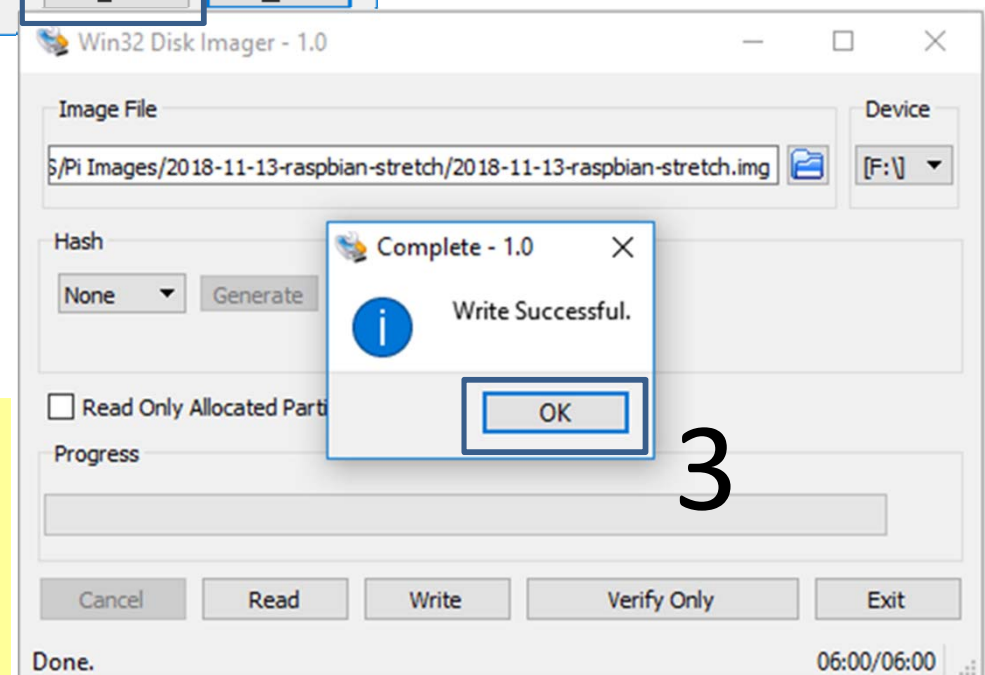
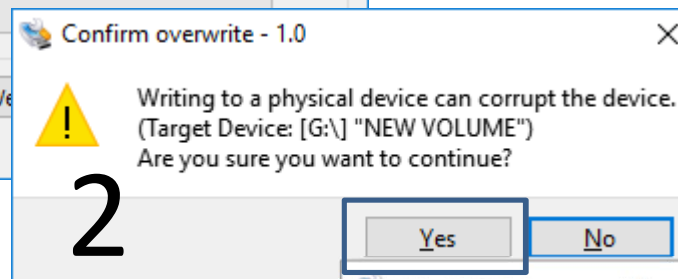
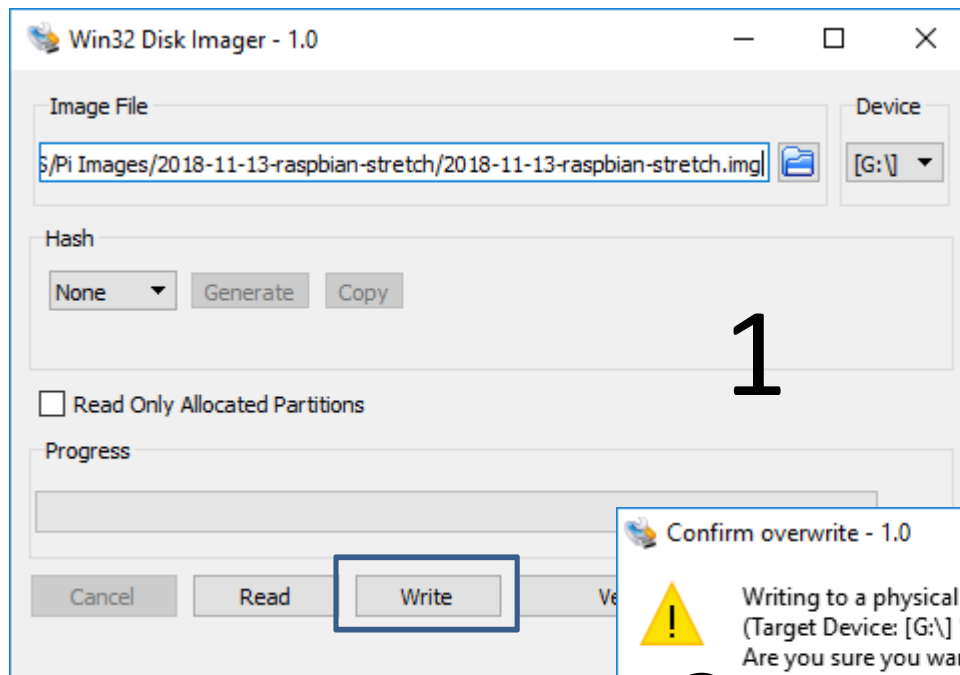




Installing the Magic Mirror on the Raspberry Pi Zero W

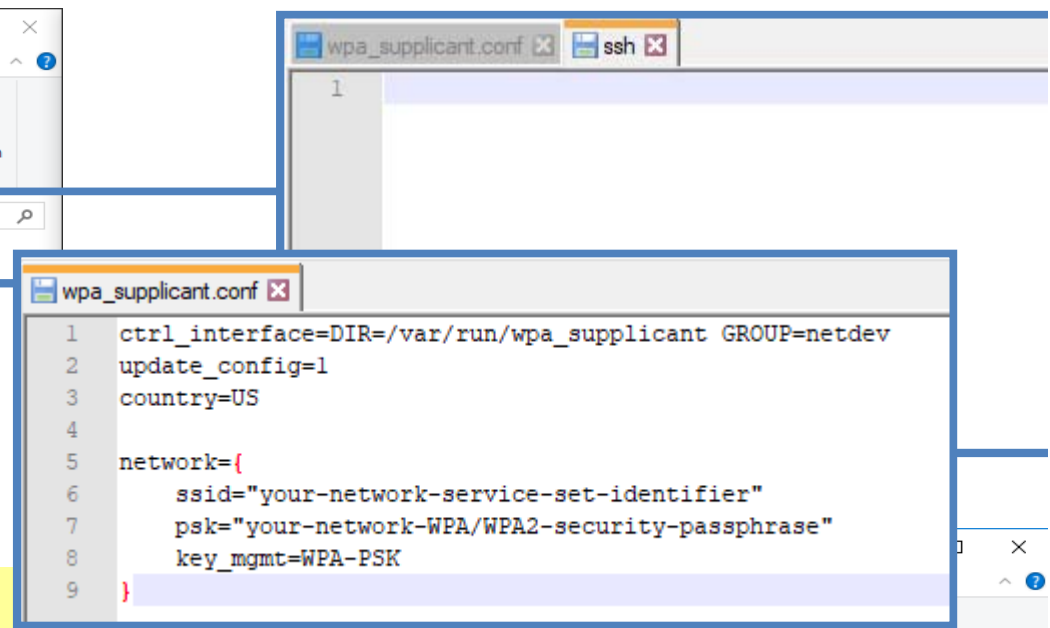
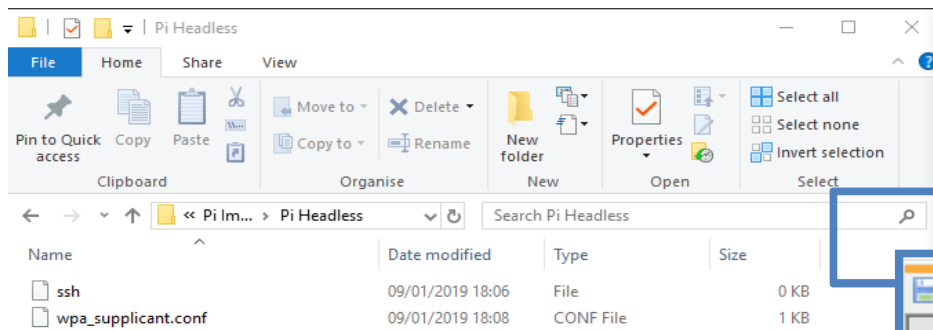
@2799

