

# Pine64 controlled from Windows



Ethernet cable

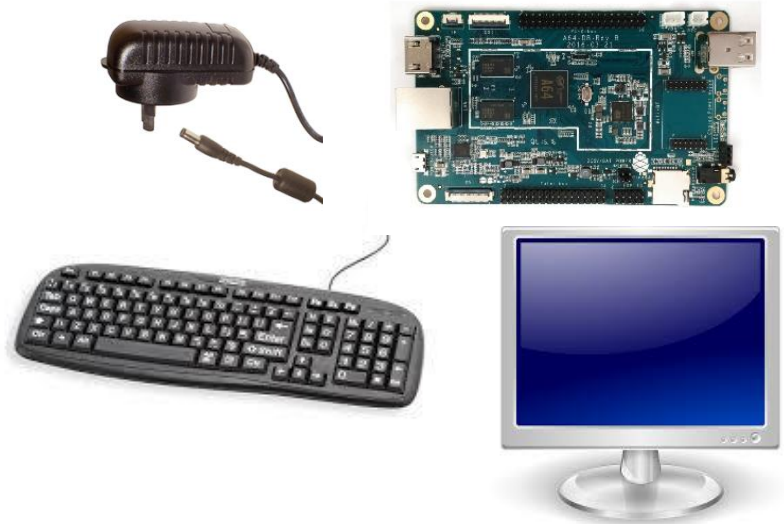
5V 2A supply



Presentation by Eric S. Clarke 8/12/2017

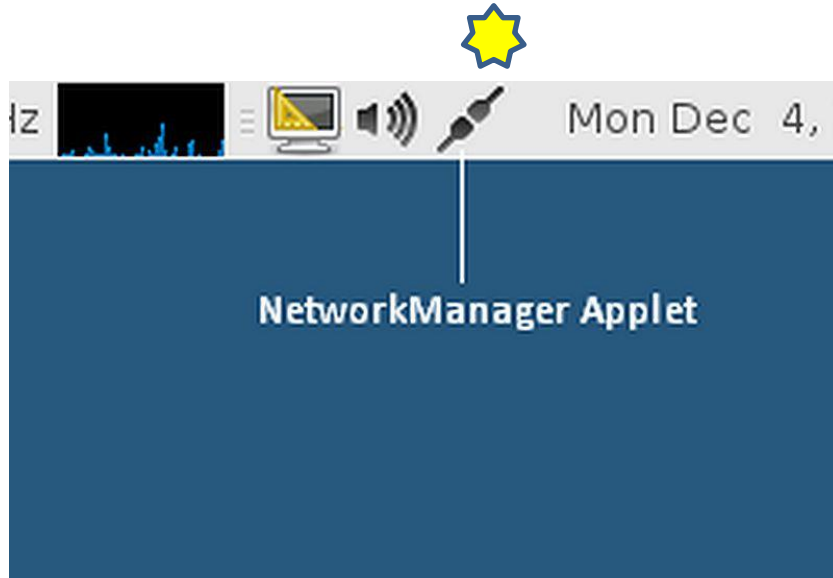
# Requirements to set up Pine64

- Pine64 SBC module running Debian Mate Linux
- 5V 2A P/S for Pine64
- HDMI display screen
- USB Keyboard
- USB Mouse
- Ethernet cable
- Crossover wired if PC is 100Base T or less Ethernet.



# Pine64 network settings for fixed IP 1

- Open NetworkManager Applet on Debian Mate (top right hand side of screen) by right clicking the icon shown below:-



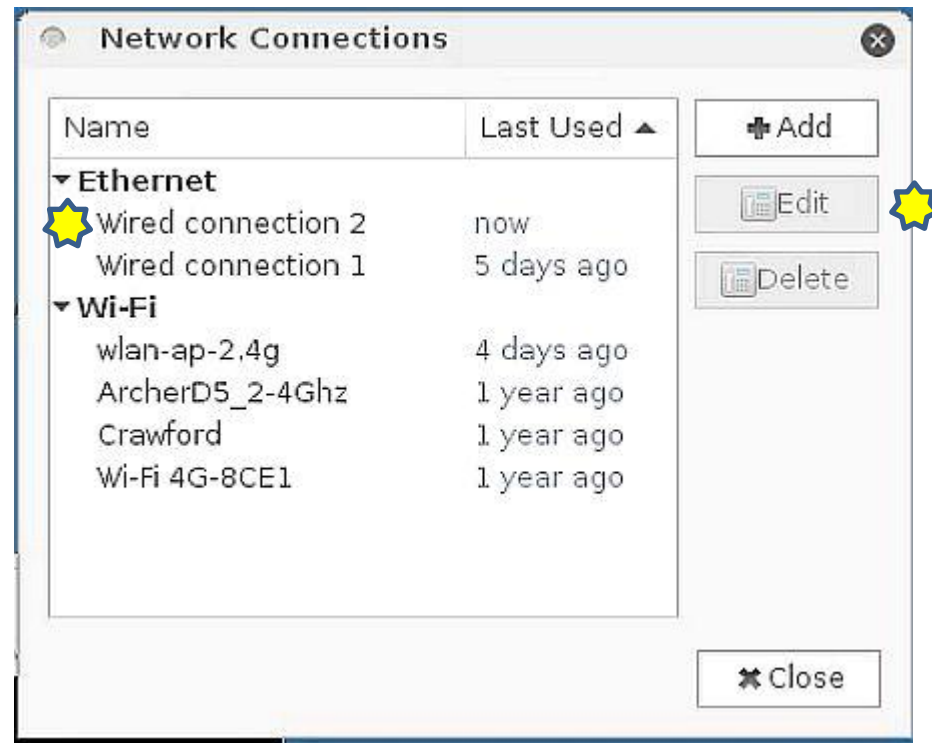
This can only be done using an HDMI screen, mouse and keyboard attached to the Pine64

