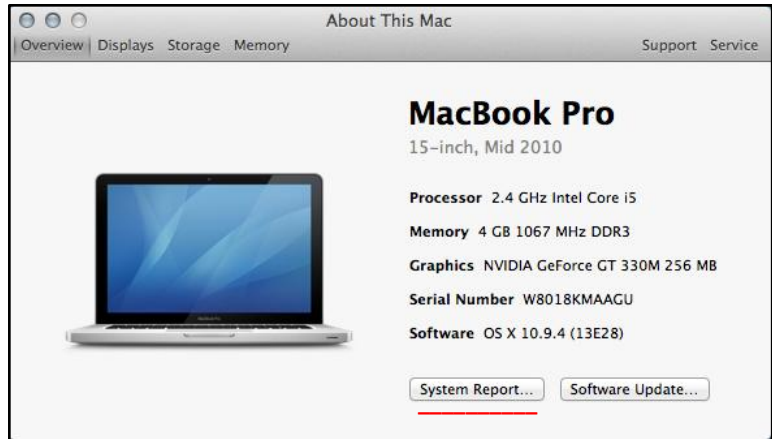# USB Driver Installation (Example on OS X 10.9.4)

1 – Connect Xenophone to the Mac using a standard USB cable then power on Xenophone.

2 - If you have installed the latest OS X version on your Mac, it contains Xenophone USB chip driver. For verification, Go to the **Apple menu** and select **About This Mac** > **More info > System Report**:

3- Click on "**USB**" on the left and on the **"USB <->Serial"** If you see the following information, there will be no need for driver installation, otherwise follow the steps listed below:
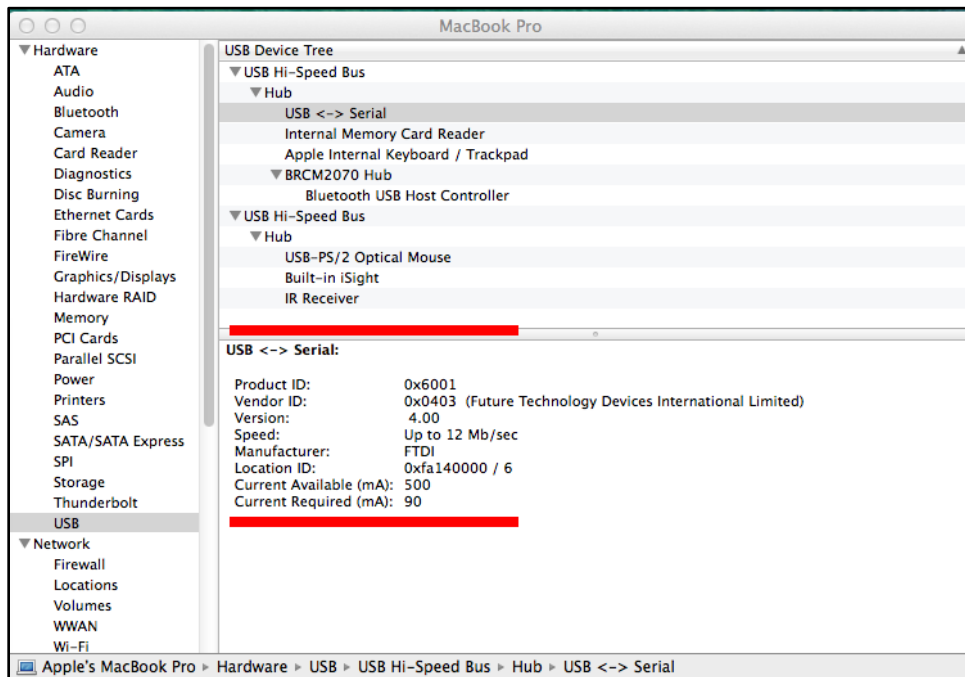
4- Download the latest VCP driver of Xenophone USB chip from this link:

http://www.ftdichip.com/Drivers/VCP/MacOSX/FTDIUSBSerialDriver_v2_2_18.dmg

This is for the current version at the time of writing (version 2.2.18) the same instructions should apply for any future updates (more info: http://www.ftdichip.com/Drivers/VCP.htm).

