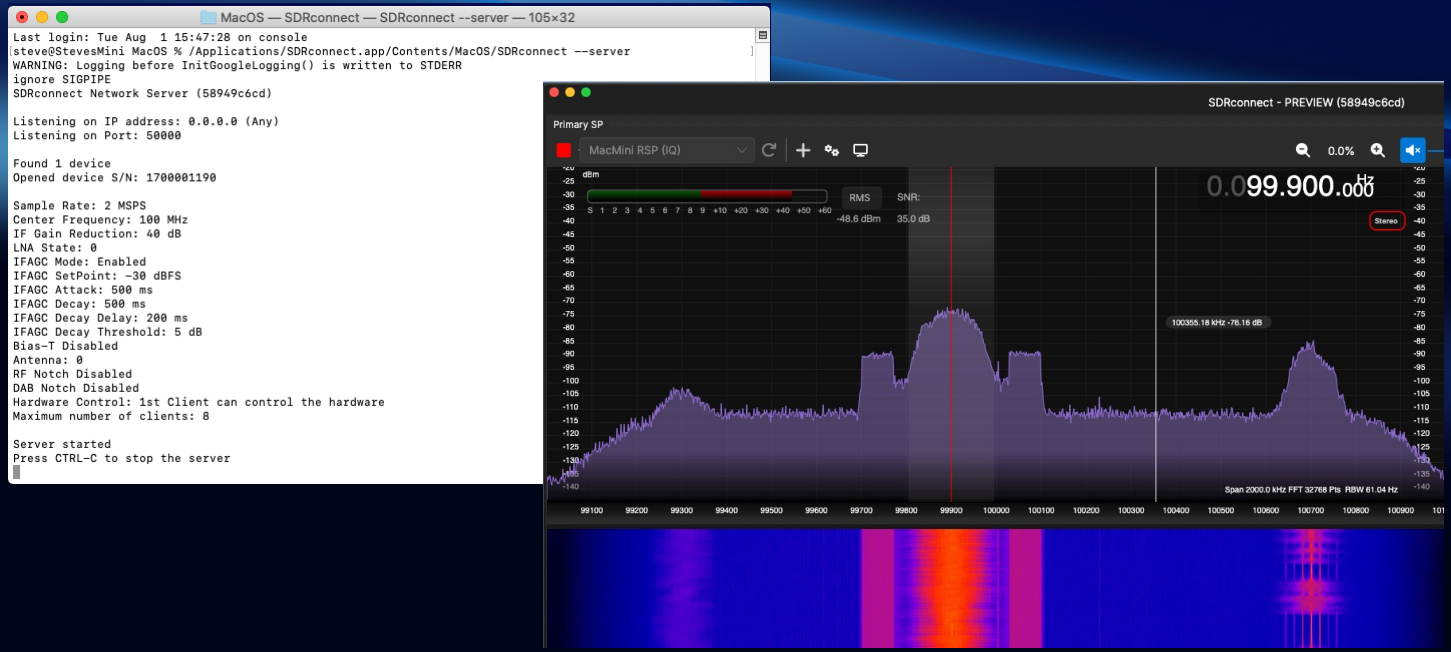
SDRconnect
Raspberry Pi Tips & Tricks
(Including Remote Controlling a Pi Server)



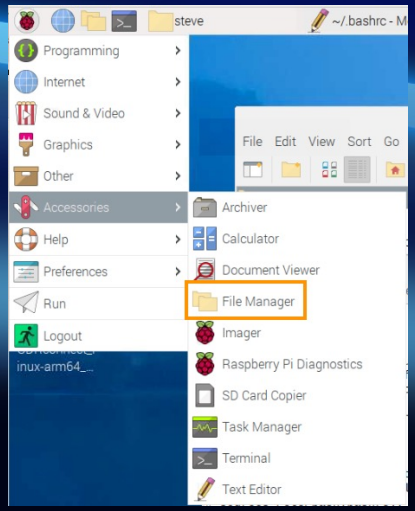
(VID668)

