Improving Point-cloud Manipulations

Leica CloudWorx-VR for 3ds Max, 3ds Max design, and Maya are plug-ins providing a convenient way for professionals to efficiently create more photorealistic and compelling models, renderings, and animations based on rich, high-definition survey data of sites and structures as collected by 3D laser scanners.

The use of visually rich, high-definition survey data for multi-media applications such as marketing proposals, client education, and project communications has been steadily growing. However, traditional methods of processing as-built and topographic point cloud data and merging it with models and photography for multi-media applications have been time consuming. In addition, the quality of deliverables has been constrained by limitations in stand-alone point cloud software otherwise used for this. Leica CloudWorx-VR-plus Autodesk 3ds Max or Maya overcome these limitations, making it easy to create even more compelling multi-media deliverables based on laser scan data.

Leica CloudWorx-VR offers 3ds Max and Maya users the same, familiar user interface they already know from using these multi-media tools. CloudWorx-VR lets users apply 3ds Max and Maya tools directly to large point cloud data sets. Users can efficiently load a dense, coloured point cloud as a 3D background, merge point cloud data with other model elements, cast shadows on the cloud, and even process point clouds into smooth surface models - all within the 3ds Max or Maya interface. CloudWorx-VR supports data from Leica HDS and 3rd party laser scanners, enabling any laser scanner user to more easily expand service offerings to include exciting multi-media deliverables based on point clouds.

Dr.-Ing. Christian Hesse of Dr. Hesse und Partner Ingenieure, Germany reports, "We were impressed by point cloud animations of an historic ship that we saw at the 2009 Leica Geosystems HDS Worldwide User Conference in San Ramon, CA, and discussed the point cloud plug-in for 3ds approach with the presenter. We've since changed over from another vendor's software to deploy this technology and we have been very pleased to quickly expand our business into this exciting area with excellent results. Our customer's response was outstanding." An example of this work is done by Dr. Hesse und Partner Ingenieure.

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