©Andrew Chu 2019



Create a Raspbian image using Win32 Disk Imager or similar (see guide at RaspberryPi.org)

It is important to use Raspbian with a Desktop (i.e. not Raspbian Lite) although it does not require the other 'recommended apps'



Create a file called **wpa_supplicant.conf** which has the contents:

```

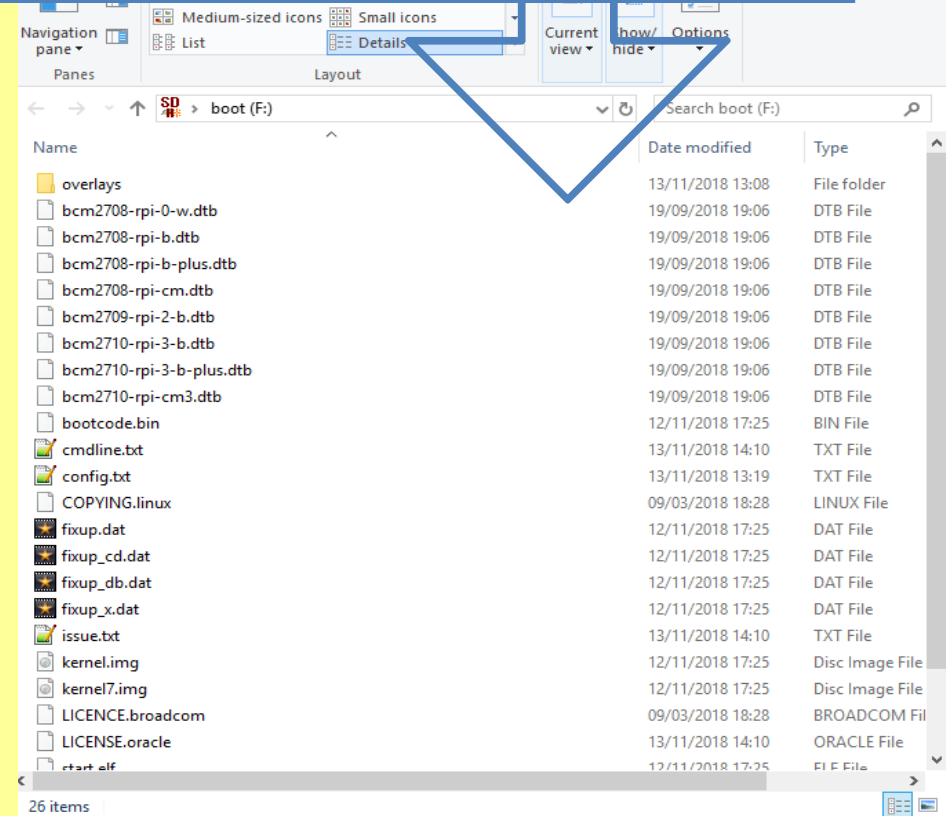
ctrl_interface=DIR=/var/run/wpa_supplicant
GROUP=netdev update_config=1
country=<US>
network={
    ssid="<Network Name>"
    psk="<Network Password>"
    key_mgmt=WPA-PSK
}

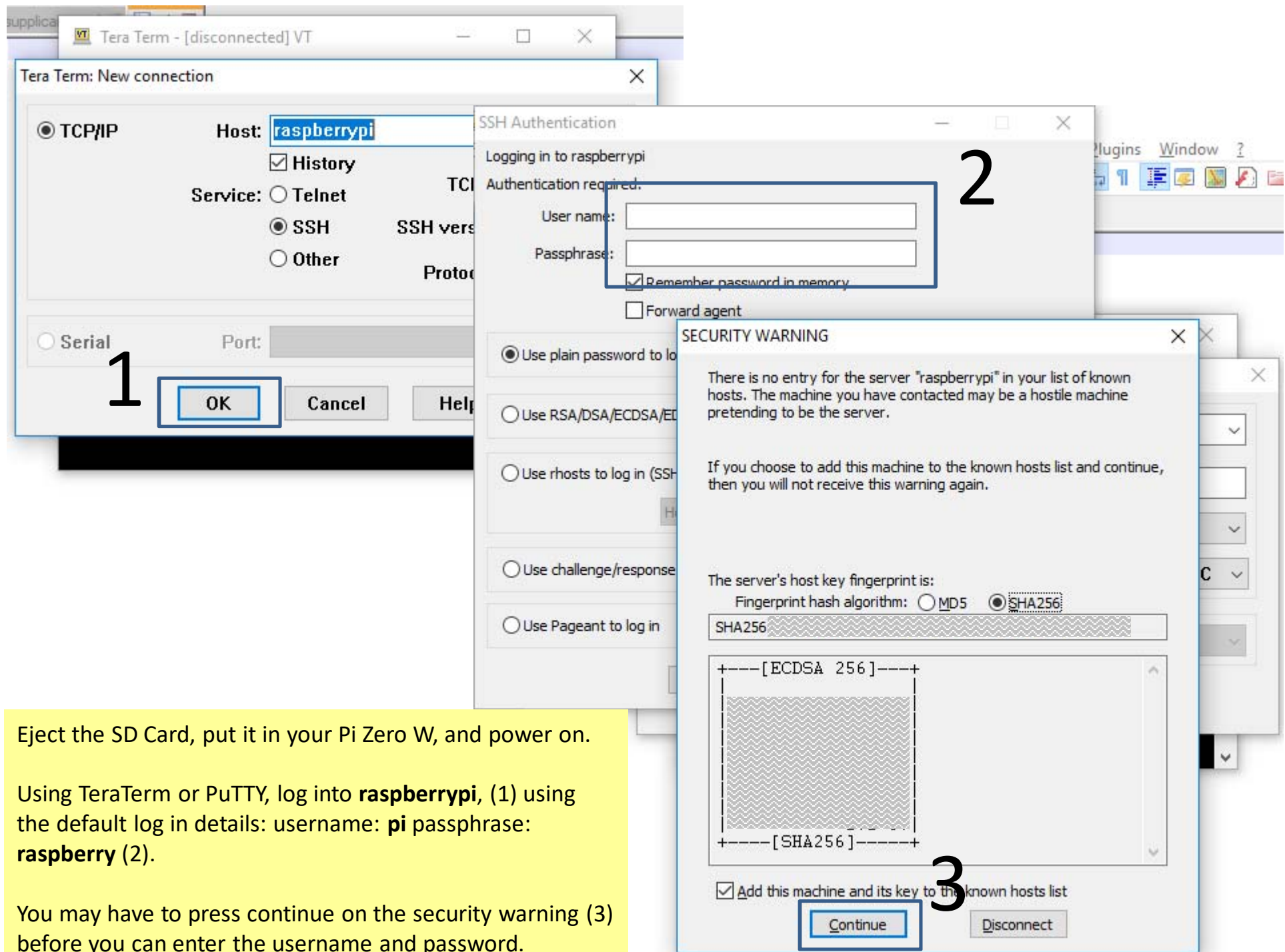
```

Which should be edited for your own country and wireless network.

You also need a file called **ssh** which can be empty.

Put both of these files into the **boot** drive (you're in the right place if you also see cmdline.txt and config.txt)





Eject the SD Card, put it in your Pi Zero W, and power on.

Using TeraTerm or PuTTY, log into **raspberrypi**, (1) using the default log in details: username: **pi** passphrase: **raspberry** (2).

You may have to press continue on the security warning (3) before you can enter the username and password.

raspberrypi - pi@raspberrypi: ~ VT

File Edit Setup Control Window Help

Linux raspberrypi 4.14.79+ #1159 Sun Nov 4 17:28:08 GMT 2018 armv6l

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.

