GitHub Example Projects

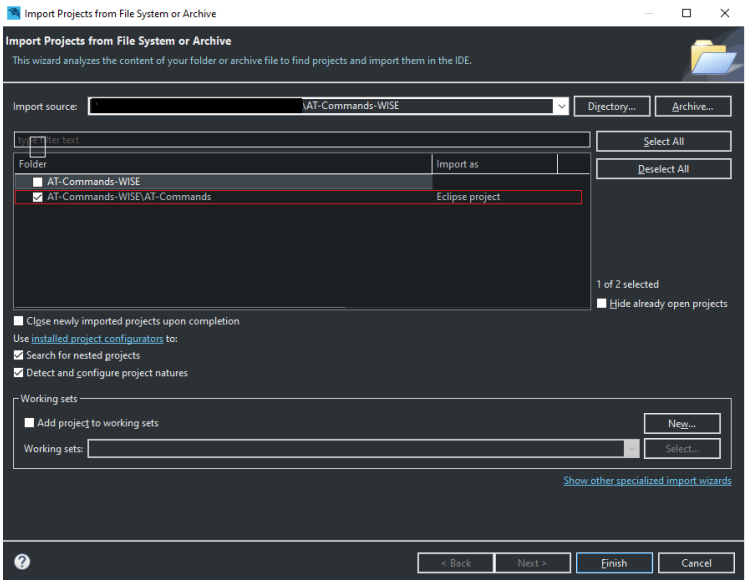
1. Make sure Git is installed and set-up in your system.
2. Access the HTLRBL32L Repository in the HT Micron GitHub page. From there, access the examples branch and head to the 'Read Me' section below.
3. Open the Git Bash, go to the desired target directory and run the 'git clone' command described in the page accessed in the previous step.
4. If everything went correctly, a folder containing the HTLRBL32L Application examples should be located inside the target directory.

WiSE-Studio Installation

1. Download WiSE-Studio from the ST website and perform the installation.
2. Download and install the ST-Link USB driver (required in order to be capable of debugging/downloading the application binary to the end device via WiSE Studio).

Importing Project

1. Open WiSe-Studio.
2. Click on File -> Open Projects From file System.
3. Select the folder of the project.
4. Select the option labeled as "Eclipse Project" and click Finish.

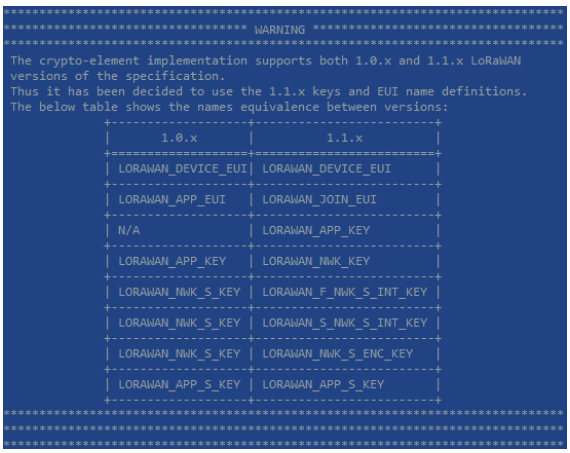


LoRaWAN Keys Configuration

If you have the hardware version that has the Hardware Secure Element embedded, you can enable the HT Crypto library within this project. The HT Crypto library is a cryptographic solution that also has an interface with the Hardware Secure Element (HSM), where it stores your LoRaWAN root keys, greatly increasing the security of your device against attacks that aim to clone your device or intercept messages. If you enable the HT Crypto solution, be sure to check the Key Provisioner Firmware Manual before running this firmware. There you will learn how to store your root keys inside the HSM.

For the cases that doesn't use the HT Crypto solution the LoRaWAN root keys must be set directly on code, as follows:

1. Open the 'Includes' folder of your desired application's project.
2. Locate the folder containing the 'lorawandefines.h' file (should be the same one which contains 'main.h').
3. Open the file and locate the key definitions. Use the table below as a reference of what LoRaWAN key each define in the file represents.



4. Edit the keys accordingly, writing them in the same format as it is written by default.

Compiling Application and Binary File

1. To compile the application with WiSE-Studio, simply have the project open on your workspace then press the 'Build' button.

Obs.: It should take longer to build the first time.

2. Check the console on the bottom of the screen, if the project build finished with no errors then it has generated a binary (.bin) file.

```
02:03:25 Build Finished. 0 errors, 0 warnings. (took 1s.146ms)
```

3. To locate this file, head to the application's WiSE-Studio project folder, then go inside the folder which is named after the currently selected project configuration profile (i.e. 'Debug'/'Release').
4. The file will be named following the pattern below:

[Project Name]_[Configuration Profile].bin