How to upgrade the firmware of the STEVAL-MKI062V2
iNEMO™ inertial module V2 demonstration board

## Introduction

This user manual describes the procedure required to upgrade the device firmware of the
STEVAL-MKI062V2 iNEMO™ inertial module V2 demonstration board based on MEMS and
the STM32.

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# 1 Using DFU with the STEVAL-MKI062V2 iNEMO V2 platform

1. Install the DfuSe.exe, which can be downloaded from:
   http://www.st.com/stonline/products/families/evaluation_boards/steval-mki062v2.htm
2. Enter DFU mode. This can be done either through hardware or software.
   – Hardware: unplug the USB cable, press the SW2 button and, keeping the button pressed, connect the USB cable to the PC.
   – Software: connect the USB cable, open the iNEMO application and press the Connect button. Then go to Tools -> Communication -> Enter DFU Mode (see *Figure 1*). Click "Yes" (see *Figure 2*).

**Figure 1.    How to enter DFU mode through the iNEMO GUI**
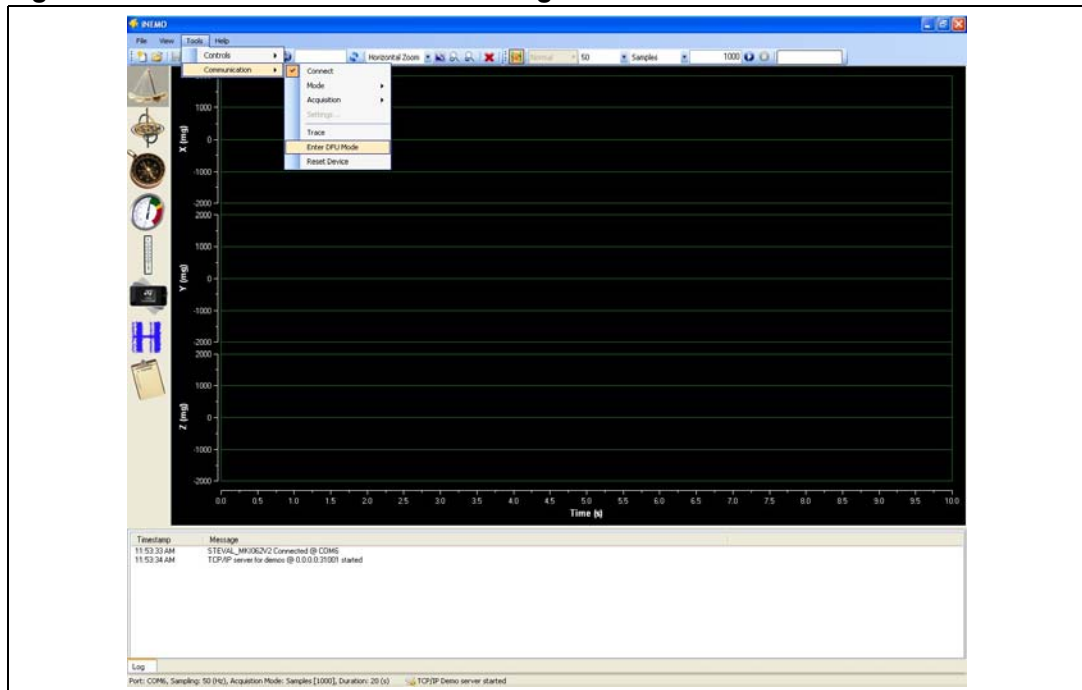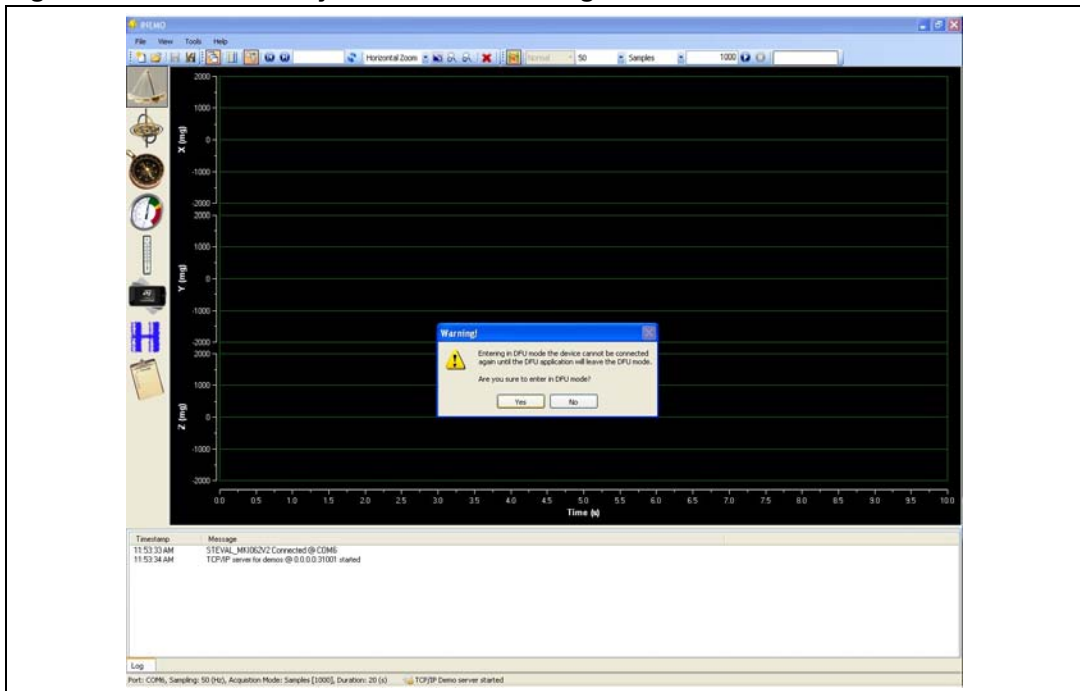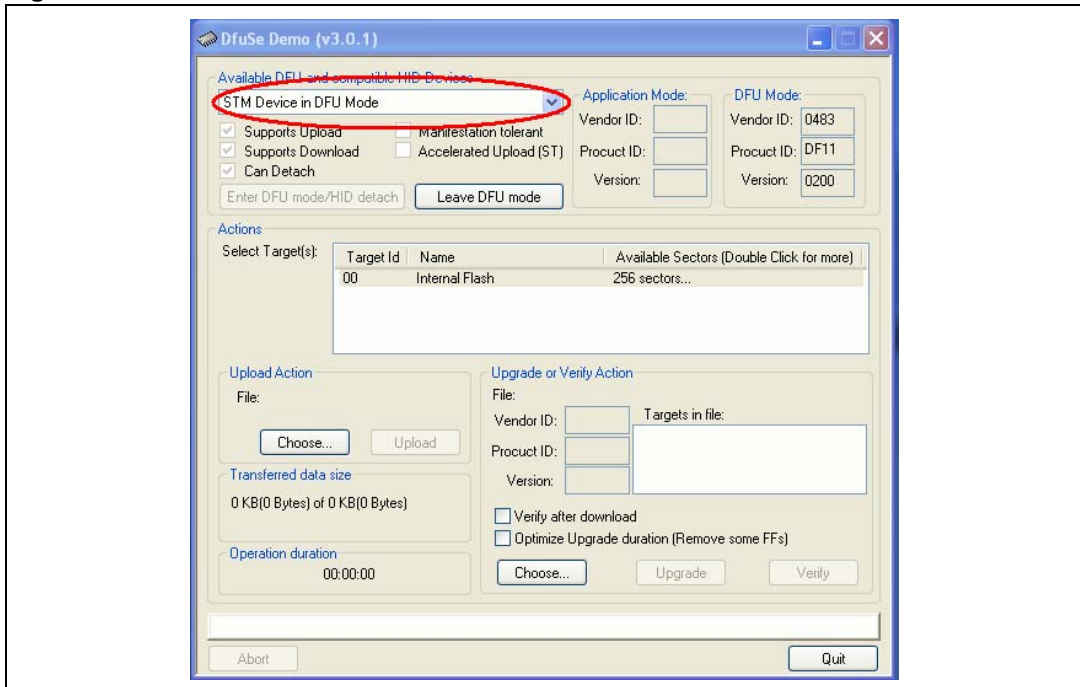
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**Figure 2.      Confirm entry in DFU mode through the iNEMO GUI**



