- when it has to be **right**

Leica
Geosystems

Leica Geosystems
Release Notes

Product	Leica CloudWorx 1.0 for BricsCAD
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Introduction

CloudWorx for BricsCAD has been added to the CloudWorx family of products to satisfy customer demand for a CloudWorx plugin for the economical CAD package produced by Bricsys. CloudWorx for BricsCAD is a Pro version of the plugin and includes all features present in CloudWorx for AutoCAD Pro.

As with all CloudWorx products, CloudWorx for BricsCAD allows users to work efficiently with large point clouds directly inside the CAD system. They can use the native BricsCAD tools and commands as well as the entire set of specialised point cloud commands provided by CloudWorx.

CloudWorx provides a point cloud engine for BricsCAD users and provides users with a route to begin modeling or creating linework from point clouds stored in Leica Cyclone or Leica JetStream.

CloudWorx for BricsCAD allows users to harness the power of Leica Geosystems' JetStream technology for centralized data storage and unmatched ease of collaboration while working with big data. New for this release, CloudWorx also supports Leica Geosystems' all-new universal digital reality file, the LGS file, which delivers the performance of JetStream in a file along with full project data and metadata to streamline the project archiving and deliverable creation processes.

Feature highlights

For a full list of all features within CloudWorx for BricsCAD please see the Leica Cyclone and CloudWorx Technical Specification document located in myWorld and on the Leica Geosystems product website.

Support for LGS, Leica Geosystems Universal HDS Digital Reality File

Leica CloudWorx for BricsCAD supports the use of LGS files, Leica Geosystems' new universal HDS digital reality file. LGS files contain all project information for a single-file solution for downstream consumption in all Leica Geosystems HDS software. The LGS file is perfect for storage and transfer between all Leica Geosystems' HDS software products. The LGS file is a true single file, to simplify file sharing.

LGS files can be published from both Cyclone and Cyclone REGISTER 360 with a required Cyclone PUBLISHER Pro License. LGS files can be consumed by Cyclone, TruView Enterprise and Cloud, JetStream Enterprise and Viewer, and 64-bit CloudWorx plugins to allow for seamless data consumption between the Leica Geosystems HDS software products. With the LGS file, users can access all their digital reality data, anywhere, with a single file.

LGS files may contain the following information based on the hardware used for data capture and the user's publishing settings.
- **PROJECT METADATA**
  - Name
  - Thumbnail
  - Coordinate system
  - Publish date
  - Creator/Company info
  - # of SiteMaps
  - # of points
  - # of setups
  - Imagery metadata and #s
- **PROJECT SITEMAPS + METADATA**
  - SiteMap image(s)

- o Hyperlinks (between SiteMaps)
- o Setups
- **PROJECT SETUPS + METADATA**
  - o Name
  - o Timestamp
  - o Targets + metadata
  - o RGB pano imagery
  - o HDR pano imagery
  - o Intensity Hue pano imagery
  - o Intensity Grayscale pano imagery
  - o Modelled Geometry pano imagery
  - o IR pano imagery
  - o IR temperature scale
- **POINT CLOUD + METADATA**
  - o RGB colours
  - o HDR colours
  - o Intensity Hue colours
  - o Intensity Grayscale colours
  - o UCS
  - o Clips
- **GEOTAGS + METADATA**
  - o 3D position
  - o Type
  - o Category
  - o Label
  - o URL
  - o Timestamp
  - o Associated assets (e.g., images, PDFs, videos, audio, etc.)

A new "Open LGS" button has been added to the CloudWorx toolbar for steamlined access. LGS files are intended to substitute not replace JetStream Enterprise or Cyclone IMP files.

Large scale data

CloudWorx for BricsCAD is designed for projects of any scale, allowing users to easily handle projects in the billions of points. All the points, all the time rendering prevents rework from misunderstanding data as displayed, thus increasing precision and accuracy by modelers.

