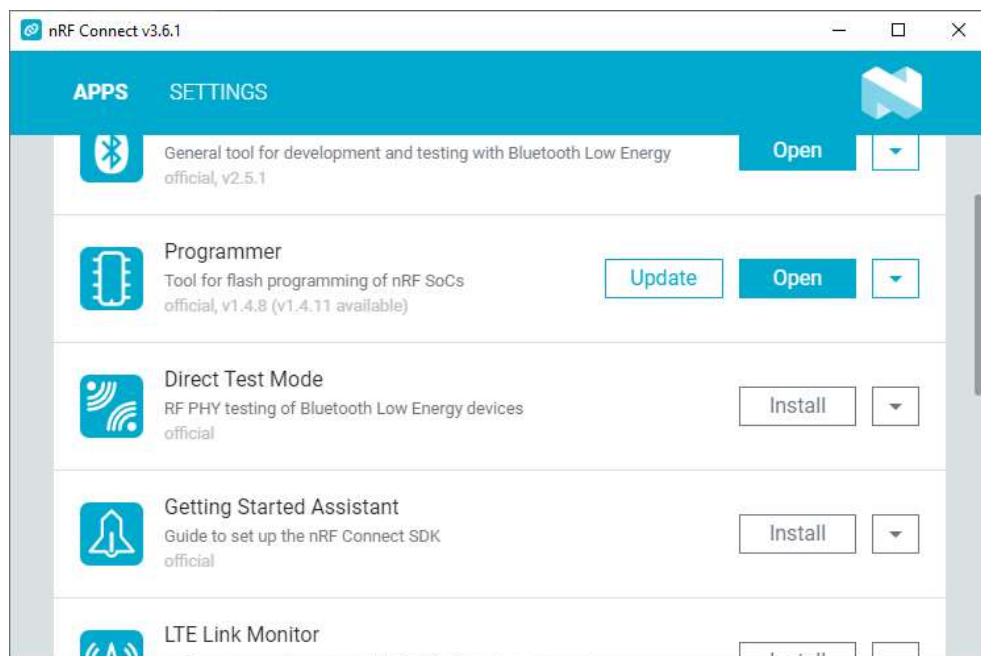


1. Tools

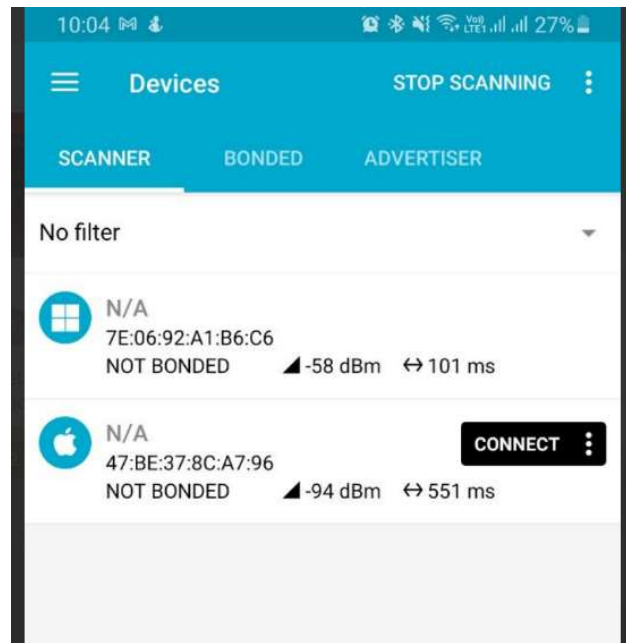
1.1. Tools for nrf code

- Download and install **Segger Embedded studio** v4.12
<https://www.segger.com/downloads/embedded-studio> (Default installation path: C:\Program Files\SEGGER\SEGGER Embedded Studio for ARM 4.12)
- Download and install **J-Flash Lite**
<https://www.segger.com/downloads/jlink/#J-LinkSoftwareAndDocumentationPack> (Default installation path: C:\Program Files (x86)\SEGGER\JLink_V622g)
- Request a free license for SES <http://license.segger.com/Nordic.cgi>
- Down load NRF connect tools <https://www.nordicsemi.com/Software-and-tools/Development-Tools/nRF-Connect-for-desktop>



1.2. Tools mobile app

Nrf Connect (in both android and IOS)

