

Configuring the GPS

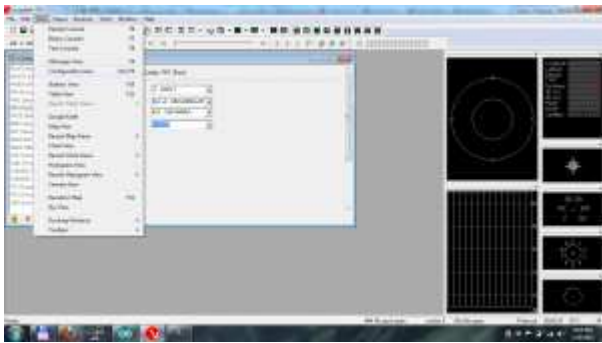
The first order of business is to configure the u-box based GPS module from its default 9600 baud serial speed and 1Hz update rate to a more useful 115200 baud at 10 Hz update rate. To do this, you will need to connect the GPS module to a USB-to-Serial adapter, for example the little [USB FTDI interface we used to set up the Crius Lite](#). Connect GND to GND, 5V to 5V, RX to TX and TX to RX (obviously).

After that, download the u-blox configuration software at http://www.u-blox.com/images/Support/Support_Products/EvaluationSoftware/u-centersetup-6.2.0.0.zip

(SCARICATO con ICONA U Center)

This program allows you to connect to the serial port of your USB to serial interface. Set it to 9600 baud, 8 bit, No parity, no flow control for now, as that's what the u-blox module uses by default. You don't need to change anything but the baud rate really. If that goes well, you should see GPS information streaming in, the little monitoring windows should jump to life. If that doesn't work, try power cycling the GPS.

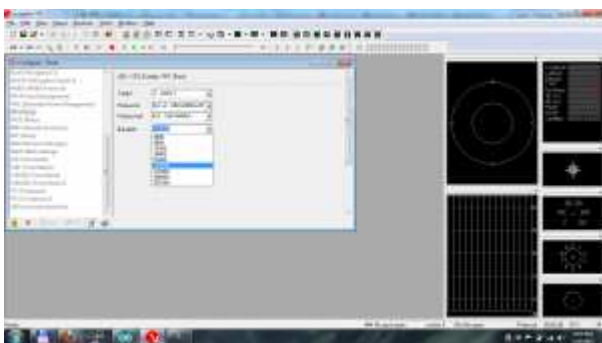
Once you have the GPS working with your PC, you need to go into the configuration window, set the baud rate and update speed, and save the configuration into the GPS memory. You'll notice that there's a small button cell on the GPS module, this actually powers the configuration memory because otherwise the u-blox would revert to default configuration at every power loss.



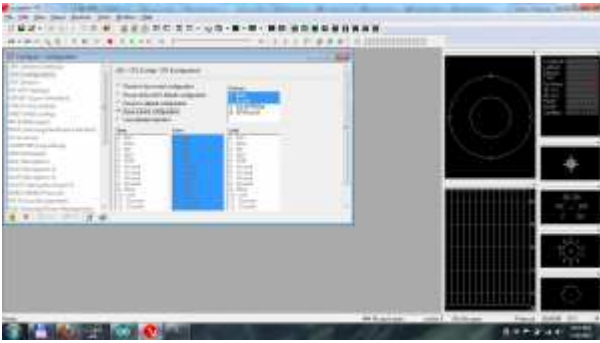
The Configuration Menu can be accessed via "View", "Configuration View"

Now select **PRT (Ports)** from the list on the left, the Target is UART1, and the baud rate is 115200. Leave the protocol options unchanged. Now **Press the SEND button below the list on the left**. If you do not press SEND, the values will not be changed! (Note that the send button is on the left side, below the list of configuration categories. In these screenshots it is grayed out.)

IMPORTANT: After switching the baud rate, your serial connection will be broken! You will need to switch the PC program to 115200 baud and reconnect before the next step!



Now scroll the left hand list down to **RATE (Rates)** and enter 100 ms for the Measurement Period, 10.00 Hz Measurement Frequency, 2 cycles Navigation Rate, 5.00 Hz Navigation Frequency. Again, do not forget to press SEND when done. Now all that's left is to write the configuration to the configuration memory.



Scroll the list up to CFG (Configuration), select “Save current configuration”, and press the SEND button.

Now the GPS module is ready for action.