

## OKTAL SYNTHETIC ENVIRONMENT

### SE-Workbench 2008-2009 software release now available

#### New SE-Workbench version is released

OKTAL-SE is very happy to present its 2008-2009 release of the SE-Workbench-EO and SE-Workbench-RF suite of software. This year, major improvements are implemented in the software suite to improve the physical computation and the reliability and ease the software usage.

#### New thermal computation and rendering features

A new thermal code is delivered as a  $\beta$ -version in the current release of the SE-THERMAL software. This new thermal code presents the main advantages of its computation efficiency and its ability to handle thin layers of physical materials. A cross comparison between this  $\beta$ -version and the default thermal model is provided.

SE-RAY-IR now computes thermal shadows by default, with a limited resolution. This new feature adds a lot of realism to the infrared image generation of SE-RAY-IR at no additional cost.

SE-FAST-IR now includes a new set of rendering functions. Among them, the per pixel computation of the atmospheric propagation enables to overcome the previous "small aperture" approximation. This new feature makes SE-FAST-IR realism closer to SE-RAY-IR's.

In addition with the SE-TOOLKIT, the overall real-time performances of SE-FAST-IR are now fully compatible with HWIL requirements.

#### API and integration

SE-TK-D-SCNX and SE-TK-FORM advanced libraries are now partly available. Those special libraries consist in advanced development APIs dedicated to the scenario dynamic data manipulation and format data manipulation respectively.

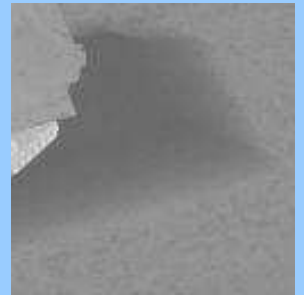
#### Methodological guide

A new METHODOLOGICAL-GUIDE is now included in the delivery. This methodological guide, up to now limited to the optronic domain, consists in a step by step presentation of the work-flow involved when using the SE-Workbench-EO suite. It includes documents as well as the related exercises.

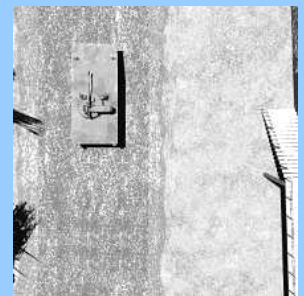
#### Electromagnetic user interface

SE-RAY-EM scenarios can now be generated through the SE-SCENARIO user interface. This enables the user to better define complex situations and visualize the objects configuration in 3D space before launching electromagnetic computations.

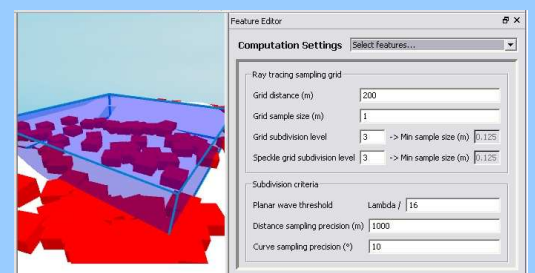
Please do not hesitate to contact OKTAL-SE or a sales representative near your location in order to get more details on this software suite and its new advantages.



Thermal shadow of a tank in LWIR computed at 16h00 with SE-RAY-IR.



SE-RAY-IR image in LWIR of a tank on a road, trees (left), stairs (right). BOTTOM: difference with the same SE-FAST-IR images. The differences (black) come from the shadows computation.



SE-SCENARIO user interface for complex electromagnetic scenario parameterization.

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