

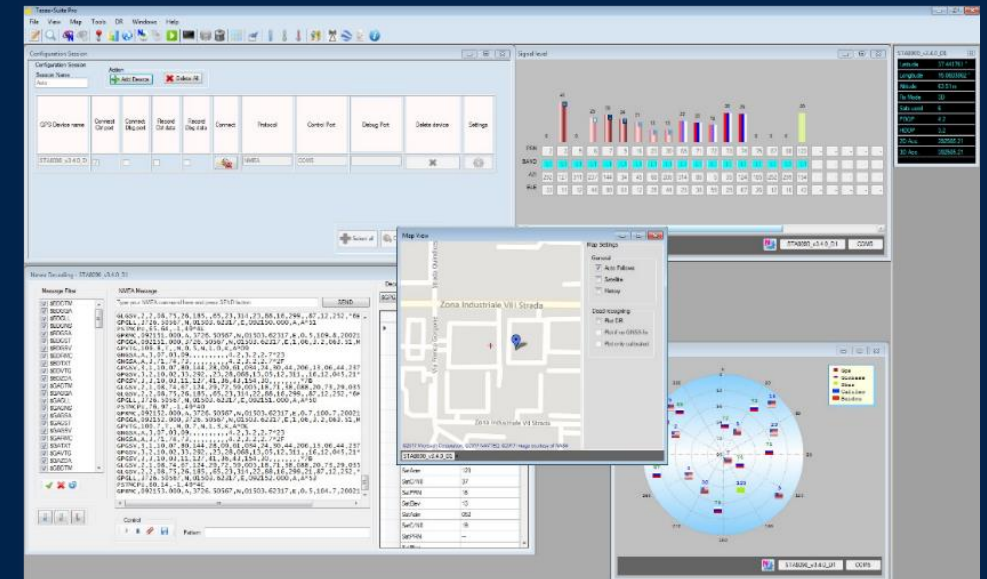


life.augmented

Teseo-Suite - Firmware Configuration

Quick Training Guide

Easy way to configure Teseo III ICs and Teseo GNSS Modules





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2	Configuration Wizards
3	Advanced Configuration
4	Documents & related resources



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Introduction

- Teseo-Suite is a powerful PC tool designed to manage, configure and evaluate the performance of all features and functions ST's Teseo GNSS solutions.
- Its configuration panel lets developers configure and evaluate all parameters of Teseo ICs and modules
- Configuration panels can work on
 - Connected devices during runtime using NMEA commands
 - Off-line on a binary file stored on the PC



Firmware data-model

- Each Teseo binary image or module firmware has a unique binary-ID (SW binary version); for each SW binary version, a specific xml-file-firmware-datamodel is available in Teseo-Suite
- The Firmware-DataModel guarantees the correct view and field descriptions for each Teseo firmware solution (ICs and Modules)



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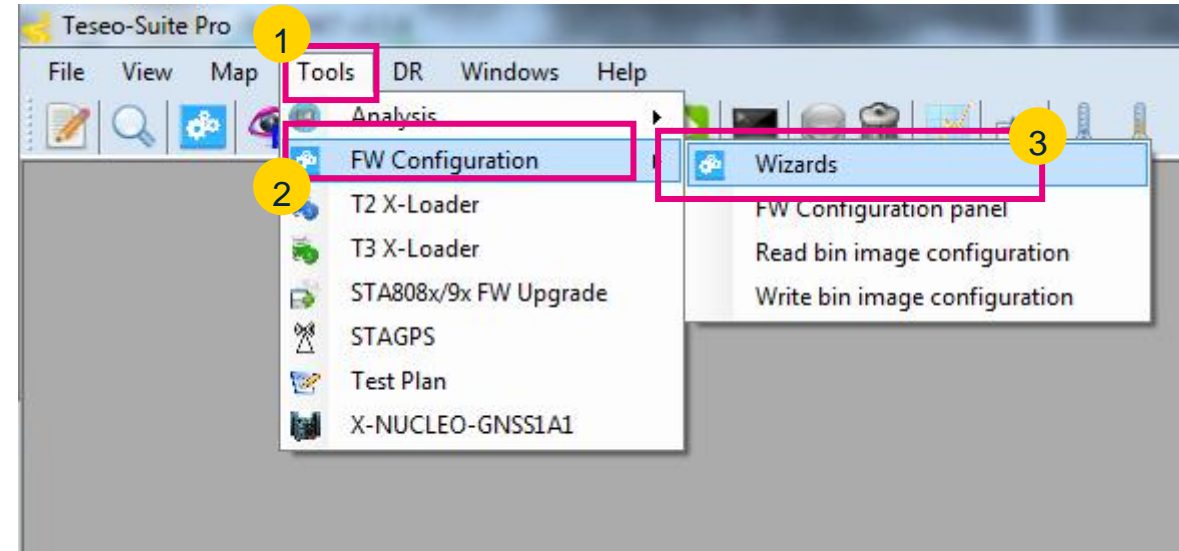
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Using the FW configuration wizards

