Pi B, Raspberry Pi 2 and Raspberry Pi 3).
- We will present here the procedure for a MacOS X user. Procedure for Windows and Linux are very similar. There are a lot of example on the web for this[a].

[a] For Windows users: https://www.raspberrypi.org/documentation/installation/installing-images/windows.md. For Linux users: https://www.raspberrypi.org/documentation/installation/installing-images/linux.md for Linux

We recommend that you use an SD card of at least 8Gb (16Gb ideally, ~6€ on Amazon). An SD card class 10 (rather than class 4 or 6) is recommended for better writing performances (~10Gb/s).

C.1 Format your SD card

The first thing to do is to format your SD card using the right format: FAT32.

- Insert your SD card in your computer using an SD card reader.
- From MacOS X, open the disk utility ("Applications > Utilities > Disk utility").
- Simply select the SD card on the left pane, select "Erase", and the "MS-DOS (FAT)" format.

That's it!

C.2 Flash your SD card with the last Raspoid OS image

To flash your SD card, here is the procedure when using the terminal[2].

1. Print the list of devices by executing the following:

```
1 diskutil list
```

[1] Edimax EW-7811UN WiFi usb key

[2] If you are frightened by the terminal, you can use the ApplePi Baker application to do the trick. http://www.tweaking4all.com/hardware/raspberry-pi/macosx-apple-pi-baker/

2. Insert your SD card in your computer using an SD card reader, and re-execute the previous command. You can now observe the name of the device related to your SD card (something like /dev/diskX).

```
diskutil list
```

3. Unmount the device related to your SD card:

```
diskutil unmountDisk /dev/diskX
```

4. Download the latest Raspoid OS image:

```
wget http://www.raspoid.com/download/os
```

5. Untar the downloaded OS image:

```
tar -jxvf raspoid_v2.tar.bz2
```

6. Flash the SD card with the downloaded OS:

```
sudo dd if=raspoid_v2.img of=/dev/rdiskX bs=1m
```

7. Wait ~5min30.

8. Eject the device.

```
diskutil eject /dev/diskX
```

Your SD card is ready and can be inserted in your Raspberry Pi.

C.3 Complete the installation

- Use the autodetect script to detect your Raspberry Pi on the network (see our website for more information).
- Use "sudo raspi-config" to expand the file system and ensure that all of the SD card storage is available to the OS.
- Change the default password for the "pi" user account (default: "raspoid").
- Set a custom hostname. You can make this change with "sudo raspi-config", by selecting "Advanced Options", and then "Hostname".