FORTRIS™

PROVIDING A COMMAND AND CONTROL SYSTEM FOR A FORCE-ON-FORCE BATTLE MANAGEMENT ACROSS MULTIPLE PLATFORMS

FORTRIS IADS simulator is a scenario engine that provides a real-time complex battle simulation between hostile and friendly forces. The synthetic environment within FORTRIS contains a true multi-layered Integrated Air Defense System (IADS) simulation that can act and react both as an overall system as well as individual contributors making it the ideal cognitive training tool within the Live Virtual Constructive (LVC) world.
FORCE-ON-FORCE REACTIVE TACTICAL READINESS
IADS SIMULATION

CHARACTERISTICS & BENEFITS

COGNITIVE
FORTRIS features automatic cognitive reactions at each level of command and control. The autonomous mode changes and behaviors represent multiple C4I layers. IADS are able to react automatically as an overall system based on the perception of the environment at each level of command and control.

WEAPON SYSTEMS
FORTRIS has the ability to model all components of today’s weapons using the built in scripting. Supported weapon components include comms, weapons and radars all with centralized mode changes.

FLEXIBLE ARCHITECTURE
FORTRIS is Distributed Interactive Simulation (DIS) compliant. It is compatible with other sim protocols like High Level Architecture (HLA) and has the ability to integrate with LIVE simulation language protocols.

SYSTEM
FORTRIS is hosted on standard Commercial Off-The-Shelf (COTS) PCs.

EXTERNAL INTERFACES
FORTRIS can share entities and simulated RF signals with other simulations. The software has the capability to ingest entities from external sources (both manned and unmanned) and have the simulated entities react to those external entities without intervention.

DEBRIEF/RECORD/RESET/REPLAY
FORTRIS has the ability to debrief a training exercise using features such as reset, replay, and restart.

FORTRIS is capable of modeling an unlimited number of layers of command and control hierarchy. The IADS communication links within FORTRIS provide the ability for entities to generate coherent communications between each other in order to share track data, send commands, and generate responses over simulated data links. These entities can be logically linked together based on their ability to communicate, their command and control responsibilities, and their role within their IADS hierarchy.

The generated coherent communications reflect each entity’s perception of the environment. This perception is able to be affected by conditions such as communication link data latency, data denial, and data becoming stale. The entity reactions to the perception include radar mode changes, weapon launches, expendable launches, target assignments, target engagements, and communication changes within the IADS.

FORTRIS provides the capability to reset the simulated environment to intervals of at least 1-second resolution of mission elapsed time for analysis and can also track and provide performance assessment.

Providing a real-time force-on-force battle simulation that covers the full spectrum of today’s enemy, from traditional IADS to loosely-networked ad-hoc weapon systems.