3.     Open DfuSe Demonstration from "Start -> Programs -> STMicroelectronics -> DfuSe ->
       DfuSe Demonstration". If the device is in DFU mode, it appears in the box circled in red
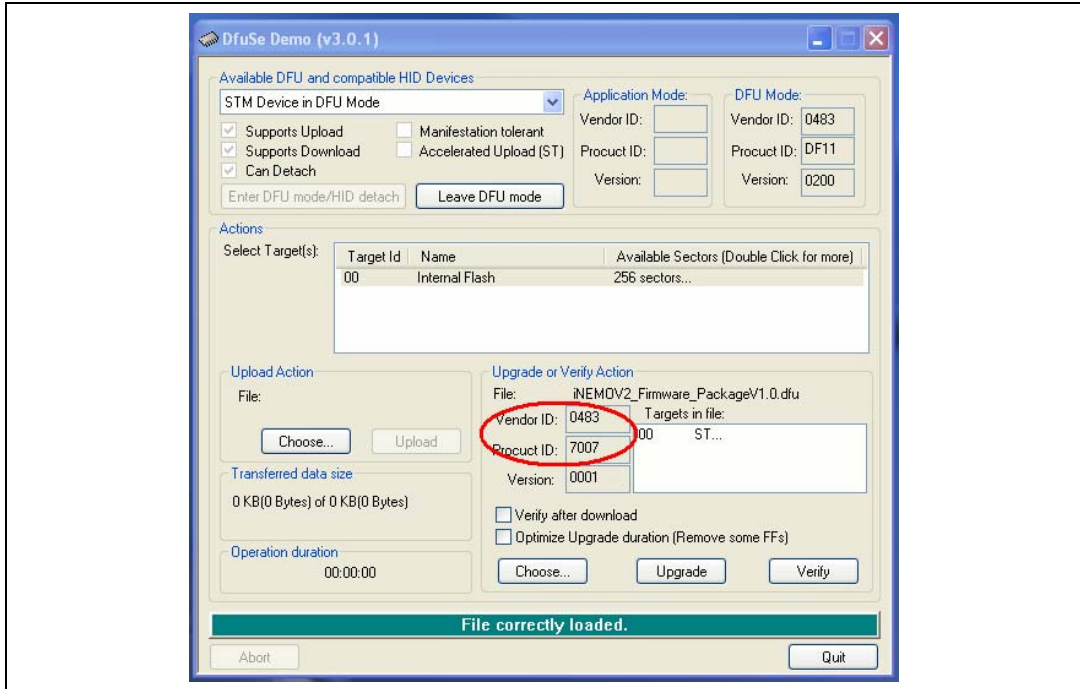       in *Figure 3*.

**Figure 3.      DfuSe GUI**

4. Load the .dfu file (example: from the iNEMO V2 application installation folder, select \Firmware\DFU_Images\ iNEMOV2 Firmware_Package_V1.0.dfu), as shown in *Figure 4*.