In the Teseo-Suite menu, select:

- 1 Tools
- 2 FW Configuration
- 3 Wizards

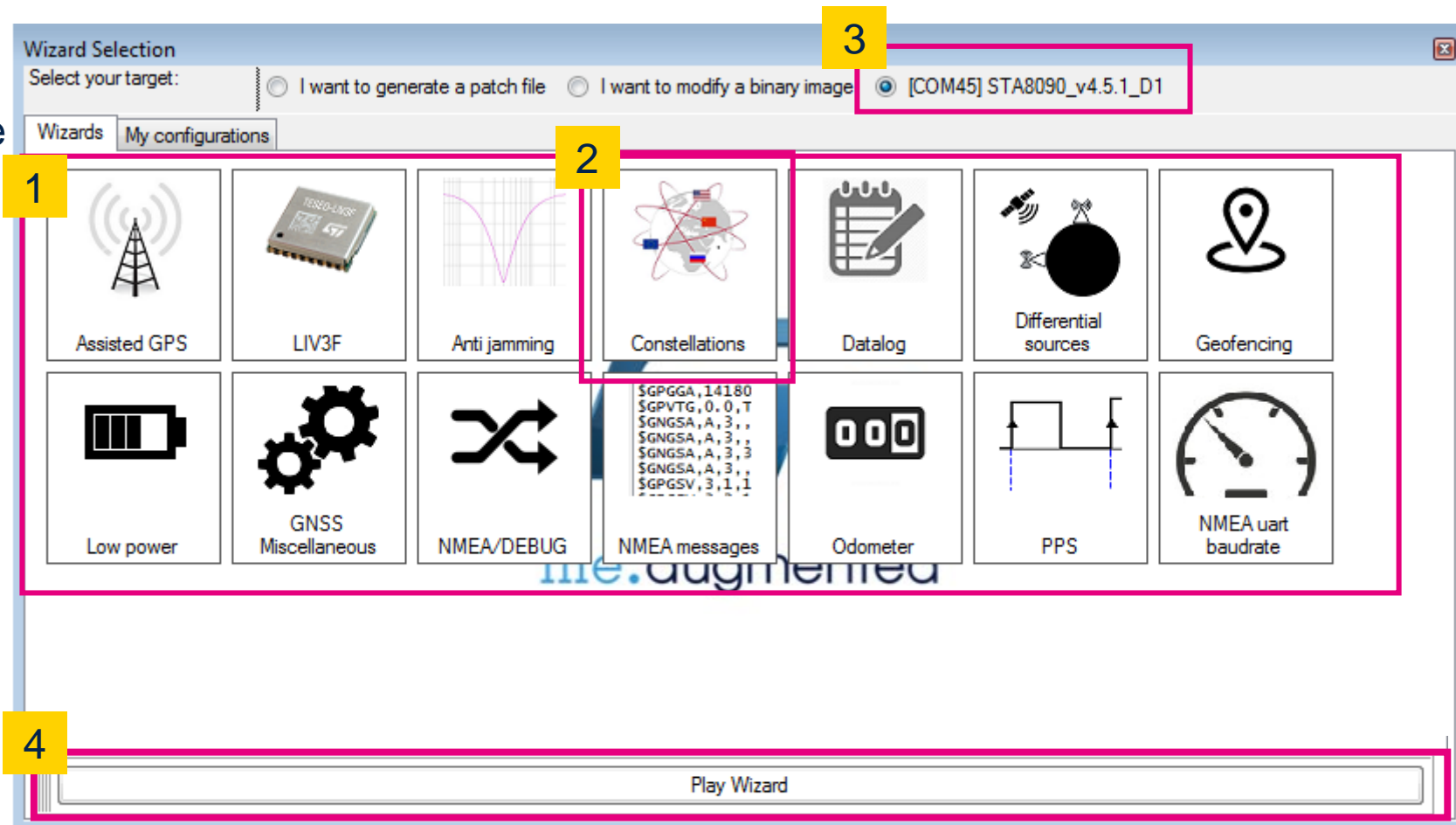


- When opening the Wizards, Teseo-Suite detects the connected device to load the SW binary version used to match the specific firmware-datamodel:
 - If the SW binary version matches, all the device-configuration is read from the device and decoded to fill in all the parameter's value
