KEYBOARD ✗

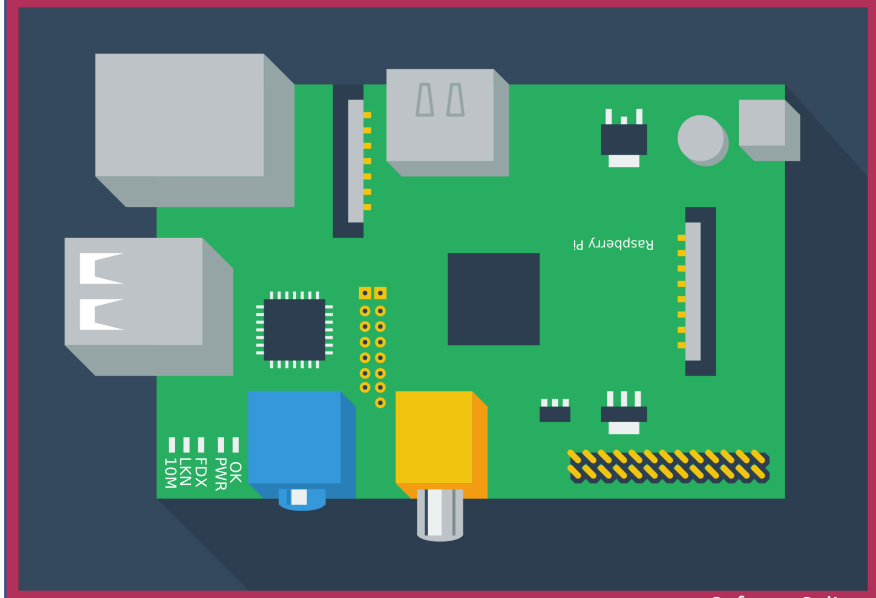
MONITOR ✗

MOUSE ✗

Headless Pi OS Installation & Setup

X

AUG 2021



Safyzan Salim
scriptworkz ent

1. Headless Raspberry Pi 4 SSH WiFi Setup (Mac + Win)

Step 1. Download Raspberry Pi OS

Step 2. Burn the Raspberry Pi OS image to the SD card: i. Balena Etcher; ii. Raspberry Pi Imager

Step 3. Enable ssh to allow remote login

Mac instructions (enable ssh)

Open up a terminal window and run this command:

touch /Volumes/boot/ssh

Windows instructions (ssh)

Run ***Notepad***

In a new file put in one space and nothing more

Click ***File / Save As ...***

Be sure to set ***Save as type*** to ***All Files*** (so the file is NOT saved with a .txt extension)

Call the file ***ssh*** and save it

Close the file

If you are comfortable with the Windows command line you could try this instead (untested!):

Open up a command line

Switch to the drive and root where ***boot*** is located:

Type: type *NUL >> ssh*

Verify that file ***ssh*** was created

https://desertbot.io/blog/headless-raspberry-pi-4-ssh-wifi-setup

Safyzan Salim Aug 2021

1. Headless Raspberry Pi 4 SSH WiFi Setup (Mac + Win)

Step 4. Add your WiFi network info

Create a file in the root of **boot** called: ***wpa_supplicant.conf*** (instructions below). Then paste the following into it (adjusting for your ISO 3166 alpha-2 country code, network name and network password):

```
country=MY
ctrl_interface=DIR=/var/run/wpa_supplicant GROUP=netdev
update_config=1
network={
    ssid="NETWORK-NAME"
    psk="NETWORK-PASSWORD"
}
```

Mac instructions (wifi settings)

Create a new empty file that will hold network info:

```
touch /Volumes/boot/wpa_supplicant.conf
```

Edit the file that you just created and paste the text above into it (adjusting for the name of your country code, network name and network password):

1. Headless Raspberry Pi 4 SSH WiFi Setup (Mac + Win)

Step 4. Add your WiFi network info (cont)

Windows instructions (wifi settings)

Run **Notepad**
Paste in the contents above (adjusting for the name of your country code, network name and network password)

Click ***File / Save As ...***
Be sure to set ***Save as type*** to ***All Files*** (so the file is NOT saved with a .txt extension)
Call the file ***wpa_supplicant.conf*** and save it
Close the file

Step 5. Eject the micro SD card

Step 6. Boot the Raspberry Pi from the micro SD card

1. Headless Raspberry Pi 4 SSH WiFi Setup (Mac + Win)

Step 7. Login remotely over WiFi

Mac instructions (login over wifi)

Open up a terminal window

Run the following commands:

```
ssh-keygen -R raspberrypi.local
ssh pi@raspberrypi.local
```

Don't worry if you get a host not found error for the first command - the idea is to clear out any previous references to raspberrypi.local

If the pi won't respond, press Ctrl-C and try the last command again

If prompted with a warning just hit enter to accept the default (***Yes***)

Type in the password -- by default this is ***raspberry***

1. Headless Raspberry Pi 4 SSH WiFi Setup (Mac + Win)

Step 7. Login remotely over WiFi (cont)

Windows instructions (login over wifi)

Install Bonjour

You can find Raspberry Pi's on your network using their hostname followed by .local (example: raspberrypi.local). But to do that in Windows you have to install the Bonjour service first.

