



life.augmented

# Teseo-Suite and STM32

**Easy Teseo III Module management on STM32 board**

ADG/Positioning

v. 2.0



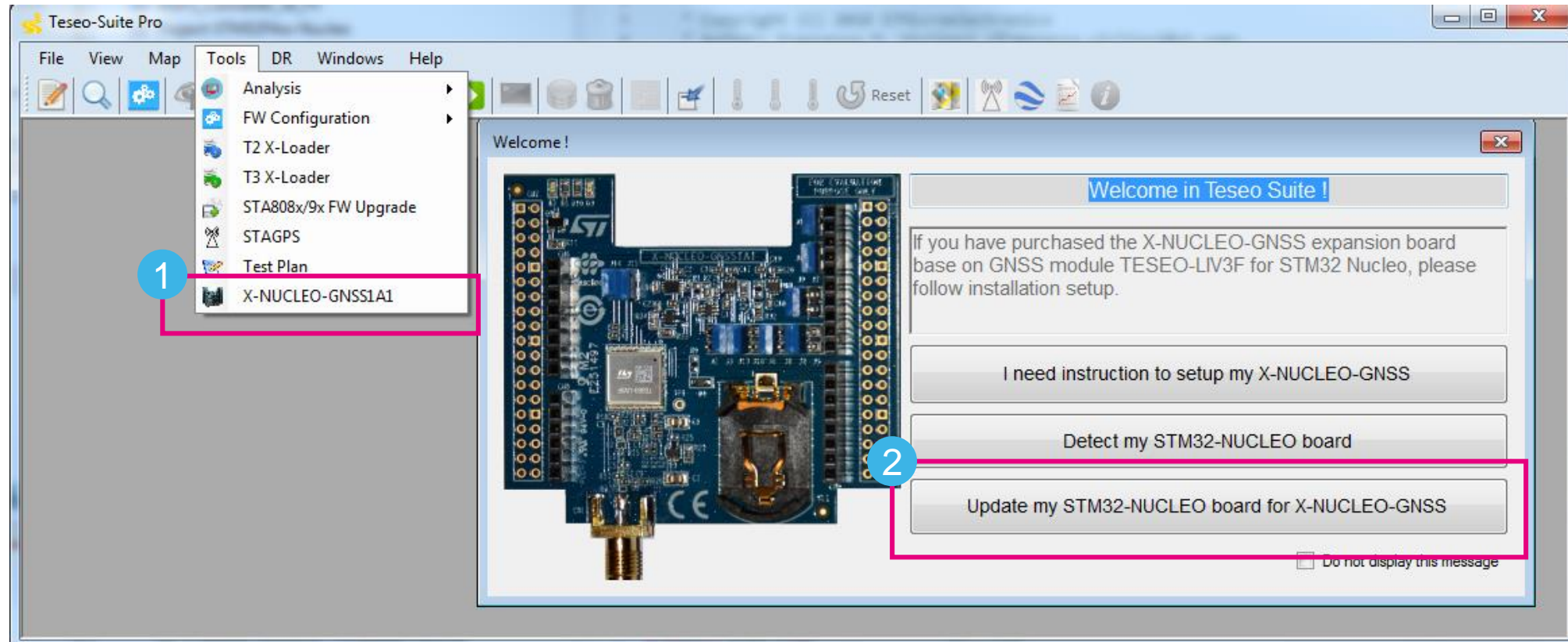
# Teseo-Suite and STM32

- Since version 5.2.3.3, Teseo-Suite fully manages the Teseo III module family through STM32F4 MCU (NUCLEO-F401RE)
- Teseo-Suite contains STM32F4's firmware to program STM32 device to:
  - Stream NMEA coming from Teseo III module
  - Upgrade the firmware on Teseo III module



# X-NUCLEO on Teseo-Suite

- 1 Select “X-NUCLEO-GNSS1A1”
- 2 Click “Update my STM32-Nucleo board...”



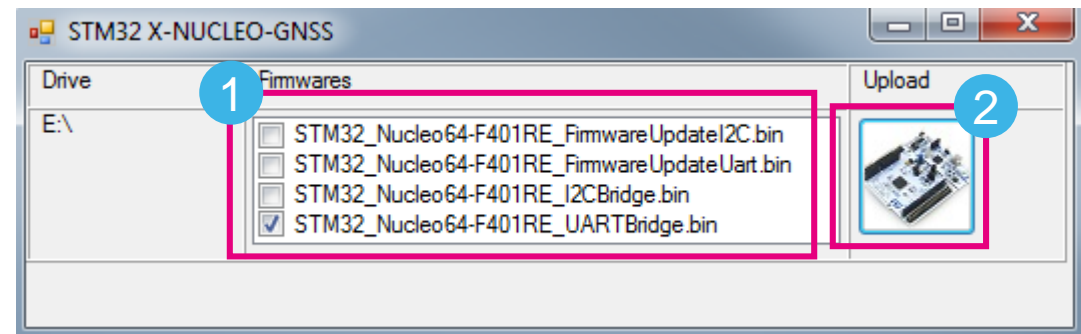


# Select STM32 firmware

## 1 Select the required STM32 firmware:

- xxx\_FirmwareUpdateUART.bin: to perform a firmware update on Teseo III Module via the STM32.UART port
- xxx\_FirmwareUpdateI2C.bin: to perform a firmware update on Teseo III Module via the STM32.I2C port
- xxx\_I2CBridge.bin: to perform NMEA streaming coming from Teseo III Module via the STM32.I2C port
- xxx\_UARTBridge.bin: to perform NMEA streaming coming from Teseo III Module via the STM32.UART port

