DfuSe loader How to

DFU is a convenient protocol that allow the user to upload binaries without using a JTAG probe. STMicroelectronics is supporting this system on it's stm32 range, it's also available on the Hornet Board. Let's review the required pieces of software required for DFU :

-Hornet board or any stm32 with an accessible USB port

-An IDE able to output hex or bin files, in this example we'll use MDK-ARM

-DFU usb drivers, they should be available on the manufacturer website

-dfuse.exe this executable is transcoding the hex file into a dfu file

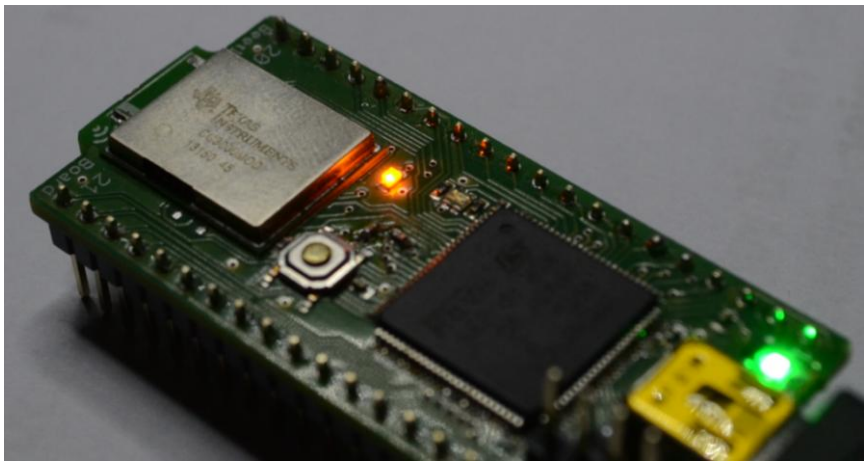
-DfuSeCommand.exe responsible for loading the file into the MCU

-load.bat the script for the IDE

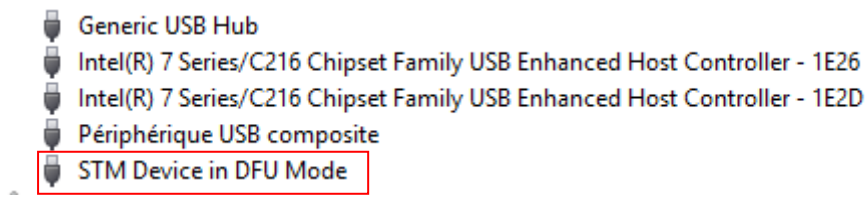
Tutorial : how to use it in my project ?

-first install the driver located in the **Driver** directory.

-plug your hornet board and activate the DFU mode by **pressing 3 seconds the reset button**, the orange LED should turn on.



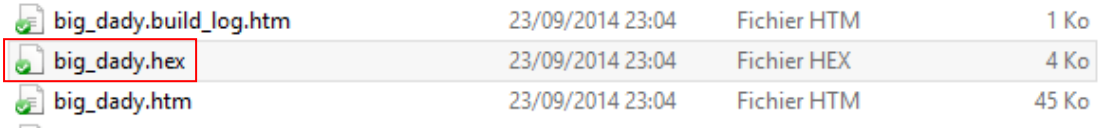
If the driver was successfully installed a new device should pop up, **STM Device in DFU Mode.**



Your device is ready, now you must configure keil to be able to load your project.

-open your project with keil, open the settings window by clicking on the following button 

