

ADST II Transitions Simulators to HLA Using MÄK Technologies' VR-Link

STRICOM formed ADST II (Advanced Distributed Simulation Technology II) with the mission of supporting advanced distributed simulation. Lockheed Martin teamed with Science Applications International Corporation (SAIC) and a number of other simulation experts, including MÄK Technologies, to achieve this goal. Their role is to provide for and manage the infrastructure, architecture, and processes necessary of distributed simulations. Customers serviced through the ADST II contract include the Defense Modeling and Simulation Office (DMSO), Advanced Research Projects Agency, HQ DA, TRADOC Battle Labs, Schools and Centers, Army Material Command activities (i.e., system program managers), USSOCOM and other Joint Service activities.

When the U.S. Special Operations Forces contracted STRICOM and the HLA team of ADST II to migrate their DIS legacy training devices to HLA, the team knew they needed a quick solution. The five trainers they needed to transition included the AC-130U Navigation/Fire Control Officer Testbed and MC-130E/H Combat Talon simulators at Hurlburt Field, Florida as well as the MH-47E and MH-60K Combat Mission Simulators located at Ft. Campbell, Kentucky.

“We researched three approaches to achieving HLA compliance — using a gateway, integrating middleware and developing a native HLA solution — the middleware solution was chosen as the best technical solution within the project budget,” said *Ivan Carbia, Senior Software Engineer of the ADST II project.*

The team chose VR-Link® as their middleware solution because they wanted a COTS product that they knew would be well-supported. MÄK's involvement in the simulation standards community helps keep the VR-Link product on the cutting-edge as HLA evolves.

“We recognized that as forerunners in the transition to HLA, we would encounter many growing-pains, such as changing RPR-FOM and RTI versions,” explained *Bill Garbacz, Senior Systems Engineer for the ADST II program.* “The product we chose needed to keep up with those changes.”

MÄK's VR-Link provided all the RTI calls necessary for a network exercise, allowing the staff to learn HLA at a good pace. In addition it provided many data structures and encoder/decoder functions that could have taken the staff months to implement.

MÄK's support staff was also an asset to the project.

“We were there to answer HLA questions and even some C++ questions,” said *Len Granowetter of MÄK's engineering staff.* “We replied to all messages on the same day.”

The Results?

The AC-130U has been compliant since 1998. The MC-130E/H Combat Talon simulators became HLA compliant in June of 1999, and the Ft. Campbell simulators should achieve compliance by August of 1999.