FTDIUSBSerialDriver_10_3.pkg which is specific to OSX 10.3 (Panther)
FTDIUSBSerialDriver_10_4_10_5_10_6.pkg which is specific to OSX 10.4 (Tiger), OSX 10.5 (Leopard), 10.6 (Snow Leopard), 10.7 (Lion) and 10.8 (Mountain Lion).

To install the driver on the Mac you simply click on the .pkg that matches your version of OSX.
With Lion and Mountain Lion, you will need to bypass the new Gatekeeper security function to install the pkg file. Simply press **Cntrl-Click** when you select FTDIUSBSerialDriver_10_4_10_5_10_6.pkg. This will bring up a pop-up menu. Select Open from this menu:
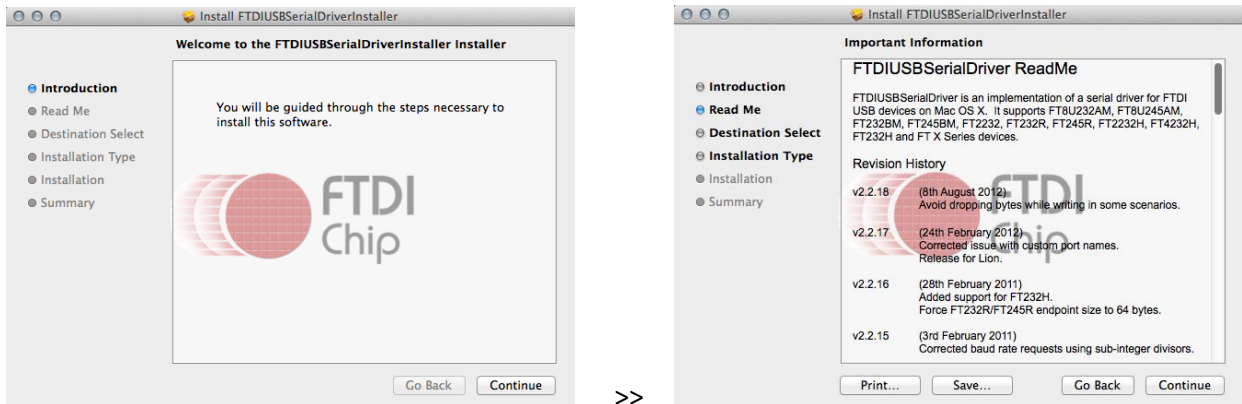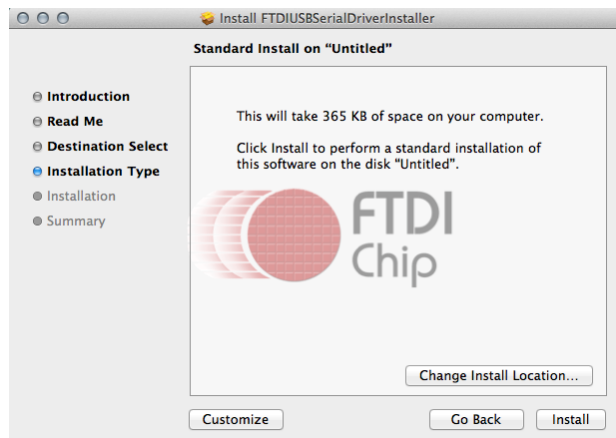
>>
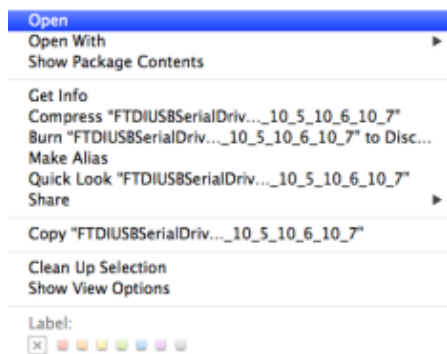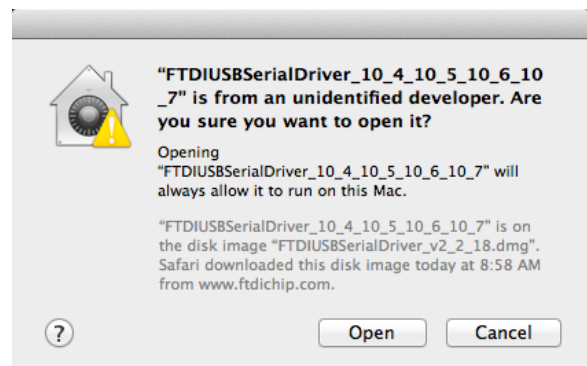
5- Select "Open" and the VCP driver install process will begin (see next page).
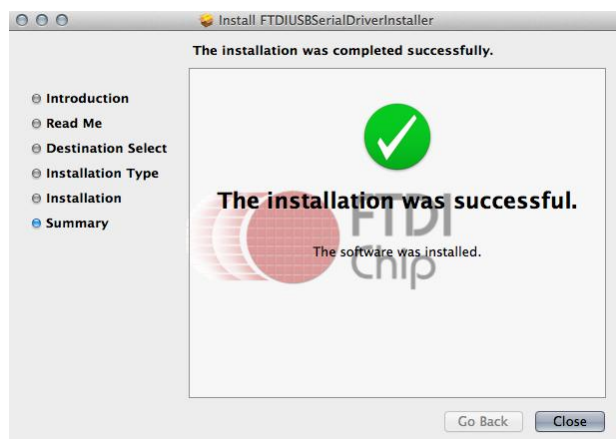
6- Select **continue** to install the driver, the same at the **ReadMe screen**.

