ZUMspot USB Quick Start Guide

The ZUMspot USB has all of the capabilities of the regular ZUMspot all packaged up in a nice clear USB dongle case. Because of the USB interface it takes up less space. It is made to work with a PC but it can also interface with a Raspberry Pi through a USB port.
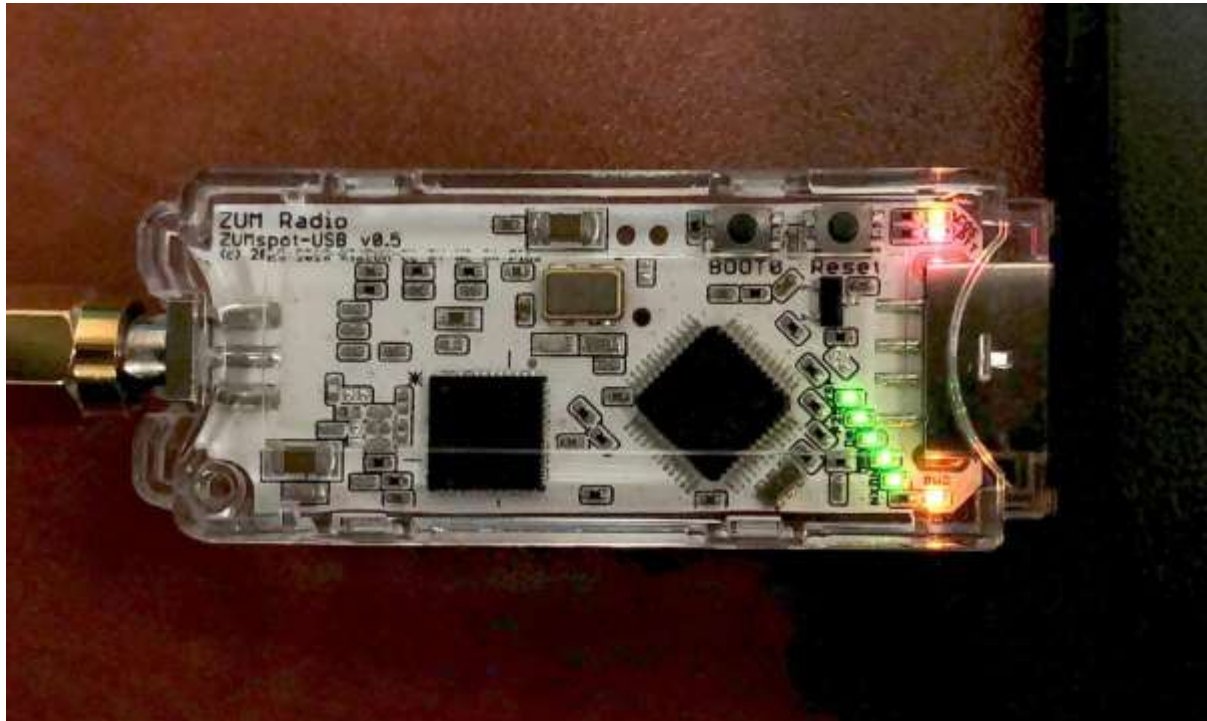
Table of Contents

Windows Setup:

Power Up:
- Install the antenna into the RF connector.
- Insert the ZUMspot USB into any of the USB ports on your Windows machine. All of the LEDs will flash when first powered on and the PWR LED will remain on. Also, if you have the sound enabled on your computer, you should hear the USB device enumerate twice.

Device drivers:

Once the device drivers for the board have loaded, there should be a new COM port displayed. Make a note of that port number.
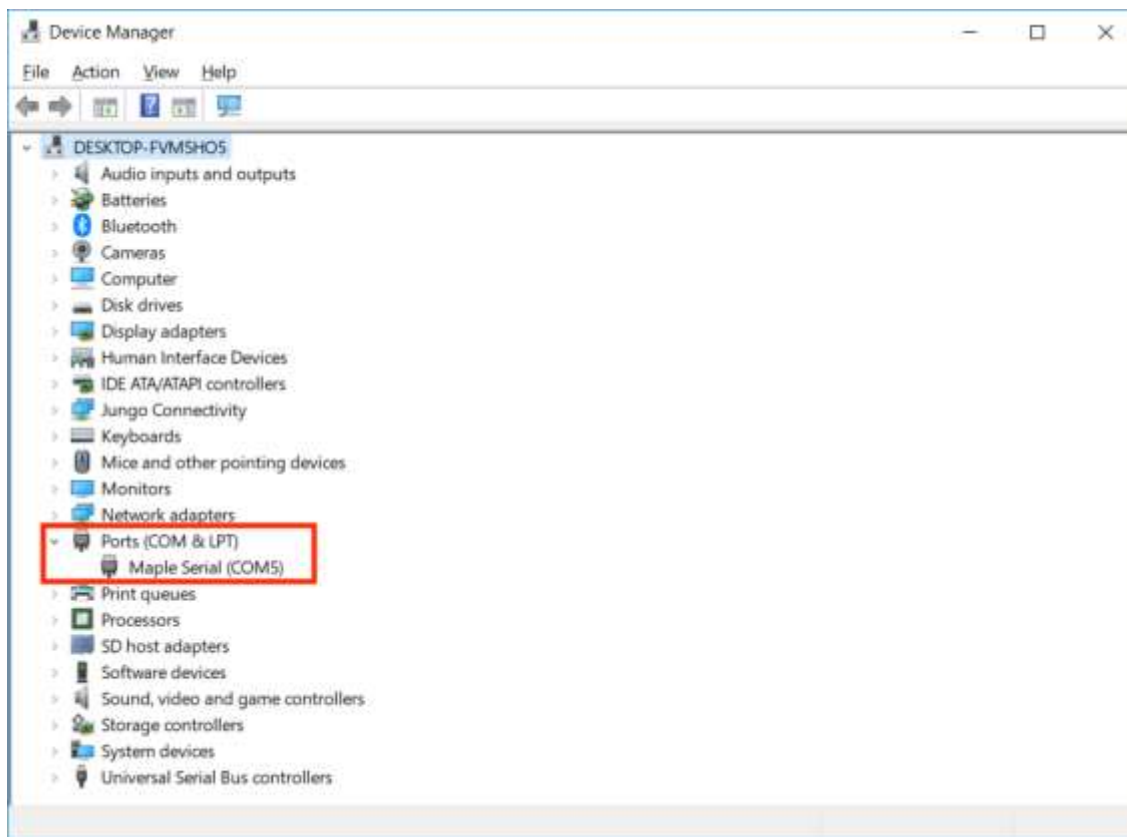
You may have to manually load the drivers on machines running **Windows 7** and earlier, or if there is a yellow exclamation point. Follow the **Installing device drivers** section later in this document.

Windows Software

For more information about BlueDV, visit the website of David PA7LIM.
https://www.pa7lim.nl/bluedv-windows/

Download and install BlueDV for Windows. Be sure to download the zip file with the most recent date.
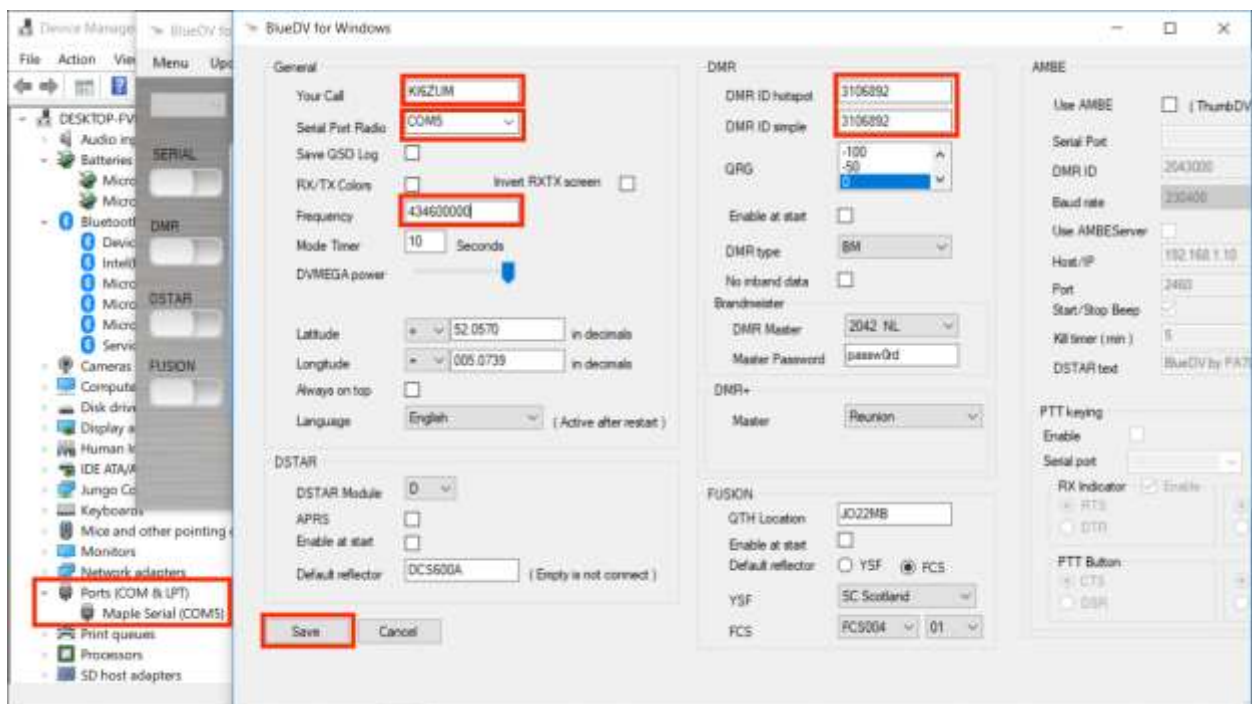http://software.pa7lim.nl/BlueDV/BETA/Windows/

Configuring BlueDV

1. Launch the software and turn off "SERIAL" if it is already enabled.

2. Next select "Menu" -> "Setup". As a minimum, set "Your Call", the "Serial Port Radio", "DMR ID" and "Frequency". Next select "Save"
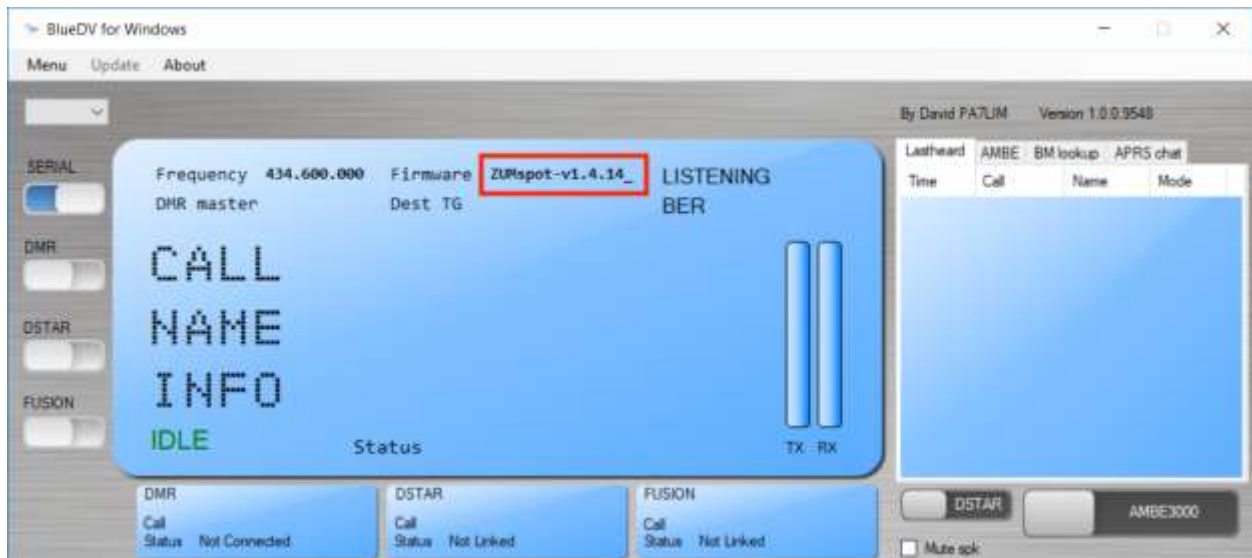

3. **NOTE:** If you reconnect the ZUMspot to another USB port, it may enumerate under a different COM port. So whenever you reconnect, double check your "Setup" with the COM port under Windows Device Manager.

4. Next turn "SERIAL" back on.

5. If the USB connection to the ZUMspot USB is functional, the software should display the "Firmware" version of the ZUMspot.