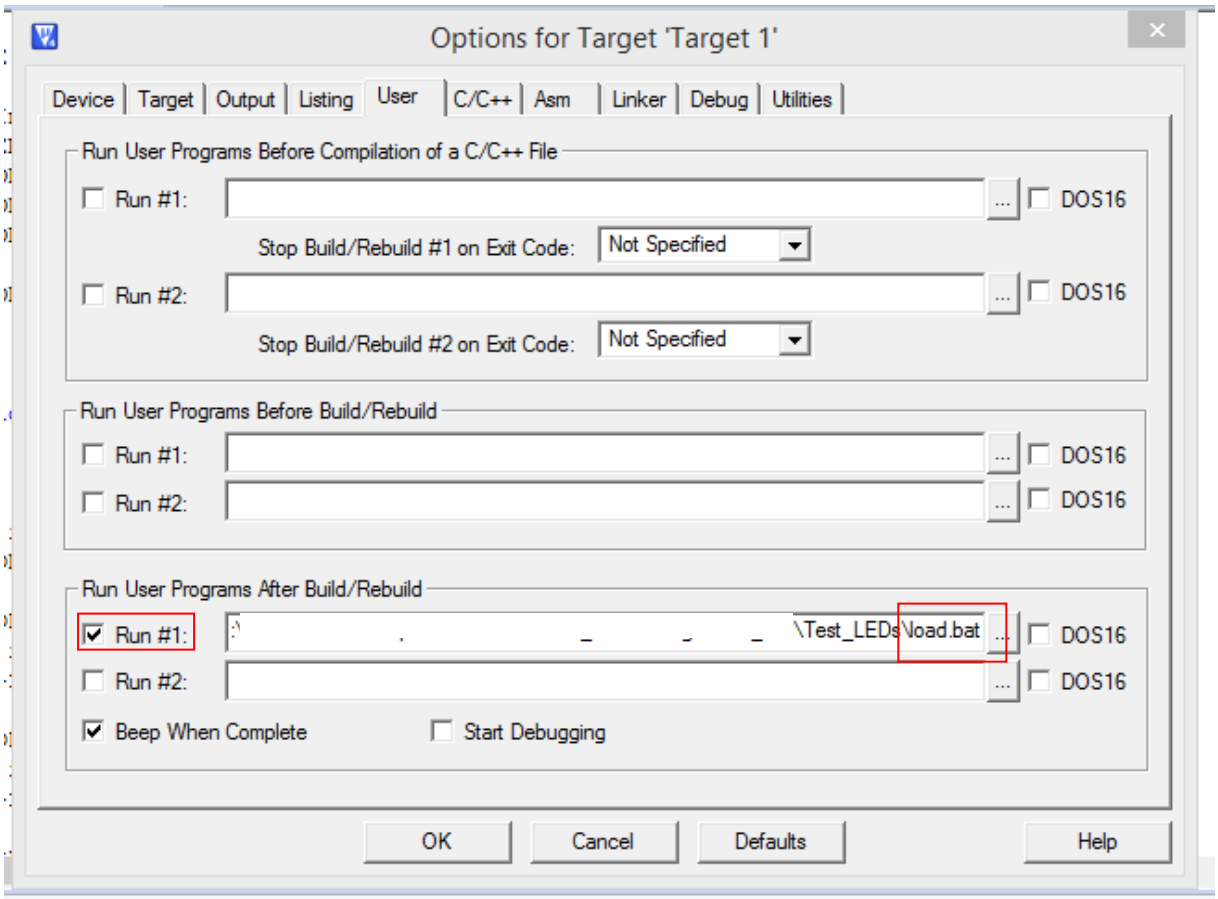
On the **output** tab select **create hex file** , compile your project once and locate the .hex file.



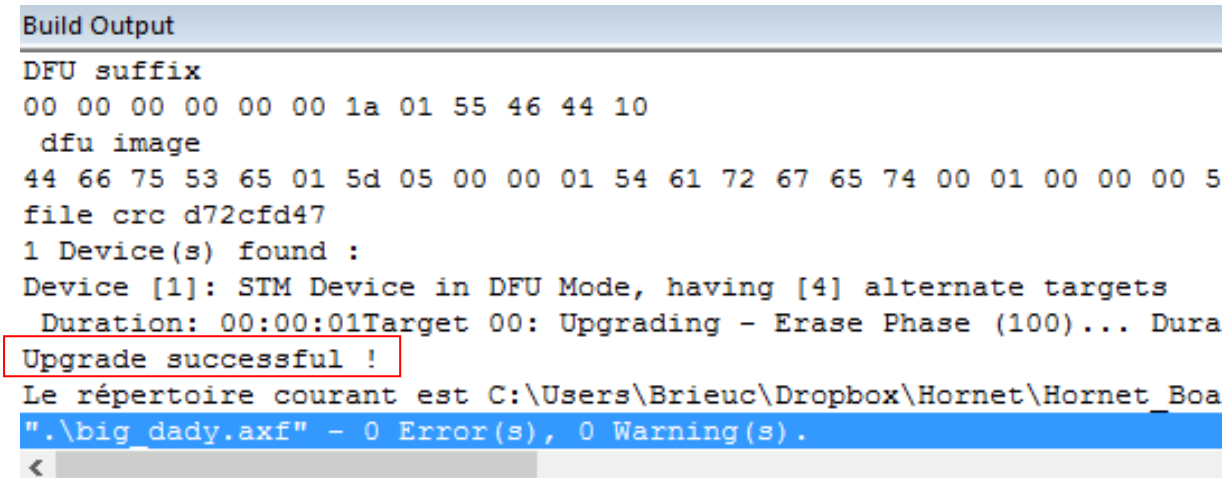
Copy the content of the Tools directory in the .hex file folder.

Note : the name of your .hex file should **not have spaces or special characters**, you can change the file name in the output tab of the settings dialog.

- one more time open the settings window and select the tab **User**. In the frame **Run User Programs After Build/Rebuild** activate **Run #1:** and browse to **load.bat** file.



-Now compile your project, at the end of compilation your build output should output **upgrade successful** :



Now hit the **reset button,** the orange led shuts down and **your program is now running**.

To program again your board enter in DFU mode and build again your project.

How to test DFU functionality

A working hex file is provided in the Test folder, copy it and double click on load.bat, if your board is showing light after reset it works !!