>>

7- Select Install.

8- After a successful installation this page will be displayed.

Updating Firmware

Before performing update Xenophone's USB driver must be installed on your Mac. you also need a terminal application for uploading the firmware file to your device. First download and extract CoolTerm:

http://freeware.the-meiers.org/CoolTermMac.zip

Then download "**baudrates.zip**" and extract it. Place "**baudrates.ini**" inside the same directory in which the CoolTerm application resides:

http://www.hypersynth.com/xenophone/download/baudrates.zip

Step By Step instructions

1-Download the latest firmware of your device and extract it:

http://www.hypersynth.com/xenophone/download.html

2- Power off Xenophone. Make sure USB cable is connected and CoolTerm is not running then **HOLD [Latch] BUTTON** while powering your device on. When you see the following message, release the **[Latch]** button. In this case the device enters OS programming mode and waits for incoming data and **latch LED** turns on:
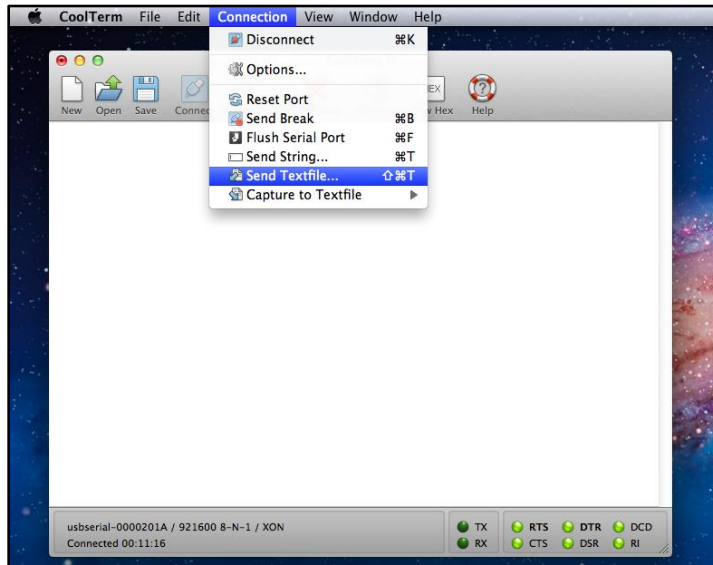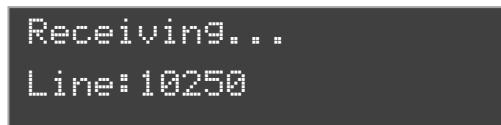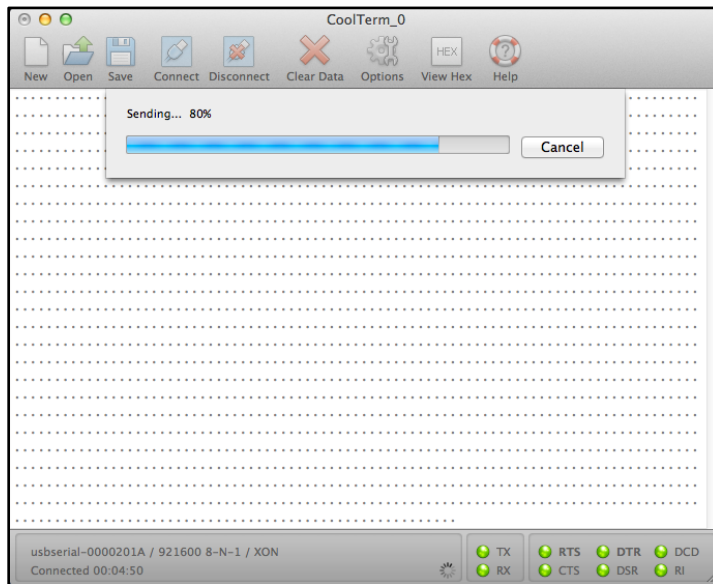