If you have iTunes installed on Windows you probably don't have to do this. But if you don’t, browse to:

Download Bonjour Print Services for Windows v2.0.2

and run the installer.

1. Headless Raspberry Pi 4 SSH WiFi Setup (Mac + Win)

Step 7. Login remotely over WiFi (cont)

Install Putty

If you already have Putty installed, skip to the next section.
Browse to:

https://www.putty.org

Download the 64-bit MSI (Windows Installer)
Open it to run the installer (if asked for permission, click Yes)
Select: ***Add shortcut to PuTTY on the Desktop***

Login over WiFi using Putty

This part assumes that ***ssh*** is enabled for your image and that the default user is **pi** with a password of ***raspberry***.
Launch Putty
Set the ***Host Name (or IP address)*** field to ***raspberrypi.local***
By default the ***Port*** should be set to ***22*** and ***Connection type*** should be set to ***SSH***
Click ***Open***
If you see a Security Alert select Yes

A new terminal window should appear prompting you for a user name
The default user name is: ***pi***
The default password is: ***raspberry***

1. Headless Raspberry Pi 4 SSH WiFi Setup (Mac + Win)

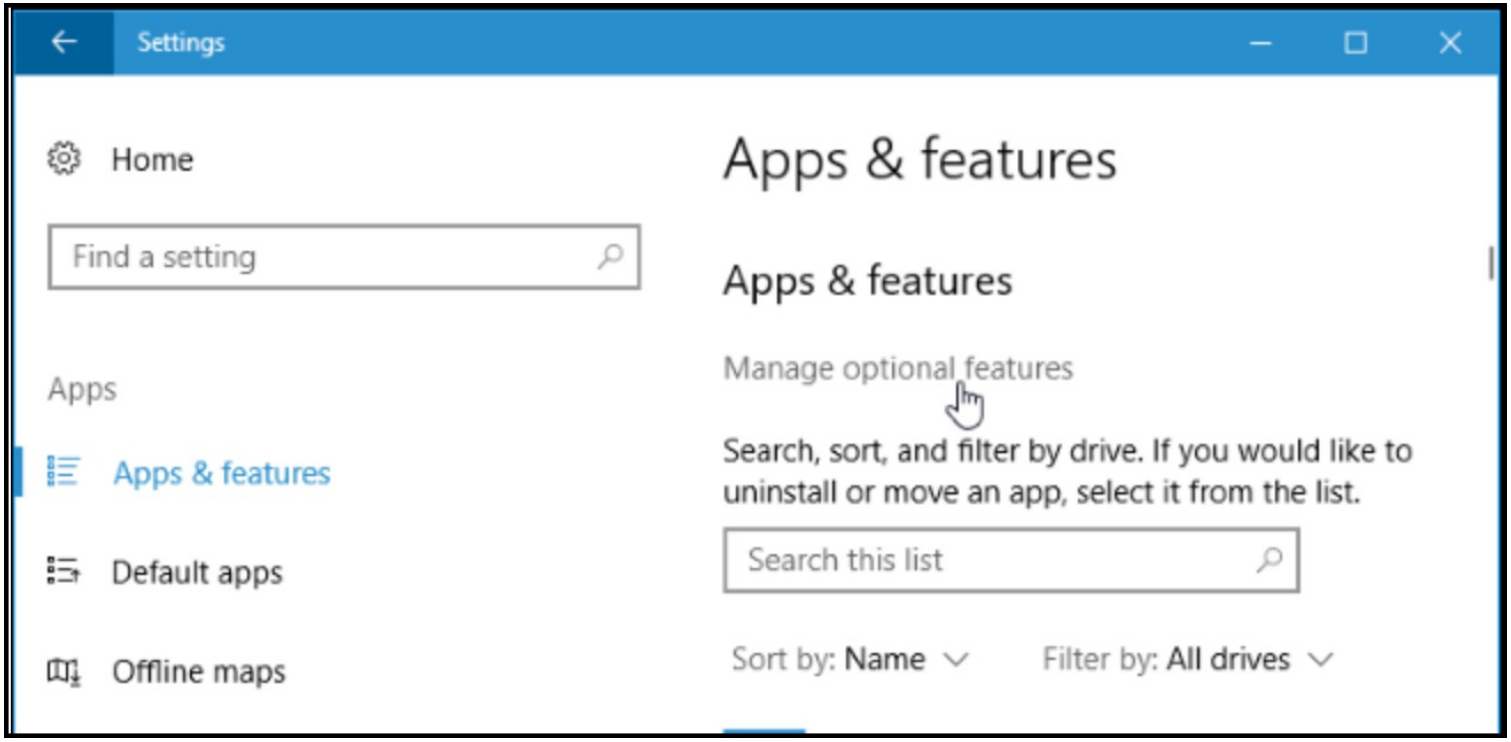
Step 8. Get the latest updates

Once connected over WiFi, the next thing you should do is run some updates:

