



SATEVIS A CONSTELLATION OF IOT SENSORS

WWW.SATEVIS-SYSTEMS.COM

How to update your Firmware on your Satevis[®] device

V1.1 / 15.03.2024

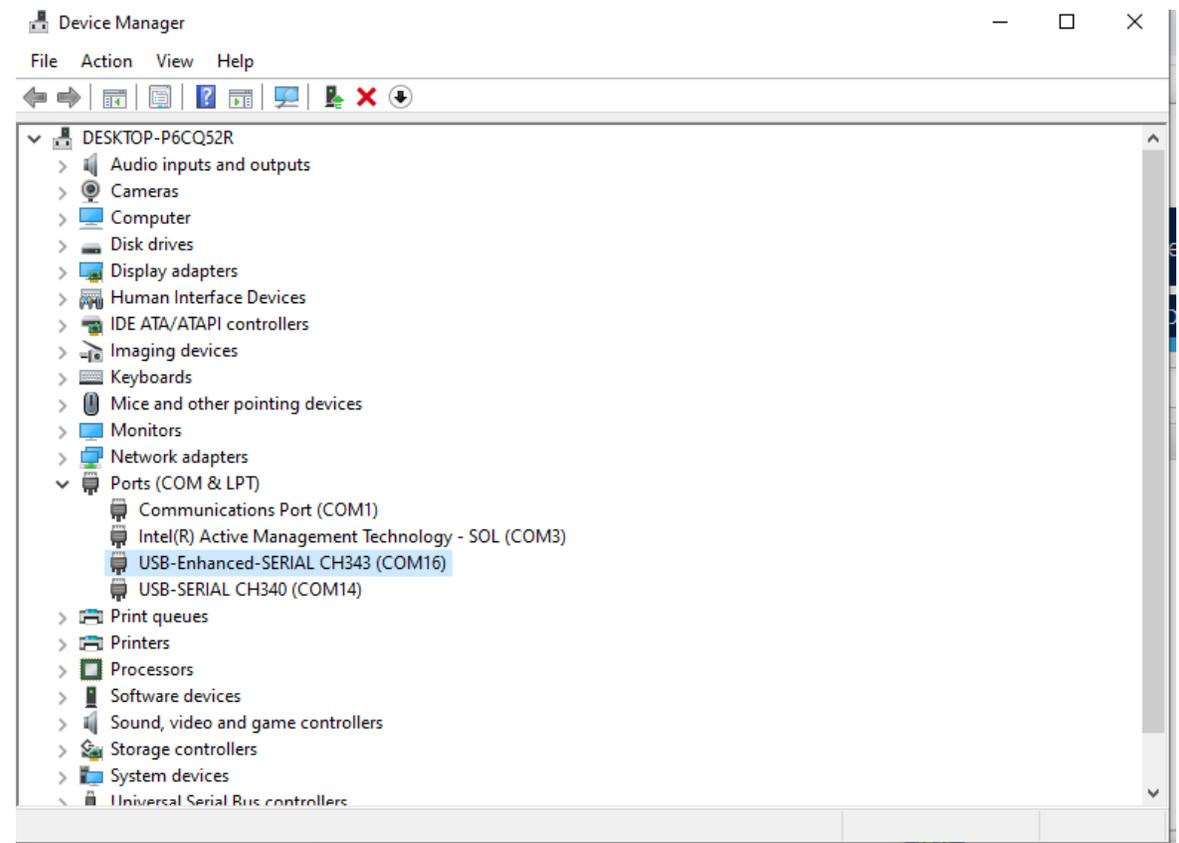
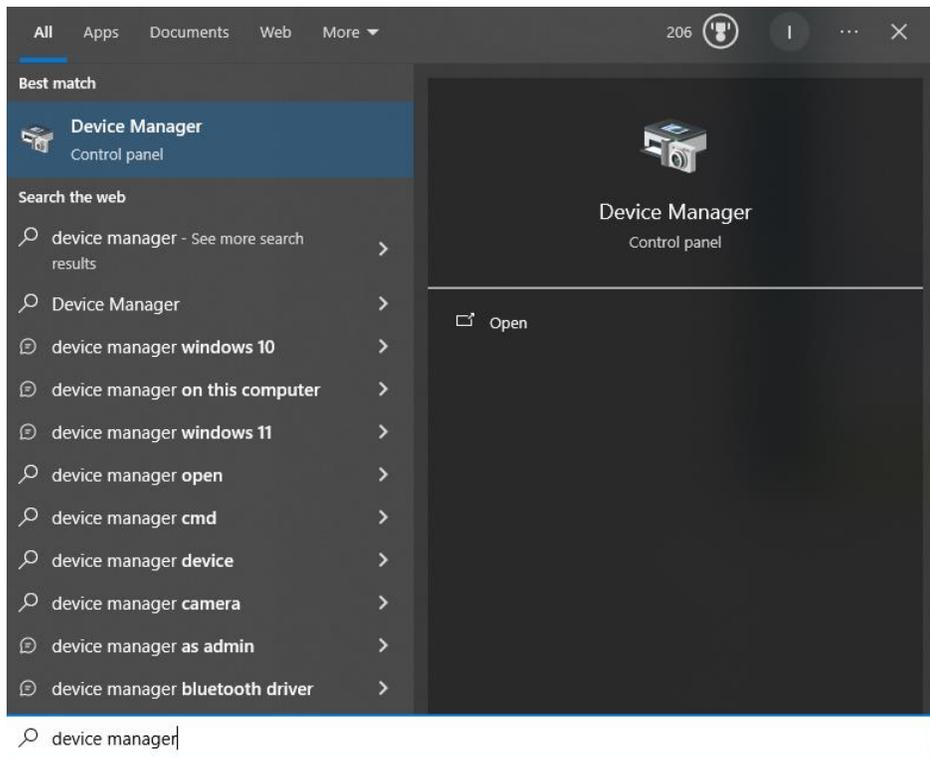
Pre-conditions for Firmware Update :