 - If the SW binary version doesn't match the xml file, an error message is displayed and the user must manually select an xml-file from the database



FW wizard overview

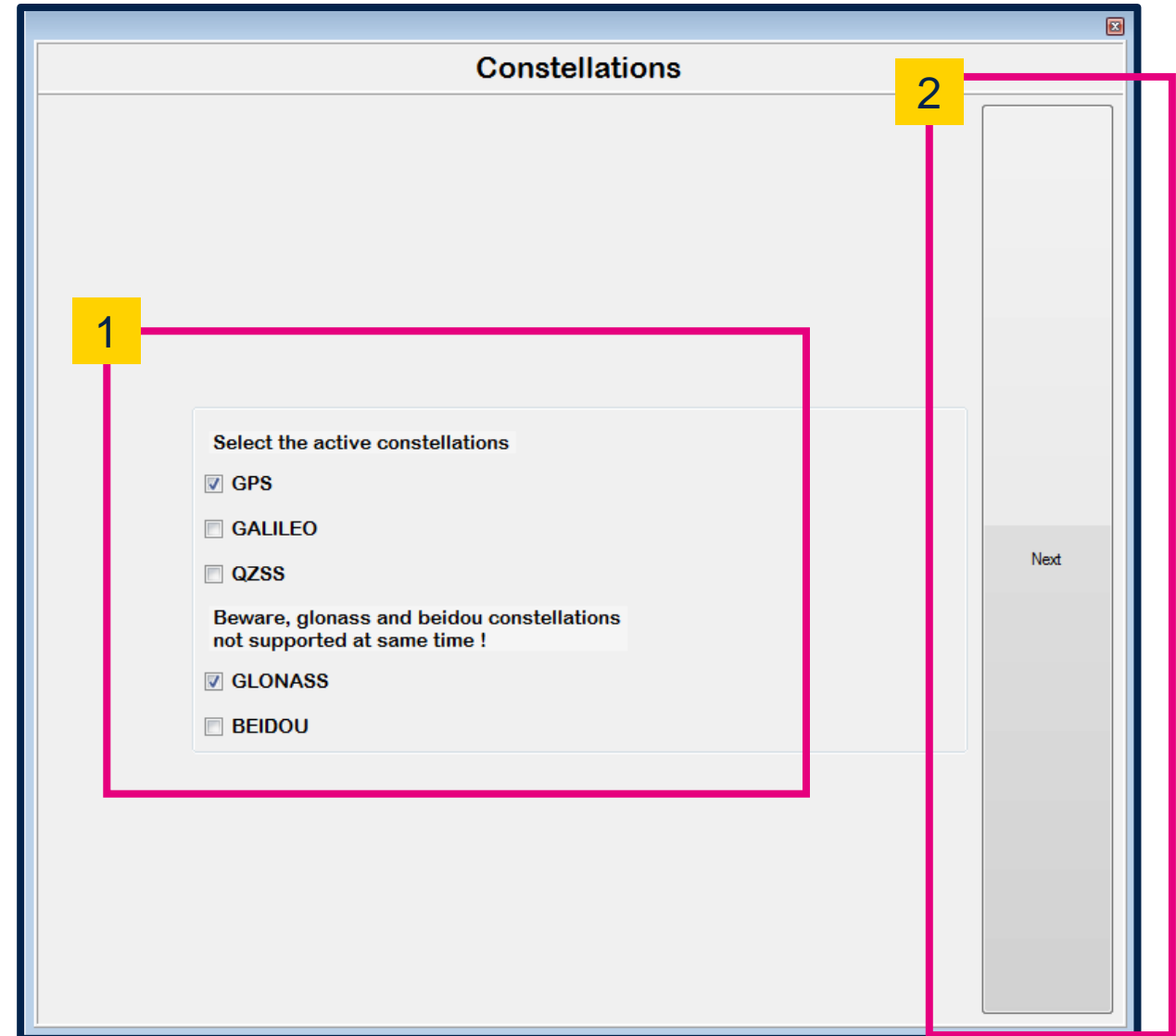
- 1 Dashboard of available wizards
- 2 Wizard panel button (multiple selection allowed)
- 3 Connected device
- 4 Button to run the wizard





