OKTAL-SE
Synthetic Environment

EO
AEO
RF
GNSS
RAY

SE-PHYSICAL-EDITOR

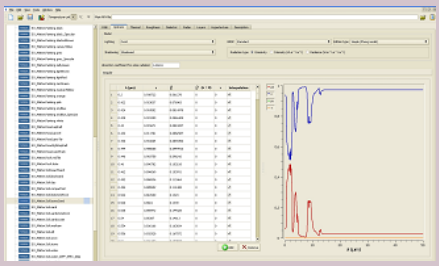
PHYSICAL MODELLING TOOL

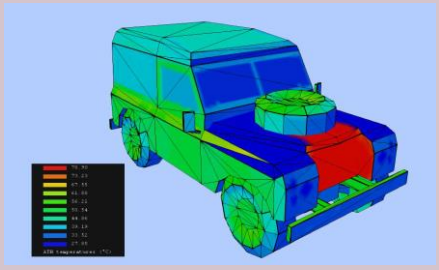
FAST

SE-PHYSICAL-EDITOR is a new generation software for generating mandatory operations in efficient multi-sensor simulation: Material physical characteristics management, geometrical 3D objects enhancement with physical data and 3D geometry improvement in sensor simulation, mapping of physical attributes using textures

Features

- 3D texturation
- Physical attributes edition





Benefits

- Easy to use: Graphical interface
- Modularity: Both for EO and RF physical enhancement
- Performance: All-in-one tool (modelling and physics)

Edit Physical Materials Database

Analyze and set the materials properties that describe the physical characteristics of materials such as the diffuse color for visible simulation, the BRDF for infrared simulation, the dielectric coefficients for electromagnetic simulation, etc

Classify Textures

Characterize textures, from a physical point of view, via a dedicated classification process and edit thermal assignment files

Associate Textures To 3D Geometries

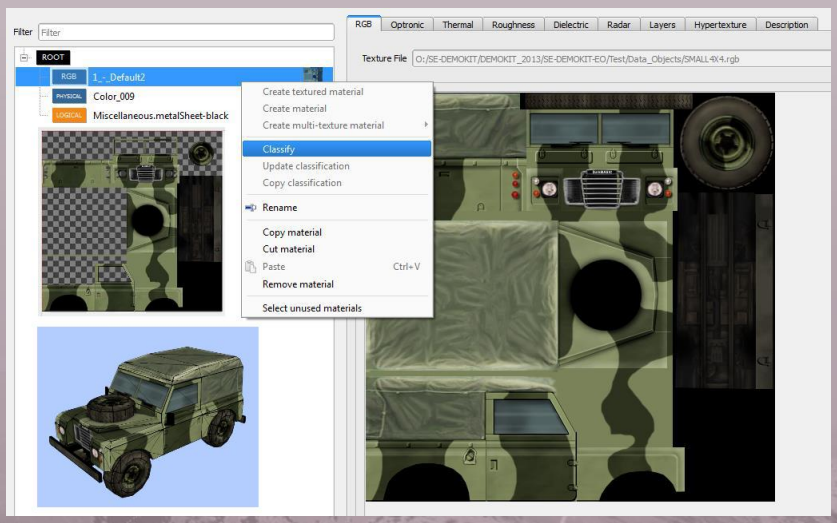
Map visible or classified textures on geometries to improve the quality of an entity's appearance (an object and/or a full 3D scene)

Enhanced Functionalities

- **Edition and visualization of temperatures**
- **Creation of physical edges for electromagnetism simulations**
- **Computation of the vertices normal vectors to smooth a meshed aspect**
- **Edition of radiance vectors**

Material Edition

- **Automated assignment of physical properties to an existing texture using the built-in classification tool**
- **Advanced scientific editor for enhancing the SE-WORKBENCH physical library with your own optical, electromagnetic or thermal materials**



