Instructions for Upgrading the Firmware for Daviteq Sigfox Sensor

1. Preparation

1.1 Prepare a ST-LINK V2 cable that connect between PC and the sensor.

1.2 Save the updated firmware file (.hex) to the PC for flashing to the sensor.

1.3 Save the ID & PAC file (.bin) to the PC for configuring the sensors.

2. Download and install the software "STM32 ST-LINK Utility".

The software can be downloaded from internet via the link:https://www.st.com/en/development-tools/stsw-link004.html

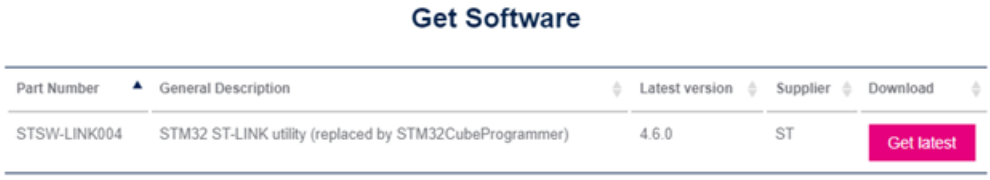


Figure 1. Getting the software from the website.

3. Set up the hardware

Connect the USB port of the ST-LINK V2 to the PC. The other end should be plugged into the PRG port of the sensor.

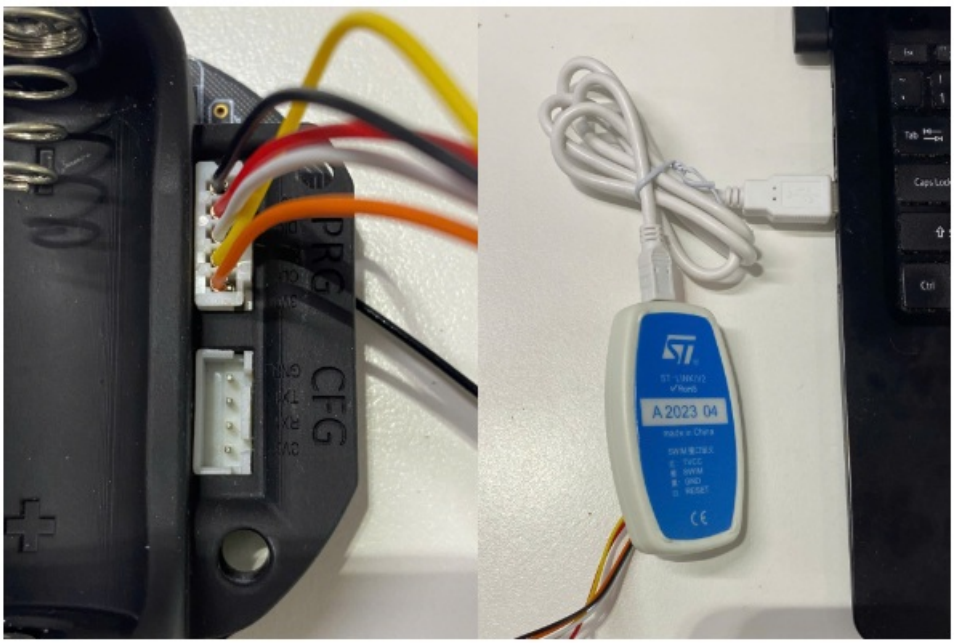


Figure 2. Hardware setup

4. Software configuration

4.1. Open the **STM32 ST-LINK Utility** software.

4.2 **Target** => **Settings**. Then, select "**Connect Under Reset**" and check "**Enable debug in Low power mode**" in **Mode** section =>**OK**

