

# SimSAFE

## SIGNAL SIMULATION INTERFERENCE

Simulation tool for GNSS threat analysis and mitigation techniques

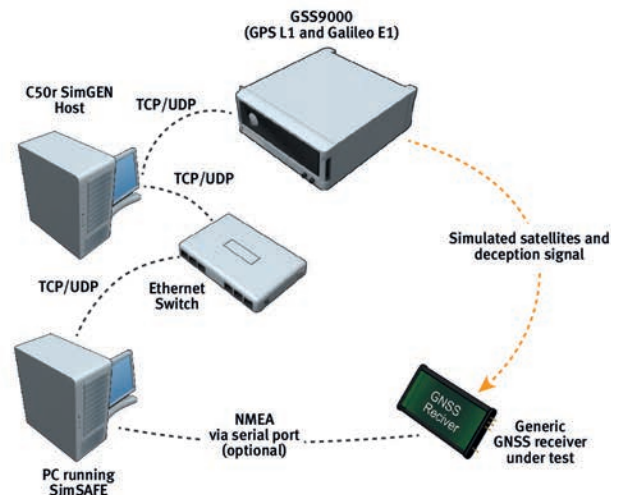
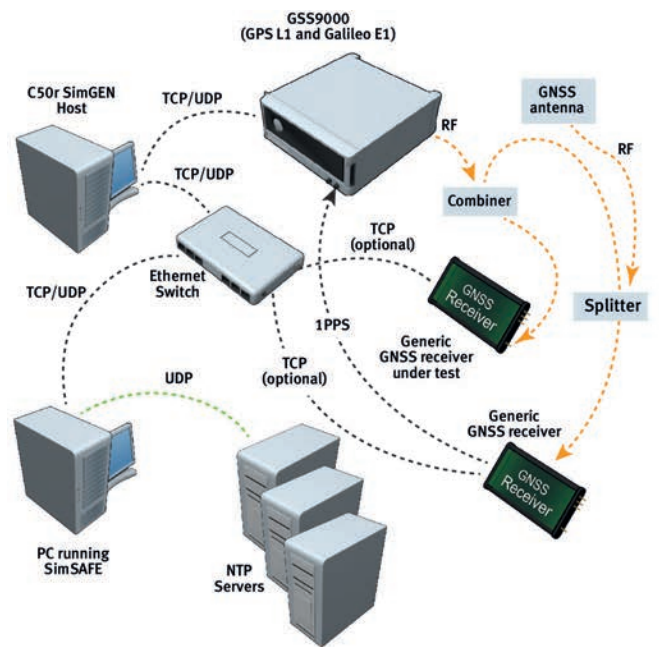
The SimSAFE software tool controls Radio Frequency Constellation Simulator (RFCS) hardware in order to emulate signal simulation attacks and test receiver mitigation techniques. SimSAFE allows flexibility in the attack scenario definition and test of interference detection techniques. The tool can be integrated into existing radio navigation testing laboratories, in order to leverage existing hardware such as signal simulators, interference generators and hardware GNSS receivers.