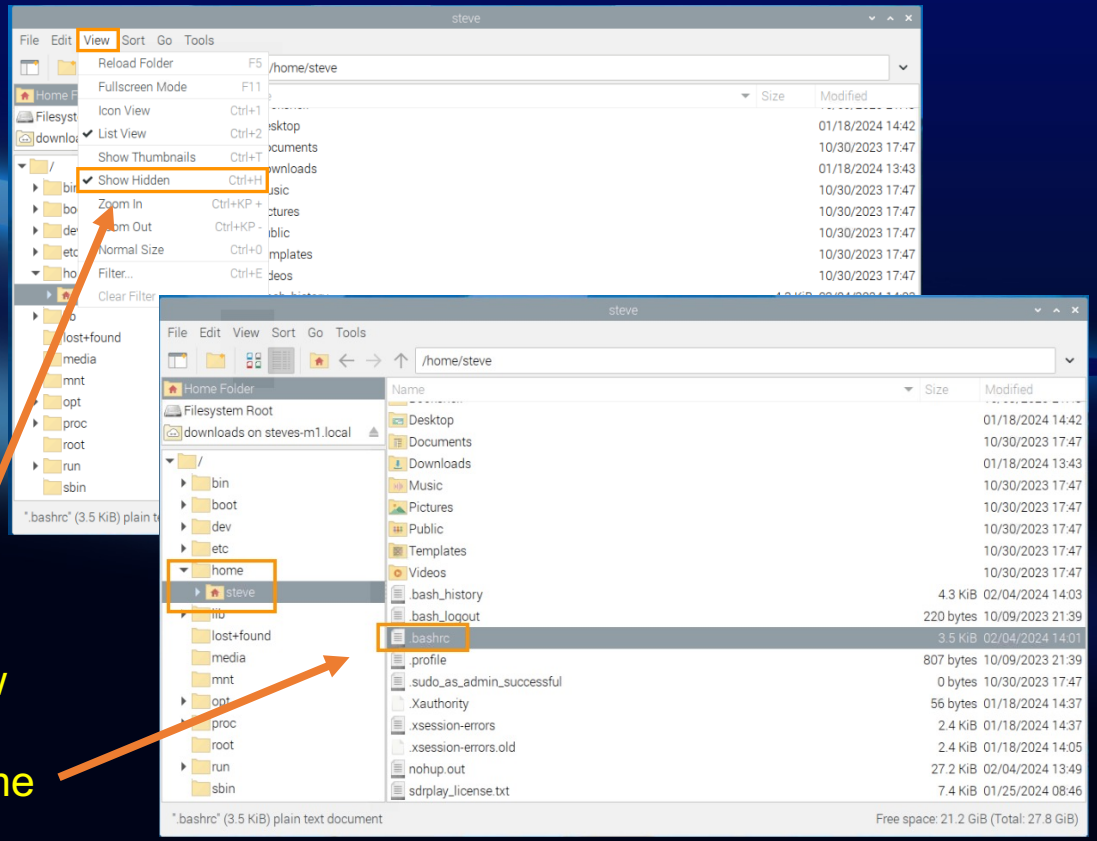
Overview

- Setting up a PATH
  - Simplified Terminal commands
- Remote Login via SSH
  - Starting & Stopping the server remotely
- Updating Applications Menu items
  - Starting the server without using Terminal

Setting up $PATH

Setting up a path





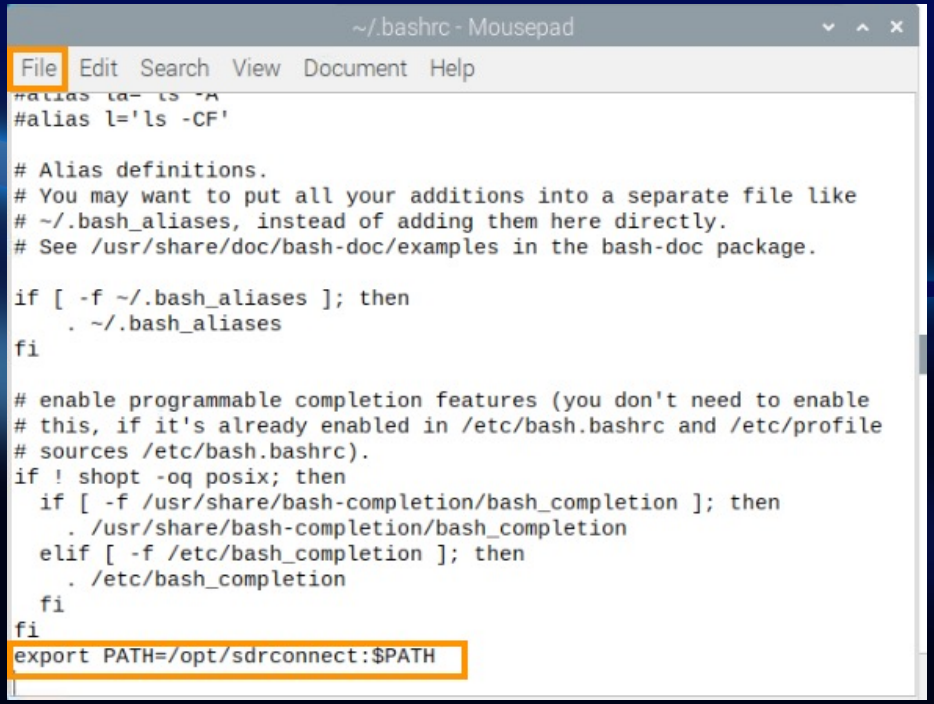
- Open the File Manager
- From the View menu select “Show Hidden”
- Locate the file .bashrc in your home directory
- Double click on the file to open it