Last login: Wed Jan 9 18:25:33 2019 from 192.168.1.158

SSH is enabled and the default password for the 'pi' user has not been changed.
This is a security risk - please login as the 'pi' user and type 'passwd' to set a new password.

pi@raspberrypi:~\$ sudo raspi-config

```
raspberrypi - pi@raspberrypi: ~ VT
File Edit Setup Control Window Help
Raspberry Pi Zero H Rev 1.1

Raspberry Pi Software Configuration Utility

1 Change User Password Change password for the current user
2 Network Options Configure network settings
3 Boot Options Configure options for start-up
4 Localisation Options Set up language and regional settings to match your location
5 Interfacing Options Configure connections to peripherals
6 Overclock Configure overclocking for your Pi
7 Advanced Options Configure advanced settings
8 Update Update this tool to the latest version
9 About raspi-config Information about this configuration tool

<Select> <Finish>
```

When you have established the ssh session, run **sudo raspi-config**, which will give you a menu system on a blue/purple background

```
raspberrypi - pi@raspberrypi: ~ VT
Edit Setup Control Window Help
erry Pi Zero W Rev 1.1

1 Change User Password Change password for the current user
2 Network Options Configure network settings
3 Boot Options Configure options for start-up
4 Localisation Options Set up language and regional settings to
5 Interfacing Options Configure connections to peripherals
6 Overclock Configure overclocking for your Pi
7 Advanced Options Configure advanced settings
8 Update Update this tool to the latest version
9 About raspi-config Information about this configuration tool

<Select>
```

```
raspberrypi - pi@raspberrypi: ~ VT
File Edit Setup Control Window Help

P1 Camera Enable/Disable connection to the Raspberry Pi Camera
P2 SSH Enable/Disable remote command line access to your Pi using SSH
P3 VNC Enable/Disable graphical remote access to your Pi using RealVNC
P4 SPI Enable/Disable automatic loading of SPI kernel module
P5 I2C Enable/Disable automatic loading of I2C kernel module
P6 Serial Enable/Disable shell and kernel messages on the serial connection
P7 1-Wire Enable/Disable one-wire interface
P8 Remote GPIO Enable/Disable remote access to GPIO pins

<Select> <Back>
```

```
raspberrypi - pi@raspberrypi: ~ VT
Edit Setup Control Window Help

Would you like the VNC Server to be enabled?

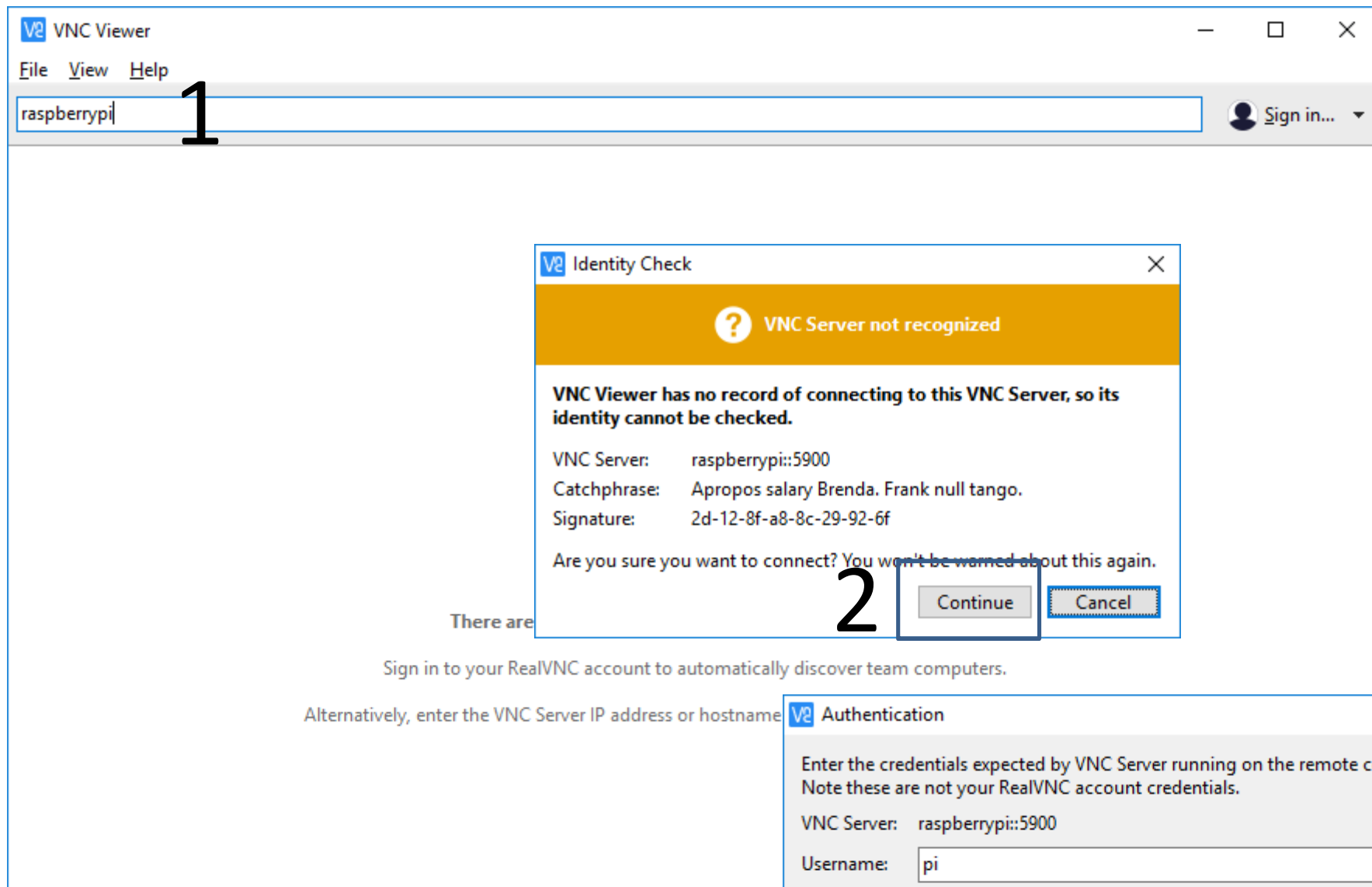
<Yes> <No>
```

```
raspberrypi - pi@raspberrypi: ~ VT
File Edit Setup Control Window Help

The VNC Server is enabled

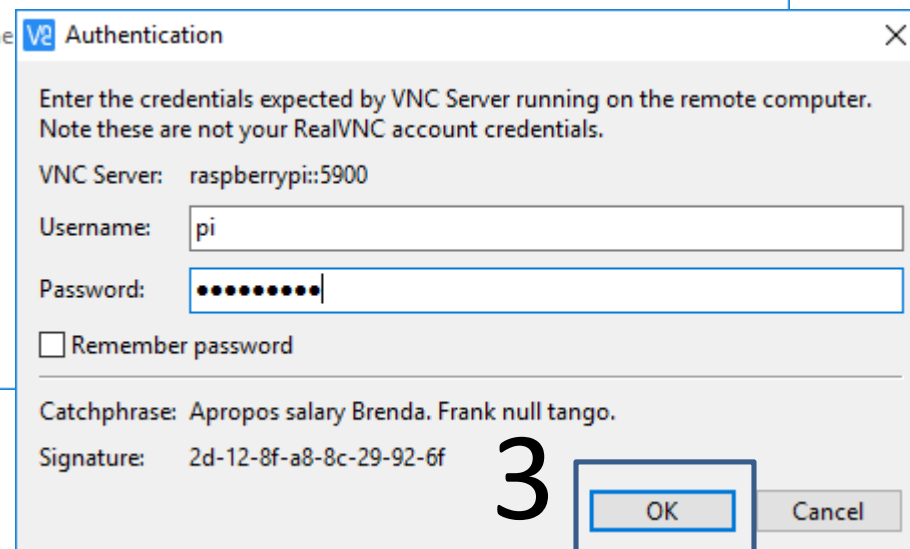
<OK>
```

