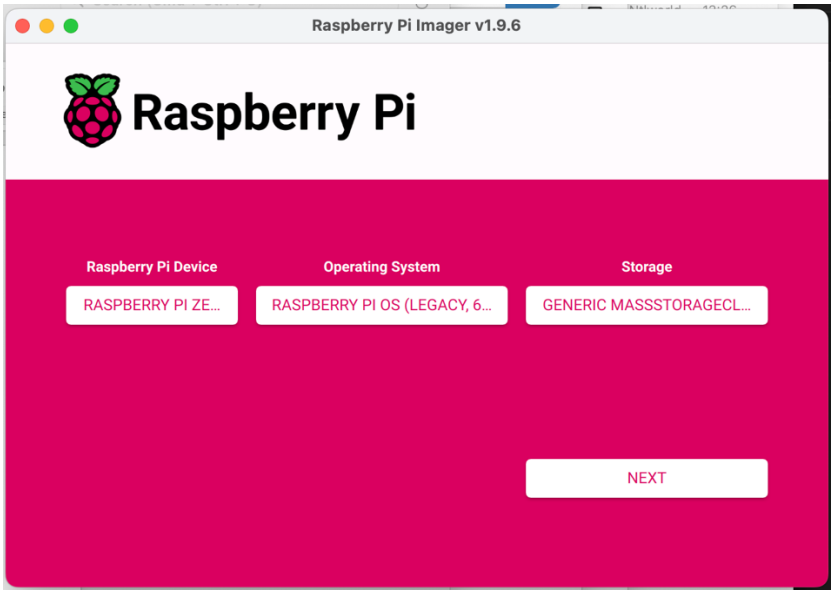
Creating an eFinder Cli SD card

Prepare the SDcard

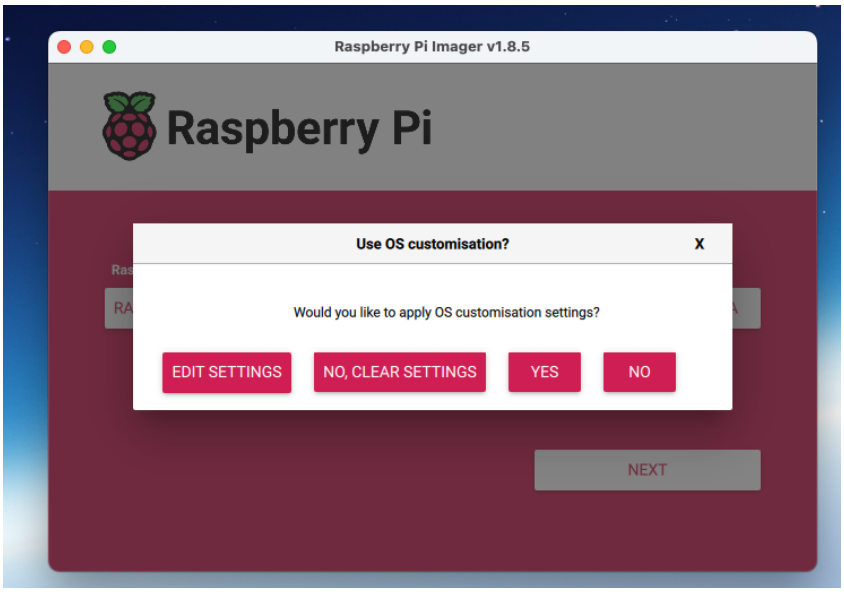
Download and open the Raspberry Pi Imager App for your PC or MAC
https://www.raspberrypi.com/software/

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

On the first screen select the three options, Your Pi model (Pi Zero 2 W), Raspberry Pi OS (Legacy,64-bit) Lite, (under Pi OS other) & your SD card. It should look like ...



Click NEXT and you will get this ...



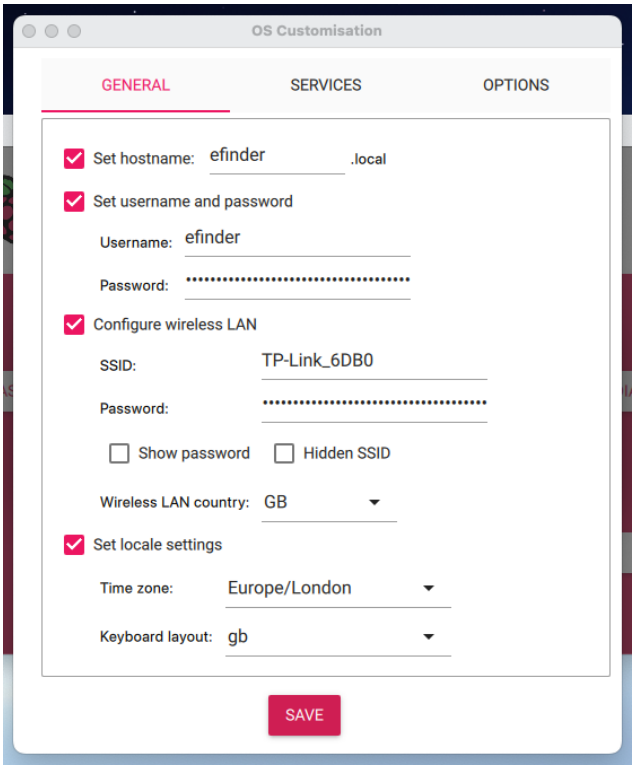
Select ‘EDIT SETTINGS’ and complete the options ...

