- when it has to be **right**

Leica Geosystems
Release Notes

Product Leica Infinity

Date 10th March 2025

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Leica Infinity v4.3

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1 WELCOME TO INFINITY V4.3

LEICA INFINITY

Please read the following chapters carefully to learn more about what is new.

OVERVIEW WHAT'S NEW

- Infrastructure Tunnel adds Wriggle Survey and Best Fit Center reporting
- Support of 12d Synergy CDE for Engineering & Construction projects
- Updated GNSS processing engine with performance improvements
- Support of Captivate Quick Stake NAFTA field application
- Texture a surface using color from point clouds
- Improvements working with the Code Table Manager
- Latest CLM package included in installation
- Quality improvements and bug fixes

GETTING STARTED – HELP & SUPPORT

Getting started, users have access to information and useful data including coordinate systems, stylesheets, tutorials and sample data, all available from the *Localisation Tool*.

From the **Help** menu, click on the **Localise your Infinity** button to access this data and the tutorials to help you get started with Infinity.
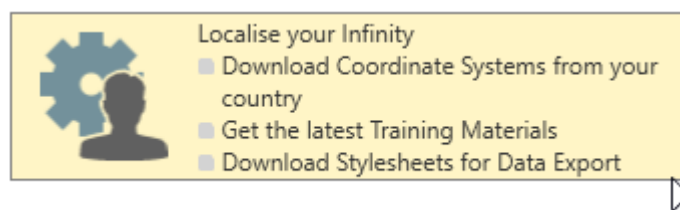
ORDERING INFINITY

Infinity has flexible ordering options. Users can purchase a one-time permanent perpetual license or can now also buy into a subscription plan.

On top of our existing Leica Infinity – Basic package, users can also purchase additional packages depending on their needs. One of them now covers the new Point Cloud Registration option. All packages and their features can be found on the Leica Infinity data sheet.

Contact your local Leica representative to discuss what options are best for meeting your project and workflow needs.

YOUTUBE VIDEOS

Check the Leica Infinity YouTube page to see our playlist of videos about new features and how-to-videos.
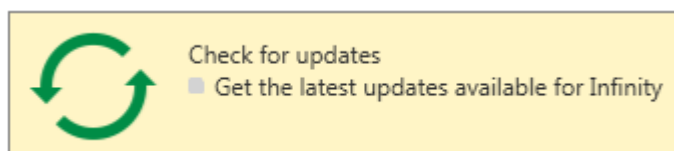
2 INSTALLATION DETAILS

INSTALLATION INFORMATION	Leica Infinity v4.3	Build	Maintenance End Date
		48031	1st February 2025
	Leica Infinity is available as a Windows 64bit only application		

With an active CCP or Leica Infinity subscription license, users will be able to update to this new version. Confirm that your Maintenance End Date is on or after the date listed above before installation.

New users can download the latest version from the Leica Geosystems myWorld support website.

CHECK FOR UPDATES

From *Help & About* choose **Check for updates**. When a new version is available you will be notified that the update can be downloaded from myWorld.

OPERATING SYSTEM REQUIREMENTS

The following Microsoft® Windows™ operating system editions are supported:
- Windows 10
- Windows 11

Note: you must have administrative privileges on your computer to successfully install Leica Infinity.

MINIMUM HARDWARE
- Display: 1024 * 768 px
- Input: keyboard and mouse with wheel
- Processor: multi-core 2.4 GHz
- RAM: 8 GB
- Disk storage: 100 GB
- Graphics: DirectX9 compatible

RECOMMENDED HARDWARE
- Dual Display: 1920 * 1280 px
- Input: keyboard and mouse with wheel
- Processor: multi-core 3.5 GHz or more
- RAM: 32 GB or more
- Disk storage: SSD of 1 TB or more
- Graphics: DirectX11 compatible, 8 GB memory or more, CUDA capable

RECOMMENDED HARDWARE FOR IMAGE PROCESSING, POINT CLOUD REGISTRATION
- Dual Display: 1920 * 1280 px
- Input: keyboard and mouse with wheel
- Processor: 8 Core 3.5 GHz or more
- RAM: 64 GB or more, XMP enabled
- Disk storage: SSD of 2TB or more
- Graphics: DirectX11 compatible, 16 GB memory or more, CUDA capable

3 CHECKED TUNNEL INFRASTRUCTURE – WRIGGLE SURVEY & BEST FIT CENTER

TUNNEL REPORTS

Checked Tunnel Axis (CTA*)* results, also known as Wriggle Surveys, from Leica Captivate are now supported in Leica Infinity.

