- when it has to be right

Leica Geosystems

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Release Notes

Product Leica Infinity

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Leica Infinity v4.3.1

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1 WELCOME TO INFINITY V4.3.1

LEICA INFINITY

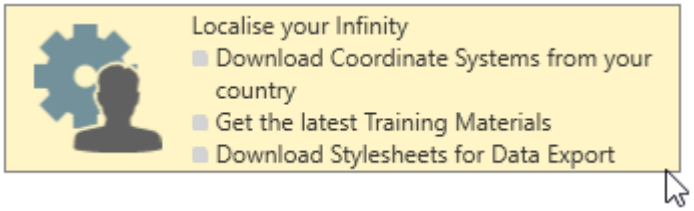
Please read the following chapters carefully to learn more about what is new.

OVERVIEW WHAT'S NEW

- View the date & time of the total station Check & Adjust application
- Support for mandatory attributes for data upload to 12d Synergy
- Import NGS GVX GNSS vector format
- Enabled point clouds to be shown in the overview window when marking Ground Control Points in imaging workflows
- Support for DJI Mavic 4 imaging UAV
- 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

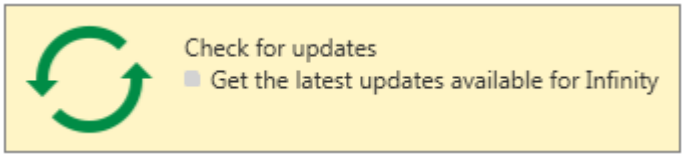
Leica Infinity v4.3.1	Build	Maintenance End Date
	48055	1st February 2025
Leica Infinity a Windows 64bit application		

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:

- Desktop: Windows 11
- Server: Windows Server 2019, Windows Server 2022, Windows Server 2025

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
- Disk storage: SSD of 2TB or more
- Graphics: DirectX11 compatible, 16 GB memory or more, CUDA capable

3 General Application Improvements and Fixes

Import Captivate	• View the total station collimation including the time & date and applied values from the last Check & Adjust. Included also in the TPS Setup Report.
Import Captivate	• Fix for importing ZIP jobs and reading panoramas as single JPG files
Import Captivate	• Fix for importing MS60 scans when non-ASCII characters were included in the older location of scan data
Import Zeno	• Display the tilt status of measured points indicating if tilt is applied or not
Import Zeno	• Always show imported Zeno data as Zeno jobs in Navigator, in some cases Zeno jobs would show as a SHP file import
Import NGS GVX	• Import GNSS vectors and use them in Network Adjustment
Import Topcon XML	• Create side slopes from Topcon Road cross sections defined with cut fill slopes
Import DJI Mavic 4	• Support for the new DJI Mavic 4 imaging UAV including GNSS raw data
Import Autel EVO2	• Fix for reading the pitch roll yaw of Autel UAV images
Export Captivate	• Fix for exporting to DBX when two or more TPS setups used the same point id but different point role
Export Captivate	• Fix for exporting to Surfaces, DTM job will use the name of the surface if only one surface exists in the project
Export DXF, DWG	• Option added to allow exporting all Blocks in Code Table or only the used Blocks that are applied to points in the project
Export DXF, DWG	• Option added to allow exporting all Layers in Code Table or only the used Layers applied to features in the project
Export DXF, DWG	• Fix for exporting Blocks using different line styles
Export DXF, DWG	• Fix for exporting images to use offsets so that the images are visible in CAD
General	• Fix for computing Shift Rotate Scale using only 2D points
General	• Fix for GNSS Points that when the Reference is updated the Computed Point Type is also updated
General	• Fix to allow assigning a Panorama image to a TPS setup when application not started in Windows Admin mode
General	• Fix to Time Series Report to use the project units and time settings
General	• Support for 12d Synergy mandatory attributes – now its possible for users to set the attributes that have been defined from the connected project
Adjustments	• Fix for using 2D points used in 3D adjustment
GNSS	• Fix to clock drift of UBLOX GNSS data that could fail in baseline processing
Imaging DSM	• Fix when creating DSM in some cases the Normals would be inverted.
Imaging GCP tool	• Added ability to select a point cloud to view in the overview window, that makes it easier to identify points in relation to the point cloud

4 What is New in 4.3

Overview What Is 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 colour from point clouds

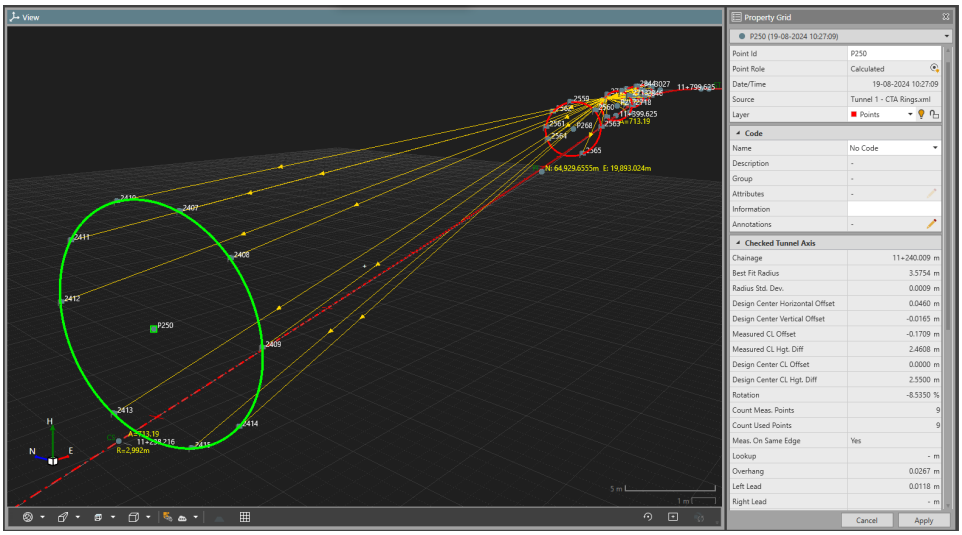
- Improvements working with the Code Table Manager
- Latest CLM package included in installation
- Quality improvements and bug fixes

