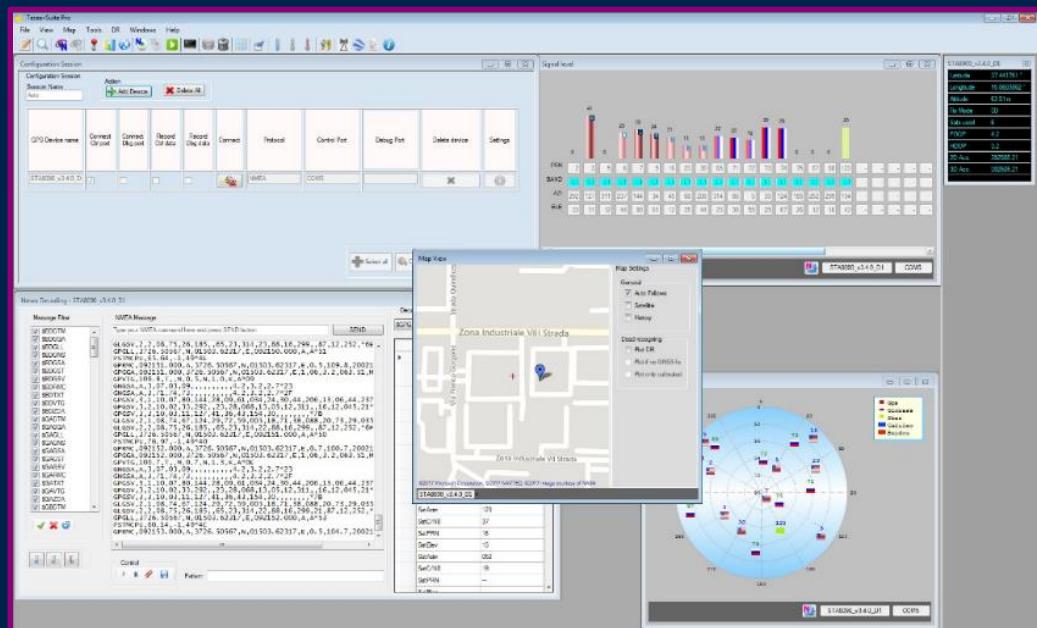


Teseo-Suite

PC tool to manage, configure and evaluate
the Teseo GNSS family

Quick Training Guide

v. 2.0





Quick start guide - Contents

1

Introduction

2

Basic commands

3

Advanced features

4

Documents & related resources



Quick start guide - Introduction

1

Introduction

2

Basic commands

3

Advanced features

4

Documents & related resources



Install Teseo Suite

Teseo-Suite is a powerful PC Tool able to manage the ST Teseo II and Teseo III GNSS solutions.

Download and install the Teseo Suite

Teseo Suite is provided on www.st.com with locked-features.

Unlock-key can be requested to
st-teseo-suite-support@st.com

A screenshot of a web page for the ST TESEO-SUITE software. The page has a header with the ST logo and a navigation menu. Below the header, there's a breadcrumb trail: Home > Embedded Software > Automotive Infotainment and Telematics Software > TESEO-SUITE. The main content area is titled "TESEO-SUITE ACTIVE". It describes the software as a PC tool for managing, configuring, and evaluating Teseo GNSS family performances. There are three buttons: "QUICK VIEW" (highlighted in blue), "RESOURCES", and "GET SOFTWARE". Below these buttons, there's a paragraph about the software's capabilities, mentioning its ability to manage multiple GNSS solutions in parallel and support NMEA sentence logging and analysis. A "Key Features" section lists various tools and functions: 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, and Log viewer.



Install VCP driver

ST's Teseo III, Teseo Module and Teseo V GNSS solutions can be connected to a PC using the USB port through the USB-To-UART bridge

You need to install the VCP Driver. It can be downloaded here:

- SiliconLabs www.silabs.com

or

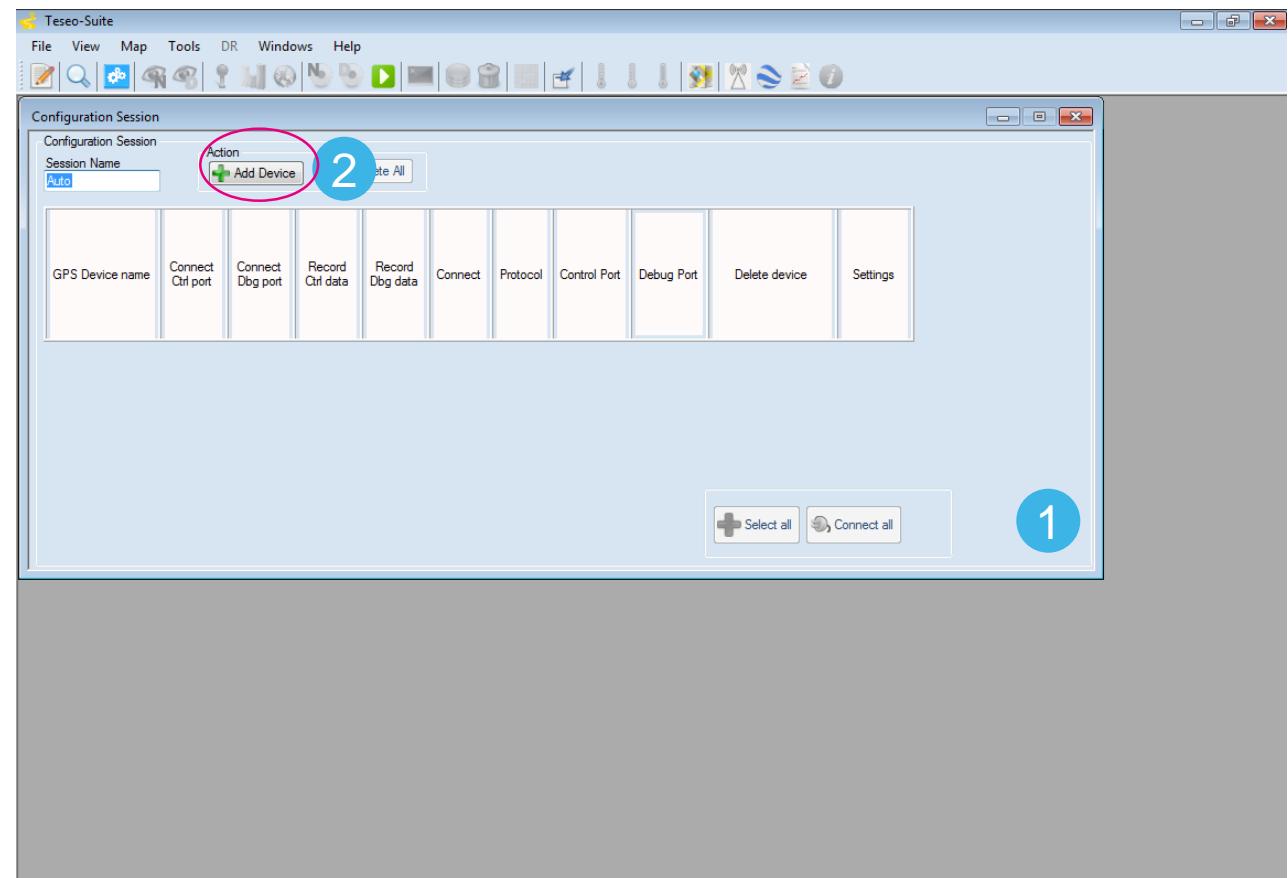
- FTDIChip www.ftdichip.com



Start application

1 On application start-up the Configuration Session panel is shown

2 Push 'Add Device' button to add
a new entry

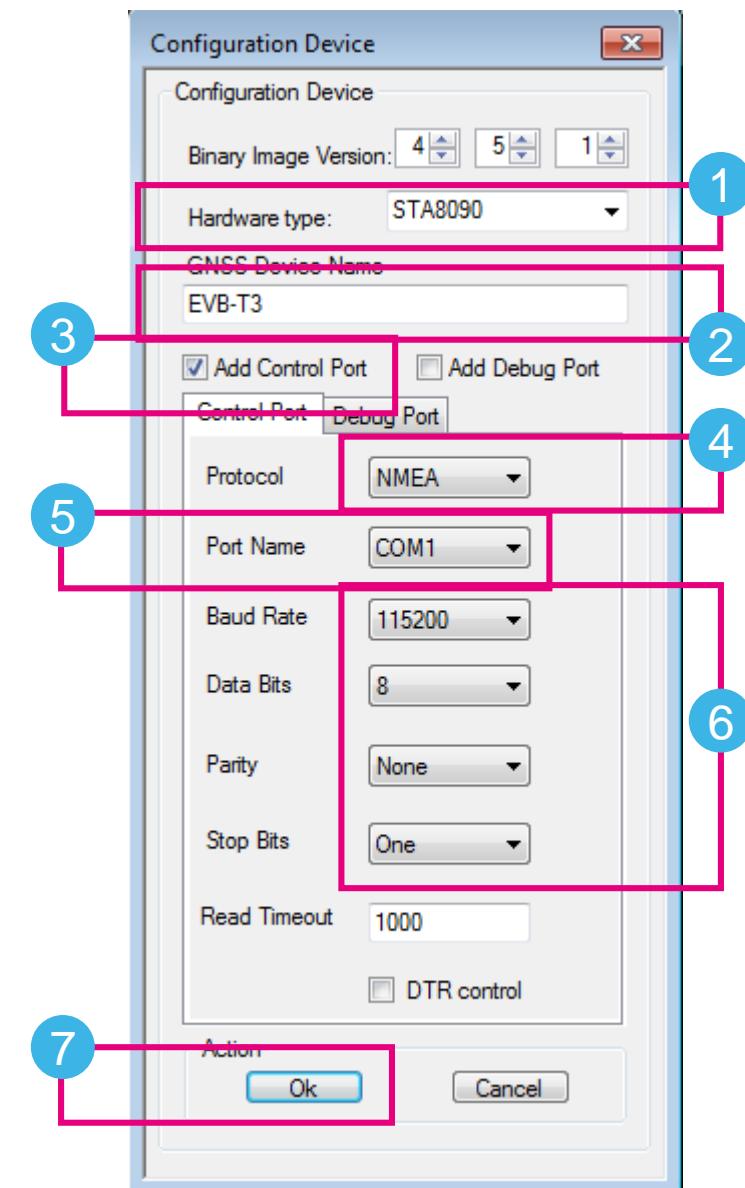




Configuration device

- 1 Set the Hardware type: **STA8090**
- 2 Set the GNSS Device Name: **EVB-T3**
- 3 Enable Add Control Port
- 4 Set the Protocol: **NMEA**
- 5 Set the Port Name: according to the discovered on the PC
- 6 Configure the port as following table:

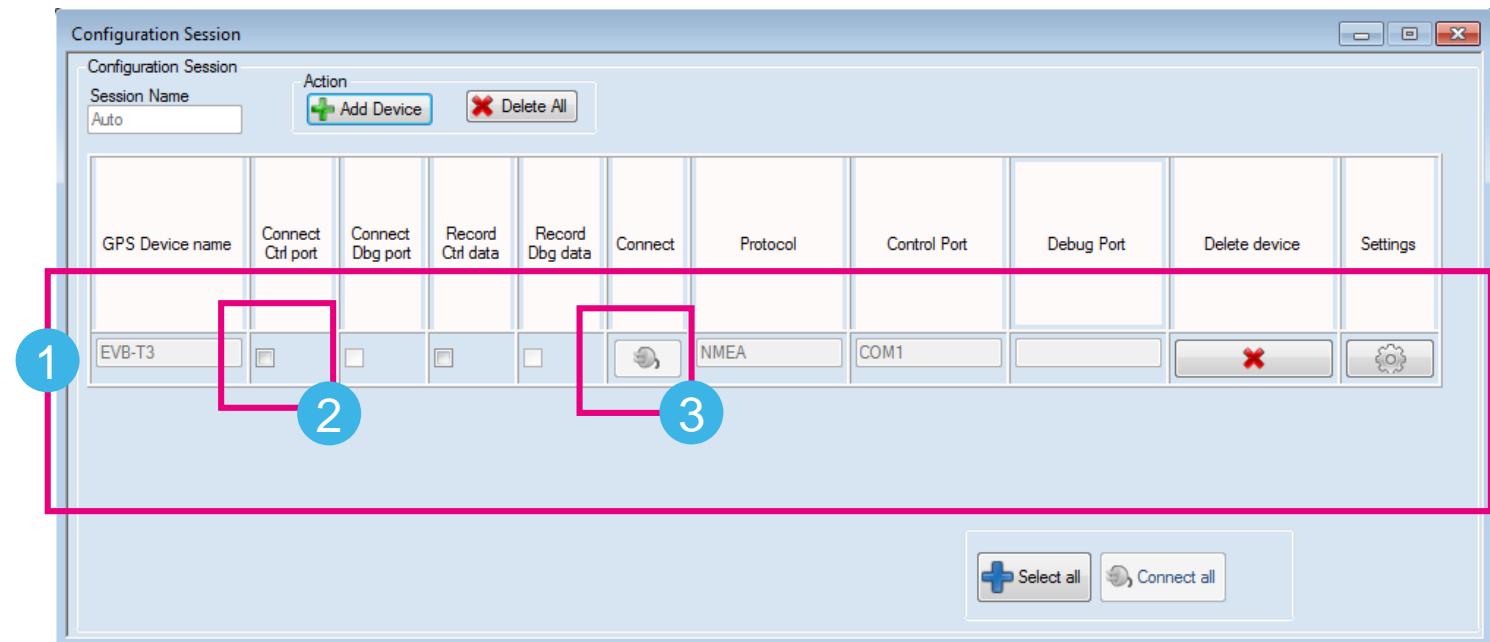
Baud rate	Data Bits	Stop Bits	Parity	Handshake
115200 bps	8 Bits	1 Bit	none	none
- 7 Click-on the Ok button





Connect the device

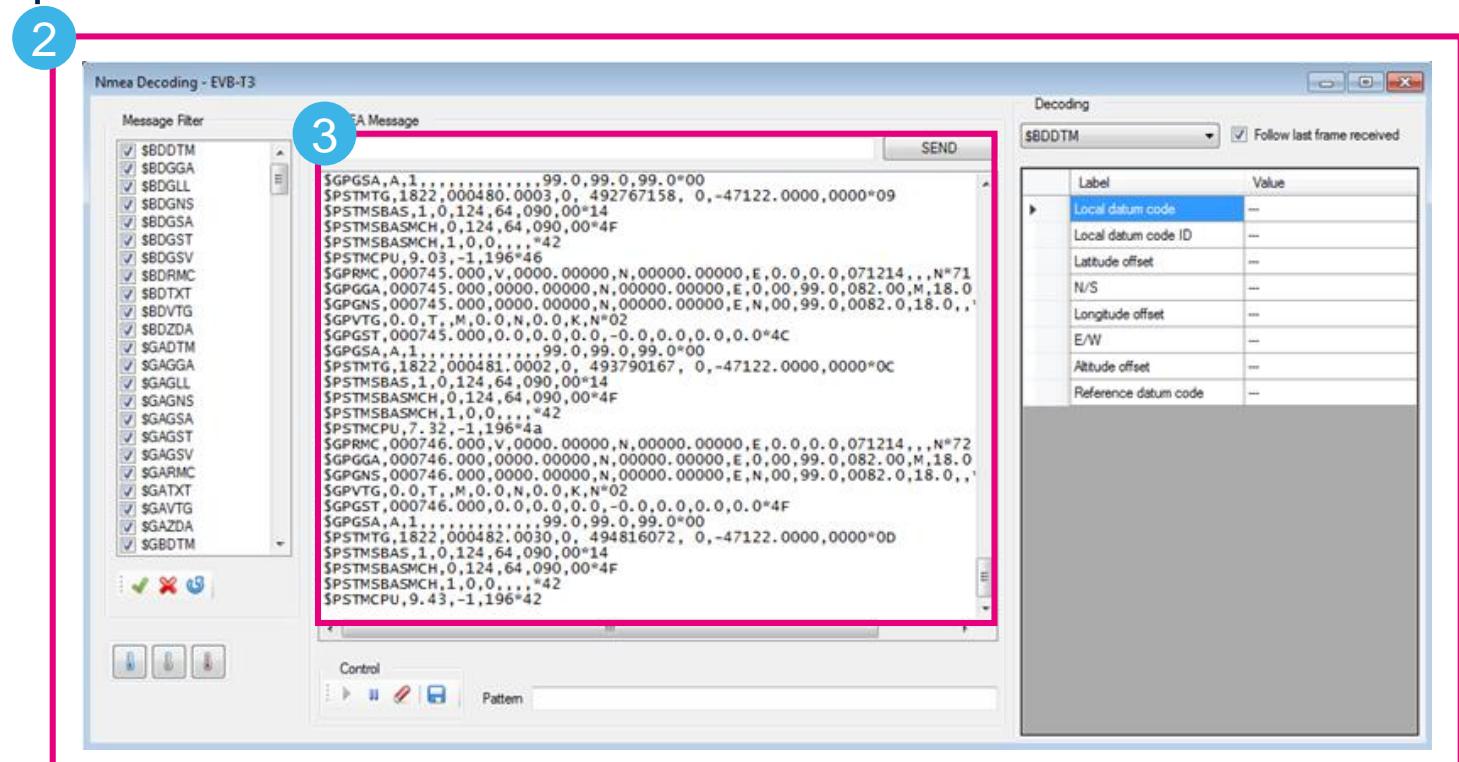
- ① In the Configuration Session panel a new entry (row) is shown
- ② Enable Connect Ctrl port
- ③ Click-on the Connect all button





