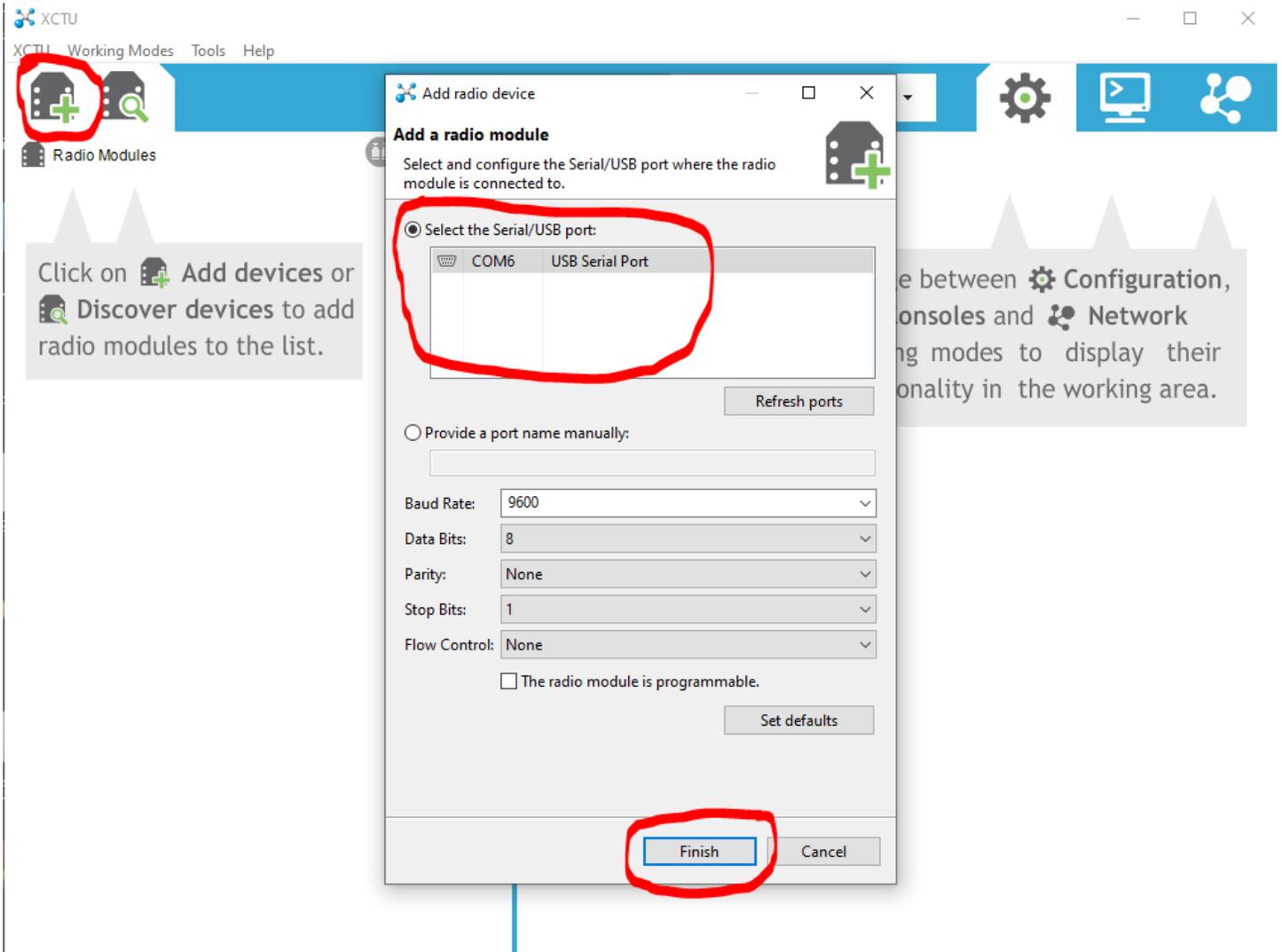
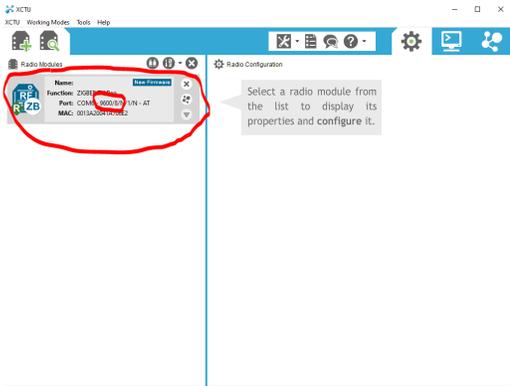


When connecting USB make sure you hear the auditory ring of the computer confirming that there is an actual connection. If there is not a conformation, check the jack connections, otherwise XTCU will not work.

