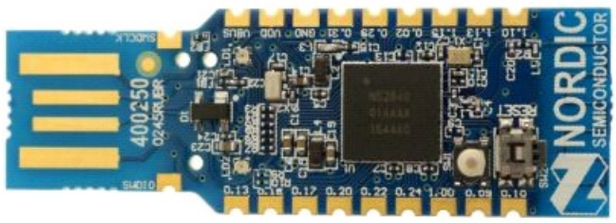
1- 2- in3 !

Testing the in3 client is VERY easy and cheap! You just need this small board:

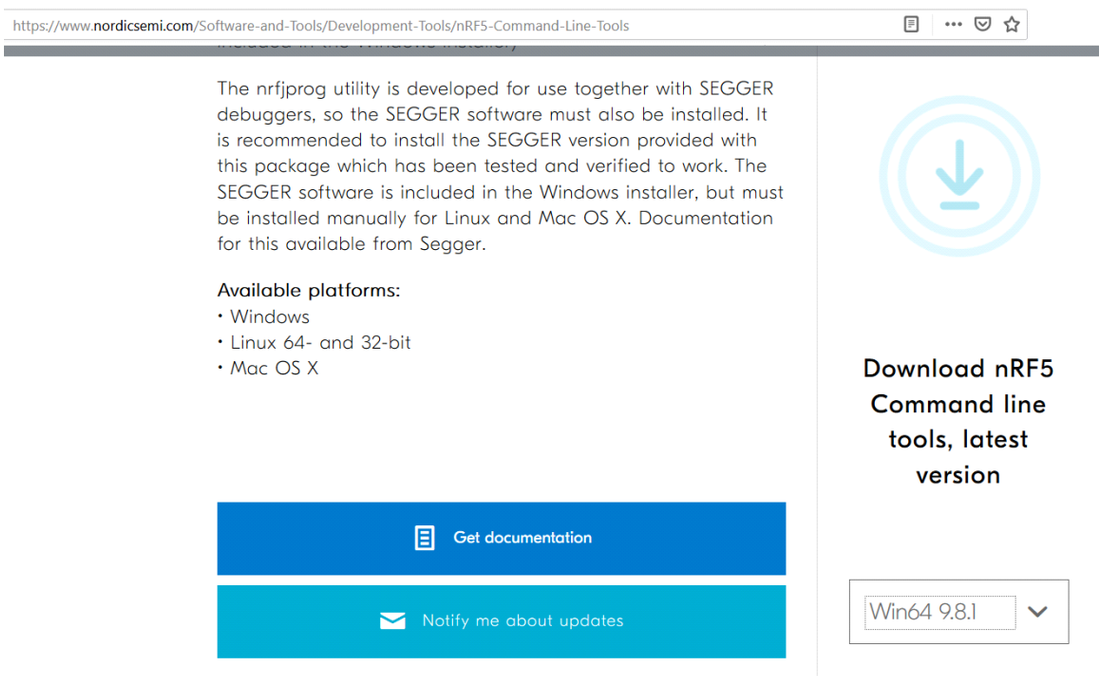


Not so big, eh? You can purchase it on-line from a lot of sellers. It's cheap. Here is a link (Mouser) where you can find also the schematics and some useful information:

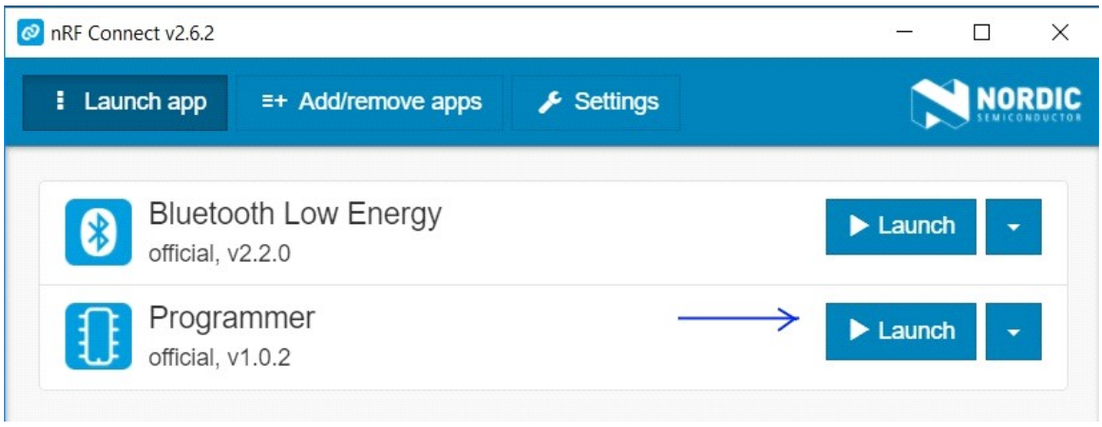
https://www.mouser.de/new/nordicsemiconductor/nordic-nrf52840-usb-dongle/