sudo apt-get update -y

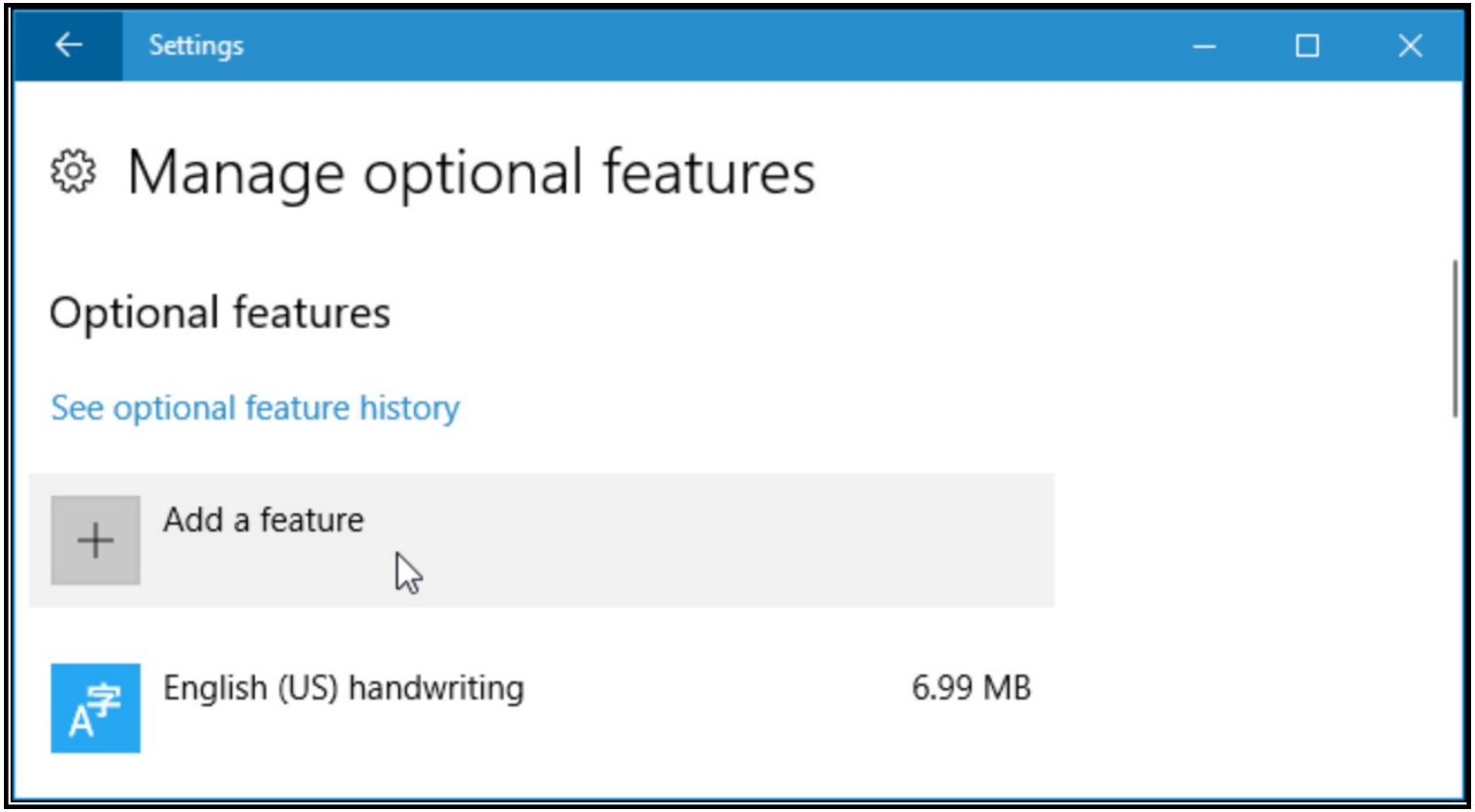
sudo apt-get upgrade -y

2. How to Enable and Use Windows 10’s New Built-in SSH Commands



***On Windows, open the Network and Sharing Center (Control Panel > Network and Sharing Center > View network connections).

