



GlobalSim Constructive Simulation System

Overview

Military commanders and their staff as well as civil agency managers need to be prepared to operate in complex, mission-critical environments and make quick, informed decisions based on the information they have available. A constructive simulation is ideal for the planning, testing and training of critical decision-making where commanders and their staff can operate in a safe and controlled environment just as they would in a real-world operational situation.

CAE and ROLANDS & ASSOCIATES Corporation (R&A) have collaborated to develop a new, federated constructive simulation solution called GlobalSim. GlobalSim combines CAE's GESI command and staff training system with R&A's Joint Theater-Level Simulation (JTLS). The combination of the two constructive simulation solutions brings together a theater-level constructive simulation (JTLS) with a high-resolution, entity-level constructive simulation (GESI) to create a comprehensive federation that offers command leadership a single, realistic, multi-resolution view of the complete operational environment.

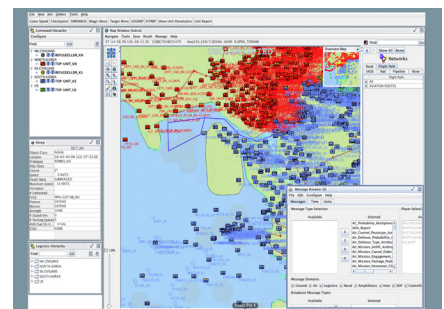
CAE GESI

The CAE GESI constructive simulation software is a sophisticated synthetic environment that allows commanders to train under realistic conditions. The CAE

GESI software, which can be used for both military and emergency management scenarios, simulates the complete mission area where commanders have the responsibility to take action and make decisions based on how the simulated exercises evolve. The CAE GESI software is equipped with an easy-to-use exercise editor, comprehensive after-action-review capability, and is also interoperable with other command and control (C2) systems. CAE's GESI is one of the leading constructive simulation solutions used for command and staff training and is currently used by countries such as Germany, Italy, Norway, Finland, Poland and others.

R&A JTLS

R&A's Joint Theater-Level Simulation (JTLS) is an interactive, web-based simulation that is used to simulate joint and coalition, civil-military, and other operational environments, including land, air, naval, intelligence, special operations, and logistics. JTLS is equally applicable to both military and civilian uses, such as humanitarian assistance and disaster relief. The primary purpose of JTLS is to create a realistic environment in which senior leadership and their staffs can operate as they would within a real-world operational situation. JTLS is used extensively by the U.S. Department of Defense and international users, including NATO, France, Italy, Norway, Japan, Korea, Malaysia, Poland, Thailand, the United Arab Emirates and others.



The GlobalSim solution

The GlobalSim solution from CAE and R&A is unique because it provides a comprehensive constructive simulation environment from the theater-level down to the tactical simulation level. This means users can train in a seamless, integrated constructive simulation environment without requiring separate solutions for the "big picture" operational environment and the detailed tactical-level environment. GlobalSim can be used for command post exercise support, contingency/management plan testing, coalition training among both military and civil agencies, budget-based wargaming decision support, decision analyses, experimentation, and emergency preparedness training.

GlobalSim uses an open architecture and industry standards for interfacing with other systems to allow integration and experimentation with operational components. GlobalSim can be connected to most common operational pictures and has been interfaced with numerous command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR) systems.



GlobalSim system features

Some of the key features of GlobalSim include:

- Tightly linked and integrated federation between a theater-level aggregate simulation (JTLS) and a tactical, entity-level simulation (GESI);
- Supports the industry standard High-Level Architecture (HLA) to facilitate integration and interoperability;
- Combination of two of the world's leading constructive simulation solutions:
 - JTLS models the full spectrum of warfare, including land, air, naval, intelligence, logistics and special forces;
 - GESI is a high resolution synthetic environment entity-level simulation to model missions such as close combat, operations-other-than-war (OOTW), military operations in urban terrain (MOUT), and asymmetric warfare;
- Multi-Resolution Model capabilities similar to the former Joint Multi-Resolution Model (JMRM).

GlobalSim benefits

Some of the key benefits of the GlobalSim solution include:

- Integration of theater/strategic level operations with tactical unit operations thus allowing theater-level scenarios with tactical-level inserts;
- Single, integrated and more realistic view of the complete operational environment;
- Generation of realistic and unexpected consequences as well as other synergetic effects by combining the strengths JTLS and GESI into one exercise;
- Easy-to-use exercise editors and comprehensive after-action review capability;
- Open architecture and standards for ease of integration and experimentation;
- Optimization of the number of operators and operating expense.



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