What's Up MÄK

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The Sky's the Limit

Make your unmanned systems solution a (virtual) reality with MÄK

Why simulate? Because you can learn and gain insight into problems that are too difficult, expensive, or risky to explore any other way. In the case of unmanned vehicle systems (UVS), there has never been a better time to invest in simulation tools to help bring your UVS goals to life. Whether you want to demonstrate new vehicle concepts within a synthetic environment, prove and refine new Tactics, Techniques, and Procedures (TTPs), or provide a way for pilots, sensor/payload operators, and mission commanders to practice and analyze decision-making and communication processes, VT MÄK has the tools to make it happen.

MÄK is proud to help system integrators experiment and research entire UAS environments from the ground up - from ground control stations, to the unmanned vehicle, to sensors on the UAV, and to the human-in-the-loop. VR-Forces, MÄK's scenario generation software, models everything going on in the (virtual) world and provides an intuitive 2D/3D user interface to create dynamic, interactive scenarios for military and civilian applications. With VR-Forces, you can build scenarios to include both the sensor platforms and the target entities and their semi-automated interactions. Experience the view from your virtual unmanned vehicle by attaching simulated electro-optic (EO), infrared (IR), night vision (NVG) sensors to VR-Forces sensor platforms.

How can MÄK help solve your unmanned systems challenges? Contact info@mak.com to find out.

VR-Vantage, MÄK's visual simulation solution, streams and displays these sensor images from VR-Forces' sensor platforms into the receiving control station. VR-Vantage provides basic EO, IR, and NVG sensor models, including effects like blurring, gain, and noise; control these virtual sensors from the operational system just like you would any real sensor. For true physics-based sensor modeling, add the SensorFX module, which models the physics of light energy as it is emitted, reflected, and transmitted through the atmosphere and into a sensing device. Use MÄK's VR-Forces and VR-Vantage to rapidly produce realistic training, experimentation, and research environments or duplicate the sensor feed for any number of sensors.

MÄK is proud to have helped solve a number of unmanned systems challenges. From developing algorithms for autonomous UAV flight experiments in urban environments to testing network management software-in-the-loop for communications aspects of unmanned systems, MÄK's world-renowned simulation software has your needs covered.

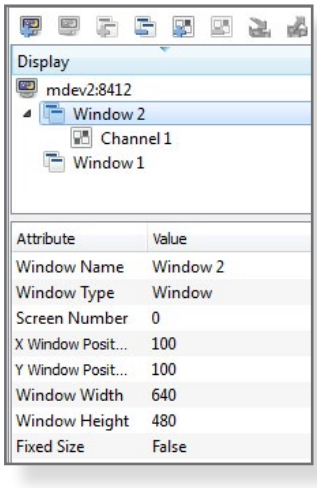
Learn how MÄK helped the Naval Air Warfare Center support unmanned systems and autonomy research at the Human-Computer Interaction Laboratory.

With MÄK, the sky's the limit. We're ready to take on your unmanned systems challenges and help you make them a (virtual) reality.

INSIDE THIS ISSUE

Tech Tip by Bob

Get the Most Out of Your Streaming Video by Optimizing the Rendering Configuration



When streaming video, the way you configure your rendering window can impact the encoding process and overall latency of the system. This configuration tip is to create a secondary window for each rendering stream that you want to create. Doing this allows you to set up the window size to match the video stream exactly and not rely on the stream resize/aspect ratio cropping options, which are much slower than generating the image at the right size to begin with. View the display engine configuration settings to set the window size in pixels and be sure to save your display configuration. Once you've got the secondary window configured, there's no need to render the channel in the main window anymore, so remove it and save some rendering time.

Want to know more about streaming video? Check out the MÄK blog to read Bob's other tips, including answers to common buffering questions and how to configure VLC applications to receive video streams with low latency – coming soon!

Free VR-Forces Training!

If you're a VR-Forces customer, MÄK invites you to take advantage of our free VR-Forces Training Course the week of October 21! Check out the MÄK Events Calendar to learn more.

Have questions? Contact your sales person or info@mak.com.

MÄKer Spotlight: Tanya Brio

Network Administrator

MÄK products are no doubt on the cutting edge of technology – we have extended that same tech savviness to our internal infrastructure as well. This is where our Network Administrator, Tanya Brio, shines; she helps design, organize, modify, install, and support MÄK's IT network on a daily basis. Even though MÄK is a relatively small company, we have an extensive mix of physical, virtual, and cloud-based systems. It's incredibly important that Tanya knows how to deal with just about any kind of hardware or software involved in these complex systems.

In her life pre-MÄK, Tanya was a self-employed Technology Consultant, as well as a computer consultant for Safety Net Solutions. Although Tanya's background is based in IT, she received her degree from Umass Boston in Biology. She credits all of her know-how to work experience and the Internet boom of the late 90's.

Tanya's a very active MÄKer! She enjoys being outside and recently taught her canine companion how to ride on a stand-up paddle board without falling off! She has completed a few unusual running events this summer including a doggy 5k and a race called the Sasquatch! (It's part of a Vert Race Series - check it out). She plans on competing in her next race, called Big Bad Wolf, in September. Tanya also hiked Mt. Washington with another MÄKer (don't worry, you'll learn all about her in next month's spotlight)! Originally from Russia, Tanya also enjoys kayaking, gardening and running.

We hope we've piqued your interest in our MÄK team! For more info, visit www.mak.com.