

Creating an eFinder or ScopeDog SD card

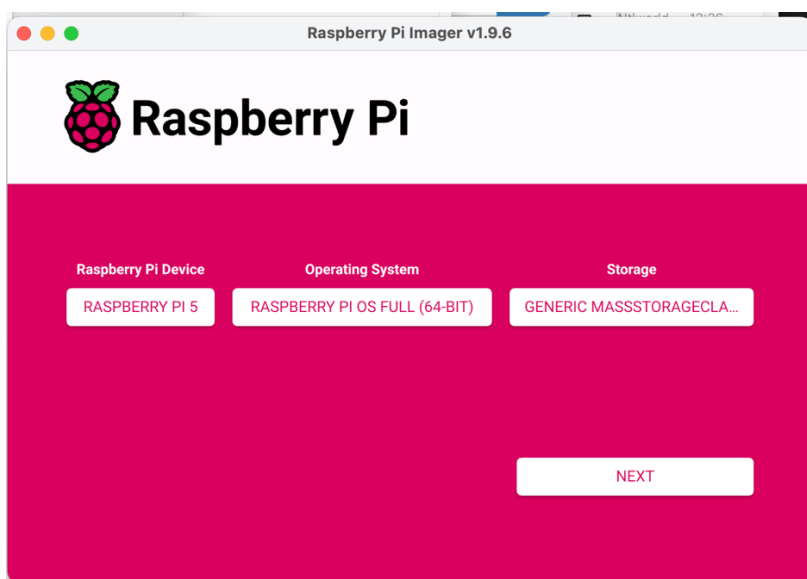
Prepare the SDcard

Download and open the Raspberry Pi Imager App for your PC or MAC

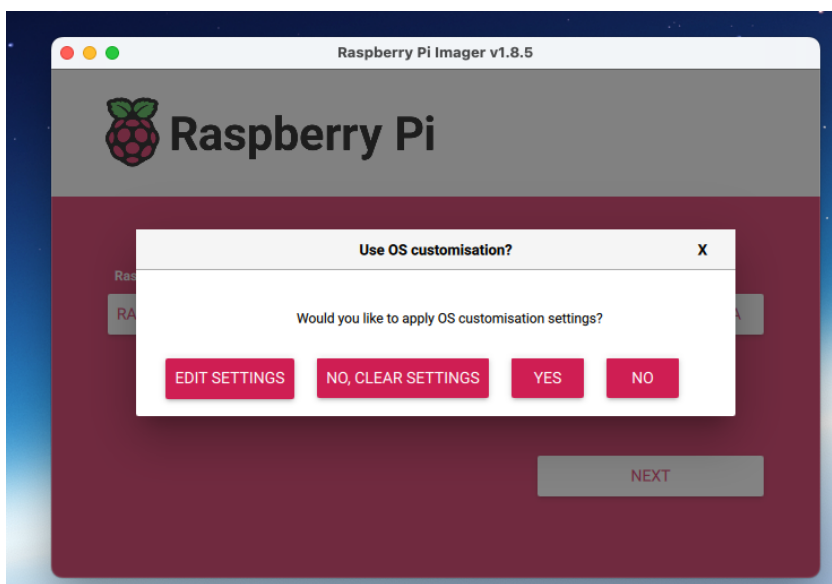
<https://www.raspberrypi.com/software/>

Insert your 32GB microSD card (Class 10 A1 or U1) into the computer via a suitable adapter.

On the first screen select the three options, Your Pi model, Bookworm 64bit & your SD card. It should look like ...



Click NEXT and you will get this ...



