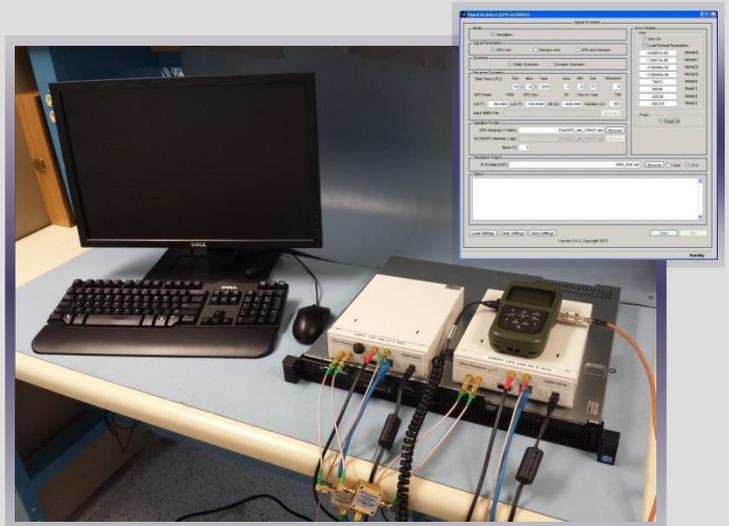# GNSS Signal Architect®

## GNSS Simulation and Testing Software

Features

- GPS L1 Scenario Generation (Static and Dynamic)
- GPS L1 Record / Playback
- Interfaces with any GNU Radio Capable SDR
- Real-time RF Signal Visualization (Record and Playback)
- Real-time Signal Filtering and Manipulations (Record and Playback)
- Atmospheric Modeling
- Multi-Core Processing

Options

- Multiband Expansion Software
- GLONASS (civil codes)
- GPS Military P+M' (L1 and L2)
- BeiDou, Galileo and QZSS (in development)
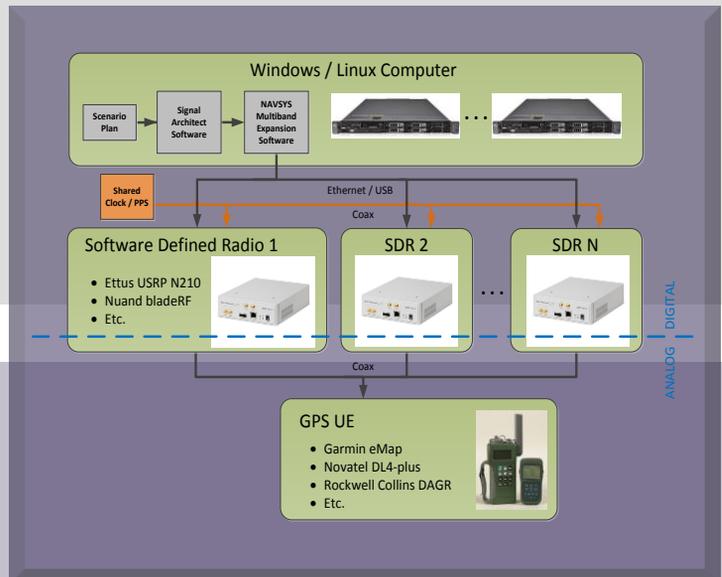
GNSS Under Your Control

GNSS Signal Architect allows you to choose the Software Defined Radio (SDR) platform that fits your needs and budget. The software provides the right tools to integrate with GNU Radio for customizing the platform to your project requirements. Armed with the capability to expand to multiple radios and full frequency spectrum, GNSS Signal Architect puts GNSS testing and simulation under your control.

GNSS Signal Architect
System Specifications

GNSS Record / Playback Module	
Compatible Hardware	Software defined radio with GNU Radio capability
Compatible OS	Linux or Windows XP/7
GNSS Signals	Up to full capability of SDR
Real-Time RF Signal Visualization	Fast Fourier Transform (FFT) Plots
Real-Time Adjustments	Signal Filtering and Manipulation
Sampling	16 bit I/Q (as limited by GNURadio) or 1-16 selectable (with MES*)
Sample Rate	Up to 25Msps (or up to full capability of SDR)
Bandwidth	Set by RF pre-filter to match Nyquist BW
Customization	User created GNU Radio Plugins
GNSS Scenario Creation Module	
GNSS Signals	GPS L1-C/A (Upgrades available below for additional GNSS signals)
Type of Scenario	Static or Dynamic
Compatible OS	Linux or Windows XP/7
Dynamic Scenario Input	NMEA GGA File
Number of Satellite Vehicles	Unlimited per Frequency
Atmospheric Modeling	Ionospheric and Tropospheric
Elevation Mask	User Defined
Processing	Multi-Core
Almanac Files Supported	YUMA .alm, .agl
Output File Format	.dsf (NAVSYS native) or .bin
Upgrades	
Record/Playback	Multiband Expansion Software*
GNSS Signals	GLONASS (civil codes)
	GPS Military P+M' (L1 and L2)
	BeiDou (in development)
	Galileo (in development)
	QZSS (in development)

*Multiband Expansion Software (MES) is a required upgrade with any GNSS upgrade. MES allows for additional capabilities including: multiple machines, geographically distributed usage, 1-bit sampling, full radio bandwidth, and custom clock/1-PPS splitting.