OKTAL-SE The Synthetic Environment and SENSOR Company

Predictive physics and advanced sensor phenomenological simulation

OKTAL-SE is the French editor of the world class product SE-WORKBENCH software considered as a reference for several MoD around the world for research simulation.

SE-WORKBENCH combines ray-tracing technologies (CPU and GPU) with state of the art graphic-rendering 3D techniques (GPU) to provide the best in sensor simulation.

SE-WORKBENCH: One unique approach to multi-sensor simulation
3D terrain modelling
SE-AGETIM

Automatic 3D terrain suit generation from 2D cartographic data

Physical modelling
SE-PHYSICAL-EDITOR

Import and edition of 3D objects – Assignment of physical materials to texture

Thermal modelling
SE-THERMAL

Automatic prediction of scene temperature

Atmospheric modelling
SE-ATMOSPHERE

Automatic prediction of atmospheric fluxes

Files Format Transfer
SE-FFT

Formats conversion and import facilities – plug-in to SketchUp™ and 3DSMax™

Physical EO rendering
SE-RAY-IR

Infrared ray tracing simulation with Photon Mapping option

Real-Time EO rendering
SE-FAST-IR

Infrared rendering using Z-Buffer and pixel shaders

Physical RF rendering
SE-RAY-EM

Electromagnetic ray tracing for RADAR simulation combining physical and geometrical optics

Physical GNSS rendering
SE-NAV

Simulation of Global Navigation Satellite Systems in critical situations based on GP GPU ray tracing

Physical AD rendering
SE-RAY-AEO

Ray tracing simulation for Active Domain (LASER)

SE-WORKBENCH success stories

Supported by the French MoD within the CHORALE project for more than 10 years and used as a common analysis tool for programs involving sensor simulation studies

Approved by MBDA on several missile programs. OKTAL-SE and MBDA_F have signed in 2013 a partnership agreement on multispectral image simulation

SE-WORKBENCH in the world

OKTAL-SE

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