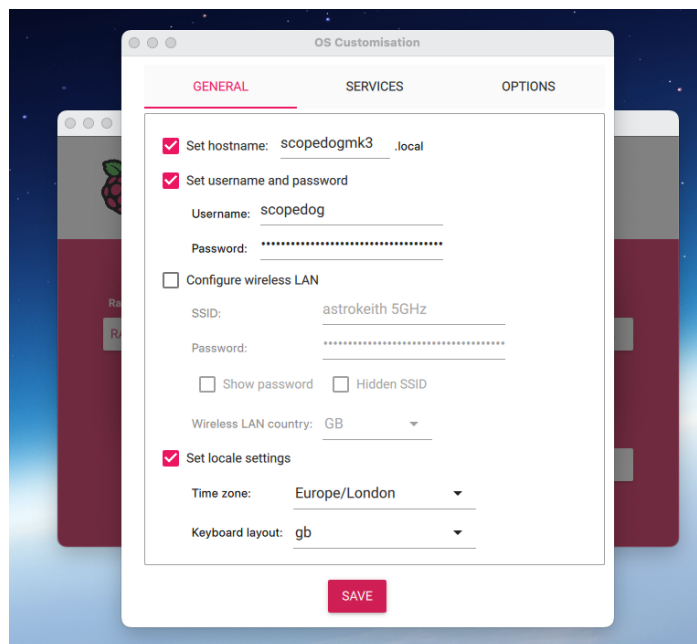
Select 'EDIT SETTINGS' and complete the options ...

On the GENERAL tab ...

Hostname is 'scopedogmk3',
username 'scopedog', password your
choice.

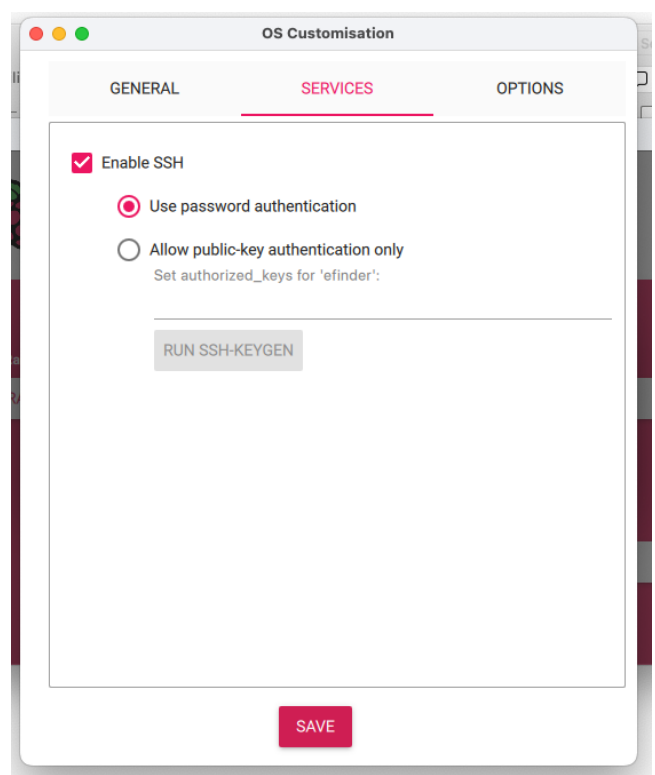
**Note it is important that the
username is all lowercase.**

You probably best not set the
wireless LAN if you want to set up a
hotspot later. Or if you do, when later
setting up the hotspot, delete the
LAN connection else your Pi will
connect to your LAN rather than
generate a hotspot (unless you are
good at setting network priorities!)



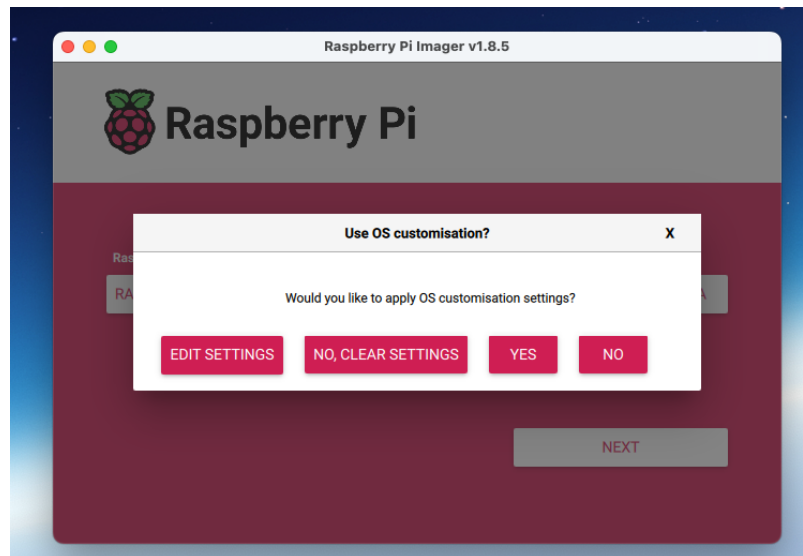
On the SERVICES tab ...

