

April
2017

What's Up MAK

Humans Invade MAK!

We're being overrun by our own AI, and we need to take control back!

UAH Uses MAK's VR-Forces to re-create 73 Easting

MAK's modeling and simulation software enhances students' learning.

MAKtv and MAKradio

Bringing MAK to your eyes and ears, in all new ways.

NewsMAKers

Sign up for VR-Forces 4.5 Training, 101 & 102, Ivan checks in, and we take a look at the event schedule.



Humans Invade MAK!

It seems like every Sci-fi movie relies on the premise that humans develop Artificial Intelligence (AI) until the AI itself takes over the world.

Right now, it's a little bit like that at MAK.

Luckily for us, the AI and artificial human characters we develop seem to have good intentions, and aren't malicious.

The progress we've made with them over the past couple of years has enabled them to occupy our entire product line – they're everywhere you look! They started in the **DI-Guy SDK**, and have invaded **VR-Engage**, **VR-Forces**, and **VR-Vantage**.



Model improvements:

The humans running amok in MAK products aren't a bunch of generic characters that all look, move, and act alike. Instead, they're a diverse cast – chock full of new Di-Guy characters, with varieties of heads, clothing, and in-hand items. They're not all clones either, now they come in different body types, some thinner, some heavier set. Their animation blending algorithms create fluid motion that smoothly adjusts as characters change from one posture to another.



Better behavior and control:



Military units with better behavior and control are leading the charge, fast-roping into action out of helicopters and across our products. They are an effective force, with new controls and animations for fragmentation, smoke, and flash/bang grenades. Units are disembarking from boats, executing coordinated maneuvers and unique squad formations.

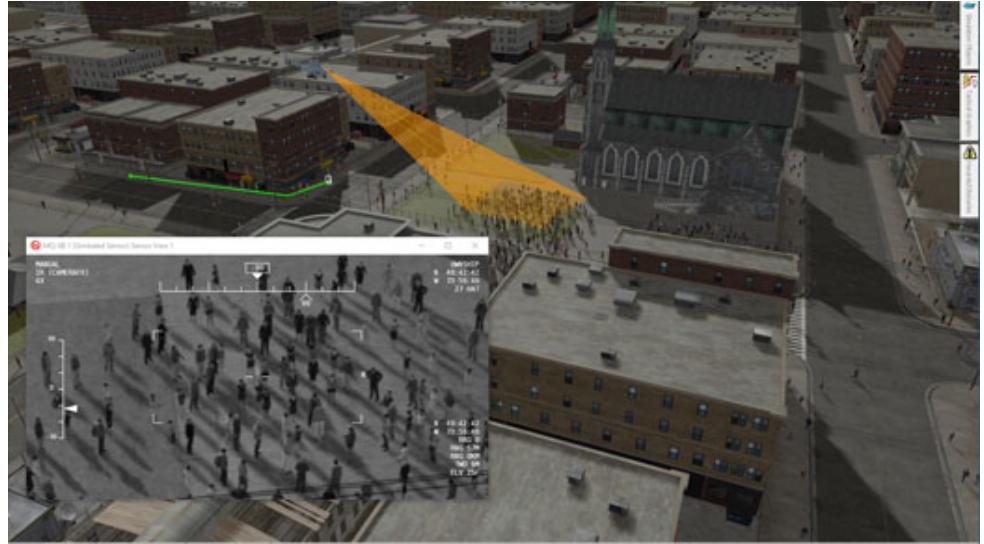
Our civilians are normally a quiet bunch, and tend to go about their normal patterns of life without much drama.

However, they have begun to respond to the chaos around them, and protests are breaking out. Large crowds have developed in urban areas, and dispersion tactics have been used by local police to make the wandering crowds flee, or at least stay behind the police lines.



Sensors:

We've been keeping an eye on this insurgency, both day and night. In low-light situations, our infrared sensors have been particularly helpful! New material classifications enable us to monitor our human characters with greater fidelity, including detecting differences between clothing and skin, and even see small differences between warm and cold skin. We've also been able to specifically identify active military units via active thermal regions, including hot spots on recently-used weapons.



What can we do?:

Every good sci-fi movie ends with a human hero wresting control away from the AI. Fortunately, this is also the case in our simulation! We'll be able to take back full control thanks to VR-Forces and its instructor/operator capabilities that can manipulate the Computer Generate Forces to restore order.



In certain situations when we humans want to take full control of an AI entity, VR-Engage lets us take over and control it. Once we hijack the character, we can interact with the rest of the AI characters directly – engage them in weapons fire, issue verbal commands, or commandeer vehicles. Once we've gotten the situation under control, we can pull away from the entity and restore its more normal pattern of life – once again – a happy ending!