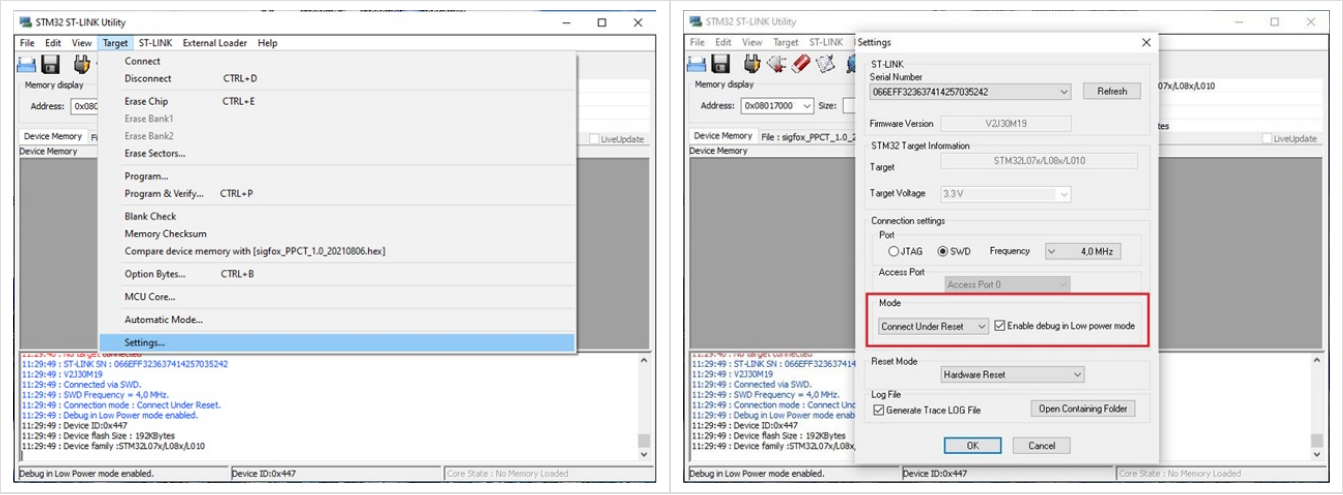


Figure 3. Software configuration

⚠ Make sure that the PC has a connection to the devices with the cable provided.

5. Loading firmwares.

5.1 **Target** -> **Program & Verify...**

5.2 **File path** => **Browse** => Choose firmware file (.hex)

