

What's Up MÄK

MAY 2013: VOL 15: NO. 5

Full Steam Ahead: MÄK's Maritime Capabilities



MÄK is buoyant - we are successfully navigating turbulent seas to stay afloat in the current economic state. We are well underway toward more flexible, dynamic, and powerful products.

Let's take a look at VR-Vantage - we'll soon be releasing version 1.6, which adds a realistic and dynamic ocean layer. The marine model includes complex wave/sea state models, such as the Pierson-Moskowitz and JONSWAP sea spectrum, so you'll be able to visualize sea swells, wind waves, and capillary waves both above and below water. You'll also experience top-notch boat rocking models, realistic kelvin wakes, and propeller wash. If you want to hover over the water in your helicopter, you'll experience rotor wash; if you'd rather a view from the beach, watch the rolling surf and transparent water at shallow depths. Want more lighting effects? VR-Vantage 1.6 will add a new per pixel lighting model that allows you to add spotlights, streetlights, landing lights, and strobe lights to any model.

Don't forget to try our new HLA/DIS module for the Unity Game Engine, VR-Link for Unity - available now!

Enjoy a free download of our trial software, no license key required!

Our upcoming release of VR-Forces 4.2 includes all the new visual features mentioned above, in addition to a full set of Anti-Submarine Warfare (ASW) capabilities. Can't "hear" a submarine under the water because it's deep in a different thermocline? Use VR-Forces' helicopters to dip sonar or drop sonobuoys into deeper thermocline layers to figure out exactly where that sub is lurking. With our new torpedo models and depth charges, you'll benefit from more realistic weapon models in your simulation. But that's not all! In addition to these new ASW features, we've completely overhauled our surface and subsurface models to move more realistically. We're also improving subsurface and littoral navigation using S-57 (a standard for providing navigation data in vector format) coastline and bathymetry data.

MÄK is committed to providing everything you need to visualize a beautiful ocean from coast to coast. Let's make a splash together.

If you're interested in exploring our marine capabilities, let us know. We're looking for customers to help us craft our requirements. For more information, please contact info@mak.com.

Our upcoming maritime capabilities are just the tip of the iceberg. Check out our recent product updates on [page 3](#).

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MÄK's Tech Tip by Fred Wersan

NVG and IR Sensors in VR-Vantage and VR-Forces



figure 1

Kermit the Frog has long told us that it's not easy being green. But in VR-Forces 4.1.x and VR-Vantage 1.5, it is actually quite easy. Black and white too. The new sensors feature simulated night-vision-goggles (NVG) and infrared (IR) views in the 3D scene. Figure 1 shows a night raid on a warehouse in the NVG view. The controls on the Sensor Settings page let you quickly change blur (Figure 2), noise (Figure 3), and contrast and brightness (Figure 4).

Sensor settings are observer-specific, so you can create multiple sensor settings and attach them to different observers to quickly change the sensors you are using. So here's our little tip for the month – it is very easy to start editing a sensor without realizing that it is not the one you are looking at in the scene. The Sensor Settings page does not know which observer you are using. You don't realize your mistake until you change a setting and nothing changes in the sensor you are observing. So before you edit sensor settings, make sure that you select the sensor you want to edit from the Sensors list at the top of the Sensor Settings page.

The sensors provided with VR-Forces and VR-Vantage do not take into account the physical properties of objects and terrain. If you need physics-based sensors, we offer SensorFX, a plug-in to VR-Vantage 1.5, created in partnership with JRM Technologies. For details, please contact your MÄK salesperson or sales@mak.com.