Inspect device

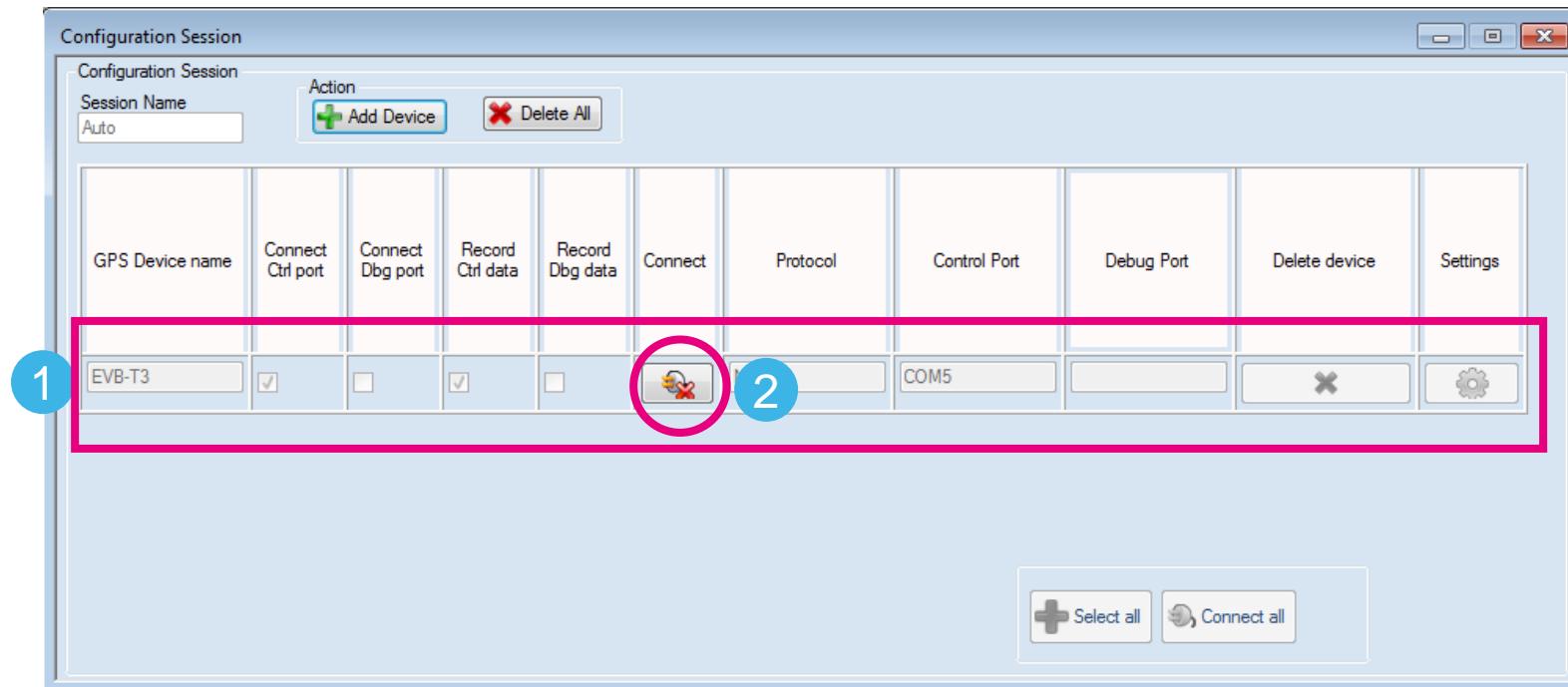
- 1 Click-on **View Monitor** button in the menu-bar
 - 2 NMEA Decoding panel is shown
 - 3 NMEA Stream can be viewed and inspected





Disconnect the device

- 1 In the Configuration Session panel entry (row)
- 2 Click-on the Disconnect button





Quick start guide - Contents

1

Introduction

2

Basic commands

3

Advanced features

4

Documents & related resources



Basic commands - Contents

1 Send Commands

2 Filter the message list

3 Map View

4 Signal Level

5 Recod a NMEA Log

6 Play a NMEA Log

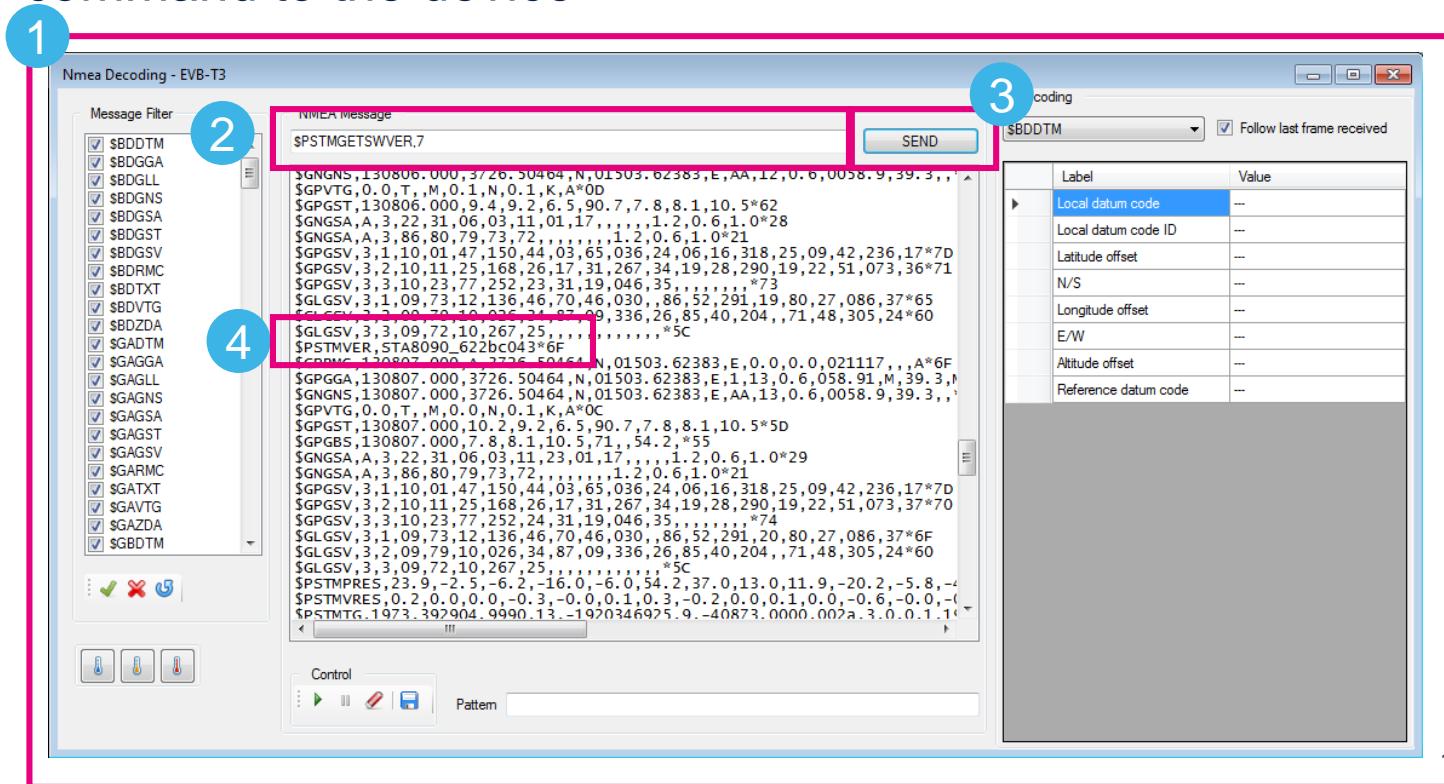


Send commands

- 1 In the 'Nmea Decoding' panel
- 2 Write the '**command**' in the text-edit entry
- 3 Click-on the '**Send**' button to raise the command to the device