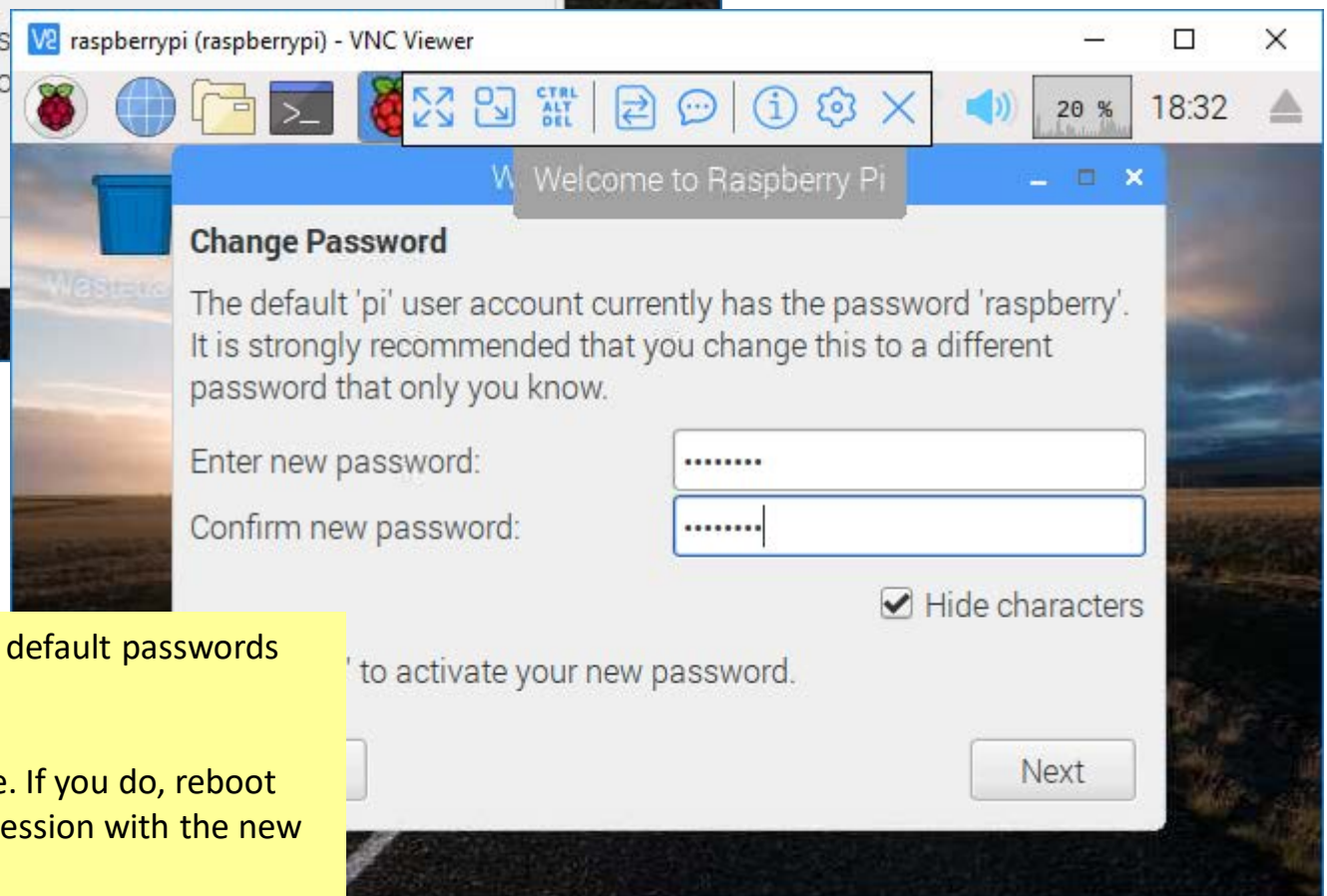
Navigate to **Interfacing Options** | **VNC** | **YES** | **OK** to turn on the VNC Server



Open up RealVNC
(<https://www.realvnc.com/en/connect/download/vnc/>)
and connect to **raspberrypi**

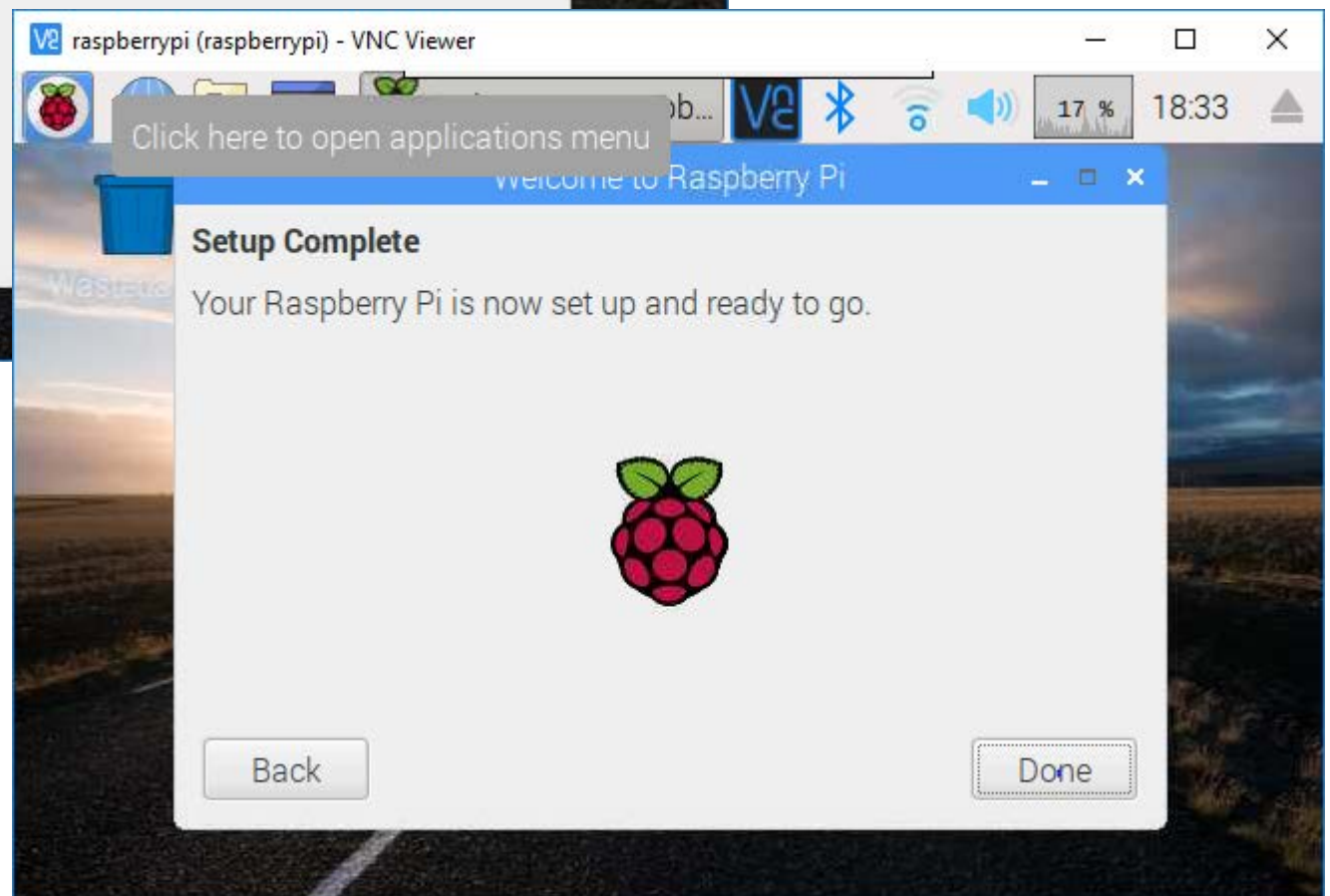
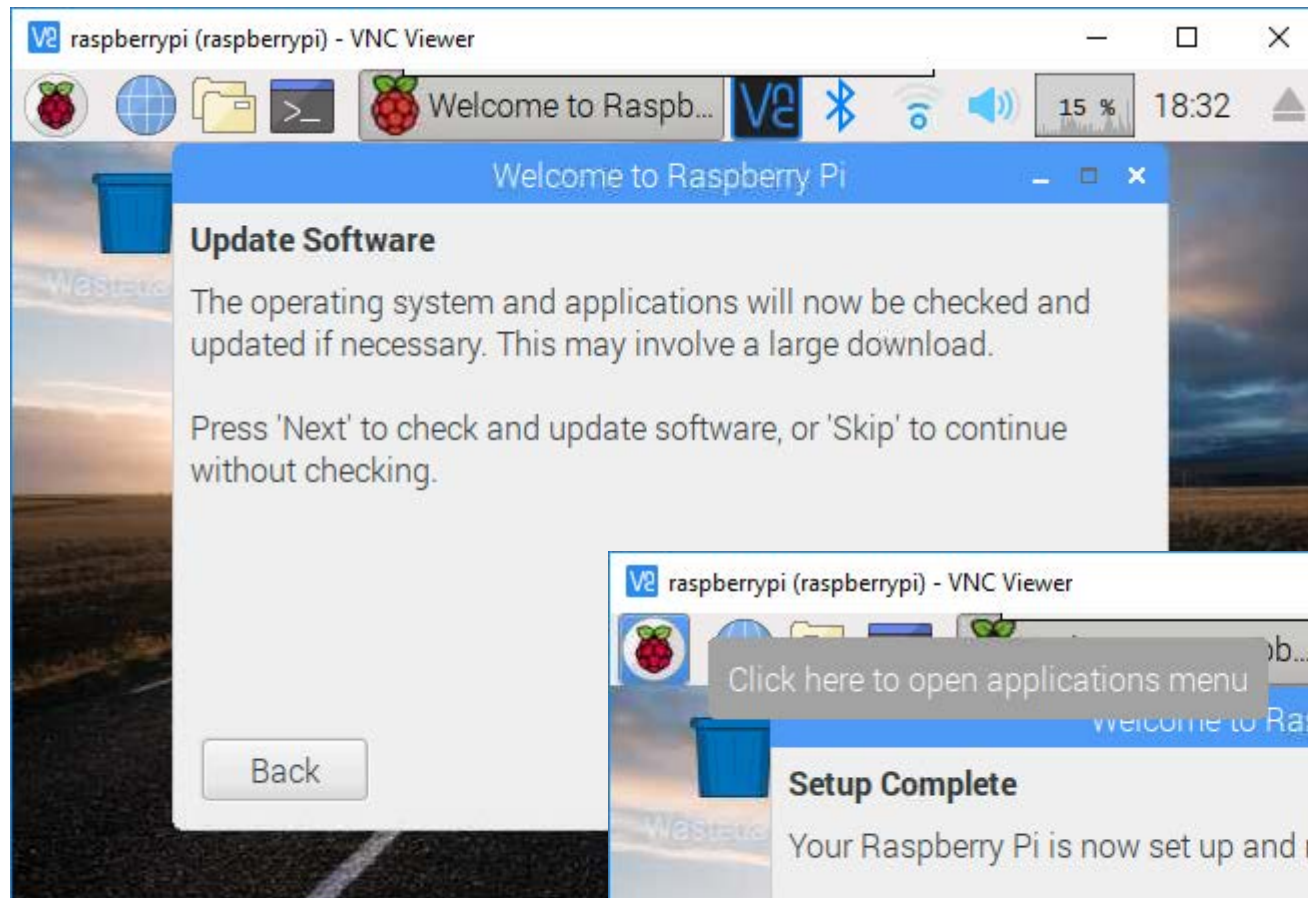
Again you may get a security warning, and you will again login using the default login details.