**Figure 4.     How to load the .dfu file from the DfuSe GUI**
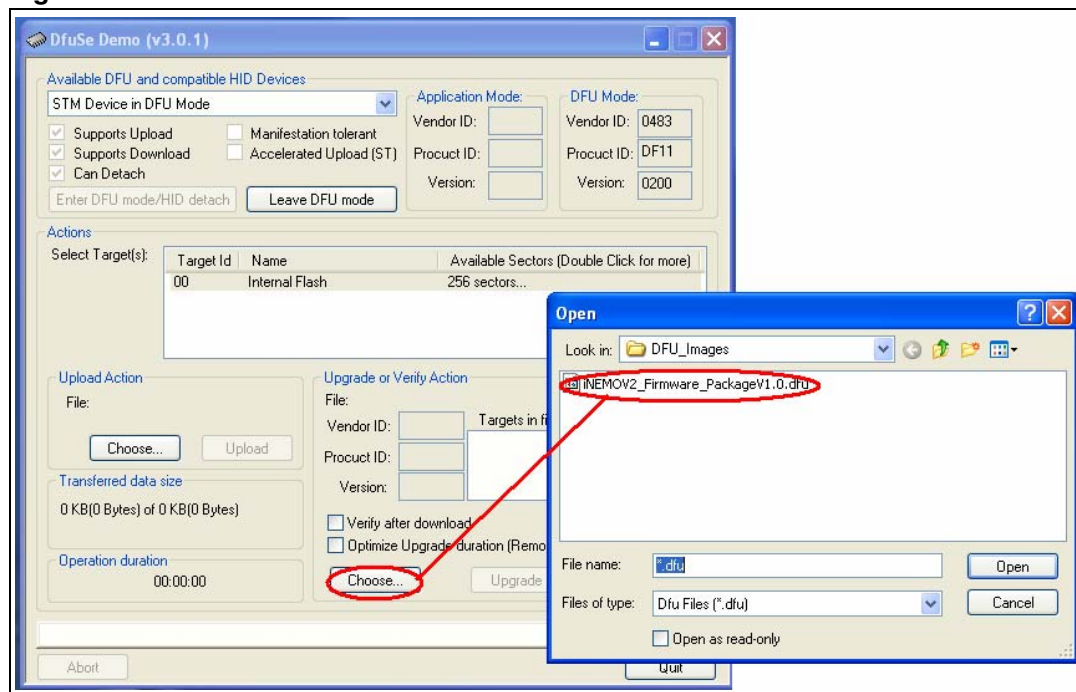
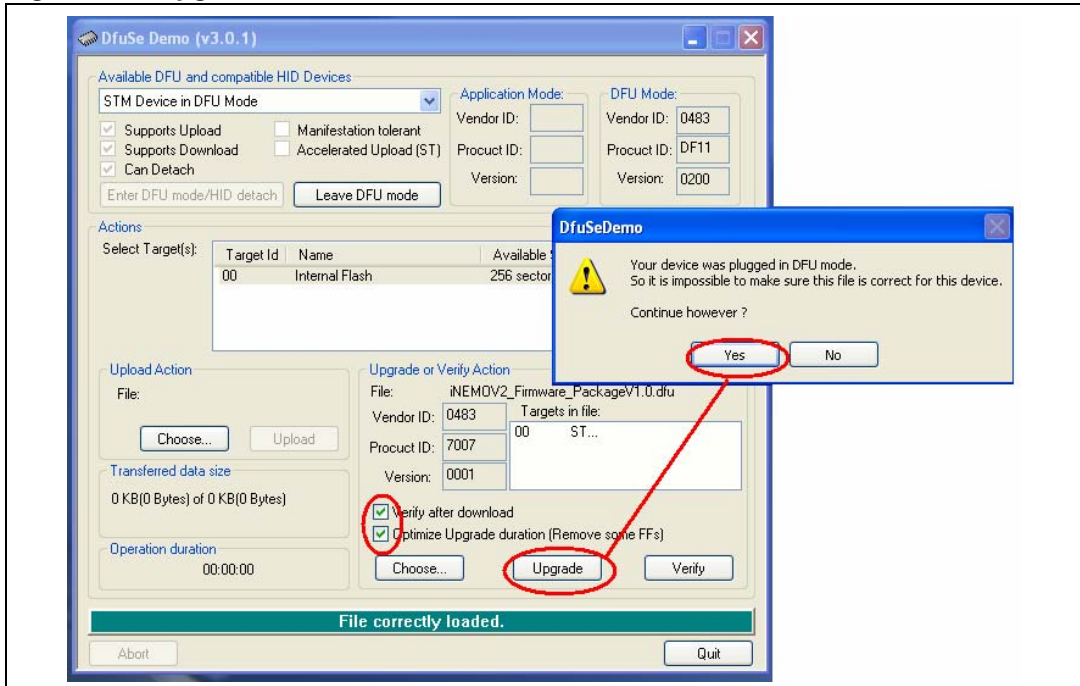5. Verify that the vendor ID and product ID are 0483 and 7007, respectively (see *Figure 5*).