6. For DSTAR, turn on the DSTAR button, select the reflector ("REF") you wish to connect to and then select "Link"
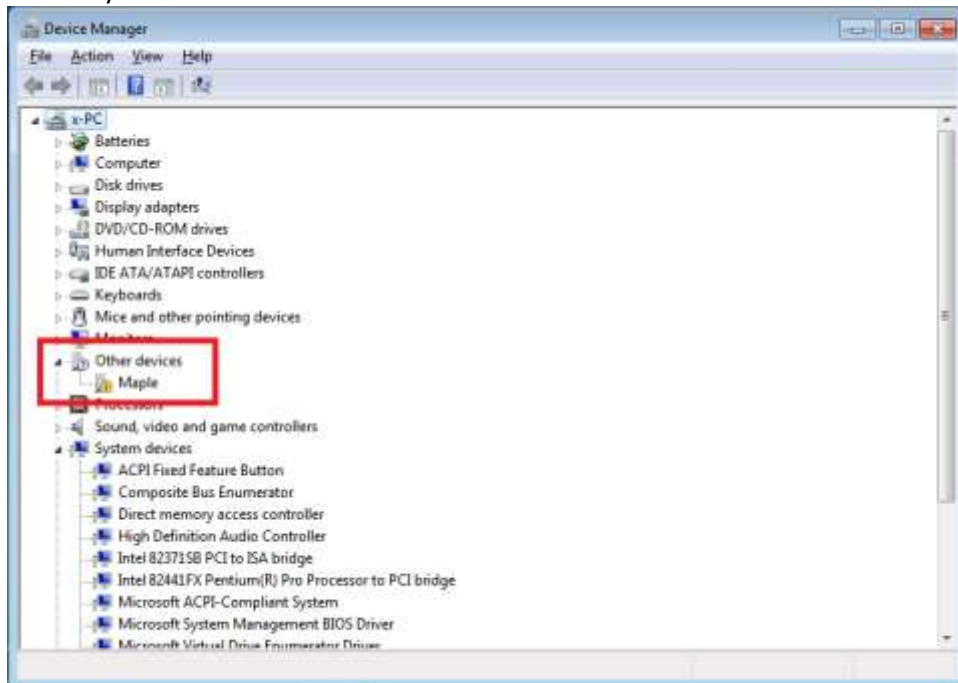

7. Once connected to the reflector, the software will display info when others are transmitting.
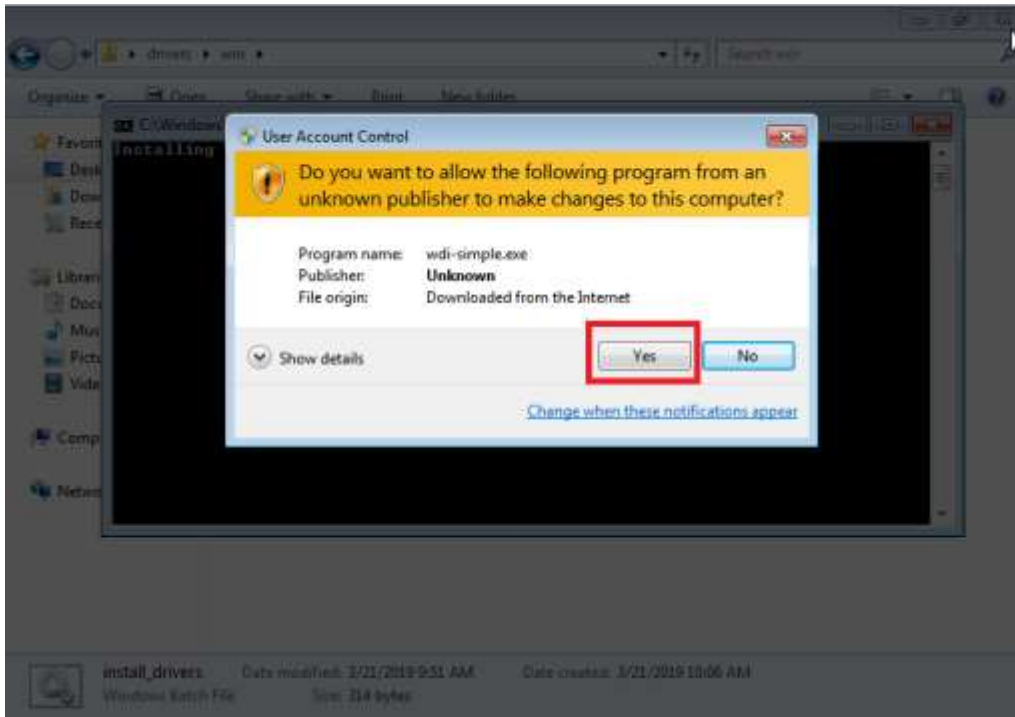
Installing device drivers

1. If there is a yellow exclamation point next to the "Maple" device, the device drivers need to be manually installed.
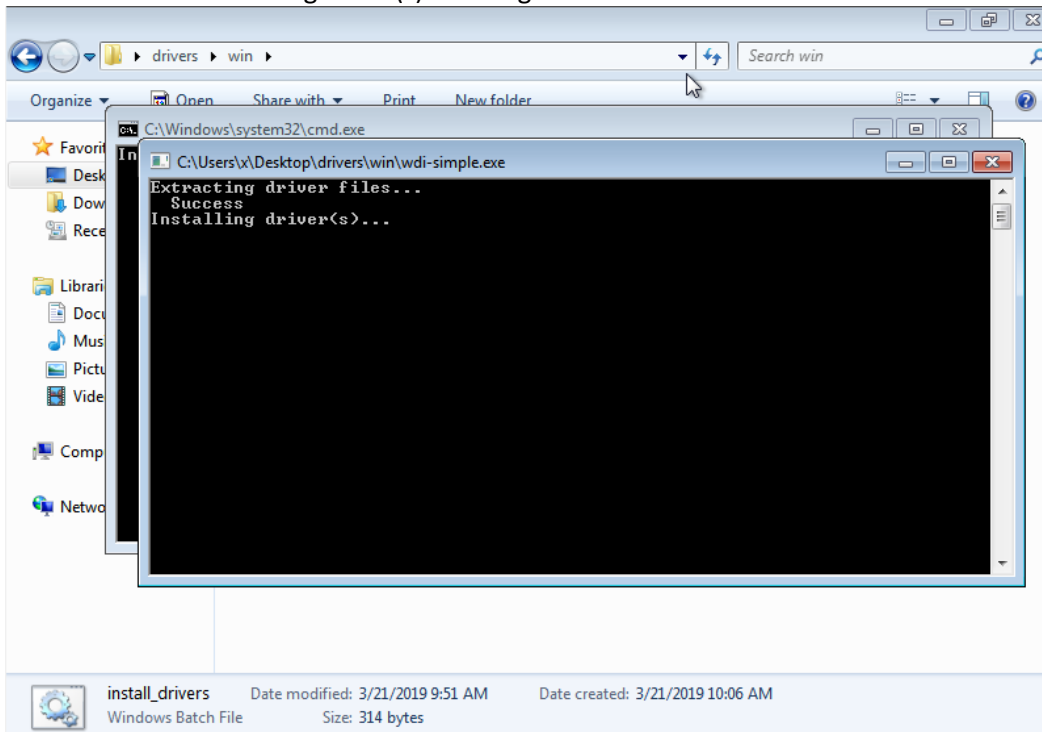

2. Download the drivers from GitHub:
3. https://github.com/rogerclarkmelbourne/Arduino_STM32/archive/master.zip
4. Extract the files from the zip file and go to the "drivers\win" folder.
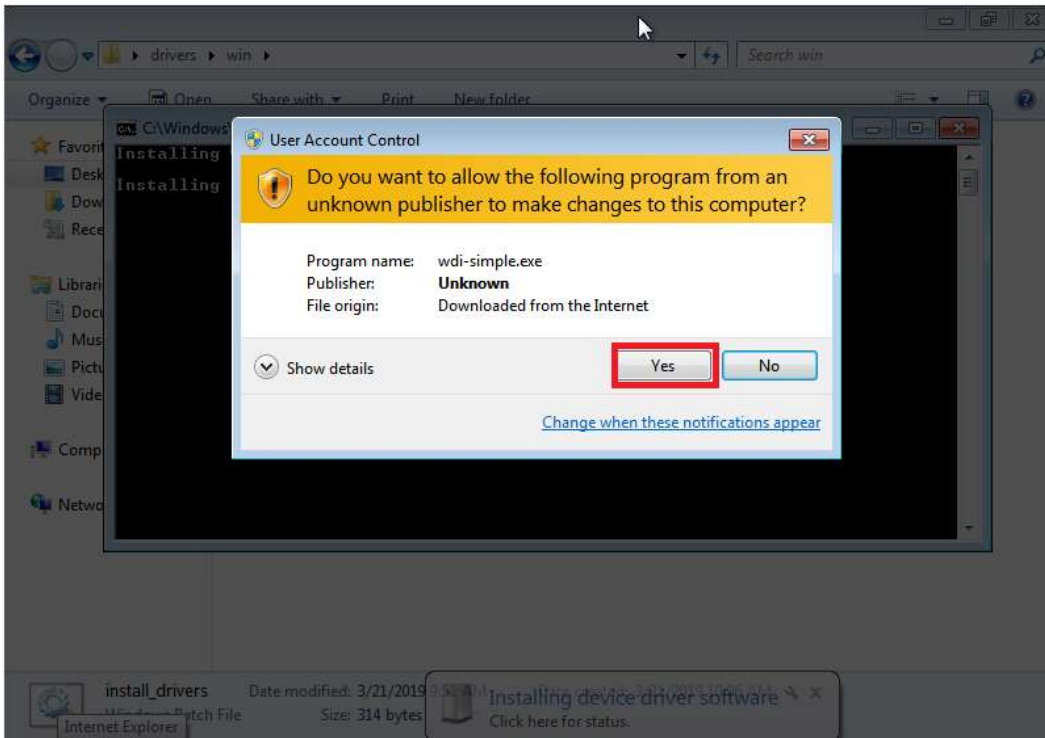5. Run the "install_drivers.bat" file.
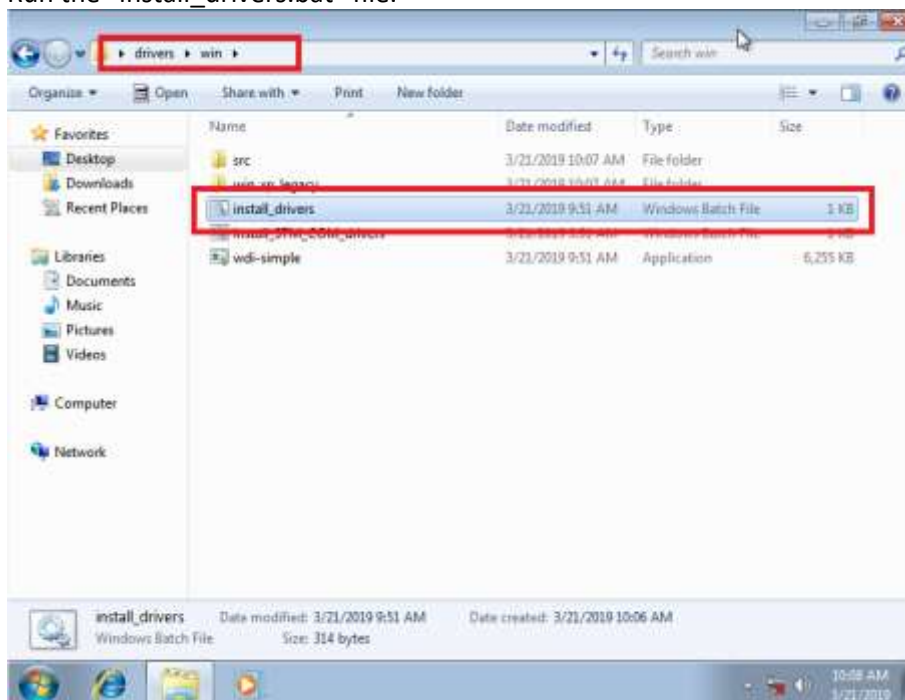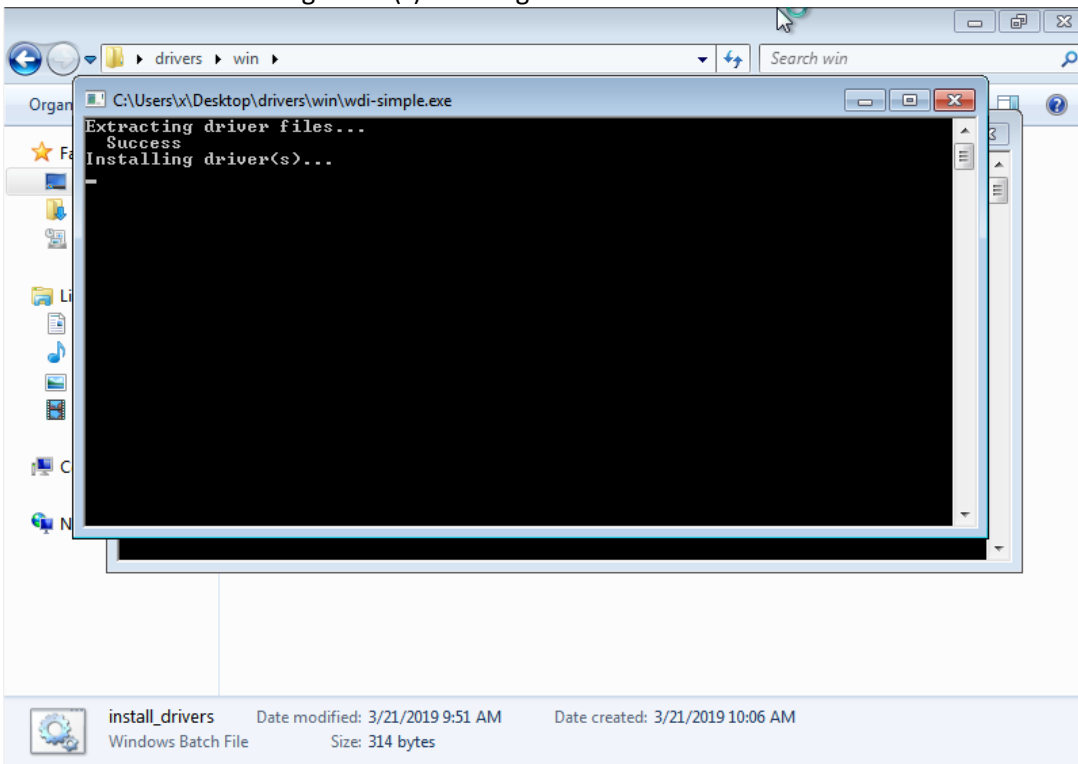
6. Click "Yes" to allow the driver installer to run.