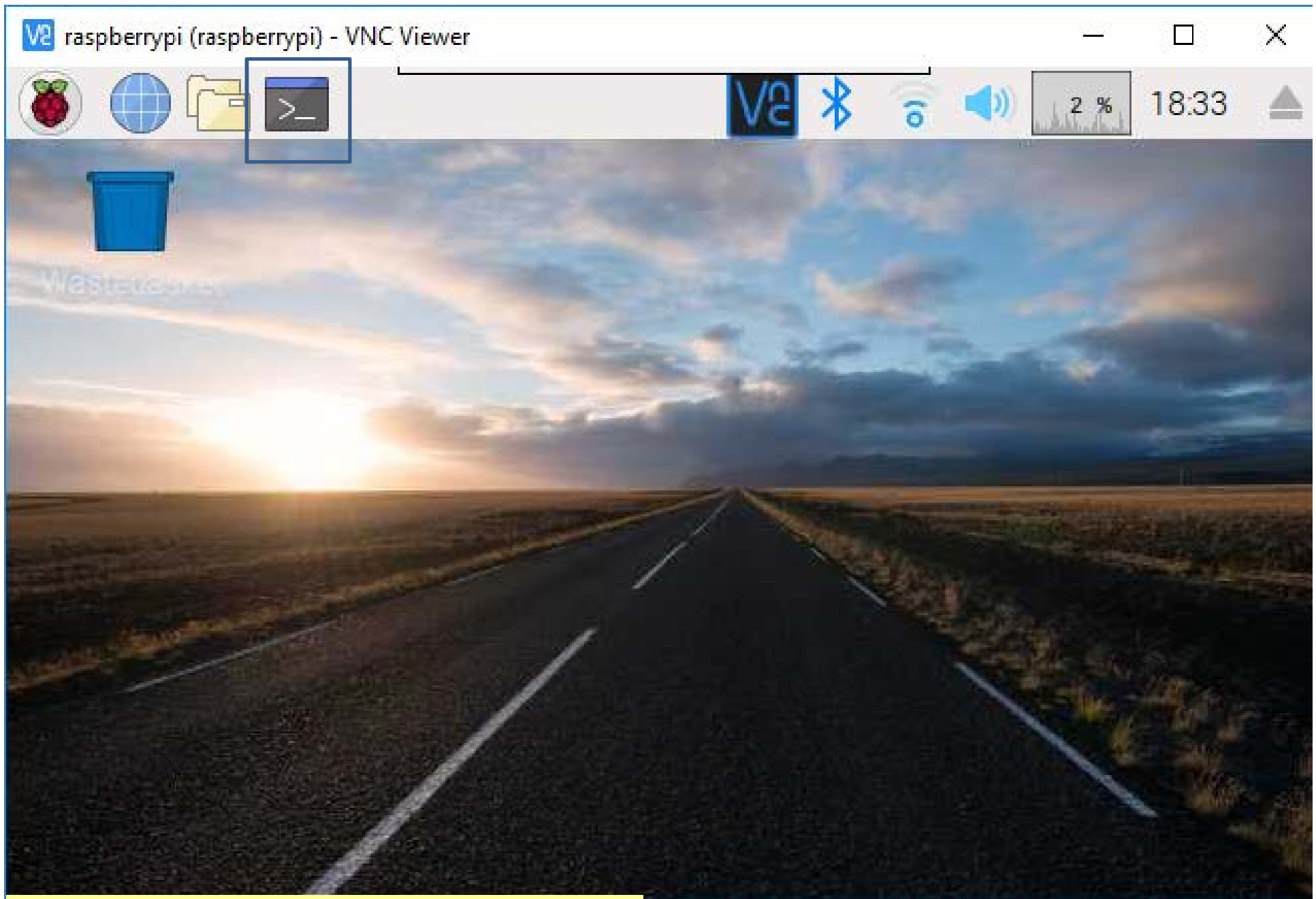




You will get a warning about VNC and default passwords when you log in.

Change the password if you so choose. If you do, reboot the system and establish a new VNC session with the new password.