3-Run **CoolTerm > Options**, select your device port, set baud rate to **921600** and enable **XON**. Click **OK** then **Connect**.
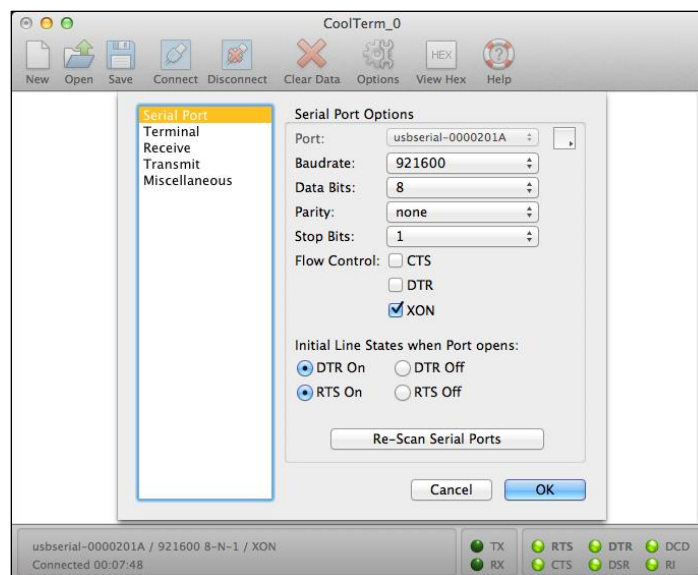
4-Select **Connection > Send Textfile** and locate your device firmware (***.hex**).

5-CoolTerm starts sending at the same time you must see activities on your device display too:

6-After a successful update Xenophone **must restart itself** and start up normally.

If you encounter any problem in above method or the display is stuck while receiving, disconnect the link and power off your device then begin from step 1.

> *Remember:* Firmware update is only available via USB port which is faster and safer than using the common method via MIDI interface. The update mechanism that Xenophone uses is **Fail-Safe**. There is no way that your device gets damaged during an unsuccessful update process. The boot loader area of the internal flash memory is **write-protected** at the factory. But it is recommended that you **DO NOT** power off your device, shutdown your Mac, disconnect USB cable or disconnect serial link during data transferring.

