AN4267
Application note

How to upgrade the STM32 firmware embedded in the STEVAL-IME002Vx

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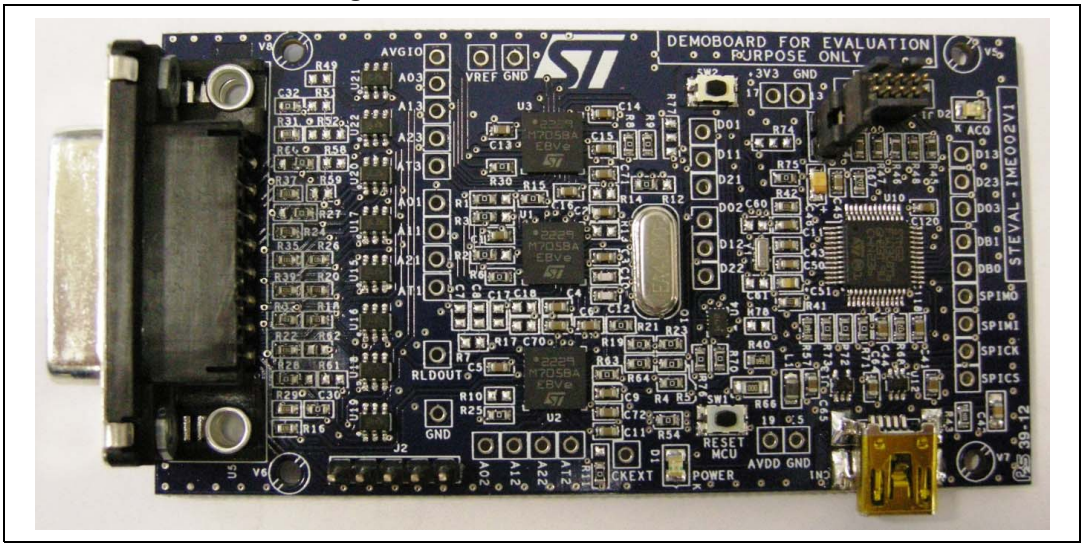
Introduction

The AN4267 describes the procedure required to upgrade the device firmware of the STEVAL-IME002Vx evaluation boards based on the HM301D and the STM32 microcontroller.

Figure 1. STEVAL-IME002V1 board



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1 Using DFU with the STEVAL-IME002Vx

To upgrade the firmware embedded in the STEVAL-IME002Vx, the user has two possibilities:

1. Using the DfuSe.exe program, which can be downloaded from: http://www.st.com/internet/com/SOFTWARE_RESOURCES/SW_COMPONENT/SW_DEMO/um0412.zip

or

2. Entering DFU mode through the EDEN graphical user interface.

These two modes will be described in the next two sections.

1.1 Using DfuSe with the STEVAL-IME002Vx

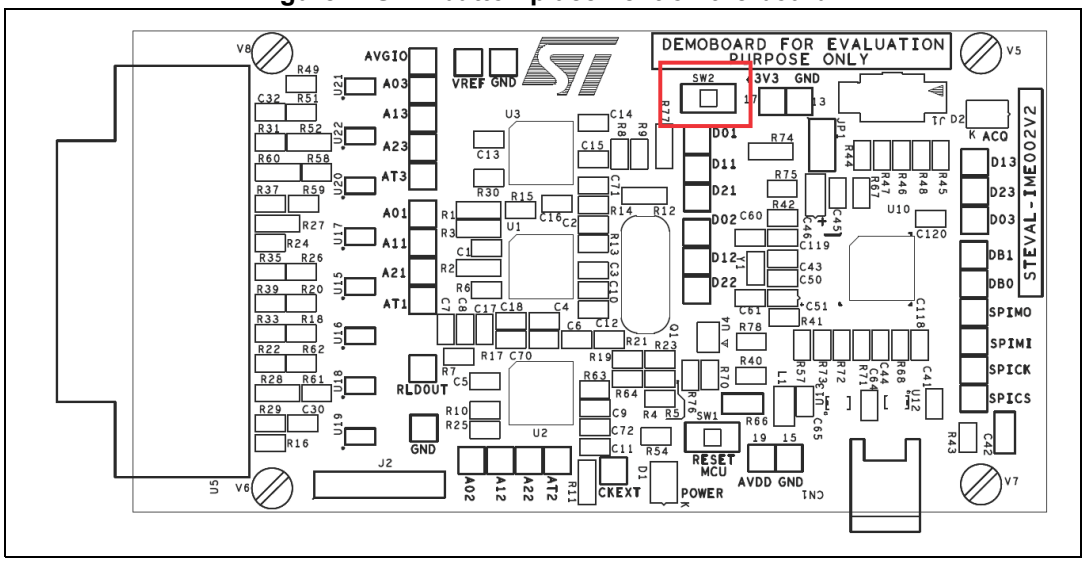
This procedure relies on the basic step of installing the DfuSe.exe program, available for download from ST's website:

http://www.st.com/internet/com/SOFTWARE_RESOURCES/SW_COMPONENT/SW_DEMO/um0412.zip