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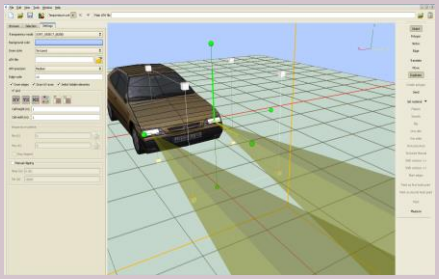
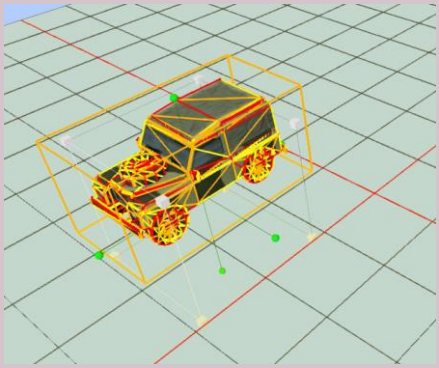
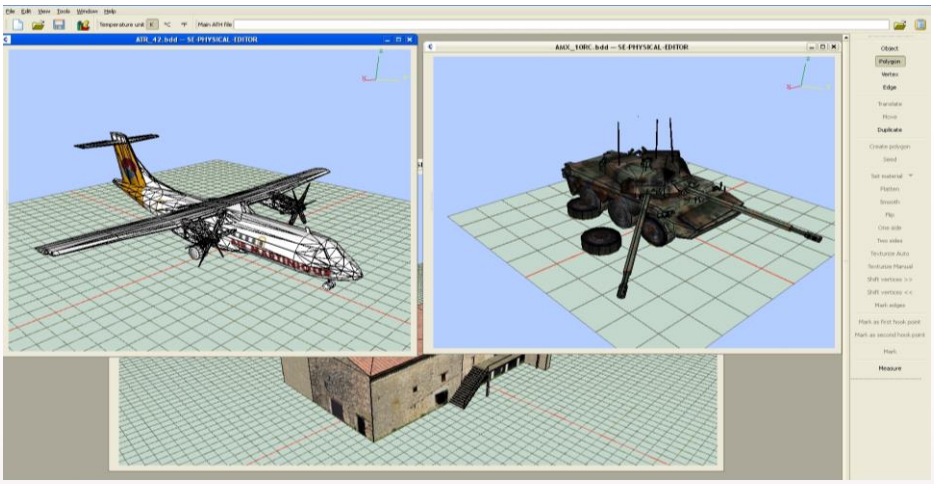
Input/Output formats

- Geometrical data: SDM files (SDM 3D objects or SE-AGETIM templates)
- Physical data: Material database files, multi-domain library files, ATH files, DTH files





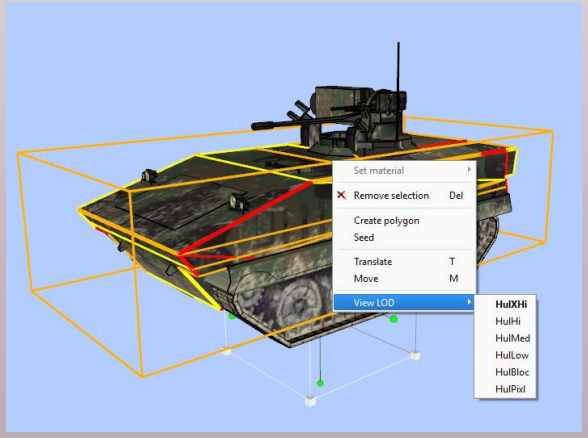
Multiple Document Interface



- Work on several files at the same time
- Easy data exchange between opened documents

3D Modeling

- Edit and modify geometries of 3D objects
- Interactive tools for basics mesh modeling and texture mapping
- Model exploration using structure browsing and polygon's advanced search tool
- Light sources management with the capability of importing your own radiation patterns
- Heat source instantiation for influencing surface temperature of a specific part of your model



System requirements

Windows

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