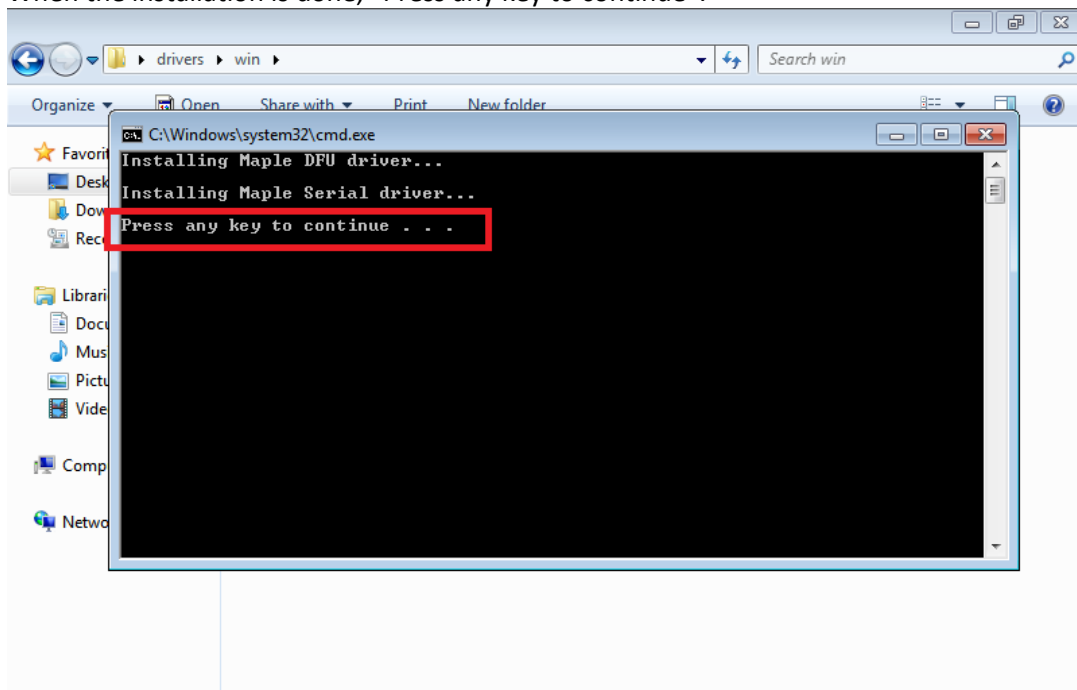7. You will see the "installing driver(s)" message.

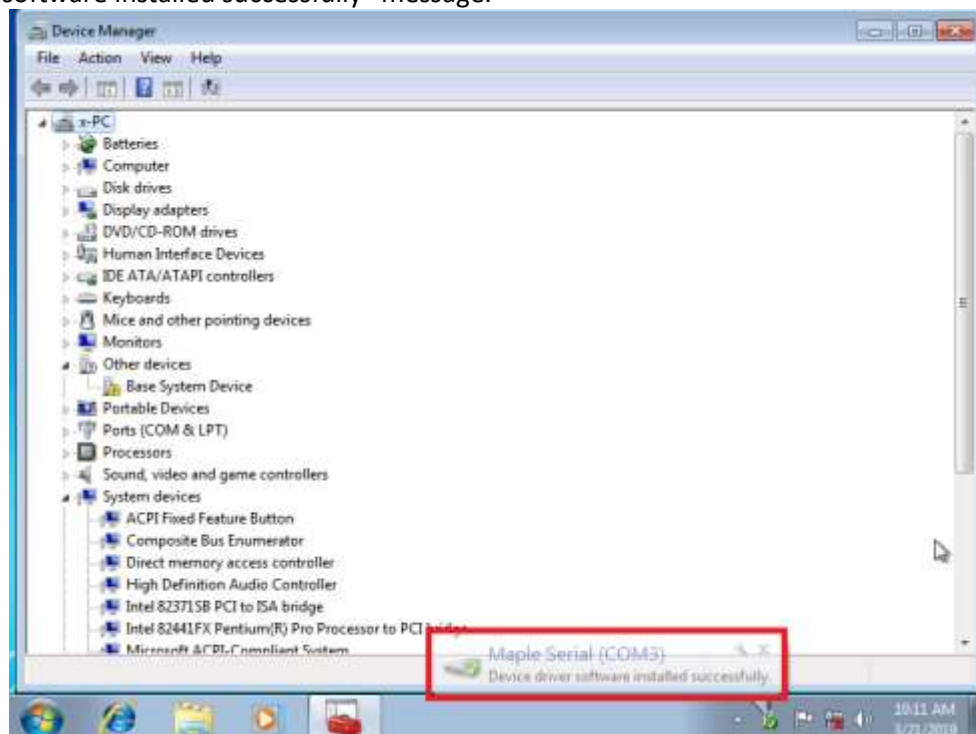8. Click "Yes" to allow the second driver installer to run.

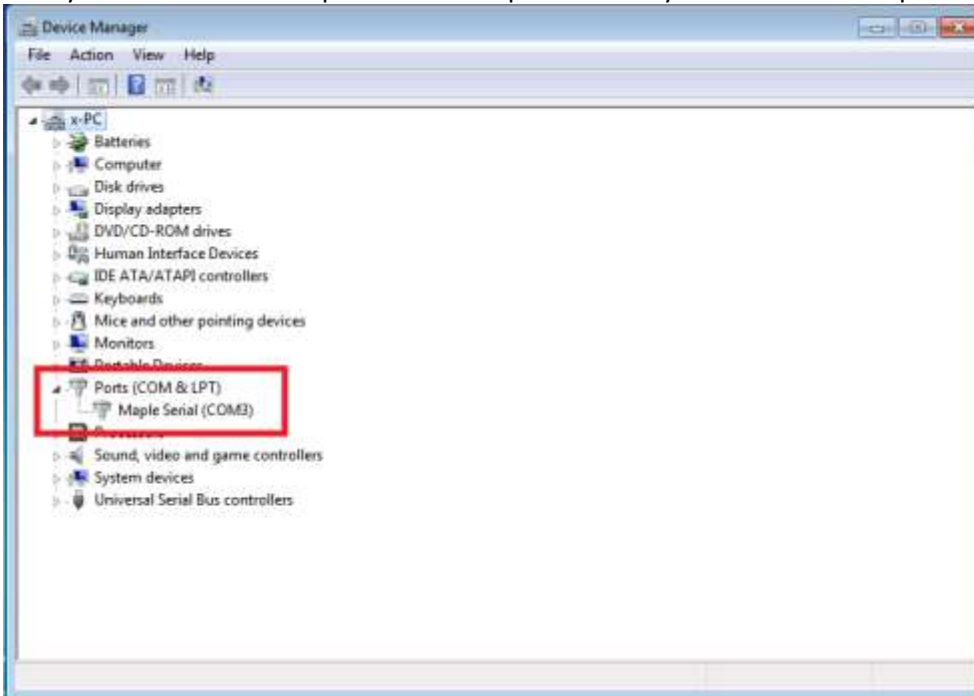9. You will see the "installing driver(s)" message.

10. When the installation is done, "Press any key to continue".

11. The drivers will now load for the ZUMspot USB. When done, you should see the "Device driver software installed successfully" message.

12. Now you should see a "Maple Serial" com port with no yellow exclamation point.

# macOS Setup:

Installing Crossover

To get BlueDV running on macOS, a Windows emulator is needed first.

1. Download Crossover from here: https://www.codeweavers.com/products/crossover-mac/
2. Use free trial or enter purchase info
3. Open folder where Crossover was downloaded into (Usually it's the Downloads folder)
4. Unzip Crossover.zip (Double click on Crossover.zip so that Archive Utility can unzip it) if you haven't already.
5. Drag the file Crossover.app and drop it over Applications. This installs Crossover on your Mac.
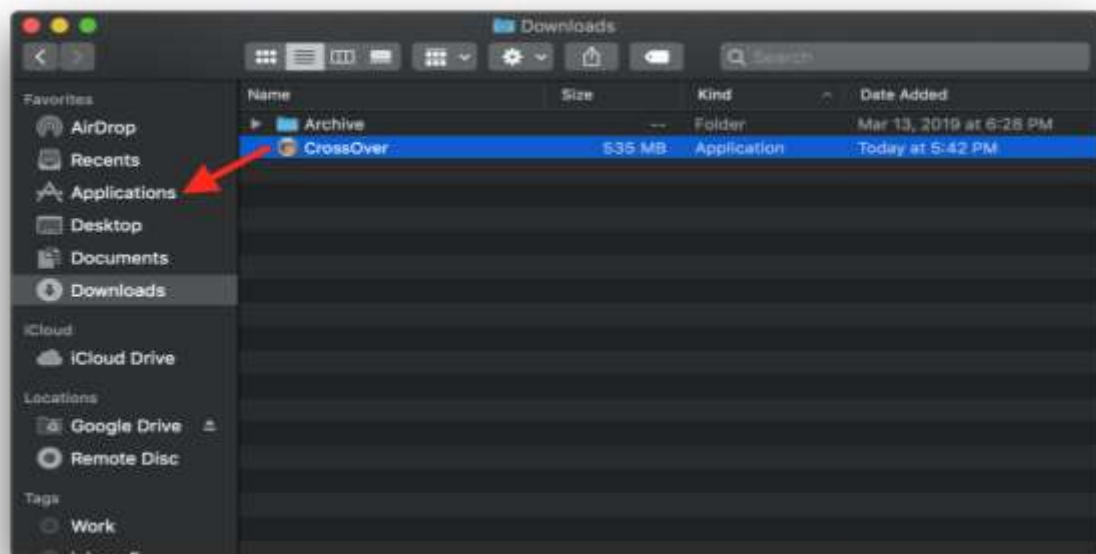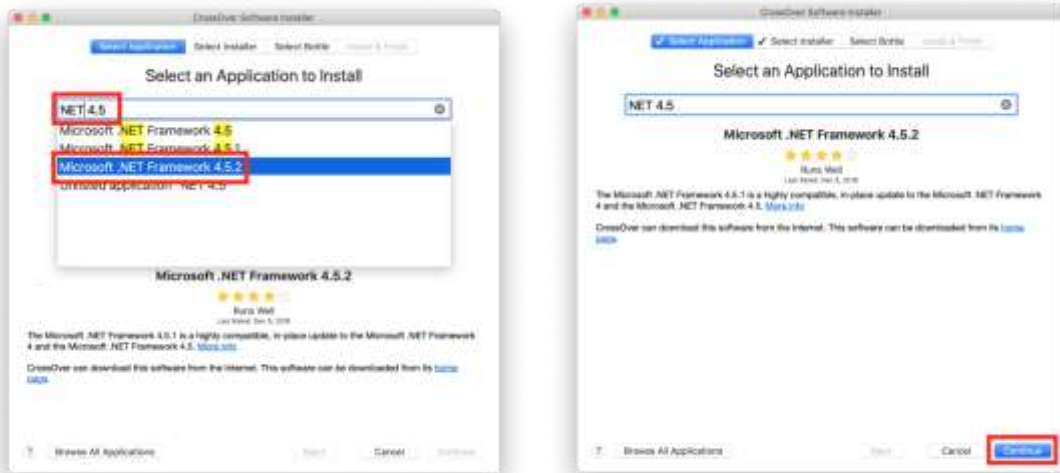
Installing BlueDV Prerequisites