FW wizard panels

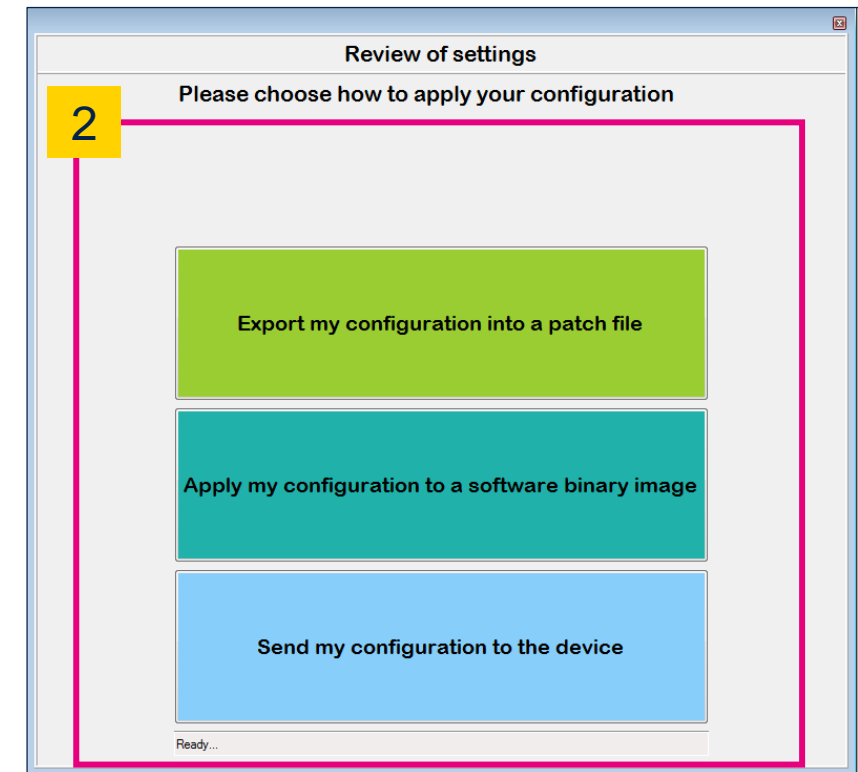
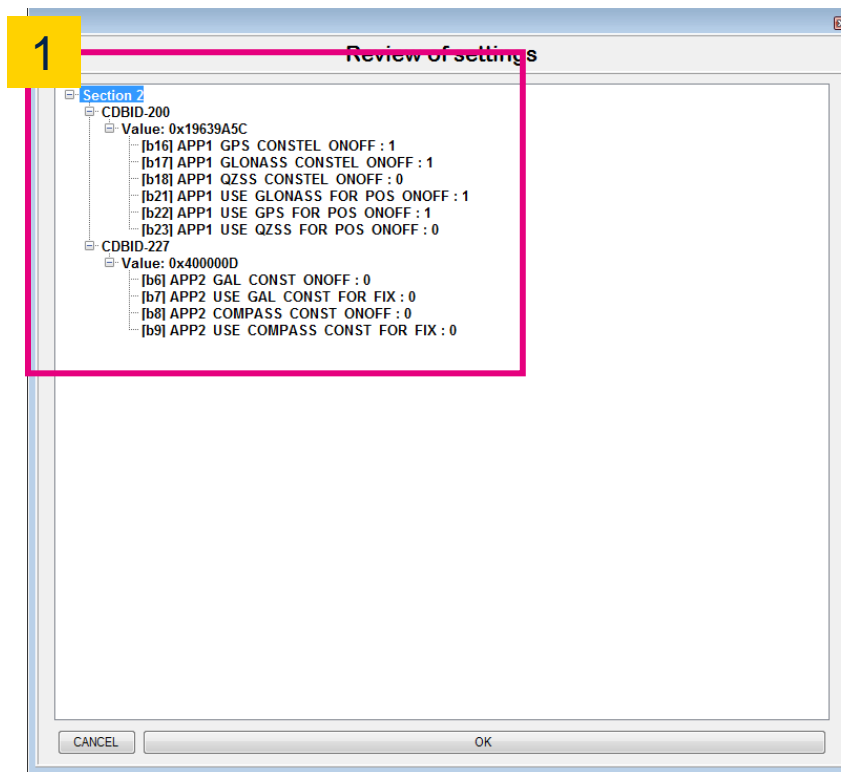
- 1 Each wizard panel can be configured individually
- 2 Click Next to continue