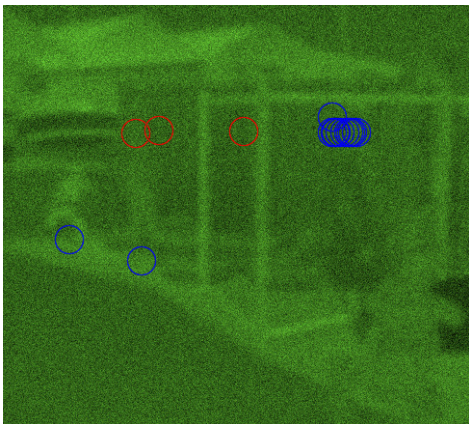


figure 2

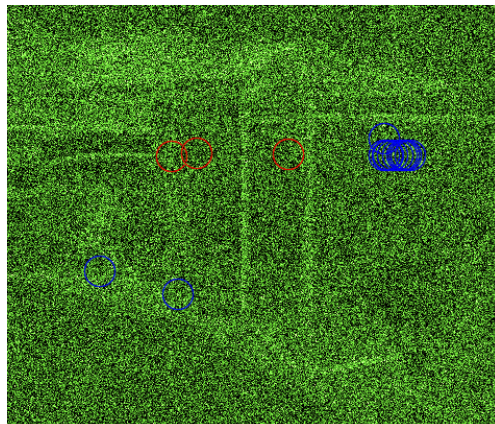


figure 3

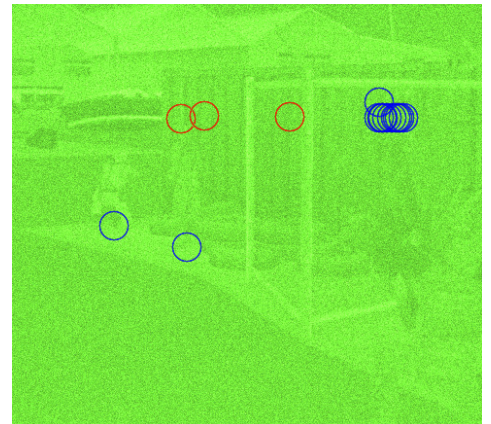


figure 4

MÄKer Spotlight: Marie Higgins

Benefits Specialist



This month the spotlight is shining on Marie Higgins - just in time for her 5 year anniversary with MÄK! As the Benefits Specialist here at MÄK, Marie wears quite a few different and important hats. Although her main responsibility is Benefits Administration, she also focuses on managing our office, as well as facilities and event planning. She knows how to throw a fantastic office party!

Before she was a MÄKer, Marie worked for a small consulting firm in Boston that specialized in management and business process improvements. She graduated from Salem State College with a degree in Business Administration. But Marie isn't all business – she used to play on a competitive doubles tennis team that traveled throughout the New England area!

She also has three extremely academic children: her daughter, Taylor, just finished Law School; her oldest son, Justin, is attending graduate school at Northeastern University; and her youngest son, Jeremy, is an Engineering major at University of Connecticut. Marie and her husband also enjoy travelling up to their vacation house in Maine every weekend to get away from the city and just "chillax." She also enjoys riding her bike, hiking around New England, cooking up some fun in the kitchen, gardening, and walking the beach with her dogs - a Chocolate Lab named Dixie, and a Yorkie named Winnie.

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

Product Updates

MÄK has wind in its sails!

Here are some of our most recent product releases:

VR-Forces 4.1.1: This is a maintenance release that adds several new features, including:

- Models - New models include ballistic missiles, a Lua exectool library, and absolute time stamping.
- Terrain - Terrain support includes TerraPage (TXP) Terrain Database support and Enhanced Compression Wavelet (ECW) imagery support.
- Ease of Use - New features include keyboard shortcuts, selection groups, zoom to extents, rotate icons to heading, and saved observer views.

For more information about the VR-Forces 4.1.1 release, check out the [specs](#) and [features](#).

VR-Exchange 2.2: This is a feature release that introduces new capabilities into MÄK's leading interoperability solution. Here are a few features we believe will help:

- Easier to Understand - We've added statistics reporting and individual object translation viewing to make VR-Exchange 2.2 easier to understand.
- Easier to Use - The advanced object search makes VR-Exchange easier to use.
- Easier to Extend - New features include source code for brokers and a plug-in architecture.

For more information about the VR-Exchange 2.2 release, check out the [specs](#) and [features](#).

MÄK Data Logger 5.2.1: This is a maintenance release that adds several new features, including a logger remote control application, a MySQL 5.2 connector, and support for new platforms (Red Hat Enterprise 6 – 64-bit and Microsoft Visual C++ 10 – 32-bit). For more information about the MÄK Data Logger 5.2.1 release, check out the [specs](#) and [features](#).

Sensor FX for VR-Vantage 1.5: SensorFX is a collaboration between VT MÄK and JRM Technologies that allows you to build an IG with VR-Vantage that has both out-the-window and physically accurate sensor scenes.

- SensorFX is a plug-in that converts VR-Vantage's image rendering from normal light as seen 'out-the-window' to wave length specific rendering as 'seen' by sensors. SensorFX simulates the most commonly used sensor modes and associated passbands (wave lengths).

If you're interested in upgrading or evaluating SensorFX for VR-Vantage 1.5, contact sales@mak.com.



MÄK is putting the web
to work for M&S!

With MÄK's **WebLVC Server** and **WebLVC Suite**, you can now make web federates interoperable.

ITEC 2013: MÄK is going to Rome!

If you liked what you saw on page 1, you'll love what you see at ITEC. Visit us at booth D120 to experience our new maritime features in VR-Vantage and VR-Forces firsthand.

We will also demonstrate how the **MÄK WebLVC Server** puts the web to work for M&S to create interoperable web applications. The Server, based on our VR-Exchange interoperability portal, implements the server side of the WebLVC protocol so your web-based federates can participate in a Live, Virtual, Constructive Simulation.

Innovation Showcase: Thursday, May 23 from 1700-1730

MÄK invites you to attend Jim Kogler's presentation "Bringing HTML 5 into M&S" at the Innovation Showcase. He'll explain the relationship between HTML and standard distributed Modeling & Simulation protocols, like HLA and DIS. After exploring the pros and cons of merging client server architectures with fully distributed architectures, Jim will provide an approach to bridge the divide - **WebLVC**.