1. Open Crossover
   a. Click on "Finder"
   b. Go to the "Applications" folder
   c. Double click on the Crossover app
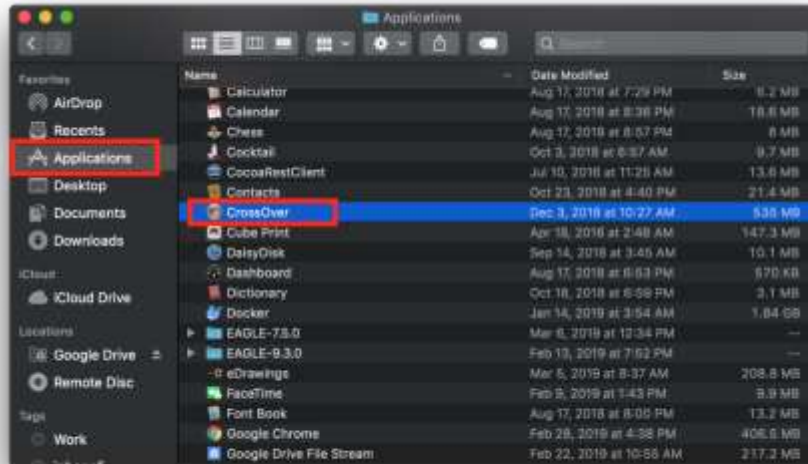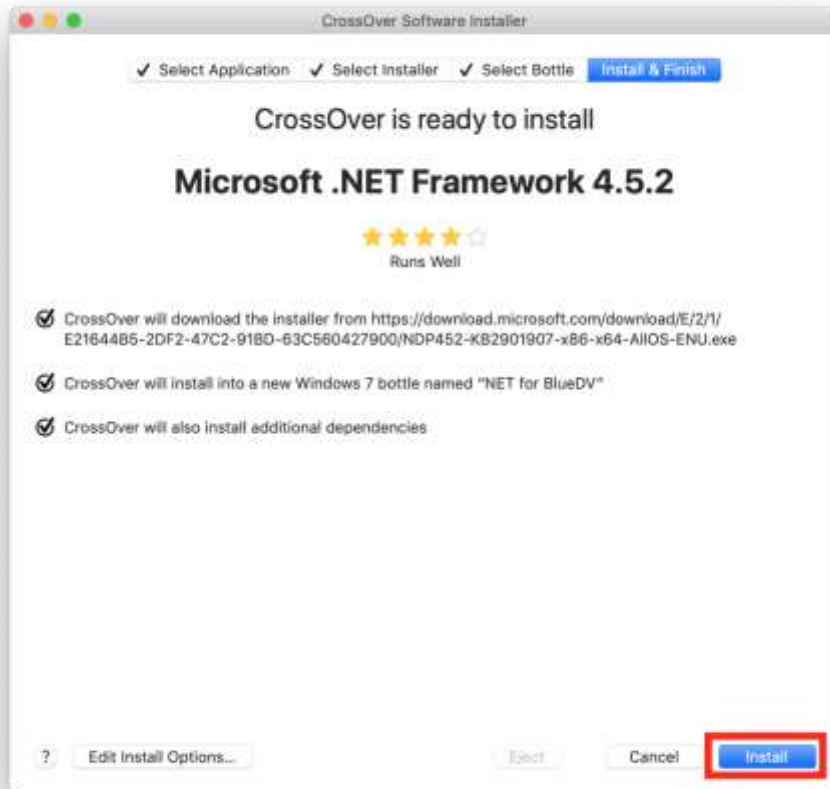

2. Click on "Install a Windows Application"

3. Under the "Select Application" tab, type in "NET 4.5" and select "Microsoft .NET Framework 4.5". Then press "Continue"
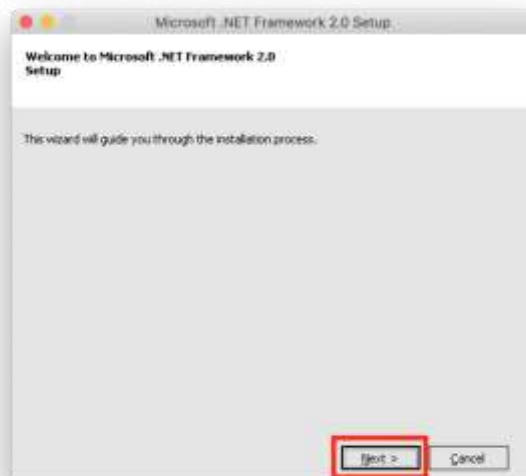

4. Select "New Windows 7 64-bit Bottle…". Then change bottle name to something like "NET for BlueDV" or whatever you would like to call it. Then press "Continue"
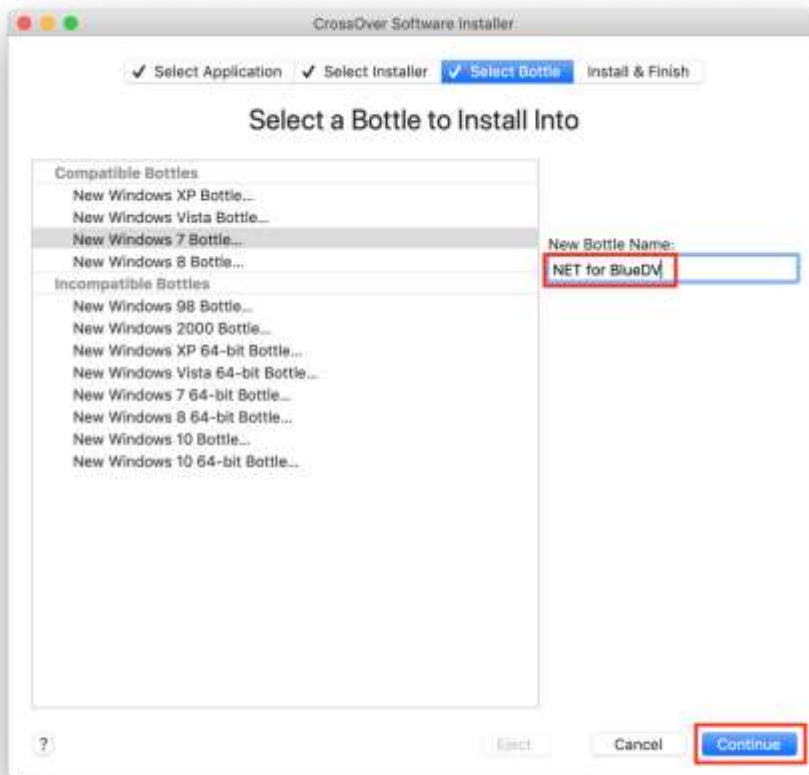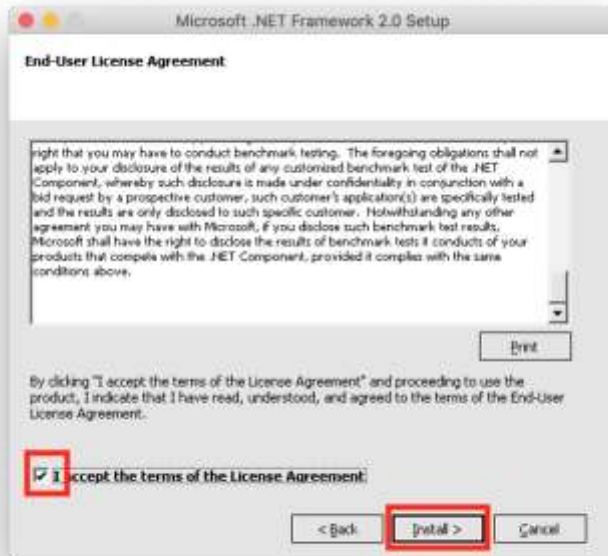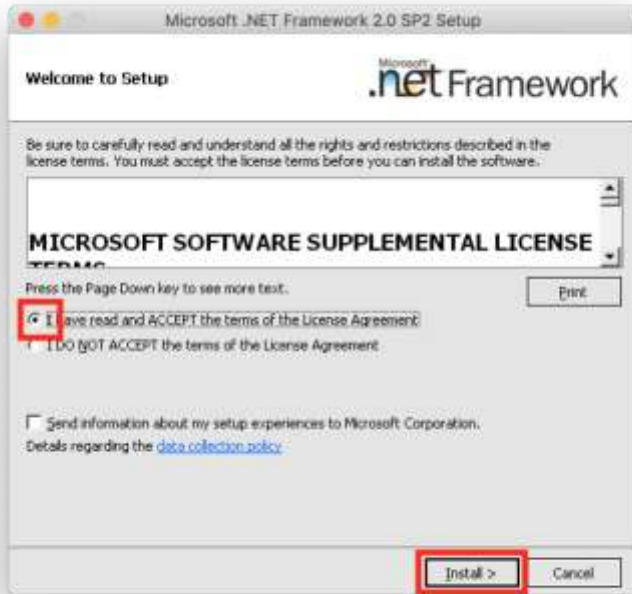
5. Press "Install"

6. Click "Next"

7. Click check box to accept license agreement, and then click "Install"
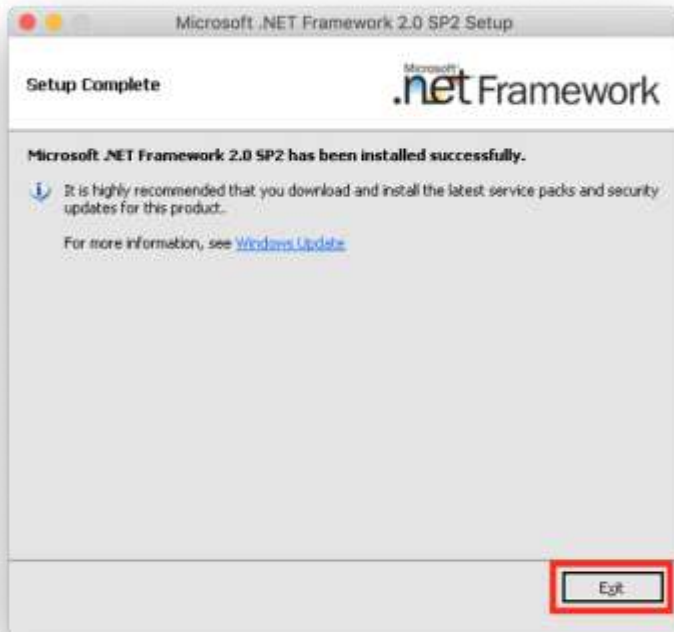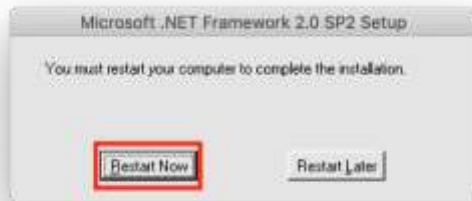

8. Click "Finish"

9. Click check box to accept license agreement, and then click "Install"
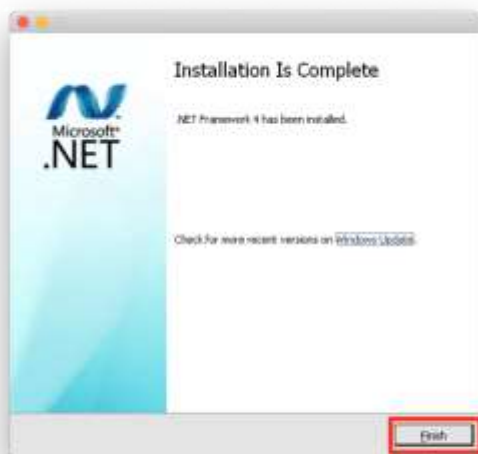

10. Press "Exit"

11. Click "Restart Now"

12. Click check box to accept license agreement, and then click "Install"
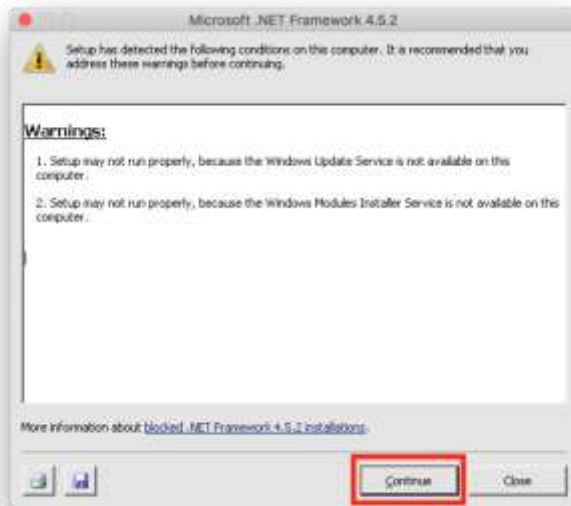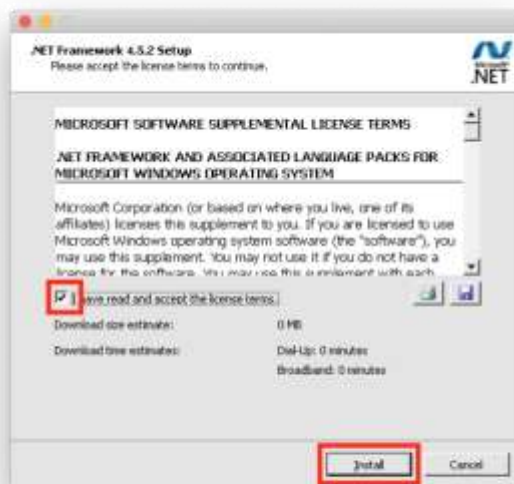

