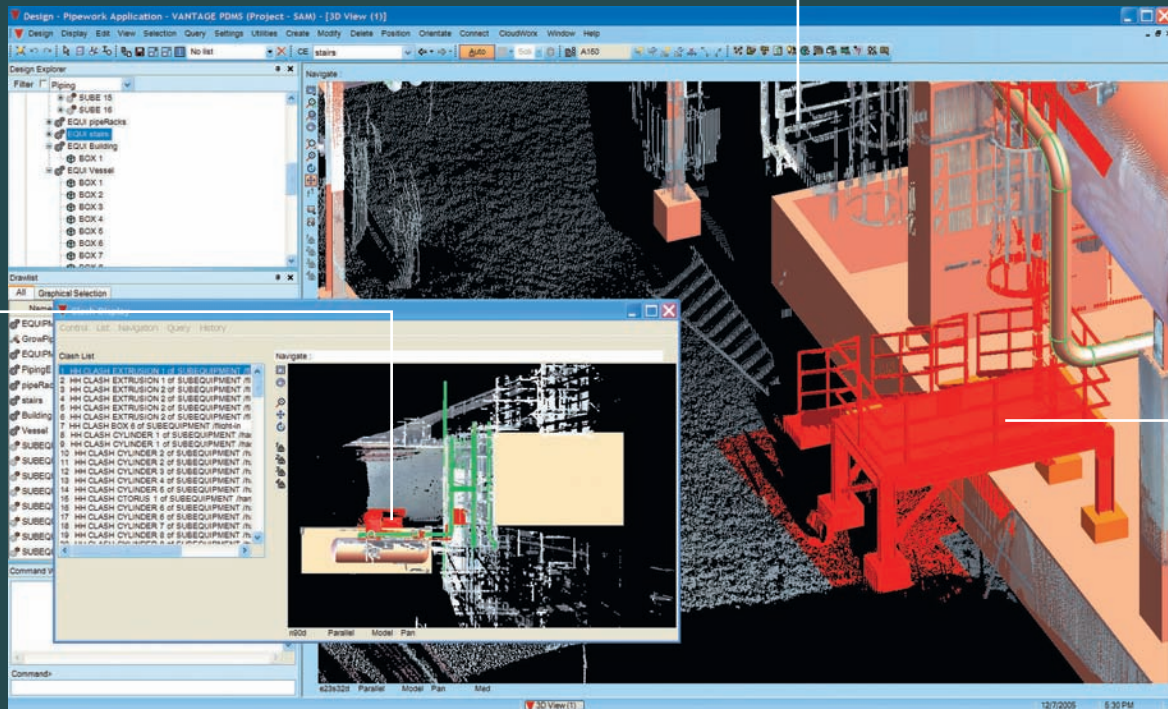


Leica CloudWorx 1.1 for PDMS

Convenient Plug-in Software for Using Laser Scans in PDMS

Point cloud of existing site is displayed in the correct location within PDMS

PDMS treats point clouds in the same manner as other modeled items for clashing



The standard PDMS clash feature highlights items clashing with the point cloud

Efficient management and use of as-built laser scan data

Leica CloudWorx 1.1 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.

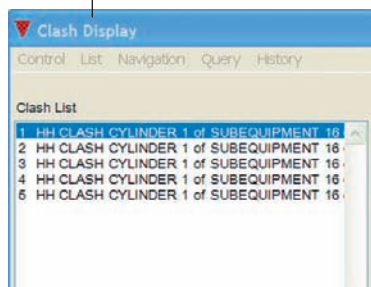
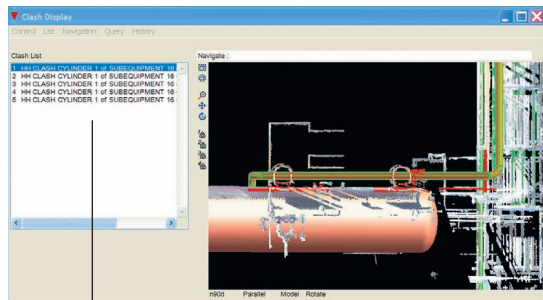
Features and Benefits

- Fast manipulation of scan data
- Slices, Half-Space Sections, and Limit Boxes
- Automatic pipe center D-points
- Accurate tie-ins, clash checking & reporting
- Direct measurements from point clouds
- Multi-user simultaneous network access
- Supports any laser scanner

- when it has to be **right**

Leica
Geosystems

Leica CloudWorx 1.1 for PDMS



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.

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

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.

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.

Leica CloudWorx for PDMS 1.1 Specifications*		Hardware and System Requirements
Large point cloud mgt	3D limit boxes, slices, interactive visualization of massive data sets Cyclone Object Database Technology: fast efficient point cloud mgt.	Processor: 2 GHz Pentium® 4 or higher RAM: 1 GB (2 GB for Vista)
Rendering	Level of Detail (LOD) graphics, “Single pick” point cloud density control	Hard Disk: 2 GB
Visualization	Intensity mapping, True color, Limit boxes, slices, cut planes	Network card: Ethernet (required for licensing)
Measurement	3D point coordinate, point-to-point, point-to-design entity	Display: SVGA or OpenGL accelerated graphics card (with latest drivers)
Modeling	PDMS Design Point Placement: Pipe Center D-Point (Includes actual calculated bore diameter attribute) D-Point at pick Flange Tie-Point Location Tool	Operating system: Microsoft Vista** (32 or 64), or Microsoft Windows XP (SP2 or higher) (32 or 64), or Windows 2000 (SP3 or higher with up-to-date patches)
Interference Checking	Check designs for interferences with point clouds using PDMS clash tool Highlight interfering points	File System: NTFS
Supported Formats	Native Format - 3dd, scan (Leica and Cyra), zfc, zfs ASCII - pts, ptx, svy, txt, xyz	** Some systems may not support Windows Vista’s Desktop Windows Manager (DWM) with Leica Cyclone and must be operated in Windows Classic Look Versions: AVEVA Vantage PDMS 11.6 SP2 or higher AVEVA Vantage PDMS LMI (Laser Model Interface)

Windows is a registered trademark of Microsoft Corporation. Other trademarks and trade names are those of their respective owners.

* Reference the Leica Cyclone 6.0 Technical Specifications document for a complete listing of product specifications.

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