- Battery Power should be powered off
- Your Satevis[®] device should be connected to your PC through USB –M8 Cable adapter
- STM32 Cube Programmer should be installed on your PC (**you can download it from our FTP access**)

1. Connect your Satevis[®] device to your PC with the USB/M8 cable adapter provided with it. The M8 plug comes with a positioning notch, insert it with the marking 'Signal =>' on the top side.

Use the device manager to check which COM PORT is used (enter Device Manager on your search engine).

Satevis[®] Device integrates the latest CH343 USB Chipset

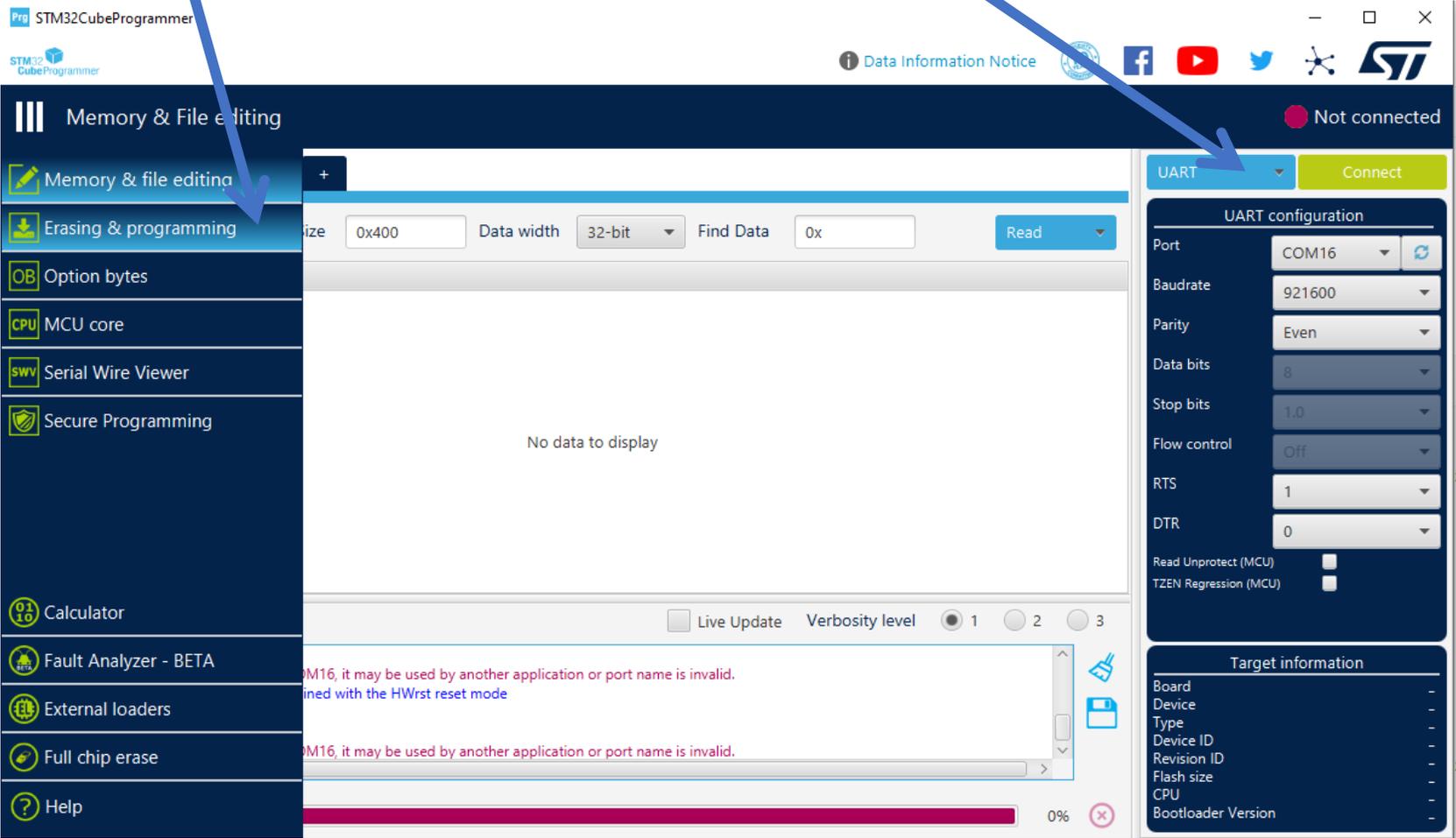


Launch STM32 CubeProgrammer



Click on Erasing and Programming on the menu

Select UART communication from the scroll list



Check these two boxes only

Click on Browse to select your firmware

Select COM Port connected to your device

Select a BaudRate of 921600 bauds

Select Even Parity

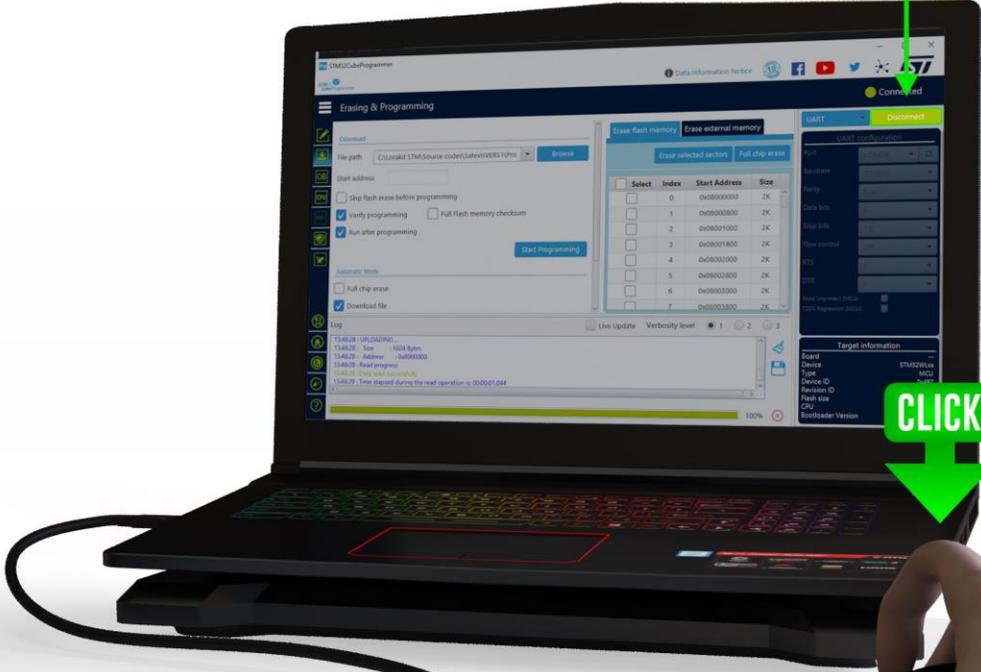
Select RTS function

Only Download File should be selected (default settings)