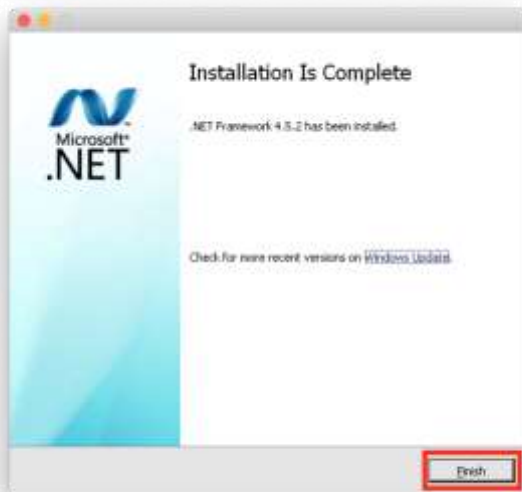13. Click "Finish"

14. Click "Restart Now"

15. Click "Continue"

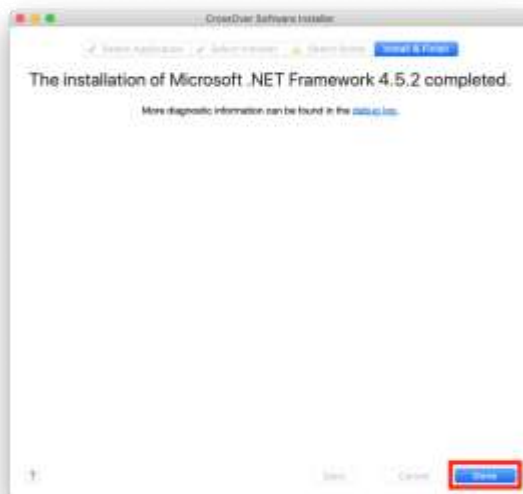16. Click check box to accept license agreement, and then click "Install"
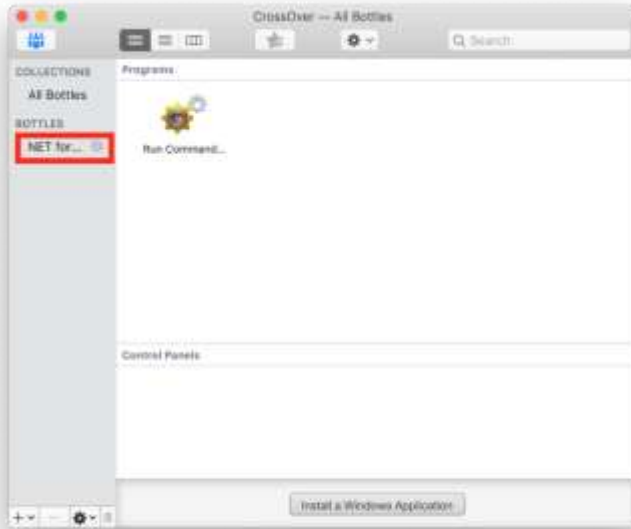
17. Click "Finish"

18. Click "Restart Now"

19. Click "Done" to conclude the installation

20. You should see something like this. If so, then you have successfully installed .NET 4.5

Installing BlueDV

1. Download the latest version of BlueDV for Windows from this page:
   http://software.pa7lim.nl/BlueDV/BETA/Windows

2. Extract the .MSI from the .zip file (Double click on BlueDV-09548-preBETA.zip so that Archive Utility can unzip it)
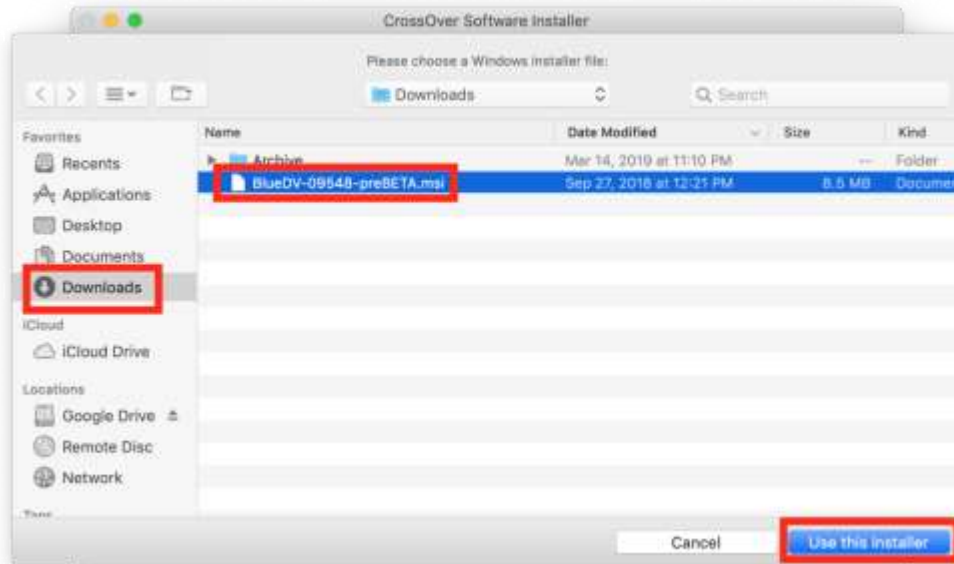
3. Click on "Install a Windows Application"
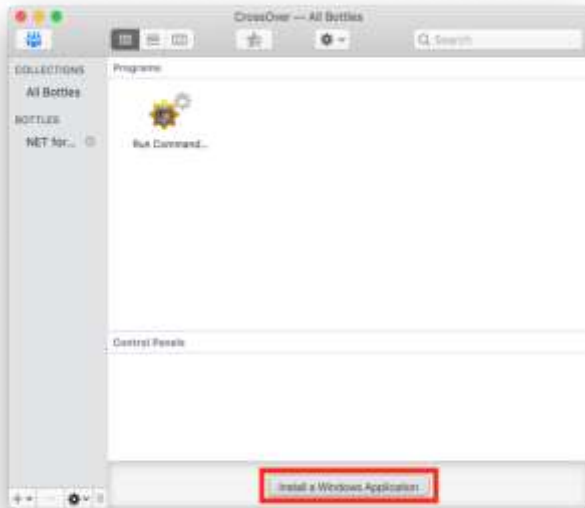
4. Under the "Select Application" tab, type in "BlueDV" and select "Unlisted application BlueDV". Then press "Continue"
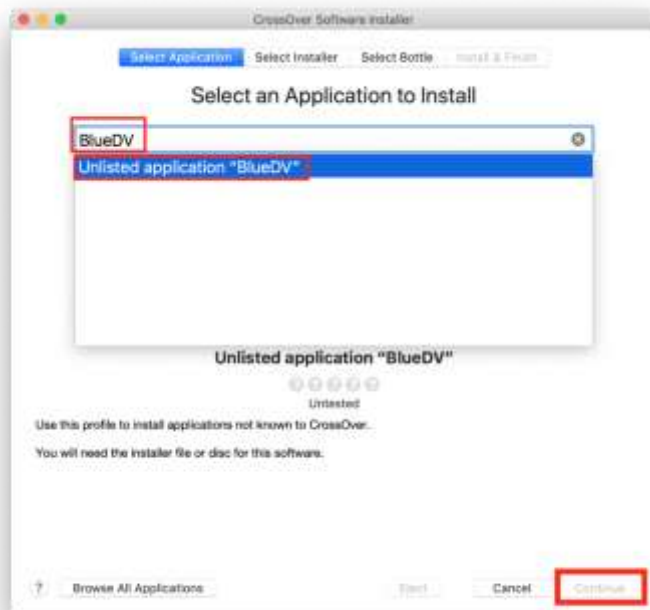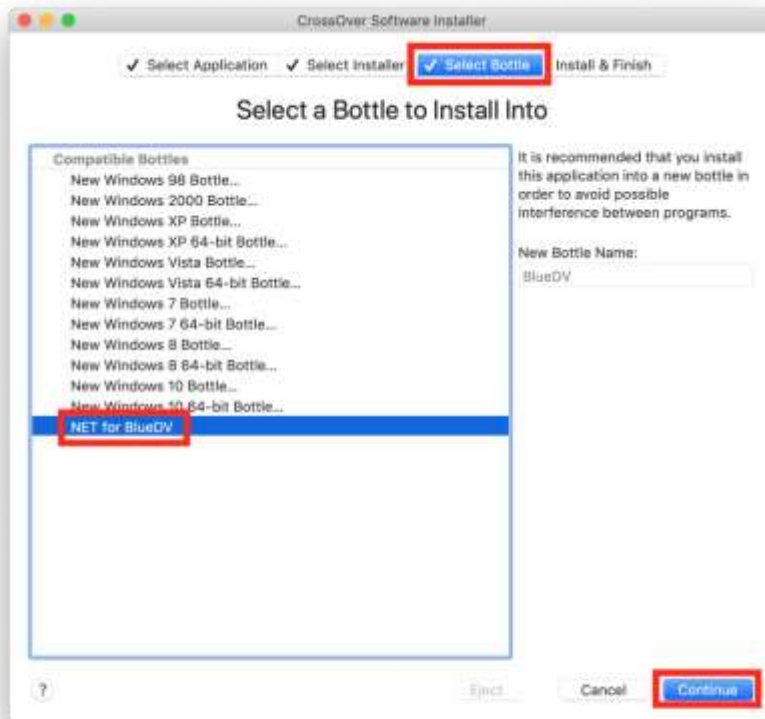
5. Click on "Choose Installer File…"
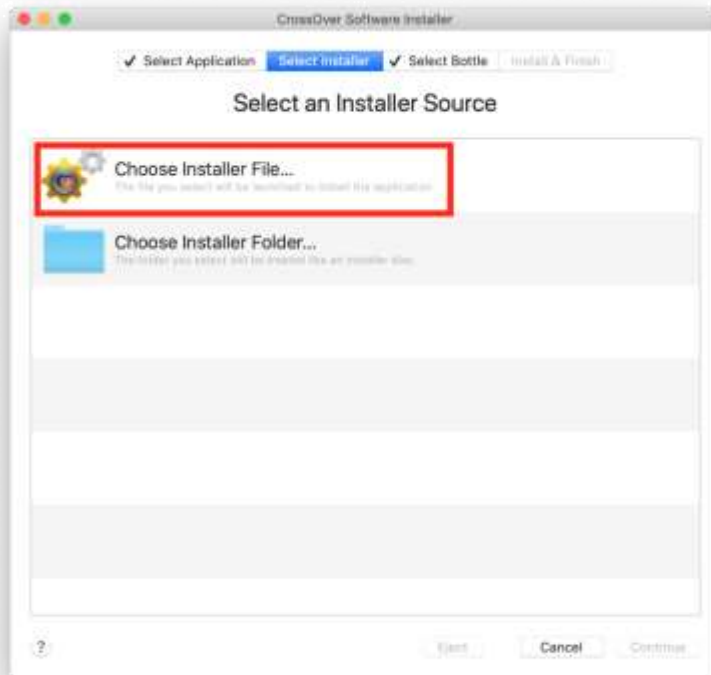
6. Navigate to where you downloaded BlueDV. Select the BlueDV MSI file and press "Use this Installer". Then press "Continue".
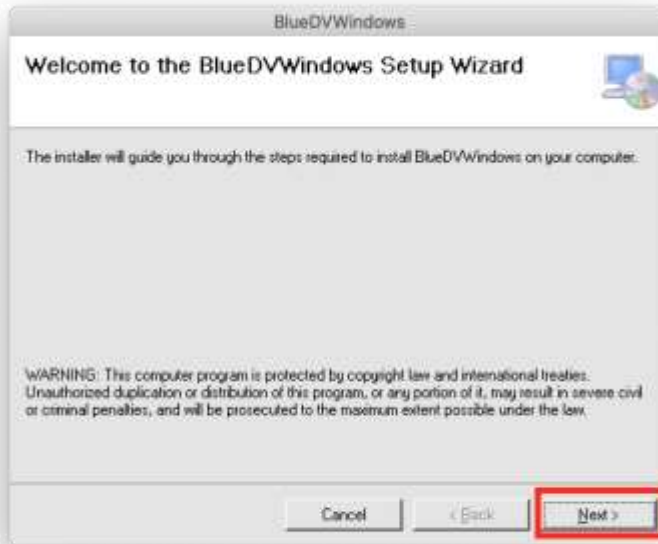
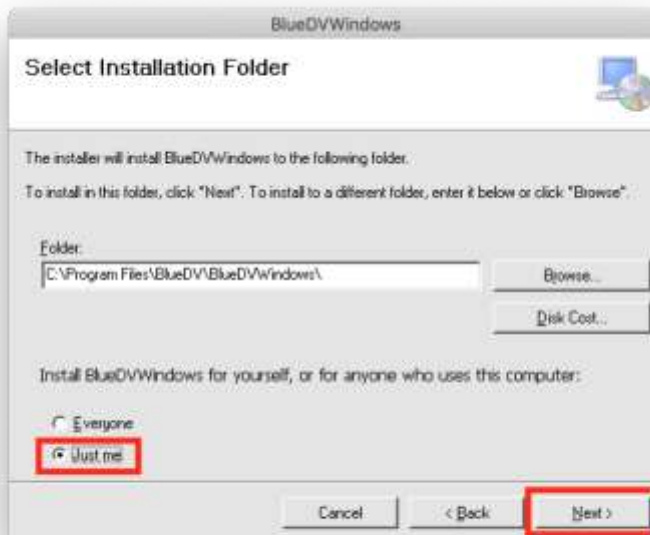7. Go to the "Select Bottle" tab. Select the "NET for BlueDV" bottle from previous steps. Then press "Continue"
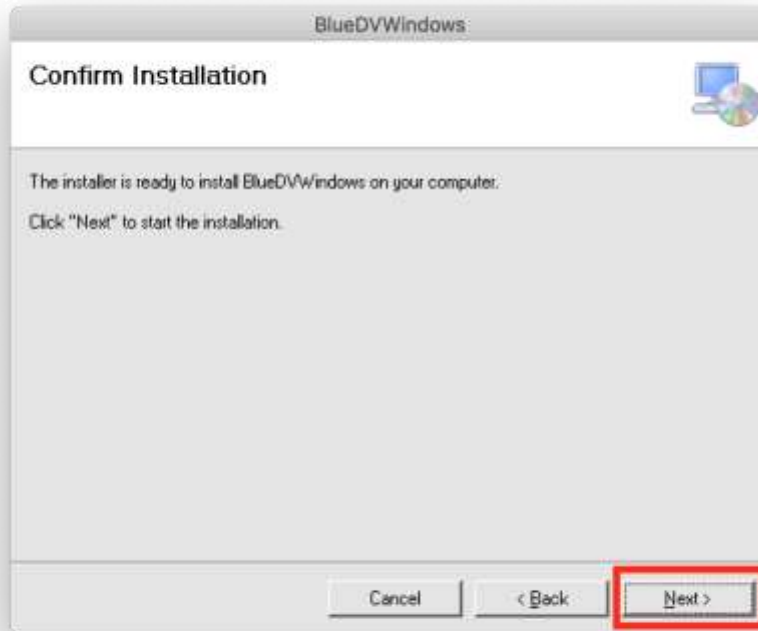