- Now select “Edit Connections”  
This will take you to the settings area



# Pine64 network settings for fixed IP 2

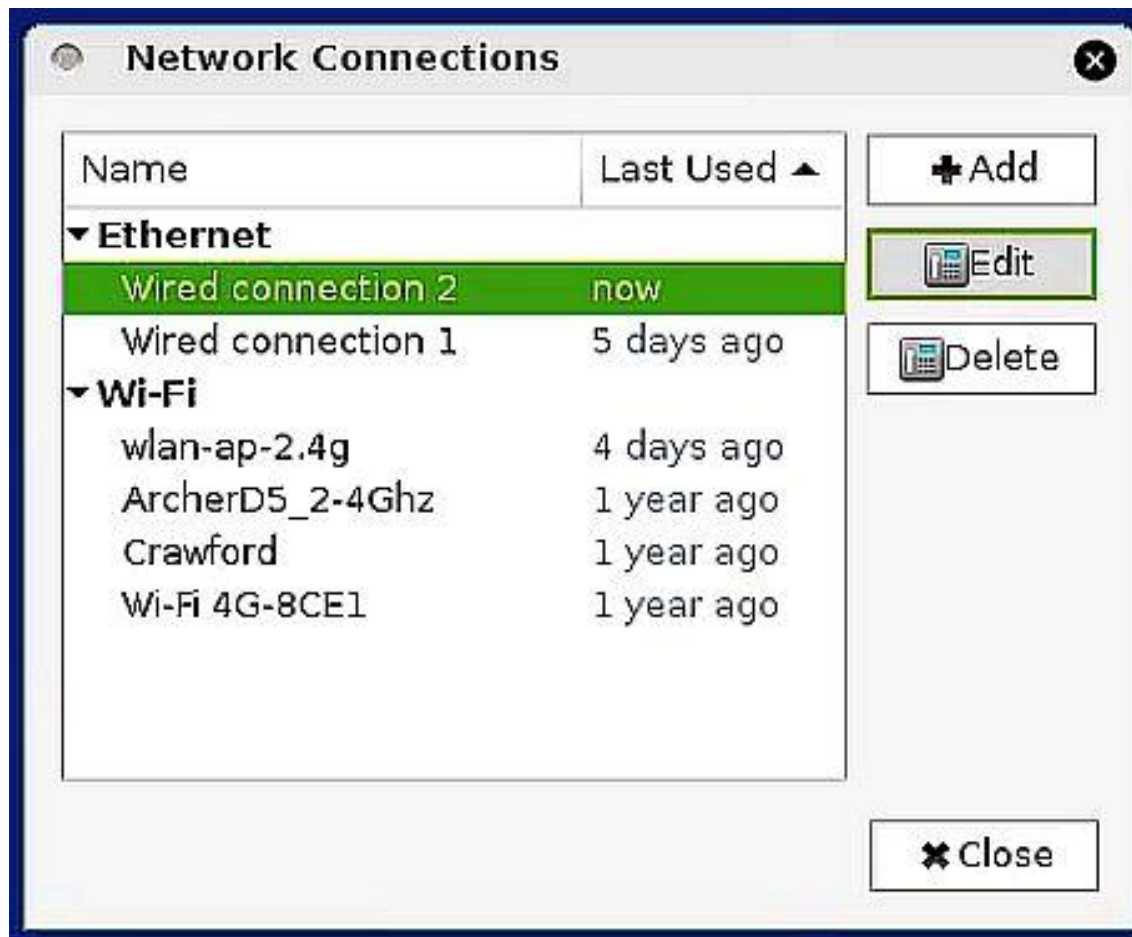
- The following list of network connections can now be edited



- Select the connection item and click "Edit"

# Pine64 network settings for fixed IP 3

- Now item is selected.



# Pine64 network settings for fixed IP 4

Editing Wired connection 2

Connection name:

General **Ethernet** 802.1x Security DCB IPv4 Settings IPv6 Settings

Device MAC address:

Cloned MAC address:

MTU:    bytes

# Pine64 network settings for fixed IP 5

Click on IPv4 tab will display the form as below:-

**Editing Wired connection 2**

Connection name:

General | Ethernet | 802.1x Security | DCB | **IPv4 Settings** | IPv6 Settings

Method:

**Addresses**

Address	Netmask	Gateway
192.168.1.100	255.255.255.0	192.168.1.254

DNS servers:

Search domains:

DHCP client ID:

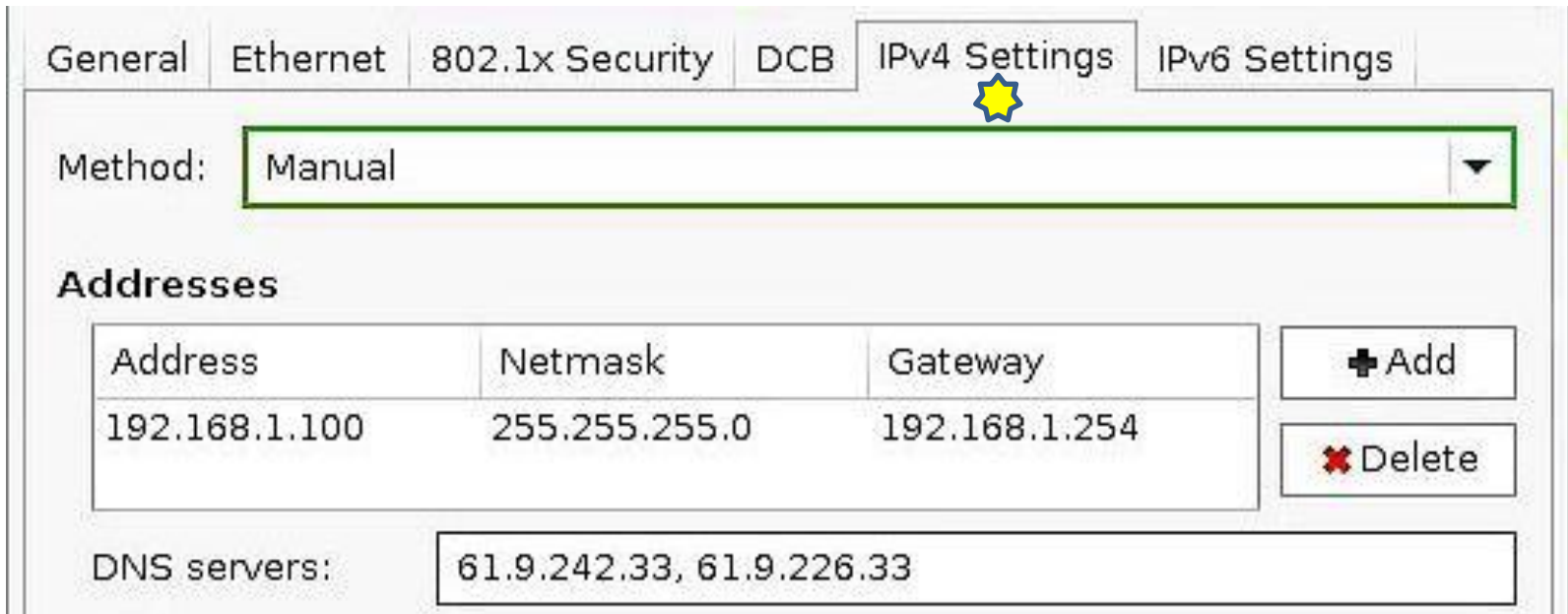
☐ Require IPv4 addressing for this connection to complete



# Pine64 network settings for fixed IP 6

- 1 – change “Method” of connection from DHCP to Manual.
- 2 – Enter address IP (well clear of your modem/router range settings).
- 3 – Enter the usual Netmask setting 255.255.255.0.
- 4 – Enter your Gateway (modem/router internet gateway address).
- 5 – Enter your preferred DNS server IP addresses and Save these settings.

Note: 4 and 5 are only required if you intend to use the pine64 to connect to the internet through a modem/router or WiFi hotspot



The screenshot shows the 'IPv4 Settings' tab selected in a network configuration window. The 'Method' is set to 'Manual'. Below this, there is a table for 'Addresses' with columns for Address, Netmask, and Gateway. The table contains one entry: Address 192.168.1.100, Netmask 255.255.255.0, and Gateway 192.168.1.254. To the right of the table are buttons for 'Add' and 'Delete'. At the bottom, the 'DNS servers' field is set to '61.9.242.33, 61.9.226.33'.

Address	Netmask	Gateway
192.168.1.100	255.255.255.0	192.168.1.254

DNS servers: 61.9.242.33, 61.9.226.33



# Network Settings on Windows PC 1


These instructions are for Windows 10 but they are very similar to Windows 8 & 7, right back to XP.

- 1 – Select the Network Icon on task bar.
- 2 – Change adapter options.
- 3 – Select the Ethernet controller.
- 4 – Select “Properties” then TCP/IPv4.
- 5 – Click on radio button “Use the following IP address”. Enter details.
- 6 – Click on radio button “Use the following DNS server..” Enter details.