Clash Manager

CloudWorx for BricsCAD includes an advanced clash management tool to easily compare design intent via models with as-built conditions via points.
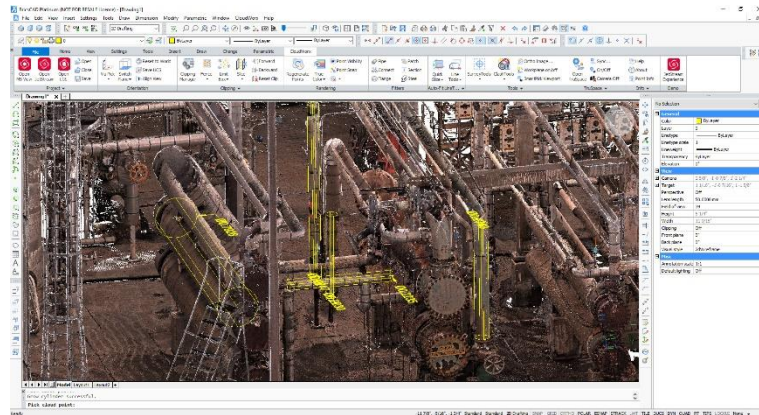
Auto-fit polyline

CloudWorx for BricsCAD linework tools include auto-fit abilities for polylines and arcs to save users time.

Auto-linework assist supports rapid linework creation by attempting to automatically grow a polyline in the direction specified by the users' click. Additional straight line segments will be created sequentially. This tool will help users rapidly create linework from point clouds.

Steel and pipe fitting

CloudWorx for BricsCAD includes steel and piping catalogs that speed the model creation process and ensure accuracy.

Floor Flatness/Floor Levelness

CloudWorx for BricsCAD helps users quickly and efficiently QA/QC data with tools like Floor Flatness/ Floor Levelness (FF/FL) routines including reports that conform to ASTM standards.
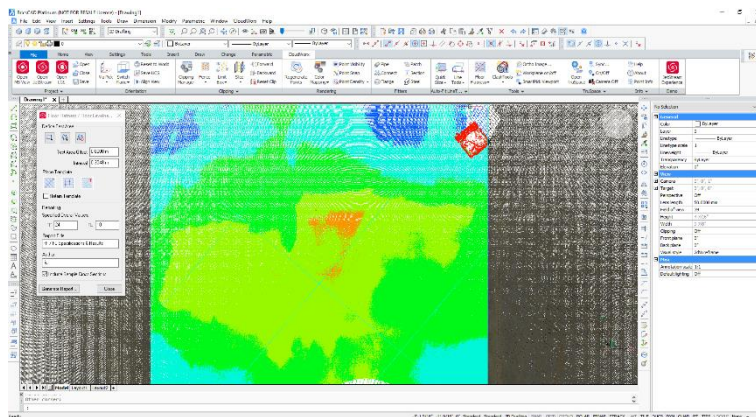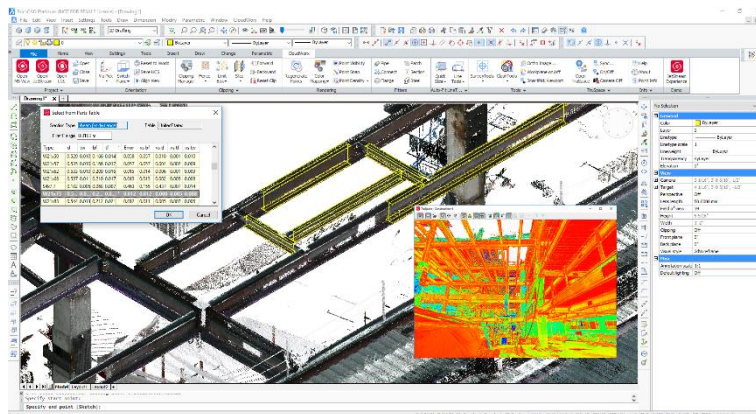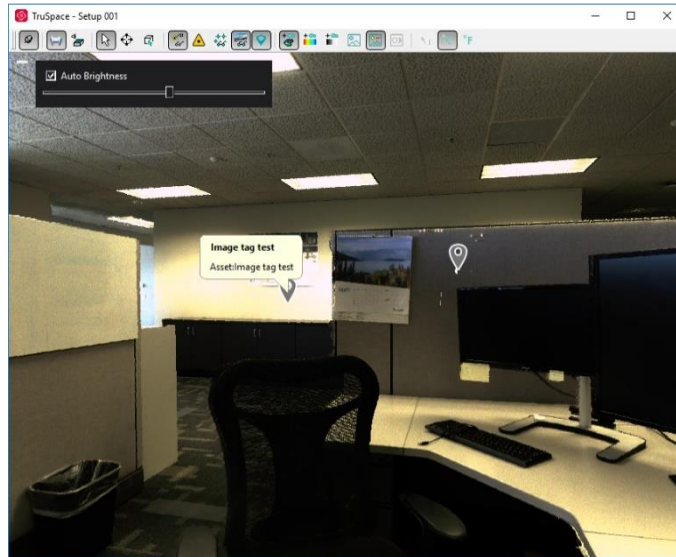

