



...formerly UC-win/Road

Introduction

VR-Design Studio is the ideal solution for many interactive 3D simulation & visualization applications, including: urban / transport planning & design, emergency & security planning, consensus building, road safety and autonomous driving research. It is used either on its own or to add value to third-party design & analysis, micro-simulation modelling software, as well as engineering, flood modelling and point cloud data. An SDK enables customisation to meet specific client requirements.

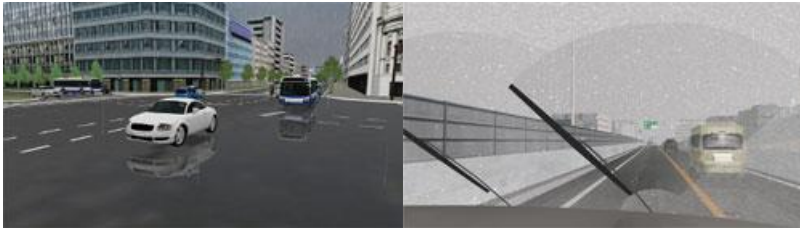
Driving Simulation



Driving Simulation Development Plans

Our first development objective is to enable the simulation of the real world as accurately as technically possible. This includes being able to reproduce and control every conceivable environmental effect including time of day, geographic location, shadows, street lighting, car headlights, puddles, rain, snow etc...

- Road traffic can be set and controlled including vehicle speed, volume and direction, a scenario editor enables an infinite number of what-if events
- The sound of the engine, horn, tires (on different road surfaces), tunnel wind and vehicle crashes can all be simulated
- Various types of traffic flow can also be simulated and visualized as well as environmental sounds, such as rain, wind, thunder & lightening



The second aim of the FORUM8 development team is to enable VR-Design Studio to add value, via plug-ins, to 3rd party industry standard software like CarSim and TruckSim - as well as to many other data sources. The result is that VR-Design Studio can now import data from a wide range of engineering software products, as well as from terrestrial and air-borne laser scanners, flood and tsunami modelling software and micro-simulation traffic and pedestrian systems.



VR-Design Studio Driving Simulation Summary

Enables Transport Research

- Human Factors / Cognitive Responses & HILS
- Advanced Vehicle Safety Systems & ITS Developments
- Physical Impairment & Distracted Driving

Facilitates Driver Training

- Advanced Professional Driving Courses
- Teen Driver Programs in all weathers
- Bus & Heavy Vehicle Driving

Interactive 3D VR Environments

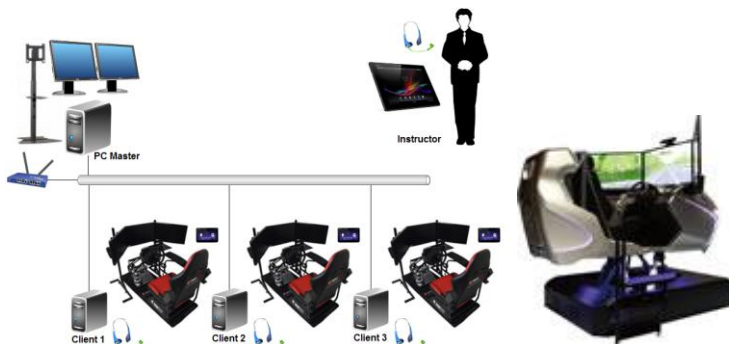
- Build / use Hypothetical or Real road networks
- Develop Multiple driving scenarios / events
- Total control of all Environmental factors
- Monitor and Report on driving results

Vehicle Dynamics

- Control in-car Vehicle Dynamics
- Import data from specialist software (CarSim and TruckSim)

Driving Simulation Customisation

- Eye Tracking, Digital dashboard, HILS
- Bicycle Sim, Rail Sim, 6DOF hexapod systems
- Multiple Driver Training with Cluster system



Driving Simulation Features & Plug-ins

- Highly Realistic Driving Simulation including 'off road' driving



- Optional Pre-built Driver Training Environment & Scenarios
- User-friendly Scenario Designer & Wheel Noise Simulation
- Vehicle Dynamics, including CarSim Math Model plug-in
- Vehicle to Vehicle & Vehicle to Infrastructure communications
- Autonomous & Connected Vehicle simulation & research
- Eye Tracking system – calculation of screen coordinates possible
- Eco-Drive / Carbon Footprint calculations & Force Feedback
- Driver Diagnosis and Data Log-Export plug-ins
- Replay & Web Communication plug-ins
- Weather effects, time of day, smoke / fire particle & geo-location
- Seamlessly Import Point Cloud data, Road networks & Photo-logs
- Database of over 4000 3D models of street furniture etc...
- Software Development Kit (SDK) & scenario development software

More details of software features and plug-ins here: www.forum8.com

FORUM8 the Company

Established in 1987 the company's HQ is in Tokyo, with five other development and support facilities in Japan as well as a Super Computer Cloud Research Laboratory in Kobe. Overseas office in: Shanghai & Qingdao (China), Taipei (Taiwan), Hanoi (Vietnam), Seoul (Korea), Sydney (Australia), Saskatoon (Canada) & London with remote facilities in San Francisco & Paris. Forum8 also benefits from a network of Partners worldwide.

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