FW wizard configuration

- 1 After configuring the wizard, the user can review the modified Configuration Data Blocks (CDB)
- 2 Apply the new configuration to the connected device or file





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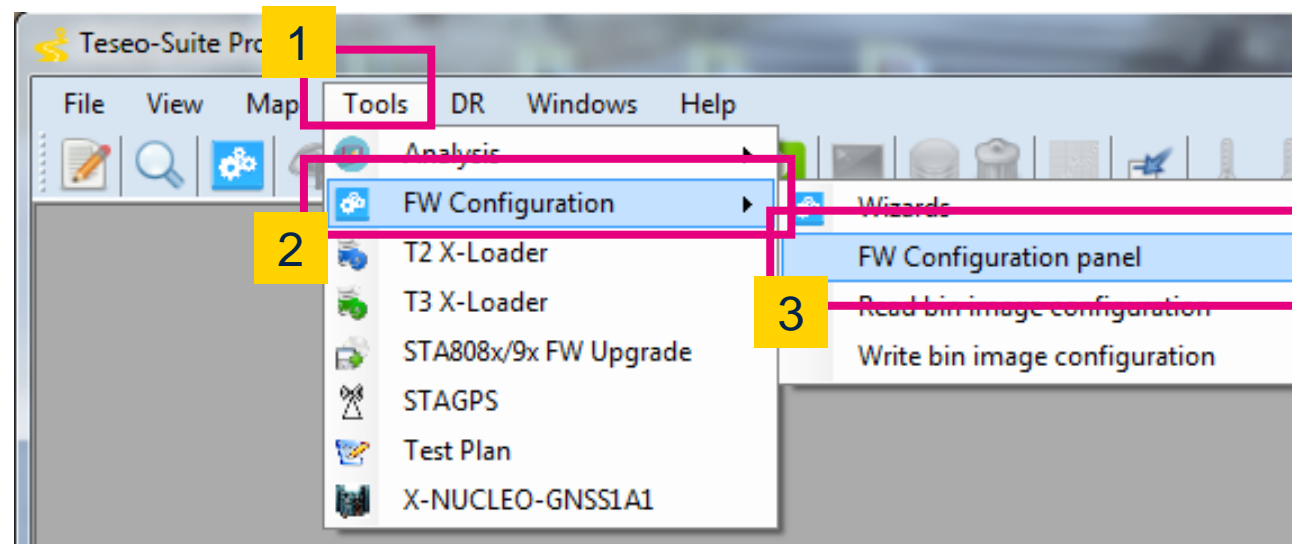
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Using the FW configuration panel