Please refer to the user manual (UM0412, "Getting started with DfuSe USB device firmware upgrade STMicroelectronics extension"), and follow the installation instructions contained in this document.

After the installation of the DfuSe, "DfuSe evaluation" appears within the start menu. To upgrade the firmware embedded in the STEVAL-IME002Vx, the user should first unplug the USB cable, press the SW2 button, and then plug the USB cable back into the PC (while maintaining the SW2 button pressed), see *Figure 2.*

Figure 2. SW2 button placement on the board



1.2 Using EDEN graphical user interface with the STEVAL-IME002Vx

This procedure relies on the basic step of installing the graphical user interface related to the STEVAL-IME002Vx evaluation boards. The GUI allows access to the register settings of the HM301D, data output plots and also upgrading the firmware. The latest version of the firmware package and PC graphical user interface can be downloaded from the web page:

http://www.st.com/evalboards

Once the STEVAL-IME002Vx is connected to the PC:

1. Open the "EDEN application" and accept the terms of the software license agreements
2. Select the STEVAL-IME002Vx board from the list of available boards and press the "Ok" button (see *Figure 3*).
3. Go to Tool->Communication -> Firmware Upgrade (see *Figure 4*).
4. Select "Yes" in the confirmation window (see *Figure 5*).
5. Select the file containing the new firmware using the "Browse…" button (see *Figure 6*).
6. Select "Upload" in order to write the new firmware to the STEVAL-IME002Vx board.
7. Finally, select "Leave DFU" to enjoy the new firmware.

