G2 Application Note for Installing X-CTU and Adding XBee S1 Modules on Mac OSX Part 1/3

Introduction:

This tutorial demonstrates how to use the new XCTU interface with the XBee S1 modules. The tutorial covers how to install X-CTU and add your XBee device for configuration.

Materials Needed:

2x XBee S1 Modules 1x Mac Computer 1x XBIB-U-DEV REV. 3 Board 1x XBIB-R-DEV REV. 4 Board 1x Power adapter for the XBIB-R-DEV Board 1x Loopback Adapter 1x Type A USB

Procedure:

 Before you start, if you have not already, you need to install the FTDI driver for your Mac OSX using the VCP (Virtual COM Port) driver and not the D2XX driver. You can download the driver here: <u>http://www.ftdichip.com/Drivers/VCP.htm</u>.

You also need to install the driver for the XBIB-U-DEV board, which can be found here:

http://www.digi.com/support/productdetail?pid=3130&type=drivers

2) Go to

http://www.digi.com/support/productdetail?pid=3352&osvid=57&type=uti lities and download XCTU Next Gen Installer v6.1.0 for MacOS X.

3) After you have downloaded the program, you should see an image file called 40003027_A.dmg wherever you have saved it. Double click on that image file and agree to the terms (you can read it if you want to). You should now see the mounted XCTU device on your desktop. Drag the xctung.app into your application folder to install the program.



- 4) Place your XBee S1 module onto the XBIB-U-DEV board and hook up the board to your Mac using the Type A USB. You should see the LED 1 and 2 turn on and LED 4 will be blinking. The red LED indicator should be blinking as well. Hook up the other XBee module to the XBIB-R-DEV board with the Loopback adapter.
- 5) Once installed, start the xctung by going into your Launchpad.

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6) Click on the Add Devices icon near the top left. Hit the Refresh ports button. If you have installed the FTDI drivers correctly, your usbserial port should display like above, but yours might be named differently. Click Next.

7) By default, the program selects two baud rates: 9600 and 115200. Our XBees are 38400 so we will select that, but yours should be 9600. Click Finish.

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	Ø 38400 57500 115200 230400 Comparison Flow Ø 1 2	v Control: None Hardware Xon/Xoff	Select all Deselect all Set defaults		
	< Back	Next > Cancel	Finish		

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8) The program will now try to locate your connected XBee. If it cannot find any devices, you will need to go back and select another baud rate. If it finds it, click Add Selected Devices to finish.

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i i Nadio Modules	Search finished. 1 device(s) found	
Click on Add devices or Click on Click	1 device(s) found Stop	een 🔅 Configuration,
radio modules to the list.	Port: usbserial-000012FD - 38400/8/N/1/N -	Lloud working modes
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9) You will now see your device under the Radio Modules section on the left.



Theodore Pham G2 – Feb. 24, 2014 10) To configure the XBee, click on the XBee device. Our XBees were configured using CoolTerm, but you can still configure them here as well using the interface instead of a terminal. You can check out the other appnote for configuration using CoolTerm.

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Radio Modules	Radio Configuration [- 0013A20040025A77]	
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MAC: 0013A20040025A77	Firmware information Product family: X824 Function set: X8EE 802.15.4 Firmware version: 10e6	Written and default Written and not default Wr Changed but not written Wr Error in setting
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	(i) NT Node Discover Time 19	x 100 ms 💿 🤌
	(i) NO Node Discover Options 0	۷ ک
	(i) CE Coordinator Enable End D	evice [0] 💠 🄇

Sources:

-Appnote Using Old X-CTU interface http://www.ece.ualberta.ca/~elliott/ece492/appnotes/2010w/XBee_Wireless_Communica tion/

-X-CTU Download http://www.digi.com/support/productdetail?pid=3352&osvid=57&type=utilities

-XBIB-U-Dev board REV.3 driver http://www.digi.com/support/productdetail?pid=3130&type=drivers

-FTDI driver - VCP (Virtual COM port driver for MAC) http://www.ftdichip.com/Drivers/VCP.htm

-XBIB-U-DEV Board Layout http://ftp1.digi.com/support/documentation/xbibudev_referenceguide.pdf

-XBIB-R-DEV Board Layout http://ftp1.digi.com/support/documentation/xbibrdev_referenceguide.pdf

-XBee Ref: http://www.ladyada.net/make/xbee/ref.html