Best fit tunnel rings are available in 3D and exported to CAD as best fit circles. The *Inspector* provides results such as *Best Fit Centre* (BFC), best fit radius, deviation for each measured point, etc. The results can also be viewed and saved to a PDF as a printable report with statistics and each cross-section for each ring. When generating cross-sections in the report, a tunnel design layer can be used for reference or context.
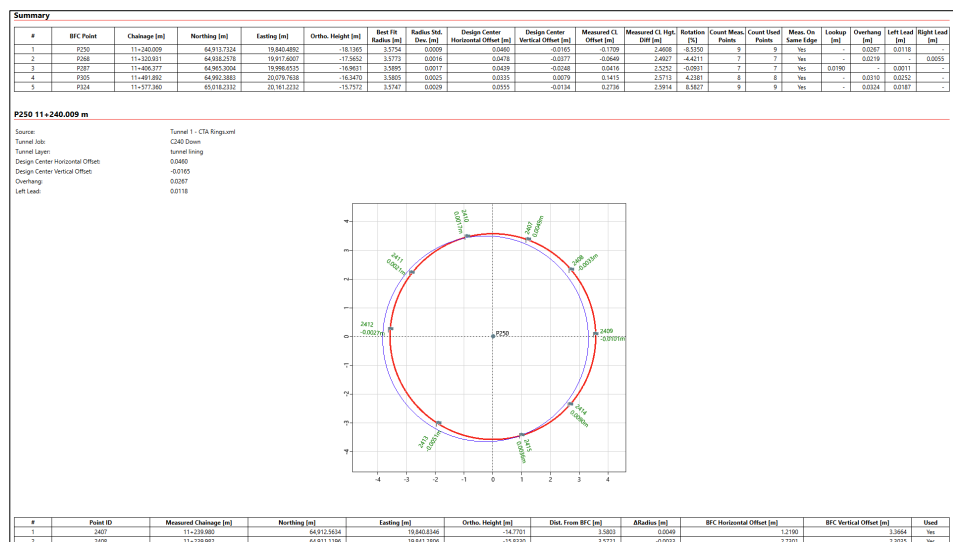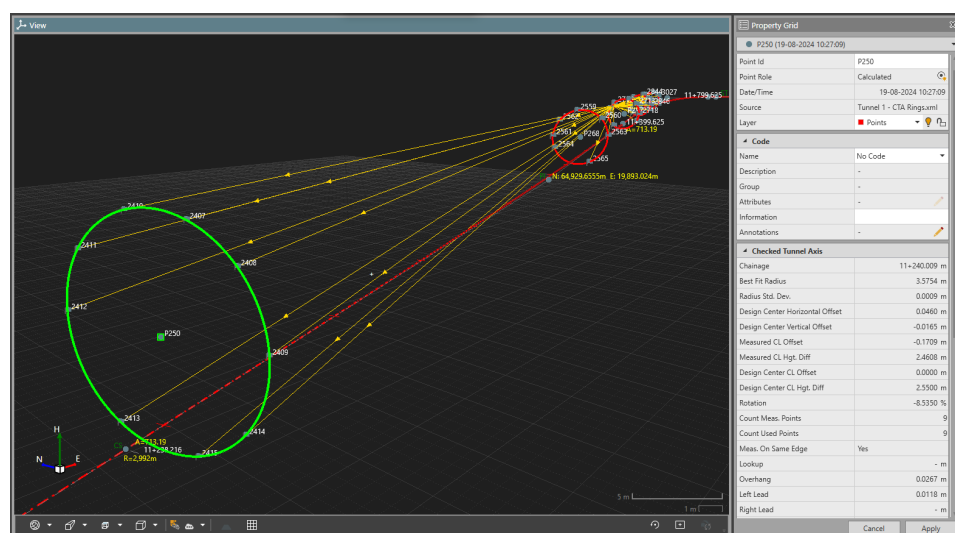
CHECKED TUNNEL AXIS REPORT

