

Creating a Nexus eFinder SD card

Prepare the SDcard

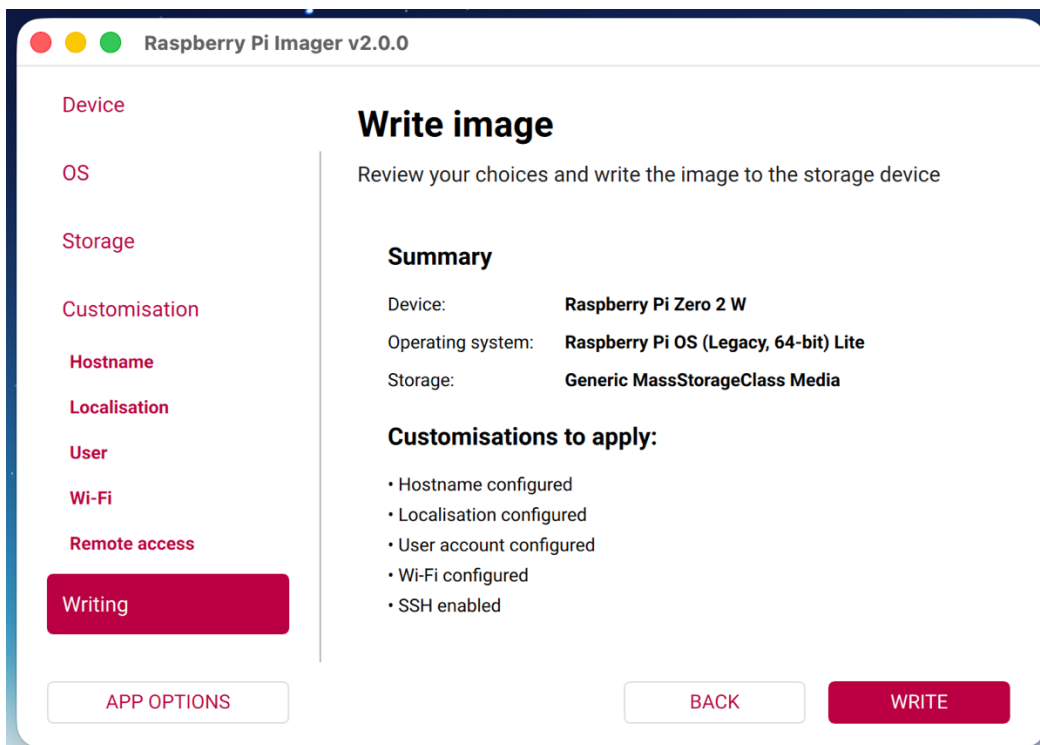
Download and open the Raspberry Pi Imager App for your PC or MAC
<https://www.raspberrypi.com/software/>

Insert your microSD card into the computer via a suitable adapter.

The Raspberry Pi Imager will lead you through a number of options , select ...

- Pi model (Pi Zero 2 W)
- Raspberry Pi OS (Bookworm, Legacy,64-bit) Lite, (under Pi OS other)
- Your SD card.
- Hostname – ‘efinder’
- Select your Localisation as appropriate
- Username – ‘efinder’ (note all lowercase)
- Password – your choice
- Choose your WIFI as appropriate
- Enable SSH, with password authentication

It now should look like ...



Click WRITE and after a short pause confirm.
After a few minutes your sdCard will be ready for the next stage ...

The next stage is to install the specific eFinder code ...

Accessing the Pi Zero over your home network connection (ssh)

Insert the SDcard into the Pi. Power up the Pi which will go through a couple of reboots and finally connect to your home wifi network. After a few minutes open a terminal window on your PC or Mac and enter the appropriate command ...

```
ssh efinder@efinder.local
```

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

Install eFinder code

In the terminal window, enter each of the following lines in turn. When hitting 'return' at the end of the line 1 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/efinder_cli/raw/main/install.sh
sudo chmod a+x install.sh
./install.sh
```

About 5 minutes in, you may see a prompt to enter N, Y etc. Enter 'y'.

When complete, the Pi reboots and is ready to be used. Refer to User instructions for connecting to your system.

Alternative Method

It is possible to prepare your sdCard in one operation using a Nexus eFinder image downloaded from the repository. This version will not connect to your WIFI infrastructure without user setup but will create a WIFI hotspot.

This version may also not be the very latest and may require some files to be updated.

To use this method, at stage 2, select OS, select 'Use custom' then select the downloaded image 'efinder.img.gz'. Most of the subsequent steps are now automatically skipped.

Advanced Use

Nexus eFinder will automatically start and wait until a host computer connects. It first sends a simple message "ID=eFinderLite".

Note: eFinder can also be manually started from a terminal window which will show additional runtime information and error messages. If an instance of eFinder may be running, then enter ...

```
venv-efinder/bin/python Solver/eFinder_cli.py run
```

This kills any running autostart version. followed by ...

```
venv-efinder/bin/python Solver/eFinder_cli.py
```

Alternatively, this single command will kill the autostart version and start a specific version, eg _9_4 in this case. Enter ...

```
venv-efinder/bin/python Solver/eFinder_cli_9_4.py run
```

At this stage you can connect to the eFinder in a number of ways over wifi ...

1. ssh to efinder@efinder.local, your set password
2. Samba file share at efinder@efinder.local, password 'efinder', selecting 'efindershare' as the volume
3. Web browser to efinder.local will show the latest image captured using the eFinder focus/exposure utility.