scenario control system

SimVista

SimVista™, RTI's tile-based scene and scenario authoring system, offers you the tools you need to create comprehensive simulation scenarios. The SimVista GUI allows you to drag and drop objects into your virtual world and bring them to life by scripting their behaviors. SimVista's exposed software architecture allows you to control nearly every aspect of the simulation at run time. SimVista's open database format also allows you to import and configure your own visual and roadway models.

SimVista comes with palettes of objects that can be placed in the scene you devise. The palettes include sensors, objects, vehicles, people, buildings and more. These same items can be created in a third party 3D modeling packages, exported to either OpenFlight or VRML, and then imported into SimVista.

Seamless Driving Environment

Our scenario control system includes tiles that can be arranged within a virtual world to make a seamless driving environment.

You are free to create environments from scratch or to import your own geo-specific tiles from data sources such as terrain models and GIS data sets. Models are run through an importation process that converts visual model data into information the SimVista system can use and manipulate.

Each tile is loaded into the SimVista graphical editing tool. Next, a series of control objects are placed into the visual geometry that define roads, intersections, lanes, and intersection control logic.

With the SimVista system you have a clear path to create and modify your own geo-typical and geo-specific driving environments.

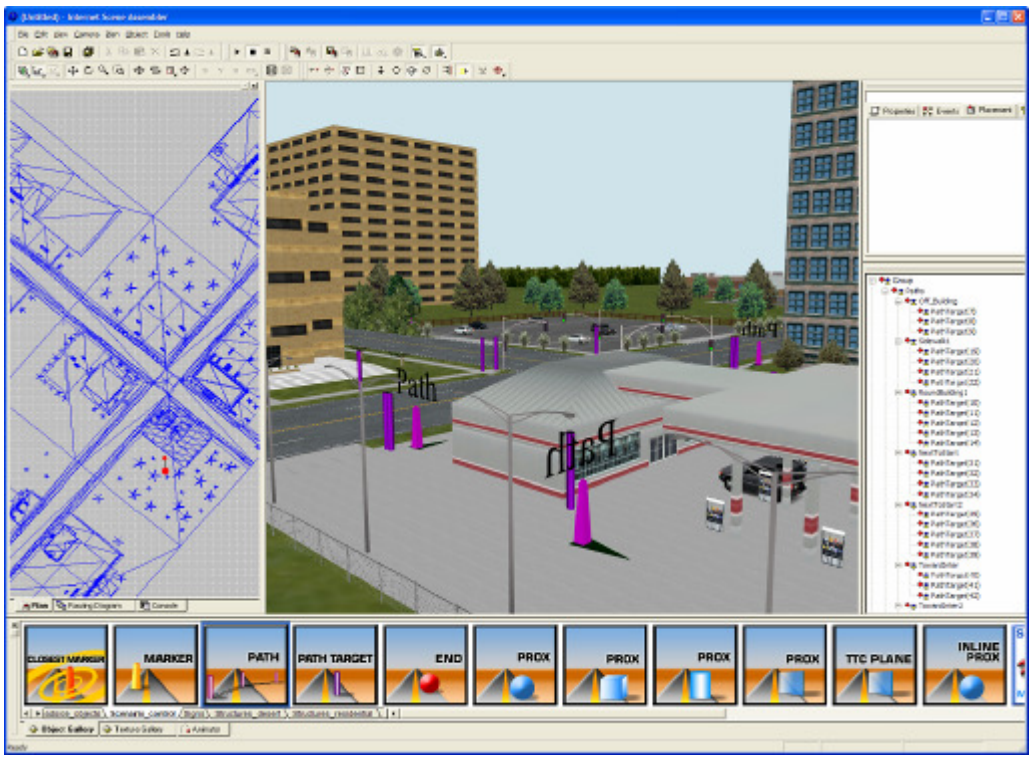
Scenario Control Palette

The heart of the SimVista system is a scenario object set that gives you access to sensors and control objects that define entity movement and behavior. The sensor types supported in driving scenarios include:

- Time
- Time to collision
- Proximity
  - Spherical geometry
  - Cylindrical geometry
  - Rectangular geometry
  - Planar geometry

Each sensor added to the scene can have a JavaScript-based script file attached to it. Within the script file, functions are defined that will be called according to the interaction between the sensor and the driver or scenario entity. Different actions are initiated based on how the sensor is being stimulated.