The screenshot shows the STM32CubeProgrammer software interface. The main window is titled "Erasing & Programming". On the left, there are several icons for different functions: Download, CPU, SWV, and Log. The "Download" section is active, showing a file path "C:\Lorakit STM\Source codes\SatevisVERS1\Pro" and a "Browse" button. Below this, there are checkboxes for "Skip flash erase before programming" (unchecked), "Verify programming" (checked), "Run after programming" (checked), and "Full Flash memory checksum" (unchecked). A "Start Programming" button is visible. The "Automatic Mode" section has a "Full chip erase" checkbox (unchecked) and a "Download file" checkbox (checked). A "Log" window at the bottom left shows error messages. The "UART configuration" panel on the right shows "Port" set to "COM16", "Baudrate" set to "921600", "Parity" set to "Even", "Data bits" set to "8", "Stop bits" set to "1.0", "Flow control" set to "Off", "RTS" set to "1", and "DTR" set to "0". A "Connect" button is visible. The "Target information" panel at the bottom right shows fields for Board, Device, Type, Device ID, Revision ID, Flash size, CPU, and Bootloader Version.

BRING THE **MAGNET** ON **HELLO LABEL**, KEEP IT FOR **5s** UNTIL THE **ACTIVITY LED FLASH IN GREEN**, THEN **CLICK ON CONNECT**