# Network Settings on Windows PC 2

Settings


 Home


Find a setting

## Ethernet

### Ethernet

Network & Internet

 Status

 Wi-Fi

  Ethernet

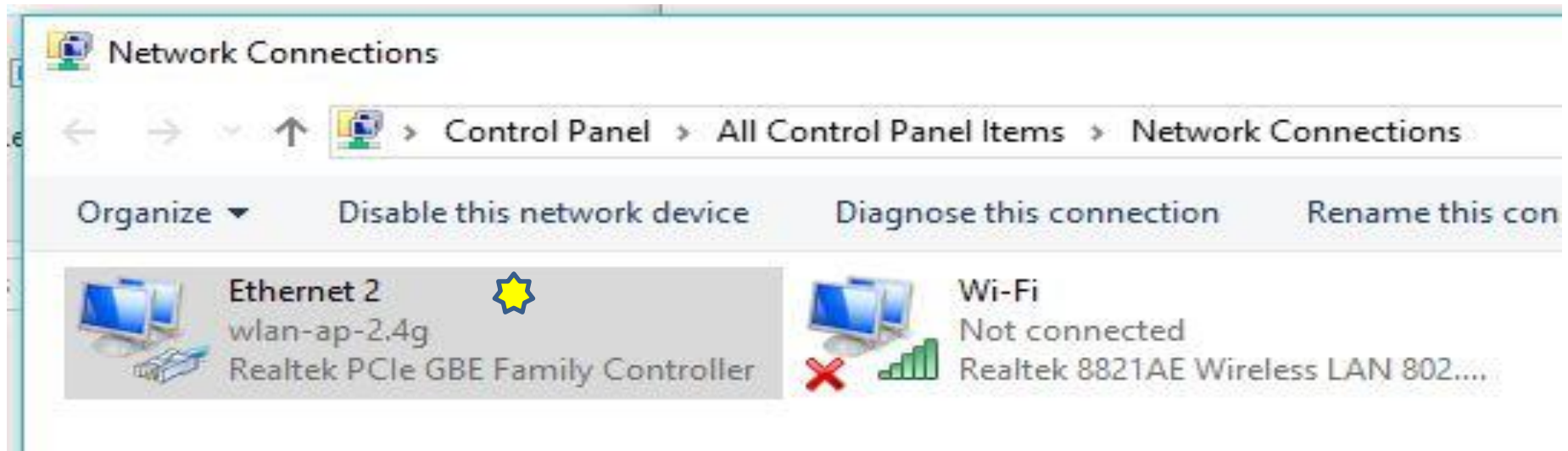
 wlan-ap-2.4g  
Connected

### Related settings

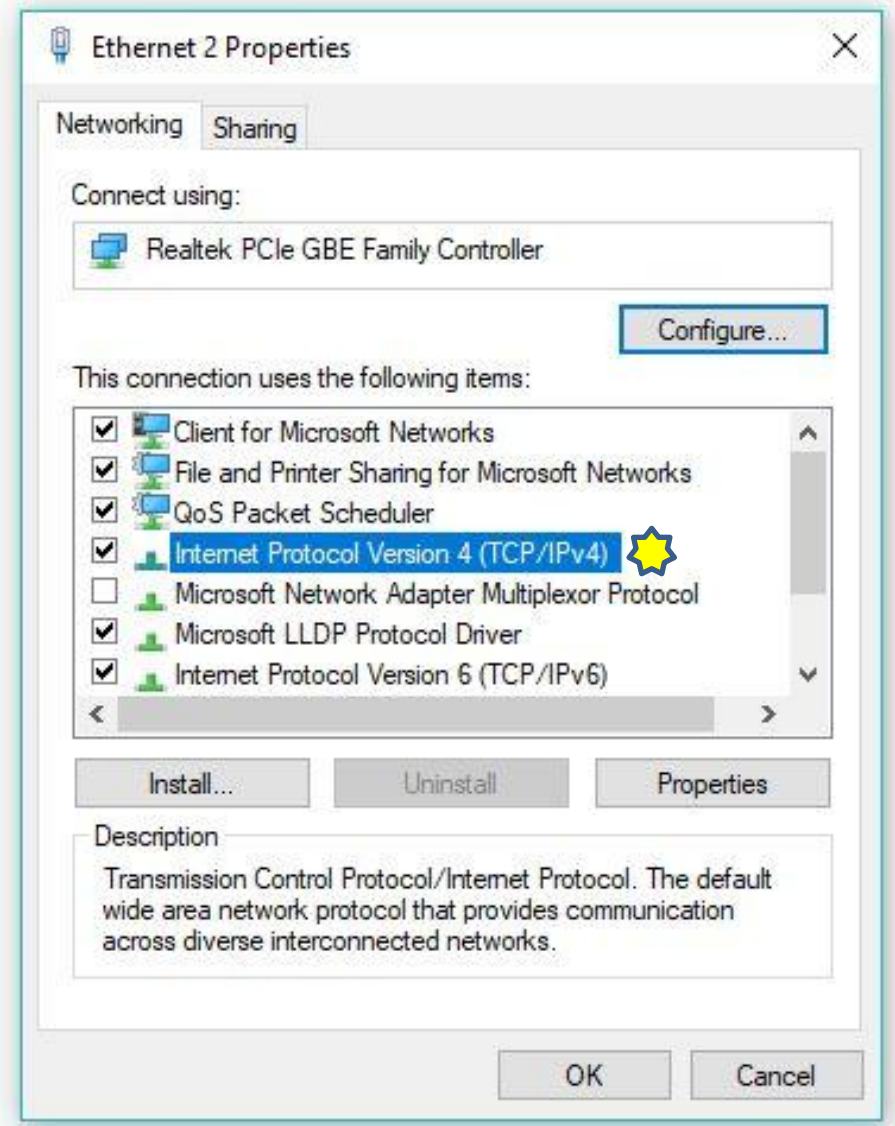
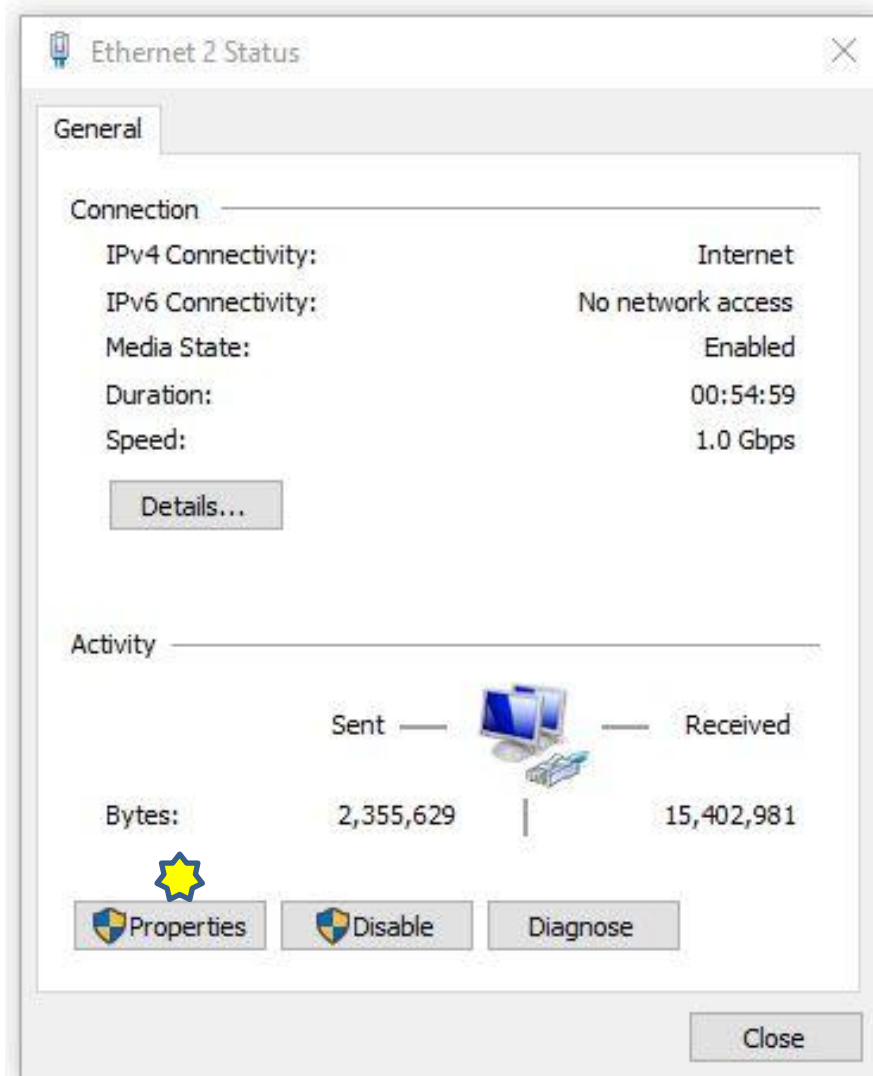
 [Change adapter options](#)