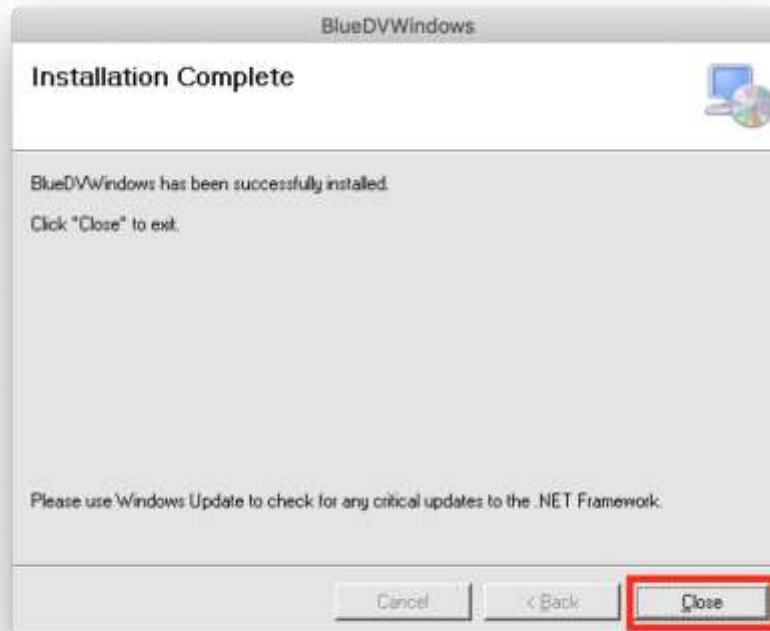
8. Press "Install"

9. Click on "Next"

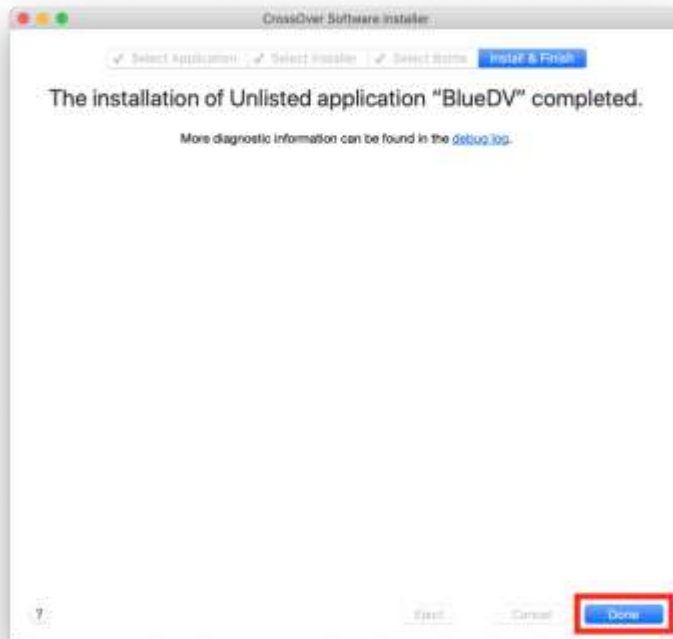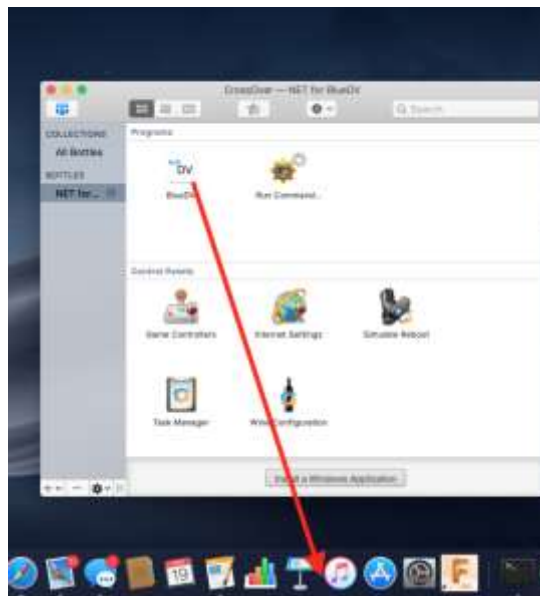10. Select "Just me" and then press "Continue"

11. Click on "Next"

12. Press "Close" on the last pop up window

13. Once installation is finished press "Done"

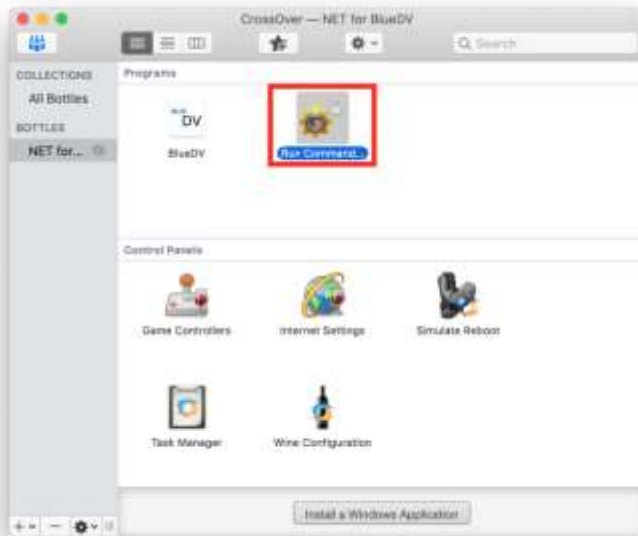14. You can add the BlueDV icon to the taskbar by dragging and dropping it there.

15. To run BlueDV just click on the icon in the taskbar or double-click from within Crossover
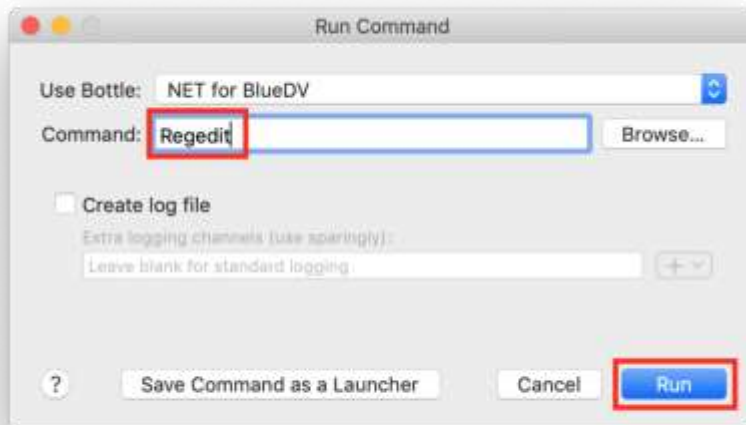
Modifying COM Port

1. Open Crossover
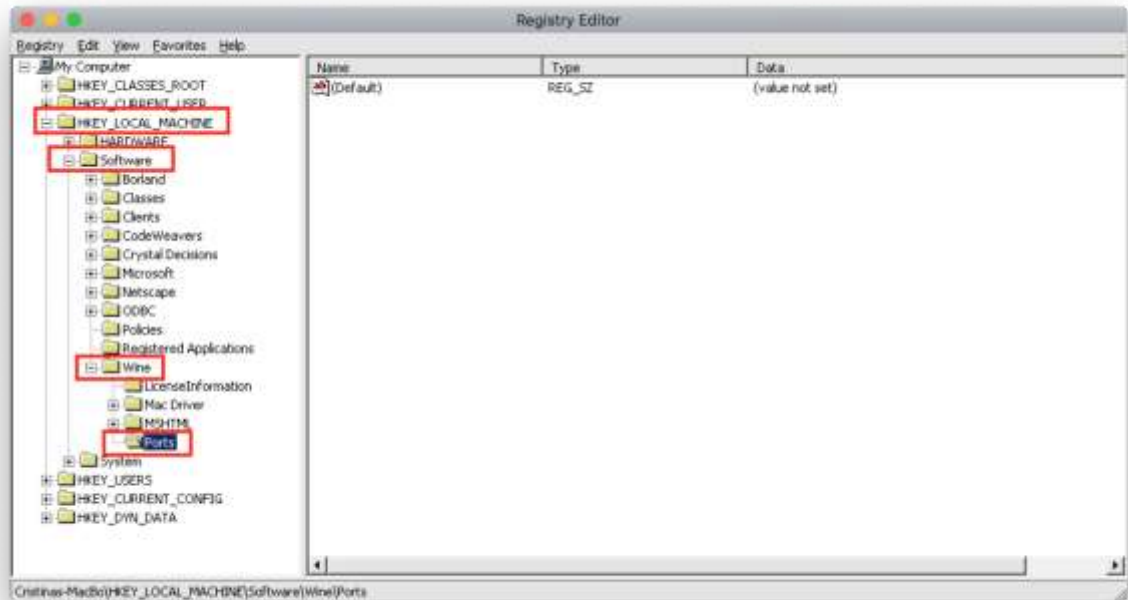2. Select the bottle where you installed the .NET 4.5 and BlueDV.
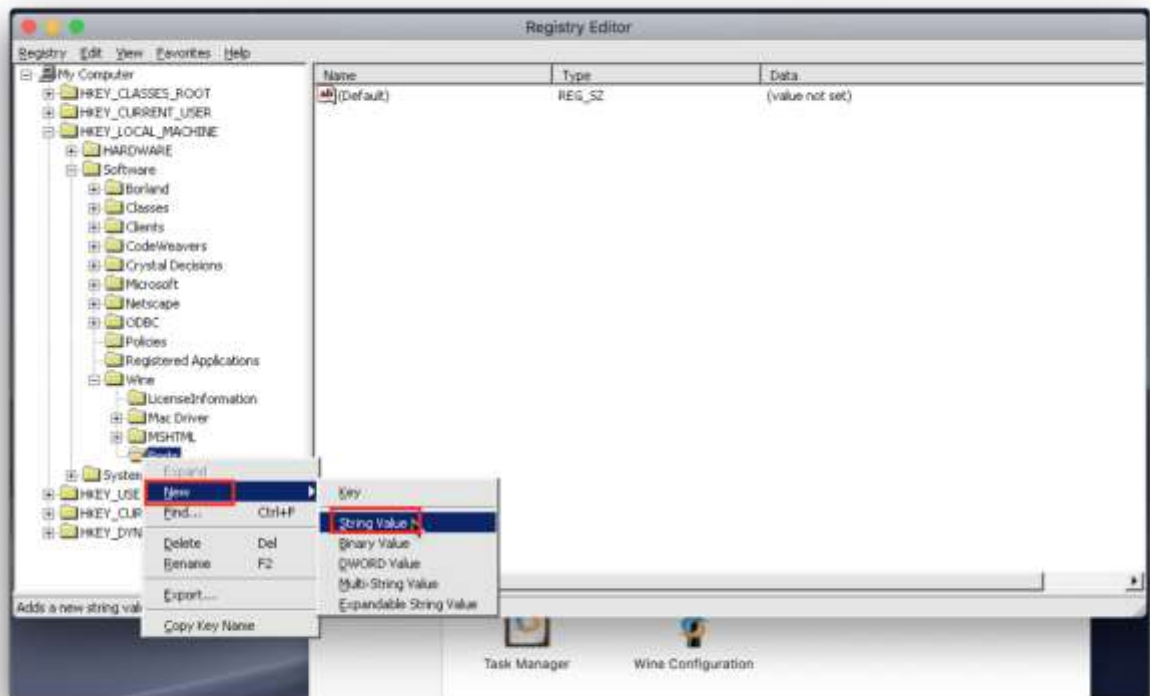
3. Double-click on "Run Command"

