Scenario Editor

MVRsimulation Scenario Editor enables you to create and edit real-time 3D scenarios within a game-level editor type interface to play back in Virtual Reality Scene Generator™ (VRSG™).

Overview

This application, which is installed with VRSG, extends the drag-and-drop capabilities of adding culture and moving models directly to your 3D terrain. Scenario Editor provides a graphical interface with tools and content libraries with which you can build dense 3D scenes with realistic visual characteristics and pattern-of-life scenarios.

Experienced VRSG users and novices alike can work in a flexible manner to populate virtual worlds with 3D content and scripted movements of vehicles and characters to create and share tactical training scenarios.

The 3D terrain that you work with in Scenario Editor is the same 3D terrain you visualize in VRSG, and the scenarios you create can be run in both Scenario Editor and VRSG. The tool supports MVRsimulation's VRSG round-earth format.

Scenario Editor works as a complement to MVRsimulation's Terrain Tools for Esri® ArcGIS®, which enables you to build 3D terrain from imagery, elevation, and shapefile data sources.


Key features

• Easy graphical user interface enables quick ramp-up time for new users.

• Create a project in one step, using the 3D globe that shows geographic areas of terrain tile directories.

• Place and edit static culture on the 3D terrain, in a WYSIWYG manner. Changes are updated in the 3D scene in real time.

• Navigate with a mouse or 6-DOF controller with panning, zooming, and orbiting.

• Choose 3D content from feature palettes with search capability and gallery views.

• Set predefined viewing locations (viewpoints).

• Generate scenario files to play back in VRSG.

Static culture

• Use models from MVRsimulation's 3D content libraries or your own converted from FBX or FLT format to MVRsimulation's model format.

• Use tools to refine model placement on the terrain: rotate, orient, scale, set elevation, and ground clamp.

• Multi-select culture models as a temporary group, for moving, duplicating, scaling, or deletion. Duplicate model instances to quickly build up dense areas, such as city blocks or forests.

• Control model appearance, including standard DIS states, such as damage, headlights, and hatches, and model-specific states such as optional armaments and munitions.

Behavior entities

• Assign DIS enumerations.

• Create a scripted path of movement for vehicles and characters with waypoints, speed, and duration.

• Animate characters with MVRsimulation's extensuive set of animations of common movements, or use your own BVH.