2. How to Enable and Use Windows 10’s New Built-in SSH Commands



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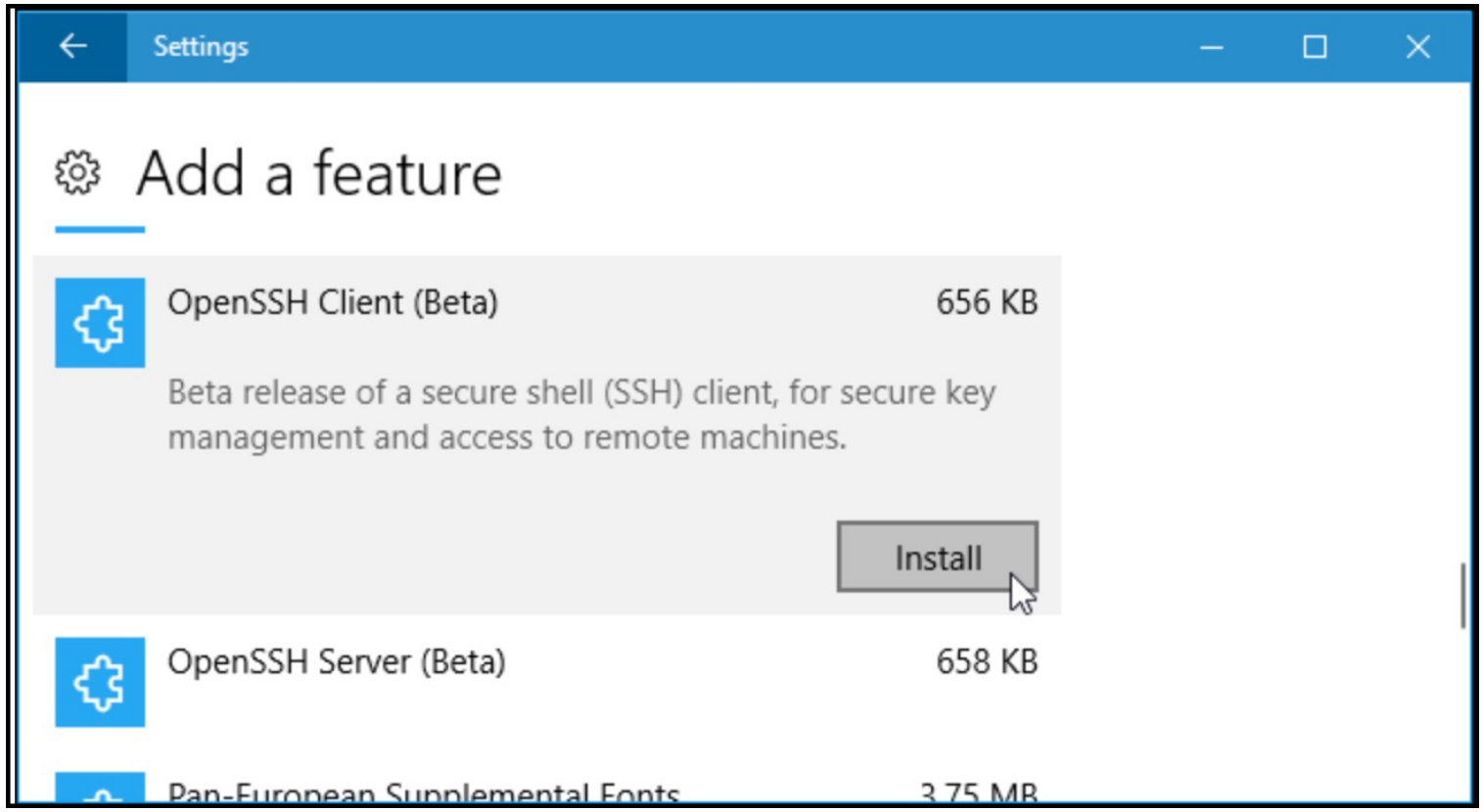
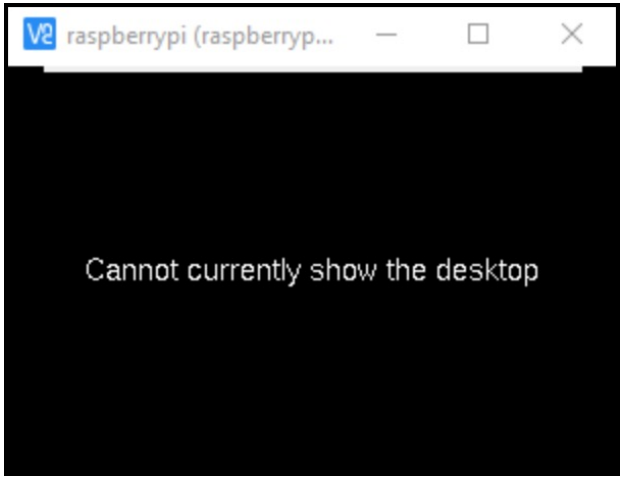