Image layers in TruSpace

TruSpace now supports image layers (when working with files published by Cyclone PUBLISHER Pro), allowing users to fully leverage all the capabilities of their Leica Geosystems scanning solutions including HDR and IR where available. HDR layers include an intuitive slider which allows users to adjust the exposure of images. BLK360 users can now query the temperature of a point when viewing an IR layer in TruSpace.

TruSpace now supports GeoTags

TruSpace now supports GeoTags (when working with IMP datasets or datasets in JetStream Enterprise or LGS files published with Cyclone PUBLISHER Pro), allowing users to fully leverage all the capabilities of their Leica Geosystems scanning solutions. This includes Tags captured in Cyclone FIELD 360 that get published downstream as GeoTags and GeoTags created within Cyclone and Cyclone REGISTER 360. Assets attached to the GeoTag (such as documents, images, etc.) are also accessible from the GeoTag.

Fully localized

CloudWorx for BricsCAD is localized in the following languages for easy adoption by users around the world: Korean, English, French, German, Italian, Spanish, Japanese, Chinese (simplified and traditional), Russian.

Many data sources

CloudWorx for BricsCAD supports multiple point sources: Cyclone ModelSpace View, JetStream Enterprise, and LGS files.

Users who wish to trial the speed of JetStream should leverage the "JetStream Experience" button in the right of the toolbar for a preview of improved rending provided by JetStream.

Inter-CAD workflows

CloudWorx for BricsCAD users benefit from seamless project access between all CloudWorx product plug-ins. Work with CloudWorx project files saved from any plug-in to easily switch between programs and access features unique to each software

Leica CloudWorx 1.0 for BricsCAD Compatibility

Compatibility with Leica CloudWorx 1.0 for BricsCAD AND Earlier Versions of Cyclone

Cyclone 7.2 databases are *NOT* backward compatible. Therefore, older databases must be updated before using Cyclone 7.2 and can no longer be used with earlier versions. If you need to work with your data in older versions of Cyclone or CloudWorx, you should make an archive copy of your database(s) prior to upgrading. Since it can take some time to update and optimize Cyclone

databases, we recommend that you optimize your databases overnight, particularly when multiple databases are involved.

Compatibility with Leica CloudWorx 1.0 for BricsCAD AND BricsCAD Versions

CloudWorx 1.0 for BricsCAD officially supports Bricsys BricsCAD Pro and Platinum V18.2 and newer.

Compatability with JetStream

CloudWorx 1.0 for BricsCAD is compatible with JetStream 1.3 and higher.

CloudWorx Ultimate

CloudWorx for BricsCAD is not included in the CloudWorx Ultimate License.
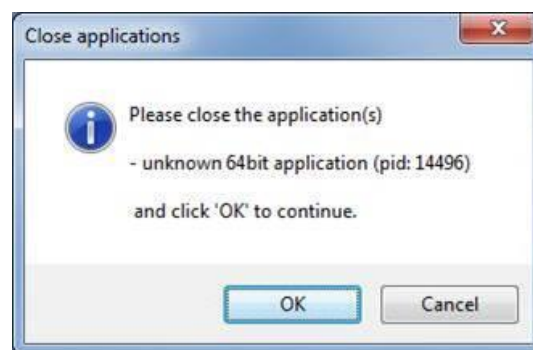
Known Issues

Optimizing Older Databases with Windows 7 and Higher

If users wish to use CloudWorx 1.0 for BricsCAD to optimize IMP databases from Cyclone version 7.0 or higher, they must first disable User Access Control prior to optimizing, or the optimization will not succeed yet no meaningful error message will be produced.

Installing CLM while JetStream is running

During installation of CLM, users may encounter the following error message. This is commonly due to a service like JetStream running in the background.

To enable the successful installation of CLM, please follow these steps:

- Launch the task manager
- Select the Services tab
- Look up the process with the PID (Process ID) shown in the Close applications dialog
- In this case it is JetStream
- Terminate the process so that CLM can be installed
- After CLM is installed, click on the Services button in the Task Manager and restart the service