THE BATTERY MUST BE POWER OFF

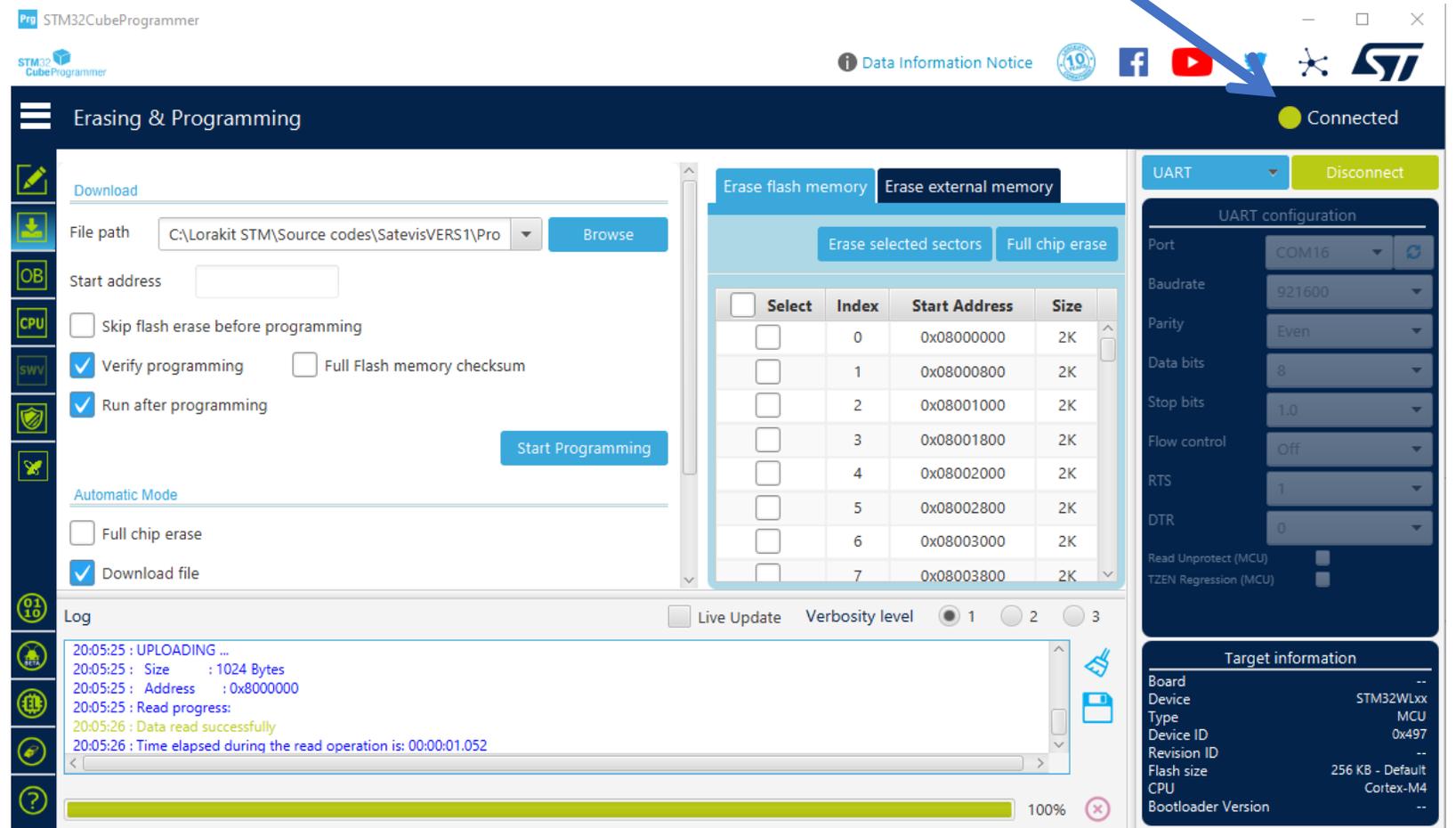
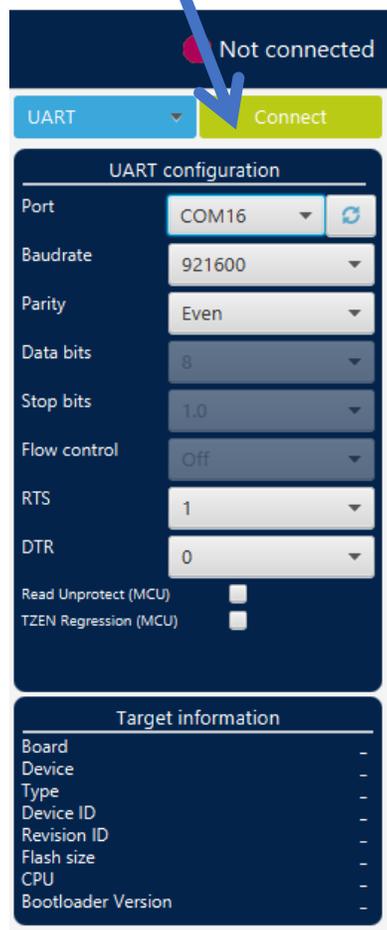


CLICK



Click on connect

The status LED will switch to green color, your Satevis® device is now connected



Click on Start Programming

The screenshot shows the STM32CubeProgrammer software interface. The main window is titled "Erasing & Programming" and is in a "Connected" state. The interface is divided into several sections:

- Download Section:** Includes a "File path" field with the value "C:\Lorakit STM\Source codes\SttevisVERS1\Pro" and a "Browse" button. Below it is a "Start address" field.
- Options Section:** Contains several checkboxes: "Skip flash erase before programming" (unchecked), "Verify programming" (checked), "Full Flash memory checksum" (checked), "Run after programming" (checked), "Automatic Mode" (with a sub-section for "Full chip erase" and "Download file", both checked).
- Erasing Section:** Features tabs for "Erase flash memory" and "Erase external memory". Under "Erase flash memory", there are buttons for "Erase selected sectors" and "Full chip erase". A table lists memory sectors for erasing:

Select	Index	Start Address	Size
<input type="checkbox"/>	0	0x08000000	2K
<input type="checkbox"/>	1	0x08000800	2K
<input type="checkbox"/>	2	0x08001000	2K
<input type="checkbox"/>	3	0x08001800	2K
<input type="checkbox"/>	4	0x08002000	2K
<input type="checkbox"/>	5	0x08002800	2K
<input type="checkbox"/>	6	0x08003000	2K
<input type="checkbox"/>	7	0x08003800	2K