When you insert this board into an USB socket, your machine (Windows, Linux, MacOS) will recognize it as a serial port. You also can see a red light that glows on and off slowly. This means that the FW is waiting for a firmware update. So, you need a software able to transfer such firmware to the board.

Not a problem! You can download (for free) an Application from the Nordic website:

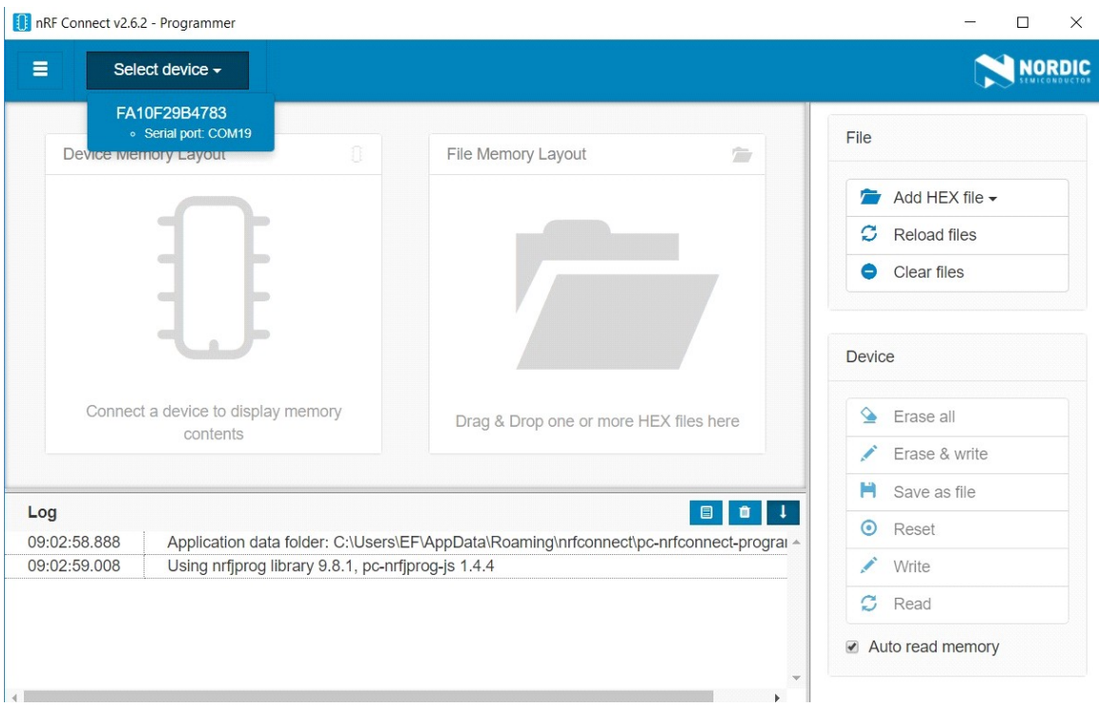


Go to the site, select your OS and download the application. It works very well. It's a professional software. Here is the screenshot of the App running:

