

# Leica CloudWorx 1.0 for Navisworks

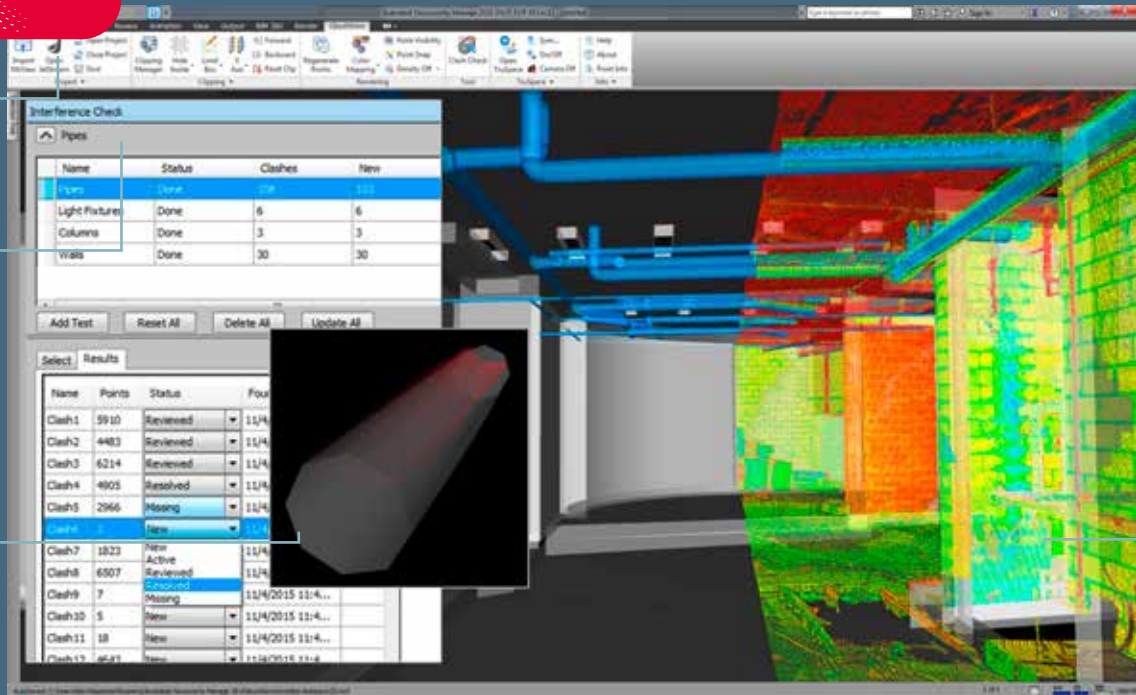
## Point cloud plug-in software



Supports connecting to Cyclone and JetStream

All new clash / anti-clash manager

Visually inspect the interfering points



Instant load and all-the-points, all-the-time

### Efficient management, viewing and review of as-built laser scan data and 3D project design model for architectural, plant and civil planning and construction projects.

Leica CloudWorx 1.0 for Navisworks is a new plug-in software for using as-built point cloud data – captured by laser scanners – directly within Navisworks. Users take advantage of the familiar Navisworks interface and tools to shorten the learning curve for working with laser scan data.

Leica CloudWorx, the powerful Leica Cyclone and new JetStream point cloud engines let users efficiently visualise and process large point cloud data sets as a virtual as-built model, check proposed designs against existing conditions, perform critical construction & fabrication QA, and more... all directly within Navisworks.

Leica CloudWorx for Navisworks provides greatly improved point cloud rendering environment resulting in a much improved user experience, unlimited size project scale and greatly improved productivity, on the order of a 50% improvement over the built-in capabilities.