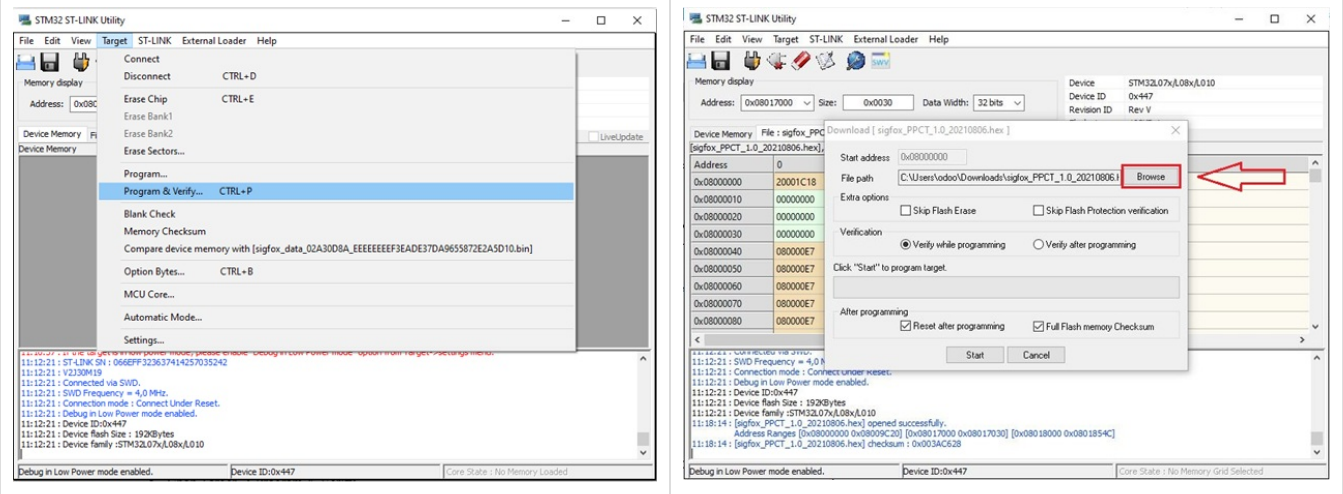


Figure 4. Import firmware file

5.3 Press **Start** to load the firmware to the sensor

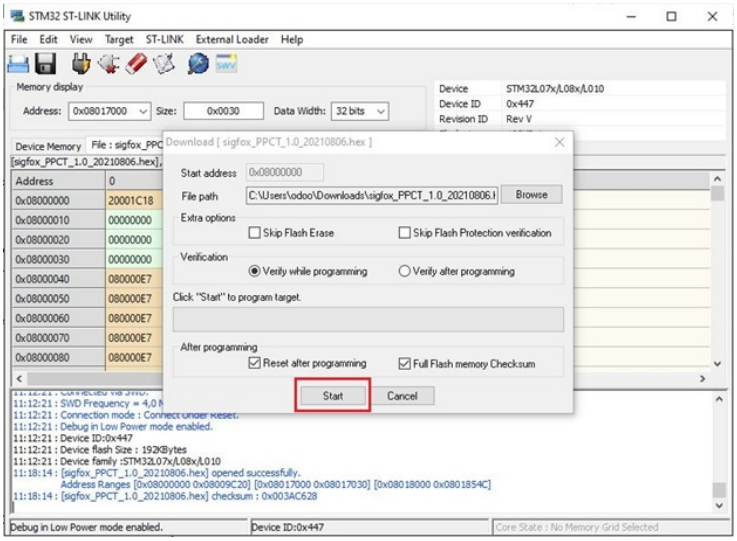


Figure 5. Loading firmware

When the firmware is successfully loaded, the software will display information with figure 6

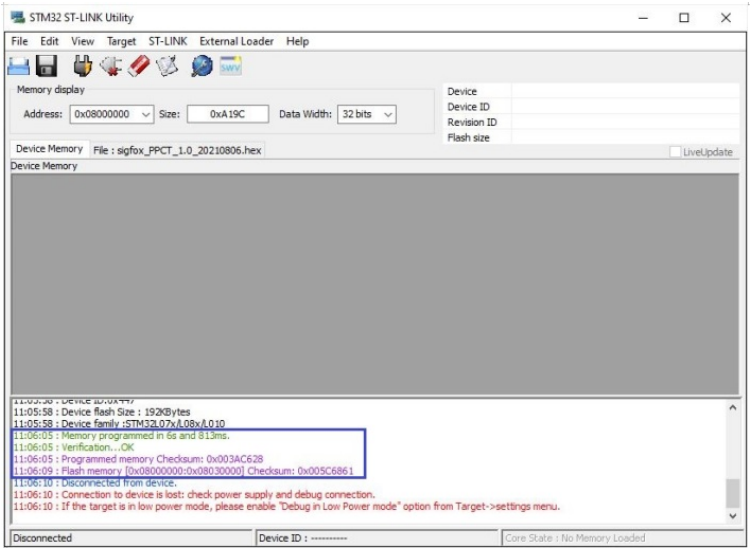


Figure 6. Successfully loading firmware

6. Loading ID and PAC.

After successfully loading the firmware in Step 5, you need to reload the ID&PAC for the sensor. Follow the steps below:

6.1 **Target** => **Program & Verify...**

6.2 **File path** => **Browse**

6.3 **Open** ID&PAC file (.bin)

Each sensor has a unique ID&PAC file. Therefore, you need to carefully check to ensure that the file being loaded corresponds to the correct ID and PAC on the sensor's label. (The .bin file name contains the corresponding ID information.)