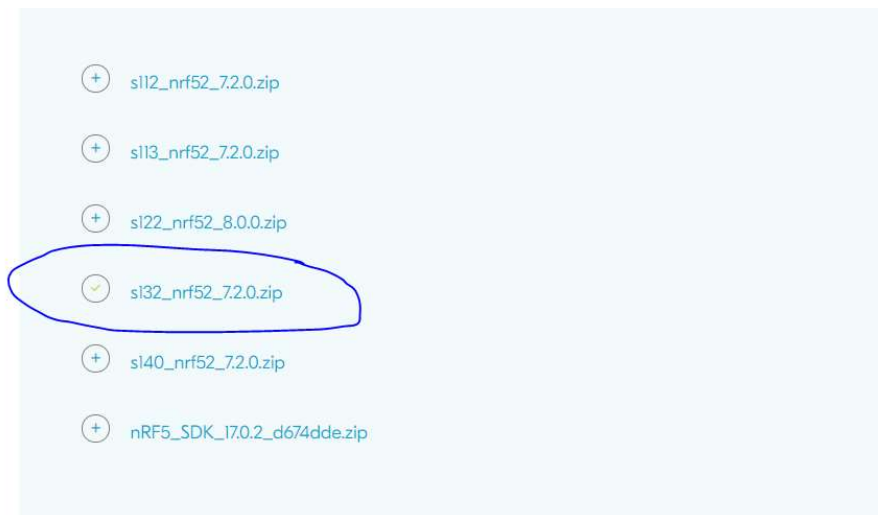


1.3. SDK for nrf and soft Device

Download platform s132

<https://www.nordicsemi.com/Software-and-tools/Software/nRF5-SDK/Download>

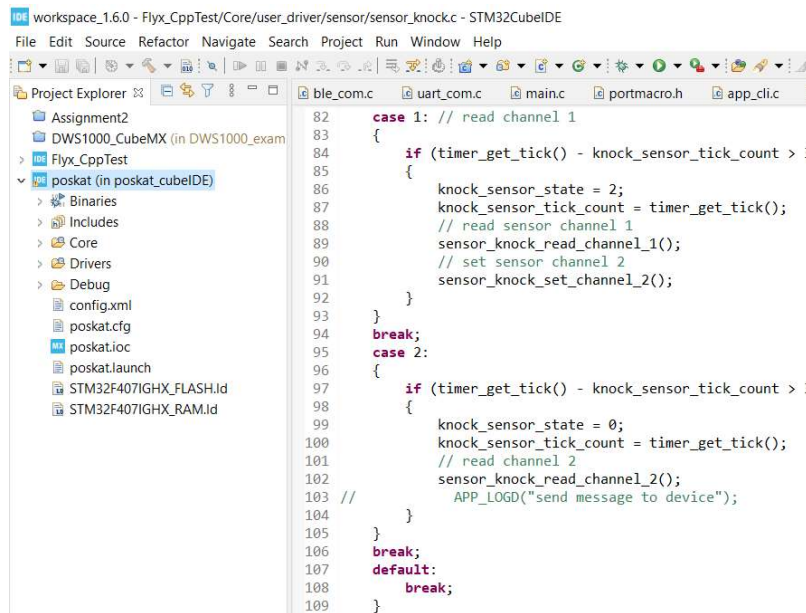
Remember include “Soft Device”: S132



1.4. Hardware tools

- Using **PCA10040 development kit**
- Debugger CP2103

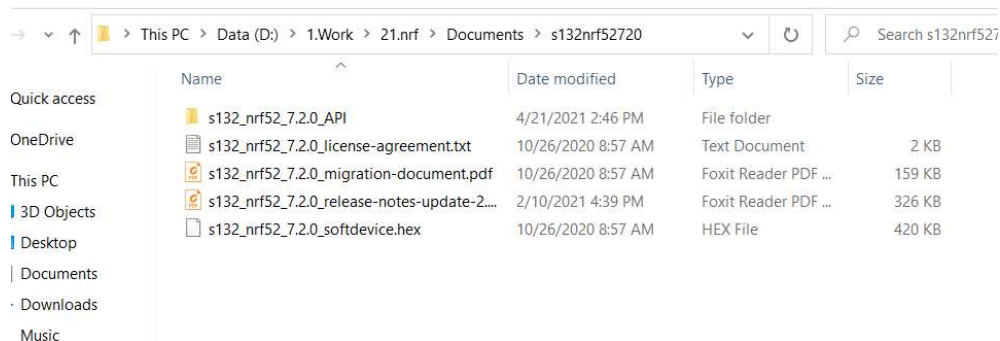
INSTALL ENVIRONMENT