In the Teseo-Suite menu, select:

- 1 Tools
- 2 FW Configuration
- 3 FW Configuration panel



- When opening the FW Configuration panel, Teseo-Suite detects the connected device to load the SW binary version used to match the specific firmware-datamodel:
 - If the SW binary version matches, all the device-configuration is read from the device and decoded to fill in all the parameter's value
 - If the SW binary version doesn't match the xml file, an error message is displayed and the user must manually select an xml-file from the database

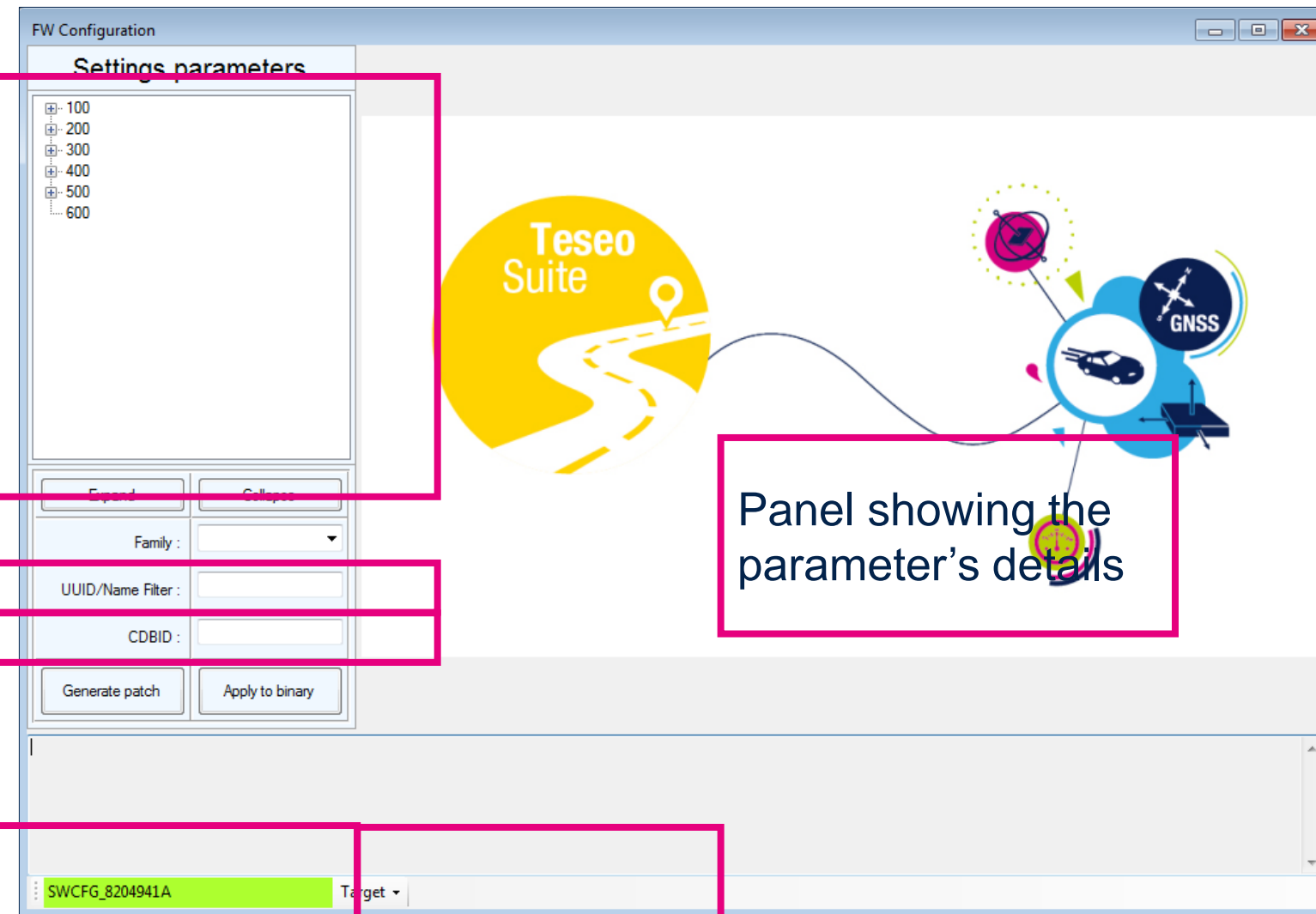


FW configuration panel overview

Tree view showing all the parameters sorted either by group either by family

Hidden parameters not visible
CDB under editing

Panel showing the parameter's details



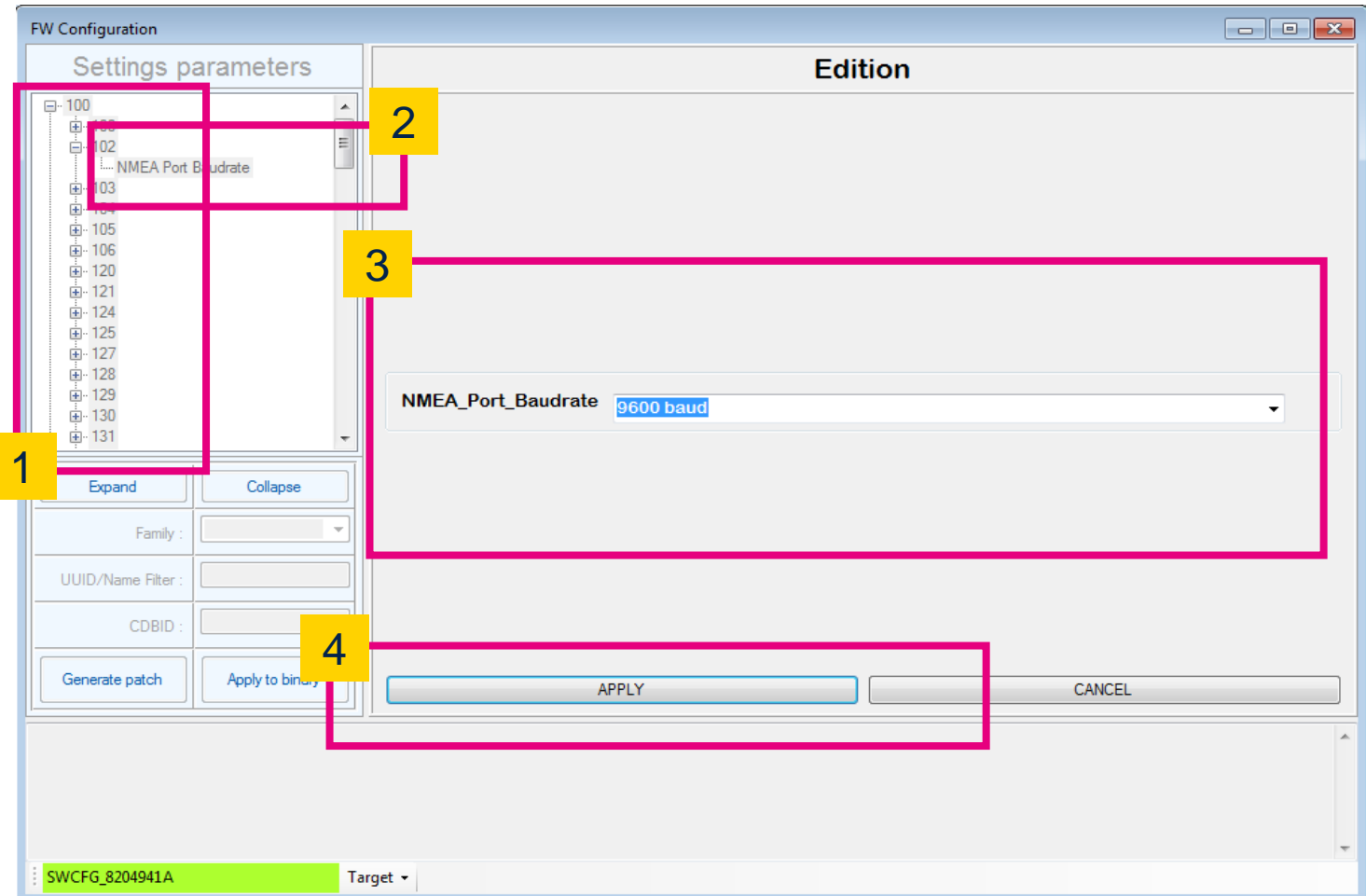
The target SW binary image version

Device selection



Modify the configuration [1/2]

- 1 Expand the tree to select the correct CDB-ID
- 2 Double-click on the field
- 3 The Edition panel will appear with the allowed values
- 4 Apply your changes





Modify the configuration [2/2]

- 1 In the log panel, you can highlight the NMEA replies to the Teseo commands to modify the configuration

FW Configuration

Settings parameters

- 100
- 101
- 102 NMEA Port Baudrate
- 103
- 104
- 105
- 106
- 120
- 121
- 122
- 124
- 125
- 127
- 128
- 129

Expand Collapse

