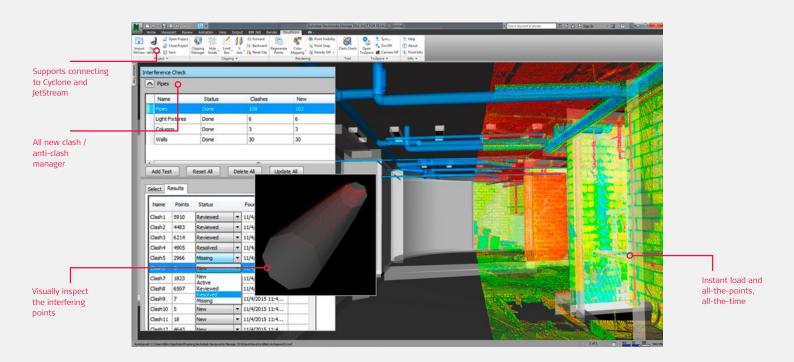
# Leica CloudWorx 1.0 for Navisworks

# Point cloud plug-in sofware



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 – 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 and the powerful Leica Cyclone and new 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 for Navisworks provides a greatly improved point cloud rendering environment, resulting in a much improved user experience, projects of unlimited size, and greatly improved productivity on the order of 50% over built-in capabilities.

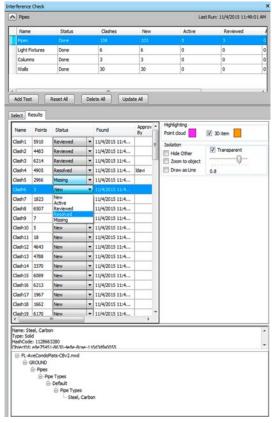
### Features & benefits

- 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





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Point cloud clash/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

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 comprehnsion; 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 unparalled method of minimising the cloud disply to a specifc region fo 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

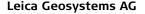
CloudWorx can be used in retrofit design and new construction to check for potential interferences or conformance to design using the uniquely powerful custom point cloud to 3D design model clash/anti-clash checking. The unparalleled detail provided by point clouds allows users to see and truly understand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

LEICA CLOUDWORX 1.0 FOR NAVISWORKS SPECIFICATIONS*		HARDWARE & SYSTEM REQUIREMENTS
Large point cloud management Rendering	3D limit boxes, slices, interactive visualisation of massive data sets Connects to Cyclone or JetStream Database Technology for fast efficient point cloud management  Level of Detail (LOD) graphics, "Single pick" point cloud density control.	Minimum specifications  Processor: 2 GHz Dual Core processor or better  RAM: 4 GB  Hard disk: 40 GB  Display: SVGA or OpenGL accelerated graphics card (with latest drivers)  Supported operating systems: Windows 7 (32 or 64 bit), Windows 8 & 8.1 (64 bit),  Windows 10 (64 bit)  File system: NTFS  Supported Navisworks versions: Navisworks Manage and Simulate 2015-2017.  Recommended specifications  Processor: 3.0 GHz Quad Core w/ Hyper-threading or higher  RAM: 32 GB's or more 64 bit OS  Large project disk option: RAID 5, 6, or 10 w/ SATA or SAS drives
Visualisation	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	
Measurement	3D point coordinate, point-to-point, point-to-design entity.	Display: Nvidia GeForce 680 or ATI 7850 or better, with 2 GB's memory or more  Operating system: Microsoft Windows 7 – 64bit  File system: NTFS
Clash / Anti-clash checking	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.	Please note: 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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