3. How to Fix Raspberry Pi's 'Cannot Currently Show the Desktop' Error



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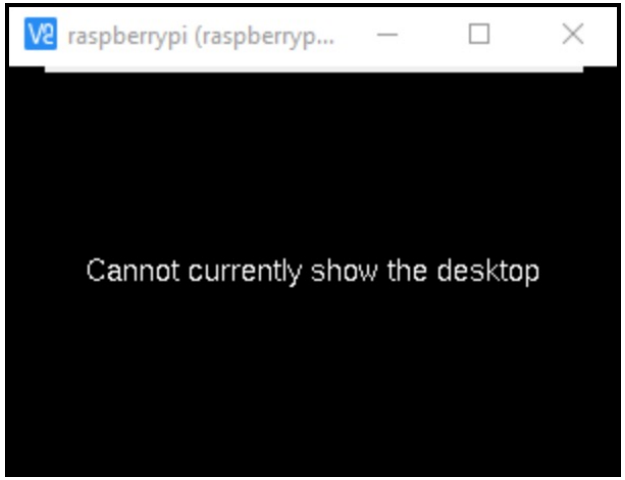
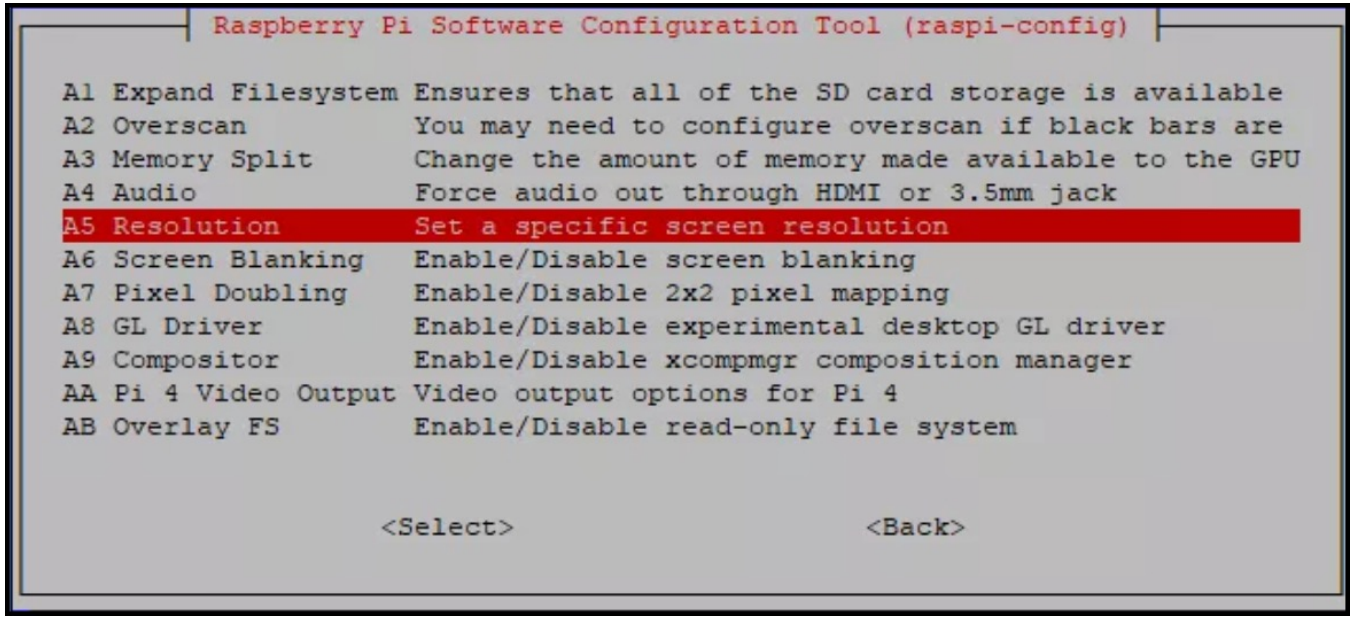
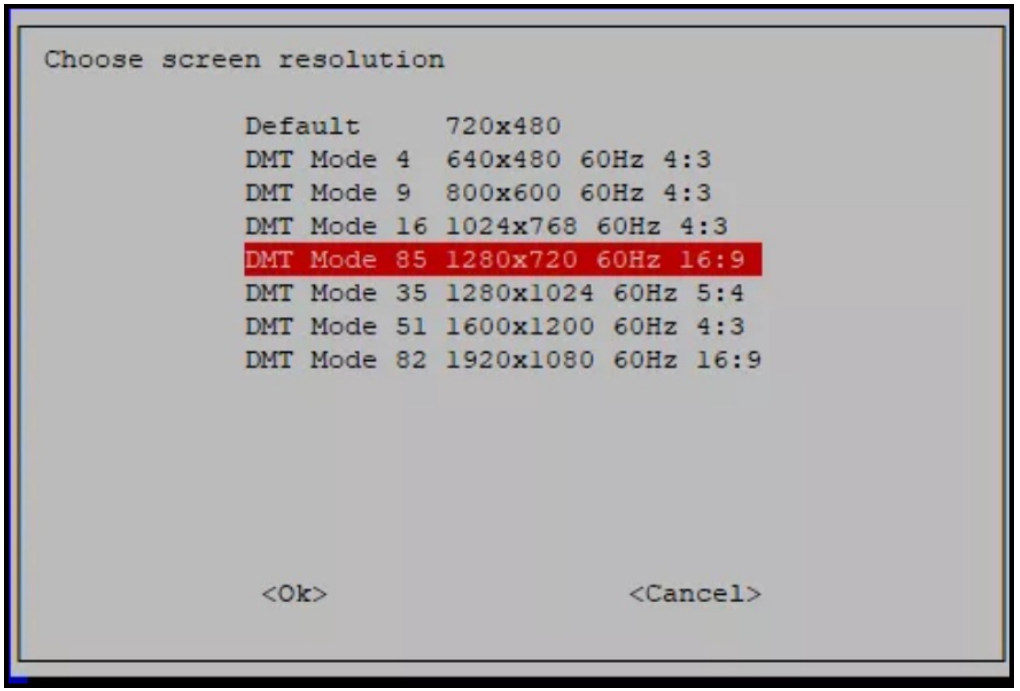