- 4 Inspect the replay message in the

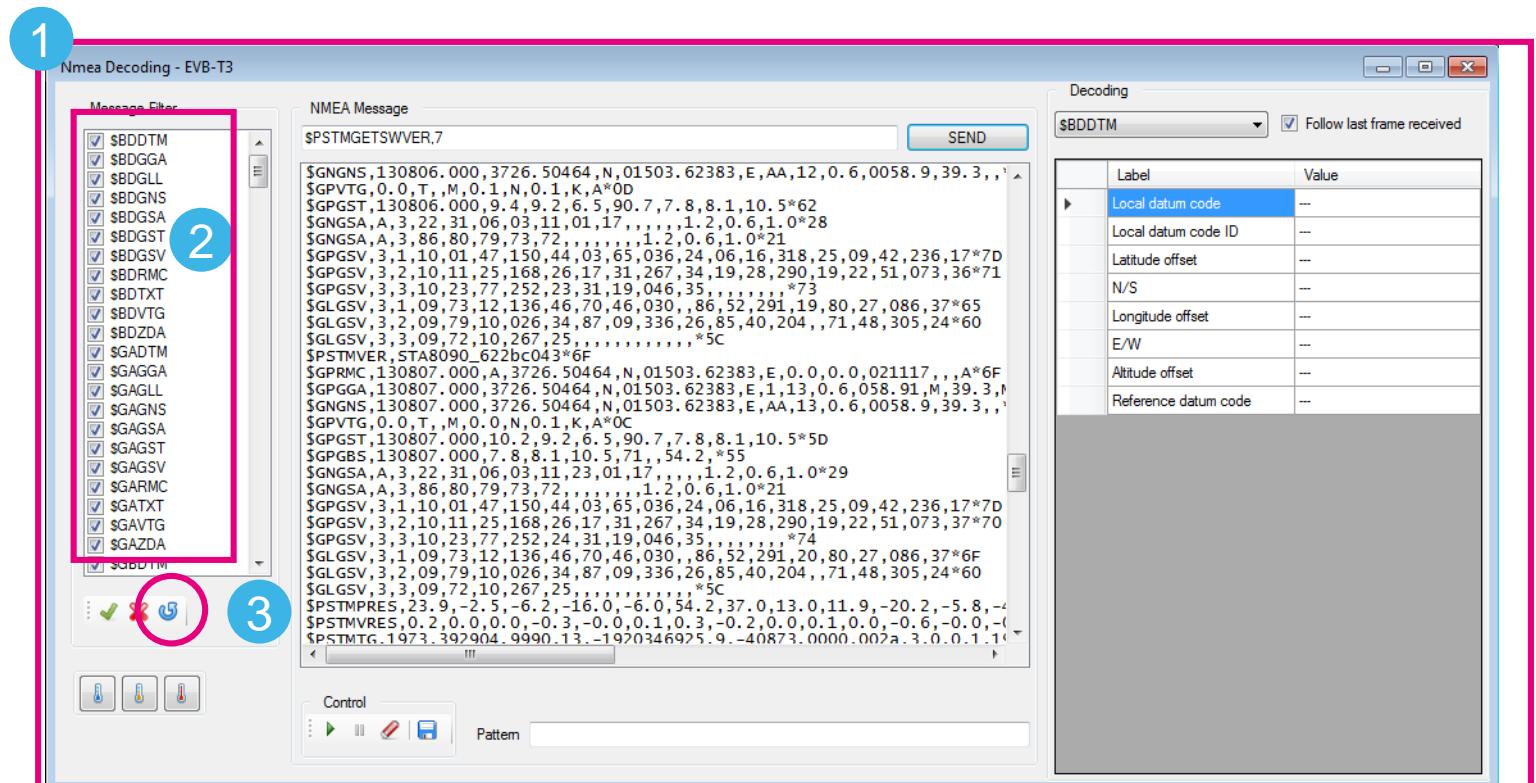
NMEA Stream





Filter the message list

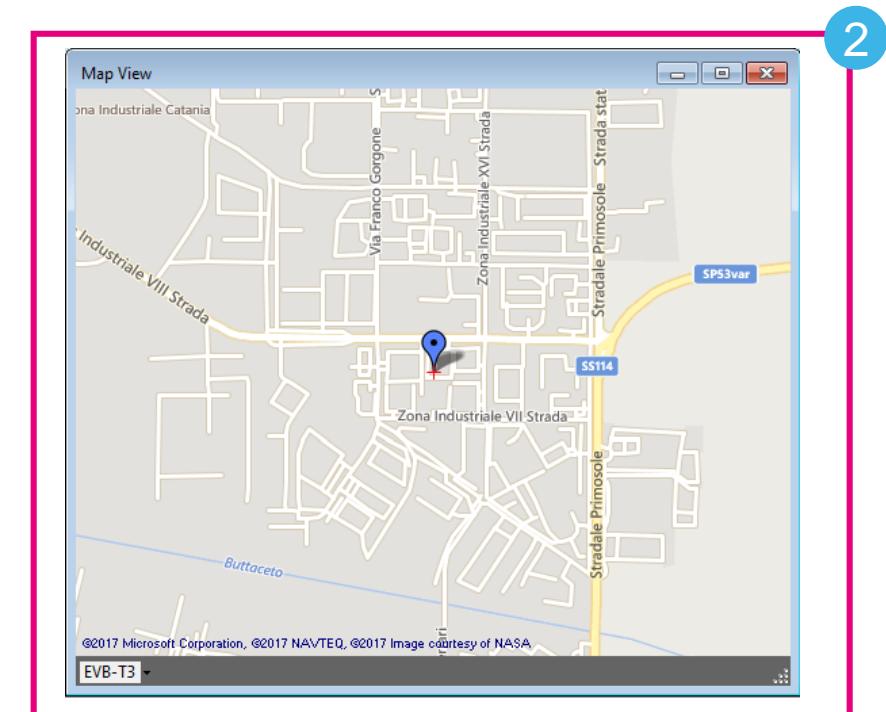
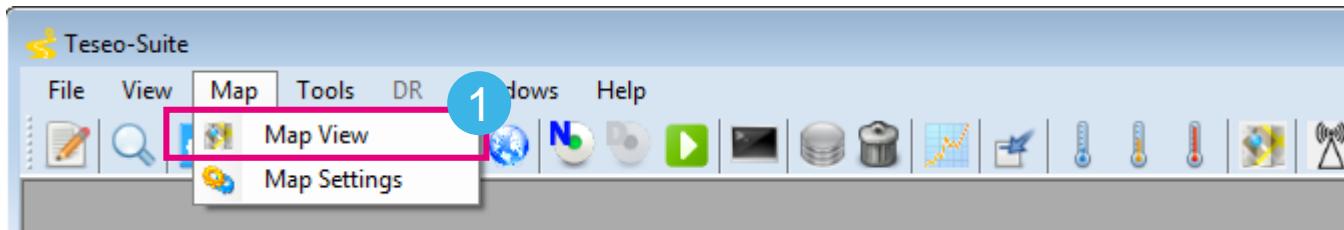
- 1 In the 'Nmea Decoding' panel
- 2 Select the messages you want
- 3 Refresh the new message-list into the device





Map view

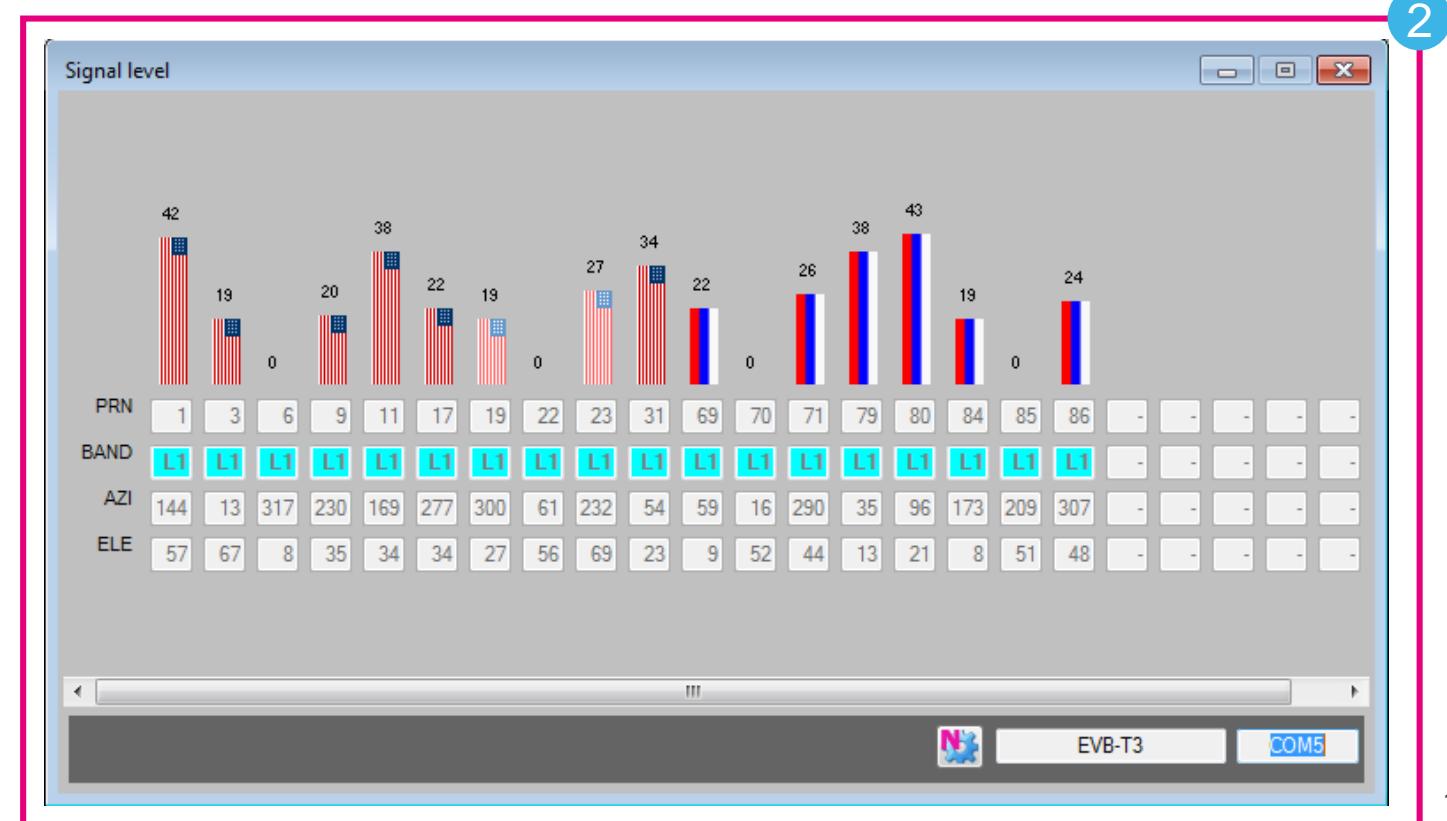
- 1 Click-on 'Map View' button in the menu
- 2 Inspect the position in the 'Map View' panel