Family :

UUID/Name Filter :

CDBID :

Report

Teseo Suite

GNSS

1

Send \$PSTMSETPAR,1102,0A,0*74
Answer ok
Send \$PSTMSAVEPAR*58
Answer ok
Send \$PSTMSRR*49
Answer ok

SWCFG_81055325 STA8090_v4.5.1_D1



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Documents & related resources

All documents are available on:
www.st.com

Teseo ICs: Webpage

- Product datasheets

Teseo Modules: Webpage

- Product datasheets

Teseo-Suite: Webpage

- Datasheet, user manual and training material
- Install program
- Video training

The image displays three overlapping screenshots from the ST Teseo website and the TESEO-SUITE software interface.

Top Screenshot: GNSS ICs

This page describes the ST Teseo family of GNSS ICs, highlighting their high positioning accuracy, indoor sensitivity, and support for multiple global navigation systems (BeiDou, Galileo, GLONASS, GPS, and QZSS). It mentions the Teseo III as the latest generation, offering reduced power consumption and carrier-phase tracking for higher accuracy. The page also notes that the product offering includes standalone positioning chips (SAL) and configurable system-on-chips (SOCs), which are offered with GNSS firmware embedded for tracking, acquisition, navigation, and data output. Both solutions come with different package options and memory size, and are compatible with the TESEO-DRAIV 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.