MIDI Over USB

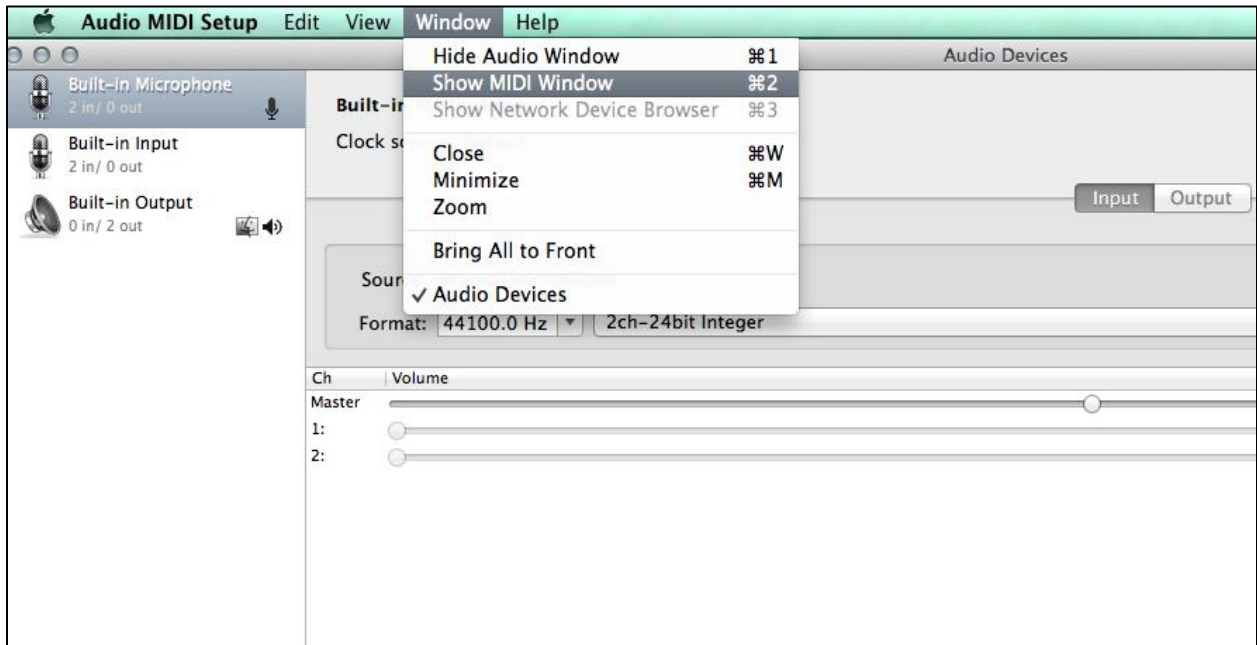Before using this feature Xenophone's USB driver must be installed on your Mac.
Make sure **[MIDI Over USB = On]** in Xenophone Global menu.
It is also needed to setup **IAC driver** and install a **USB<->Serial Bridge**:
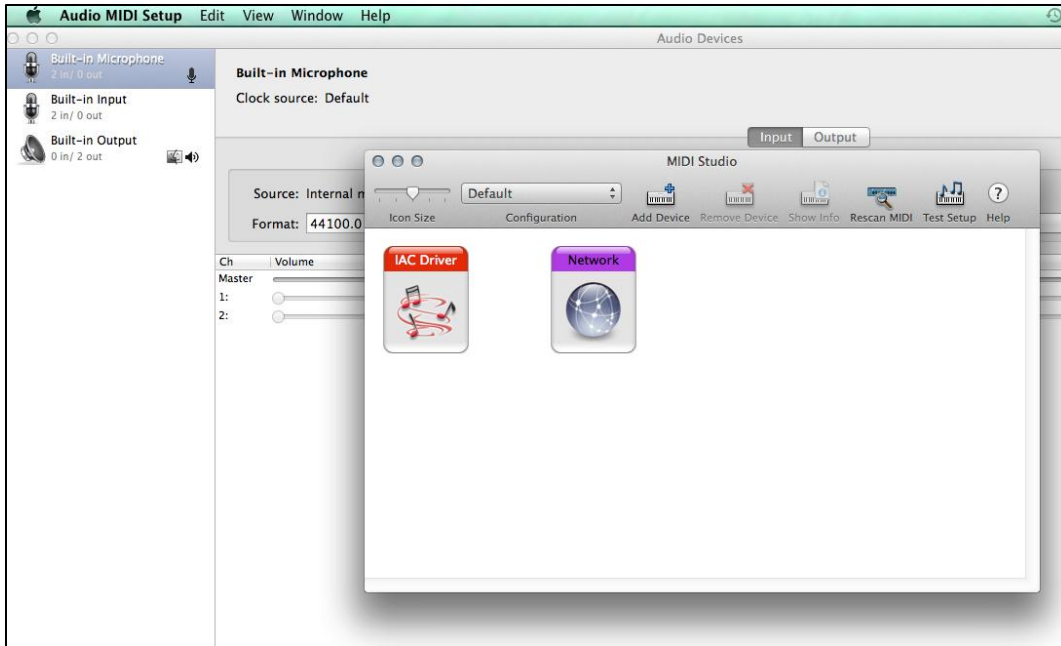
Setting up IAC driver:
Open **Audio MIDI Setup** (in the Utilities folder in Launchpad).
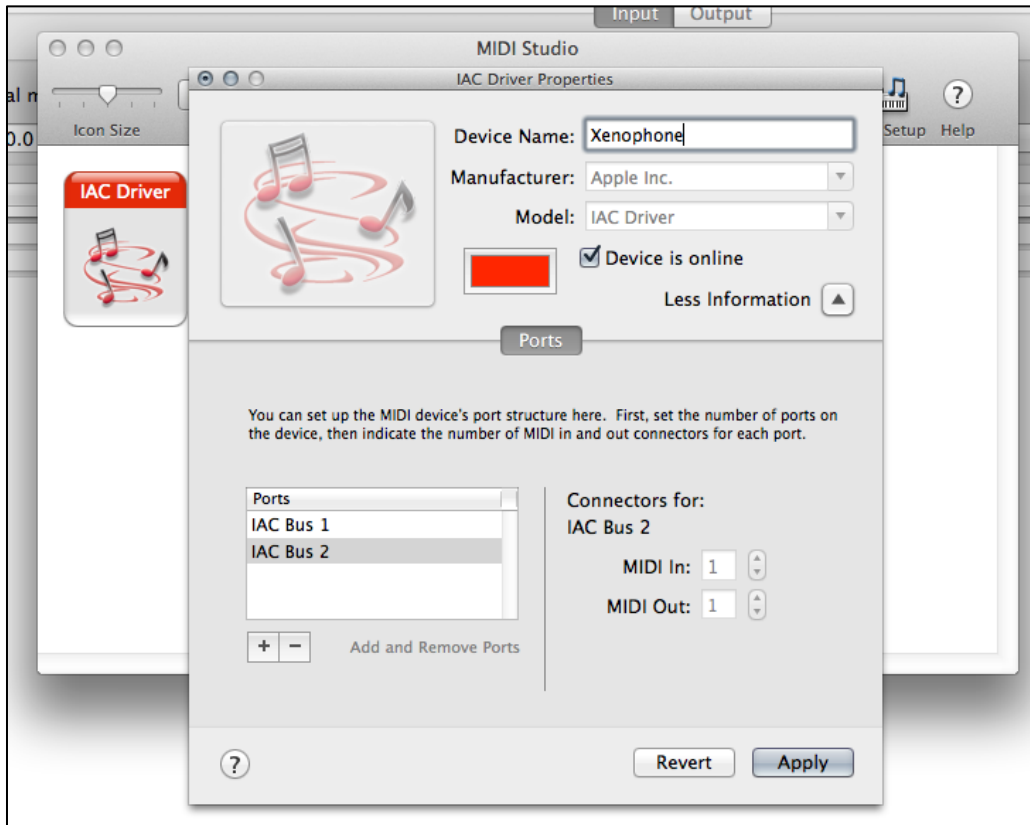In Audio MIDI Setup, choose **Window > Show MIDI Window**:

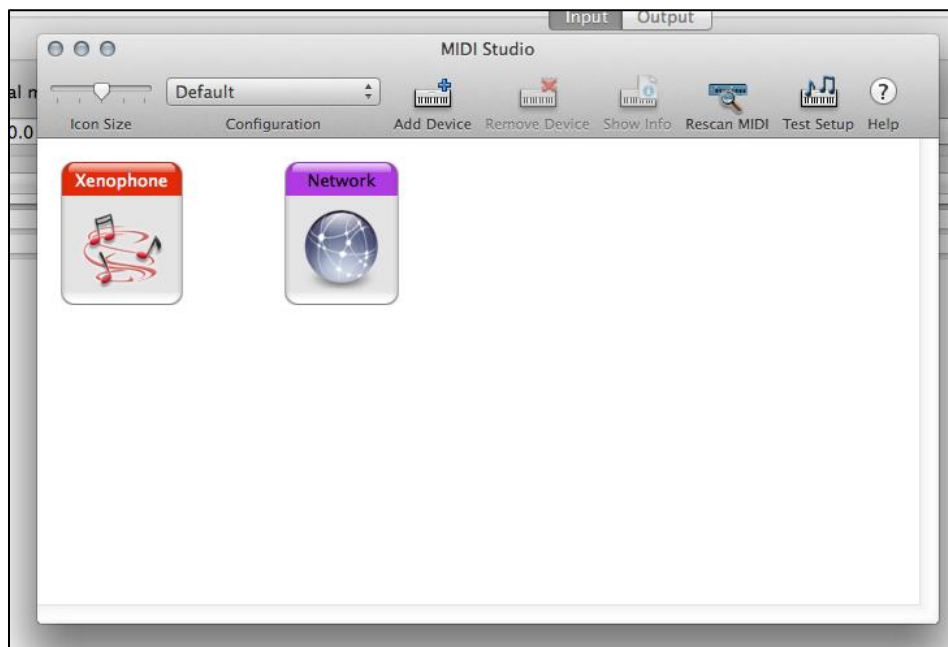The **MIDI Studio** window will open (next page):