[Change advanced sharing c](#)

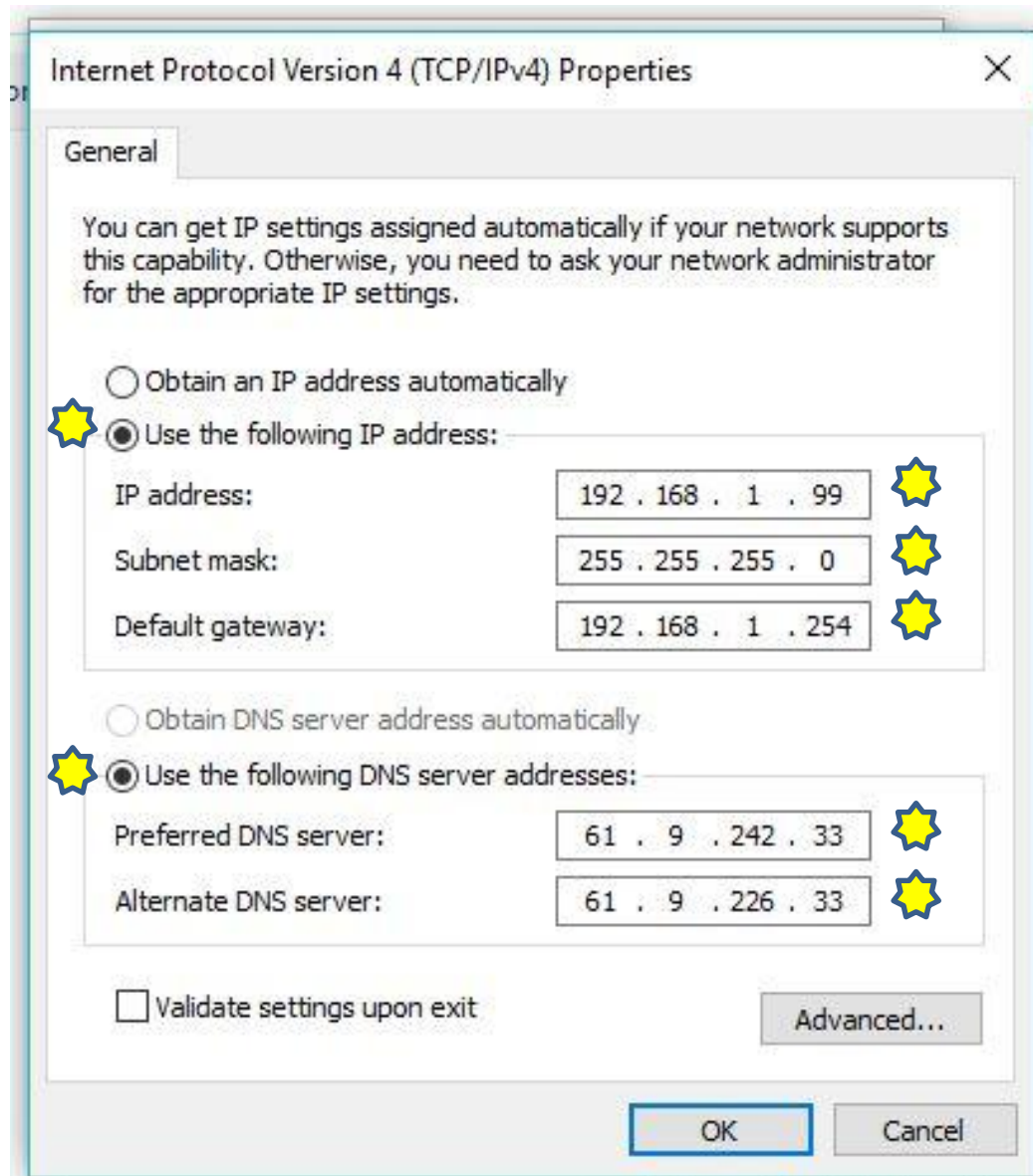
# Network Settings on Windows PC 3



# Network Settings on Windows PC 4

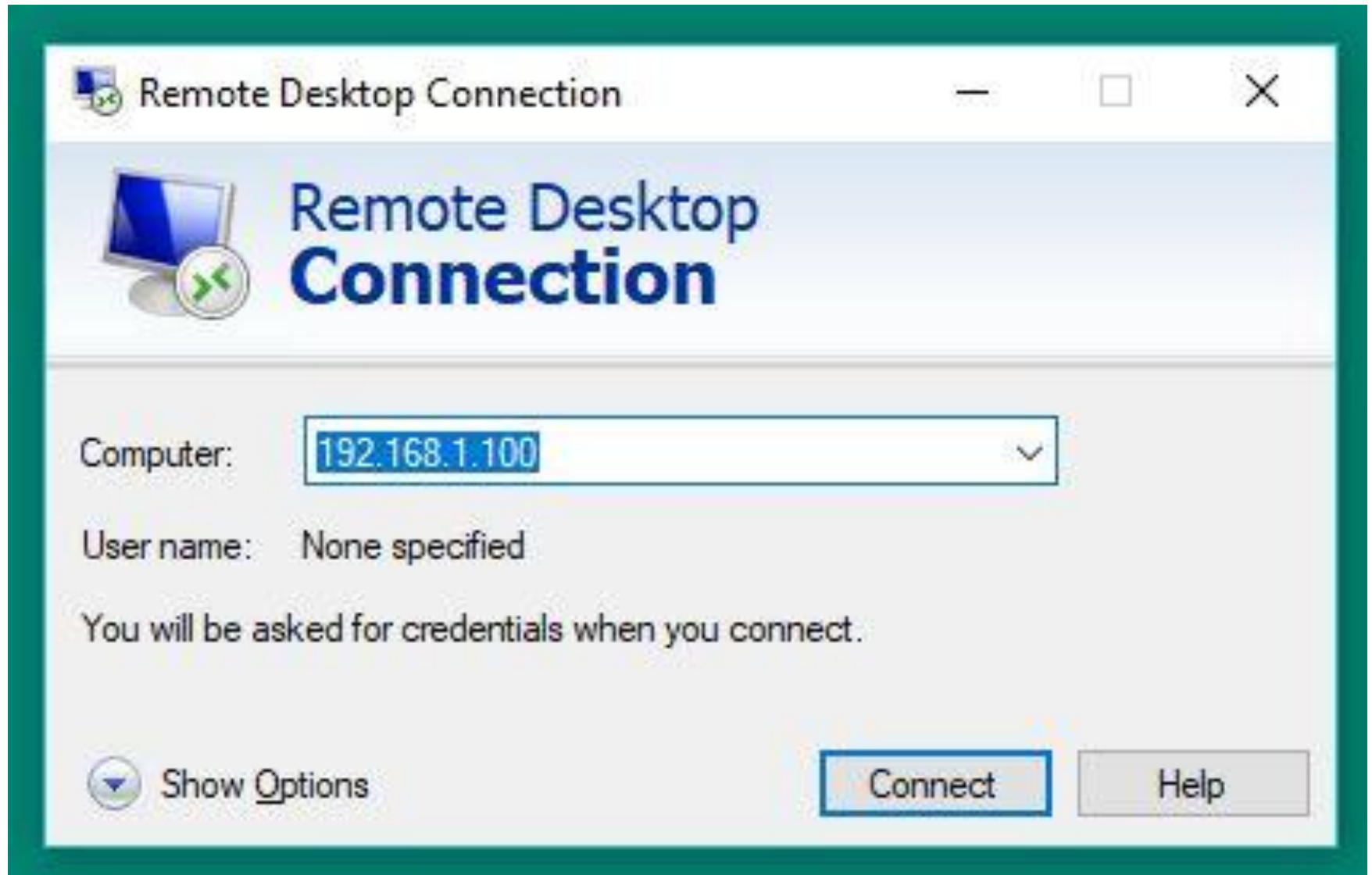


# Network Settings on Windows PC 5



# Remote Desktop Connection

1

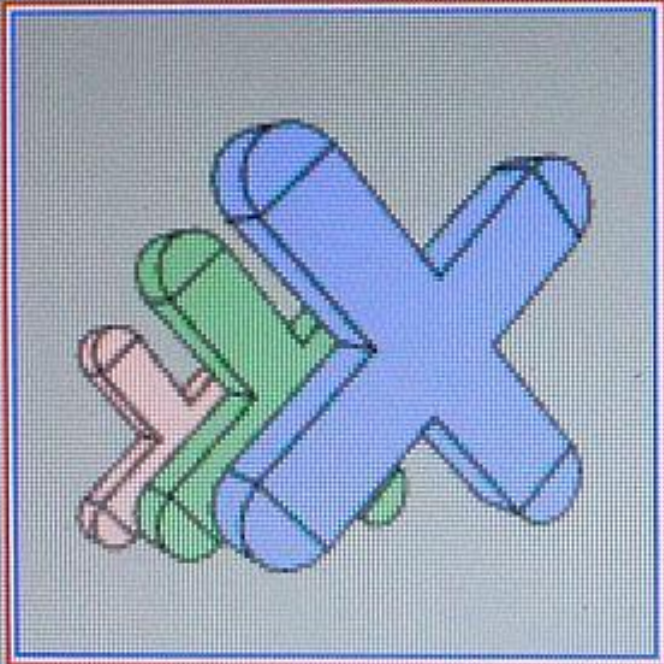




# Remote Desktop Connection

2

Login to xrdp



Module

