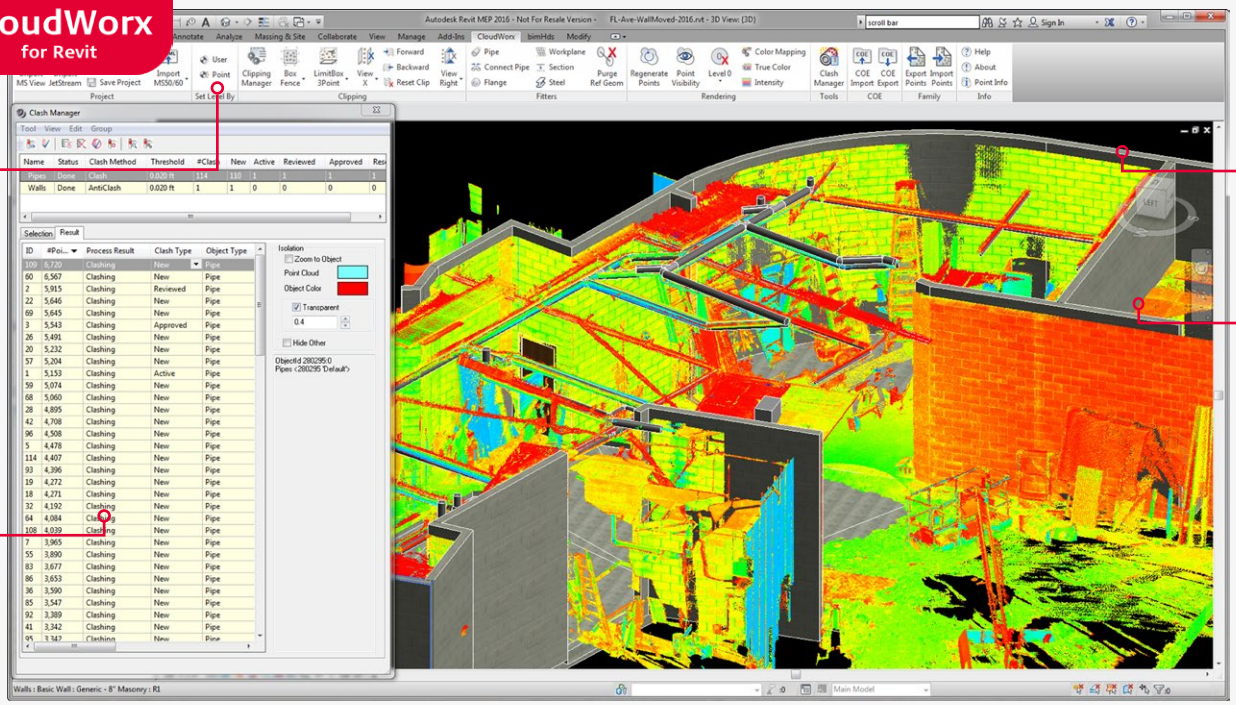
Leica CloudWorx for Revit

Point cloud plug-in software



Leica CloudWorx for Revit is a breakthrough plug-in for efficiently using rich as-built point cloud data, captured by laser scanners, directly within Revit for simpler and faster BIM modeling of existing buildings. This is useful for a wide range of BIM activities including retrofit design, construction and operations, and lifecycle asset management of the building. It provides a virtual visit to the site within Revit with a complete view of the captured reality.

Users take advantage of the familiar Revit interface and tools to shorten the learning curve for working with laser scan data. Leica CloudWorx uses the powerful Leica Cyclone and JetStream point cloud engines to let Revit users efficiently visualise and create BIM models from large point cloud data sets. Users get all the advantages of a high-performance point cloud application directly within Revit.

Features and Benefits

- JetStream experience allows you to demo the performance of JetStream
- Clash Manager
- COE import/export
- Optional Cyclone, JetStream, or ReCap data sources
- Manipulate and navigate large point cloud data sets faster
- Model walls that are "out-of-plumb"
- Work with point cloud data in Revit from any laser scanner
- Eliminate time consuming export/import process for Cyclone point cloud data
- Set Building Levels directly from the point cloud
- Crop the point cloud using Slices, Sections and Limit Boxes
- Automatically find center-line and diameter of pipes, round ducts and columns
- Set up Work Planes from point cloud
- Place any Revit model item (walls, floors, etc.) from picks in point cloud
- Import ReCap projects