1.5. Import and build nrf project

Extract “SDK file” you have downloaded

We have 1 folder for soft device is S132



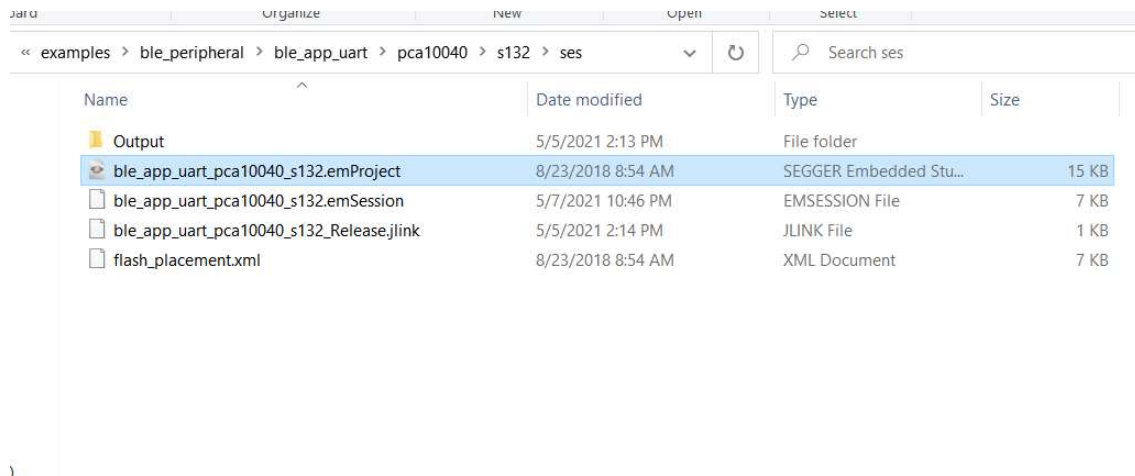
Folder S132

1.5.1. Import

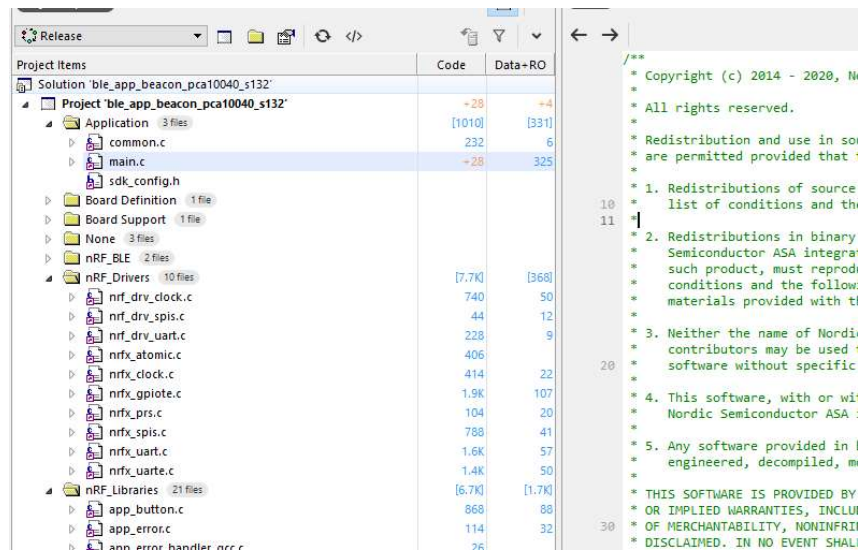
Clone source code from git: https://github.com/ductuanhoang/Phone_Position_Detect

“your project folder\examples\ble_peripheral\ble_app_beacon\pca10040\s132\ses”