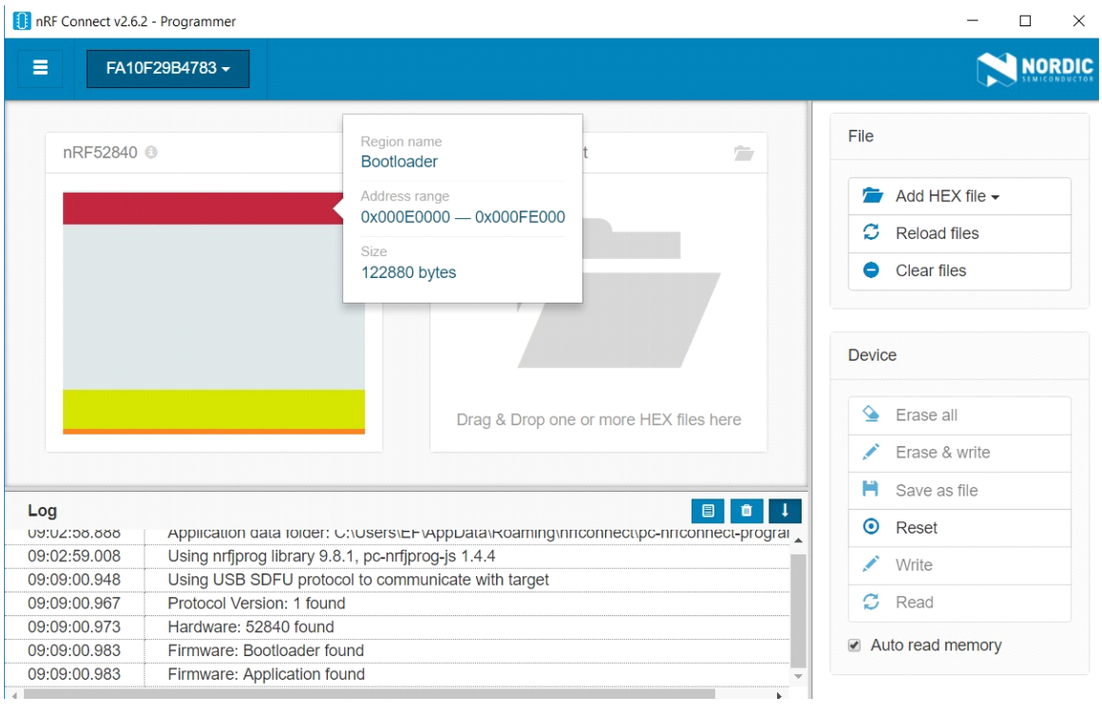


To start the programmer, click "Launch" (better to do it after the usb dongle has been plugged in and has been recognized by the system).

Now the screen changes in this way:

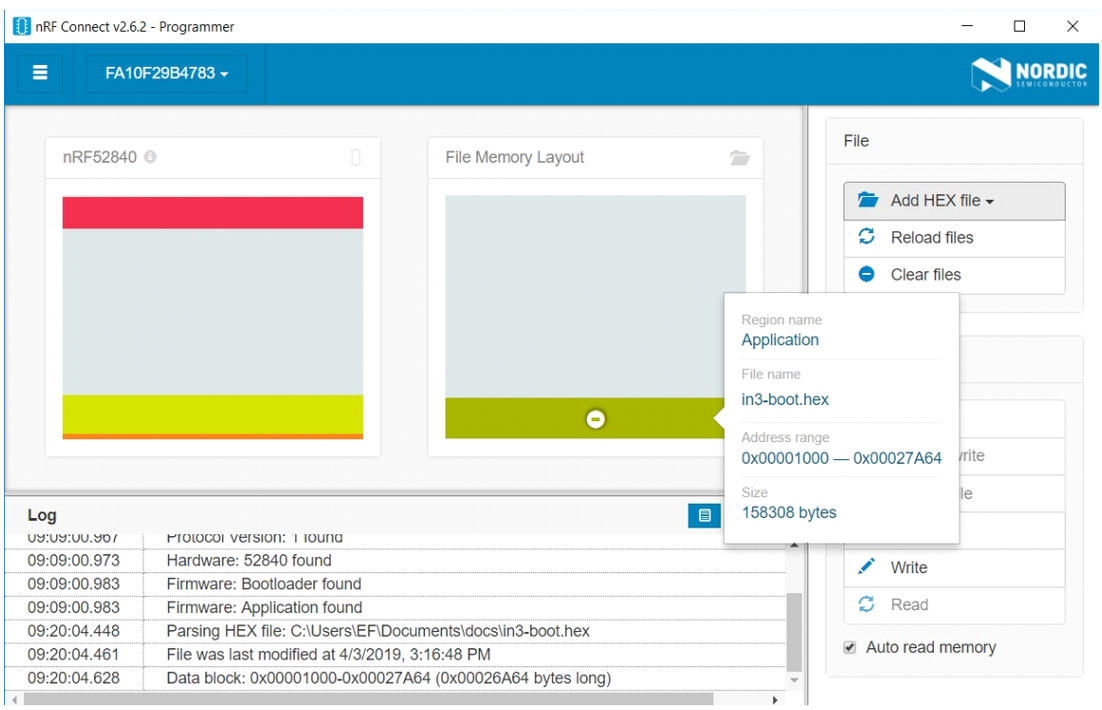


If you click the Select device tab, you will see a list of USB device connected. In this case is just one and is out usb dongle that has been recognized as Serial port COM19 (on a Windows PC). Now, selecting the device, the program will read the contents of the flash memory inside the nRF52840 chip that is on the board.