username

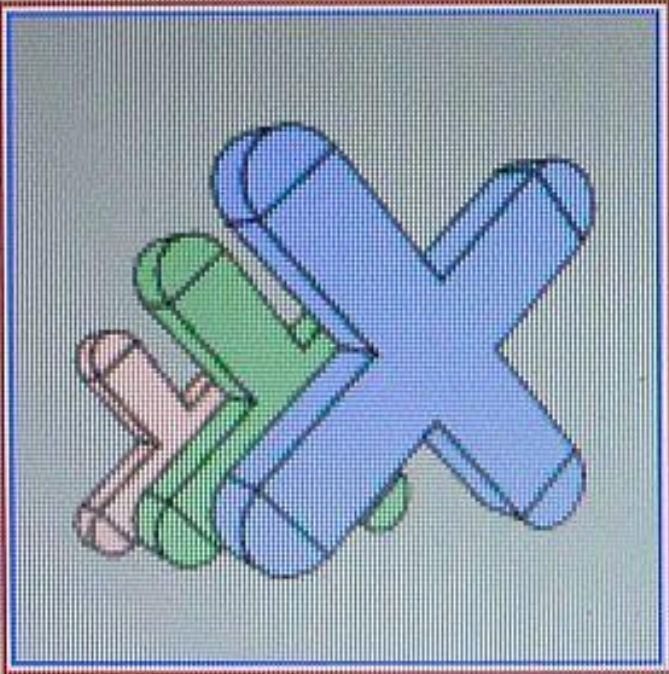
password



# Remote Desktop Connection

3

Login to xrdp

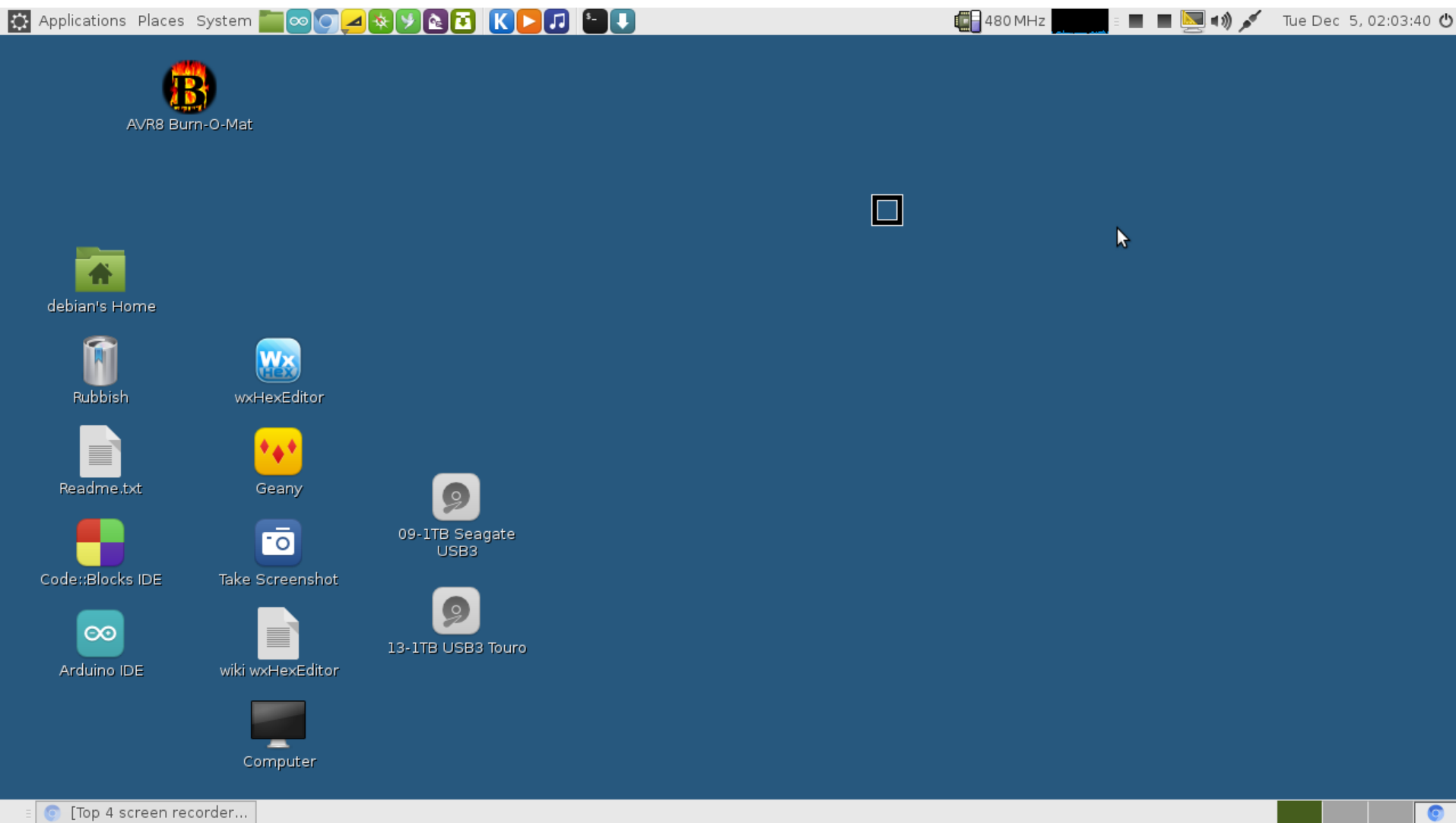
The X logo is composed of three overlapping 'X' shapes: a large blue one in the foreground, a medium green one in the middle, and a small pink one in the background. It is enclosed in a red rectangular border.