SDRplay

Setting up a path

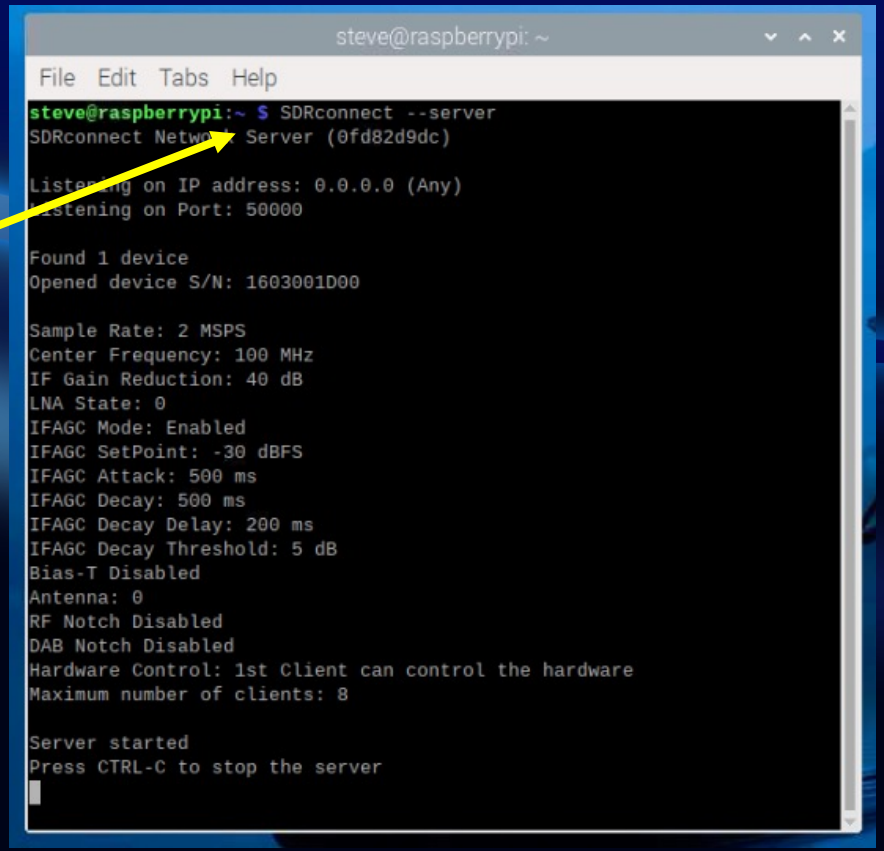
- Scroll down to the bottom of the file
- Type this at the very bottom:

  `export PATH=/opt/sdrconnect:$PATH`
- From the File Menu, click on “Save”
- Log out and lob back in, or reboot, for the changes to take effect



Running SDRconnect

- SDRconnect / server can now be started from any terminal prompt (no cd or full pathname needed!)
  - SDRconnect
  - SDRconnect --server
- Persistent update, no need to redo after a reboot

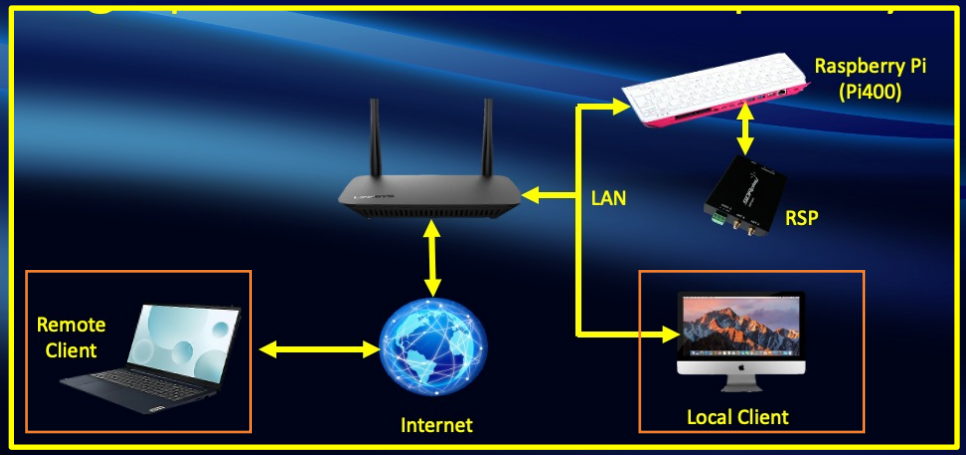


Remote Control the Server

Remote Controlling an SDRconnect Pi Server

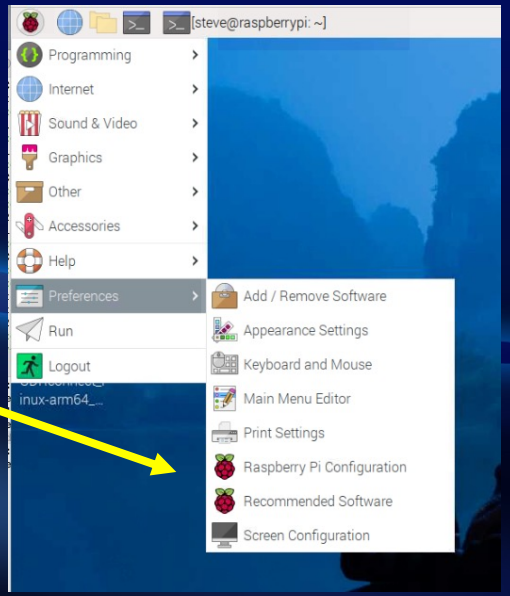
Steps:

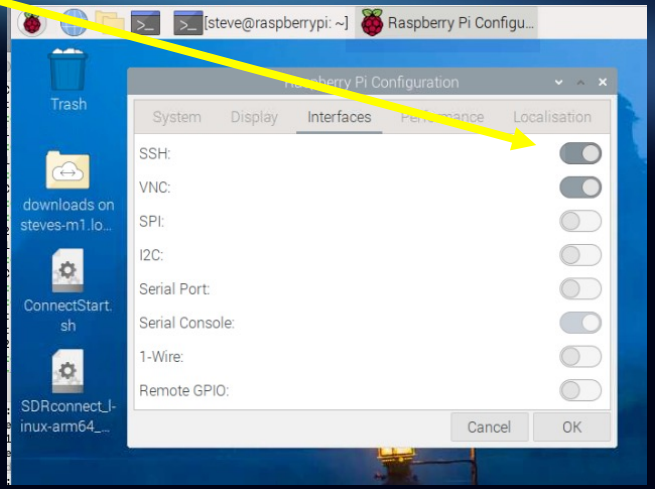
- Enable SSH on your Pi
- If outside home network set up Port Forwarding
- Login via SSH
- Navigate to /opt/connect
- Start the server
  - You will see server status information
- Start SDRconnect and select the server from Device dropdown as before
  - Or setup server parameters if not already done
- Close using CTRL-C as before