Don't be afraid!

With DI-Guy SDK you can bring characters to life within your visual simulation. With VR-Vantage you can visualize the characters within any distributes simulation, and apply sensors. With VR-Forces you can create rich and compelling scenarios populated with hordes of

humans. With VR-Engage you can take back control of the AI and maneuver the characters yourself.

University of Alabama in Huntsville Uses VT MAK's VR-Forces to Recreate the Battle of 73 Easting

VT MAK's modeling and simulation software enhances students' learning of the Persian Gulf War battle

The University of Alabama in Huntsville (UAH) is using MAK's **VR-Forces** simulation software to recreate the Battle of 73 Easting, a major United States victory during the 1991 Persian Gulf War, enhancing its students' learning experience. With VR-Forces, graduate students at UAH have achieved increasingly accurate replication of the historical results.

The simulations are directed by Mikel D. Petty, Ph.D, Associate Professor of Computer Science and Senior Scientist for M&S, Information Technology and Systems Center at UAH.

"The Battle of 73 Easting is arguably the best-documented battle in U.S. history, which makes it a perfect application for both simulation analysis and historical study," said Dr. Petty.

"Then-Capt. H.R. McMaster's Eagle Troop of the Second Armored Cavalry Regiment aggressively engaged a much larger Iraqi armored force, destroying a large part of it in only twenty-three minutes. Simulation improves our ability to study the tactics of Eagle Troop

and the rest of the regiment from a historical perspective, and recreating historical events in simulation provides insight into the accuracy and capabilities of the simulation.”

VR-Forces is MAK’s complete simulation solution software. It is a powerful and flexible Computer Generated Forces platform that populates simulated synthetic environments with battlefield entities. Users can create scenarios full of custom, lifelike entities with specific behaviors, making it an ideal platform for training and education. The VR-Forces software also allows students to alter the parameters of the battle and compare simulation results with historical events. This year, under Dr. Petty’s guidance, his students will be investigating the change in outcome given a national scenario in which the Iraqi forces were able to use modern T-14 Russian Armata battle tanks in 1991.

“This is a great application of VR-Forces,” said Dan Schimmel, President and CEO of VT MÄK. “We’re thrilled to see a famous battle simulated and analyzed by Dr. Petty and his students at the University of Alabama in Huntsville.”

“MAK has been very accommodating in allowing my students to use VR-Forces for their academic projects,” said Dr. Petty. “The intuitive nature of their graphical user interface and the accuracy of their simulation results make VR-Forces an excellent technology to enhance learning for modeling and simulation students.”

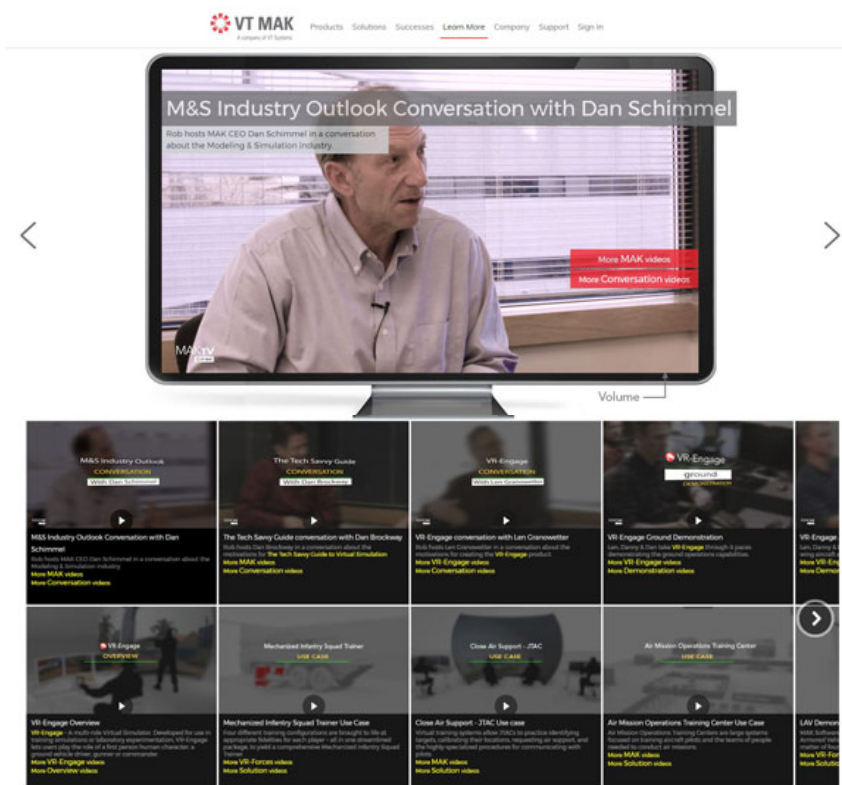
MAKtv and MAKradio have arrived!

