

# Leica CloudWorx for Navisworks

## Point cloud plug-in software



Supports connecting to Cyclone and JetStream

Clash / anti-clash manager

Visually inspect the interfering points

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

Name	Status	Clashes	New
Pipes	Done	108	103
Light Fixtures	Done	6	6
Columns	Done	3	3
Walls	Done	30	30

Name	Points	Status	Four
Clash1	5910	Reviewed	11/4
Clash2	4483	Reviewed	11/4
Clash3	6214	Reviewed	11/4
Clash4	4905	Resolved	11/4
Clash5	2966	Missing	11/4
Clash6	1823	New	11/4
Clash7	1823	New	11/4
Clash8	6507	Active	11/4
Clash9	7	Missing	11/4/2015 11:4...
Clash10	5	New	11/4/2015 11:4...
Clash11	18	New	11/4/2015 11:4...
Clash12	6647	New	11/4/2015 11:4...

### 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 for Navisworks is a plug-in software for using as-built point cloud data directly within Navisworks. Users take advantage of the familiar Navisworks interface and tools to shorten the learning curve for working with laser scan data.

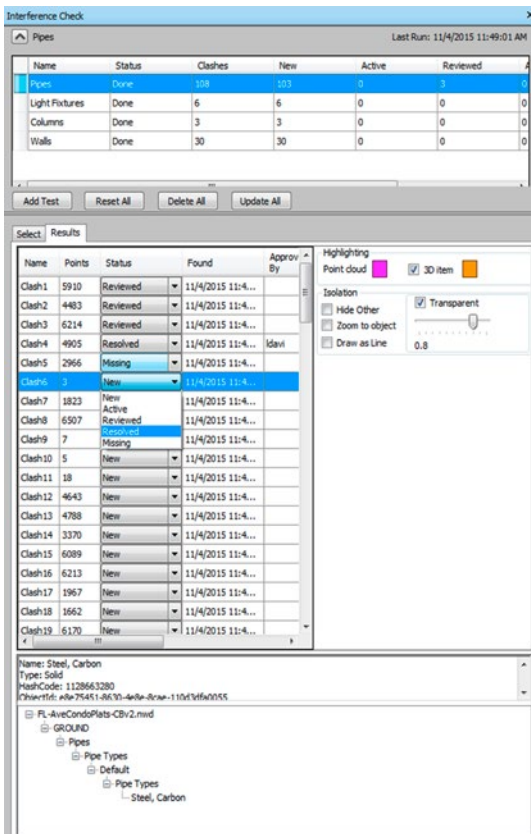
Leica CloudWorx along with the powerful Leica Cyclone and Leica JetStream point cloud engines let users efficiently visualise and process large point cloud data sets as a virtual as-built model all directly within Navisworks.

Leica CloudWorx greatly improves the point cloud viewing experience within Navisworks, resulting in a better and more efficient user experience for projects of unlimited size, and greatly improved productivity on the order of 50% over built-in capabilities.

#### Features & benefits

- Custom clash/anti-clash checking with saved project environment settings
- Export Clash Manager results for easy reporting and/or analyses
- 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

# Leica CloudWorx for Navisworks



Point cloud dash/anti-clash manager enables the user to perform interference checking against specified geometry and the point cloud. Export clash manager results for easy reporting or analysis.

## Control point cloud display

Easy-to-use tools allow a user to quickly define specific areas of interest to display while hiding other portions of a point cloud for improved visualisation and comprehension. Quickly work in 2D and 3D by using fences, cutplanes, slices or 3D limit boxes. Visualisation control improves users productivity by bringing speed, scale and simplicity to the project visual environment.

## TruSpace

The TruSpace panoramic point cloud viewer is unique to CloudWorx, allowing for the display of the scanner's panoramic images to highlight noteworthy details and improve the users comprehension of the scene. The TruSpace window can drive the navigation and viewing of the main Navisworks window for an easy way to navigate to the exact location of interest. Within a TruSpace, users can measure and instantly create 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 to visualise all-the-points, all-the-time with no loading time, regenerations or the patchy rendering provided by lesser systems which makes your data hard to recognise and even harder to work with.

## 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, PDMS, or Autodesk Revit can access unique CloudWorx plug-ins to take advantage of this common productivity platform. For users whose workflows span many of these CAD systems, CloudWorx Ultimate provides access within all your CAD systems with a single, simple license.

## Detailed information for retrofit projects

CloudWorx can be used in retrofit design and new construction to check for potential design conflicts against as-built conditions or conformity 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\*

<b>Large point cloud management</b>	3D limit boxes, slices, interactive visualisation of massive data sets Connects to Cyclone or JetStream Database Technology for fast efficient point cloud management
<b>Rendering</b>	Level of Detail (LOD) graphics, "Single pick" point cloud density control.
<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>Measurement</b>	3D point coordinate, point-to-point, point-to-design entity.
<b>Clash / Anti-clash checking</b>	Check design models for potential interferences with point clouds. Advanced clash / anti-clash management database system. Export clash manager results for easy reporting and/or analysis.
<b>CloudWorx Ultimate Compatibility</b>	CloudWorx for Navisworks is compatible with the CloudWorx Ultimate License.

### HARDWARE & SYSTEM REQUIREMENTS

<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>Display:</b> SVGA or OpenGL accelerated graphics card (with latest drivers) <b>Supported operating systems:</b> Windows 7 (32 or 64 bit), Windows 8 & 8.1 (64 bit), Windows 10 (64 bit) <b>File system:</b> NTFS <b>Supported Navisworks versions:</b> Navisworks Manage and Simulate 2015-2017.
<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>Please note:</b> Optimal system specifications will depend on the number of users connected to the JetStream ProjectVault at the same time.

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

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- when it has to be **right**

