What's Up MÄK

AeroSimulators Chooses VT MÄK's Visualization and Simulation Products to Enhance Gimbal Imaging Systems Trainer

VR-Forces' and VR-Vantage's sensor image generation capabilities add increased simulation fidelity to GIST product line

MÄK is excited and honored to announce that AeroSimulators has chosen VR-Vantage and VR-Forces to enhance its Gimbal Imaging Systems Trainer (GIST) product line. AeroSimulators decided to use MÄK's products to provide their customers with the ability to create and modify complex scenarios, as well as to increase the fidelity of the GIST sensor image generation.

AeroSimulators uses the most recent release of MÄK's image generation visualization product, VR-Vantage IG 1.5, with new features including Camera FX, which provides affordable, non-physics based visualization of electro-optic (EO), night vision goggles (NVG), and infrared (IR) scenes. Based on JRM Technologies' sensor technologies, it models a sensor's blur, noise, and bloom. The VR-Vantage 1.5 release also includes streaming video, audio support, and tactical graphics visualization improvements.

"We evaluated various product offerings and decided that VR-Vantage and VR-Forces provided us with a cost-effective and compelling solution to complement our existing portfolio," said Neil Hughes, CEO of AeroSimulators USA.

AeroSimulators' GIST is a complete training system solution for operators on a wide range of imaging systems, as well as integrated moving map displays. GIST can be used for standalone tactical flight officer (TFO) training or integrated into a helicopter or fixed-wing flight simulator to provide full crew resource management training. The popularity of GIST amongst the Intelligence, Surveillance and Reconnaissance (ISR) community has been steadily growing and with it, an increased demand for higher fidelity scenarios. To learn more about AeroSimulators, please visit www.aerosimulators.com.

VR-Vantage IG is an image generation software solution that enables users to generate realistic 3D scenes of their simulation environment. VR-Vantage IG natively supports High Level Architecture (HLA) and Distributed Interactive Simulation (DIS) protocols; it can also generate scenes based directly on computer generated forces (CGF) and other entity traffic already published on the distributed simulation network. VR-Vantage applications support integration with MÄK's VR-Forces scenario generation tool, which provided AeroSimulators with a simple and intuitive mechanism for generating and running high fidelity scenarios.

"Both products include many features and effects that our customers have expressed interest in, and VR-Forces has proven to be an uncomplicated tool for creating distributed simulations. In short, the use of VT MÄK's suite of products has helped maximize the training effectiveness of our GIST product line." - Neil Hughes, CEO of AeroSimulators USA

INSIDE THIS ISSUE

MÄK's Tech Tip by Fred Wersan

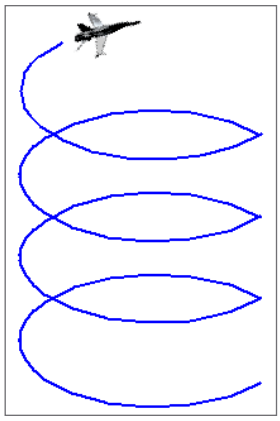
Choosing the Correct Flight Plan in VR-Forces

Fixed-wing aircraft in VR-Forces support the basic movement tasks, such as Move to Waypoint and Follow Route. They also have movement tasks specific to their platform. In particular, there are several ways to change altitude. Understanding the differences between these tasks can help you make the best use of them.

- If you tell a fixed-wing entity to Move to Altitude, it spirals to the new altitude and then loiters at that location (Figure 1).
- If you tell a fixed-wing entity to Fly Altitude, it rises or descends to the new altitude at its current heading at a specified climb rate (Figure 2). Fly Heading and Altitude lets you specify a change in heading while it changes altitude. In either case, when it reaches the new altitude, it continues to fly at the new altitude at the current heading.
- If you tell a fixed-wing entity to Move to Waypoint or Follow Route (routes are just a series of waypoints) and there is a change of altitude between the current location and the next waypoint, the entity immediately rises or descends to the altitude of the destination point and then flies to the destination (Figure 3). When it reaches the final destination, it loiters at that location.

There are a few more ins and outs to fixed-wing flight tasks and behaviors. You can get all the details in the Tasks chapter in VR-Forces Scenario Management Guide.

