FORUM 8
3D Visual Interactive Simulation Specialists
VR-design Studio™

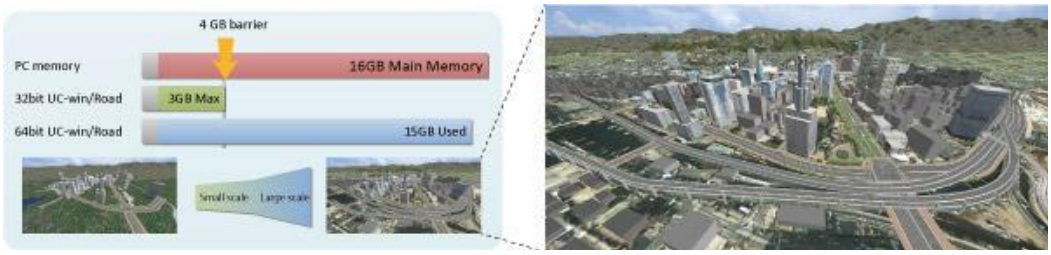
…aka UC-win/Road

Advanced Driving Simulation

VR-Design Studio software simulates the real world in highly accurate interactive 3D VR and provides added value to other industry standard transport, engineering, micro-simulation and visualization software. With its advanced semi-automatic road network production capability, coupled with its comprehensive simulation functionality, VR-Design Studio is the ideal engine for a wide range of Driver Training, Road Safety, ADAS & Autonomous Driving R&D.

64 Bit Support

- Now no limit on memory size with a concomitant increase in speed and model size
- Maximum terrain size expanded to several hundred square km



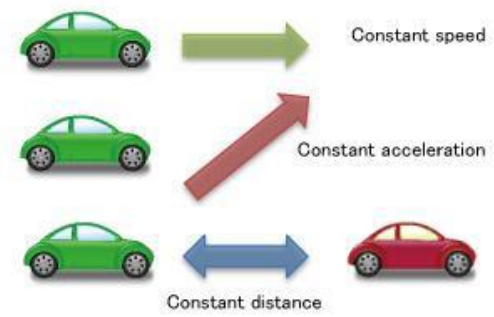
New Simulator Hardware Available – *including real car motion systems*

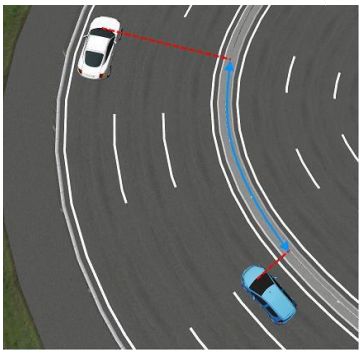
Vehicle R&D Improvements

- **Calculation frequency control and SILS function**
  - VR-Design Studio synchronizes both the visualization and simulation during the same cycle, subject to the PC's computation power
  - The cycle is variable according to the type and content of VR data
    The calculation cycle and image update cycle can be set separately

- **Simulation real-time linkage plug-in**
  - A real-time plug-in provides a new option to satisfy the simulation demands of V2V, V2I and V2Pedestrian communication & autonomous research
  - The plug-in sends real-time traffic and car simulation data to a 3rd party s/w and receives own car control commands, displaying these commands to the driver
  - Because it uses the TCP / IP general-purpose communication protocol it can be used easily in a user's development environment
  - The multi user cluster feature enables simulations combining multiple vehicle information (from autonomous and normal vehicles) to be run simultaneously

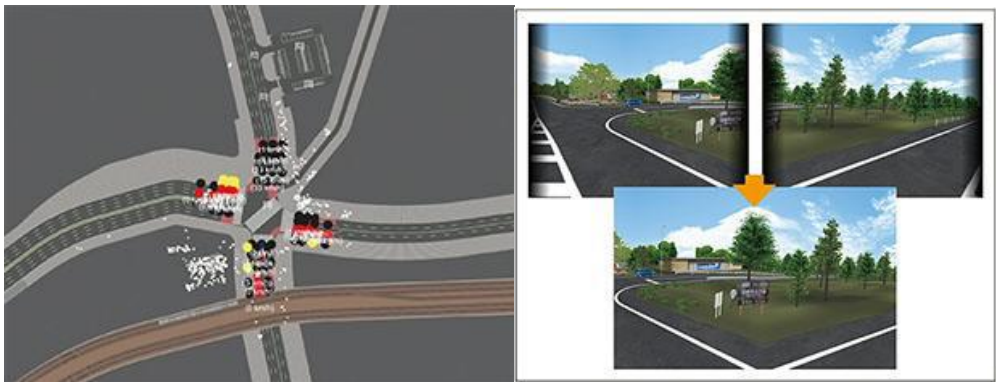
- **Expansion of Vehicle Control Features**
  - The ability to simulate different types of car lights has been expanded and can now describe and control: rear lights, backlights, fog lamps, side lights and 10 extension lamps, in addition brake lights, indicators and hazard lights
  - The Micro Simulation Player feature can play previously recorded vehicle motion when such motion needs to be replicated – providing:
  - Vehicle follows a specified speed applied to any direction of travel, along with a specified acceleration and deceleration
    Car keeps set distance with the object vehicle and with the road's centre line



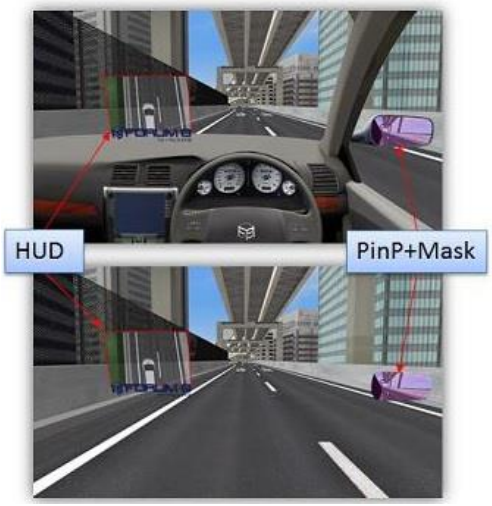


Improved Visualization

- 3D models, roads and vehicles can be displayed and seen at a glance
- Edge blending is supported when using multiple projectors



- **PinP & Heads Up Displays (HUD)**
  Simulation Plug-in Images can be displayed on the main screen



- Highly realistic photo-realistic driving simulation with improved rendering engine

- Semi-automatic road creation using GPS points
- Many data import formats including pre-built 3D City Models
- Highly realistic driving simulation on and off-road
- Multi drivers interacting within the same road network
- Seamlessly import point cloud data, road networks & photo-logs
- OpenStreetMap file import & Open Flight models supported
- 3D modelling with SfM generating point cloud data from jpegs
- Total control of weather, time of day, smoke / fire particle & geo-location
- Wheel Noise Simulation & Vehicle Dynamics
- Autonomous, Connected Vehicle and ADAS Simulation R&D
- Compatible with Eye Tracking, Biometric and HMD systems
- Eco-Drive / Carbon Footprint calculations & Force Feedback
- Driver Performance Diagosis, Data Log-Export & Replay plug-ins
- Optional pre-built Driver Training Environments & Scenarios
- Software Development Kit (SDK) & GUI Scenario editor

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 development and support facilities in Japan. FORUM8 benefits from many overseas offices and a network of sales, distribution and technical partners worldwide.

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