INSTALL ENVIRONMENT



Open ble_app_uart_pca10040s132emProject



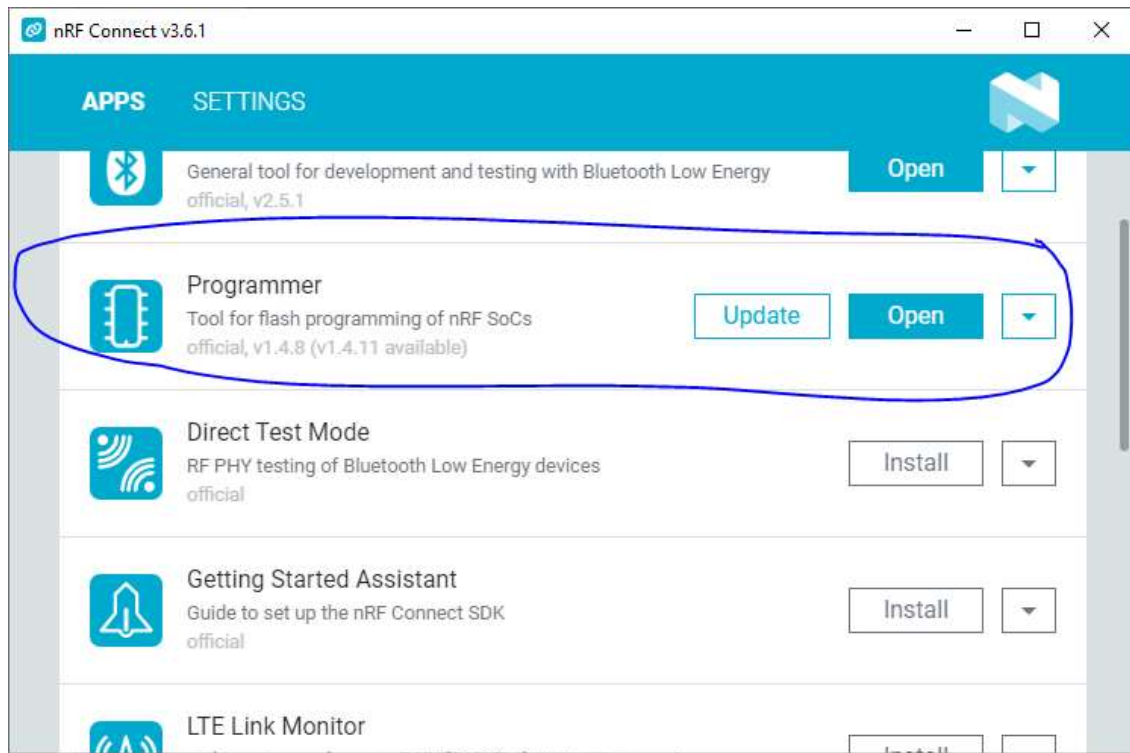
- Right click project and build
- F5 flash project