Signal levels

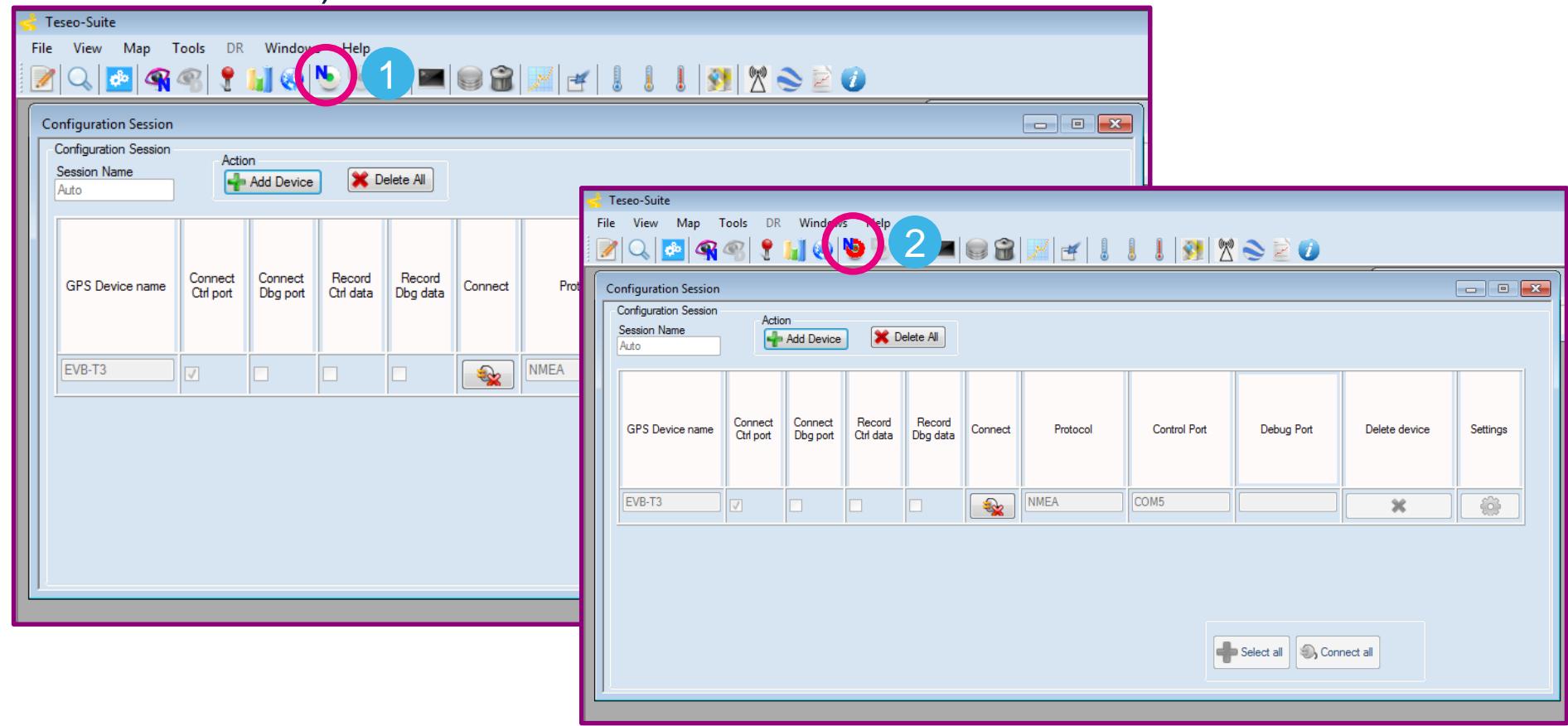
- 1 Click-on ‘Signal Level View’ button in the menu
- 2 The ‘Signal level’ panel reports all the details for all the seen satellites





Record a NMEA log session

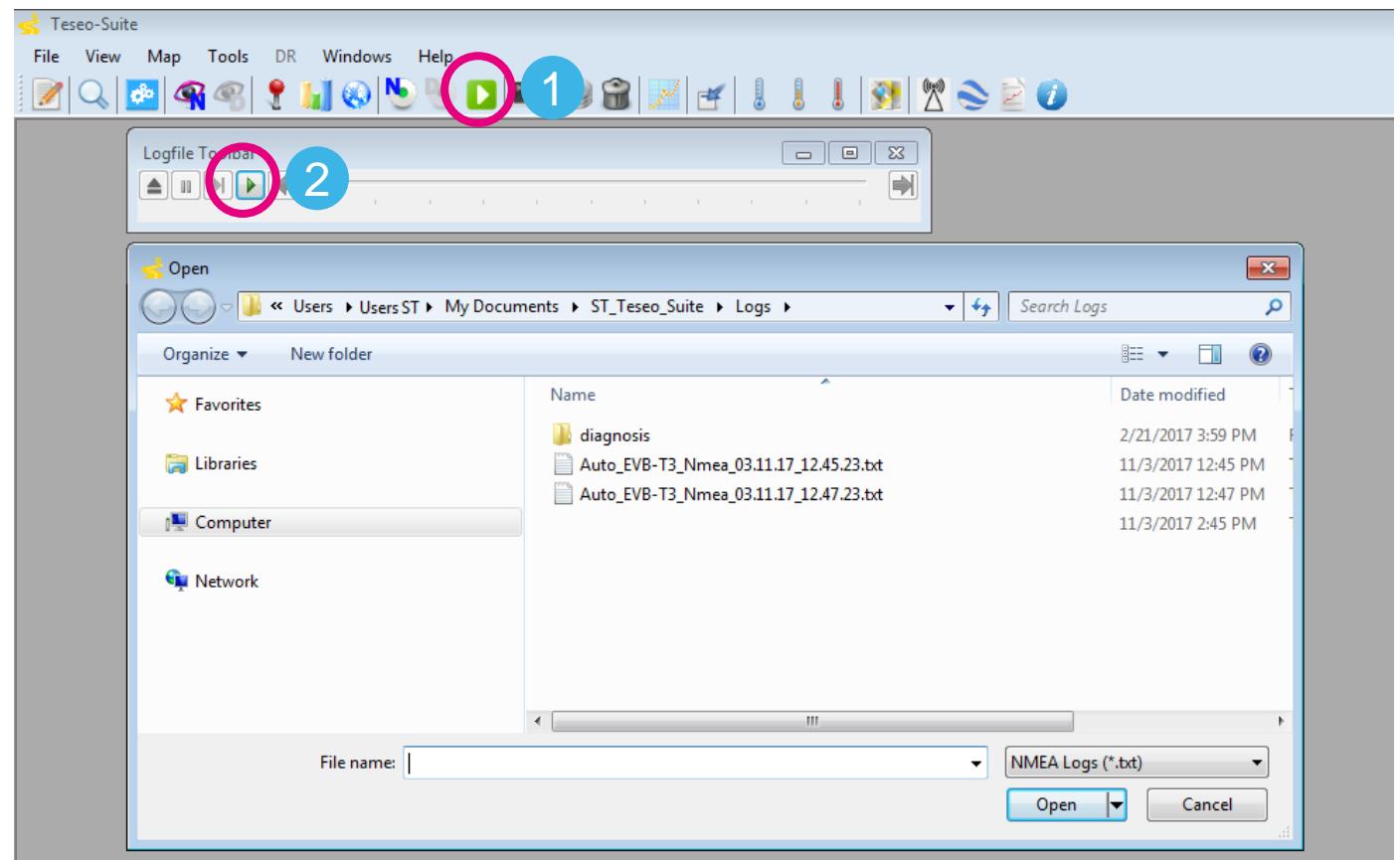
- 1 To start log session, click-on 'Start/Stop Record Control Port' button in the menu (button turns red)
- 2 To stop a log session, click-on 'Start/Stop Record Control Port' button in the menu (button turns white)





Play a NMEA log session [1/4]

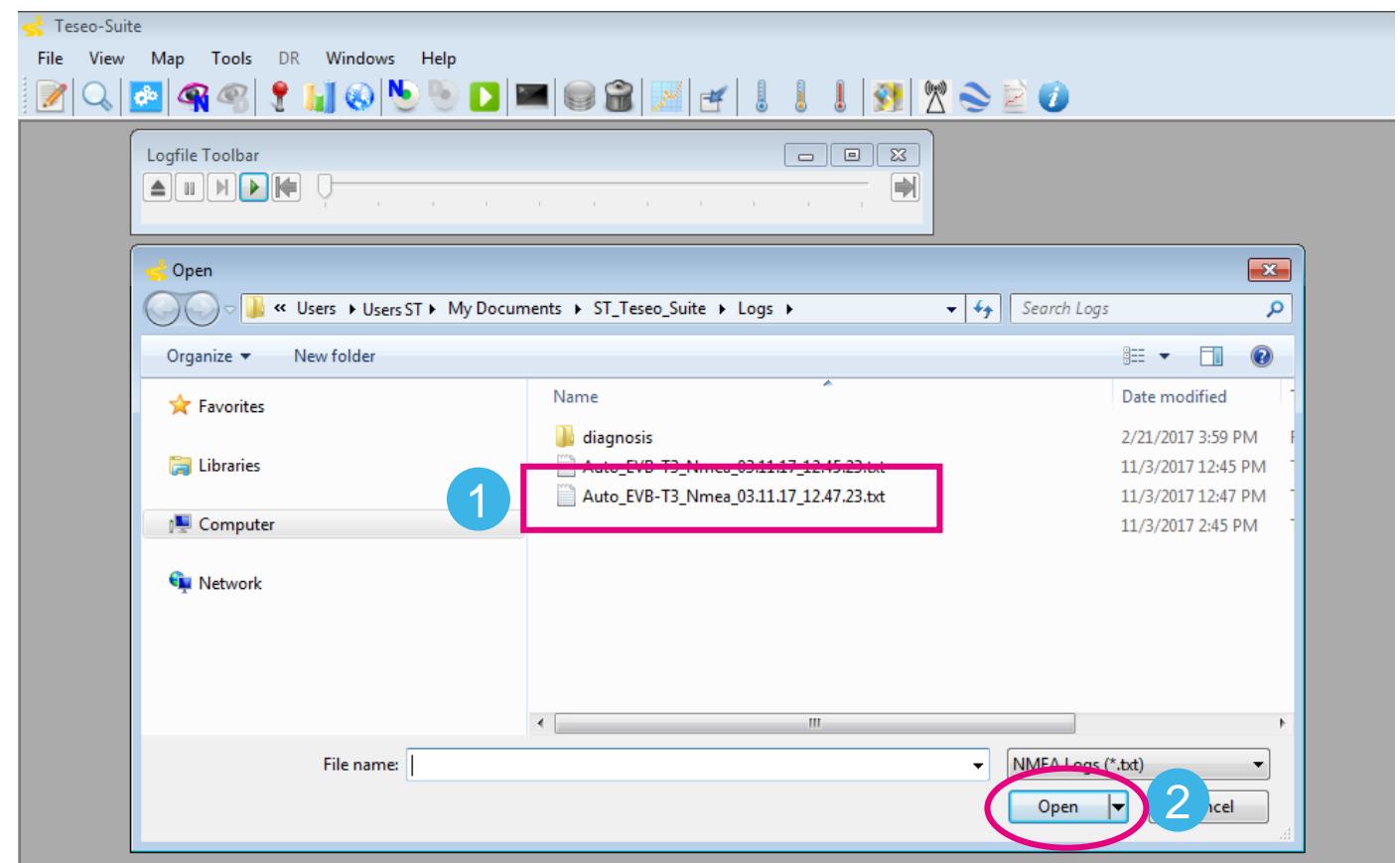
- 1 Click-on 'Player' button in the menu (the Logfile Toolbar panel will appear)
- 2 Click-on 'Play' button in the Logfile Toolbar (the 'Open' dialog will appear)





