



GNSS Simulator Software

CREATE Artificial GNSS RF data
SIMULATE Any dynamic, time or position
REPLAY GPS and/or GLONASS RF data

SatGen v2 by **RACELOGIC** is the most cost effective multi-constellation Global Navigation Satellite System (GNSS) Simulation Software available.

If you are testing and developing GPS/GLONASS receivers or applications, then you'll find **SatGen v2** makes your job easier, quicker and more effective.

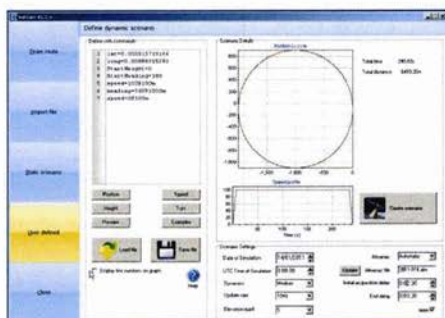
What is SatGen v2?

SatGen v2 is Racelogic's GNSS scenario generation software which enables you to create a data file, based on a user-generated trajectory file that can be replayed on a **LabSat** GNSS Simulator. With **SatGen v2** you can generate a scenario to simulate a test anywhere in the world, with position, route, speed, date and time all defined by the user.

Why use SatGen v2 software?

You might be based in Europe, but your GPS devices will be deployed throughout the world. With **SatGen v2** you can create a test scenario based on a user-generated trajectory file for virtually any location, including hostile areas for which live-sky field testing might be impossible. This allows you to verify that your GPS equipment design performs as required, in a variety of locations that may be geographically remote from your facility. It also means the same scenario can be replayed repeatedly to see how the device under test (DUT) performs.

Of course, **LabSat** can record and replay live data, but creating an artificial scenario allows you to precisely control the data content, and create a 'gold standard' file for carrying out true comparisons between receivers. From your bench you can try different acceleration levels, crossing different time zones, the equator, leap second roll-overs and many hard to replicate tests.



SatGen v2 Software User Interface

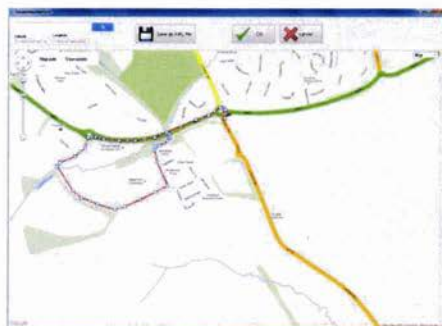
Choice of two software programmes

SatGen v2 GPS Only Simulation Software with 'LabSat' 1bit and 'LabSat 2' 2bit GPS RF data output in static or dynamic modes: User configurable time, date and duration for static scenario creation. **SatGen v2** dynamic scenario creation with draw a route, file upload and user defined command options.

SatGen v2 GPS & GLONASS Simulation Software with 'LabSat' 1bit and 'LabSat 2' 2bit GPS and GLONASS RF data output in static or dynamic modes: User configurable time, date and duration input for static scenario creation. **SatGen v2** dynamic scenario creation with draw a route, file upload and user defined command options.

How does it work?

Creating a scenario with **SatGen v2** is easy. A relatively complicated route can be defined in just a few clicks, leaving the software to automatically generate a fully realistic scenario. If you have an NMEA or KML file of your route, you can simply import this directly into the software. Alternatively you can create a scenario from scratch, either by creating a route in Google Maps™ mapping service, or by building a unique trajectory using simple user defined commands within the **SatGen v2** software.



SatGen v2 Draw a Route Screen

Once the route and velocity profile have been defined, the software will use this data to create a **SatGen** scenario file which can be replayed on a **LabSat** or **LabSat 2** simulator into a device under test (DUT). **LabSat** is able to play the scenario file with consistency and repeatability as part of a testing regime.

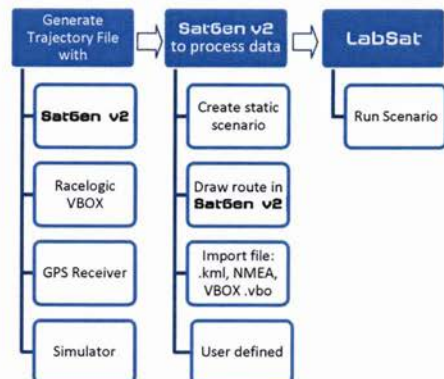
SatGen v2 scenario generation process

SatGen v2 software can also import data in a variety of formats including: Google Earth™ mapping service 'kml', Racelogic VBox 'vbo' and User Defined profiles.

The user defined command file feature allows for any dynamic, time or location to be defined. **SatGen v2** can easily create complex trajectory or flight profiles.

To make the process even easier a number of predefined examples are included: Acceleration, circle, square, figure of eight, airport take off, North Pole circle, South Pole circle, equator circle and circle around a set point. These can easily be modified to create complex routines.

SatGen v2 Scenario Creation Diagram



SatGen v2 Technical Specifications

	SatGen v2 GPS	SatGen v2 GPS and GLONASS
Constellation	GPS	GPS, GLONASS
Data Format	I, IQ	I, IQ
Quantisation	1 bit, 2Bit	1 bit, 2Bit
File Format	*.bin, *.Ls2	*.DSF, *.Ls2
File Size/Duration	Unlimited	Unlimited
Almanac File Format	*.ALM	*.ALM, *.AGL
NMEA Input File Format	\$GGA	\$GGA
Operating System	Windows XP, Vista, Win 7	Windows XP, Vista, Win 7

SatGen v2 software is supplied by **RACELOGIC** Ltd., experts in the field of GPS Testing and Data Logging. Based in the UK with additional offices in Germany, **RACELOGIC** are an ISO 9001 company that supplies specialised GPS based test equipment to many well known corporations, in over 90 countries around the world.

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