Bringing the real people behind MAK to your eyes and ears

We’ve refreshed MAK.com this past month, and we’ve added some new features that we think you’re going to love!

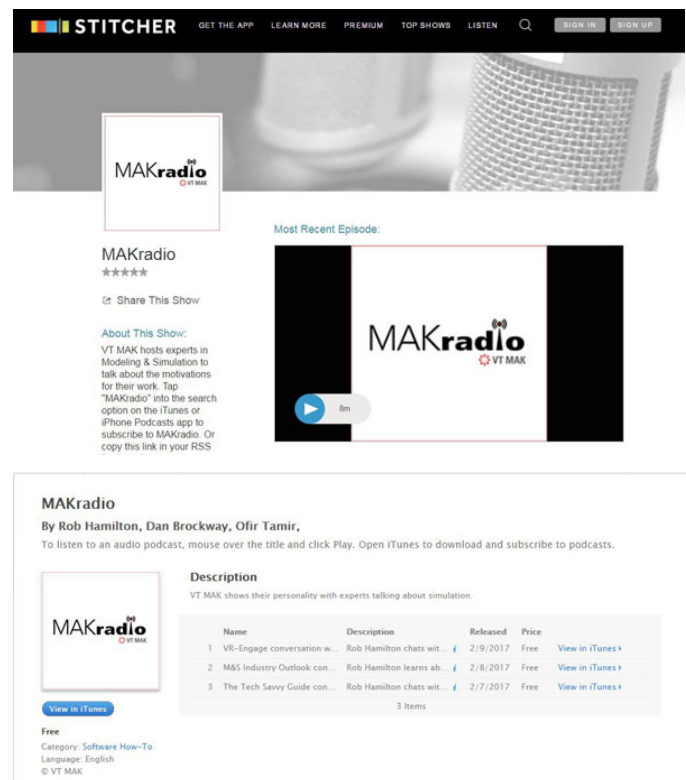
We’ve been learning a lot about how people use our site, and many of our visitors like to bounce between our products and learn about our product ecosystem before drilling down into the specifics of the product they need. We’ve also noticed that our videos seem to get quite a bit of attention, so we want to double down on our video experience to make getting information from MAK more digestible.

To satisfy both of these, we've created **MAKtv** - a new way to browse MAK videos. MAKtv is arranged to give you a better visual experience - a large video display framed in a monitor for easier viewing, while also providing a selection of videos related to the one you're watching. We've organized videos by product and type, so if you're watching a VR-Vantage video, you'll see others only one click away. You'll also see similar types of videos, so you can easily jump to product overviews, capabilities, or solutions.



We're introducing two new types as well – demonstrations and conversations. Demonstrations involve MAK people like Danny Williams talking about MAK products while using them. We think these are great for getting a deeper understanding. Conversation Videos involve MAK people like Rob Hamilton engaging with modeling and simulation experts about what drives their decision-making and their perspective on the industry in general – these are great for getting insight into how the industry is moving.

We don't want you to have to sit at a computer to get MAK content, and we're huge fans of podcasts, so we've decided to make our own! We recently launched **MAKradio**, and already there are three episodes in the channel - every time we create a new "conversation", the audio version is available instantly! You can subscribe to the podcast on **iTunes** or **Stitcher**.



Keep an eye out for a new episode coming out next week featuring Dan Brockway, Alex Broadbent, and Jim Kogler!

NewsMAKers

We've had two major product releases in the past month: [VR-Forces 4.5](#) and [VR-Vantage 2.2](#), both of which add significant improvements and capabilities.

We've launched a new training class that walks you through the new features and capabilities in VR-Forces 4.5 – [sign up here!](#) For those who missed the first set of VR-Forces 101 and 102 classes, [we have announced new dates for April](#). VR-Forces 101 provides the foundation you need to get started with VR-Forces and 102 helps students take the next step forward in their MAK journey.

[Check out Ivan's Report from the Military Knowledge Week at ESMIC](#), where we showed off the capabilities of VR-Engage!

We've updated our schedule with events that we will be attending in 2017. Be sure to [check out our events page](#) to see what shows we're attending, where to find us, and what we're showing!