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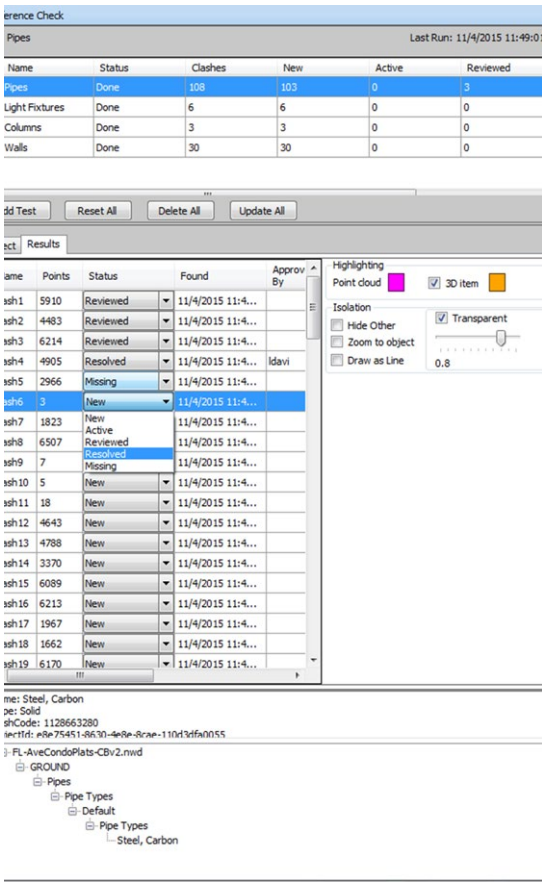

All new point cloud clash/anti-clash manager enables the user to perform interference checking against specified geometry and the point cloud.

The plug-in advantage

Autodesk Revit built-in support for point clouds, while available, is limited and insufficient for even many of your basic point cloud workflows. Leica CloudWorx plug-in users benefit from additional tools and higher efficiency of a more productive point cloud enabled BIM modelling solution. CloudWorx for Revit users gain the benefit of easier access to the point cloud data, a user can open a Cyclone or JetStream project directly in Revit - no file format conversions. Users also find a critical set of tools for efficiently cropping the cloud, and controlling the display parameters along with the ability to use unlimited sized point clouds thanks to Leica JetStream Technology.

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 of point clouds, segments of point clouds can be selectively hidden using fences, slices or user-defined cutplanes.

The BIM modeling advantage

Tools to fit patches/workplanes directly from the point cloud or set up work planes facilitate the BIM-from-pointclouds process. Additional tools provide for accurate fitting of steel, flanges, pipes and 2D lines or placement of walls, floors, structural members, doors, windows, mechanical equipment, etc. CloudWorx for Revit allows direct import of COE models from Cyclone, and/or the export of some Revit models to COE facilitate total interoperabiity.

BIM for retrofit projects

Engineers, Contractors, Architects and Designers can use CloudWorx for retrofit design projects to review proposed designs for conflicts with as-built existing conditions to stop critical errors in their tracks before they slow or halt a project. The unparalleled detail provided by point clouds allows users to conceive, design, clash detect, visualise and dynamically interact in the context of real world conditions via the pointcloud. Users experience a virtual site presence within Revit.

Leica CloudWorx for Revit provides critical modeling tools required to efficently and accurately create a BIM model of an existing structure.

LEICA CLOUDWORX FOR REVIT*		MINIMUM SPECIFICATIONS	RECOMMENDED SPECIFICATIONS
Large point cloud mgt	3D limit boxes, slices, interactive visualisation of massive data sets Cyclone Object Database and JetStream technologies for fast, efficient point cloud management	**Processor:** 2 GHz Dual Core processor or better **RAM:** 2 GB (4 GB for Windows Vista or Windows 7) **Hard disk:** 40 GB **Display:** SVGA or OpenGL accelerated graphics card (with latest drivers) **Supported operating systems:** Windows 7 (32 or 64), or Windows 8 & 8.1 (64bit only), Windows 10 **File system:** NTFS **Supported Revit versions:** Revit 2013-2018 family of products. Support of RCP data: AutoCAD, Civil and Map3D 2015 and later.	**Processor:** 3.0 GHz Quad Core w/ Hyper-threading or higher **RAM:** 32 GB's or more 64 bit OS **Hard disk:** 500 GB SSD Drive **Large project disk option:** RAID 5, 6, or 10 w/ SATA or SAS drives **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
Rendering	Level of Detail (LOD) graphics, "Single pick" point cloud density control JetStream high-performance rendering		
Visualisation	Intensity mapping, True colour, and Grey scale Limit boxes, slices, and cut planes		
Measurement	3D point coordinate, Point-to-point, Point-to-design entity		
Modeling	Pipe fitting, pipe diameter, pipe center line, and & connected pipe runs Flange, Steel, and 2D line fitters Drive native Revit modeling commands using point cloud pick points Automatic planar surface (patch) detection to set work planes		
CloudWorx Ultimate Compatibility	CloudWorx for Navisworks is compatible with the CloudWorx Ultimate License.		

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

Leica Geosystems AG
www.leica-geosystems.com

- when it has to be **right**

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