Open Terminal

Issue the command

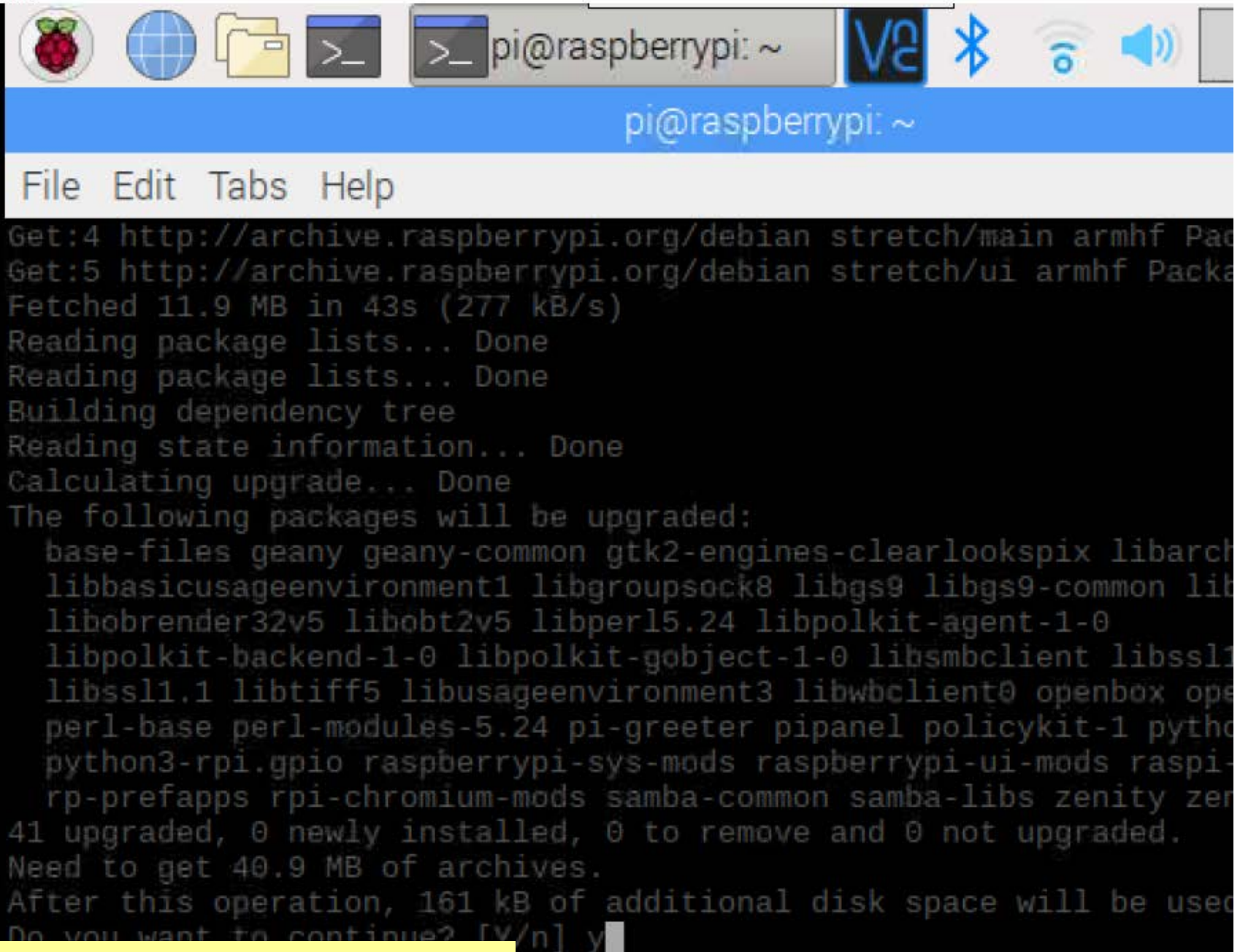
```
bash -c "$(curl -sL  
https:raw.githubusercontent.com/ac2799/MagicMirror/master/nstallers/raspberry.sh)"
```

Press Enter

pi@raspberrypi: ~

File Edit Tabs Help

```
pi@raspberrypi:~ $ bash -c "$(curl -sL https://raw.githubusercontent.com/ac2799/  
MagicMirror/master/installers/raspberry.sh)"
```

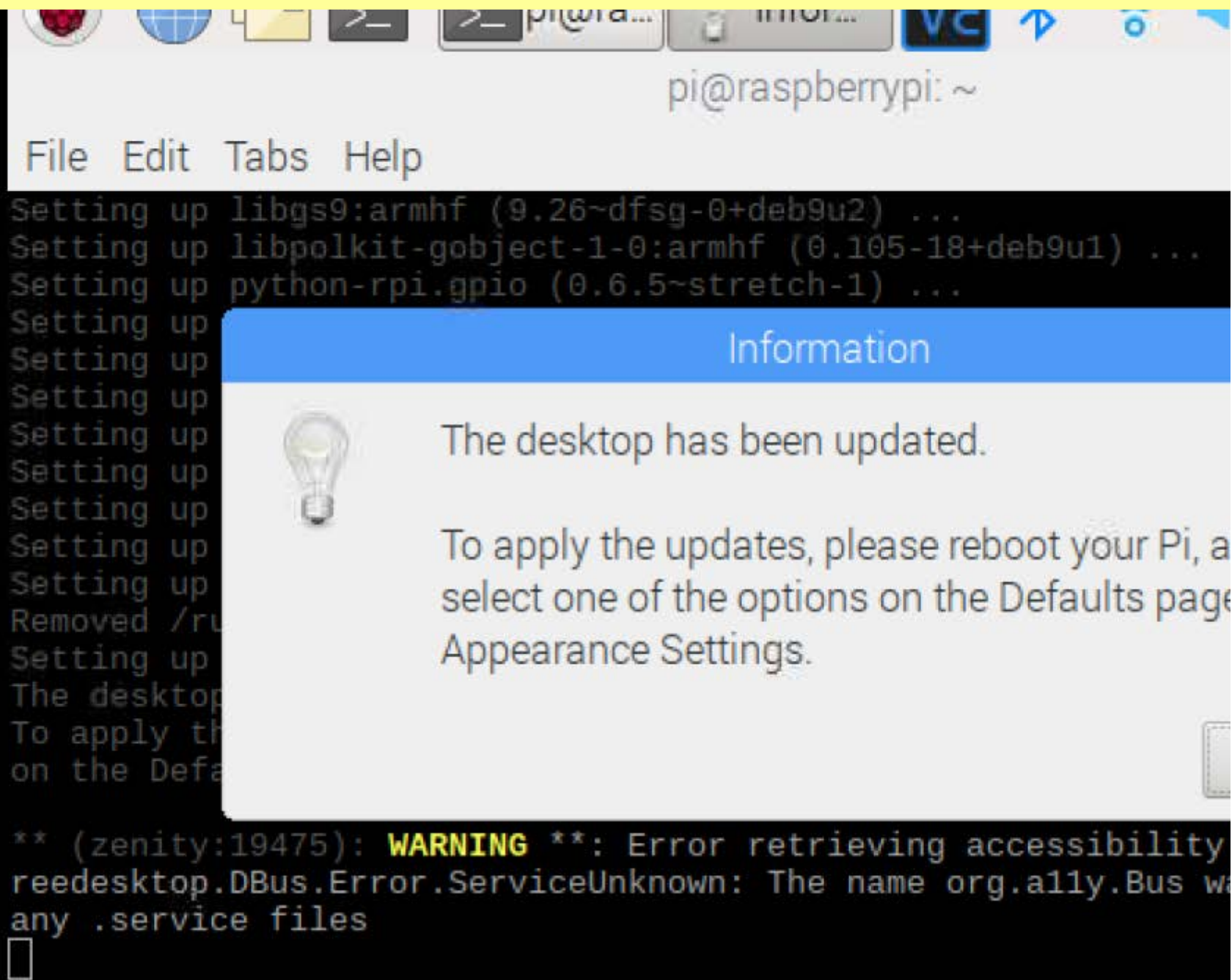
```

pi@raspberrypi: ~
File Edit Tabs Help
Get:4 http://archive.raspberrypi.org/debian stretch/main armhf Pac
Get:5 http://archive.raspberrypi.org/debian stretch/ui armhf Packa
Fetched 11.9 MB in 43s (277 kB/s)
Reading package lists... Done
Reading package lists... Done
Building dependency tree
Reading state information... Done
Calculating upgrade... Done
The following packages will be upgraded:
  base-files geany geany-common gtk2-engines-clearlookspix libarch
  libbasicusageenvironment1 libgroupsock8 libgs9 libgs9-common lib
  libobrender32v5 libobt2v5 libperl5.24 libpolkit-agent-1-0
  libpolkit-backend-1-0 libpolkit-gobject-1-0 libsmbclient libssl1
  libssl1.1 libtiff5 libusageenvironment3 libwbclient0 openbox ope
  perl-base perl-modules-5.24 pi-greeter pipanel policykit-1 pytho
  python3-rpi.gpio raspberrypi-sys-mods raspberrypi-ui-mods raspi-
  rp-prefapps rpi-chromium-mods samba-common samba-libs zenity zer
41 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
Need to get 40.9 MB of archives.
After this operation, 161 kB of additional disk space will be used
Do you want to continue? [Y/n] y

```

If it prompts to ask if you want to continue; type **Y** and **Enter**.

