

What's Up MÄK

JUNE 2014: VOL 16: NO. 6

What makes your CGF powerful?

Here are VT MÄK's top 5 ways to empower your simulation scenario



The size, complexity, and richness of your simulation scenario is typically a function of how much work it takes to set up and the computing power it takes to run at the desired fidelity.

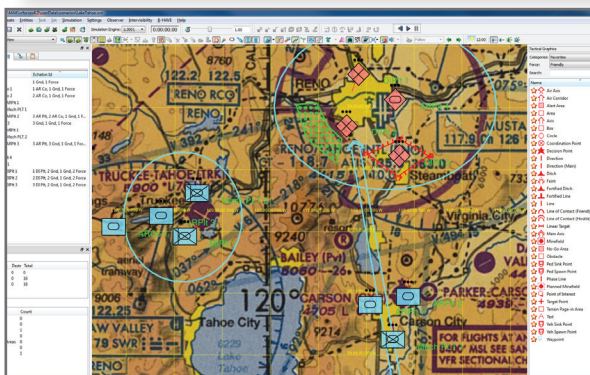
Here are MÄK's top 5 ways to empower your scenario with VR-Forces.

1. **Give your entities brains** - Scripting is great when you want to precisely define what individual entities are doing. (Read [this article](#) about differences between scripting and AI.) But in general, the more intelligence you can give an entity, the less scripting you have to do to define its role in the scenario. Use Lua scripting in VR-Forces to assign behaviors to entities and give them an additional layer of intelligence; this intelligence will provide behaviors that they'll use when they need to react to situations in the scenario.
2. **Let one entity do the thinking for many** - A simple example of this is embarkation. Imagine human character entities "embarking" in a vehicle; once inside the car, the humans can stop thinking about how to get around in the simulated world because the vehicle will do that for them. When the vehicle arrives at some destination, the human characters disembark and re-engage their brains to react to the circumstances at their destination.
3. **Give your entities the ability to deploy other entities** - Your simulation scenario may require a ship that is capable of deploying a helicopter. With VR-Forces, simply embed the helicopter in the ship; the ship's plan can include deploying these helicopters when needed. The helicopter won't exist in the simulation until the ship deploys it. Once deployed, the helicopter becomes a first class entity in the simulation with a plan of its own, to drop sonobuoys or launch missiles, etc. When the helicopter finishes its mission and returns to the ship, it becomes embedded again and no longer consumes simulation resources.
4. **Simplify your planning by giving orders to aggregates** - Another way to get a lot of work done with only a little bit of instruction is to aggregate entities. Give instructions to the aggregates and the instructions will be carried out by all the entities associated, allowing you to create large numbers of entities in a simulation quickly. With the placement of a few aggregates, each with a specific task, you'll have created dozens of individual entities that will carry out the tasks of those aggregates.
5. **Use aggregate-level simulation.** Numbers 1-4 are entity-level simulation tips; if you work more at the command staff level, use aggregate-level simulation. But that's a story for another day. (Unless you're curious now, in which case get in touch with us at info@mak.com.)

Do more with less by taking advantage of VR-Forces' productivity-enhancing capabilities. 🌸

5 tips not enough? Want to know all the ways VR-Forces can help you?

*Read the **capability doc**, online now!*



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DI-Guy 13 Sneak Peek

An even better DI-Guy is just around the corner.

Here are a few things to look forward to:

- **Fill large-scale simulations with thousands of characters** – DI-Guy's advanced instancing system provides a 2.5x speed increase for large crowds at low levels of detail. Fill up your large-scale scenarios with thousands of characters, instead of just hundreds!
- **Animate your characters with multi-directional movement** – Characters can blend multiple motions together and move in any direction at any speed, while aiming and shooting.
- **More character content** – Enjoy 30 new and updated characters, including opposing force appearances for different world regions and new children and civilian appearances.
- **Real-time Inverse Kinematics (IK) system** – This is a new system for keeping characters' legs and hands attached to the ground and other objects in real-time.

To learn more about the upcoming DI-Guy 13 release, email us at info@mak.com.



Tips & Techniques

Bank on Web & Mobile Technologies

How complicated is a banking system? It's complicated. But how about that mobile app that lets you take a picture of a check and deposit it on the spot? That's a great example of how web and mobile technology is making things easier for banking customers.

Web and mobile technology works in training environments, too. Imagine a mobile application designed to trigger scenarios to

create specific experiences needed for a lesson plan. An instructor with this in hand could monitor the student and tap the screen to choose experiences that match the skill level of the trainee. Want help exploring improvements to your training system? MÄK's leading the way with web & mobile applications. Drop us a line at info@mak.com to learn more. 🌟



This tip brought to you by
[@TheDanBrockway](https://twitter.com/TheDanBrockway)

MÄKer Spotlight: Danny Williams

Business Development Executive

Say hello to Danny Williams, one of MÄK's Business Development Executives! As a BD Exec, Danny works to educate new and existing customers on the benefits and capabilities of MÄK's products, as well as how our tools can help achieve their modeling, simulation, and training objectives.

For more than 13 years, Danny has been using MÄK products in previous job roles. Danny worked for BAE Systems as part of a modeling and simulation group focusing on Department of Defense programs, and he's also worked for Johns Hopkins University in the Applied Physics Lab. The Lab focused on a variety training and simulation programs for the US Navy. Prior to joining the MÄK team, Danny worked for a small company called IPKeys, where he helped develop a training simulation for the Joint IED Defeat Organization (JIEDDO).

Danny holds a B.S. in Speech Pathology and a minor in Special Education from James Madison University. He's currently working on obtaining his Master's Degree in Systems Engineering from Johns Hopkins University.

Danny spends most of his weekends driving a tractor around his 32 acre horse farm in Maryland. His wife Kelley rides horses and teaches riding lessons for a living. His family has 22 horses, 3 dogs and 3 cats. When Danny isn't scooping horse manure or mending fences, he enjoys coaching lacrosse for his sons, Jona (age 10) and Tate (age 7). In June, Danny will be celebrating 13 years of marriage to his high school sweetheart. Awww. We hope we've piqued your interest in our MÄK team! Stay tuned to all things MÄK at our [blog](#) and [Twitter](#)! 🌟

