

# **Overview**

To ensure that critical training is as effective as possible, the associated visual immersion must be as realistic as it can be. CAE continues to lead the way in immersive training, delivering stunningly realistic graphics via extraordinarily true-to life visual images for the ultimate in interactive training via the CAE Prodigy Image Generator.

The CAE Prodigy Image Generator (IG), CAE's latest image generator, is powered by gaming engine technologies. It provides high-fidelity graphics and physics-based simulation which build on the performance and features of CAE's previous family of image generator solutions, specially tailored for Defense and Security markets.

The CAE Prodigy IG uses gaming engine technology to deliver Industry-leading scene realism optimized for real-life simulation and training. The IG supports complex and interactive Synthetic Environments to generate cutting-edge content built using open standard formats for flexibility in content, control and interface.

# Features of the CAE Prodigy Image Generator (IG):

High-fidelity gaming-engine generated graphics provide an extremely realistic environment.

- Generates realistic lifeforms
- Provides high scene density
- Enhances lighting with shadows, reflections and raytracing (specular effects)
- High-end sensor simulation capabilities
- Realistic 3D ocean, wakes and ocean-to-shore simulation





# Scalable quantities of entities and lifeforms to realistically populate extensive and complex scenarios.

- Supports Ai-based technology for 1000-fold increase in realistic scene content
- Accurate interaction of entities and the environment
- High-fidelity models and textures for the complete range of special effects
- Updated scene densities for runways, taxiways, airport contaminants, aprons and terminal buildings
- Ability to modify OGC CDB synthetic environments, at run-time, to change the terrain dynamically



# Flexible and adaptable due to COTS-based construction

- → Entirely COTS-based workstation components
- Based on industry standards: Windows 10 Embedded, OpenGL, Open Flight, Open Geospatial Consortium Common Database (OGC CDB) and CIGI 4.0 compliant
- Centralized database repository for ease of database maintenance and deployment
- Compatible with ultra-high resolution 8k projectors (out-thewindow and sensor)
- Cybersecure (NIST Standard Compliant)
- → Provisions for reuse of CDB content, host and display interfaces.
- → Small footprint, low cost
- → Multi GPU technology reduces the footprint by up to 50%
- → Reduce visual system recurring and operating costs by 25 to 50%
- → Increased Mean Time between Failures

# CAE Prodigy Image Generator supports CAE's line of simulation products:

- → Full-mission simulator
- → Rear Crew Trainer
- Mission Rehearsal

- → High-end and Low-end Out-the-Window
- → Stealth View Display

# CAE Prodigy IG provides true-to-life scenario immersion to satisfy the most demanding mission training needs.



# Canada

Tel: +1-613-247-0342 milsim@cae.com

# Europe

Tel: +49-2402-106-0 info@cae-gmbh.de

#### Asia

Tel: +65 6430 4390 milsim@cae.com

## **Corporate Headquarters**

# CAE USA - Tampa, Florida

Tel: +1-813-885-7481 cae\_usa@cae.com

# **CAE USA - Arlington, Texas**

Tel: 1- 817-619-2000 cae\_usa@cae.com

#### India

Tel: +91-80-2625-6000 caeindiapvtltd@cae.com

## **United Kingdom**

Tel: +44 (0) 1444-247535 cae\_plc@cae.co.uk

# Australia

Tel: +61-2-9748-4844 caeaus@cae.com.au

#### **Middle East**

Tel: +971-2-676-7676 milsim@cae.com milsim@cae.com

@CAE\_Defence

☐ CAE\_Defence

cae.com/defence-security

