FORUM 8

Forum8 launch Point Cloud plug-in for UC-win/Road

Japanese interactive 3D visual simulation specialist Forum8 is pleased to announce the launch of its latest software plug-in for the award-winning VR software, UC-win/Road.

In addition to allowing the user to import point cloud data directly into UC-win/Road, the Forum8 Point Cloud Data Plug-in option has many other features.

For example, this new software tool enables point cloud data obtained from surveying equipment, such as laser scanners, to be imported into the 3D VR software and displayed at a specific position.

In addition this new plug-in enables the point cloud data to generate terrain data within UC-win/Road. This is achieved by TIN data being generated from the laser-scanned point cloud data after which UC-win/Road's terrain patch function can be used to model the terrain accurately.

Repositioning of the point cloud data is possible by moving the point clouds sideways or rotating them. For exporting data, you can convert the point cloud to Land XML data, so that it can be used within other systems.

Laser scanned Point Cloud data plug-in has many applications within UC-win/Road, including:

- the accurate positioning of reference points when creating roads
- in combination with a Mobile Mapping System in city modeling
- as a processing tool or a VR modeling tool
- used for validation of VR models

The UC-win/Road Point Cloud plug-in has already been used successfully in Japan:

In a FORUM8-conducted project, we used data collected from the 'Umi-hotaru' parking area along the Tokyo Bay Aqua Line Expressway using a highly accurate GPS based mobile mapping device from Mitsubishi.

Umi-hotaru is an artificial island along the Tokyo Bay Aqua Line Expressway. Its complex structure, consisting of flyover ramps, a tunnel, a bridge and a parking space, makes this structure a perfect example to illustrate the benefits of linking highly accurate laser scan data with a high resolution visualization system like UC-win/Road.

UC-win/Road

UC-win/Road enables 3D Space to be manipulated in real time. Roads, bridges, tunnels can be produced automatically. A wide variety of data types including CAD can be imported and edited to build and texture models, view design alternatives, visualize and edit intelligent traffic & pedestrian flow. A driving scenario editor enables UC-win/Road to be used in a variety of complex professional driving simulations. A web viewer enables on-line distribution & plug-ins link this award-winning VR technology to analysis software such as Civil 3D, Exodus & other micro-simulation systems such as Vissim & S-Paramics.

Mitsubishi Mobile Mapping System (MMS)

- MMS is a High Precision Mobile GPS Measuring Device. It locates the position of objects using a long distance laser scanner and captures textures via a camera to create a highly accurate 3D map of an urban area
- MMS is equipped with three GPS aerials, an IMU, cameras and laser scanners on the roof of the vehicle and three DPS placed in a triangular configuration to capture the vehicle movement very accurately
- With 100usec resolution, the accuracy of the data does not deteriorate even when travelling at high speeds. Up to five cameras and five laser scanners can be connected to the system

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