Double click on the IAC Driver icon, the IAC Driver Properties window will open. Type **Xenophone** in Device Name text box, and make device online:

Now create another port by clicking on the **+ button**, and name it to Xenophone:
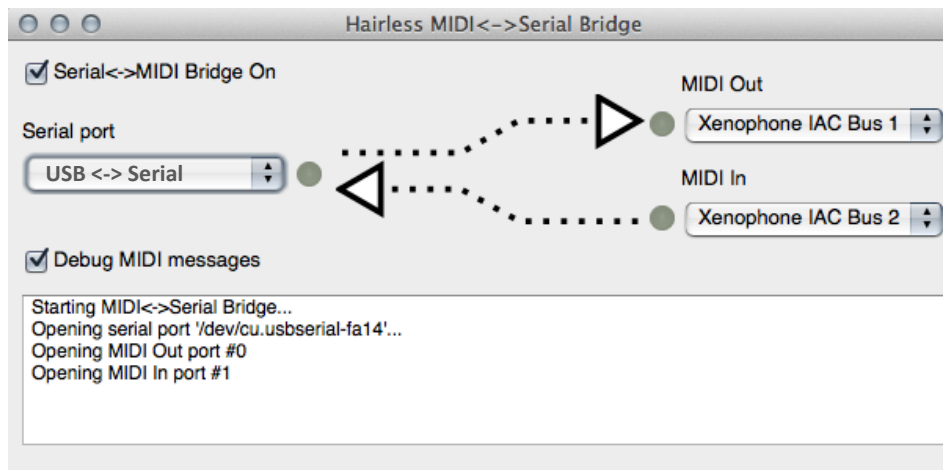

Click on **Apply**:

Installing MIDI<->Serial Bridge:

Download and extract this free app:
https://github.com/downloads/projectgus/hairless-midiserial/hairless-midiserial-0.4-macosx.zip

Run "**hairless-midiserial"** app then**:**

1- Select **[USB Serial Port]** as Serial Port.
2- Select **[Xenophone IAC Bus 1] as** MIDI Out and **[Xenophone IAC Bus 2] as** MIDI In:

Now **[Xenophone IAC Bus 1]** represents **Xenophone's MIDI OUT** and **[Xenophone IAC Bus 2]** represents **Xenphone's MIDI IN**.

While using MIDI OVER USB the standard hardware MIDI ports will be disabled in Xenophone.

If you encounter any problems, or you have suggestions for future revisions, don't hesitate to contact our technical support at: Support@hypersynth.com

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