

1. Prepare development tools

1.1 Install keil IDE

1.2 Install segger for jlink

1.3 Install nRFgo Studio

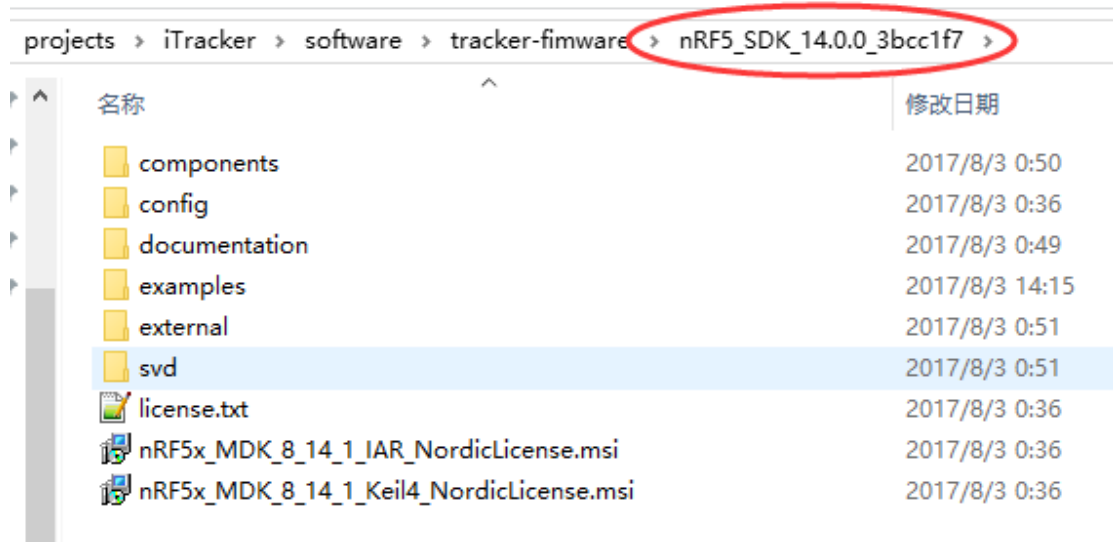
1.4 Install nRF Connect(phone)

2. Download NRF52 SDK

Download the NRF52 SDK from below link:

http://developer.nordicsemi.com/nRF5_SDK/nRF5_SDK_v14.x.x/nRF5_SDK_14.0.0_3bcc1f7.zip

unpack the nRF5_SDK_14.0.0_3bcc1f7.zip file like below:

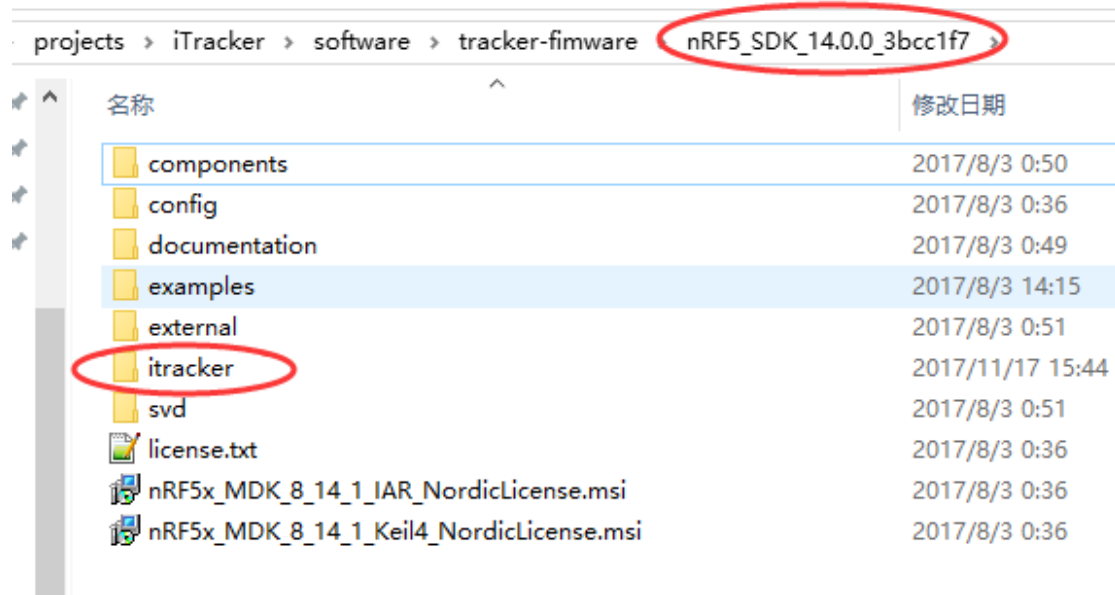


3. Download iTracker's keil project

Download iTracker's keil project from below link:

https://github.com/RAKWireless/iTracker_firmware_keil

place the itracker folder to NRF52 SDK like below:



4. Compile and burn the iTracker firmware

4.1 compile the project.

