

MAK ONE Applications

The Core Components Of Your Single Synthetic Environment

MAK ONE Applications are the core modeling and simulation components of your training and experimentation systems, and include VR-Forces, VR-Engage, and VR-Vantage. Used to create multi-domain and terrain agile synthetic environments for training, experimentation, mission rehearsal, research and development, and virtual prototyping, the MAK ONE Applications are a key part of the MAK ONE suite of software.



VR-Forces

THE MAK ONE MULTI-DOMAIN
COMPUTER GENERATED FORCES

Populate your synthetic environment with urban, battlefield, maritime, air and space activity with VR-Forces — from the ocean floor to near space. Simulate your entities, their relationships to one another, the dynamic terrains they live on, and the localized weather systems that affect the weapons, sensors and platforms.

KEY FEATURES ►

- Synchronized intelligent behaviors
- Complex task automation
- Patterns of Life and background clutter
- Powerful GUI for scenario creation and control
- Entity and aggregate-level simulation
- Multi-threaded architecture for simulation at scale
- Customizable through editors, APIs & plugins



VR-Engage

THE MAK ONE MULTI-DOMAIN
MULTI-ROLE VIRTUAL SIMULATOR

VR-Engage lets users play the role of a first-person human character; a vehicle driver, gunner or commander; a pilot of an airplane, helicopter or quadcopter; or a sensor operator. VR-Engage can be deployed as a trainee simulator, as a role player station, an instructor aid, a desktop simulation game, and even as an immersive VR/MR headset experience. Built on MAK ONE, VR-Engage uses the same simulation, rendering, and terrain representations as VR-Forces and VR-Vantage providing a multitude of first-person roles within a Single Synthetic Environment.

KEY FEATURES ►

- Participate in a VR-Forces scenario
- Take control of a VR-Forces entity
- High-fidelity ownership models
- Stand-alone and cooperative play
- Voice comms & environmental audio
- Customizable dynamic instruments and sensors





VR-Vantage

MAK ONE IMAGE GENERATION
& BATTLEFIELD VISUALIZATION

Immersive Visual and Sensor Image Generation

VR-Vantage is MAK's configurable desktop Image Generator (IG) for out-the-window (OTW) scenes, camera views, and sensor channels. Its built-in distributed rendering

architecture supports many different display configurations — from simple desktop deployments to multichannel displays for virtual cockpits, monitor based training systems, even head mounted displays for VR/MR.



RFView® for MAK ONE

SYNTHETIC APERTURE RADAR

RFView® for MAK ONE is a new MAK ONE product that brings physics-based Synthetic Aperture Radar (SAR) simulation into the MAK ONE synthetic environment. Jointly developed with Information Systems Laboratories (ISL), RFView for MAK ONE combines ISL's decades of expertise in radar simulation with MAK's multi-domain, terrain-agile synthetic environments—delivering fully correlated SAR imagery that integrates seamlessly with EO/IR sensor and out-the-window views.



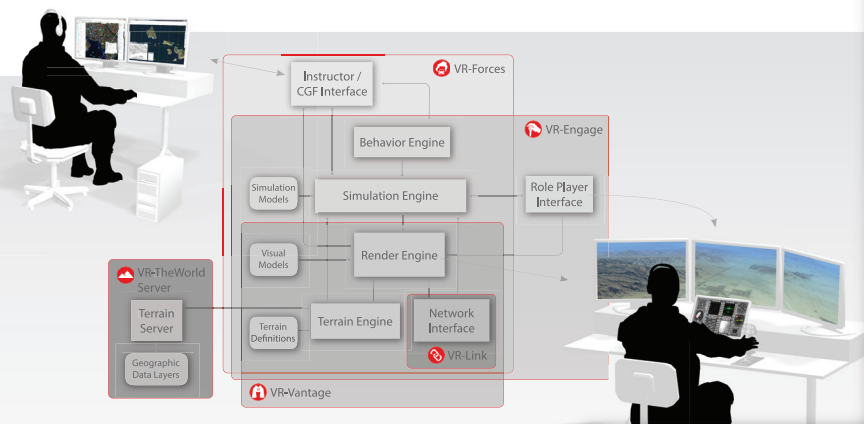
RFView® is a registered trademark of ISL Inc.



MAK ONE TECHNOLOGY STACK

One of the most important characteristics of the entire MAK ONE architecture, is that all the engines, interfaces, and toolkits are designed and built with open APIs enabling customization and extension.

Watch the illustrated tech clip! ▶



Focused on Information

VR-Vantage visually presents a wide variety of information about your synthetic environment. You can simultaneously view the virtual world in 2D and 3D, with configurable information overlays presented in both displays.

KEY FEATURES

- Out-the-window displays
- Effect-based sensor modes
- Multi-channel displays
- VR/XR headsets
- Situational awareness
- Battlefield Information



SensorFX

PHYSICALLY-ACCURATE SENSORS

SensorFX is a plug-in module for VR-Vantage built by sensor technology and visualization experts. SensorFX models the physics of light energy as it is reflected and emitted from surfaces in the scene and as it is transmitted through the atmosphere and into a sensing device. SensorFX also models the collection and processing properties of the sensing device to render an accurate electro-optical (EO), night vision (NVG), or infrared (IR) scene.

