

November
2016

What's Up MÄK

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MÄK unveils its
multi-role virtual
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Introducing VR-Engage!

MÄK Unveils Its Multi-Role Virtual Simulator

If you've stopped by the MÄK booth at one of our shows the past couple of years, you've probably noticed that we have been demonstrating first-person simulations that are built on a foundation of MÄK products. In the meantime, we've been working tirelessly to develop these demonstration technologies into a finished product. Today, we are proud to announce **VR-Engage**, MÄK's multi-role virtual simulator.

We developed VR-Engage for use in training simulations and laboratory experimentation. With it, users play first person roles, including dismounted soldiers, the driver, gunner, or commander of a ground vehicle, or the pilot of a fixed wing aircraft or helicopter.

VR-Engage is built on a foundation of proven MÄK software. VR-Engage simulates high-fidelity vehicle motion and dynamics with a real-time physics engine, which brings to life ground, rotary, and fixed-wing vehicles, as well as our full library of DI-Guy characters.

This robust package is augmented with voice communications, sensors, weapons, and countermeasures designed to improve the realism of air-to-air,



air-to-ground, ground-based, and person-to-person engagements. Unlock new environment interactions, from opening and closing doors, to destroying bridges and buildings.

MÄK's terrain agility allows you to use the terrain you have or take advantage of innovative streaming and procedural terrain techniques. Experience realistic feedback and effects on your vehicle from your terrain from a first-person perspective.



VR-Engage is ready to use out-of-the-box, and can be deployed as a trainee simulator, as a role player station, an instructor aid, a desktop simulation game, or even as a VR headset experience. MÄK focuses on the needs of system integrators, so we designed VR-Engage to be as flexible as possible. VR-Engage can be customized and extended to meet program-specific requirements and integrated into a diverse range of system configurations. Pricing and support models are designed specifically to help system integrators win bids and deliver projects.



Natively compliant with DIS & HLA, VR-Engage can be used in multi-player classroom environments, and can interoperate with existing simulation applications and third-party Computer Generated Forces. When VR-Engage is used in conjunction with VR-Forces and other MÄK products, users unleash additional benefits of a common system architecture.

The VR-Forces graphical user interface can serve as a common instructor interface to lay down and manage both the player-controlled entities and computer generated forces entities. Users can build terrains, models, and configurations once, and deploy them across VR-Engage player stations, or VR-Forces CGF, and any other applications that use VR-Vantage IG. Role-play multiple entities at a time by switching between manual and CGF control on-the-fly; or act as a gunner or other crew member of a VR-Forces-driven entity. Also, users will gain a common representation of the environment across player and CGF stations, including synchronized weather, time-of-day, and dynamic terrain.

Get ahead of the game – with VR-Engage!



Get Ahead of the Game with MÄK at I/ITSEC 2016!

Join MÄK at I/ITSEC 2016, in booth #1048, to learn about the latest trends in Modeling & Simulation and how to incorporate state-of-the-art technology into your training and experimentation environments. Our booth will feature a fantastic array of demonstrations that feature our products and solutions. Of particular interest is the announcement of our newest product VR-Engage – a multi-role virtual simulator. Come experience it for yourself.

You'll also find MÄK participating in dozens of booths across the show floor, presenting demonstrations in our partner's booths, supporting several companies with interoperability technology in Operation Blended Warrior, and embedded in many of our customers' demonstrations.

MÄK Seminars at the Rosen Center, Salon 1

Introducing VR-Engage – Multi-role Virtual Simulator

Tuesday 9:00 – 9:45

Len Granowetter, VT MAK's VP of Products and Solutions, will present the latest in MAK's line of simulation products.

Dynamic Terrain

Tuesday 10:00 – 10:45

Jim Kogler, VP of COTS Products, will present how simulation events can change the terrain and the built environment, how those changes are shared and correlated across the network, and how they are recorded and replayable for AAR/Debrief/Simulation analysis.

The Future of Simulation Interoperability Protocols

Tuesday 11:00 – 11:45

Felix Rodriguez, Director Software Engineering, will discuss the state of proposed changes for each of the interoperability protocols: DIS 8, HLA 4, RPR FOM 3.0, and WebLVC 1.0. Along with the status and expected timeline, Felix will explain how these changes may, or may not affect customers.



Events on the Show Floor

VR-Engage Announcement Party in MÄK Booth #1048

Last year we showed you what you could build with MÄK products. This year we introduce VR-Engage, the newest member of the MÄK Simulation product family.

Tuesday 4:30pm to 5:30pm, all are welcome

Innovation Showcase – Booth #2949

Introducing VR-Engage — MÄK's newest product – a multi-role virtual simulator

Len Granowetter, VT MÄK's VP of Products and Services, will present the latest in MÄK's line of simulation products.

Demonstrations in the VT MÄK Booth

Come meet our experts who develop the software and let them show you the latest updates:

VR-Engage

Multi-role virtual simulator.

Developed with the needs of System Integrators in mind, VR-Engage can be used out-of-the-box or customized and extended to meet specific program requirements.

Come experience the many roles you can play with VR-Engage:

- Dismounted Infantry Soldier
- Ground Vehicle Driver, Gunner, or Commander
- Fixed Wing or Helicopter Pilot
- Instructor - Using VR-Forces to make a robust and engaging simulation environment.

