Leica CloudWorx 1.2 for PDMS
Point Cloud Plug-in Software

Efficient management and use of as-built laser scan data

Leica CloudWorx 1.2 for PDMS is a plug-in for efficiently manipulating as-built point cloud data – captured by laser scanners – directly within PDMS for better retrofit design, construction & operations. It provides a virtual site within PDMS, for greater confidence in assessing potential construction and operational impacts of a new design.

Users operate in the familiar PDMS interface, shortening the learning curve for working with point clouds. The Leica CloudWorx tools and powerful Leica Cyclone point cloud engine and database architecture let users efficiently visualize and work with large data sets. Users benefit from complete, accurate laser scan data to conceive designs, check proposed designs against existing conditions, create as-built models, perform critical construction & fabrication QA, and more … all directly within PDMS.

Features and Benefits
- Fast manipulation of scan data
- Pipe and centerline creation
- Region grow Box creation
- TruSpace for image like rendering
- New Clipping manager for all Slices, Half-Spaces Sections, and Limit Boxes
- Automatic pipe center D-points
- Accurate tie-ins, clash checking & reporting
- Direct measurements from point clouds
- Supports any laser scanner

- when it has to be right
Leica CloudWorx 1.2 for PDMS

Conceive and Design in Context with the Existing Environment
Design teams can conceive, design, visualize, and dynamically interact in context with the real world “as-found” point cloud conditions. Users experience a virtual site presence within PDMS.

Powerful Point Cloud Management & Measurement
Users can quickly, efficiently, and effectively manage vast amounts of point cloud data. “Cutplane Slices and Half-Space Sections” and/or “Limit Boxes” provide a quick and easy way to navigate point cloud data. Measurements are taken using familiar PDMS measuring tools.

3D As-Built Modeling
Pipes and Pipe center D-Points are automatically generated by selecting a single scan point on the pipe surface. Using the point cloud, D-Points and PDMS 3D modeling tools, users can create catalog-based intelligent as-built piping systems, structures, duct work, electrical tray systems, vessels and equipment. Also box shapes can be quickly created by picking on 2-3 planes of the box.

Automated Point Cloud Clash Detection and Reporting
Clash detecting against point clouds with CloudWorx is performed using PDMS’ own automated clashing and reporting tools. Users can automatically detect clashes between modeled objects and point clouds, based on a user’s own defined setting. All interfering points within a user-defined region are visually highlighted and itemized.

Versatile Support of Multiple Scanner Formats
AVEVA users can take advantage of spatial scan data from any laser scanner via industry-standard ASCII-based data formats. In addition, Leica CloudWorx for PDMS directly accepts, without any data format conversion steps, compact native data formats from the industry’s most popular scanners. These include all models of Leica Geosystems HDS time-of-flight and phase-based laser scanners.

Using the standard PDMS clashing tools users can easily find critical interferences of new design work compared to the point cloud as-built data. Here a new pipe is seen to be clashing with a few large pipes in the scan just above the vessel.

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