- when it has to be right

Leica Geosystems

Leica Geosystems – Mobile Mapping Release Notes

Product	**Version 2025.3.1.74 Leica Pegasus OFFICE**
Installer	**LeicaPegasusOffice-v2025.3.zip**
Date	**4 December 2025**
From	**Mobile Mapping Software Product Management Team**

Content

1.1. Introduction

1.1 Availability

The new **2025.3.1.74 release of Leica Pegasus OFFICE will be available for download in myWorld from the first** week of December 2025 onwards.

Users with active Customer Care Package maintenance as of October 1, 2025, can install and run the new software release for free.

1.2 What's New

Leica Pegasus OFFICE 2025.3.1.74 is a major release that includes new features and improvements to the product.

The main new features and improvements are:

- A new Check Point feature for data quality assessment
- An Auto Height validation tool for height quality assessment against known points
- A free TruSlicer tool to define custom slices on the point cloud
- A 2D minimap available while using TruSlicer for easier navigation
- The ability to align Ground Control Points to the measured average

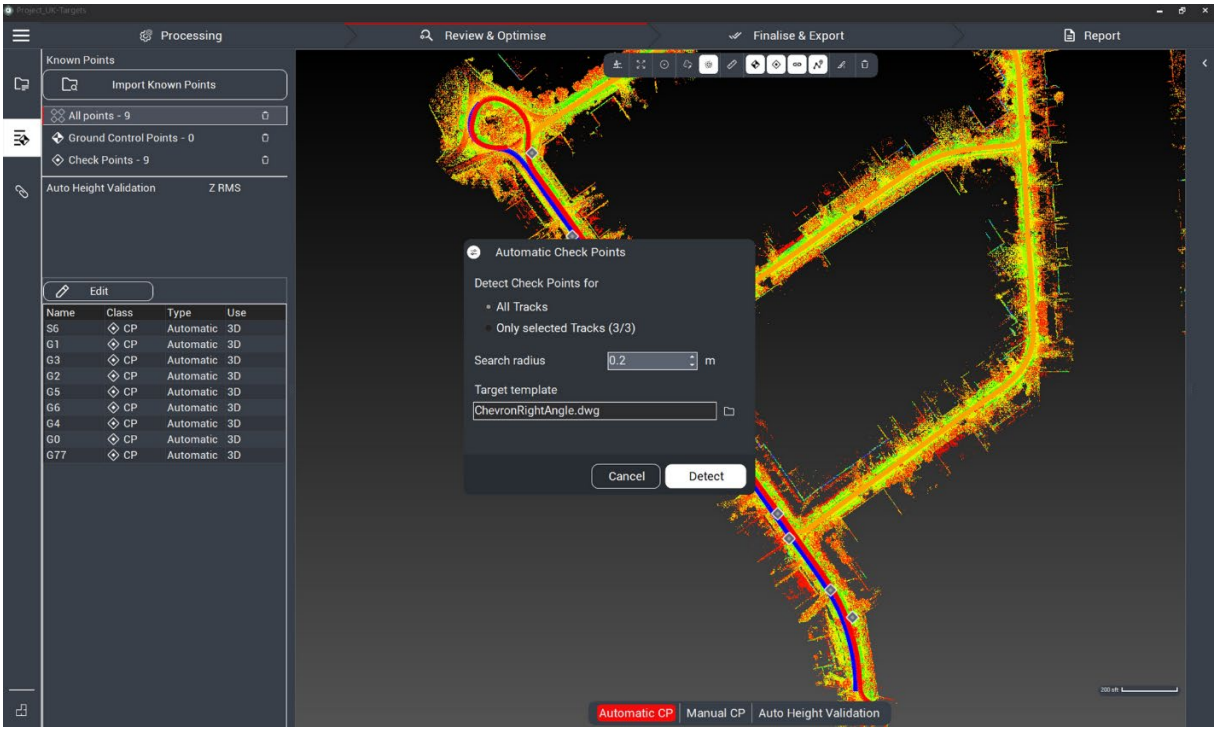
2 New features

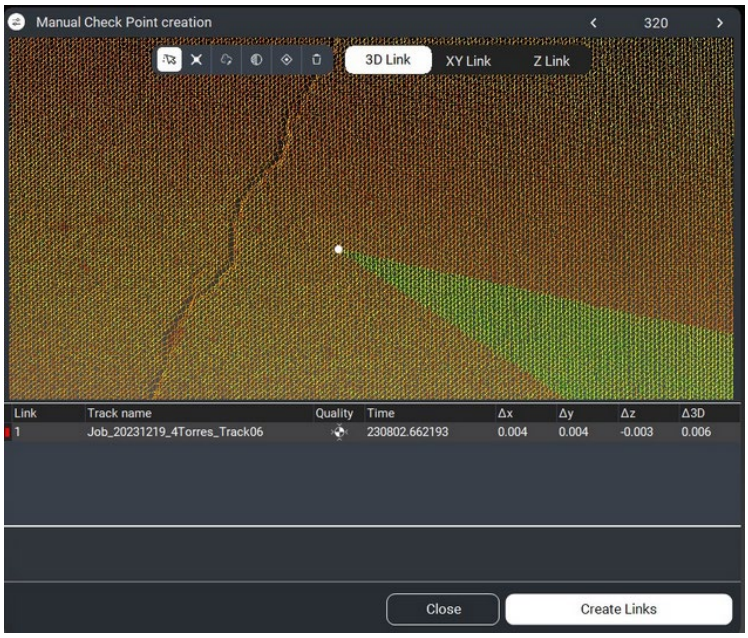
2.1 Check points for data quality assessment

This new function helps verify that the final dataset meets the project's accuracy standards.

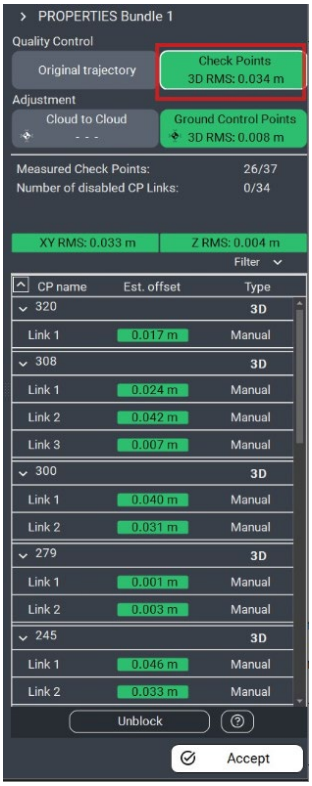
Unlike GCPs, which are used to perform the adjustment, Check Points (CPs) serve exclusively for validation by comparing their measured positions with their known precise coordinates. It provides clear, quantitative feedback on how your mobile mapping data aligns with surveyed control points.

After CPs have been imported, they can be automatically or manually measured:





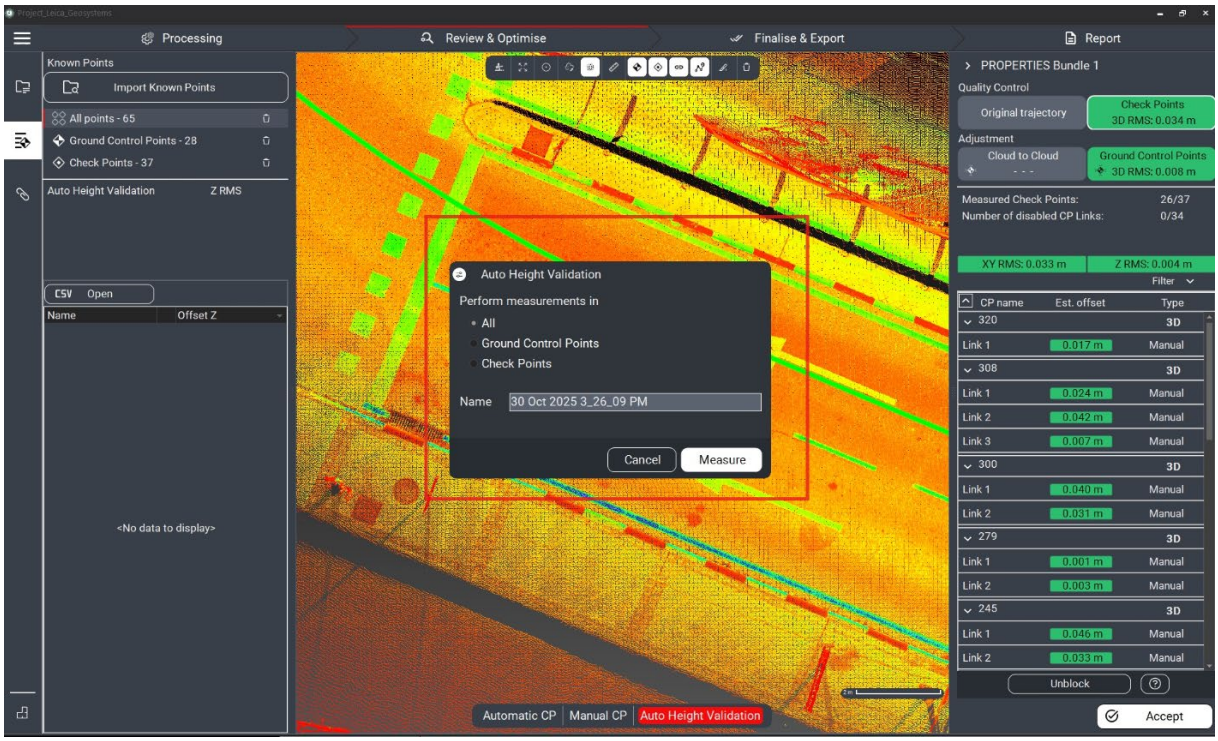
Check Points measurements and offsets are displayed on the right-side panel separately from the GCPs:



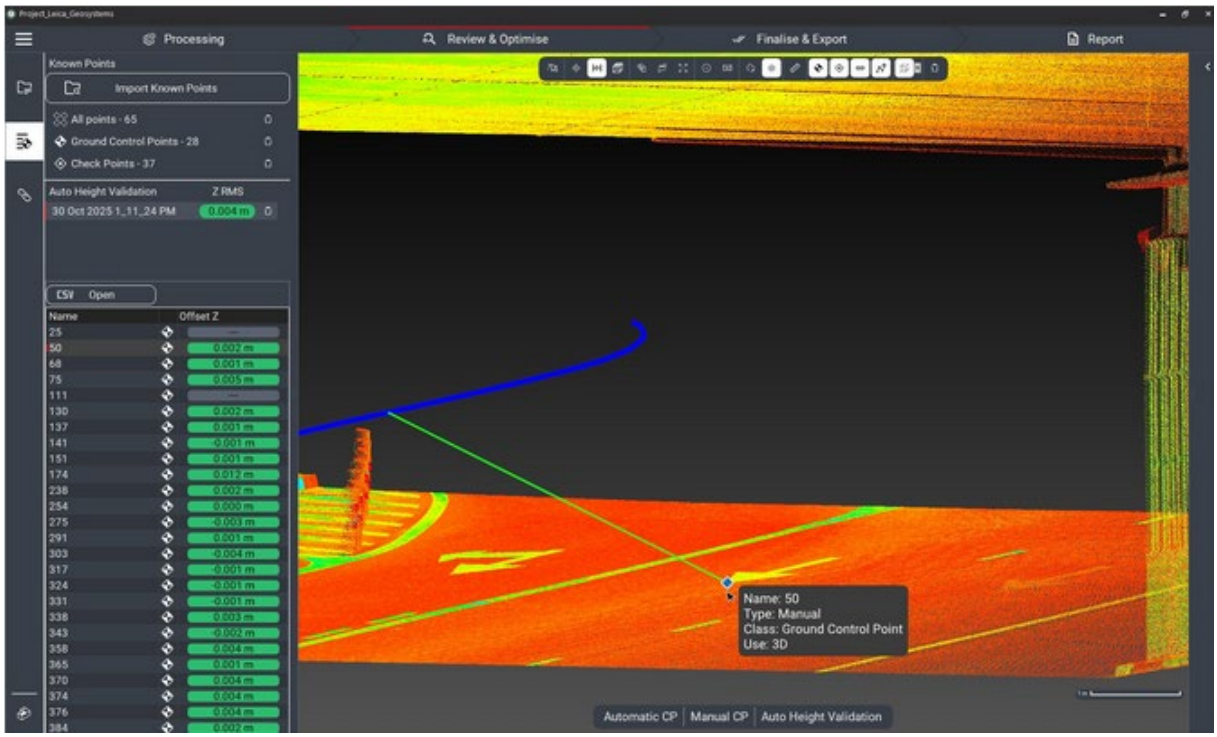
2.2 Auto Height validation tool for height quality assessment against known points

The Auto Height Validation tool assesses height accuracy by calculating the minimum vertical distance between each known point and the point cloud of the closest track. The measurements obtained during this process are not used in any adjustment operation and are intended exclusively for evaluating the height values obtained for the project.