Enabling SSH

- Select Raspberry Pi Configuration from the menu
- Turn on the SSH toggle on the Services tab
- Click OK

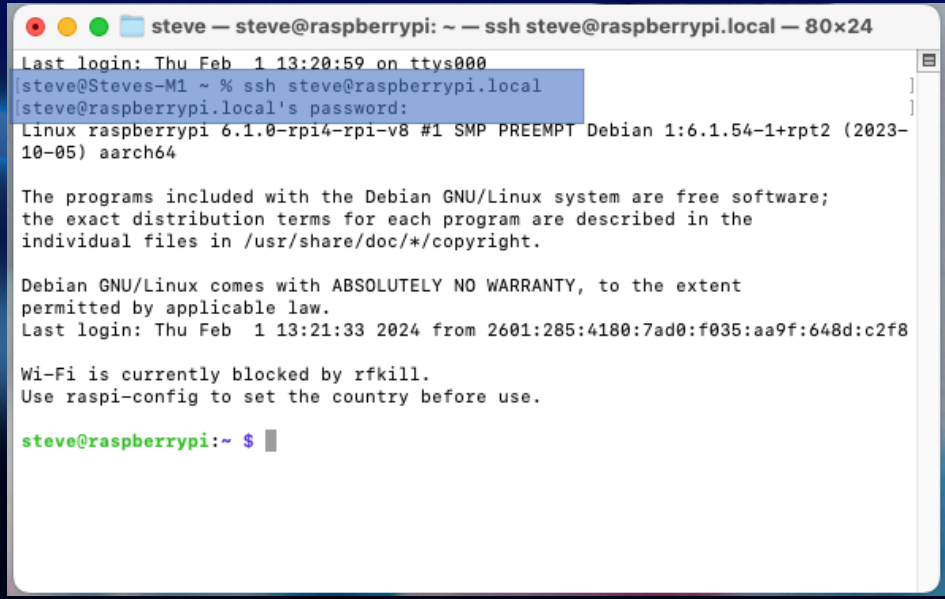




Logging in with SSH – local LAN

On your local LAN:

- Open up a Terminal Window / Command Prompt / Shell Window
- Type ssh <username>@raspberrypi.local
  - Use login username for Pi
  - Use either raspberrypi.local (default), or,
  - Use local IP address
- Enter password when prompted



Logging in with SSH – Over the internet

Over the internet:

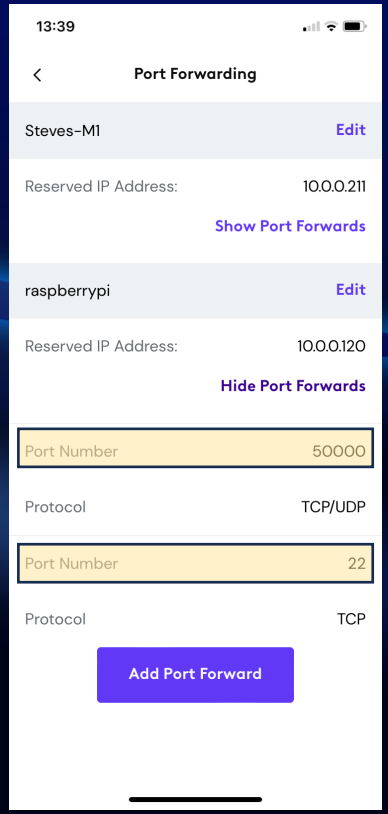
- Add Port 22 to your Port Forwarding
- Open up a Terminal Window / Command Prompt / Shell Window
- Type ssh <username>@<WAN IP or Hostname>
  - Use login username for Pi
  - Use either Hostname (with DNS server), or,
  - Use WAN IP address
- Enter password when prompted

Notes: *Port Forwarding / WAN IP use covered in the "Setting up a Server on the Raspberry Pi" video (VID640)*

Any time you open up external ports to the internet there is an element of risk, please act accordingly. SDRplay cannot accept any responsibility.

For SDRconnect

For SSH



Starting the server

Same as starting it on the Pi itself:

- Open up a Terminal:

  `cd /opt/sdrconnect`

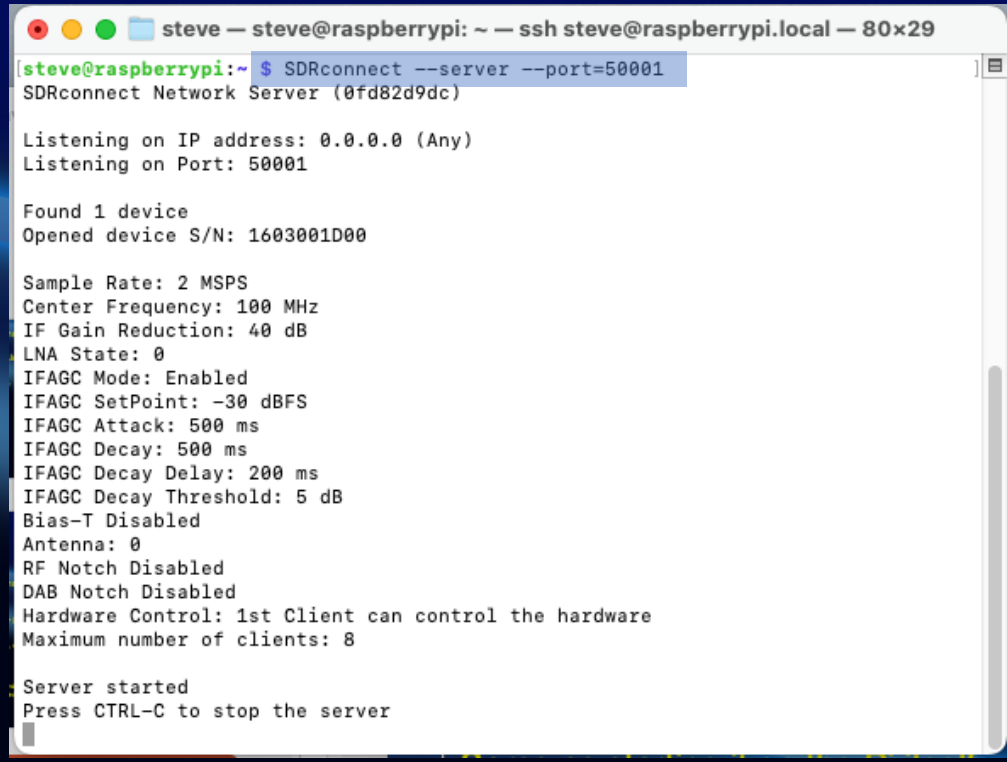
  `SDRconnect --server --<options>`

- Or, if you implemented the path, just this:

  `SDRconnect --server --<options>`

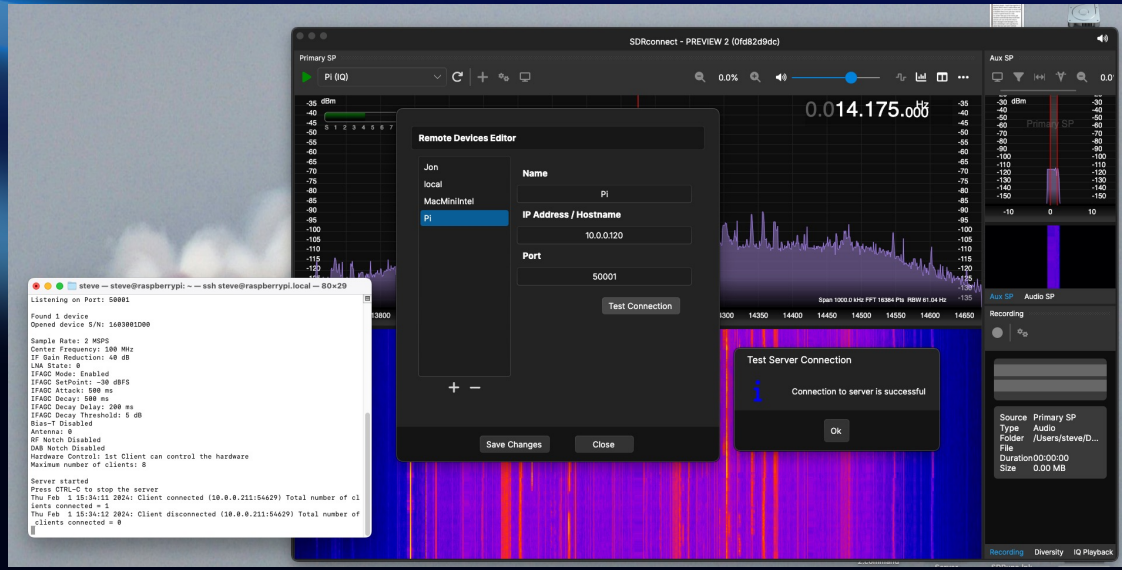
- You will now see the server window remotely!

Note: Optional Server port specified. if no options are input the port will default to 50000



Remote Control using SDRconnect

- Start SDRconnect
- If not already done, update Remote Devices Editor to match your server
- Select the Server from the Device dropdown
- Click on Play icon
  - Use IQ for local LAN
  - Use Audio for internet connection