4. Type in "Regedit" into the Command section. Then click on "Run"

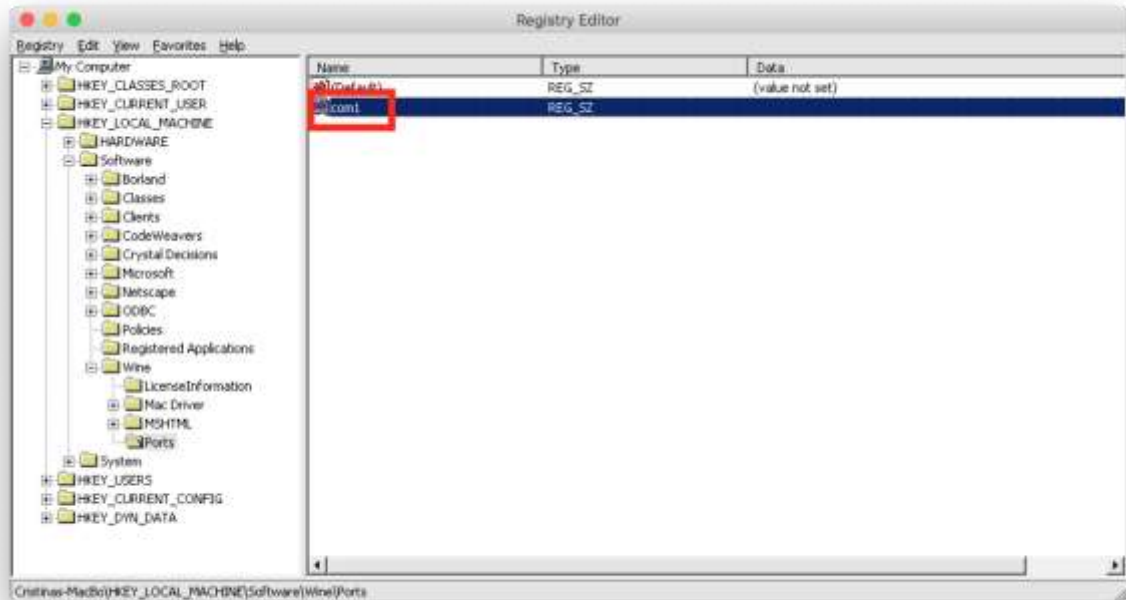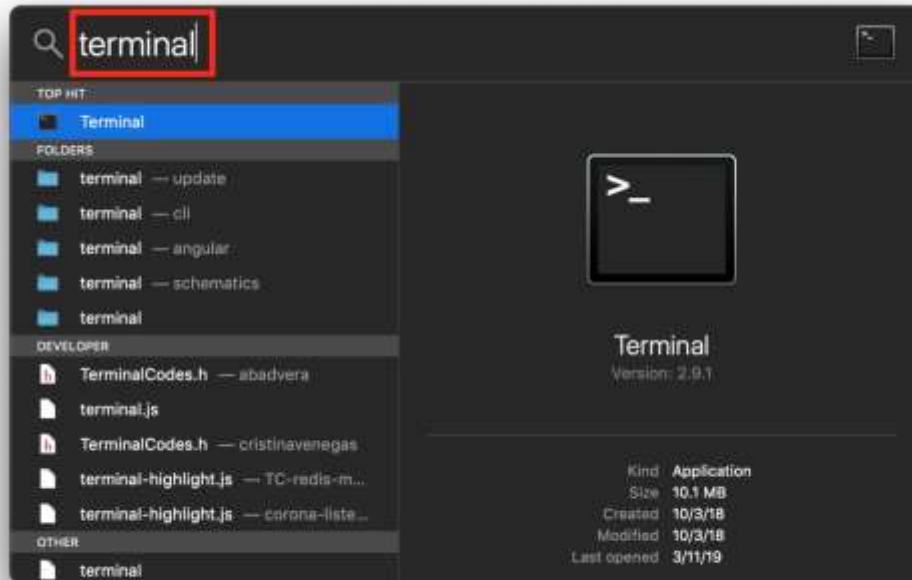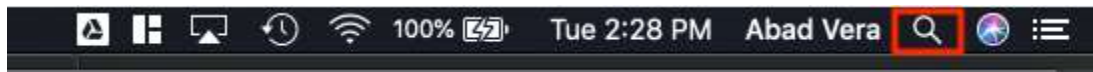5. Within Regedit, navigate to: *HKEY_LOCAL_MACHINE -> Software -> Wine -> Ports*

6. Right-click (For trackpad users press down with two fingers) on "Ports". Then go to *New -> String Value*

7. Type in "com1" into the string value

8. Open the Terminal app. Easiest way to do it is by clicking on the Spotlight icon on the top right corner of your screen. Then type "Terminal" and then press Enter

9. Go back to Regedit and right-click on "com1" and select "Modify…"
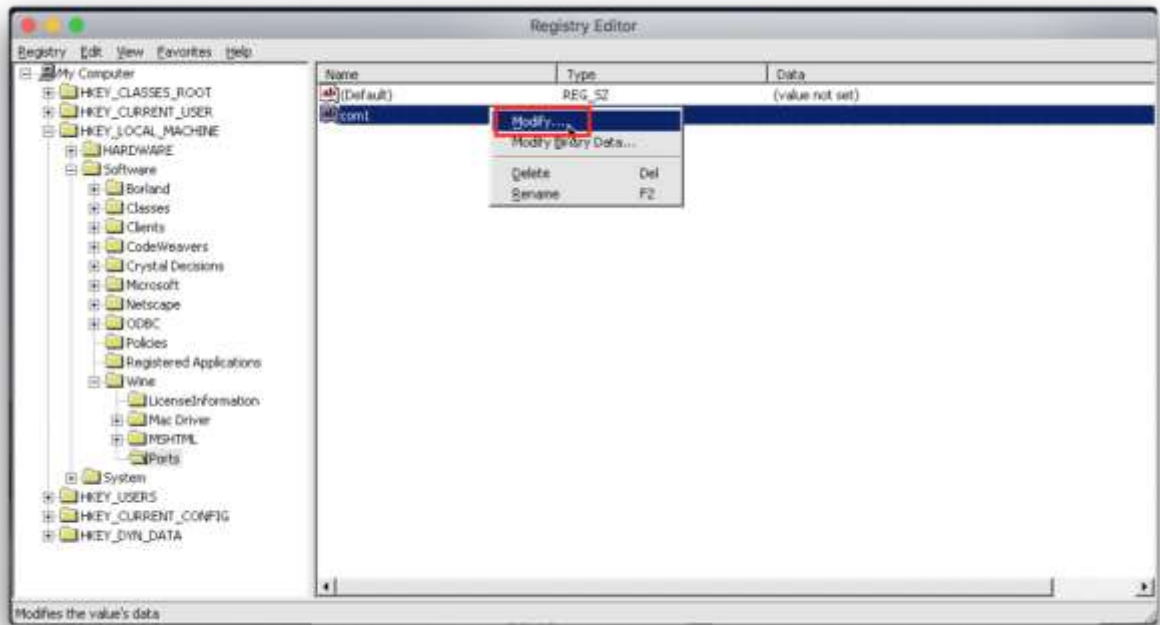
10. Plug in the ZUMspot USB into one of the USB ports on your Mac.
11. Go back to Terminal and type in *ls /dev/tty.usb** and press Enter. The following line will show you the full name macOS gives to your ZUMspot. Copy that line and paste it into the "Value data:" field. Then click "OK"

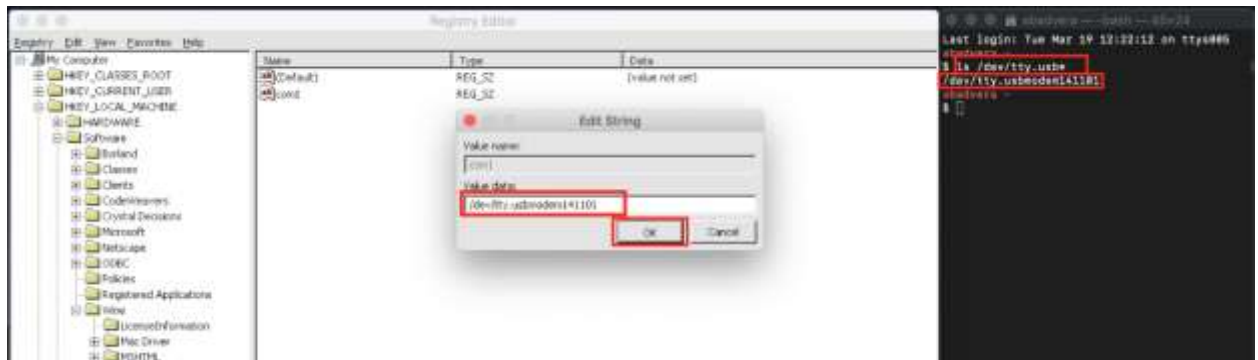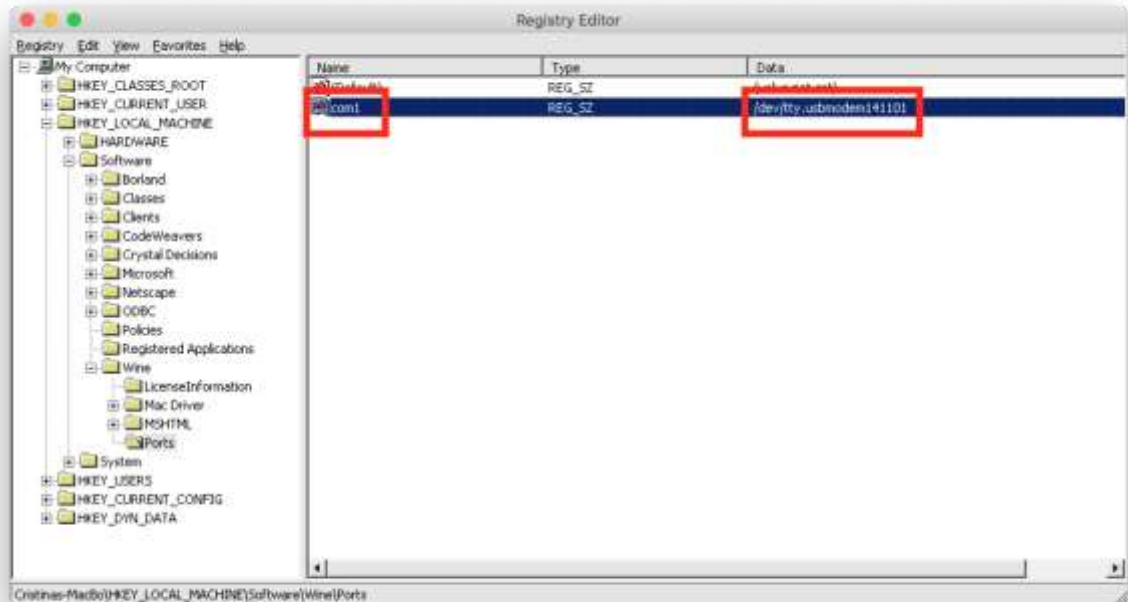12. Now you should see something like this:

a. **NOTE!!** - If you remove the ZUMspot and insert it into a different USB port on the same computer, it will enumerate under a different name. So always insert it into the same USB port or you will have to go through the previous steps all over again to set it up with a different name.