Play a NMEA log session [2/4]

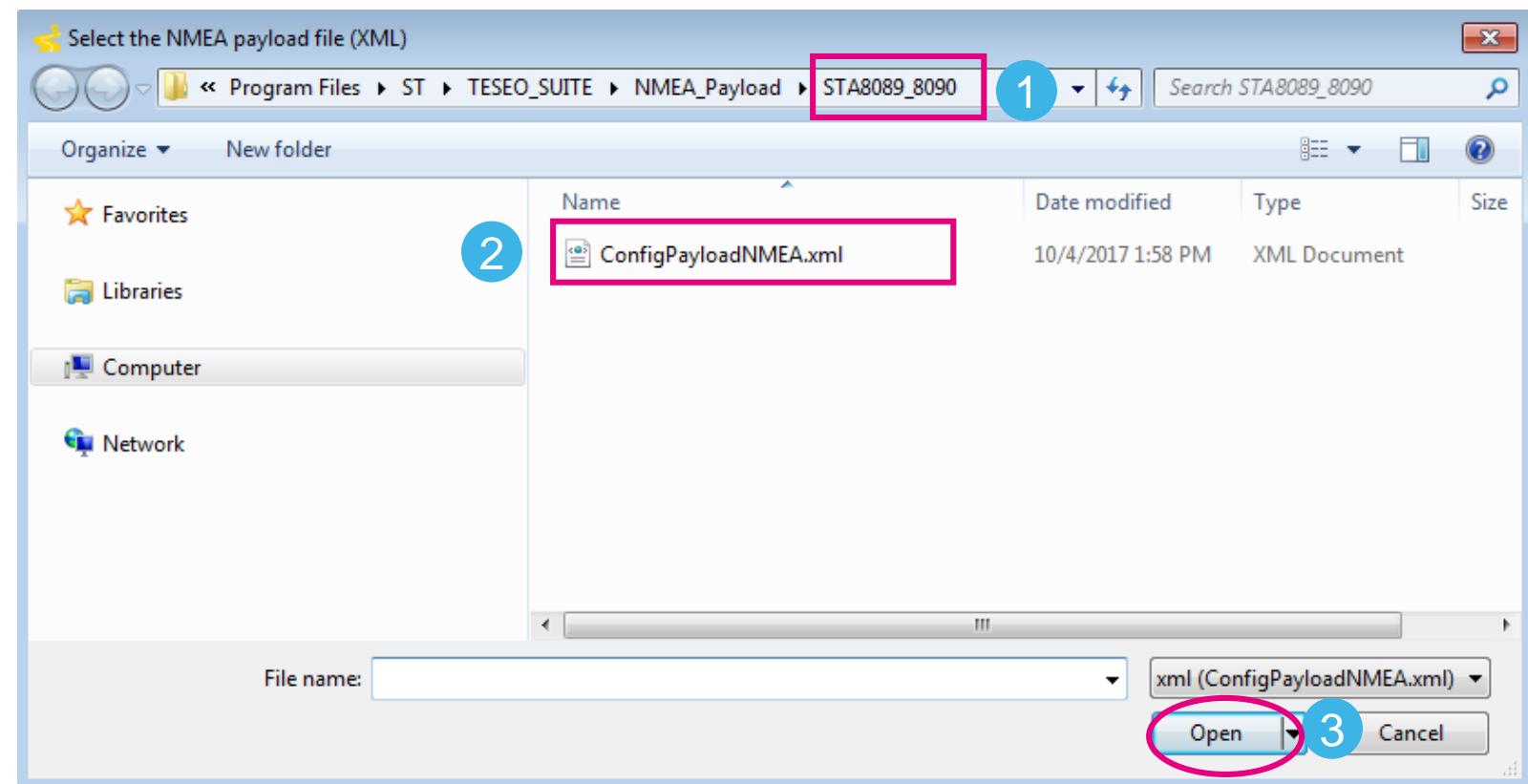
- 1 In the 'Open' dialog select the log to play
- 2 Click-on 'Open'





Play a NMEA log session [3/4]

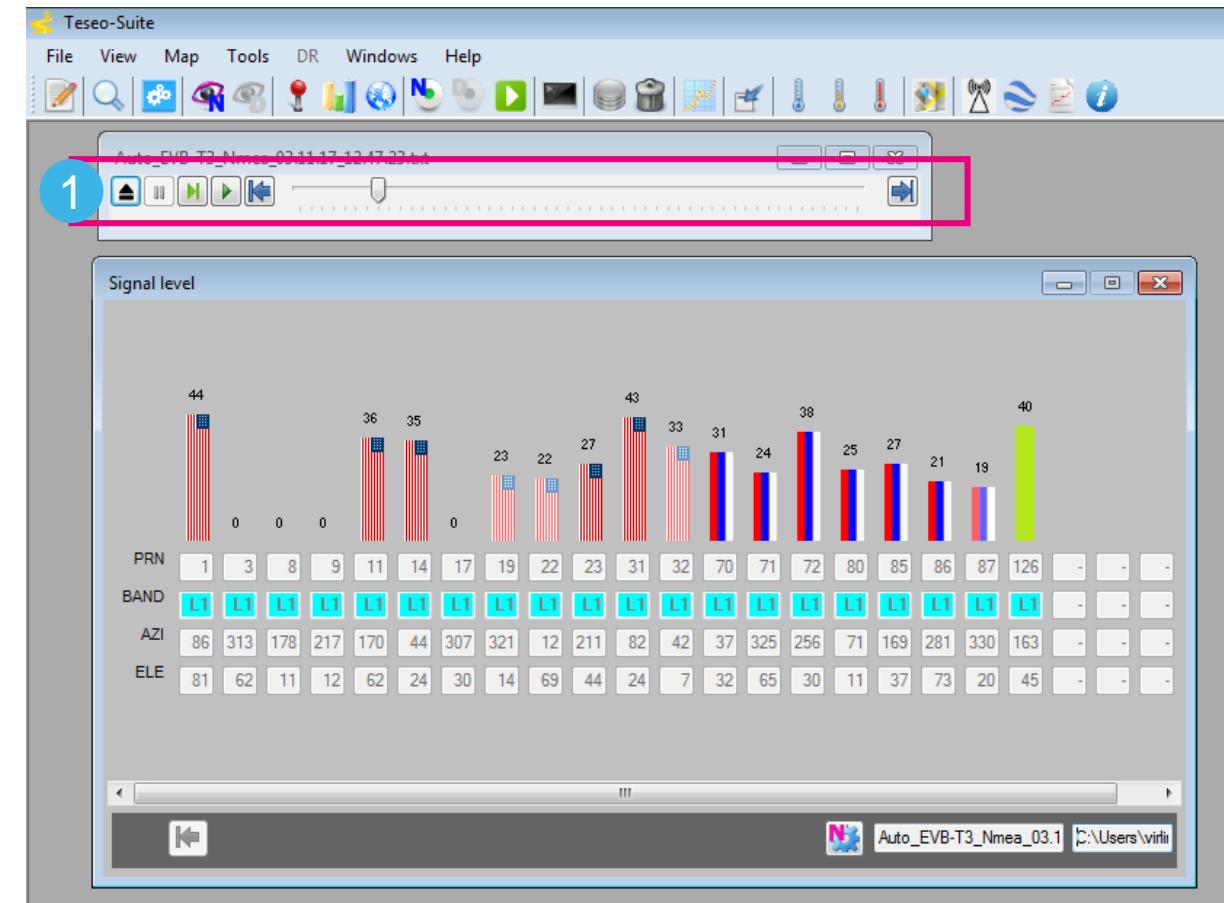
- 1 In the 'Select the NMEA payload' folder based on the GNSS IC used
- 2 In the 'ConfigPayloadNMEA.xml' file
- 3 Push 'Open'





Play a NMEA log session [4/4]

- 1 In the Logfile Toolbar panel all the buttons are enabled and you can start, stop, rewind the log as a standard tape