Figure 3. EDEN graphical user interface: select connected board

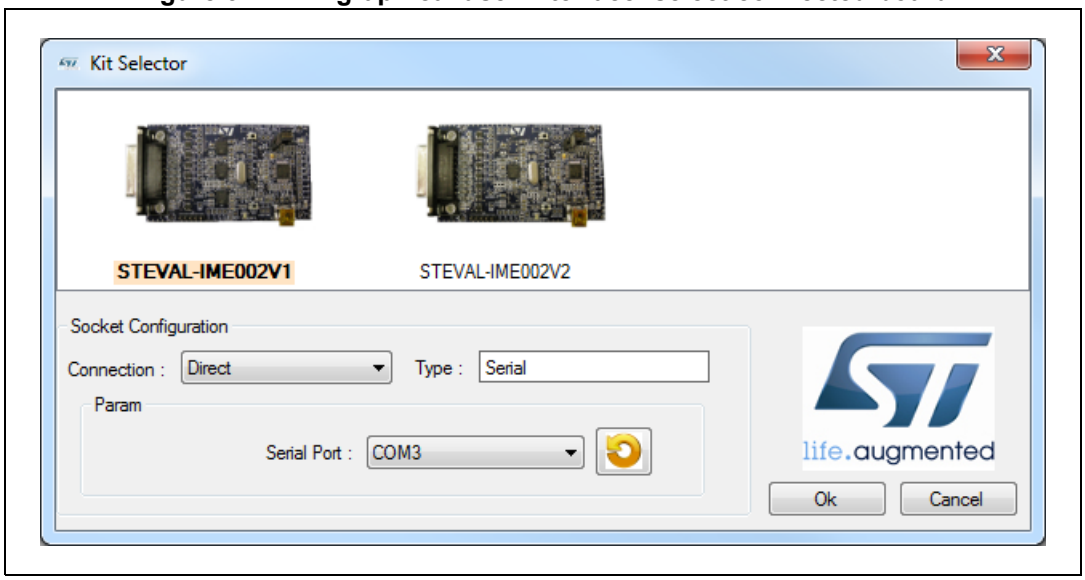


Figure 4. EDEN graphical user interface: tool menu

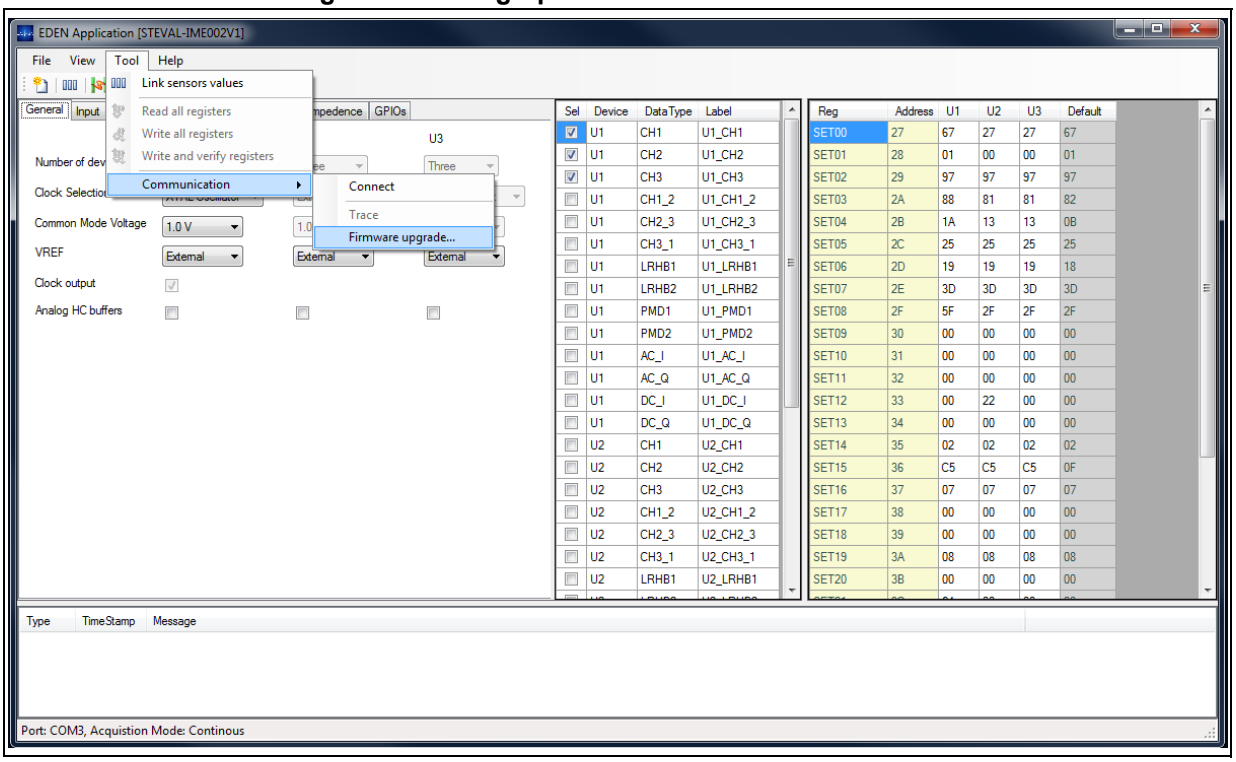


Figure 5. EDEN graphical user interface: confirmation

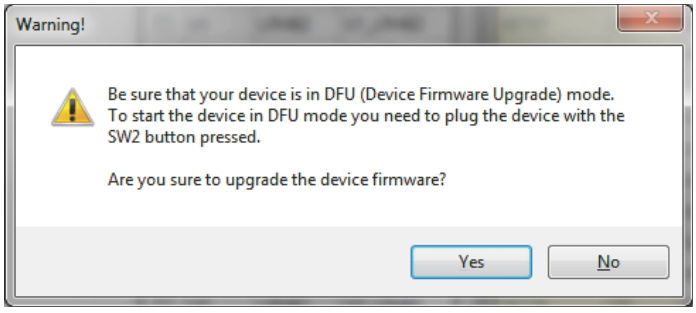
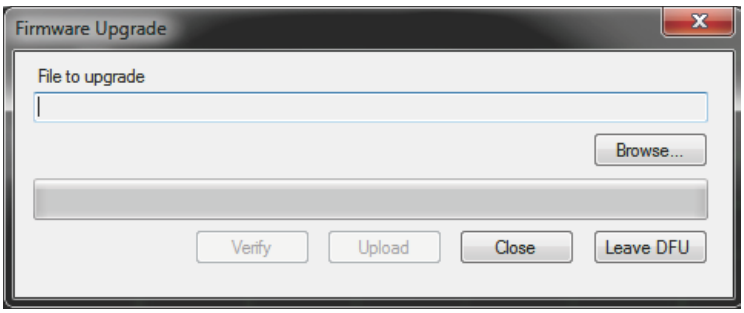


Figure 6. EDEN graphical user interface: firmware upgrade



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
08-May-2014	1	Initial release.

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