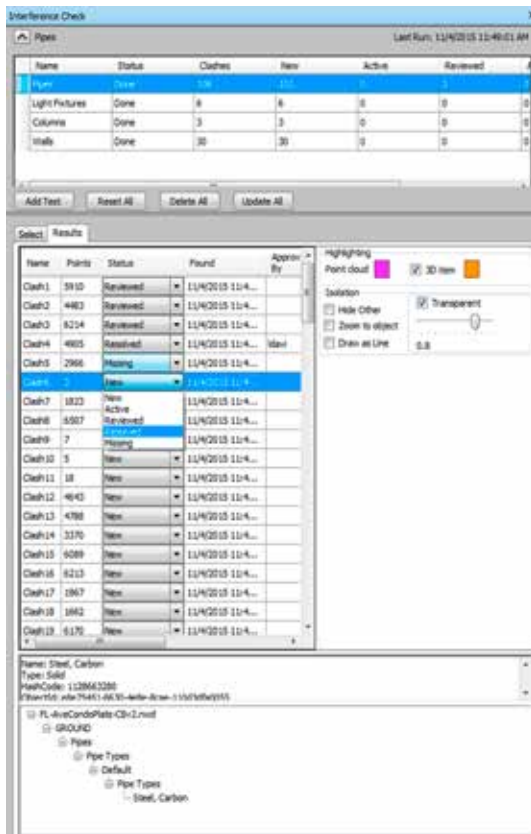
#### Features & benefits

- All new custom clash/anti-clash checking with saved project environment settings
- Cloud colour mapping control, rainbow intensity, grey scale, true colour
- TruSpace panoramic view with background image included and driving main Navisworks display window
- Optional Cyclone or JetStream data sources for ultra-high speed point cloud rendering

- when it has to be **right**



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All new point cloud clash/anti-clash manager enables the user to perform interference checking against specified geometry and the point cloud.

## Point cloud display control

To focus on particular areas of interest, easy-to-use tools define specific areas of 3D point clouds to display. For improved visualisation, segments of point clouds can be selectively hidden using fences, cutplanes, slices or 3D limit boxes. This level of visualisation control improves users productivity by increasing their comprehension and simplifying the project visual environment.

## TruSpace

The TruSpace panoramic point cloud viewer can display the scanners panoramic image, highlighting details and comprehension; a unique CloudWorx capability. It can also drive the full 3D Navisworks display; an easy way to navigate to the exact location of interest. It also lets users measure and create instant, quick limit boxes, with a single mouse click; a fast and unparalleled method of minimising the cloud display to a specific region of interest.

## JetStream

Optionally connected to JetStream, CloudWorx for Navisworks delivers the industries best rendering speed with all-the-points, all-the-time with no more waiting for loading, regens, or the hard to recognise patchy rendering provided of lesser systems.

## The CloudWorx family

CloudWorx for Navisworks is only one of the many CloudWorx family members. CloudWorx users easily switch between platforms with no learning curve. Organisations using AutoCAD, MicroStation, Intergraph PDS, or SmartPlant or PDMS, or Autodesk Revit or 3DS Max, can access CloudWorx plug-ins to take advantage of this common productivity platform.

## Detailed information for retrofit projects

CloudWorx can be used in retrofit design and new construction to check for potential interferences or conformance to design using the uniquely powerful custom point cloud to 3D design model clash/anti-clash checking. The unparalleled detail provided by point clouds allows users to see and truly understand the real world conditions, compared to design intent.

Leica CloudWorx for Navisworks Specifications*		Hardware & System Requirements
<b>Large point cloud management</b>	3D limit boxes, slices, interactive visualisation of massive data sets Cyclone Object Database Technology: fast efficient point cloud management.	<b>Minimum specifications</b> <b>Processor:</b> 2 GHz Dual Core processor or better <b>RAM:</b> 4 GB <b>Hard disk:</b> 40 GB
<b>Rendering</b>	Level of Detail (LOD) graphics, "Single pick" point cloud density control.	<b>Display:</b> SVGA or OpenGL accelerated graphics card (with latest drivers) <b>Supported operating systems:</b> Windows 7 (32 or 64), or Windows 8 & 8.1 (64bit only) <b>File system:</b> NTFS
<b>Visualisation</b>	Intensity mapping, true colour TruSpace panoramic viewer: – Select view point from key plan – Drive Navisworks viewpoint from TruSpace – Quick limit box in Navisworks from single pick in TruSpace – Include background image Limit boxes, slices, cut planes	<b>Recommended specifications</b> <b>Processor:</b> 3.0 GHz Quad Core w/ Hyper-threading or higher <b>RAM:</b> 32 GB's or more 64 bit OS <b>Large project disk option:</b> RAID 5, 6, or 10 w/ SATA or SAS drives <b>Display:</b> Nvidia GeForce 680 or ATI 7850 or better, with 2 GB's memory or more <b>Operating system:</b> Microsoft Windows 7 – 64bit <b>File system:</b> NTFS
<b>Measurement</b>	3D point coordinate, point-to-point, point-to-design entity.	<b>Please note:</b> Optimal system specifications will depend on the number of users connected to the JetStream ProjectVault at the same time.
<b>Clash / Anti-clash checking</b>	Check design models for potential interferences with point clouds. Advanced clash / anti-clash management database system.	

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

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