2. Download the code

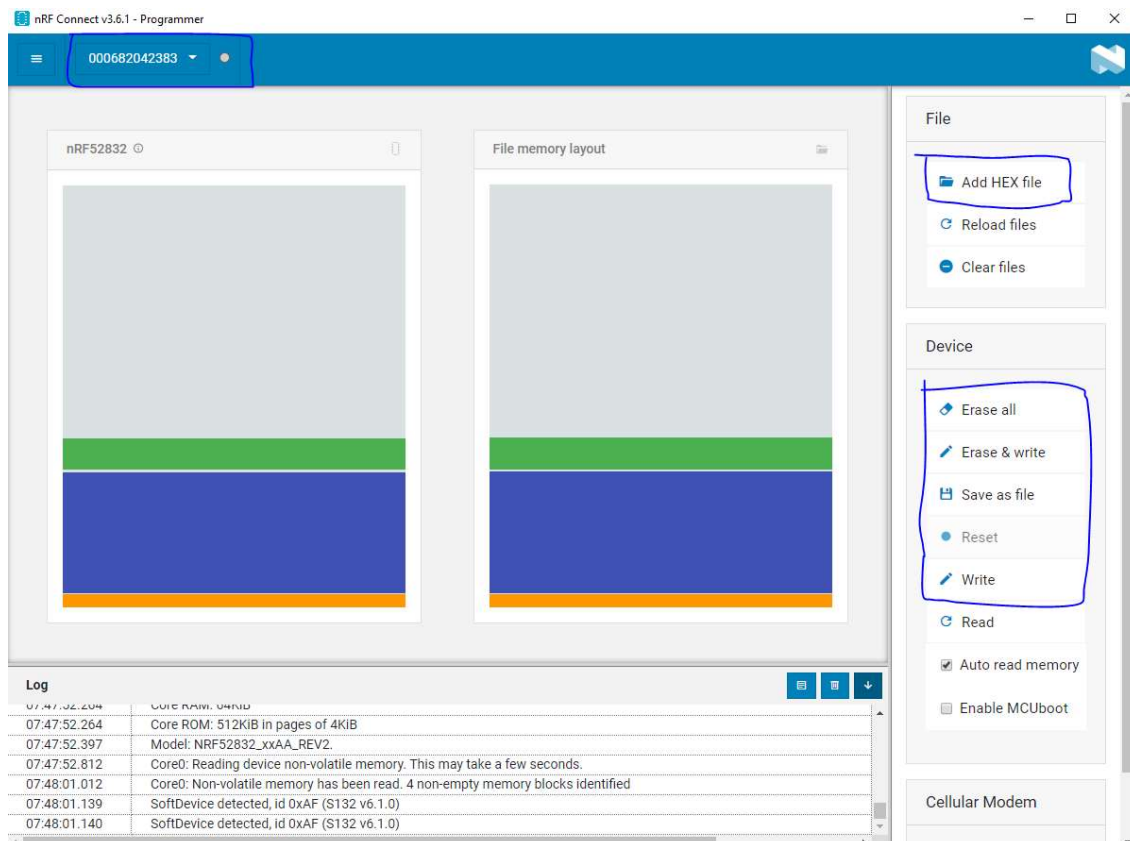
- We must download soft sdk (S132) first (if you haven't run ble chip before)

INSTALL ENVIRONMENT

2.1. Open NRF desktop tools



Open or install first

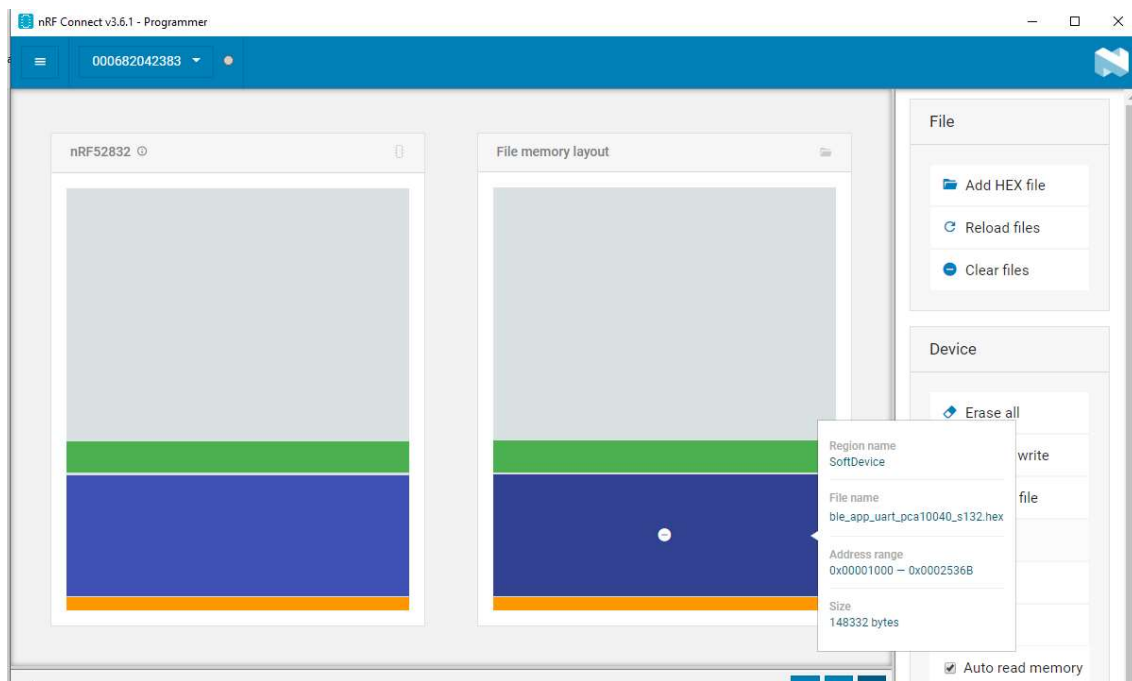


INSTALL ENVIRONMENT

- Chose the board ID (left side)
- Add hex file:
 - The first “ble_app_beacon_pca10040_s132.hex” at link
“Phone_Position_Detect\examples\ble_peripheral\ble_app_beacon\pca10040\s132\ses\Output\Release\Exe\”
 - Hex file for software device “S132” go to folder S132 before
- You can see the “file memory layout” at the tool
- Download to board: “Write”