Module

username

password

# Remote Desktop Connection to Pine64 4



# Modify MAC address in Debian

1

Click on “Mate Terminal” and connect as “SU”

To “**Temporarily**” modify the MAC address enter  
The following commands:-

```
/etc/init.d/networking stop (cr)
```

```
ifconfig eth0 hw ether 02:01:02:03:04:08 (cr)
```

```
/etc/init.d/networking start (cr)
```

"ifconfig eth0"(cr) to confirm.

MAC address is shown as HWaddr hh:hh: ...etc

# Modify MAC address in Debian

2

Click on “Mate Terminal” and connect as “SU”

To **Permanently** modify the MAC address enter the following commands:-

```
/etc/init.d/networking stop (cr)
```

```
ifconfig eth0 hw ether 02:01:02:03:04:08 (cr)
```

```
/etc/init.d/networking start (cr)
```

"ifconfig eth0"(cr) to confirm.

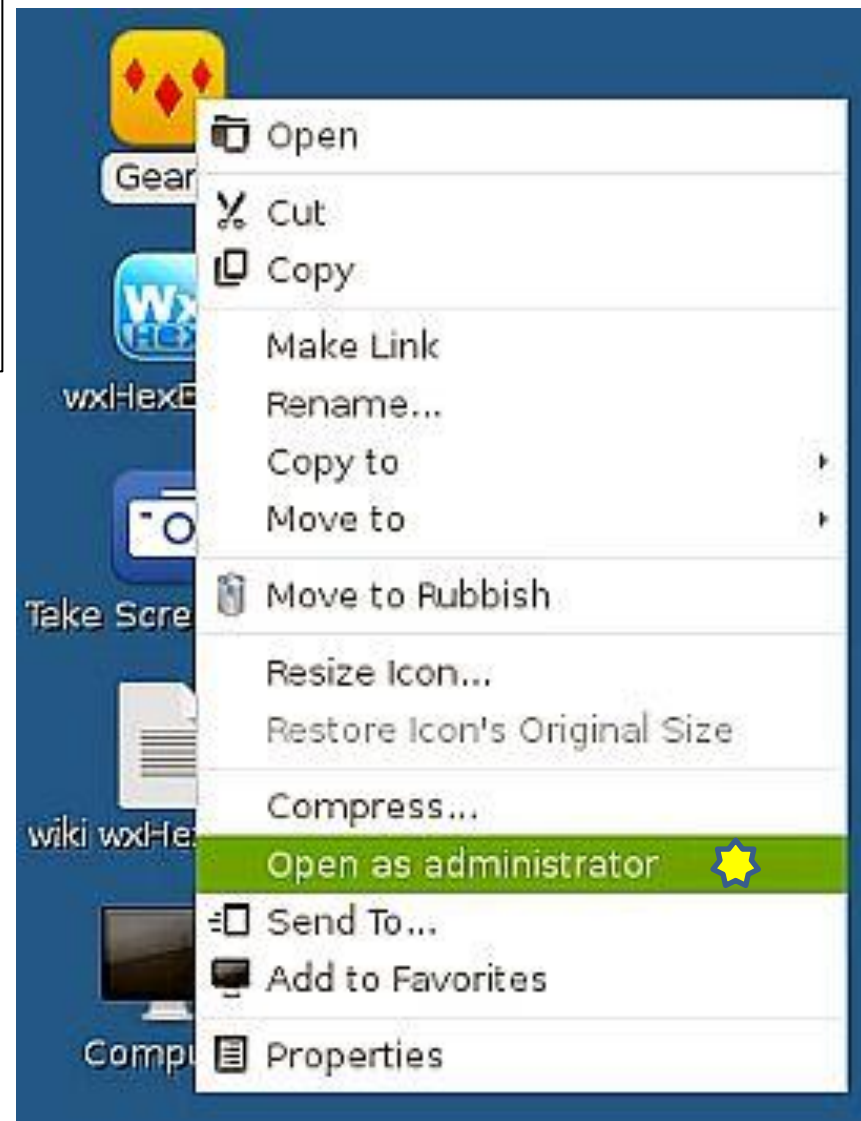
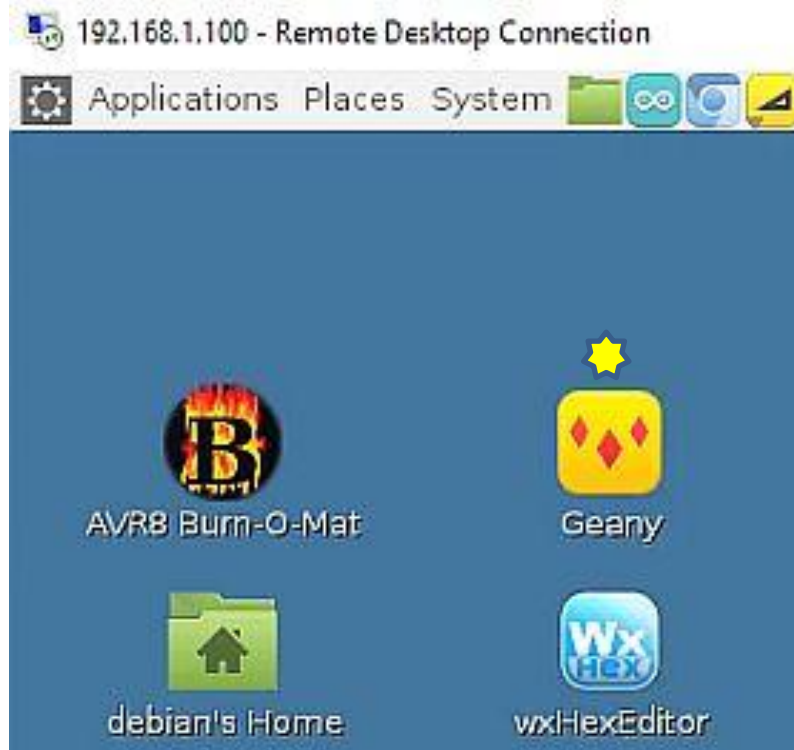
MAC address is shown as HWaddr hh:hh: ...etc