**Figure 5.    Verify the vendor ID and product ID**



6. Check the "Verify after download" and "Optimize Upgrade duration (Remove some FFs)" check boxes, then press "Upgrade". When message box appears, click "Yes" to continue (*Figure 6*).

**Figure 6.    Upgrade the firmware**

7.    Check that the "Verify Successful!" message is displayed, as in *Figure 7*.

**Figure 7.    Verify the upgrade**
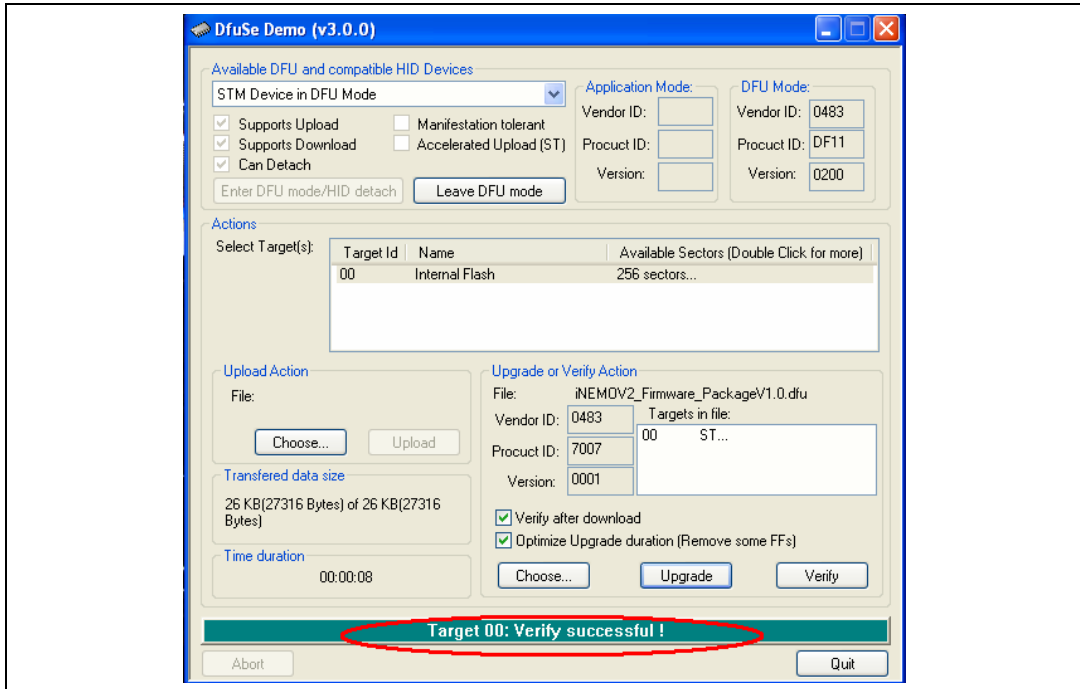


8.    Press the "Leave DFU mode" button to exit DFU mode. You can also exit from DFU mode through a hardware reset (*Figure 8* and *9*).

