

- EO
- AEO
- RF
- GNSS
- RAY

## SE-FAST-IG



### FAST SCENE GENERATION SOFTWARE

FAST

SE-FAST-IG is a high performance visualisation application. Meant to be driven by users' simulators through its CIGI interface, SE-FAST-IG supports the typical features required for image generators used in flight training, driving simulations, ground warfare and synthetic environment applications.

#### Features

- Out The Window image generation
- Physics-based InfraRed and Night Vision devices sensor simulation
- CIGI host interface
- 60Hz update rate
- Multiple channels synchronization
- Large area terrain paging
- Moving entity management
- Highly realistic environment and weather effects
- Light lobes and light systems for night scenes
- Mission functions
- Special effects



#### Application

SE-FAST-IG is an executable-ready render engine that requires no additional programming to operate, resulting in maximum productivity gains. A plugin interface is also available to supplement the image generator with features not available in core SE-FAST-IG and compiled in users' specific features.

SE-FAST-IG is a component of SE-Workbench. It is built on top of:

- SE-FAST library that takes advantage of vertex and pixel shaders for Out The Window (OTW) image generation
- SE-FAST-IR library that performs physics-based multi-spectral Electro-Optics (EO) sensor simulation
- SE-IR-SENSOR library for rendering of advanced sensor post-processing effects

SE-FAST-IG is compatible with databases (including thermal and atmospheric data) created by SE-Workbench tools.



## Benefits

- Ready to use application
- Consistent OTW, IR and NVG simulation
- Performance
- Customised service packages available



## System requirements



## Channel Configuration

- Designed for 60 Hz and higher update rates with more than 750 000 triangles and 1000 light points per channel
- Video formats up to 2048 x 1536
- 32 bit colour and 24 bit depth buffer
- 16x sub-sample anti-aliasing
- 16x anisotropic texture filtering
- Frame synchronization of multiple visual channels
- Head-Up Display (HUD) and 2D overlays integration

## Environment Effects

- Continuous time of day with ephemeris- controlled Sun and Moon
- Physics-based sky model with dawn and dusk horizon glow
- Real-time sun-cast shadows

## Weather Effects

- Cloud layers, including volumetric clouds, with coverage from overcast to few scattered clouds
- Ground fog and haze
- Precipitations: rain and snow
- Per-pixel rendering of accumulated snow depending on the local slope of the receiving surfaces
- Lightning strikes



## Special Effects

- Vapour trails
- Fire and wind-driven smoke
- Explosion
- Rotor wash for ownship and other helicopters

**OKTAL-SE**

11 avenue du Lac 31320 Vigoulet-Auzil France  
 Phone: +33 (0)5 67 70 02 00 - Fax: +33 (0)5 67 70 02 05  
 Mail: [contact@oktal-se.fr](mailto:contact@oktal-se.fr) website: [www.oktal-se.com](http://www.oktal-se.com)