

UM2254 User manual

STSW-STUSB001 quick installation guide

Introduction

STSW-STUSB001 is a software package containing a Graphical User Interface (GUI) used to ease STUSB ICs device customization, evaluation and debug.

In order to run the GUI on a laptop, an STM32 Nucleo board must be programmed to act as a USB to I²C bridge between the laptop and the STUSB evaluation boards.

The document details the full installation process, from GUI software package download to NUCLEO board configuration, including error messages.

1 System configuration

1.1 Hardware setup

Follow the procedure below to set up your hardware.

1. Connect the NUCLEO-F072RB to your computer via mini-B USB cable

Figure 1: NUCLEO-F072RB development board





You can also use the NUCLEO-L476RG development board

2. Check the device drivers are installed successfully





3. Download the STSW-STUSB001 GUI from homepage by searching **STSW-STUSB001** or from the following location:



4. Click the Get Software button at the bottom of the page

	Figure -	4: STSW	-STUSB001	Get Soft	ware button
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GET SOFTWARE				
Part Number	Software Version	Marketing Status	Supplier 🔶	Order from ST
STSW-STUSB001	1.0.0	Active	ST	Get Software

5. Accept the license agreement to begin downloading

Figure 5: STSW-STUSB001 License Agreement			
License Agreement			
IMPORTANT-READ CAREFULLY:			
This Limited License Agreement ("LLA") is made between you (either an individual person or a			
single legal entity, who will be referred to in this LLA as "You" or "Licensee") and			
STMicroelectronics International NV, a company incorporated under the laws of the Netherlands			
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accompany this LLA, including any associated media, printed materials and electronic			
documentation (the "Licensed Materials"). The Licensed Materials include any software updates			
and supplements, that ST may provide You or make available to You after the date You obtain the			
Licensed Materials to the extent that such items are not accompanied by a separate license			
agreement or other terms of use.			

6. Save the file en.stsw-stusb001.zip on your computer

Figure 6: Downloading the GUI

Do you want to open or save en.stsw-stusb001.zip (3.08 MB) from st.com ?	Open	Save	•	Cancel] ×
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7. Unzip the contents to a clean folder

Name	Size
GUI_STUSB_Utility_3.01.exe	476 672
🚳 mfc110u.dll	4 456 520
🚳 msvcp110.dll	535 008
🚳 msvcr110.dll	875 472
Nucleo_F072RB_STUSB_NVM_config_1.6.bin	52 319
🚳 uipinterface.dll	218 624

Figure	7 .	STSW-	STUSB	001 GU	Inackad	e files
Iguie		3131-	310350	00100	ι μαυκαγ	e mes

8. Drag and drop NUCLEO_F072RB_STUSB_NVM_config_1.6.bin to the STM32 Nucleo drive on your computer.

This drive is created automatically when you connect the board to your computer.

- 0 × 🕒 🗢 🖛 🕨 Computer 🕨 NODE_F072RB (E:) ✓ 4→ Search NODE_F0... New folder Organize 🔻 Share with 💌 1 - 2 Burn . Size Name Туре A Favorites A Ξ DETAILS.TXT Text Document 1 KB 🛛 🦳 Libraries MBED.HTM HTML Document 1 KB Nucleo_F072RB_STUSB_NVM_config_1.6.bin **BIN** File 52 KB 🛯 🜉 Computer 🛛 🚢 OSDisk (C:) NODE_F072RB (E:) 3 items

Figure 8: NODE FO72RB(E)

9. Press the black RESET button on the NUCLEO-F072RB.

The board is now configured to act as a USB to I²C bridge between the GUI and STUSB products.

10. Disconnect the mini-B USB cable connecting the NUCLEO-F072RB and your computer.

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11. Plug your STUSB evaluation board onto the NUCLEO-F072RB development board as shown below





1.2 **GUI** setup

1. Extract the en.stsw-stusb001.zip package files to the folder on your PC (as described in the previous chapter).



The .dll files and the .exe file must be in the same directory



Figure 10: GUI package files



2. Connect your computer to the STUSB evaluation board with the micro-B USB cable (see *Figure 9: "NUCLEO-F072RB connectors"*).



No connection between the NUCLEO-F072RB and the computer is required.

3. Run the .exe file to open the start window of the GUI.

	STUSB NVM Utility	
	NVM configuration	
	I2C utility	
	NVM utility	
8	Device Dashboard	
	Advanced Features	
	USB BOARD : UIP-g344801AB I2C Bus : 1 DeviceID :0X28 STUSB47xx detected	

Figure 11: STUSB NVM Utility start window

The GUI is now ready to use.



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1.3 Troubleshooting

Figure 12: No target found error message

Error	×
USB Error: No target found Please connect first the evaluat	tion board with a USB cable
	ОК

Refer to the following scenarios if the GUI fails to connect with the STUSB evaluation board.

- CASE 1: the LEDs on the NUCLEO-F072RB board and STUSB board are blinking.
 Check the USB cable connection on the STD-A port (on computer) and on micro-B port (on STUSB board).
- CASE 2: the LEDs on the NUCLEO-F072RB are blinking, but not on the STUSB board.
 - The Software has not been installed properly on the NUCLEO-FO72RB. Repeat the hardware configuration process (*Section 1.1: "Hardware setup"*).
- **CASE 3**: no LEDs are blinking on either board.
 - Check the connection between the NUCLEO-F072RB and the STUSB evaluation board (see *Figure 9: "NUCLEO-F072RB connectors"*).



2 Compatible STUSB evaluation boards

Table 1: Compatible DUT boards

ST part number	Description	
STEVAL-CCC001	STUSB1600 evaluation board	
P-NUCLEO-USB002	STUSB1602 + STM32 dual port evaluation board	
STEVAL-ISC003V1	STUSB4710 evaluation board	



3 Revision history

Table 2: Document revision history

Date	Version	Changes
28-Jul-2017	1	Initial release.



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