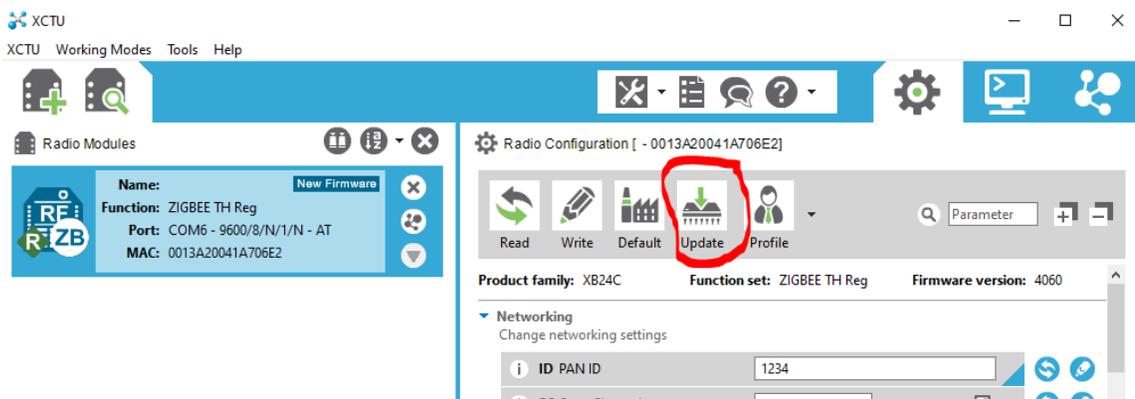
After connecting USB, open XTCU and click the add radio button (upper left). If there is no com port listed in the Select the Serial box, then the USB is not connected so check the jacks again. The COM# must be highlighted in order to select Finish at the bottom, if it is not highlighted just click on the COM# to highlight it. (write down or remember the Com port # used for the radios, later with Arduino the same Com port # must be selected in order for them to work with the Arduinos. There is an endnote at the end of this document to do this.)



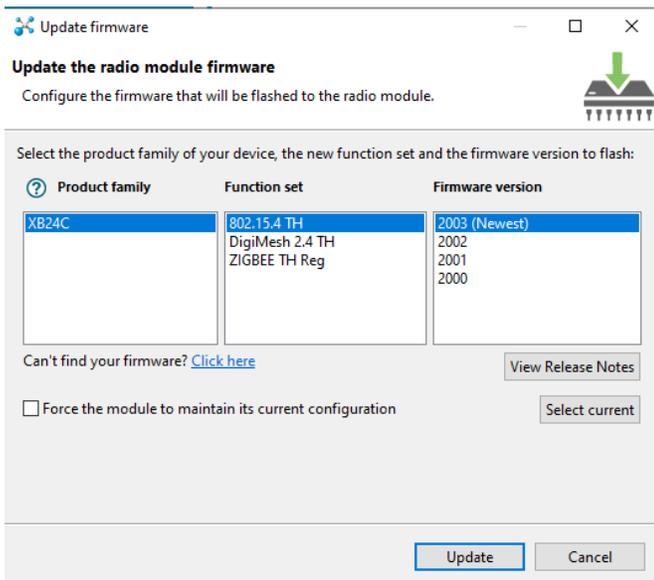
Click on the text box of the newly added radio to open the configuration window