Finishing the setup of BlueDV

1. Open BlueDV by clicking on the icon in the taskbar or double-click from within Crossover
2. Launch the software and turn off "SERIAL" if it is already enabled.

3. Next select "Menu" -> "Setup". As a minimum, set "Your Call", the "Serial Port Radio", "DMR ID" and "Frequency". Next select "Save"
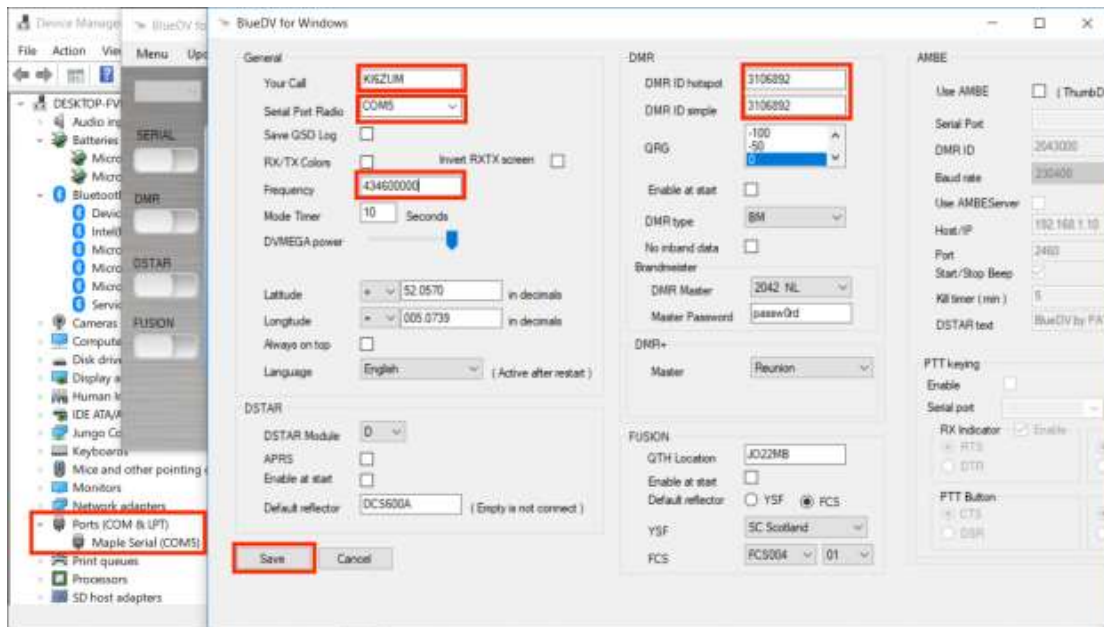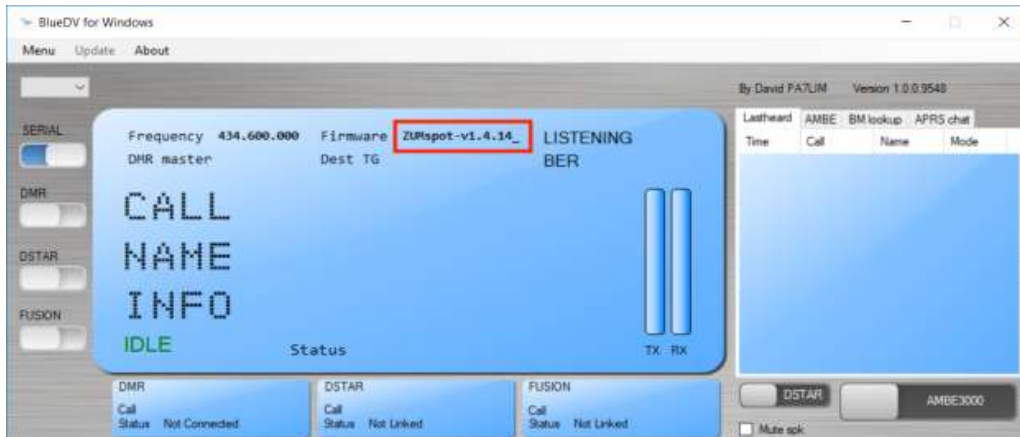

NOTE: If you reconnect the ZUMspot to another USB port, it may enumerate under a different COM port. If so you will need to update the settings.

4. Next turn "SERIAL" back on.

5. If the USB connection to the ZUMspot USB is functional, the software should display the "Firmware" version of the ZUMspot.

6. As an example, for DSTAR, turn on the DSTAR button, select the reflector ("REF") you wish to connect to and then select "Link"

7. Once connected to the reflector, the software will display info when others are transmitting.

Setup Pi-Star:

WiFi:

- Plug in the ZUMspot USB, to one of the USB ports on the Raspberry Pi.
- Power up the Raspberry Pi
- After 3 minutes, scan for WiFi access points from your phone or laptop. One should appear with the name "**Pi-Star-Setup**"
- Connect to it. When asked for the Wi-Fi password type in: raspberry
- After 3 minutes, go to your web browser (Chrome, Firefox, etc.) and connect to the website:
  - http://pi-star (for Windows, Linux and Android devices
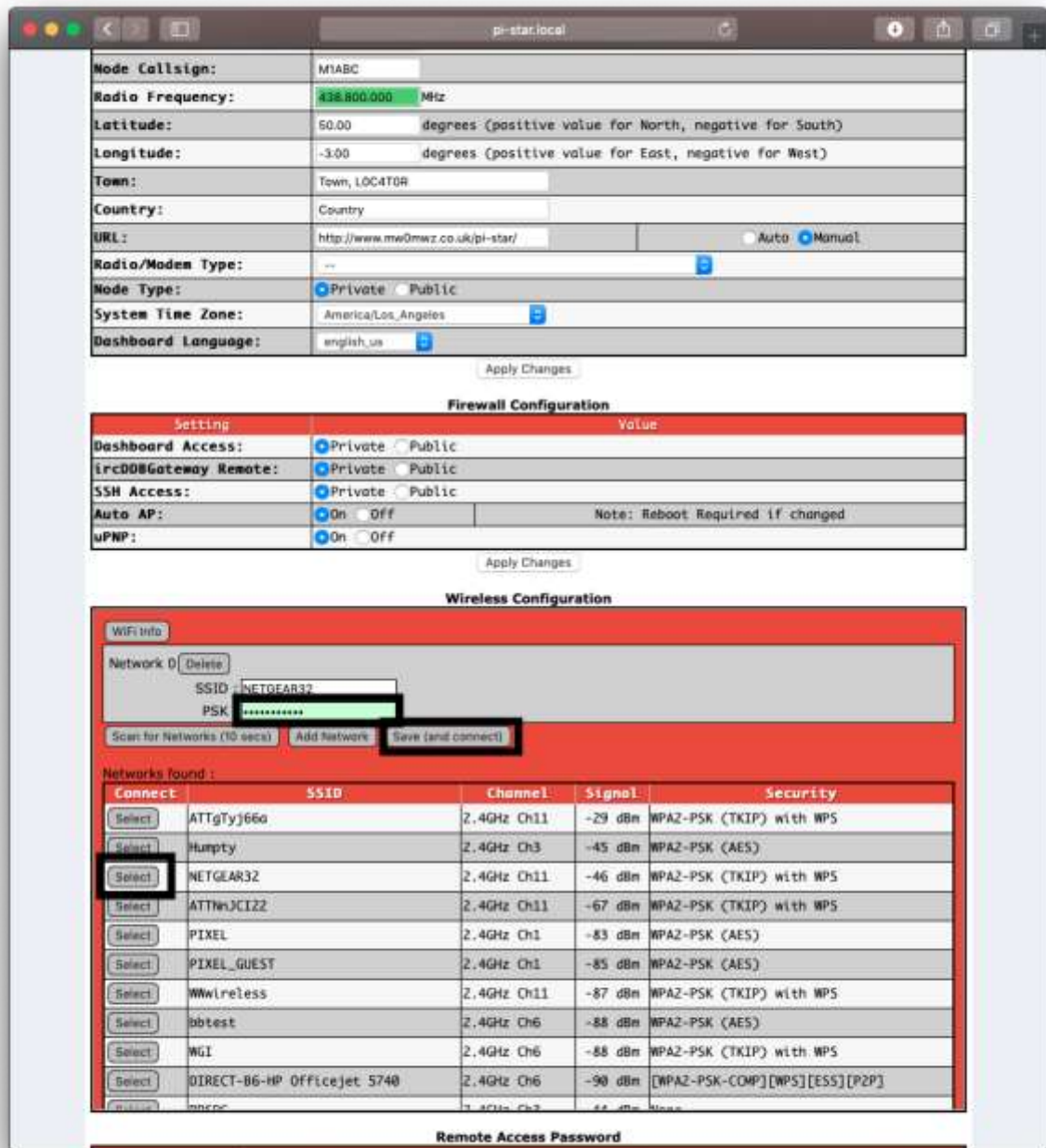 - http://pi-star.local (for OS X and iOS devices)
- You should see this page.

- Go to *Configuration*
  - You will be asked to put in the default username which is "**pi-star**" and the default password which is "**raspberry**"

○ Select "**Configure WiFi"** and then click on **"Scan for Networks (10 secs)"**
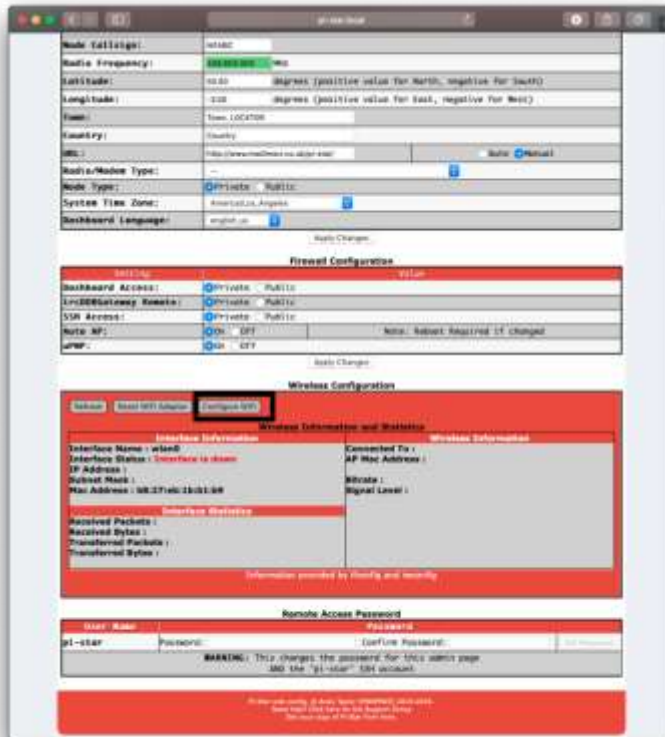
● Select your WiFi SSID and enter your password.

- Click on "**Save (and connect)"** to save the WiFi configuration

- Reboot your Raspberry Pi
- Now you can continue on the "**Configuration**" section below.

Ethernet:
- Plug in the ZUMspot USB, to one of the USB ports on the Raspberry Pi.
- Connect an Ethernet cable to the Raspberry Pi and then turn on the power.
- After 3 minutes, go to your web browser (Chrome, Firefox, etc.) and connect to the website:
  http://pi-star (for Windows, Linux and Android devices
  http://pi-star.local (for OS X and iOS devices)
- You should see this page.

- Go to "**Configuration"**
  - You will be asked to put in the default username which is "**pi-star"** and the default password which is "**raspberry**"

Configuration:
- Change the Node Callsign to your own, set the "**Radio/Modem Type**" to "**ZumSpot - USB Stick**", set the "**System Time Zone**" to your timezone, and set the "**Dashboard Language**" to the language you prefer.

- Click "**Apply Changes"** when you are done
- When everything reloads, you will need to re-set the "**Radio/Modem Type"** to "**ZumSpot - Raspberry Pi Hat (GPIO)"** and click "**Apply Changes"** again.

Configuration (example to enable D-Star):

- Now you can turn on D-Star by selecting the "**D-Star Mode**" switch and clicking "**Apply Changes**"

Finished:

Once you have completed any of the configuration steps above you can start using the ZUMspot USB to connect to D-Star, DMR and other networks.

There is more information on configuring and using Pi-Star in this document.
https://amateurradionotes.com/images/1-Playing_with_Pi-Star.pdf

Support:

MMDVM Yahoo group:
https://groups.yahoo.com/neo/groups/mmdvm/conversations/messages

Pi-Star support forum:
https://forum.pistar.uk/

Pi-Star Facebook support group:
https://www.facebook.com/groups/pistar/

Pi-Star Wiki:
http://wiki.pistar.uk

ZUM Radio Facebook group:
https://www.facebook.com/groups/249802742395450/