



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 (Low band, High band)
- ✓ Terrestrial, aerial and spatial trajectories simulation
- ✓ Easy simulation date changes (Rinex Free)
- ✓ 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 appropriate 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 meaconing spoofing

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

Height : 50 km
Velocity : 1 750 000 m/s
Velocity resolution : 0.01 m/s
Acceleration : 4576 m/s² max
Acceleration resolution : 0.01 m/s²

Hardware Platforms



USRP-R10



VST 2nd generation



Get In Touch

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