>>sudo raspi-config



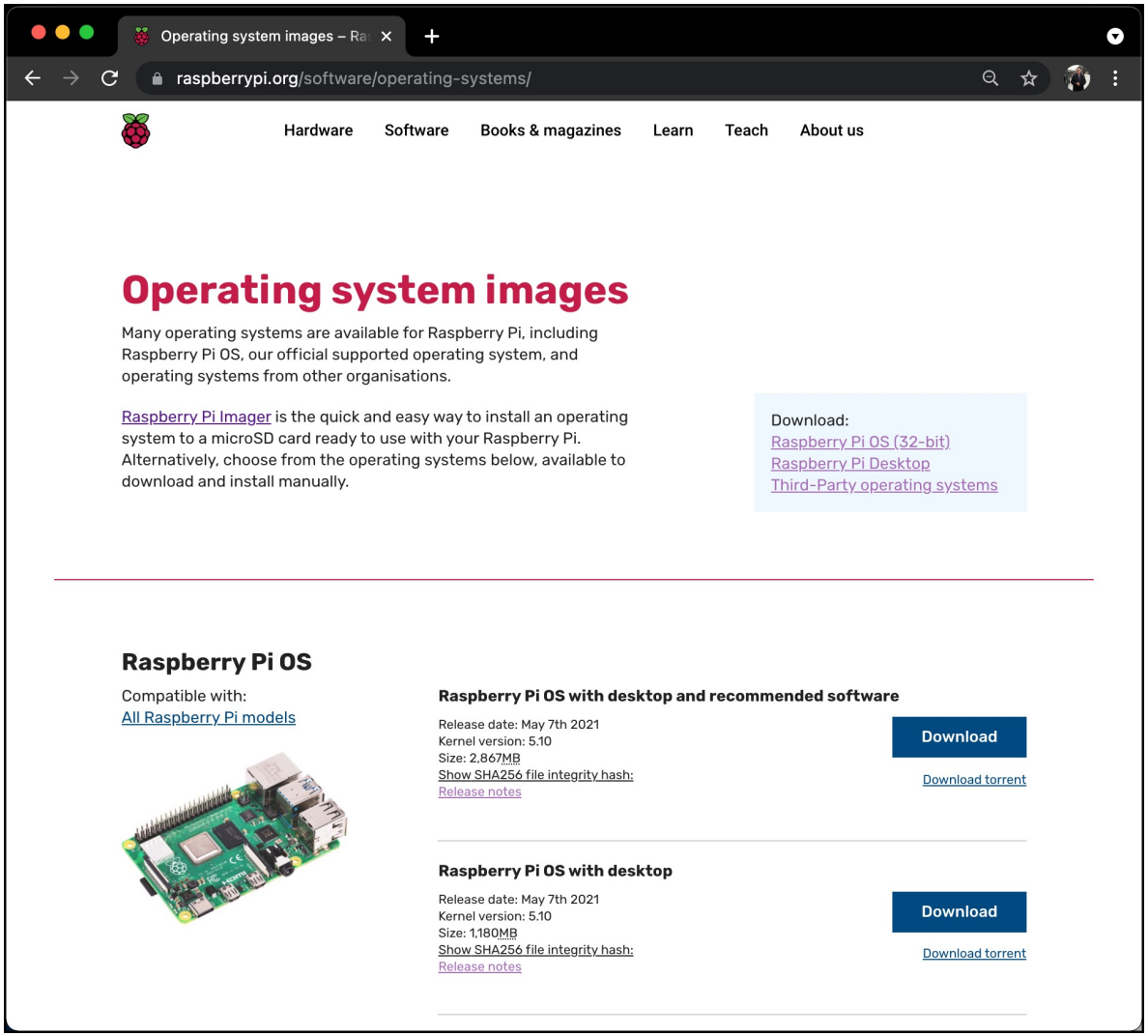
3. How to Fix Raspberry Pi's 'Cannot Currently Show the Desktop' Error