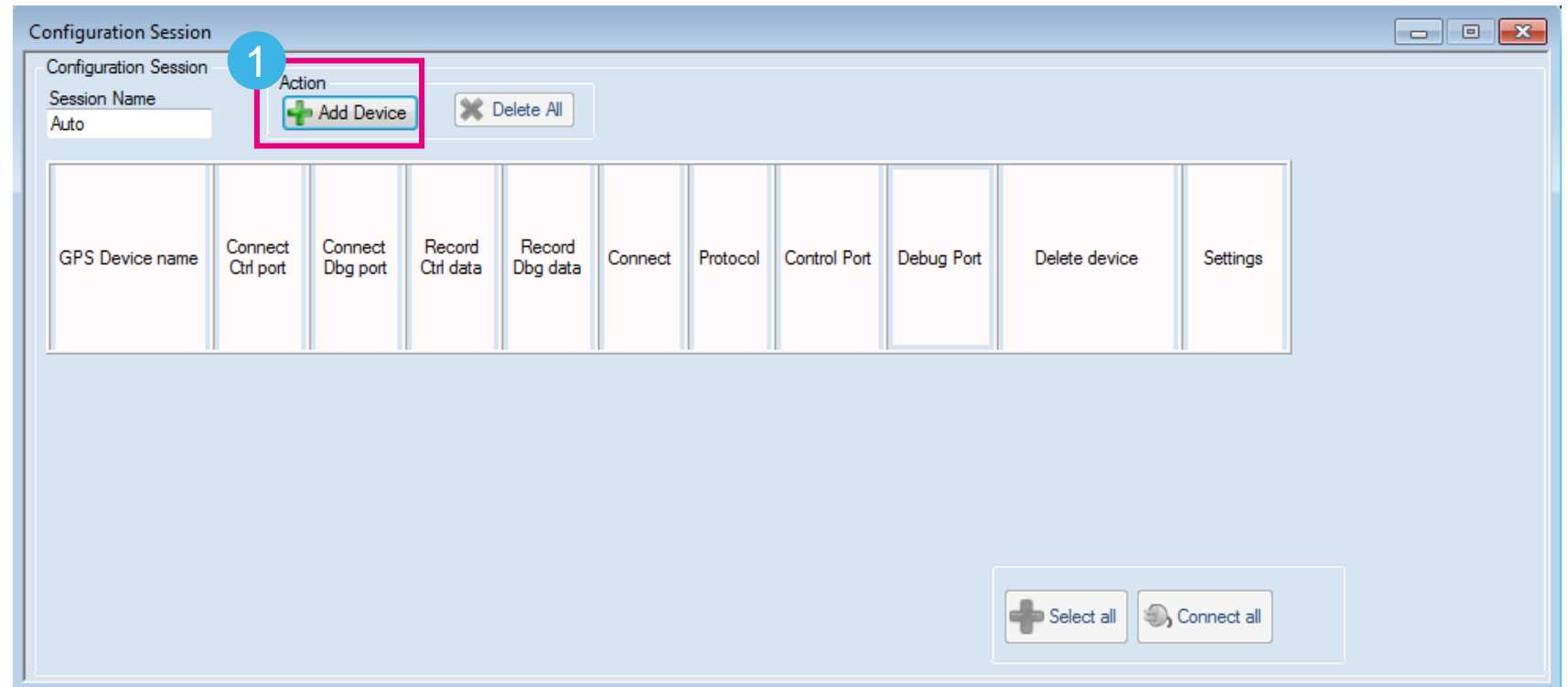
## 2 Install the STM32 firmware





# Add a new device

- 1 Add a new Device via the STM32-COM port



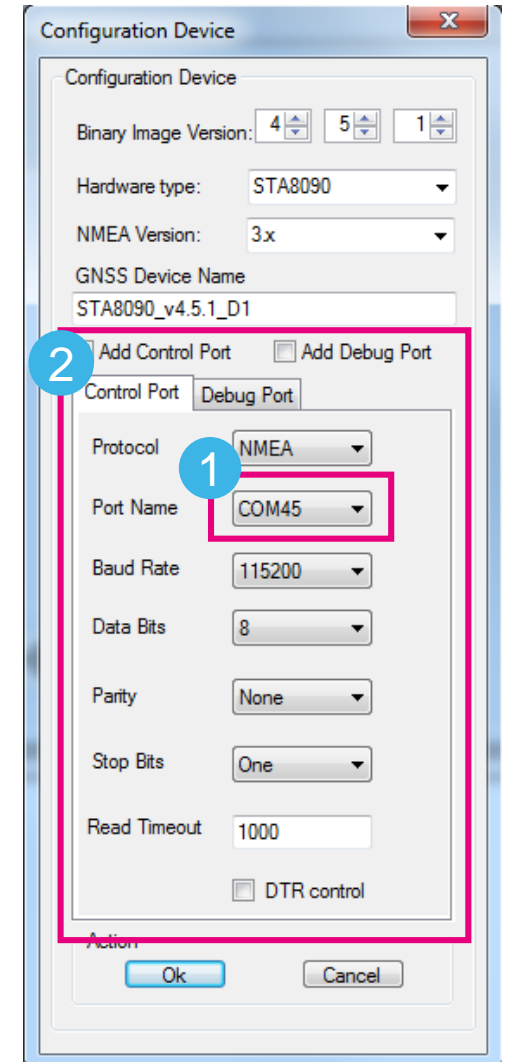


# Configure the STM32-COM port

- 1 Open the COM port with the STM32 device
- 2 Configure the COM port
- 3 Use the settings required for the STM32-COM port

3	Baud rate	Data bits	Stop Bits	Parity	Handshake
	115200bps	8 Bits	1 Bit	None	None

Now you can use the Nucleo-STM32 + X-NUCLEO-GNSS1A1 like any standard Teseo III Evaluation





# Documents & related resources

All documents are available on:  
[www.st.com](http://www.st.com)

- Teseo-LIV3F: [Webpage](#)
  - Datasheet
  - User Manuals
- X-Nucleo-GNSS1A1: [Webpage](#)
  - Datasheet
- Teseo-Suite: [Webpage](#)
  - Datasheet
  - Install program

### GNSS ICs

ST's Teseo family of Global Navigation Satellite System (GNSS) ICs combines high positioning accuracy and indoor sensitivity with powerful processing capabilities, to simultaneously support multiple global navigation systems (BeiDou, Galileo, GLONASS, GPS, and QZSS).

Teseo III is the latest generation of GNSS ICs, and compared to Teseo II offers reduced power consumption, carrier-phase tracking for higher accuracy, and support for Ready-only Memory (ROM).

Our product offering includes standalone positioning chips (SAL) and configurable system-on-chips (SoCs). The standalone devices are offered with GNSS firmware embedded, to perform all positioning operations including tracking, acquisition, navigation and data output. The SoCs offer power processing and spare memory to enable customers and partners to easily and efficiently merge their code or specific IPs with ST's GNSS library to create a highly optimized platform.

Both solutions come with different package options and memory size, and are compatible with the TESEO-DRAW sensor fusion firmware for dead-reckoning and assisted navigation.

Teseo devices address e-call and telematics systems, personal navigation in PNDs and handheld devices, as well as marine and in-car navigation systems.

