

ADD HIGH-FIDELITY RADAR SENSORS TO YOUR SIMULATION APPLICATIONS

Fully Configurable Radar Parameters

Ondulus Radar allows you to model emitter power, frequency, sweep rate, and field of view as well as to tune antenna pattern and sensitivity to best match your specific operation and performance requirements under different wind or ocean conditions.

The Power of CDB

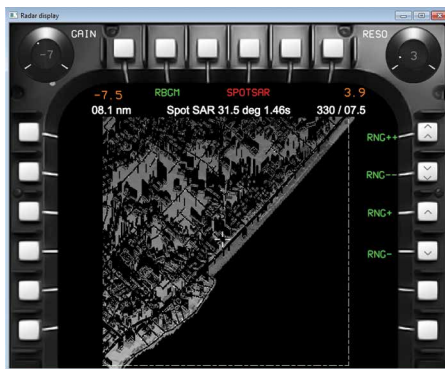
Through CDB, Ondulus Radar users develop rich ground material databases that can cover the whole earth, and offer multi-user and multi-resolution points of view to enable even the most stringent radar applications.

Outstanding Performance

Ondulus Radar was designed with computational performance in mind. This translates to higher-density scenes and wider field of view than most other solutions on the market.

Unhindered Export Capabilities

Developed in Canada, Ondulus Radar is a non-ITAR product that can be integrated with any 3D rendering or image generation technology, making it is easy to deploy and support almost anywhere in the world.



Ondulus Radar gives organizations the ability to add high-fidelity, high-performance radar sensors into wide variety of simulation applications.

Ondulus Radar is part of the Presagis M&S Suite, a unique end-to-end modeling and simulation framework that comprises database and 3D modeling tools, sensor material classification tools, computer generated forces, and FlightSIM and HeliSIM for flight dynamics modeling.

Ondulus Radar can simulate ground-based radar at a given geographic location or radar on board simulated vehicles such as tanks, ships, planes, and fast jets to understand how distance, mobility and speed affects radar performance.

Ondulus Radar effects include:

- Ownship altitude and altitude effects
- Range and atmospheric attenuation
- Antenna beam pattern
- Refraction and earth curvature effects
- Radar shadowing
- Terrain, feature and target masking
- Far shore brightening
- Sea state
- Terrain, feature and targets aspect effects
- Receiver sensitivity
- Sidelobe effects
- Surface material effects (*reflectivity, directivity*)
- Occulting effects
- Wind, sea state and chaff effects

Ondulus Radar parameter and signal effects include:

- Antenna (*scan rate, beam patterns, gimbal limits and turnaround*)
- Radar Resolution
- Range Scales
- Pulse Length Effects
- Receiver Noise
- Scan Conversion Effects
- Geometric Distortion
- Frequency Band
- Transmitter Power
- Sensitivity Time Control
- Receiver Gain and AGC
- Jamming
- Stabilization
- Receiver Detection

Ondulus Radar offers three main radar modes:

Real Beam Ground Map (RBGM) mode, supporting the following simulations:

- Operations in No or Low visibility environments
- Avoidance of navigation obstacles (*e.g. Marine Radar*)
- Detection of weapons or missiles (*e.g. Early Warning Detection*)
- Vehicle or infrastructure detection

Synthetic Aperture Radar (SAR) mode, supporting the following simulations:

- Identification of specific vehicles or strategic assets (*e.g. building, refinery*)
- Intelligence gathering
- Mapping

Inverse Synthetic Aperture Radar (ISAR) mode, supporting the following simulations:

- Naval intelligence gathering
- Identification of naval vehicles

PART OF AN END-TO-END SOLUTION

Presagis is committed to delivering a seamless workflow for the modeling and simulation community through the ongoing integration and evolution of its suite of software tools.

Ondulus Radar is part of an integrated and comprehensive suite of modeling & simulation software designed to reduce costly integration time and speed up the application development process. This includes database and 3D modeling tools, sensor material classification tools and computer generated forces.

Take Your Radar for a Ride with FlightSIM, HeliSIM and STAGE

Presagis M&S Suite makes it easy to mount your radar simulator on a virtual vehicle, ship, aircraft, helicopter or UAS.

Integrate Your Radar as Real-life Instrumentation with VAPS XT

When combined with VAPS XT, Ondulus Radar can be packaged to look like a specific piece of radar equipment in order to bring maximum realism, and provide the specific operation modes necessary for task training.

SUPPORT AT YOUR FINGERTIPS

Our Customer Support team is available to assist you with a wide range of technical and support issues. We ensure that every possible solution is explored and made available to you. As part of your Presagis Maintenance & Support Plan, you have access to:

- Phone and email support
- Live chat and online help forums
- New product releases and updates
- Online training materials

PROFESSIONAL SERVICES

The Presagis Technical Services Team has years of experience and is available to help you with your projects, large or small. Technical expertise to help you get started, supporting your ongoing development efforts, specialized product training or terrain database development services—our team can help you get the most from your software.

