




3D Simulation & Modelling Technology

FORUM8 is at the forefront of interactive and web based real-time 3D simulation & modelling technology. Its products are produced to the highest specification, meeting all modern international standards of ease of use and functionality. This profile details more about the firm's work and provides an overview of some of the services they offer.

 VR-Design Studio (formerly VR-Design Studio) is the company's premier software solution for many interactive 3D virtual reality transport and urban simulation applications. Users benefit from the availability of many software plug-ins that add value to a growing number of 3rd party products. In addition, there is a software development kit (SDK) and an interactive Cloud interface (VR-Cloud).

The VR-Design Studio (formerly UC-win/Road) development philosophy has two parallel objectives. The first is to enable the user to simulate the real world as accurately as technically possible. This includes being able to reproduce and control every conceivable environmental effect from rain, snow, wind, shadows, lighting etc., including time of day and geographic location.

The second is to provide the user with a range of software plug-ins that provide added value to third party industry standard engineering, modelling and simulation software products and other data sources such as laser scanning, Lidar and photo-logs.

VR-Design Studio
VR-Design Studio is state-of-the-art Interactive 3D real-time transport simulation and urban modelling software. Users can manipulate dynamic 3D space,

import and edit CAD data, build and texture models, automatically build roads, tunnels & bridges, view multiple design alternatives in real-time, both offline and online, as well as being able to visualise and edit intelligent traffic in ways previously not possible. It is an ideal solution for urban, traffic and pedestrian planning and stakeholder consultation.

VR-Design Studio's functionality includes:

- Scenario production and Way-point setting;
- Large database of VR models available buildings, vehicles, people, street furniture;
- Import Point Cloud and photo-log data seamlessly;
- Realistic driving conditions including off-road driving;
- Change and control weather effects, time of day, smoke / fire particle & geo location;
- Earthquake and flood / tsunami simulation & analysis and;
- Realistic pedestrian movement individually or in crowds.

Drive Simulators

The FORUM8 Drive Simulators benefit from the comprehensive 3D visual and interactive attributes of VR-Design Studio. The software allows users to create driving scenarios and re-create them with complete control of all environmental conditions, as well as being able to set individual vehicle dynamics

from either within VR-Design Studio or in collaboration with such third-party products such as CarSim or TruckSim.

FORUM8 Drive Simulators are used widely for human factors research, vehicle development and research, driver training and many other aspects of road safety research and training. Driving Simulators range from basic desk-top units (VR-Drive), to multi-million-dollar hexapod systems, with up to 8 degrees of freedom. In addition, FORUM8 can supply other hardware simulators including both for both rail and ship simulations.

Road Safety Research

- Human factors;
- Advanced vehicle safety systems;
- Cognitive response;
- Physical impairment and;
- Distracted driving.

Training

- Advanced professional driver courses;
- Basic teen driver programmes and;
- Heavy vehicle driving.

Interactive 3D VR Environments

- Build / use hypothetical road networks;
- Use real 3D streetscapes & city models;
- Develop multiple driving events / scenarios;
- Total control of all-weather options and;

- Monitor and report on driving results.

Vehicle Dynamics

- Build / use hypothetical road networks;
- Set basic vehicle dynamics and;
- Import data from specialist software (CarSim and TruckSim).

VR-Drive... The Benefits

- Market leading Interactive 3D VR simulation & modelling real-time software;
- Excellent value for money;
- The Scenario editor means you can customise the system easily;
- A free database of over 4000 3D models;
- An existing 3D environment with built in events / scenarios;
- Over 13,000 existing licences worldwide and;
- On-going software development.

Evacuation

VR-Design Studio is an ideal system to visualise in photo-realistic 3D evacuation simulations of large numbers of people from a variety of enclosed environments such as buildings and tunnels. Indeed, VR-Design Studio can visualise pedestrian movement based on sophisticated dynamics in a wide variety of emergency and disaster evacuation situations. Fire and smoke can also be visualised realistically.



Security planning

VR-Design Studio is an ideal environment in which to build real-time incident scenarios, using photo-realistic 3D city models and a wide range of interactive pedestrian avatars and vehicles. In addition, live CCTV images can be embedded into 3D streetscapes and campus models thereby enabling security personnel to monitor and locate individual incidents of note within the context of what could potentially be a large target area. Instead of seeing an incident within one computer screen

they see the incident within the context of the whole 3D neighbourhood or campus.

G'Val

G'Val is an interactive training system for highway and tunnel operators, utilising the power of VR-Design Studio. The objective of this training simulator is to provide operators of roads & tunnels with a virtual reality tool that behaves just like their real working environment, using realistic information, both in terms of technical data and traffic images.

The platform's integrated software simulates the behaviour of a range of different components (equipment, people, traffic ...) within a network and / or road system, with respect to not only the visual, but also the technical and communication aspects.

Connected to the SCADA system through an OPC link, the simulator is a training tool for use by the supervision (HMI) and other operational support personnel. It is also a tool for generating awareness of the

minimal conditions required for system operation and the correct application of the rules of operation.

Company: FORUM8
 Name: Brendan Hafferty
 Email: office@forum8.com
 Web Address: www.forum8.com
 Address:
 The Leadenhall Building
 Level 30, 122 Leadenhall Street
 London, EC3V 4AB UK
 Telephone: +44 (0)203 753 5391