

STAGE PRESAGIS.COM

### **HOW STAGE HELPS**

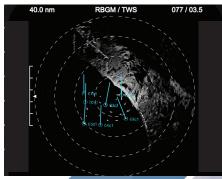
STAGE is an indispensable tool in the creation of true-to-life scenarios. Dynamic environments with natural character and vehicle behavior can be further enhanced with complex interactions, communications, and realistic engagements.

## STAGE lets you simulate virtual environments for a wide range of applications, including:

- · UAS operations
- · Air combat operations
- Border patrol and border crossings
- · Battle labs
- · Urban combat operations
- Naval training
   Mission rehearsals
- · Command and control
- · Military embedded training

- First responders and Homeland Security
- Crowd evacuations for emergency response
- Critical infrastructure protection research & analysis
- System specifications and design analysis
- · Network-centric operations
- Virtual test bench





THROUGH CGF, STAGE LETS USERS CONTROL A LARGE NUMBER OF ENTITIES, AS SEEN HERE TRACKED ON RADAR.



## **BENEFITS**

#### **QUICK SCENARIO DEVELOPMENT**

STAGE allows users quickly integrate vehicles, sensors, weapons and computer-generated forces (CGF), extend simulation doctrines and mission capabilities.



#### REDUCE NEGATIVE TRAINING

Through highly accurate simulations, and real-life patterns and behaviors for human characters and vehicles.



#### **EASY PATHFINDING**

Dynamic area-based AI pathfinding reduces the time-consuming task of specifying detailed paths for entities.



#### **GET STARTED QUICKLY**

Several fixed-wing, rotary wing aircraft, ships, submarines, land vehicles, buildings, human characters, and scenarios included out-of-the-box.



# THE POWER OF STAGE

STAGE users are empowered to create more sophisticated simulation scenarios across massive gaming areas for operations, training, and analysis.

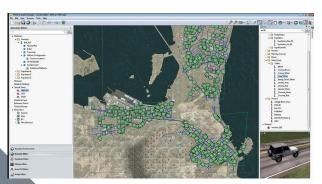
Like all tools from the Presagis M&S Suite, STAGE is built on a highly-customizable, modular architecture which permits developers to replace, integrate, or modify doctrines or simulation models.

STAGE offers an extendable, standards-based environment that comes complete with tools to help you develop rich scenarios including hundreds of entities out-of-the-box, with built-in doctrines, AI, and 2D & 3D viewing.

# AI AND PATTERN OF LIFE

Replicate real-life patterns and behaviors and automatically populate urban areas with human characters and intelligent vehicles. STAGE synthetic entities awareness of their environment will react and respond to their surroundings to elevate your simulations at a level of realism expected in training for tactical analysis and operational scenarios. STAGE PRO also includes Artificial Intelligence (AI) features that provide a comprehensive range of character and vehicle capabilities. These include auto-population of intelligent vehicles and human characters. They also utilize automatic creation of the navigation mesh for an environment.

STAGE Pro provides a full range of artificial intelligence capabilities that allow you to create human and vehicle entities with realistic behaviors. Automated environment navigation mesh, and authoring tools lets you create human and vehicle entities for simulation projects, which can scale from a single entity to a large populations of intelligent autonomous entities. The C++ Software Development Toolkit (SDK) provides an enhanced set of capabilities for visual & automated authoring and debugging.



### STAGE FEATURES

#### \ HIGH DEGREE OF ACCURACY

For analysis applications where the repeatability of results is essential, STAGE supports Monte Carlo analysis to provide a realistic method of describing uncertainty in variables.

## **\ CONNECTIVITY**WITHOUT RESTRICTIONS

Interface with any network distributed environments. STAGE's native support for DIS, HLA and CIGI offers connectivity to various simulation and visualization solutions.

#### **\ COMPUTER GENERATED FORCES (CGF)**

Enables you to create high-fidelity simulations to train individuals for the ever-changing realities of the 21st century.

#### MULTIPLE TERRAIN FORMATS

STAGE includes native support for CDB, support for OpenFlight and Global Mapper integration.

#### **\ 3D VIEWER**

Enhanced visual experience during development through a built-in Vega Prime 3D viewer. Preview and review 3D OpenFlight models within a CDB or OpenFlight terrain database and an integrated visualization tool with a 2D map display.

#### COMMS SUPPORT

Support for core communication protocols and standards including DIS, HLA Evolved and CIGI. The integrated Record and Playback Logger enables you to review your complex scenarios at any speed and from any point in time-for analysis, review, rehearsal or training.

#### **\ SENSORS SUPPORT**

Sensor simulations for active and passive sensors: Electro Optic (EO), Infrared (IR), Laser, Radar, Sonar and Electronic Support Measures.

#### **WEAPONS SUPPORT**

Support for model weapon behaviors, either Physics-based, Probabilistic or Kinematics-based.

#### **\ ENTITY PROFILING FOR VARIOUS TYPES OF ENTITIES**

Articulated Part, Atmospheric, Countermeasure, Defense Capabilities, Detailed Building, Detonation, Formation, Heat systems, IFF, Impact Levels, Laser Designator, Radio, Sensors, Special Zone, Supplies and Weapons impact levels.

Visual Studio 2015 (VC 14) Support Support for Windows 10 and 4K displays.

### OGC CDB

The OGC CDB (Common Database) specification is an open synthetic environment database specification. As a simulation specification for producing a unified synthetic representation of the world, OGC CDB was developed to respond to and improve the size, storage, longevity, scalability and correlation of a database used to support full-mission simulation.

As original contributor and now caretaker for OGC CDB, Presagis sees this specification as a global solution that will drive new, more innovative and efficient ways of working. Our goal is to align the advanced functionality outlined in the Specification with the current and future needs of our customers.

## **SCENARIO** DEVELOPMENT

The STAGE Development Kit allows users to extend STAGE and to add functionality. STAGE can be integrated with most existing software applications through its open API and plug-in based architecture. Users can customize and extend virtually any aspect of the development environment, including:

- Integrate new libraries and simulation models.
- Extend existing simulation model profiles and other subsystems.
- Integrate STAGE applications with other user applications.
- Extend mission capabilities.

## **PRESAGIS \ MAKE IT REAL**

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