Choose a resolution. We recommend at least 1280 x 720, but some users report that choosing the highest possible (usually 1920 x 1080) is what they needed to do.



You'll need to reboot your Raspberry Pi for this change to take effect.

4. Which OS to Choose?



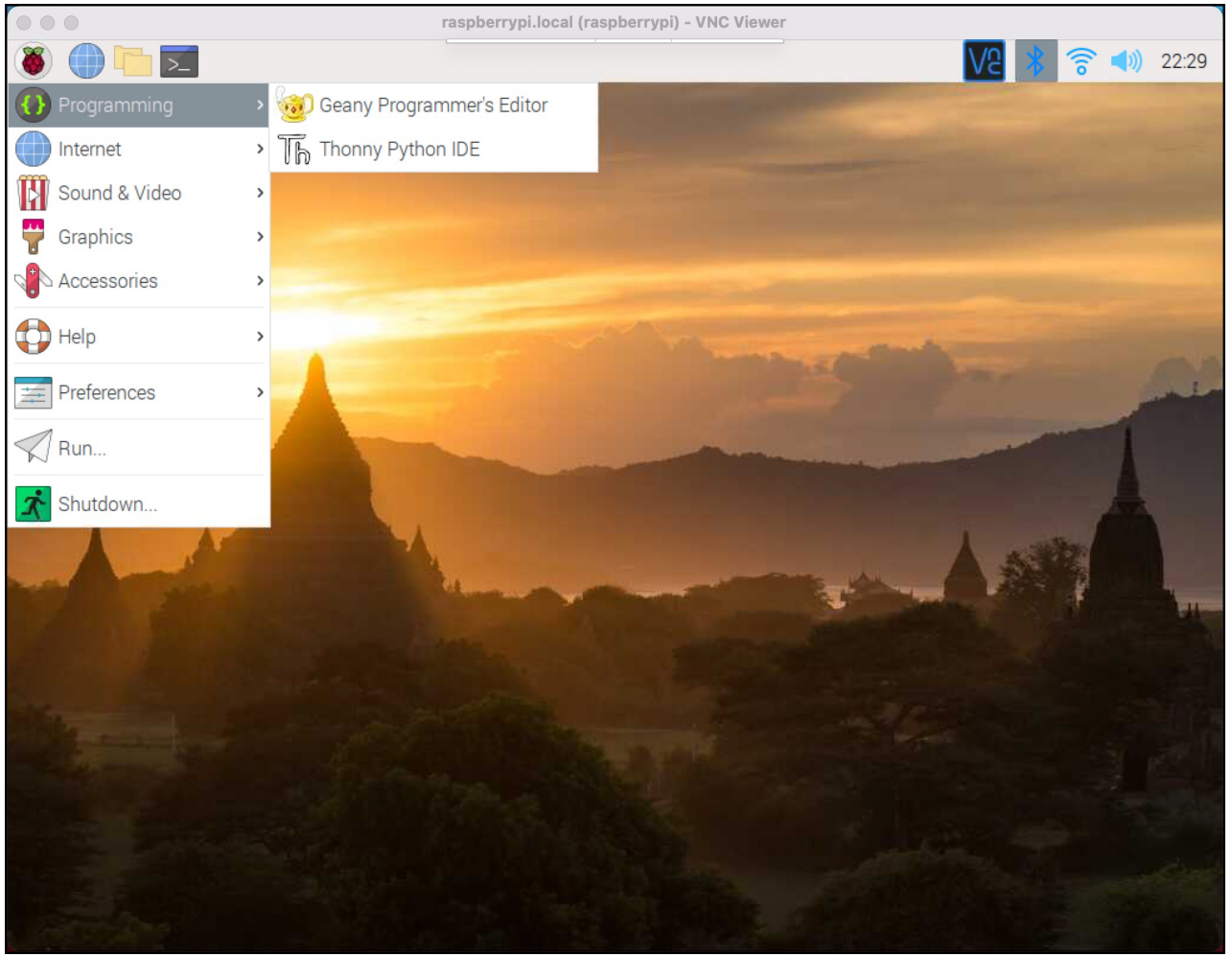
4. Which OS to Choose?

