

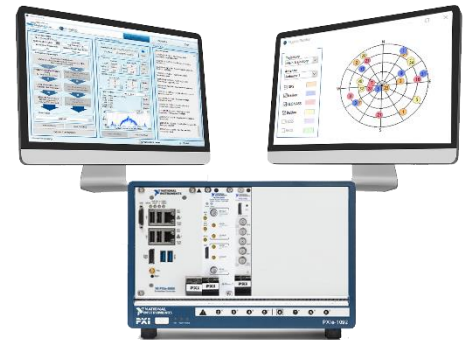


Application Challenge

GNSS technology has become a key enabler for innovative applications in the transportation area. However, designing test systems for components related to geolocation becomes more and more challenging with the multiplication of standards, frequencies, scenario, needs from various customers. They require either extreme technicality or access to the most basic functions depending on the use case. That's why, to fulfill customer needs and strategy in terms of development, M3 Systems proposes an intuitive GNSS Simulation Software: StellaNGC Plug & Play.

StellaNGC P&P Solution

StellaNGC Plug & Play is a customizable solution that fits both basic and high-end requirements. M3 Systems commitment is to deliver the best experience through a turn-key solution that is the best entry point to GNSS simulation and provide an easy-to-use solution.



Key Advantages

- Easy and intuitive GNSS Signals Generation
- Ground transportation markets / use cases oriented
- Efficient and robust core based on StellaNGC S/w suite
- Focalization on parameters of interest (Simulation date changes, Trajectory configuration, GNSS constellations control, Perturbation)
- Accessible customizations of options through licensing scheme



StellaNGC Software Suite

StellaNGC P&P can be upgraded or complemented by other products from the StellaNGC S/w suite.



Contact us to learn more how we can work together: asdsales@m3systems.eu

Base Offer

- GPS L1C/A & GALILEO E1BC
- 8 channels per constellation
- API: Management via TCP/IP socket
- Hardware trigger

Main Options

Signals

- GPS: L1P, L1C, L2P, L2C, L5
- GLONASS: G1, G2
- GALILEO: E5(A/B), E6
- QZSS: L1C/A, L2C, L5
- BEIDOU: B1i, B2i, B3i, B2A, B1C

Augmentation Systems

- SBAS
- RTK (RTCM 3.0, serial/ethernet)

Hardware In the Loop (HIL)

- HIL testing is defined as the ability, from a whole test bench point of view, to emulate the virtual environment of a DUT (Device Under Test), The capability to perform HIL tests implies a closed-loop capability from StellaNGC. This ability allows a user to provide trajectory input from an external system.

Iteration Rate: 100Hz

- With the StellaNGC Base Offer, the trajectory update rate can be configured up to 10Hz.
- With this option the update rate can be configured up to 100Hz.

Vulnerabilities Options

Add-ons to test the influence of multipath, interferers and spoofing are available

Use Case Options

Additional Trajectory Extension

This option enables the ability to handle up to four independent trajectories at the same time within the same simulation (e.g. with the same GNSS space segment). This option requires a dedicated RF target for each of the simulated trajectories.

2 or 4 Multi-Antenna Extension

This option enables the simulation of co-localized antennas. (For example a vehicle receiving two signal with two antennas). This option requires a dedicated RF target for each of the antenna.