

RUAG Defence responds to the French Army's request for a Crew Training Simulator using MÄK COTS products

When RUAG Defence needed a rapid response to the French Army's request for a Crew Training Simulator (CTS), RUAG brought to bear its core system-of-systems integration skills and VT MÄK's commercial off the shelf (COTS) products.

The result is "Simulateur de Tir d'Equipage et de Section" (STES) – a simulator that trains French troops for deployment at individual, crew, and platoon levels through mounted and dismounted combat simulations.

"We chose MÄK because of the high-quality performance, functionality, and stability of their products. MÄK's software development kits (SDK) provide the assistance that system integrators like us need to expand and enhance functionality," explains Fabian Sipp, Product Manager at RUAG Defence.

STES prepares troops in the French Army to operate newly developed, wheeled infantry fighting vehicles. The simulator's Battle Management System provides training on the entire communications and information platform. Commanders and gunners practice asymmetric scenarios in both open terrain and urban environments using MÄK's VR-Forces Computer Generated Force (CGF) system with the B-HAVE Artificial Intelligence (AI) module.

The B-HAVE Module for VR-Forces enabled RUAG to integrate civilians and infantry models into urban operation scenarios. With B-HAVE, these civilian and infantry entities analyze terrain topology, intelligently navigate through complex urban environments, automatically plan and follow paths through 3D building interiors, dynamically avoid collisions with obstacles or other entities, and flee from threats.

In addition to providing a foundation for RUAG Defence's CTS, MÄK products have helped RUAG in its Research and Development (R&D) "game-based visualization technology" program. The integration of MÄK's VR-Vantage into its training solution enabled RUAG to improve the performance of their existing tactical visual database.

RUAG Defence's art director was able to implement massive content with dense vegetation and infrastructure, double the polygon count on existing 3D moving objects, and add new layers of texture while increasing its resolution. The actualization of these improvements by VR-Vantage allowed RUAG to greatly enhance the realism of their simulations.

"RUAG Defence relies on MÄK's COTS products because they can be seamlessly integrated into customer specific applications. MÄK's line of products and responsive customer service has allowed us to reach faster delivery times and a higher degree of customer satisfaction," says Sipp. "Another advantage is that MÄK offered the in-house expertise of retired officers. This was a great help as we evaluated our customer's needs and developed appropriate training solutions."

RUAG Defence offers advanced services and products for defense and security. It addresses armed forces, original equipment manufacturers, and security and emergency organizations around the world. They are leaders in upgrading and armoring vehicles. They offer command hardware and software, simulation solutions and life cycle support. RUAG is the preferred supplier and center of excellence for the Swiss Armed Forces.