If there is a message box regarding the desktop being updated, click OK. The process will continue in the background regardless.



```
pi@raspberrypi: ~  
File Edit Tabs Help  
Setting up libgs9:armhf (9.26~dfsg-0+deb9u2) ...  
Setting up libpolkit-gobject-1-0:armhf (0.105-18+deb9u1) ...  
Setting up python-rpi.gpio (0.6.5~stretch-1) ...  
Setting up  
Setting up  
Setting up  
Setting up  
Setting up  
Setting up  
Setting up  
Setting up  
Setting up  
Removed /ru  
Setting up  
The desktop  
To apply th  
on the Defa  
  
** (zenity:19475): WARNING **: Error retrieving accessibility  
reedesktop.DBus.Error.ServiceUnknown: The name org.a11y.Bus wa  
any .service files  
☐
```




pi@raspberrypi: ~

File Edit Tabs Help

```
Setting up unclutter (8-20) ...
Processing triggers for man-db (2.7.6.1-2) ...
Cloning MagicMirror ...
Cloning into 'MagicMirror'...
remote: Enumerating objects: 305, done.
remote: Counting objects: 100% (305/305), done.
remote: Compressing objects: 100% (273/273), done.
remote: Total 305 (delta 37), reused 169 (delta 22), pack-reu
Receiving objects: 100% (305/305), 614.71 KiB | 475.00 KiB/s,
Resolving deltas: 100% (37/37), done.
Cloning MagicMirror Done!
Installing dependencies ...
npm: installed 405 in 188.817s
npm notice CANARY npm is experimental software. If you find a
le it in the main npm repository, and call out that you were
npm WARN deprecated time-grunt@2.0.0: Deprecated because Grunt
maintained. Move on to something better. This package will co
Grunt v1, but it will not receive any updates.
npm WARN deprecated nomnom@1.8.1: Package no longer supported
pmjs.com for more info.
[.....] - extract:meow: http fetch GET 200 https
```

There may be a few warnings (e.g. these about grunt-stylelint and acorn-jsx) These are dealt with later in the install process.

```
pi@raspberrypi: ~  
pi@raspberrypi: ~  
File Edit Tabs Help  
  
> magicmirror@2.6.0 postinstall /home/pi/MagicMirror  
> sh installers/postinstall/postinstall.sh && npm run install  
  
MagicMirror installation successful!  
  
> magicmirror@2.6.0 install-fonts /home/pi/MagicMirror  
> cd fonts && npm install  
  
added 1 package from 1 contributor and audited 1 package in 3s  
found 0 vulnerabilities  
  
npm WARN grunt-stylelint@0.10.1 requires a peer of stylelint@  
installed. You must install peer dependencies yourself.  
npm WARN acorn-jsx@5.0.1 requires a peer of acorn@^6.0.0 but  
You must install peer dependencies yourself.  
  
added 921 packages from 1366 contributors and audited 2466 packages  
found 8 vulnerabilities (7 low, 1 high)  
  run `npm audit fix` to fix them, or `npm audit` for details
```


When it finishes, it will ask you whether you want to use pm2 to autostart your MagicMirror.

Type **Y** and **Enter** to continue.

```
pi@raspberrypi: ~  
pi@raspberrypi: ~  
File Edit Tabs Help  
run `npm audit fix` to fix them, or `npm audit` for details  
Errors while installing dependencies! (source command: npm in  
+ stylelint@9.9.0  
added 156 packages from 107 contributors, removed 32 packages  
es, moved 6 packages and audited 4452 packages in 425.029s  
found 4 vulnerabilities (3 low, 1 high)  
run `npm audit fix` to fix them, or `npm audit` for details  
Errors while installing dependencies! (source command: pm inst  
st)  
+ jshint@2.9.7  
added 2 packages from 1 contributor, removed 6 packages and up  
n 197.775s  
fixed 3 of 4 vulnerabilities in 4452 scanned packages  
1 vulnerability required manual review and could not be upda  
Vulnerabilities may remain!  
Check plymouth installation ...  
Splashscreen: Checking themes directory.  
Splashscreen: Create theme directory if not exists.  
Splashscreen: Theme copied successfully.  
Splashscreen: Changed theme to MagicMirror successfully.  
Do you want use pm2 for auto starting of your MagicMirror (y/n)
```

The process will create a MagicMirror Application, and it should read **online** in green.

```
pi@raspberrypi: ~  
File Edit Tabs Help  
  
Make pm2 auto-boot at server restart:  
$ pm2 startup  
  
To go further checkout:  
http://pm2.io/  
  
-----  
[PM2] Spawning PM2 daemon with pm2_home=/home/pi/.pm2  
[PM2] PM2 Successfully daemonized  
[PM2][WARN] Applications MagicMirror not running, starting...  
[PM2] App [MagicMirror] launched (1 instances)  


| Name        | id | mode  | status | ⌵      | cpu | memory |
|-------------|----|-------|--------|--------|-----|--------|
| MagicMirror | 0  | 2.6.0 | fork   | online | 0   | 0%     |

  
Use `pm2 show <id|name>` to get more details about an app
```



File Edit Tabs Help

```
-----  
[PM2] Spawning PM2 daemon with pm2_home=/home/pi/.pm2  
[PM2] PM2 Successfully daemonized  
[PM2][WARN] Applications MagicMirror not running, starting...  
[PM2] App [MagicMirror] launched (1 instances)
```

Name	id	mode	status	↴	cpu	memory
MagicMirror	0	2.6.0	fork	online	0	0%

```
Use `pm2 show <id|name>` to get more details about an app  
[PM2] Saving current process list...  
[PM2] Successfully saved in /home/pi/.pm2/dump.pm2
```

We're ready! Restart your Pi Zero to start your MagicMirror.

Restart your Pi Zero W using the command **sudo
reboot**

reboot

The VNC window will say that the Server was exited and it is attempting to reconnect. Notice the time in the top corner

100 %

19:44

pi@raspberrypi: ~

daemon with pm2_home=/home/pi/.pm2
ly daemonized
ions MagicMirror not running, starting...
or] launched (1 instances)