Results imported to Infinity from the Captivate Check Tunnel Axis results will be listed from the Checked Infrastructure group in Inspector. To run a report you need to select the BFC measured points you want to generate a report for, then choose from Reports, the Checked Tunnel Axis, and then select which tunnel layer the results should be reporting from.
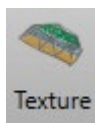

EXPORT TUNNEL TO CAD

The Infinity Tunnel Feature can be exported in DXF, DWG format that simplifies the sharing of data. This allows users to view the tunnel feature in other software's including tunnel layers and any material surfaces that were generated in Infinity.
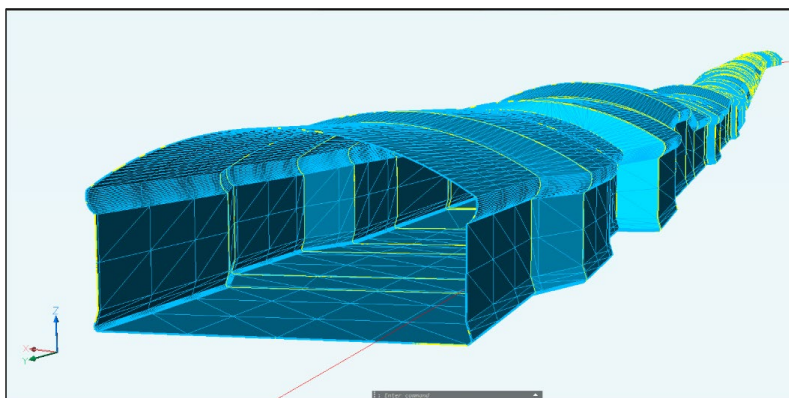
4 SURFACES

TEXTURE SURFACE 	Add a texture to a surface using color from a point cloud. When a point cloud covers the area of the surface, the RGB are used to drape the texture. Using texture from point clouds helps to better work with surfaces in Infinity. The textures can also be exported to provide a more realistic representation of the surface such as used in VR applications or CAD software.
OPTIMIZE MESH	A new option in Surface settings can be used to reduce the number of triangles when creating a new surface. The best use for this setting is when creating surfaces over large areas or with a lot of detail. The optimization will keep details in geometric changes and simplify flat areas with less triangles.

5 SERVICES – 12D SYNERGY

12D SYNERGY 	12d Synergy is a Common Data Environment (CDE) that allows all project stakeholders to access the information they need, when they need it. It is ISO 19650 complaint and used in many large Civil Infrastructure projects. Connect to the service from the Backstage Services, entering your user credentials and specific application key. Once connected to the service you can import and export data directly any of the listed jobs.

6 GENERAL APPLICATION IMPROVEMENTS AND FIXES

IMPORT CAPTIVATE	Captivate Quick-Stake application results are now supported. Import, view and create staked reports summarizing all staked data.
IMPORT SURFACES	Added support for OBJ, PLY, GLB and GITF2.0 surface/model formats
EXPORT CAD	CAD files now will include all Thematic Layers from the project Code Table even if there are not features using those layers
EXPORT CAD	CAD files now will include all Blocks from the project Code Table even if no point features are using those blocks.
CODE MANAGER	Now its possible to import codes to build you Code Table. Use the ASCII import wizard to easily import codes, attributes with values, and descriptions.
CODE MANAGER	Improved working with codes when editing a code or entering a new code, after the update the focus will be on that code.
CODE MANAGER	Added Copy, Paste and Delete buttons to support working with codes. This is helpful for working with codes imported that do not yet exist in the Code Table, but also to improve building the Code Table and organizing data.
CODE MANAGER	Added ability to search for a code or attribute now.
GNSS POST PROCESSING	Updated GNSS post processing engine that improves processing time when working with Beidou data.
GNSS POST PROCESSING	Updated GNSS post processing engine with improvements on ambiguity fixing strategy to improve resolving noisy observation data.
DESIGN TO FIELD	The Design to Field application is no longer included with the Infinity installation.