Figure 1



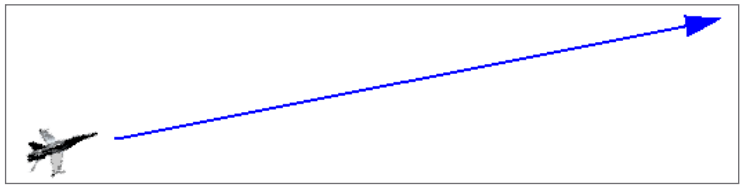


Figure 2

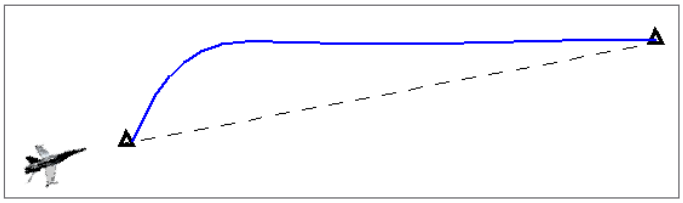


Figure 3

MÄK Webinars

What's New in VR-Forces 4.1

Wednesday, January 23, 2012; 9am EDT

Join Jim Kogler, Director of COTS Products, as he enumerates the many new aspects of VR-Forces 4.1. Available in early 2013, VR-Forces 4.1 will focus on better scenarios and increased usability; features will include scriptable tasks using LUA, large and streaming feature data sets, bombs, mortars, ballistic munitions model, force independent entity creation, more types of entities, MSDL laydown and support, and migration of 3.12 features including tactical graphics, tactical smoke, and hazard cloud displays.

Harnessing the Power of Lua: A Technical Tutorial

Wednesday, February 27, 2012; 9am EDT

VR-Forces 4.1 puts the power of Lua, the light-weight programming language, to work to help you script complex behaviors. Join Bob Holcomb, MÄK's Principal Engineer, New Technologies, and Lua scripting expert, to learn how you can put Lua to work for your simulation. This 90 minute tutorial will not only demonstate how to create scripts with Lua, but will also empower users to create great behaviors (including complex group behaviors).

Can't join us? Registrants receive a link to download the recorded webinar.

Want to join us? To register for the VR-Forces 4.1 webinar, click here. To register for the Lua Webinar, click here.

DIS and HLA Support for Unity Game Engine

VT MÄK is pleased to announce our support for Unity 3D through the VR-Link Asset for Unity, providing both DIS and HLA support for Unity. This asset will be available on the Unity Asset store for you to download and use in your projects. Based on VR-Link, our flagship product, we're using our 22 years of simulation experience to bring the best of the game engine world to the simulation world.

We're currently looking for beta testers to help us put the finishing touches on this package before its release in the next few weeks.

If you want your cutting-edge Unity based game to connect to DIS or HLA simulations, contact us at unity@mak.com or visit us at mak.com/vr-link-for-unity.

Hey. This could be you.

Okay, yeah - that's Bob and you can't be Bob. But you CAN apply to work at VT MÄK and become a MÄKer, just like Bob.

We're looking for that perfect fit. Check out our available software engineering and sales positions and let us know why you're the next great MÄKer.

MÄKer Spotlight: Bob Holcomb

Principal Engineer, New Technologies

Bob Holcomb truly is an international man of mystery (who likes to play jumbo sized games of chess - photo evidence to the left).

Even though records show he has been working at MÄK for the last 7 years, he's rarely seen in the Cambridge office. As a remote employee, he claims to keep the southern front in Virginia safe...a likely story.

Bob went to West Point where he studied software engineering, and has a Master's degree in Modeling and Simulation from Old Dominion University. In a previous life, Bob flew attack helicopters for the Army. When he finally decided to grow up, he joined MÄK and hasn't looked back since.

Bob started working in the engineering services division customizing MÄK products and helping the product team to add the occasional feature - it's important to note that he's worked on nearly every product MÄK has shipped. Bob spent the last 3 years as a member of the sales and marketing team as a solution architect where he developed higher level demos to show what's possible with MÄK products.

He has recently moved back to the engineering team to take the role of Principal Engineer on the Labs team, splitting his time between his two passions: integrating game engines with simulation technology and developing MÄK's turbo traffic product.

When he's not busy thinking about how to make the pixels look pretty or get bytes from here to there quickly, he's hanging out with his 3 kids, snowboarding, playing video games, or some mix of the three.

We hope we've piqued your interest in getting to know our MÄK team. Stay tuned to our website for the latest on MÄK!