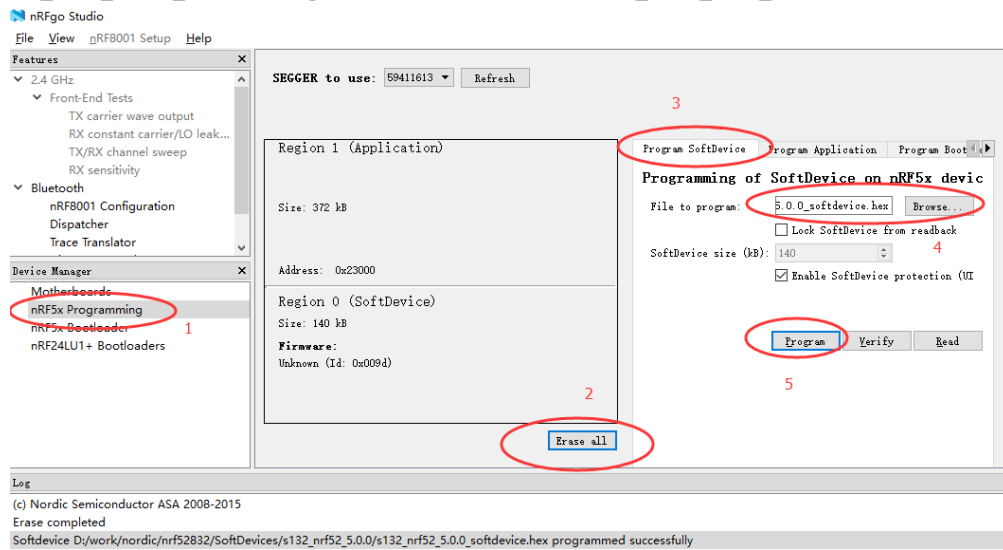
The project file is in below path:

...\nRF5_SDK_14.0.0_3bcc1f7\itracker\ble_peripheral\itracker\pca10040\s132\arm5_no_packs\itracker.uvprojx

4.2 burn softdevice

the softdevice is in below path, you can use the nRFgo Studio tool to burn it to iTracker.

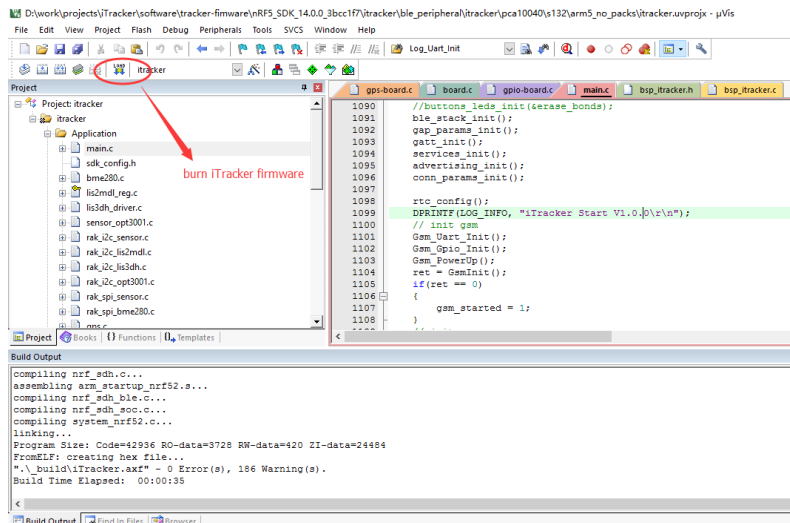
...\nRF5_SDK_14.0.0_3bcc1f7\components\softdevice\s132\hex\s132_nrf52_5.0.0_softdevice.hex



