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CUSTOMER PROFILE

General Dynamics Chooses MÄK's VR-Link for Threat Simulation Development

General Dynamics (formerly GTE Government Systems) was chosen by the Threat Systems Management Office (TSMO) under STRICOM to be one of their prime developers for threat simulation development. General Dynamics has, in the past, provided TSMO with numerous Distributed Interactive Simulations (DIS)a compliant threat products built on MÄK Technologies' VR-Link® networking toolkit. These systems range from live to pure virtual and included the Network Interface Unit (NIU), the Advanced Command Control and Communication System (XMAC3S), and the Virtual Reality Battery Command Post (VRBCP).

The NIU allows both new and legacy live systems to be quickly made High Level Architecture (HLA) compliant without impacting the performance of the live system. In addition, the NIU isolates the live system from changes in the DIS Standard or the HLA interface specification of the RTI (Run Time Infrastructure). Once an NIU is updated there is minimal effort to update the other deployed NIU's. The XMAC3S is a U.S. Army validated simulator of modern Former Soviet Union (FSU) C3 Systems. The XMAC3S was designed to support DIS and to allow the full functionality of the C3 System to be used in a DIS environment, and now HLA, including the simulation of tactical data links. The VRBCP is also a U.S. Army validated simulation of a modern FSU C3 System that enhances the simulation through the use of 3D immersive technologies. The VRBCP was also designed to support DIS and to allow the full functionality of the C3 System to be used in a DIS environment, and now HLA, including the simulation of tactical data links.

"MÄK's VR-Link product is invaluable to our development," *said Brett Kaylor, software engineer on the project for General Dynamics.* "We must spend the majority of our development time on building realistic, true-tolife threats for TSMO. Taking away the need to learn the minute details of HLA and keep up with its changes, has given us that extra time to deliver the government the best product possible."

General Dynamics' challenge moving to HLA was to make the transition without taking away any of the DIS capabilities, giving the customer the choice of an on-the-fly DIS or HLA capability. All DIS functionality had to be handled in HLA. This included entity, emission, beam, transmitter, and receiver objects as well as collision, detonation, fire, and signal interactions. TMSO also required that all the systems run on SGI, Compaq Tru64 Unix, and Windows NT. With the use of VR-Link, the challenge was reduced to an easily handled inconvenience.

"The staff at MÄK was another asset. They were outstanding in response to technical questions," *said Kaylor.* "The technical support team was very quick to return email questions and phone calls. Most questions were answered immediately; others were handled swiftly and with high priority. HLA certification testing itself was made easier with the knowledge that questions would be immediately answered by phone if necessary. Although the need didn't arise, it was a great safety net."

68 MOULTON STREET, CAMBRIDGE, MA 02138 TEL 617.876.8085 FAX 617.876.9208 WEB www.mak.com