- Log Section:** Shows a log of operations: "21:24:17 : UPLOADING ...", "21:24:17 : Size : 1024 Bytes", "21:24:17 : Address : 0x8000000", "21:24:17 : Read progress:", "21:24:18 : Data read successfully", and "21:24:18 : Time elapsed during the read operation is: 00:00:01.051".
- Right Panel:** Contains "UART configuration" (Port: COM16, Baudrate: 921600, Parity: Even, Data bits: 8, Stop bits: 1.0, Flow control: Off, RTS: 1, DTR: 0) and "Target information" (Board: --, Device: STM32WLxx, Type: MCU, Device ID: 0x497, Revision ID: --, Flash size: 256 KB - Default, CPU: Cortex-M4, Bootloader Version: --).

A blue arrow points from the text "Click on Start Programming" to the "Start Programming" button in the "Erasing & Programming" section.

This Pop-up window will appear : **'Start Operation was successful'**

The screenshot displays the STM32CubeProgrammer software interface. The main window is titled "Erasing & Programming" and shows various settings for programming a device. A blue arrow points from the text above to the "Start Programming" button. A pop-up message window is overlaid on the interface, displaying the text "Start operation achieved successfully" with an "OK" button. The background interface includes a "Download" section with a file path, a "Start address" field, and several checkboxes for programming options. The bottom of the interface features a "Log" window with a list of messages and a progress bar at 100%.

STM32CubeProgrammer

Erasing & Programming

Connected

Download

File path: C:\Lorakit STM\Source codes\SatevisVERS1\Pro

Start address

Skip flash erase before programming

Verify programming

Full Flash memory checksum

Run after programming

Start Programming

Automatic Mode

Full chip erase

Download file

Log

21:25:50 : Reemission of GetID command

21:25:51 : Timeout error occurred while waiting for acknowledgement.

21:25:51 : Error: GETID command not acknowledged!

21:25:52 : Timeout error occurred while waiting for acknowledgement.

21:25:52 : Error: GETID command not acknowledged!

21:25:53 : Reemission of GetID command

100%

Message

Start operation achieved successfully

OK

<input type="checkbox"/>	2	0x08001000	2K
<input type="checkbox"/>	3	0x08001800	2K
<input type="checkbox"/>	4	0x08002000	2K
<input type="checkbox"/>	5	0x08002800	2K
<input type="checkbox"/>	6	0x08003000	2K
<input type="checkbox"/>	7	0x08003800	2K

UART configuration

COM16

921600

Even

8

Stop bits

1.0

Flow control

Off

RTS

1

DTR

0

Read Unprotect (MCU)

TZEN Regression (MCU)