**Figure 8.    How to leave DFU mode**

**Figure 9.    Verify DFU mode exit**
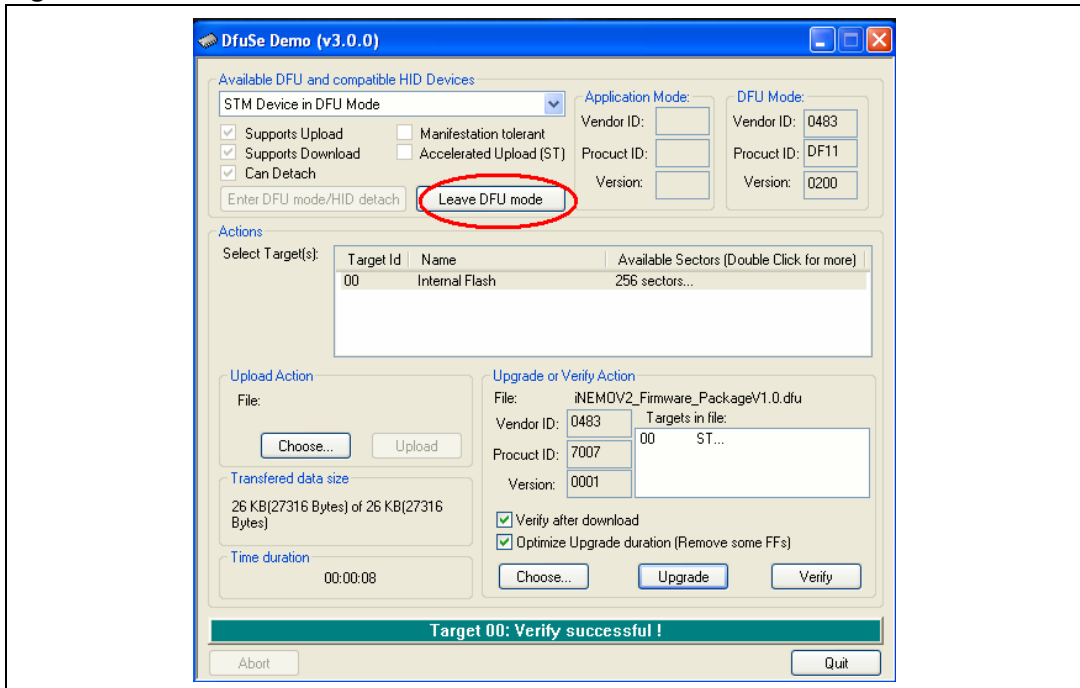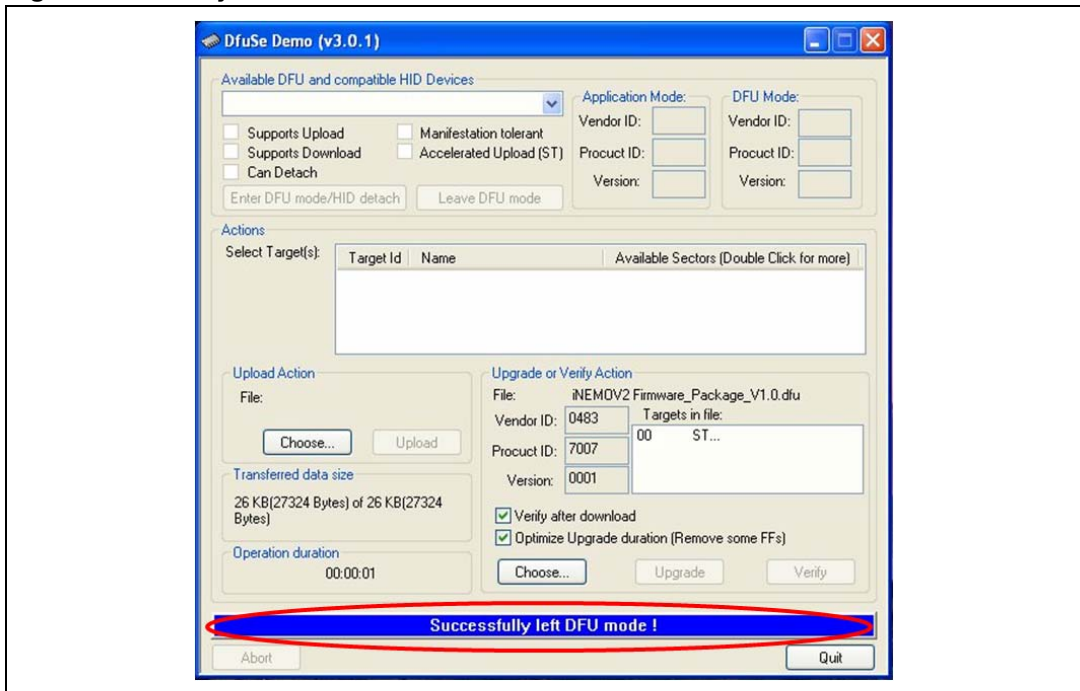
# 2      Revision history

**Table 1.       Document revision history**

| Date | Revision | Changes |
|---|---|---|
| 10-Sep-2010 | 1 | Initial release. |

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