On the GENERAL tab ...

For eFinder hostname is ‘efinder’, username ‘efinder’, password your choice.

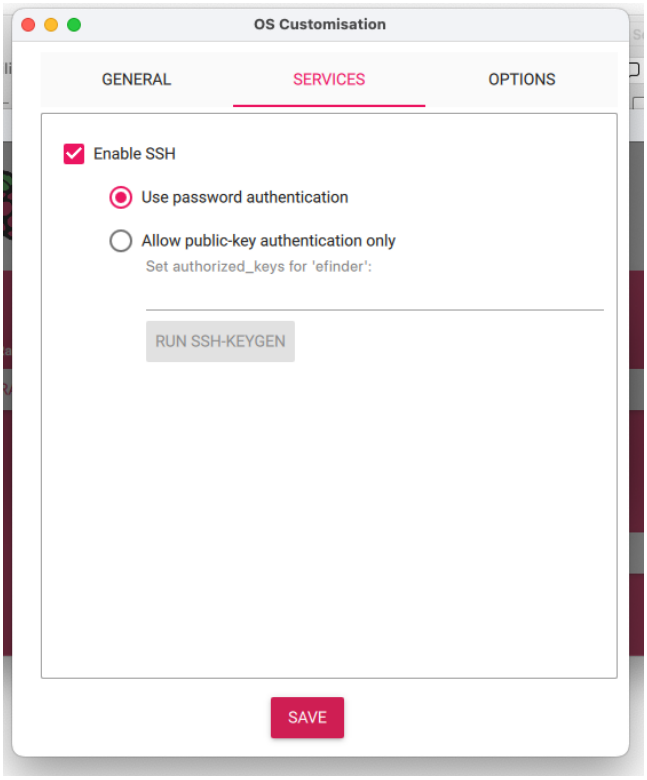
Note it is important that the username is all lowercase.

You must set the wireless LAN to initially at least connect to your home network wireless router.

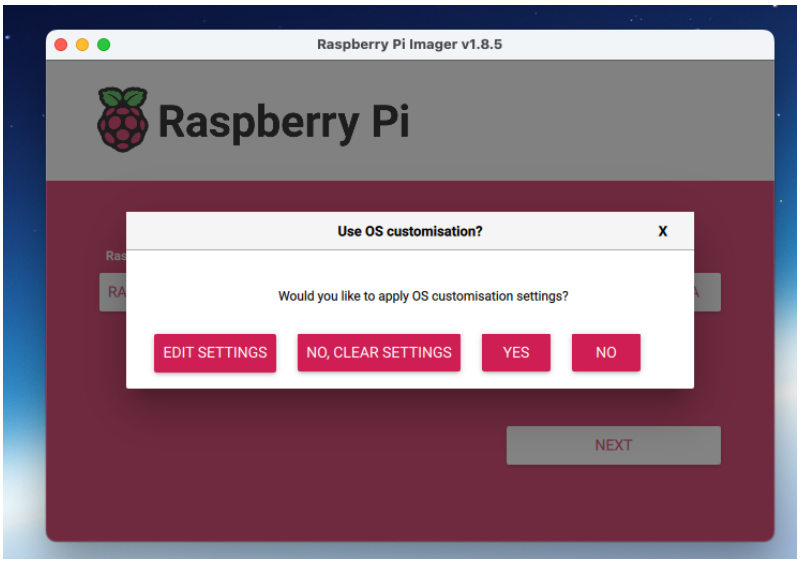


On the SERVICES tab ...

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 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 hiting ‘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.

Advanced Use

eFinder Cli will automatically start and wait until a host computer connects. It first sends a simple message “ID=eFinder”.

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 _8_7 in this case. Enter ...

```
venv-efinder/bin/python Solver/eFinder_cli_8_7.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.

AstroKeith 7/10/2025