Quick start guide - Contents

1

Introduction

2

Basic commands

3

Advanced Features

4

Documents & related resources



Advanced features - Contents

1

Update Boot and GNSSLib

2

Update GNSSLib only

3

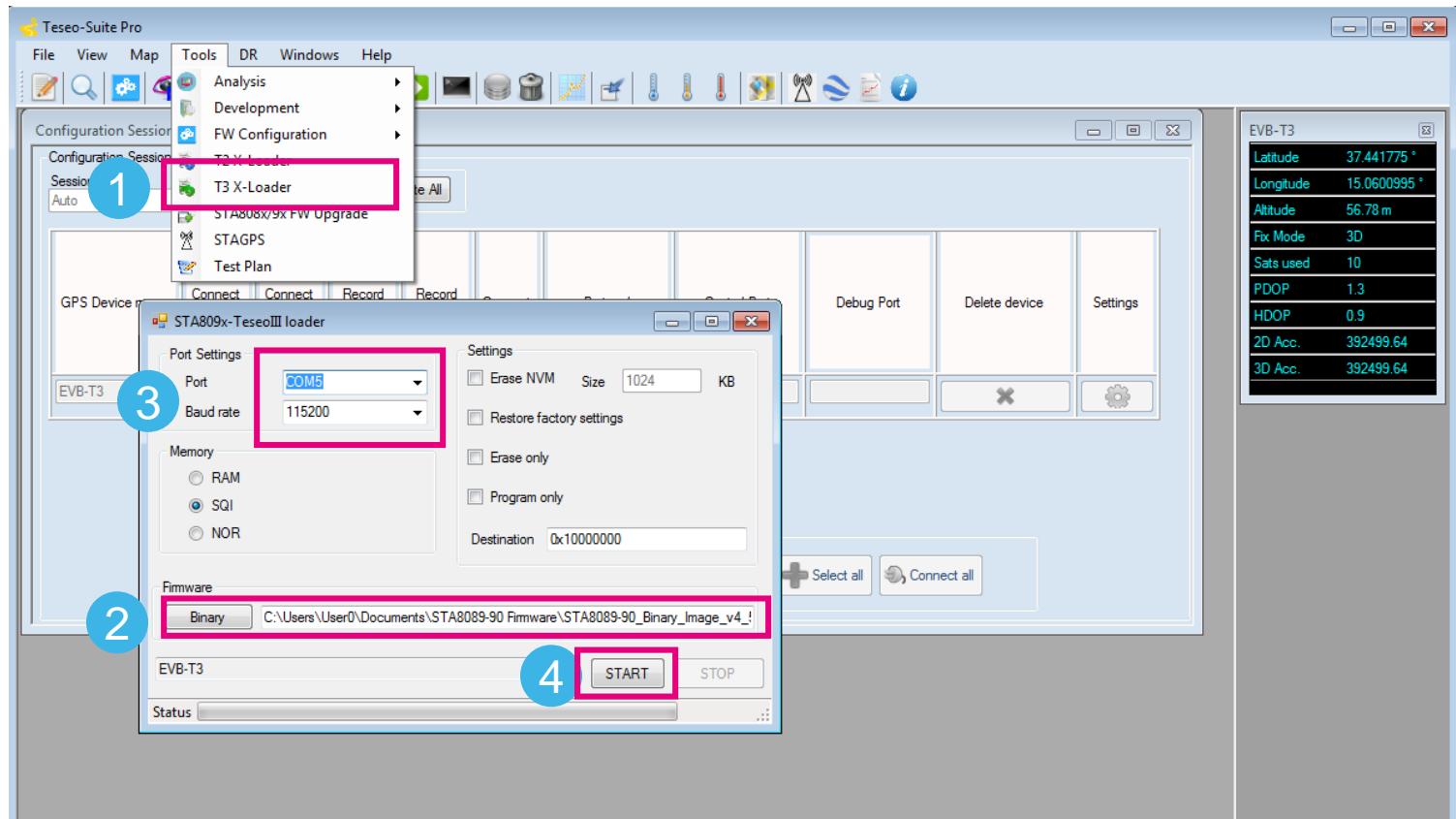
Firmware configuration



Teseo Suite
Un-Locked

Update bootloader and gnsslib

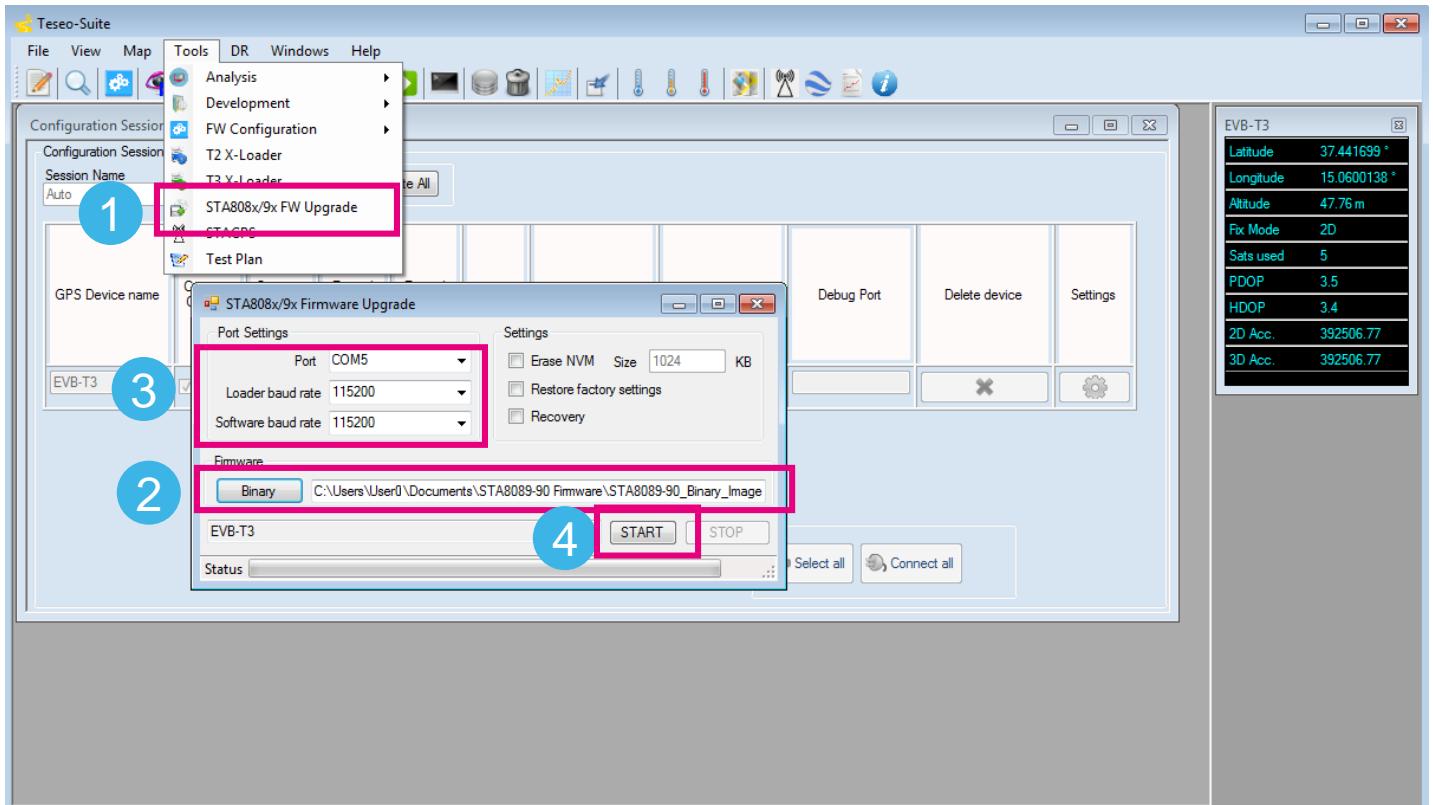
- 1 Open Teseo II (T2) or Teseo III (T3) Teseo V (T5) X-Loader from menu
- 2 Select the binary file from file-system
- 3 Select COM Port and the baud-rate
- 4 Click-on Start to update





Update gnss-lib

- 1 Open **Firmware Upgrade** tool
- 2 Select the binary file from file-system
- 3 Select COM Port and the baud-rates
- 4 Click-on Start to update the GNSS-Lib