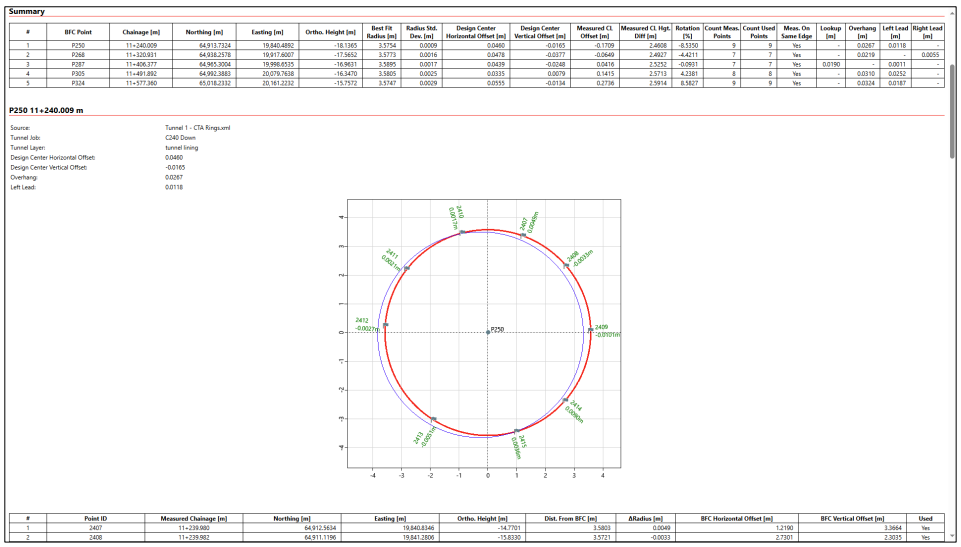
5 CHECKED TUNNEL INFRASTRUCTURE – WRIGGLE SURVEY & BEST FIT CENTER

TUNNEL REPORTS

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

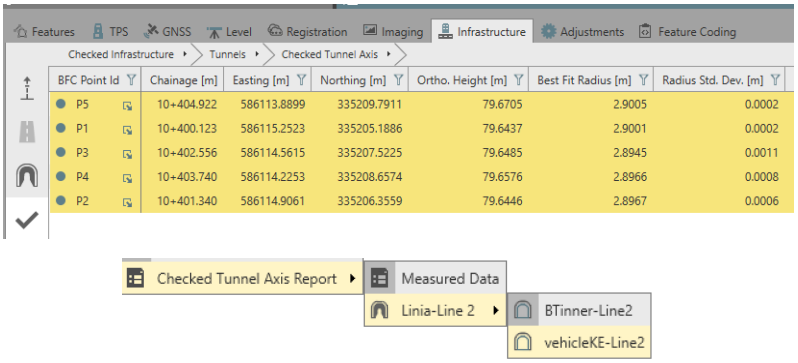
Best fit tunnel rings are available in 3D and exported to CAD as best fit circles. The *Inspector* provides results such as *Best Fit Centre* (BFC), best fit radius, deviation for each measured point, etc. The results can also be viewed and saved to a PDF as a printable report with statistics and each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





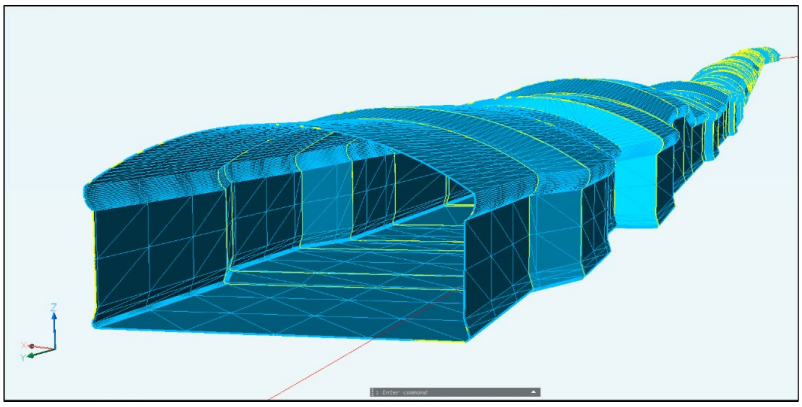
Checked Tunnel Axis Report

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.

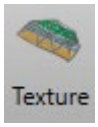


Export Tunnel to CAD

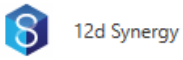
The Infinity Tunnel Feature can be exported in DXF, DWG format that simplifies the sharing of data. This allows users to view the tunnel feature in other software's including tunnel layers and any material surfaces that were generated in Infinity.



6 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.
OPTIMISE MESH	A new option in Surface settings can 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 optimisation will keep details in geometric changes and simplify flat areas with fewer triangles.

7 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 compliant 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, you can import and export data directly for any of the listed jobs.

8 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.