

What's Up MÄK

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Seeing is Believing: Visualize Your Success with MÄK



Suspend disbelief so that your man-in-the-loop trainee can focus on the training objectives without distraction. Use accurate geographical conditions and appropriate spatial relationships to design how your systems will work in the real world. Test how your physics equation models wind over the surfaces of a helicopter.

Whether it's to train, plan, analyze, demonstrate, experiment, or prototype, you model different aspects of the environment to achieve fidelity where you need it most. Whatever your fidelity needs may be, MÄK's VR-Vantage can visualize your virtual world with our customizable, flexible, and extensible solutions.

But don't take our word for it.

RUAG Defence needed a rapid response to the French Army's request for a Crew Training Simulator (CTS). Combining their system-of-systems integration skills with MÄK's well known COTS products resulted in

the Simulateur de Tir d'Equipage et de Section (STES), which trains French troops for deployment at individual, crew, and platoon levels. VR-Vantage was integrated into the training simulator, ultimately improving the performance of their existing tactical visual database. These improvements included implementing dense vegetation and infrastructure, doubling the polygon count on the existing 3D moving objects, and adding new layers of texture while increasing resolution. The outcome was a training solution with greatly enhanced fidelity and realism. Want to read the whole story? [Check it out.](#)

When tasked with researching hazard perception among child pedestrians, the Human Factor Engineering Center at Ben Gurion University chose VR-Vantage to help construct a safe zone for experimentation. Streets, cars, trees, and other urban elements were designed uniquely for this virtual reality environment in a large dome; the dome displayed different scenarios to examine crossing behavior at various conditions. VR-Vantage IG, MÄK's visual rendering tool, operated the out-the-window view presented in the dome. The significance of this project stems from its engagement in a novel training methodology involving virtual reality capabilities. For more info on the experiment and how MÄK's VR-Vantage and other products helped make it possible, check out our [customer success story.](#)

MÄK's Visualization Story

Our visualization suite has evolved over the years and we now offer solutions to visualize your projects from every vantage point:

- **VR-Vantage PVD** provides a 2D view to increase awareness of the virtual battlefield. By overlaying HLA or DIS entities and info onto 2D views of operational maps, 3D terrain models, and virtual simulation databases, you gain new insight into the simulated battle.
- **VR-Vantage Stealth** is your information station where you can view the virtual world in 2D and 3D with configurable information overlays. Whether for situational awareness, simulation debugging, or after action review, VR-Vantage Stealth provides the most data about your networked virtual world and presents in a clear and accessible way.
- **VR-Vantage IG** is our configurable desktop image generator for out-the-window (OTW) scenes, camera views, or sensor channels. It's built-in distributed rendering architecture supports many display configurations, from simple desktop deployments to multi-channel displays for virtual cockpits and training systems.

MÄK can help you achieve your mission requirements and give your simulation just the right amount of fidelity. Visualize your success with MÄK.

Do you need to
see it to believe
it? Let's set up a
demo.

Contact us at info@mak.com

Visualize Your Success : 1

MÄK's Tech Tip by Fred –
Using Multiple Views in
VR-Vantage Stealth : 2

MÄKer Spotlight:
Petr Kyn : 2

MÄK's Tech Tip by Fred Wersan

Using Multiple Views in VR-Vantage Stealth

Sometimes you want to view more than one location in a simulation at the same time. In VR-Vantage Stealth you can use multiple views. In this tech tip we show you two ways to create multiple views.

The easiest way to have multiple views is to add new windows. Figures 1 illustrates multiple windows. The second window is smaller than the main window, but you can resize it to whatever size you want. Adding a new window is very simple. Choose File -> New Stealth Window. To change what you see in the window, click in it and use the usual methods for moving the observer.

In Figure 1 the main window shows a destroyer firing a shell in the Stealth observer mode. In the inset window, we track the entire simulation in Plan View observer mode.

Another way to have multiple views is to create additional channels. In Figure 2 we have created two channels. Again, one uses Stealth observer mode and the other Plan View observer mode. To set up the channels do the following:

1. Choose View -> Display Engine Configuration Panel.
2. In the Display Engine Configuration Panel add a second channel. (Please see VR-Vantage Configuration Guide for the lower level details about these steps.)
3. Select Channel 1 and change the Viewport Right value to 50% and commit the change.
4. Select Channel 2 and change Viewport Left to 50% and commit the change.
We now have two channels, but they show the same thing. We need a second observer.
5. In Channel 2, in the Observer Name field, select New and click Commit Changes. The Add Observer dialog box opens.
6. Give the observer a name. Now Channel 2 shows the default view of the terrain.

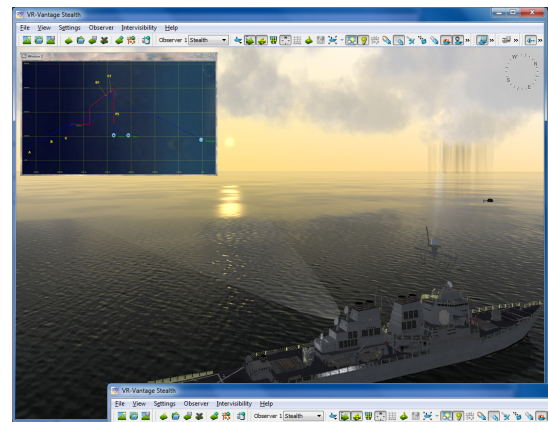


Figure 1

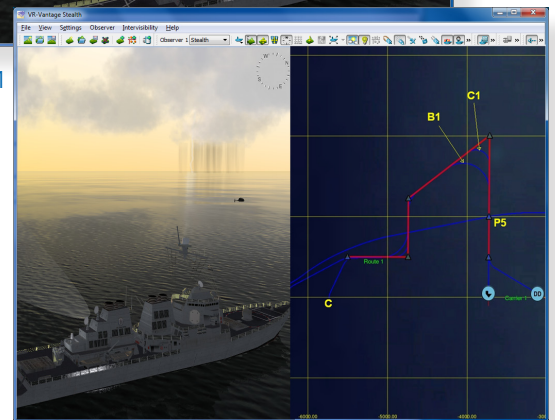


Figure 2

MÄKer Spotlight: Petr Kyn

Art Director



It's not easy being in the spotlight, but Petr Kyn paints a pretty picture! Petr is MÄK's very own Art Director. He is responsible for creating and managing all graphic content for each and every MÄK product. This includes rendering 3D models, many different types of terrains, our NEW product icons (which will be showing up very soon!), splashscreens, logos, and more!

During his time here at MÄK, Petr has also been a Graphics and Visualization Manager, as well as a 3D Artist. He brings extensive experience and dedication to the MÄK team. He was previously employed as a 3D Artist for Worlds.com, a QA Engineer on 3D Studio Max for a branch of Autodesk, and a Graphics and Technology Coordinator and 3D Artist for MusicPen. Believe it or not, Petr was even a Bike Messenger!

With a BFA in Painting from Boston University, it's easy to see how Petr can create such incredible works of art. He still enjoys oil painting in his spare time, as well as a bit of skateboarding and hacking around to create his own video games! He's also an avid foosball player in our company lunchroom - if you challenge him, be prepared for some fast and loud goal shots.

Our MÄK team is made up of extremely talented individuals! We hope you've enjoyed getting to know us. Check out our [website](http://www.mak.com) for the latest and greatest on MÄK!