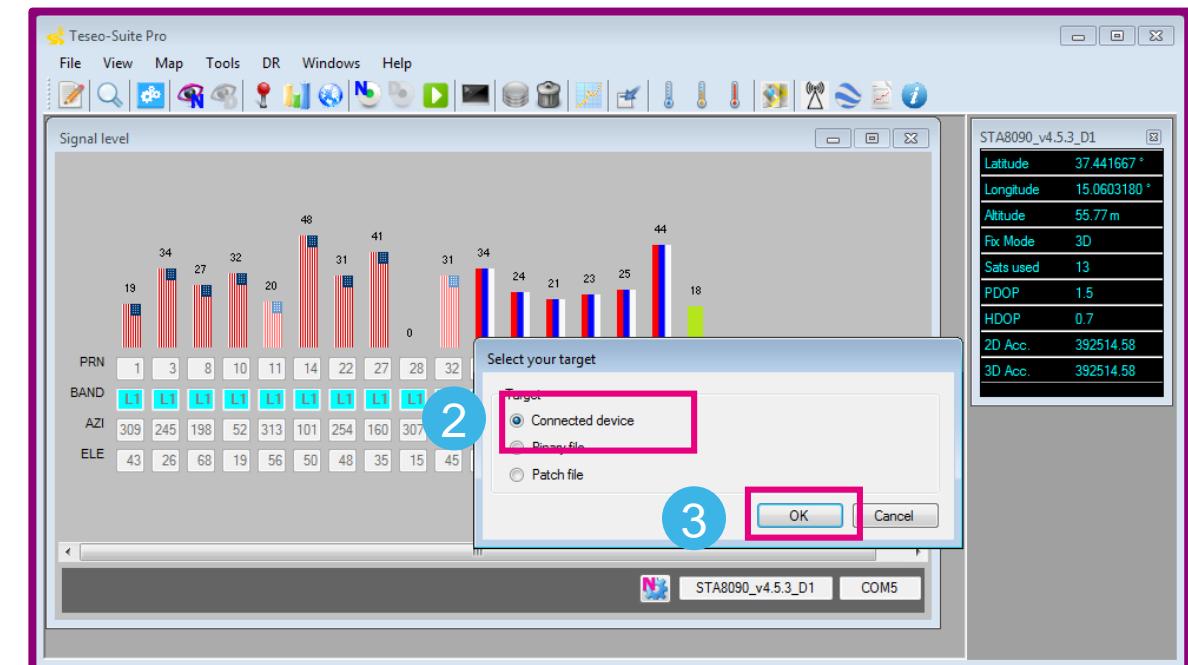
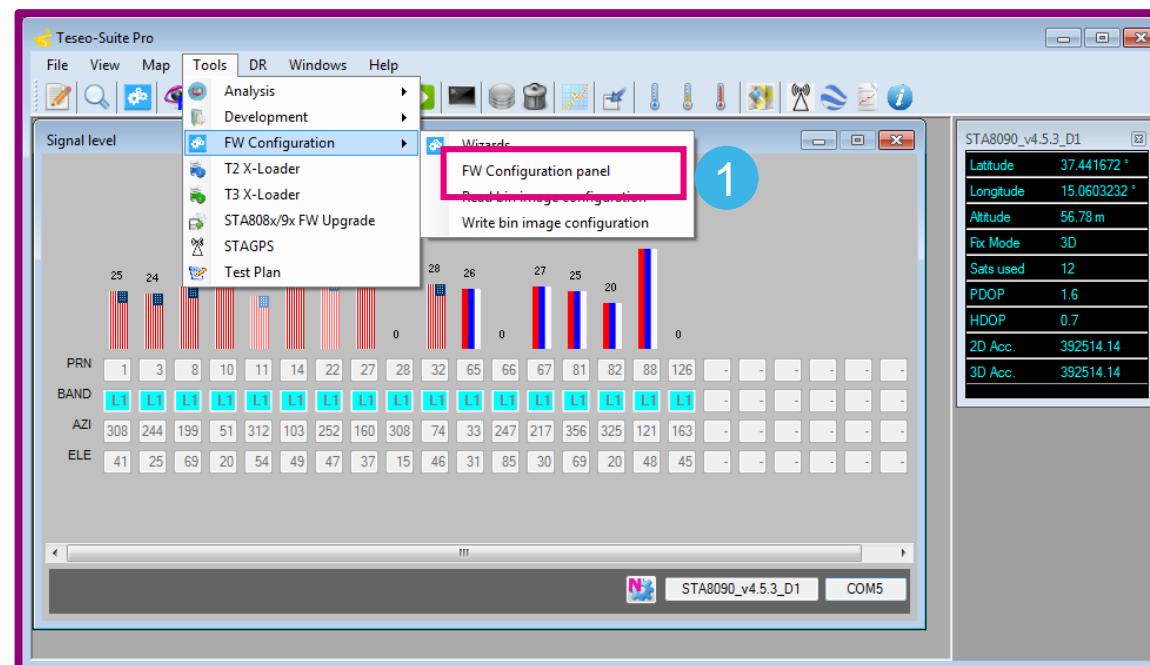




Teseo Suite
Un-Locked

Firmware configuration [1/2]

- 1 Select 'FW Configuration panel' in the menu
- 2 Select the target to be configured (Connected device in the example)
- 3 Click-on Ok

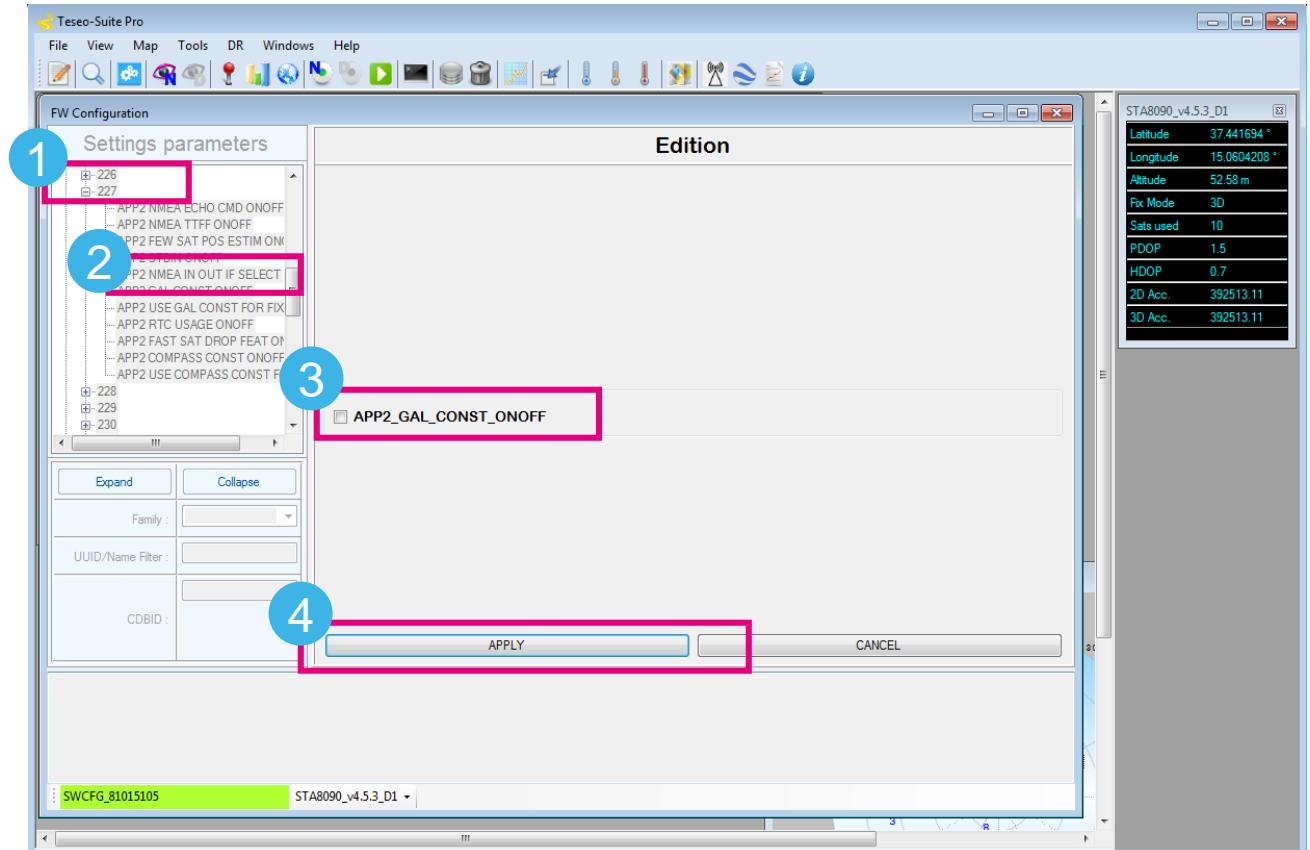




Teseo Suite
Un-Locked

Firmware configuration [2/2]

- 1 Expand the CDB-ID number under configuration
- 2 Select the specified field under configuration
- 3 Enable the field and/or set the right value (Galileo constellation is enabled in the example)
- 4 Apply the change to the device





Quick start guide - Contents

1

Introduction

2

Basic commands

3

Advanced features

4

Documents & related resources



Documents & related resources

All documents are available on:
www.st.com

- Teseo Modules: [Webpage](#)
 - Data-sheet of all PNs;
- Teseo III: [Webpage](#)
 - Data-sheet of all PNs;
- Teseo Suite: [Webpage](#)
 - Datasheet
 - Install program

The screenshot displays two main sections of the ST Teseo website:

GNSS ICs: This section provides an overview of the Teseo III family of Global Navigation Satellite System ICs. It highlights their high positioning accuracy and indoor sensitivity, along with powerful processing capabilities. The page includes a table comparing different package options (WLCSP77, QFN68, BGA99) and memory sizes (16MB, 32MB, 64MB, 128MB) against various features like GNSS, Galileo, GLONASS, Beidou, and QZSS support, as well as different memory configurations (stacked Flash, low-cost PCB design, automotive grade, and variable-flank QFN 0.5pitch).

EVB-T3: This section details the TESEO III evaluation board. It is described as a complete standalone evaluation platform for Teseo III GNSS ST solution. The board embeds a high-performance ARM946 microprocessor with dedicated SRAM and several serial communication interfaces (USB, SPI, I_C, UART, CAN). The page includes a table of product specifications for the DB3223 board, listing its description (Teseo III GNSS evaluation board), version (1.0), and size (137 KB).



Teseo Suite – Extra features

- 1 Push Help menu to access User-Manual
- 2 User-Manual reports all information needed

The screenshot displays the Teseo Suite Pro software interface. It includes several windows:

- Configuration Session:** Shows a table for managing GPS devices and actions like Connect, Record, and Connect.
- Message Decoding:** A detailed log of NMEA messages, such as RMC, GSV, and GGA.
- Map View:** A map showing a location in "Zona Industriale VIII Strada".
- Test Plan:** A window titled "STAB90_v4.3.0" showing a script or configuration for a GNSS receiver.

1 A blue circle with the number 1 points to the "Help" menu in the top bar of the main window, which is highlighted with a red box.

2 A blue circle with the number 2 points to the "User Manual" section of the Help menu.

User Manual Content:

ST **Automotive Product Group**
Automotive Infotainment Division
Navigation & Multimedia System & Architecture
Teseo-Suite User Manual

1 Introduction
This document contains the information necessary for correct use of the Teseo-Suite tool and describes all its functionality.
The functions offered by the tool can be divided into two main areas:
1. Viewer: NMEA or binary protocol decoding and display of some views;
2. Test plan: module for writing and running scripts on ST GNSS receivers.

16 October 2017 Rev 1.16 For Confidential Use Only **2**



Enjoy GNSS solution development with Teseo-Suite

- Now you can develop your GNSS solution with ST Teseo III, ST Teseo Module and ST Teseo V using Teseo-Suite to explore all the available features