# Modify MAC address using Geany

1

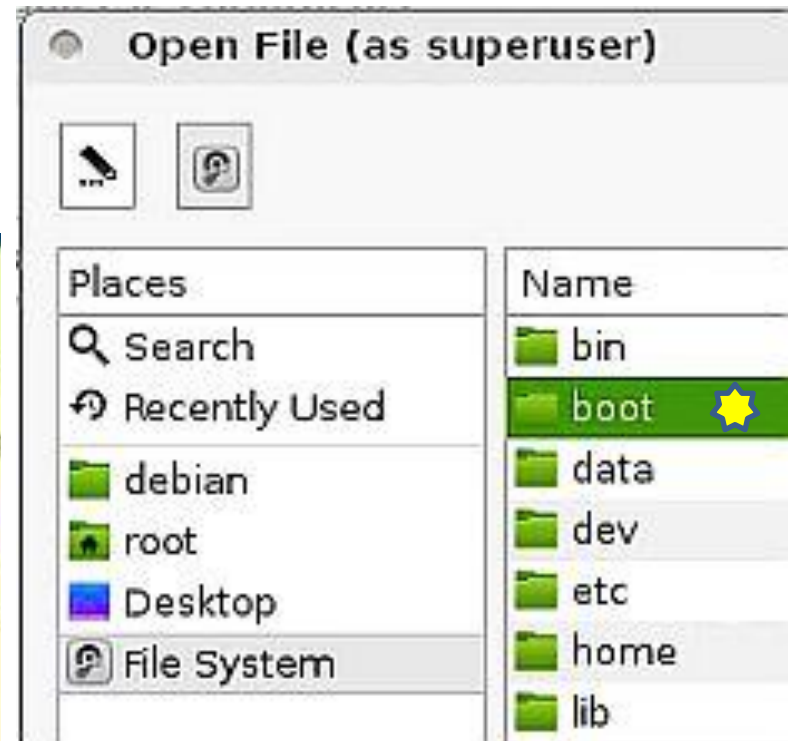
*Geany* is a lightweight GUI text editor using Scintilla and GTK+, including basic IDE features.



# Modify MAC address using Geany

2

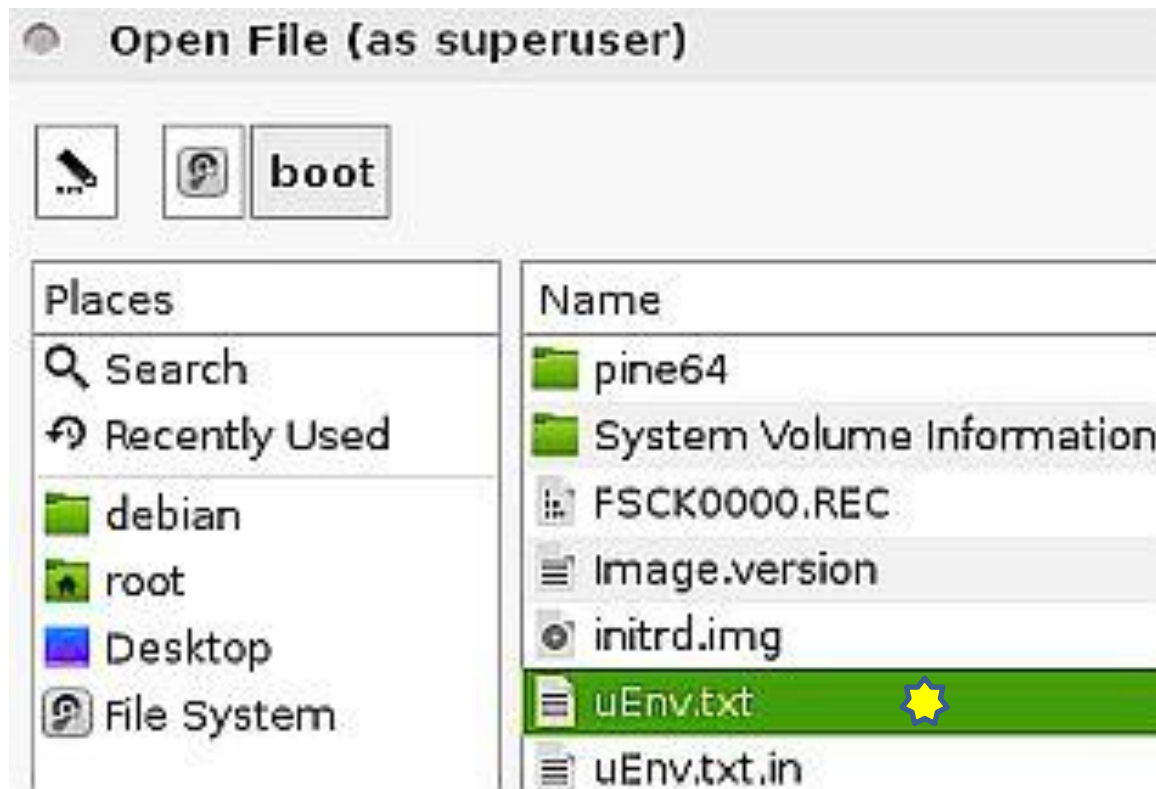
- 1 - Right click on Geany Icon and open as Administrator.
- 2 – Select Open, File System & Boot.
- 3 – In Boot select “uEnv.txt.



# Modify MAC address using Geany

3

- 1 - Right click on Geany Icon and open as Administrator.
- 2 – Select Open, File System & Boot.
- 3 – In Boot select “uEnv.txt.





# Modify MAC address using Geany

4

- 4 – Highlight the Hex pair you wish to edit.
- 5 – Change pair to new value.
- 6 – Save modified uEnv.txt file, quit Geany and reboot.



```
1 console=tty0 console=ttyS0,115200n8 no_console_suspend
2 kernel_filename=pine64/Image
3 initrd_filename=initrd.img
4 optargs=disp.screen0_output_mode=720p60
5 ethaddr=36:c9:e3:f1:b8:05
6
```


# Modify MAC address using Geany

5

- 4 – Highlight the Hex pair you wish to edit.
- 5 – Change pair to new value.
- 6 – Save modified uEnv.txt file, quit Geany and reboot.

uEnv.txt ✖

```
1 console=tty0 console=ttyS0,115200n8 no_co
2 kernel_filename=pine64/Image
3 initrd_filename=initrd.img
4 optargs=disp.screen0_output_mode=720p60
5 ethaddr=36:c9:e3:f1:b8:04
6
```