• Assign weapons to characters, and characters to vehicles (such as drivers, passengers, and gunners).
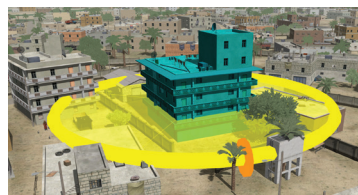
Left:Scenario Editor workspace and the same scene rendered in VRSG. Above: A few of the tools for working with 3D content. All images on this page display elements of a scenario on MVRsimulation's Afghanistan 3D terrain.
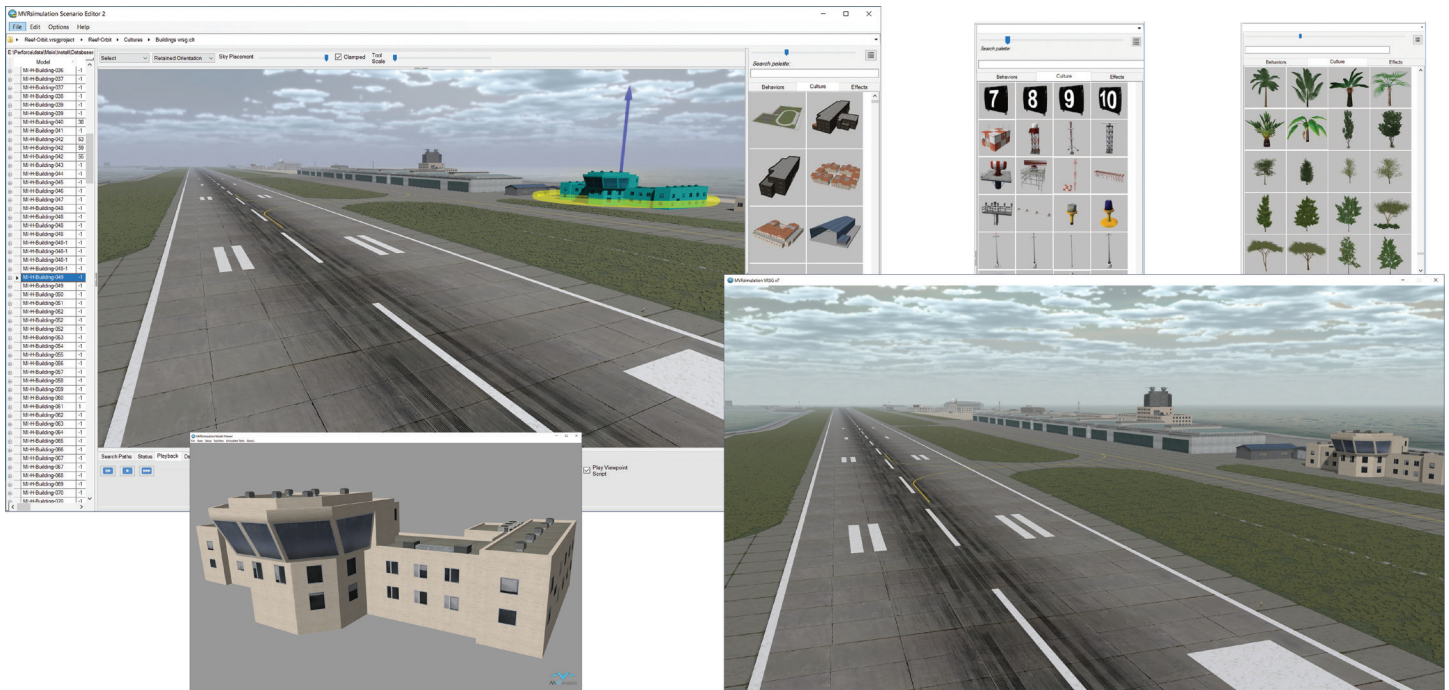
The airfield area of MVRsimulation's modeled Mischief Reef, Spratly Islands, South China Sea, rendered in both Scenario Editor (top left) and VRSG (bottom right). The small insets feature a few of the tools for working with 3D content: culture palettes of airfield and vegetation models, and a Model Viewer close-up of one of the building models used in the scene.
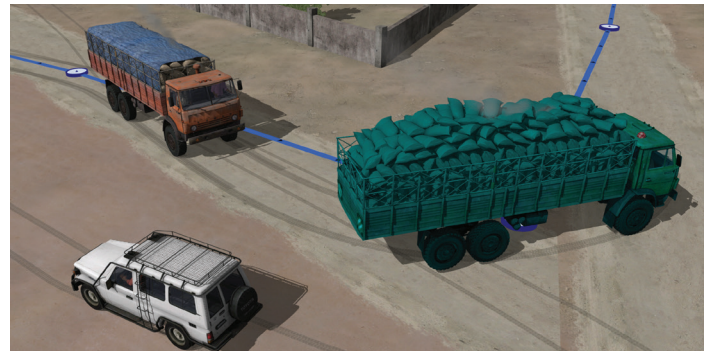
Scenarios

- Use the timeline editor to sequence behavior entity movements and animations, events, effects, and camera views.

- Add explosions, smoke plumes, vehicle tracks, and other effects.

- Set sensor views, 3D oceans, and environmental characteristics.

- Control the camera view by adding viewpoints to the timeline and setting their duration.

- Export cultural feature (CLT) files for use in BSI's MACE for transformation into DIS entities.

- Use playback controls to play, fast-forward, rewind, pause, and stop.

Many aspects of Scenario Editor are familiar from VRSG, such as viewpoints, adding static cultural and dynamic models, effects, appearances, cultural feature files, sensore view, and manipulating characters with weapons and animations.

Scenario Editor shares the same graphics engine as VRSG, so correlated terrain and models, environment settings and effects match how they look in VRSG. This means you can work with accuracy and precision when placing and refining your static content and scripting the movements of vehicles and characters in environments such as dense urban scenes, airfields, and forward operating bases.

Changes you make in Scenario Editor can be put to immediate use in the VRSG simulated training environment. You can update

Adjusting a vehicle's waypoints to avoid a collision in pattern-of-life traffic.

culture on training areas of interest on terrain that is shared across shared multiple scenarios or for just a specific scenario.

When you run a scenario in VRSG, the static culture content (such as buildings and trees) and recorded DIS entities are visualized. In Scenario Editor you can export a scenario's cultural feature file, environment settings, and a PDU log of the activities of dynamic entities. You launch the scenario in VRSG from the Scenarios tab on the VRSG Dashboard or from the Windows command line.

VRSG is delivered with sample scenarios that were built in Scenario Editor. You can play, examine, and modify these scenarios to become familiar with using Scenario Editor.

For more information, visit www.mvrsimulation.com or contact sales@mvrsimulation.com.