

AFRL Warfighter Training Research Division Uses MÄK RTI for HLA Networking

The Air Force Research Laboratory, Human Effectiveness Directorate, Warfighter Training Research Division (AFRL/HEA) is headquartered in Mesa, Arizona. It is part of the Air Force Material Command (AFMC). The AFRL/HEA mission is to develop, demonstrate, evaluate, and transition leading edge technologies and methods to train warfighters.

The Warfighter Training Research Division is on the forefront of research and development for Distributed Mission Operations (DMO) training research. DMO allows geographically distributed warfighters to train together through integrated live, virtual, and constructive operation environments. The AFRL DMO is a four-ship F-16 simulation facility, networked via Distributed Interactive Simulation (DIS) and/or Native highlevel architecture (HLA) technologies.

“We had used previous free releases of the MÄK Run-time Infrastructure (RTI),” said Ed Hayes, HLA Team Lead, “When the fully compliant 2.0 version became available, we chose to upgrade the facility to the latest version.”

AFRL’s simulation facility requires Windows, VxWorks, Linux, Sun, and SGI platform RTI’s, and the program needed a flexible RTI solution. Through MÄK’s RTI Program Protection Plan, they got the RTI they wanted on the platforms they needed. MÄK developed the Protection Plan for programs with special RTI needs. Through the plan, users can choose what they need, such as a dedicated support engineer, early access to new features, on-demand porting, on-site consulting, or custom features.

“Our upcoming projects required the fastest, most reliable RTI available,” explained Hayes. “Experience has shown the MÄK RTI to be the choice. MÄK also supplies outstanding support, if we have problems.”

AFRL Warfighter Training Research Division has three current projects under development using the MÄK RTI.

AF Distributed Mission Operations Network (DMON) Support:

AFRL is performing HLA to DIS integration testing and support to DMON developers, Northrup Grumman. AFRL was selected to run native HLA through the NG HLA Portal to the USAF Distributed Mission Operations Center (DMOC) NG DIS Portal simulation environment.

NATO Coalition Mission Training Research:

Exercise First Wave, sponsored by the NATO Research and Technology Organization (RTO) Studies, Analysis, and Simulation Panel, is a seven-country, 16-site virtual training exercise that will enable coalition warfighters to conduct a combined air operation (COMAO) in a distributed simulation environment. It will also demonstrate to NATO commanders and the military community its potential for aircrew mission training. AFRL and its partners in government and industry selected the MÄK RTI for all participating HLA simulators.

Distributed Training Network Guard (DTNG):

AFRL selected the MÄK RTI for its original HLA implementation of the Distributed Training Network Guard. The DTNG was developed to support Multi Level Security (MLS) in the DMO environment. The system was successfully demonstrated to government and industry in January of this year.

“We have a close working relationship with their engineers,” said Hayes. “We don’t look at MÄK as a supplier, but as a partner in developing and progressing the use of HLA.”

The verified and fully compliant MÄK RTI has been chosen as the backbone of major simulation programs. MÄK RTI customers include Lockheed Martin’s F-16 Mission Training Center, FATS, Verrax and Northrup Grumman’s Mission Systems Lab for distributed mission training.

FOR MORE INFORMATION about the MÄK RTI or the RTI Program Protection Plan, please contact MÄK sales at 617.876.8085 x2 or at info@mak.com.

CUSTOMER PROFILE