6.4 Change the **Start Address**: **0x08017000** => **Start**

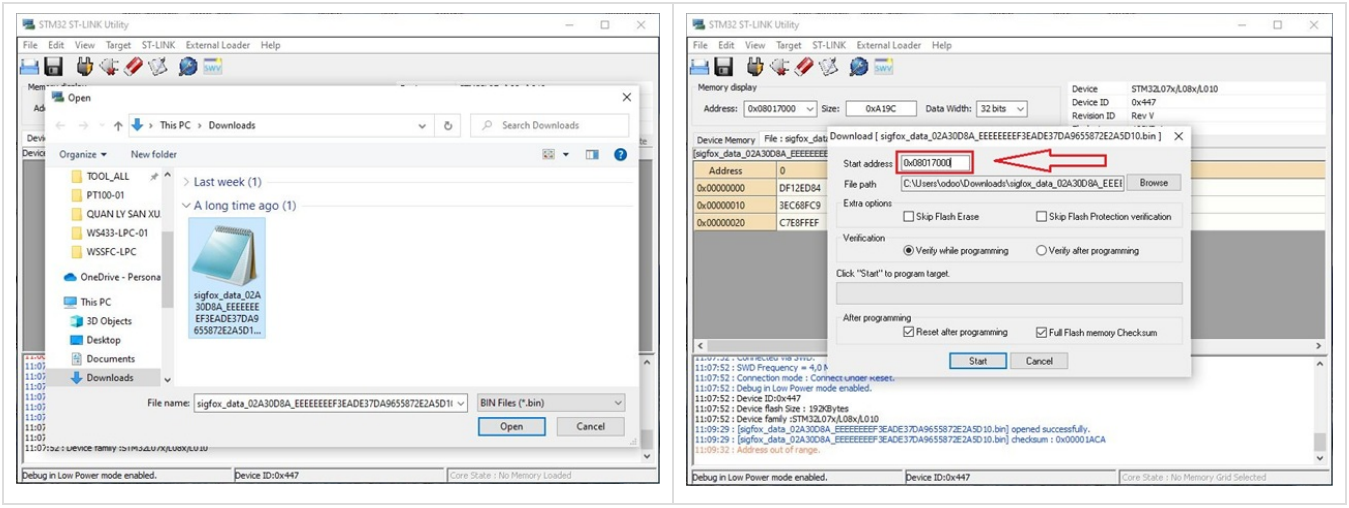


Figure 7. Loading ID&PAC

When the firmware is successfully loaded, the software will display information with image 4.

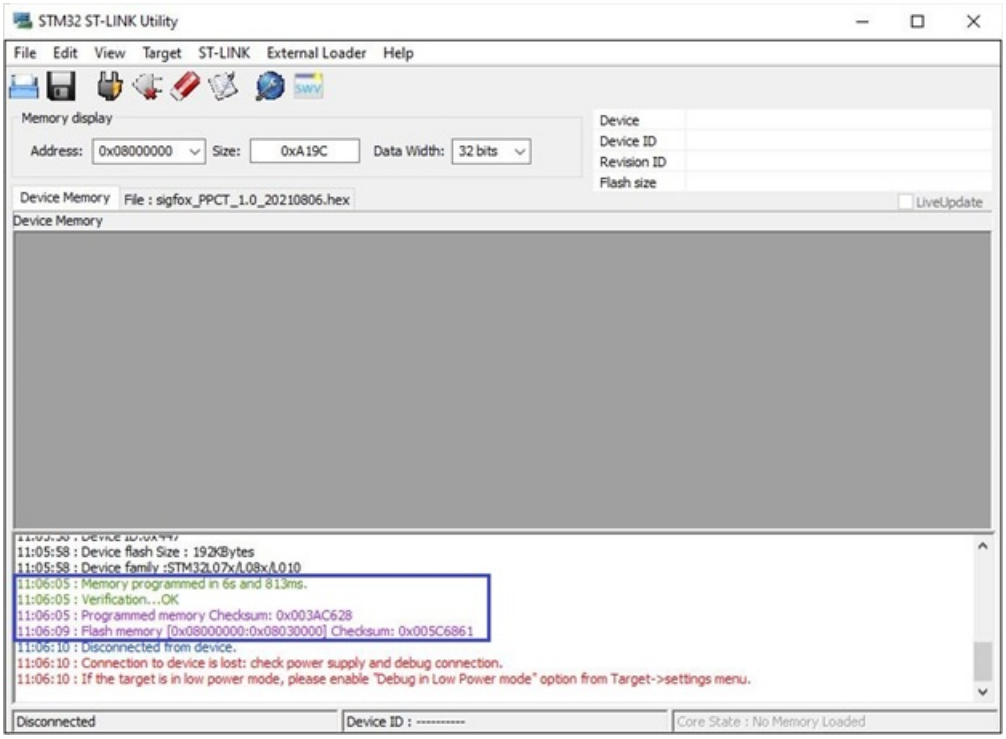


Figure 8. Successfully loading ID& PAC

Revision #81
★ Created Wed, Mar 9, 2022 1:56 AM by Trần Việt Hoàng
Updated Thu, Dec 5, 2024 9:10 AM