Bottom Left Screenshot: TESEO-SUITE

This screenshot shows the TESEO-SUITE software interface, which is a PC software tool to manage, configure, and evaluate the performance of Teseo GNSS solutions. It features a "QUICK VIEW" tab and a "RESOURCES" tab. The "QUICK VIEW" tab displays a table of Teseo ICs with their key features and specifications.

Part Number	Package	Key Features
BL0271 4x4 mm	STANDARD	Smallest footprint and lowest cost
GN06 7x7 mm	STANDARD	Low-cost PCB design
GN06 8x8 mm	STANDARD	Automotive grade
SG009 6x6 mm	STANDARD	Automotive grade
SG109 9x9 mm	STANDARD	Automotive grade

Bottom Right Screenshot: EVB-T3

This screenshot shows the TESEO III evaluation board (EVB-T3) page. It describes the board as a complete standalone evaluation platform for Teseo III GNSS ST solution. The board embeds the high performance ARM946 microprocessor with dedicated SRAM and several serial communication interfaces, including USB, SPI, I2C, 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

Technical Documentation

Product Specifications

Description	Version	Size
DB3224 PC GUI software to control, configure and performance analysis of Teseo GNSS family	1.0	

Legal

License Agreement

Description	Version	Size
SLA0066 Software license agreement	1.0	59 KB



Join the ST GNSS community

- Get involved in the ST GNSS community
- Share ideas
- Ask questions