Package	GNSS library solutions (SoC)
WL0277 4x4 mm	STAN0000W - Smallest footprint and lowest cost
	STAN0000F - Stacked Flash, Automotive grade option available
GN06 7x7 mm	STAN0000G - Low cost PCB design
GN06 9x9 mm	STAN0000A - Automotive grade
	STAN0000GAT - Wearable Flank GPS 3-Spetch, Automotive grade
BGA109 6x5 mm	STC11 with GNSS capability (SoC)
BGA109 9x9 mm	STAN0000A-EX

### TESEO-SUITE

PC software tool to manage, configure and evaluate the performance of ST Teseo GNSS solutions in parallel.

On each ST TESEO GNSS solution the Teseo Suite is able to read, modify and save the configuration.

NMEA sentences logging and analysis supported. NMEA message-list configurable per port.

#### Key Features

- Multiple GNSS tracer
- Multiple protocol support
- GNSS firmware configuration tool
- GNSS flashing tool
- Dead reckoning panel
- NMEA diagnostic tool
- Satellites signal monitoring viewer
- Map viewer
- Log viewer

#### RESOURCES

Quick Links

#### Technical Documentation

Product Specifications		
Description	Version	
DB3224 PC GUI software to control, configure and performance analyze of Teseo GNSS family	1.0	

#### Legal

License Agreement		
Description	Version	Size
SLA0056 Software license agreement	1.0	59 KB

### EVB-T3

#### TESEO III evaluation board

Teseo EVB board is a complete standalone evaluation platform for Teseo III GNSS ST solution.

Teseo III embeds the high performance ARM946 microprocessor with dedicated SRAM and several serial communication interfaces, including USB, SPI, PC, UART and CAN.

Performance and configuration can be analyzed using the ST TESEO-SUITE PC Tool.

#### Key Features

- ST Teseo III GNSS platform
- Multiconstellation GNSS: GPS, Galileo, Glonass, BeiDou, QZSS are supported
- USB Power Supply and battery charge
- Internal battery for standalone usage
- ON/OFF and Reset buttons available
- NMEA over

#### RESOURCES

#### Technical Documentation

Product Specifications		
Description	Version	Size
DB3223 Teseo III GNSS evaluation board	1.0	137 KB