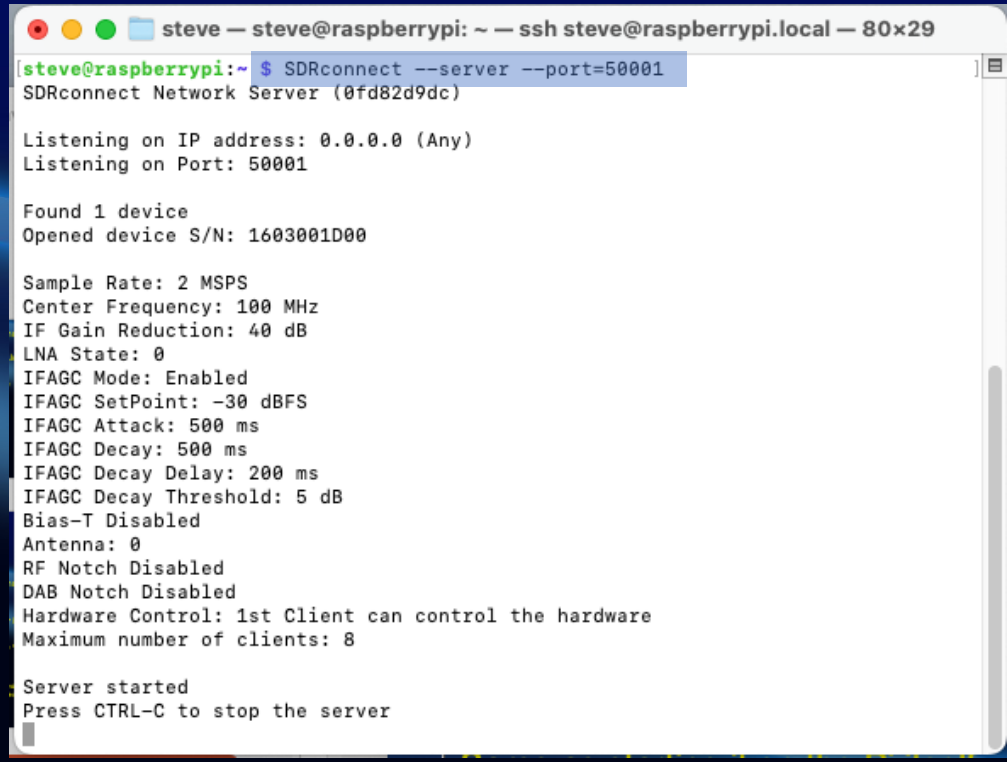


Note: It is assumed you have already set up Port Forwarding if using the client over the internet

Stopping the server

Same as stopping it on the Pi itself:

- Press CTRL-C

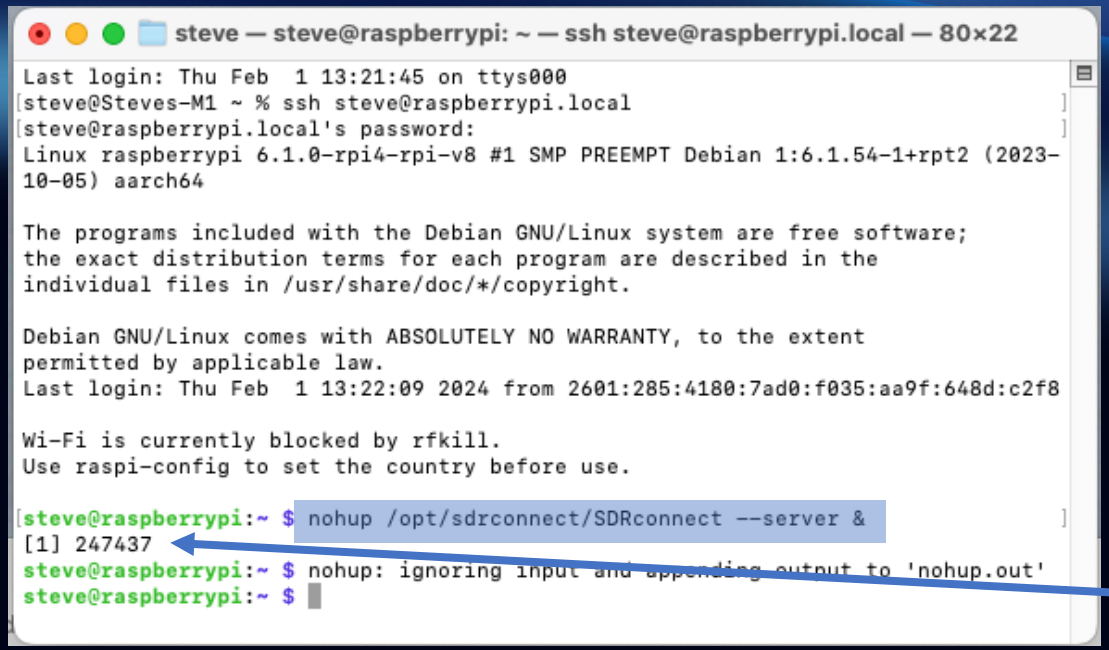


Note: If you close the SSH connection, the server will also stop. So leave the SSH connection open for as long as you wish to connect to the server. Or see following slide…

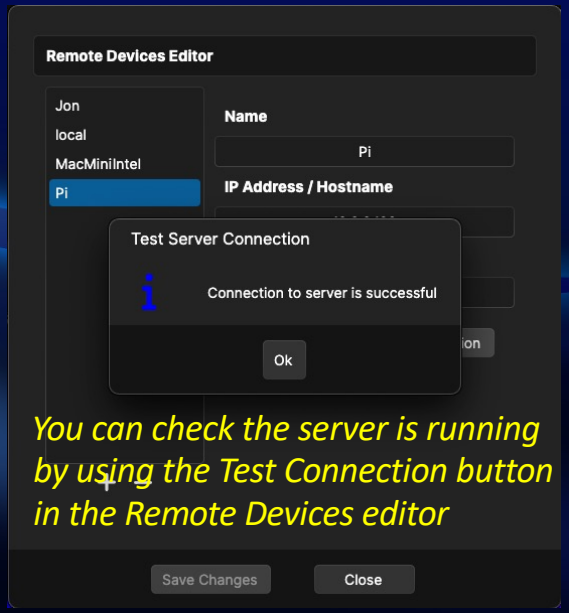
Keep the server running after SSH closed