mode	status	cpu	memory
2.6.0	fork	online	0
		0%	2.5 MB

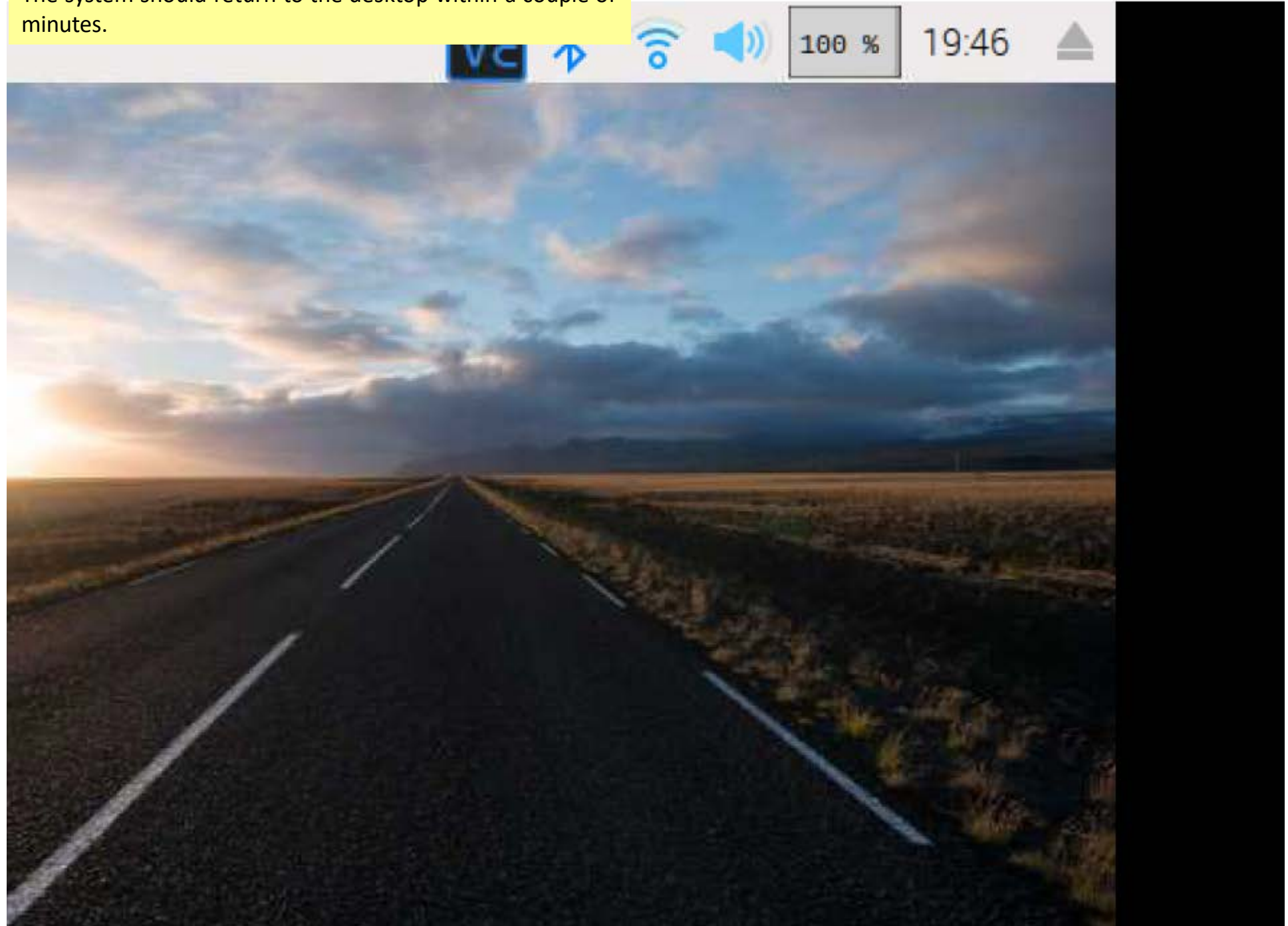
Attempting to reconnect to VNC Server...

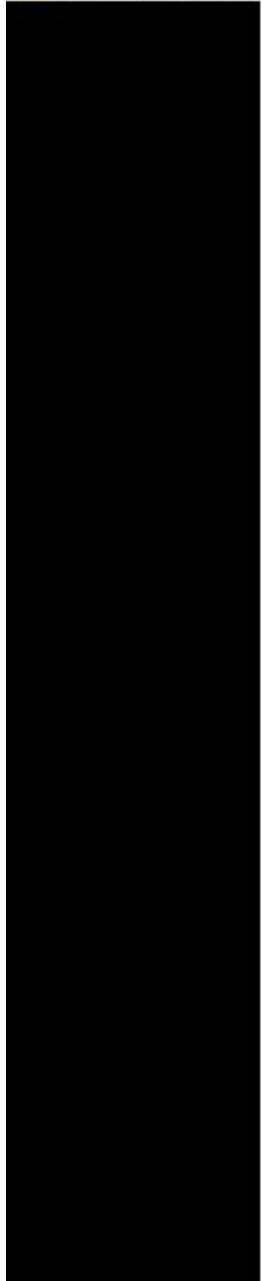
VNC Server exited

your Pi Zero to start your MagicMirror.

udo reboot

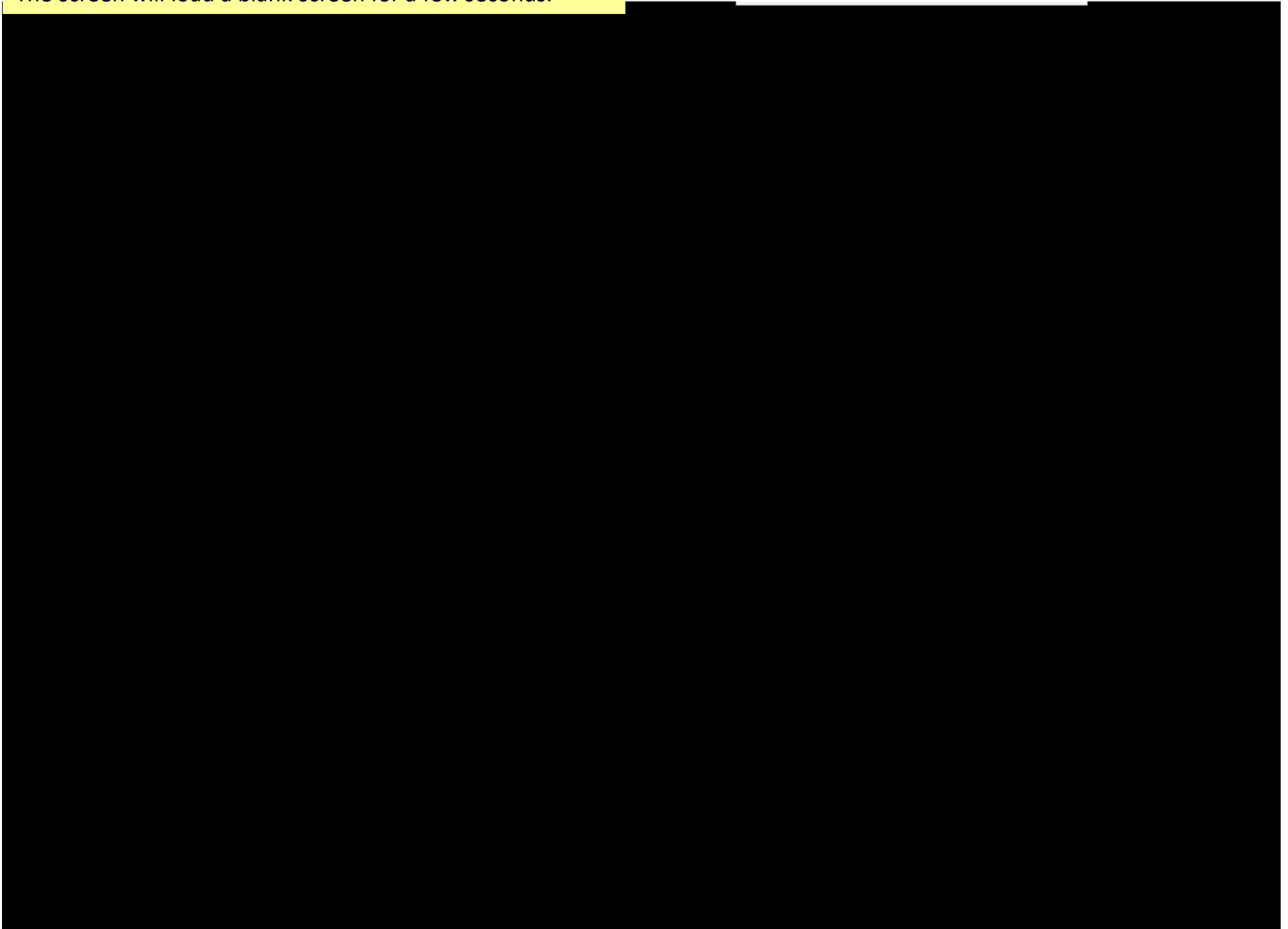
The system should return to the desktop within a couple of minutes.





After 2 or 3 minutes more, chromium will launch and it will say waiting for localhost on a white screen.

The screen will load a blank screen for a few seconds.



The widgets will now load.

Magic Mirror is now installed.

Wednesday, January 9, 2019

19:47⁴²

US HOLIDAYS

Loading ...

Wow, you look
hot!

Loading ...