In addition to sensors, a path object allows you to define an off-roadway path for vehicles, characters or objects to follow at your command. Markers allow you to position objects in the scene without knowledge of a simulator coordinate system.



Adding scenario control objects to a scene.

SimVista™

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Fully Animated Character Models

SimVista offers a set of Cal3D-based character models that allow you to easily create people-model behaviors within your simulation. Military and civilian model sets are available.

Each character can be programmed to perform various actions. Military characters, for example, can be given accessories such as weapons and armor, and can be made to perform animations of behaviors such as waving or firing.

Military character set.

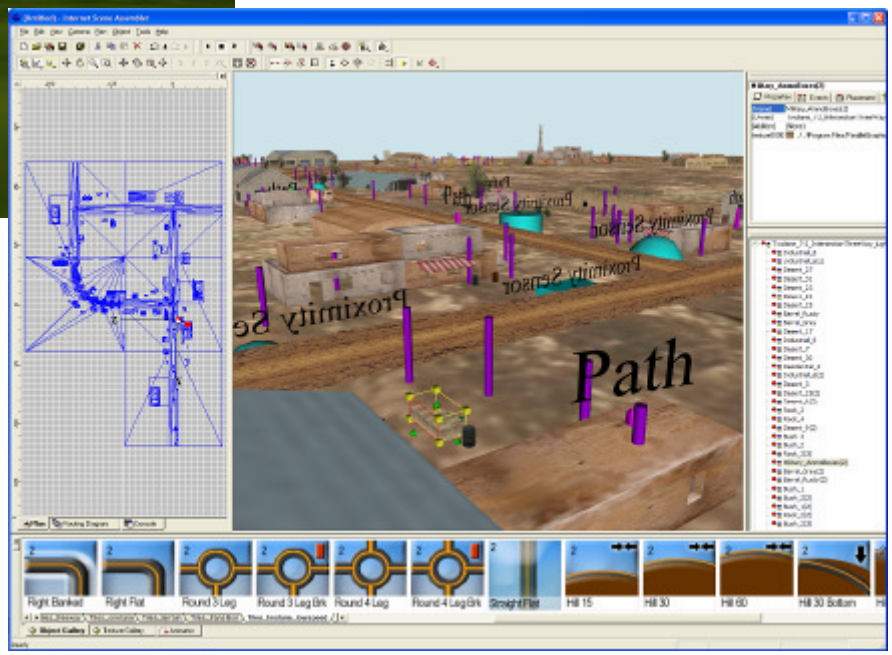
As you command a character to move, it will chose the appropriate animation. The commands to control actors are built into the scripting system so they can be controlled in the same manner as scenario vehicles and environmental controls.

Other objects can be dragged off a palette to enhance the visual complexity of the scene. These include buildings, trees, parked vehicles, terrain features, signs, and construction barriers among many others.

features

- High level scenario generation system
- Tile-based scene authoring
- JavaScript-based scenario scripting
- Flexible sensor suite supporting interactive scenarios
- Detailed scenario, vehicle, traffic control
- Fully-animated character models
- Roadway definition / correlated data tools
- Open system configuration offering external model imports
- Comprehensive list of included objects

Adding correlated data objects to a tile



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Realtime technologies, inc
simulation vehicle dynamics human factors

Realtime Technologies, Inc. (RTI), specializes in real time multibody vehicle dynamics, and graphical simulation and modeling. We offer simulation software applications, consulting services, custom engineering, software, and hardware development. Realtime Technologies' customer base includes international, government and private entities. RTI was founded in 1998. For more information, visit us at www.simcreator.com.

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