VR-Link, MÄK RTI, WebLVC, VR-Exchange, MÄK Data Logger

We worry about interoperability, so you don't have to!

Learn from our experts how our Link products can save you time and improve your networking performance.

- All important protocols, languages
- All the interoperability tools, including APIs, exec, gateway, logger
- Mature, capable, high performance
- Easier to use

Come see:

- AAR – entity/audio/video recording and playback
- Simplified WAN Configuration
- Latest in WebLVC web/mobile apps
- See interoperability in action in Operation Blended Warrior.

VR-Forces

Simulate rich and compelling scenarios!

A platform to simulate anything, all the infrastructure you need. We make it easy to add complex behavior to your simulation systems

Come see:

- Dynamic terrain
- Simulation of people in dense urban environments
- Even easier to generate scenarios
- Entities on their best behavior

VR-Vantage

Visualize beautiful visual scenes, informative visual content!

Professional features: Optimization, Multi-channel, CIGI

Come see:

- Stunning visual quality, all day and night
- Procedural urban environments from Open Street Maps
- High performance rendering
- All the configurability options



DI-Guy

Best in class human characters!

High performance characters integrated into your IG and CGF

Come see:

- How to put characters in your IG
- Fire Incident Management Demo
- ECO Sim Squad Demo
- Content – DI-Guy Character Viewer



Terrain

Terrain alternatives for modeling and simulation!

Use the terrain you have or try innovative streaming & procedural techniques

Come see:

- Brooklyn
- Hawaii
- Rhone Valley
- North Africa
- SW USA

Command & Staff Training

Enable commanders and their staff to practice planning and execution skills, test tactics, and validate plans.

Come see:

Thunder Run — Assist in evaluating two courses of action over a 12-minute exercise. Flee to safety or seize the initiative and occupy the objective.

Battle of Tehachapi Pass — Take control of the Blue forces and test your command strategies against an attack by the Red forces, utilizing more than 100 types of units in 2 hours of simulated time.

Demonstrations on the show floor

Barco, Booth 1563

Barco is presenting the all-new IOSONO CORE-VR, redefining the limits of reality with most precise 360° audio cueing for the simulation industry. MÄK provided the scenario generation tools to populate the environment and present a stream of DIS network traffic that Barco can interpret to be the source of the sounds in the environment. The demo will allow you a rich listening environment while simulating in first person with VR-Engage.

Digital Projection, Booth 2121

VT MÄK and Digital Projection pulled together technology partners to bring you a seamless multi-channel Image Generator.

MÄK provided the VR-Vantage IG software to render 60Hz scenes based on a scenario created with VR-Forces CGF and a flight path flown by VR-Engage. VR-Vantage uses Scalable Display Technologies' SDK to preform image distortion correction and edge blending.

Digital Projection provided E-Vision WUXGA LASER 6500 projectors to output crisp and bright images on to 7' radius, 4.4' tall, 180 degree cylindrical display provided by Draper.

The IG hardware is provided by RAVE Computer using their [RR-2785 Short Depth Quiet 2U Graphics Servers](#).

The graphics processors are provided by NVIDIA, featuring their new Pascal architecture GPUs with accompanying sync cards.

JRM Technologies, Booth 2021

Visit the sensor experts at JRM Technologies and ask to see SensorFX and RadarFX SAR server.

Operation Blended Warrior, Booth 349

OBW gives integrators a chance to participate in an extremely large-scale simulation. With so many federates, integrators and customers learn some of the challenges and find ways to overcome them together in a fantastic learning experience for LVC. Look for OBW signs all over the show floor. We'll be participating in each of the demos and many participants are connecting their simulations with VR-Exchange. Drop by our booth and we'll tell you how it all came about and what you can expect to see.

What's New on MÄK.com

You might have noticed a new style we're using to describe use cases on our website. We call it the "Tech-Savvy Style" because it started with our [Tech-Savvy Guide to Virtual Simulation](#). Take a look at some cases below with our new presentation method- we think you'll be able to see how your own projects share similarities!



[Mechanized Infantry Training](#)

[Close Air Support: JTAC Training](#)

[Light Armored Vehicle \(LAV\) Demonstrator](#)

MÄKer Spotlight: Team MÄK Takes on the 5K at I/ITSEC

MÄKers love to work in teams to achieve great things. This November, Team MÄK will take on the 5K run at I/ITSEC for the third straight year!

This year, we are expecting our team to include Pete Swan, Bob Holcomb, Jean Giglio, Deb Fullford, Danny Williams, Dan Brockway, and Iván Andrés Díaz López.

The I/ITSEC 5K “Run/Walk/Roll” starts bright and early- get there to pick up packets at 5:30 and the race begins at 6:45 am on Wednesday, November 30th! With the support of our entire company, Team MÄK will raise money for the Operation Give Back charity and the I/ITSEC STEM Initiative!



If you would like to [join us in making the world a better place](#), get an awesome MÄK shirt, and [take on the challenge with Team MÄK](#), contact our marketing team and we will help get you signed up!

We hope we've piqued your interest in getting to know the MÄK team! Stay tuned to our [blog](#) and [Twitter](#) to get the latest on MÄK happenings!