Raspberry Pi OS with desktop

Release date: May 7th 2021
Kernel version: 5.10
Size: 1,180MB
Show SHA256 file integrity hash:
Release notes

Download

Download torrent



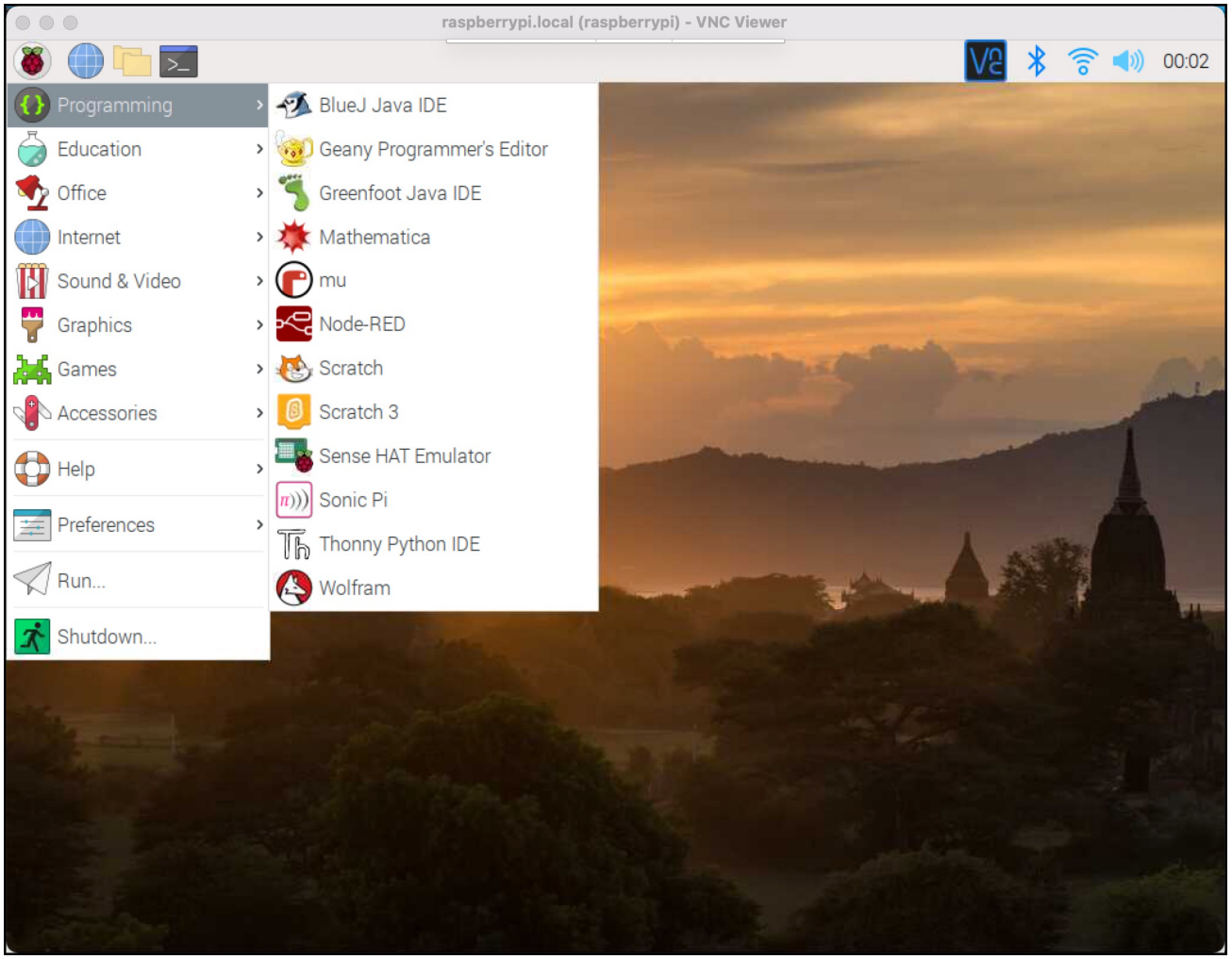
4. Which OS to Choose?

Raspberry Pi OS with desktop and recommended software

Release date: May 7th 2021
Kernel version: 5.10
Size: 2,867MB
Show SHA256 file integrity hash:
Release notes

Download

Download torrent



QUESTIONS

END