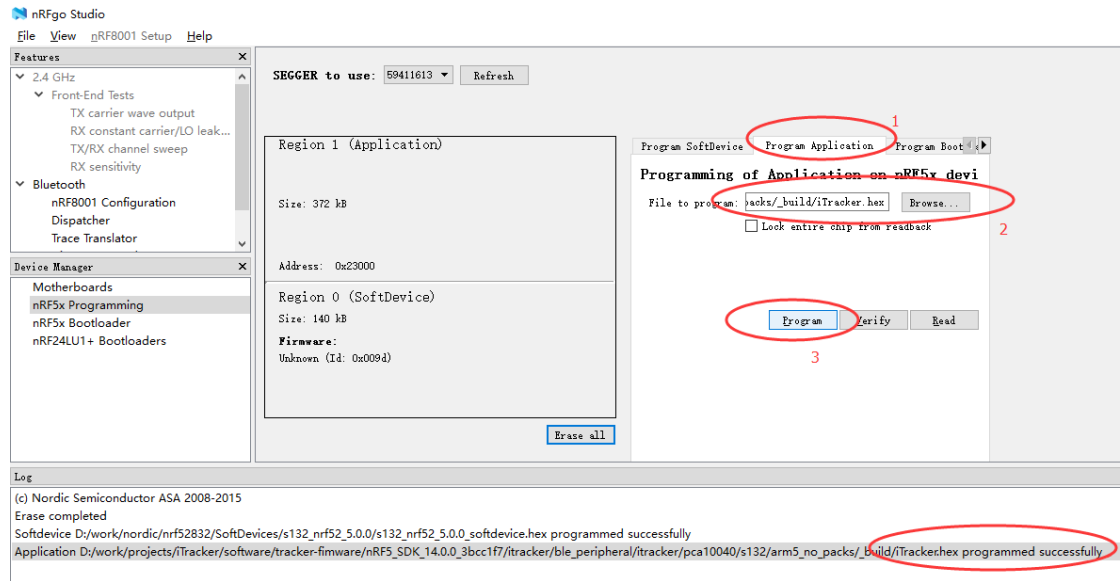
4.3 burn iTracker firmware

you can use keil ide or nRFgo Studio tool to burn the iTracker firmware.

4.3.1 burn iTracker firmware using keil IDE

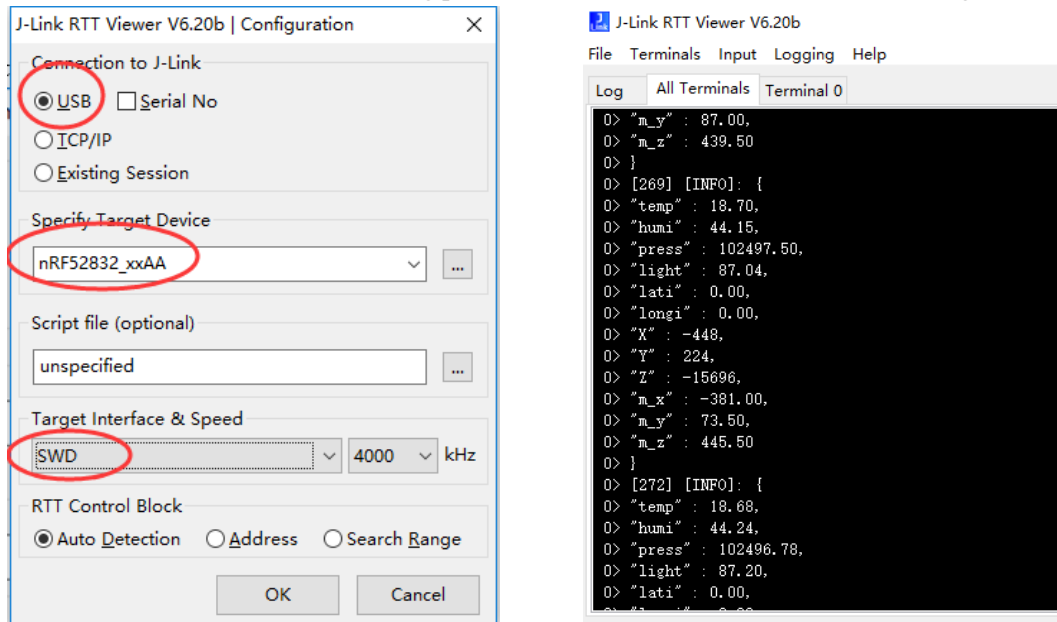


4.3.2 burn iTracker firmware use nRFgo tool



5. Test the iTracker

Use J-Link RTT Viewer to check the log print. Below is the J-Link RTT Viewer's configuration.



5.1 sensors & gps test

```
0> [39] [DEBUG]: {
0> "temp" : 22.85,
0> "humi" : 37.64,
0> "press" : 102525.88,
0> "light" : 28.58,
0> "lati" : 31.10,
0> "longi" : 121.43,
0> "X" : 13616,
0> "Y" : 4000,
0> "Z" : -6720,
0> "m_x" : 178.50,
0> "m_y" : 199.50,
0> "m_z" : 489.00
0> }
```

5.2 M35 test

```
0> [0] [INFO]: iTracker Start V1.0.0!
0> [2] [INFO]: check auto baud
0> [3] [INFO]: set echo
0> [3] [INFO]: check sim card
0> [6] [INFO]: check network
0> [12] [INFO]: check GPRS
```

```
0> [15] [INFO]: set context 0  
0> [15] [INFO]: check GSM Network ok!!  
0> [15] [INFO]: rssi=63
```

5.3 BC95 test

```
[INFO]: iTracker Start V1.0.0  
0> [0] [INFO]: check network  
0> [21] [INFO]: check GPRS  
0> [22] [INFO]: check con status  
0> [22] [INFO]: BC95 Connected  
0> [22] [INFO]: rssi=79
```

5.4 BLE test

