

A complete SAR data simulation system

GSS suite is an end-to-end SAR raw data simulation system. GSS allows to generate and to work with realistic SAR data before the real SAR system is in operations.

GSS suite is composed by four main components:

- **GSS engine**: the core simulation software, modelling the SAR data acquisition
- **GSS-distributed**: the extension for distributed scenes simulation, with interferometric capability
- **GSS-3D**: the module dedicated to model complex targets such as ships, planes
- **GSS-RT**: the real-time signal generator to generate analogic signals from the simulated data.

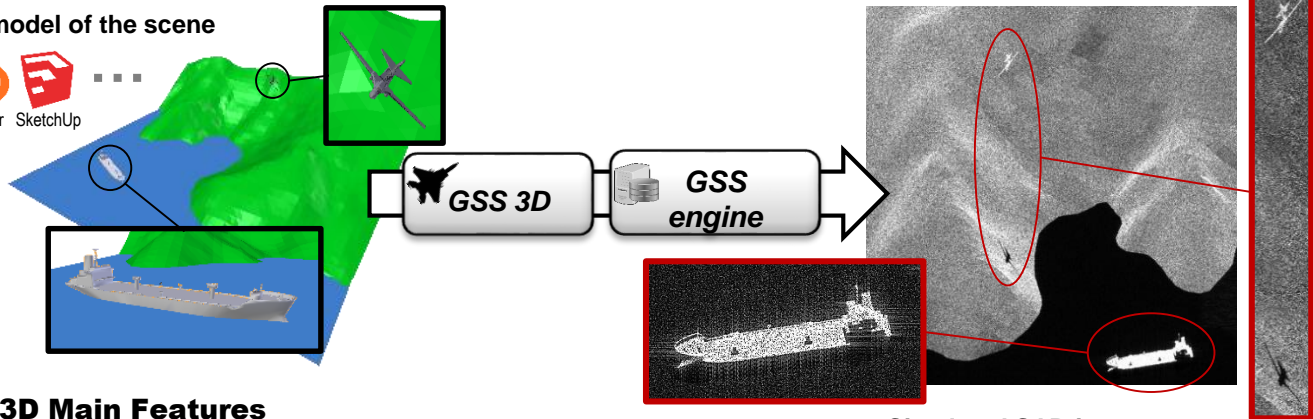
Accurate 3D scene simulation

GSS-3D is the GSS plugin that handles 3D models and easily simulates realistic scenarios.

Compose your scene with your favorite 3D modelling software, define and assign reflectivity properties of the different objects and set the scene position at specific geographic coordinates.

Simulate the SAR acquisition of the scene using a specific sensor and geometry.

3D model of the scene



Simulated SAR image

GSS-3D Main Features

- ✓ Realistic positioning and orientation of the scene;
- ✓ Accurate computation of shadows;
- ✓ Realistic RCS evaluation through coating material reflection properties and surface orientation;
- ✓ Optional integration of the GSS-distributed plugin output in the final scene, by taking into account the shadowing effects caused by the 3D objects;
- ✓ Easy configuration of the acquisition simulation parameters through the GUI.