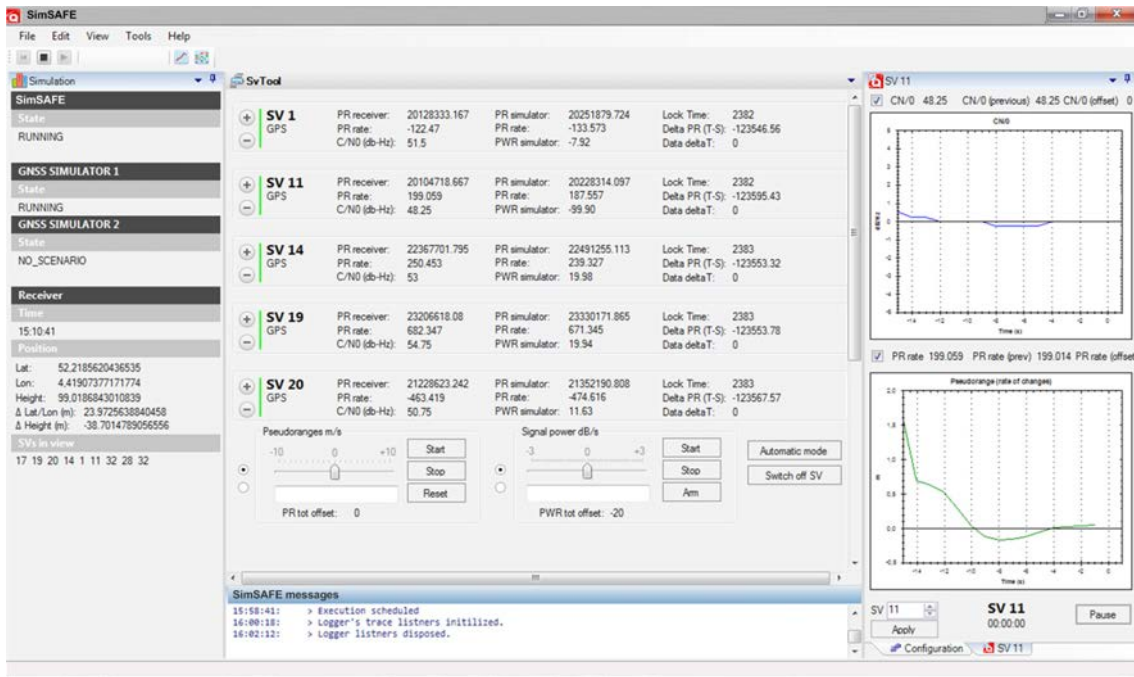
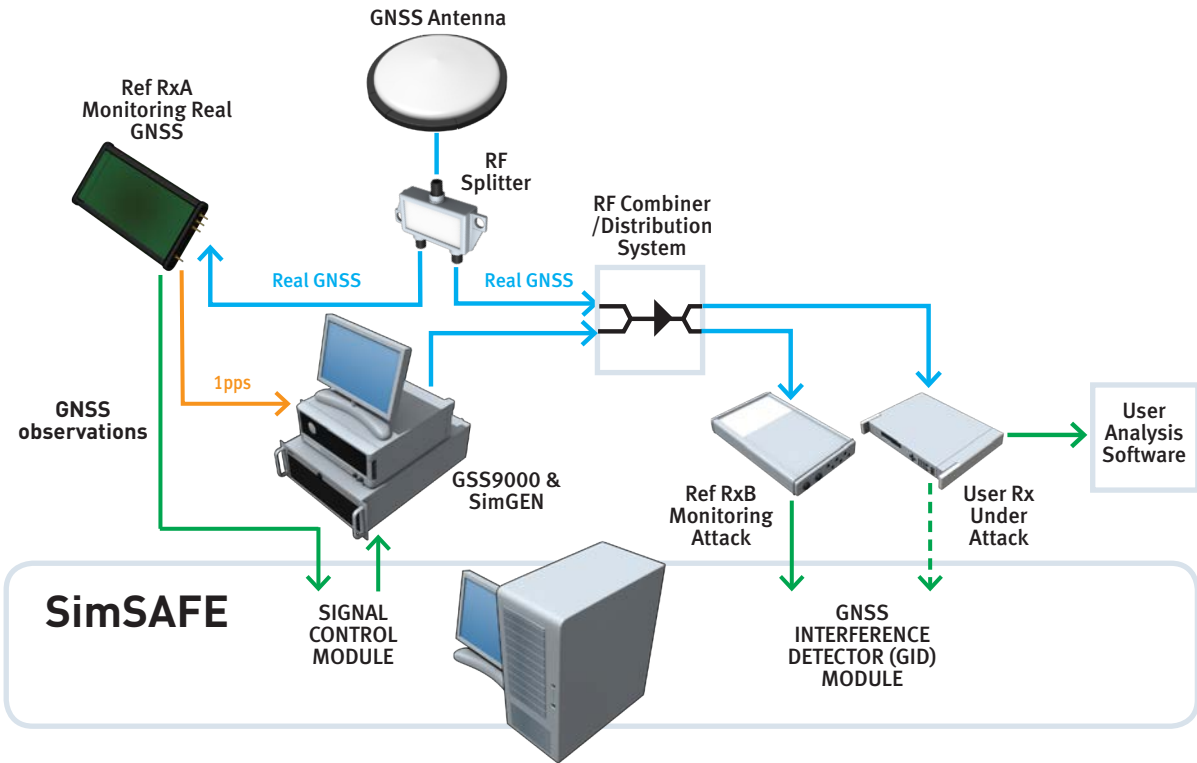
The Spirent RFCS(s) are controlled by SimSAFE, and generate all the desired signal simulation scenarios. SimSAFE also monitors the output of attacked receivers and implements detection algorithms. Post processing tools permit the evaluation of spoofing detection techniques based on observed signal parameters. The tool allows the full scalability and flexibility for testing techniques that for example could not be supported by existing hardware and software. SimSAFE represents an innovative approach to the simulation of attacks, the test of detection techniques and signal authentication schemes, permitting maximum flexibility, minimum cost and risk, and the opportunity to leverage existing Spirent RFCS equipment.

### Features:

- Accurate synchronization of RFCS time with GNSS time
- Generates single channel spoofer or multiple channels spoofer with desired dynamic
- Synchronization of falsified signal code, power and doppler
- Support replay attack via realtime replica of space navigation messages
- Supports analysis from different mass market and professional receivers
- Detection of false signals based on receiver observables

### ARCHITECTURES SUPPORTED





**SALES AND INFORMATION**

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