Use this modified command at the prompt:

- `nohup /opt/sdrconnect/SDRconnect --server &`



Process ID

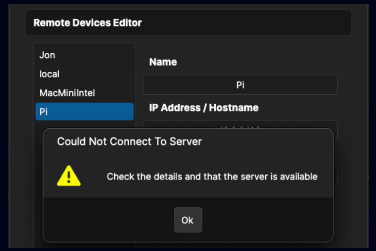


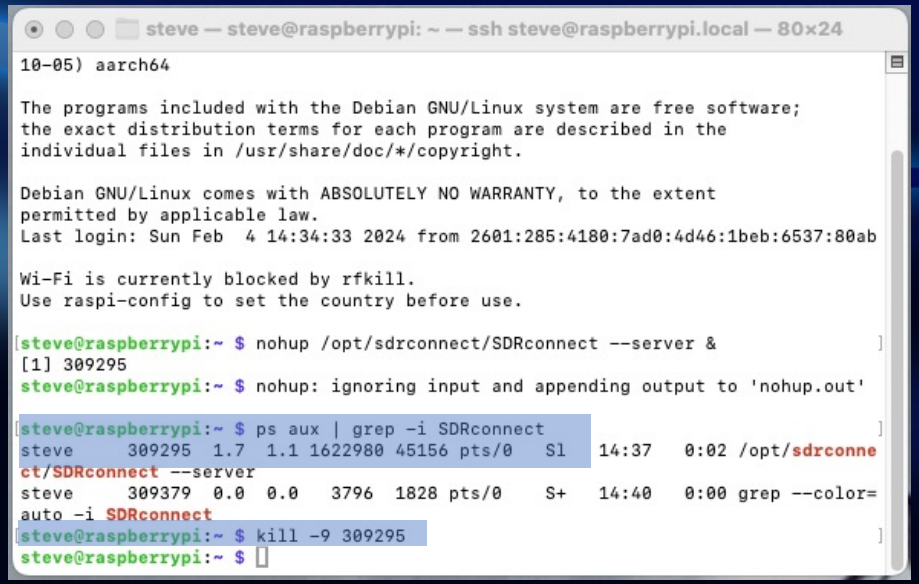
You can check the server is running by using the Test Connection button in the Remote Devices editor

Stopping the server

Since there is no local window to view, CTRL-C cannot be used.
Instead, you must kill the process:

- First find the process ID:
  `ps aux | grep -i SDRconnect`
  (the process ID, 309295, appears on the first line)
- Then issue the kill command:
  `kill -9 309295`
- *Again, you can verify the server is stopped by using Test Connection button in the Remote Devices editor:*



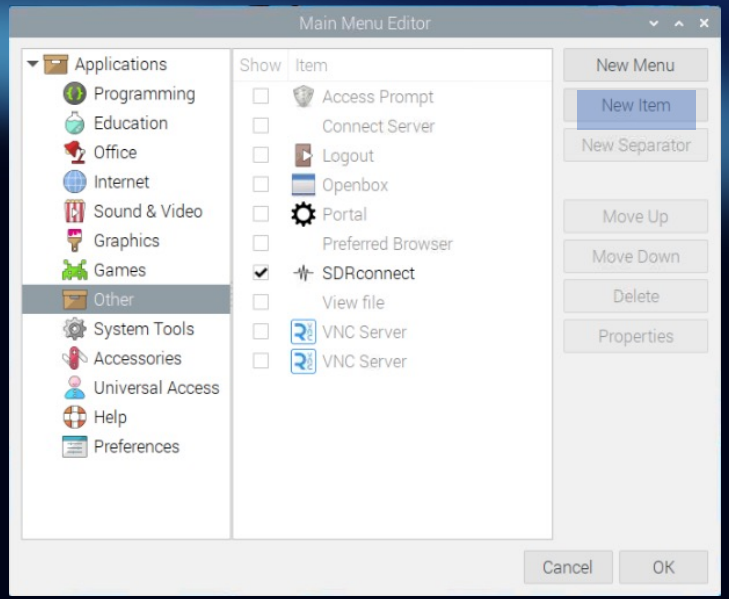


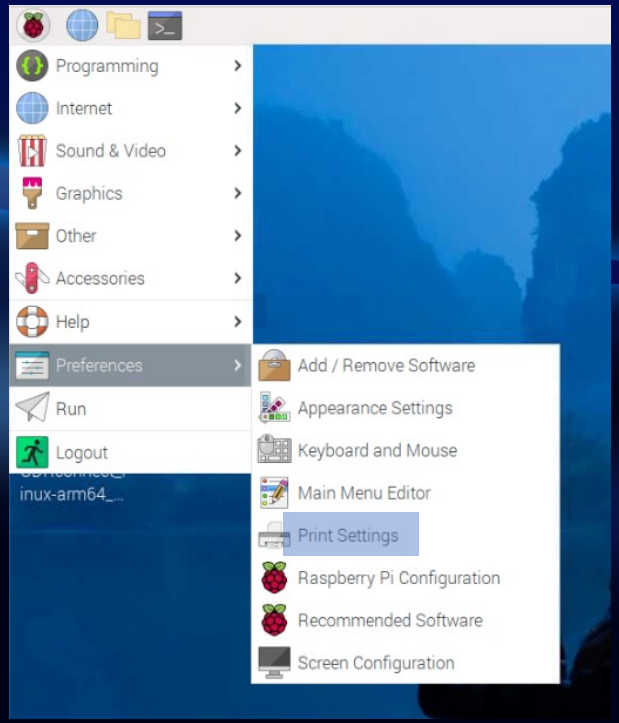
Note: this technique can be used to remotely stop/restart the remote server if it ceases to respond