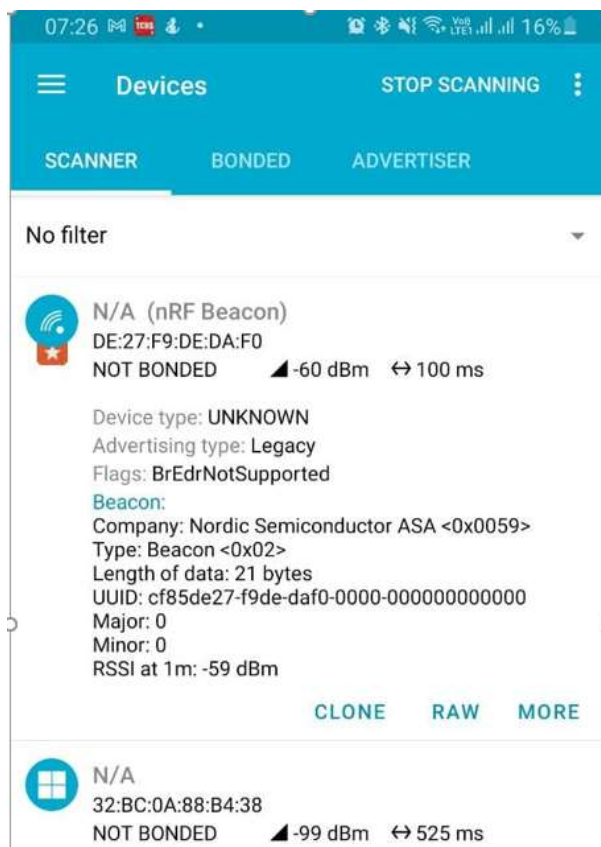
Note:

You can use the segger compiler for download new source after you do all step above, because the device need S132 (software device) first and one time



3. Run

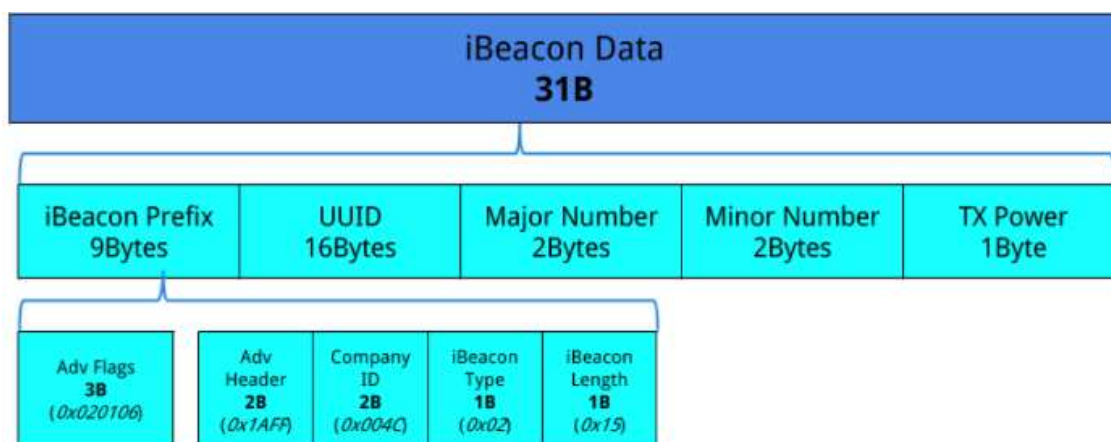
Open IOS or Android app



4. Message format

Because we custom message ADV for iBeacon so you can see the message difference with normal message.

Normal message:



Company ID: 0x0059

We custom UUID and Major Number and Minor Number

UUID = cf85-de27-f9de-daf0-00000....

INSTALL ENVIRONMENT

- ## TX power can be set by SBC message

