L-3 Communications

As the sixth largest defense company in the United States and a prime system contractor for aircraft modernization and operations, L-3 Communications is a leading supplier in a broad range of products and services used in various aerospace and defense platforms.

In order to adequately prepare military personnel for avionic procedures, the U.S. Army launched the Aviation Combined Arms Tactical Trainer (AVCATT) for its rotary wing training program. The AVCATT is a mobile virtual simulation training system designed to provide aviation personnel with the ability to conduct realistic, high intensity, task-loaded training exercises and mission rehearsals. By simulating a full range of battlefield scenarios, the AVCATT creates a mobile virtual war game environment to support individual, crew, collective and combined arms training.

The avionics displays in AVCATT play a critical role in trainer effectiveness. The original virtual avionics product used to develop the initial instrumentation for the AVCATT did not provide the necessary level of interactivity, performance and realism necessary for military personnel to receive a high-quality training experience. In order to enhance and upgrade the complex instrumentation used in the AVCATT, L-3 turned to DiSTI's GL Studio software to bring a new level of realism and interactivity to the cockpit instrumentation, boosting the Trainer's overall effectiveness.

By utilizing the GL Studio toolkit for rapid development of virtual instrumentation, DiSTI was able to create the reconfigurable cockpit interfaces for all 5 helicopter platforms. The meticulous development process began with the use of high resolution photographs of the actual aircraft instrumentation to create a virtual representation of each instrument and concluded with a final product that provided students with a photorealistic training experience. Roughly 60 instruments with 200 active parameters were created for the trainers in less than eight weeks.

Through GL Studio's object-oriented development environment and its ability to create reusable software objects (RSOs), the graphical elements for the trainer's instrumentation only had to be built

once, and were available for reuse on the other helicopter platforms, saving the Army considerable development time.

GL Studio is a suite of powerful, intuitive object-oriented interface design tools that enable programmers in any industry to create state-of-the-art, reusable 2D or 3D graphical user interfaces. These interfaces can apply to operating, maintaining or replicating even the most complex systems, including military aircraft, cockpit displays, automotive dashboards, process controls, and communications equipment.