Adding the Server to the Menu

Updating the Applications Menu to start the server (1)

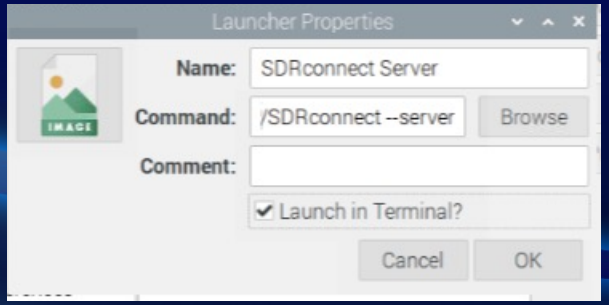
- Click on the Pi icon and select Preferences / Main Menu Editor
- Then click Other and select New Item:

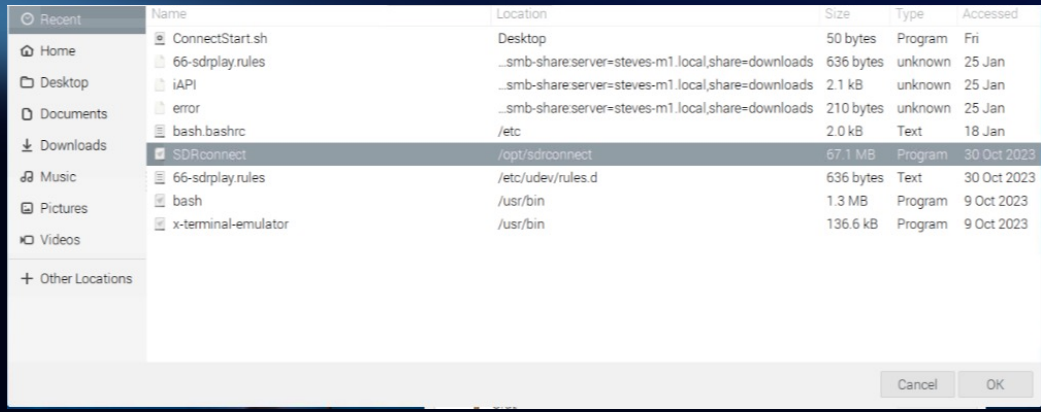




Updating the Applications Menu to start the server (2)

- Type in a name, e.g. SDRconnect Server
- Click the Browse button and select “SDRconnect”
- Click OK
- Click in the “Command” box and space right to the end. Type a `space` and then `--server` (and any other options you want)
- Click the “Launch in Terminal” box
- Click OK

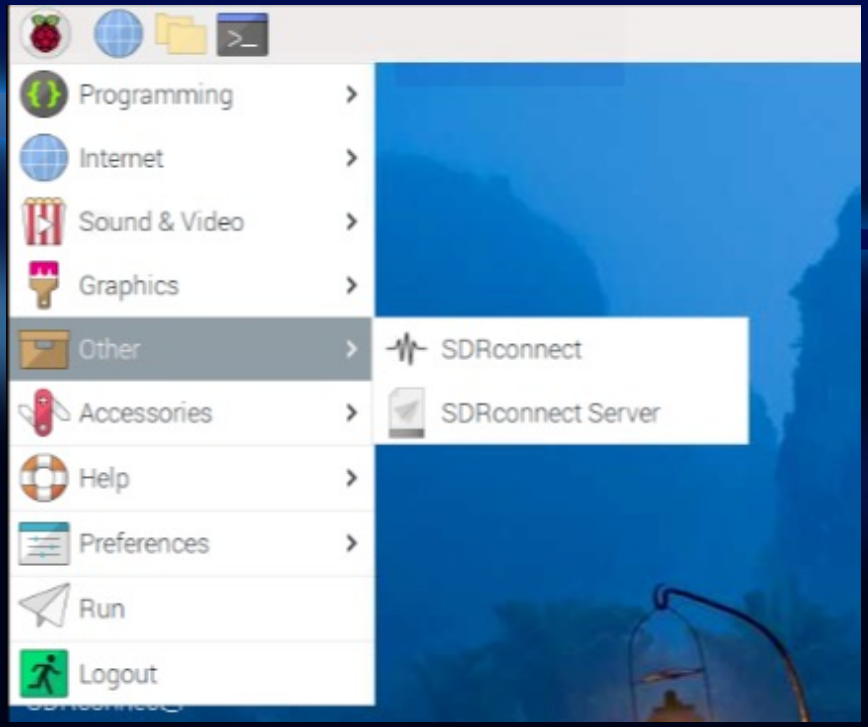




Note: If SDRconnect does not appear in the Recents list you must navigate to Other Locations, then Computer, then opt, then sdrconnect

Starting the Server from the Applications Menu

- Click on the Raspberry Pi and click on “Other”
- You will now see two items:
  - SDRconnect (the client)
  - SDRconnect Server
- Click on SDRconnect Server and the server will start



Thank you for watching

For further information please visit our website:

www.sdrplay.com/sdrconnect