Select the Enable SSH and Use password
authentication



Click SAVE and you will be back to ...

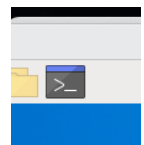
This time select YES and YES again and maybe enter your PC password and your SD card will be ready in about 10 minutes.



The next stage is to install the specific ScopeDog code. There are two methods to get to the point to download the code...

Using display, keyboard and mouse connected directly to the Pi

Insert the SDcard into the Pi, connect a hdmi display, ethernet cable, keyboard and mouse. Power up the Pi which will go through a couple of reboots and end up displaying the Pi Desktop (usually a fisherman). With the Pi desktop displayed, open a terminal window (icon at top left of screen. You should have a prompt of the form 'efinder@efinder:~ \$'



Accessing the Pi over a network connection (ssh)

Insert the SDcard into the Pi, connect an ethernet cable. Power up the Pi which will go through a couple of reboots. After a few minutes open a terminal window on your PC or Mac and enter the appropriate command ...

```
ssh scopedog@scopedogmk3.local
```

After agreeing to connect ('yes') and entering your set password when asked, you will see the scopedog prompt, eg 'scopedog@scopedogmk3:~ \$'

Make sure your Pi is connected to the internet. Ethernet cable to your router is best.

Now you are ready to install the code.

Install ScopeDog code

In the terminal window, enter each of the following lines in turn. When hitting 'return' at the end of the lines 1 & 3 you will see some activity. Wait for it to finish before entering the next line. The last line will initiate the install process and may take 30 minutes depending on your internet speed.

```
wget https://github.com/astrokeith/scopedog64/raw/main/install.sh
sudo chmod a+x install.sh
./install.sh
```

When complete, reboot the Pi (Raspberry icon/shutdown/reboot).

```
sudo reboot now
```

If connected over ssh you will need to reconnect after the boot.

If you have a Nexus DSC and handpad connected, ScopeDog will automatically start. If a camera is connected you will get the full eFinder functionality integrated. If no Nexus is found, ScopeDog will try to start the 'Lite' version but this requires a gps usb dongle to be plugged in first.

Note: ScopeDog can also be manually started from a terminal window which will show additional runtime information and error messages. Enter ...

```
venv-scopedog/bin/python scopedogmk3.py run
```

At this stage you can connect to the ScopeDog in a number of ways using an ethernet cable ...

1. VNC to scopedogmk3.local, your set password
2. ssh to [scopedog@scopedogmk3.local](ssh://scopedog@scopedogmk3.local), your set password
3. Samba file share at [scopedog@scopedogmk3.local](smb://scopedog@scopedogmk3.local), password 'scopedog', selecting 'scopedogshare' as the volume
4. Web browser to scopedogmk3.local, to view and edit the ScopeDog.config file

You can configure the Pi's wifi at this stage. If using the Pi Desktop, use the network icon at top right of screen. If using ssh enter `sudo nmtui`.

Various options are possible

- a) A wifi hotspot, providing all of 1-4 above to a wifi connected device.
- b) Connect to a wifi router, providing all of 1-4 above to a device on the same LAN.
- c) Connect to a Nexus DSC AP. Note the Nexus DSC wifi cannot be shared with another device (ie SkySafari)
- d) Advanced users could set up priorities such that the eFinder tries to connect to a known router, but if not available creates its own hotspot.