Target information

Board: --

Device: STM32WLxx

Type: MCU

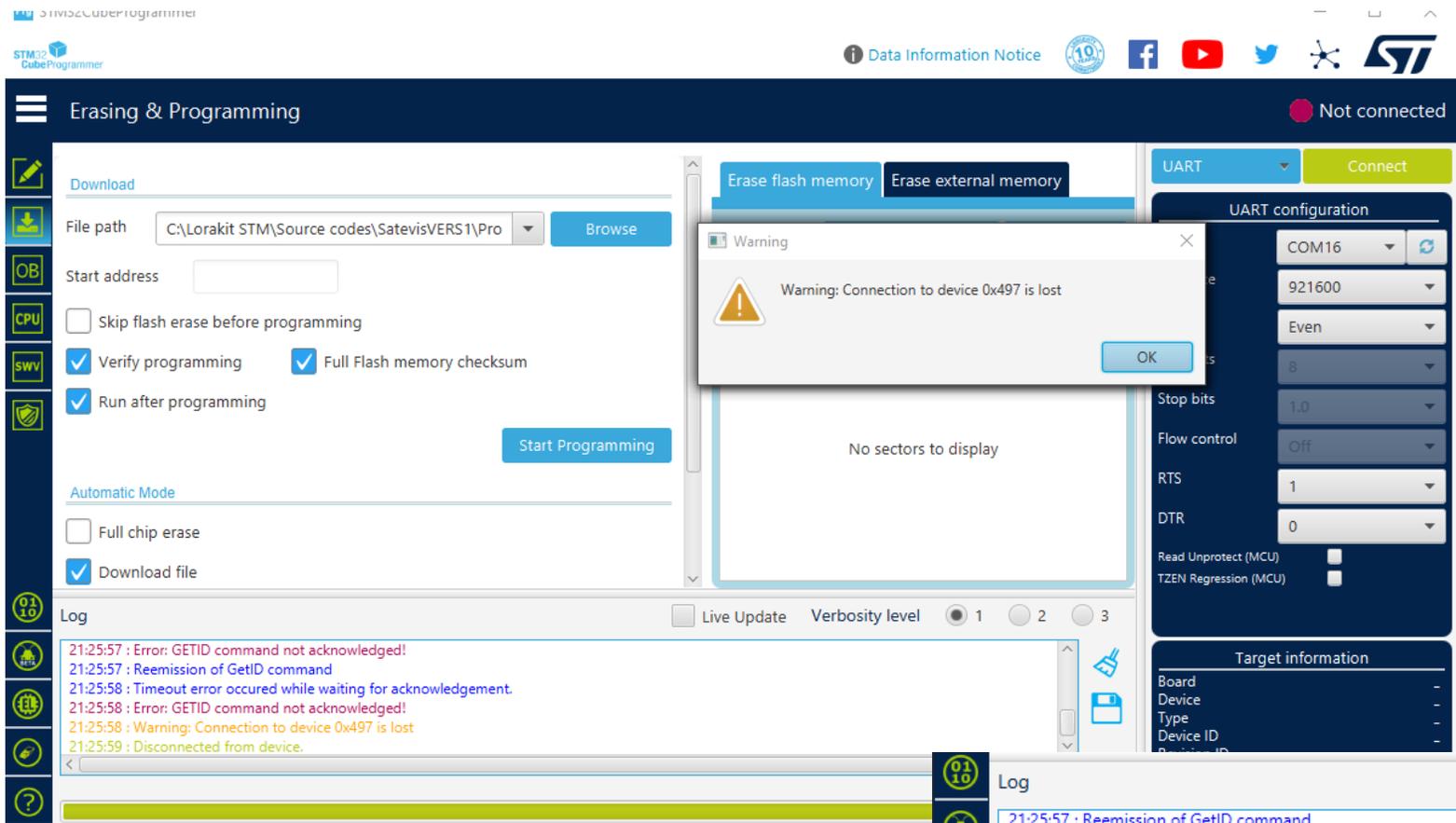
Device ID: 0x497

Revision ID: --

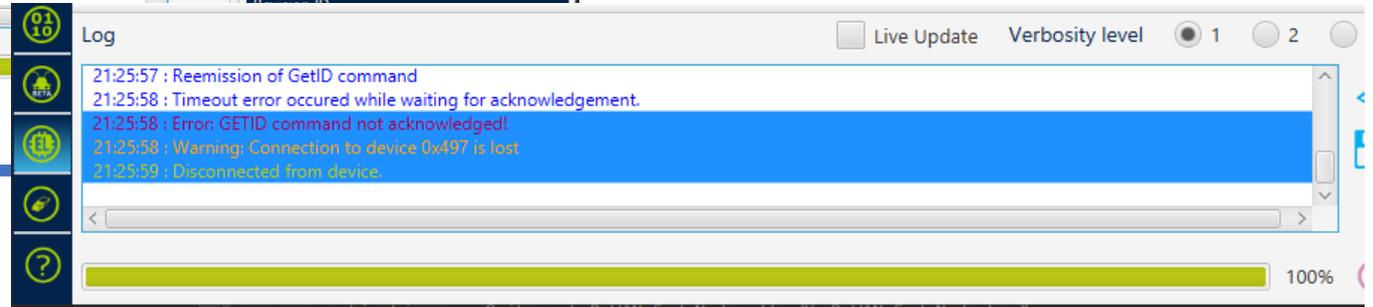
Flash size: 256 KB - Default

CPU: Cortex-M4

Bootloader Version: --



Wait Until the end of
device disconnection



You can disconnect and reconnect your device, it will start to work with a new firmware.

Warning :

If your Satevis® device is accidentally disconnected from the USB during the firmware programming, the electronic board will be corrupted, and you need to use a specific Hardware adapter to program it again. Please contact us to order it.

If you fail to upload a firmware , restart your device and make sure the battery power is off.