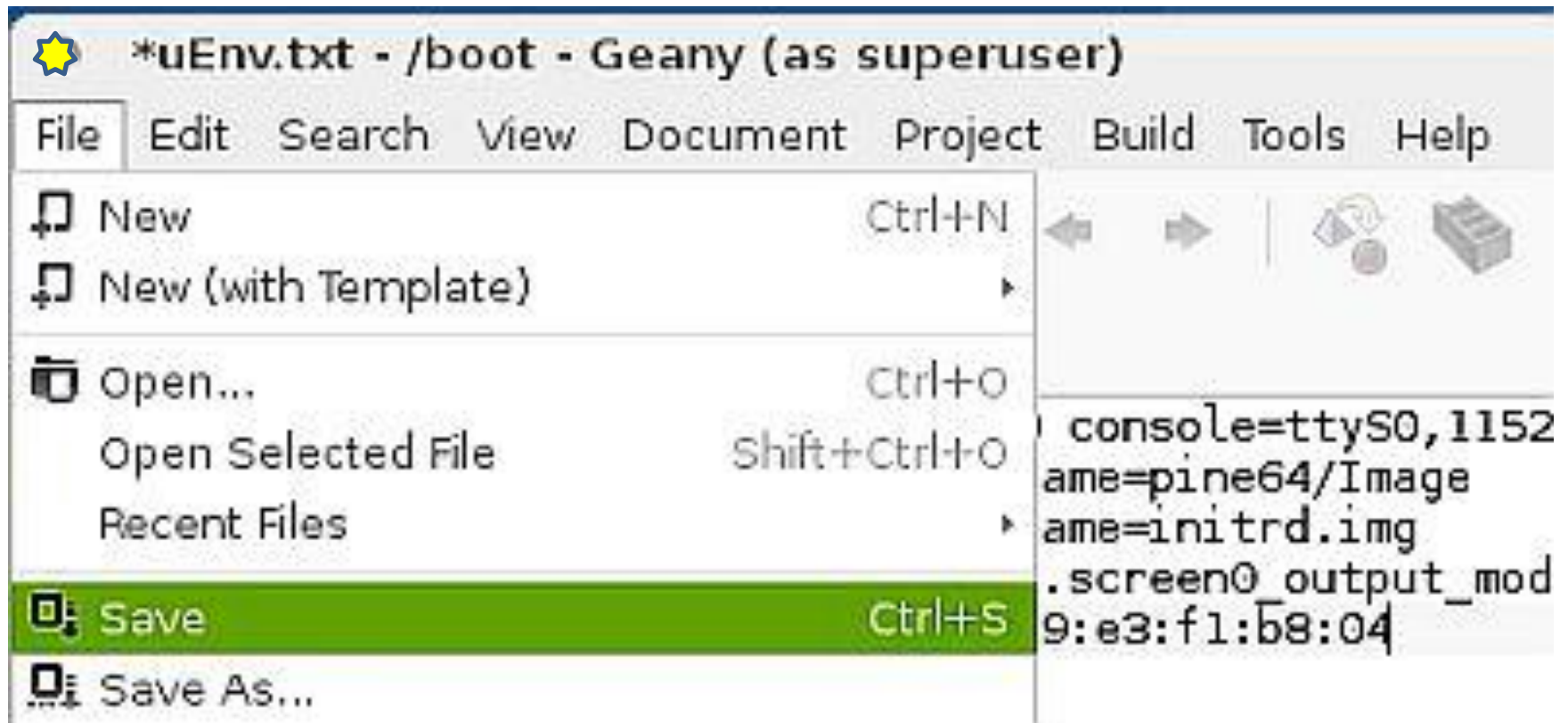
# Modify MAC address using Geany

6

4 – Highlight the Hex pair you wish to edit.

5 – Change pair to new value.

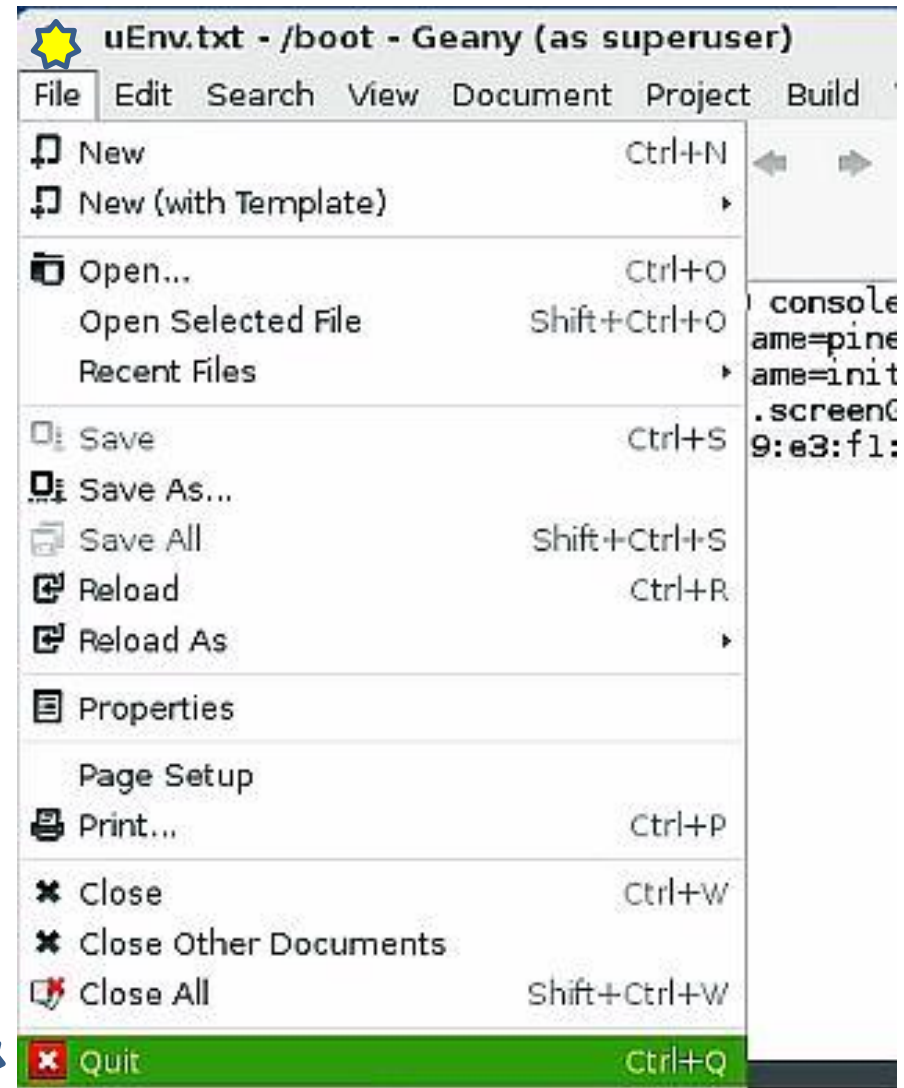
6 – Save modified uEnv.txt file, quit Geany and reboot.



# Modify MAC address using Geany

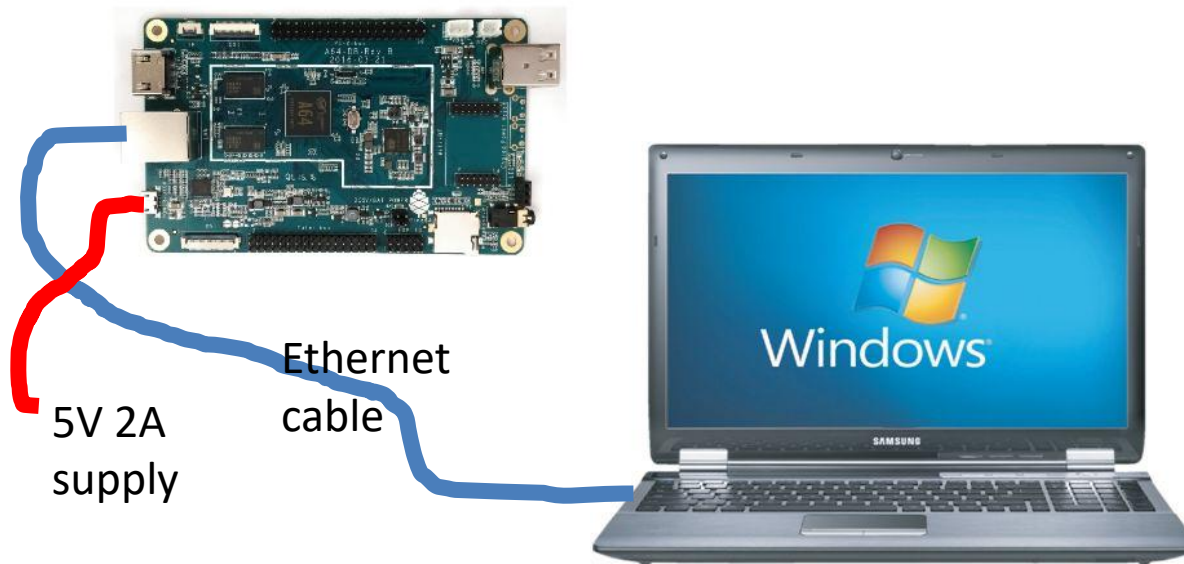
7

6 – Save modified uEnv.txt file, quit Geany and reboot.



# Pine64 controlled from Windows

Thank you for attending this tutorial



Presentation by Eric S. Clarke 8/12/2017