



GNSS Sensor Characterization

PNT Integrity Evaluation

System Integration

## Fully Scalable



Automotive



Aerospace

## Customizable



Defense



Institutional

Real Time Trajectory & Data Flow

High Precision (SBAS, RTK...)

Configurable GNSS & IMU Models

Jamming & Spoofing Simulation

# StellaNGC Plug & Play

# Key Features

- ✓ GPS, Galileo, GLONASS, Beidou, QZSS, SBAS
- ✓ Multifrequency
- ✓ Terrestrial, aerial and spatial trajectories simulation
- ✓ Easy change of simulation date (Past, Present, Future)
- ✓ Automatic orbit configuration or based on Rinex
- ✓ Highly configurable navigation message content
- ✓ Atmospheric perturbation models (Klobuchar, NeQuick)
- ✓ Satellite's antenna configuration
- ✓ GNSS constellations & signals control
- ✓ Surrounding environment masking effects
- ✓ Ergonomic Graphical User Interface

## Add-Ons

### Hardware In The Loop

Mobile motion is provided in real-time from an external device or system (IPG Carkmaker, Flight simulators, etc.)

### SBAS

Simulate SBAS signals through EMS ephemeris files

### Real Time Kinematic (RTK)

Simulate ground station and generate RTCM frames following the RTCM3 standard

### Jamming

Simulate unlimited number of realistic interferers through configuration of geo-referenced beacons

### Spoofing

Simulate Spoofing & Meaconing

### Multipaths

Through a statistical model, user-defined or 3D Model (SE-NAV)

### IMU Sensor Modelization

Highly configurable IMU model (e.g., scaling factor, range effects, temperature effects, etc)



### ✓ Data Rate

Input trajectory : up to 1 kHz  
RF data rate : up to 100 Hz

### ✓ Accuracy

Pseudo-range : 1.5 mm  
Pseudo-range rate : 0.3 mm/s  
Frequency (@L1) : < 10 Hz  
Interchannel bias : null

### ✓ Mobile Trajectory

Velocity : 1750 000 m/s  
Velocity resolution : 0.01 m/s  
Acceleration : 4576 m/s<sup>2</sup> max  
Acceleration resolution : 0.01 m/s<sup>2</sup>

## Hardware Platforms



VST 2nd generation



USRP-RIO

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Get In Touch

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