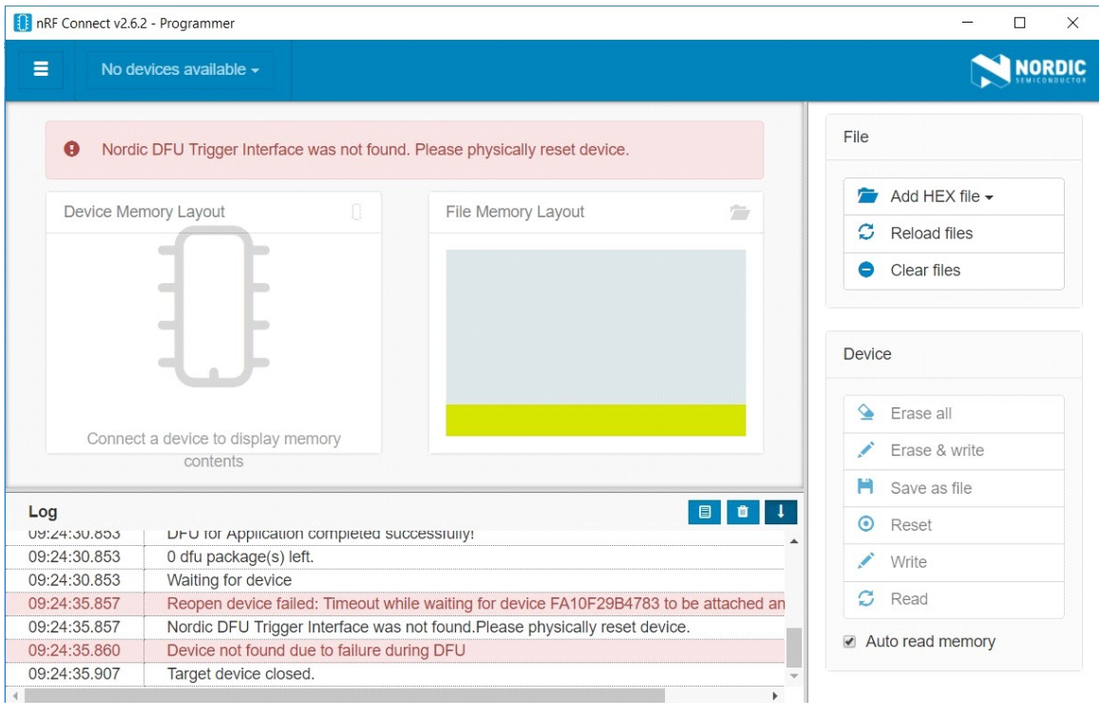
Note that if you move the mouse on the memory map image, you will have some useful information about the meaning of the area and start address and size. VERY useful! In the image there is an application already present on the device. It is our in3 client! Obviously you don't find it in a new purchased device. So, how can I transfer the in3 client from my PC to the usb dongle? I simply have to supply an HEX file to the program. The HEX file can be requested to Slock.it that will send you by email in zipped format.

Well, we have the HEX file in one folder and now we load it using the tab "Add HEX file" and browsing to our folder:



In the box at the right you can see the map of the in3-boot

firmware. It's small, look at the size! Now we can transfer this firmware to the dongle (will overlap a previous one installed) simply clicking the tab "Write".



And now, what happened to the serial port? It's disappeared 'cause the program running now on the USB dongle is the in3 client!

So, what is the behavior? It's very simple. The board, when powered, start the Application (the in3 client) as default, but the bootloader is still present on the the flash memory. If you want to go in bootloader mode (for updating or modifying the in3 client) you have to press the small reset button:

In order to fully test the in3 client, you need an App for smartphone (iOS and Android) supplied by Slock.it. The on board leds will simulate the behavior of a motorized door that can be opened or closed with commands sent via the secure BlockChain infrastructure. Slock.it will supply also a board (PCB) with the module built in and all the hardware needed to operate a true showcase.

That's all, folks!