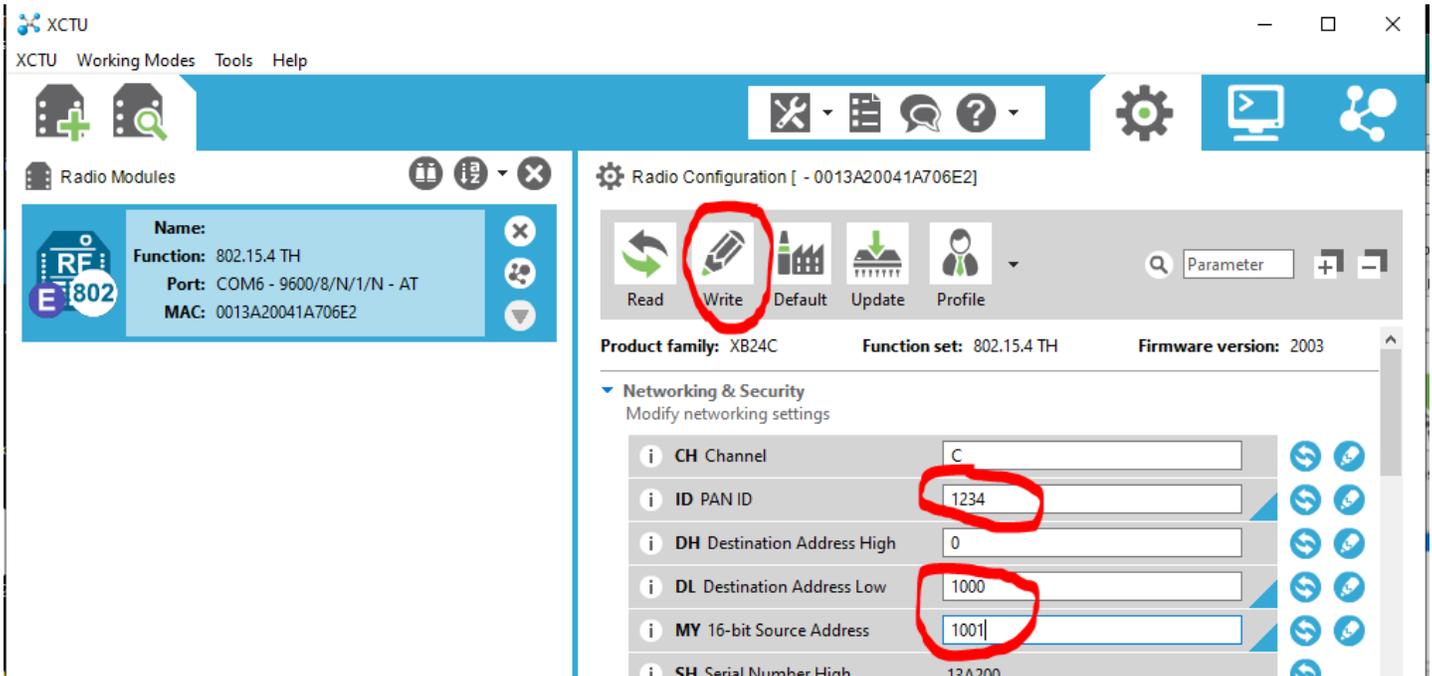
The default firmware on the XBEE radios may not be the version required for a project, click the Update button to open a window to select a different version.



Jeremy Blum's example required the 802.15.4TH firmware, so I selected that to update. The default was the ZIBBEE TH Reg.



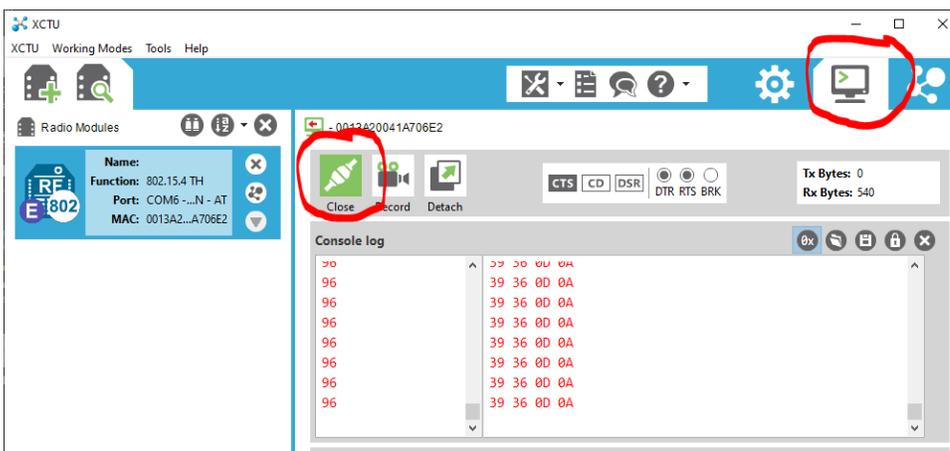
After the firmware is updated, the Radio Configuration window will show the new parameters that can be customized. This example is for Blum's XBEE communication (p.230 - 234). Typing in a custom Personal Area Network (PAN) ID, Destination address (DL) and My address (MY). For a pair of radios, the DL and ML are reversed for each but the PAN remains the same. So Radio One = DL (1001), MY(1000) and Radio Two = DL(1000), MY(1001).



After two radios are configured, the communication between them can be tested within XCTU in the Console Working Mode. Click on the monitor icon (upper right) to open this mode.

In order to test, one of the radios needs to be on an Arduino with the Arduino wired and programed to send data (use Blum's Pot to Processing sketch, p. 244). The other radio needs to be connected to computer via XBEE explorer.

Then click the other circled button, it originally is identified as Open and switches to a green Close button after clicking. Data will start streaming immediately if the radios are communicating (red numbers in Console log).



Note for Arduino— once the radios are communicating, you have to physically select the com port within the Arduino IDE. Open the IDE then plug in the XBEE Explorer, then select tools in the IDE and look at the com port listed. It should be the same com port used in the XCTU application. If not, try various combinations of opening the IDE and plugging in the XBEE Explorer until the correct com port appears in the tools menu of the IDE. Once the correct port is listed, you need to actually click on it to select it before opening the serial monitor. Once the monitor is open, confirmation that the radios are working with the Arduino sketch by verifying that there is incoming data.