The Auto Height Validation window provides selection options for including known points in the validation process, supporting all classes, GCPs, and CPs, regardless of their assigned type or use.



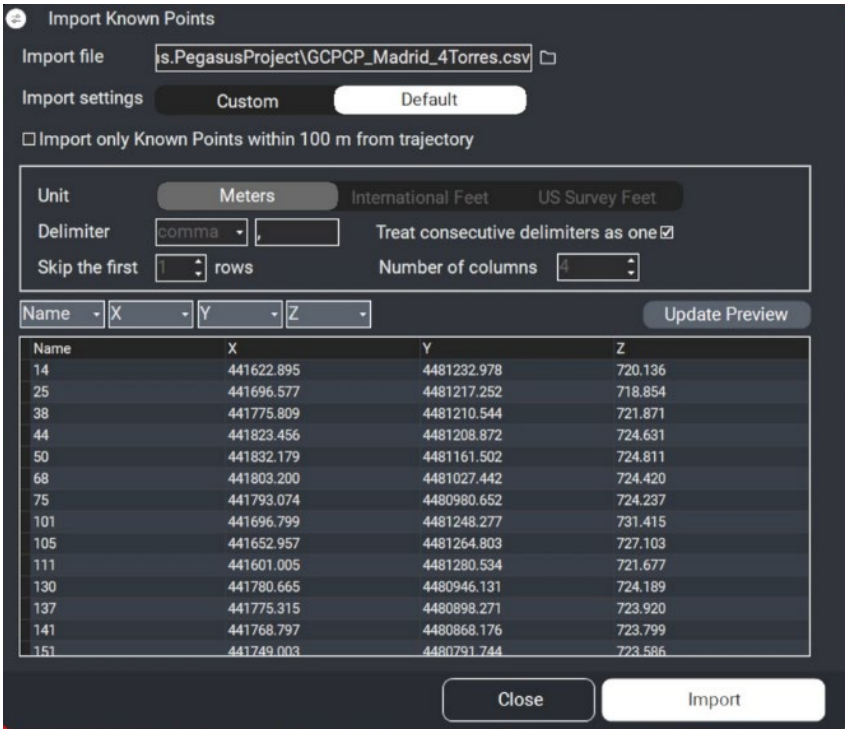
The result of the process is a list of points with the measured offset on Z for each, which can be visualized directly in Pegass OFFICE or opened in Excel.



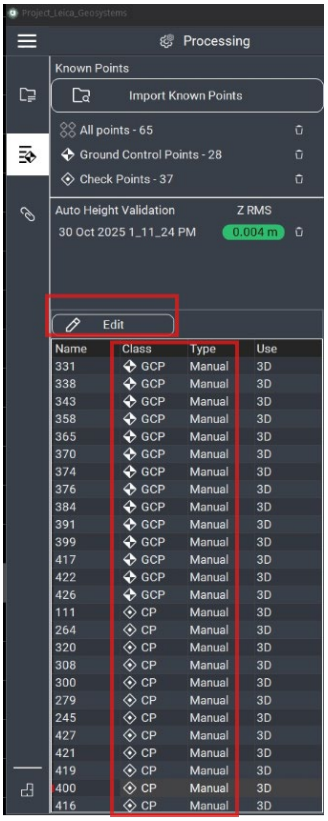
2.3 Import Known Point Wizard

The Import Known Points wizard is automatically launched after selecting a .csv file via the Import Known Points option in the Known Points panel. It provides configuration options to map the content of the file, facilitating the inclusion of GCPs and CPs in the project for Adjustment and Quality Control.

The user can now import customised point lists and manually configure the import settings, such as the number of initial rows to skip (e.g., headers), the number of columns to import (up to seven), and the measurement unit.

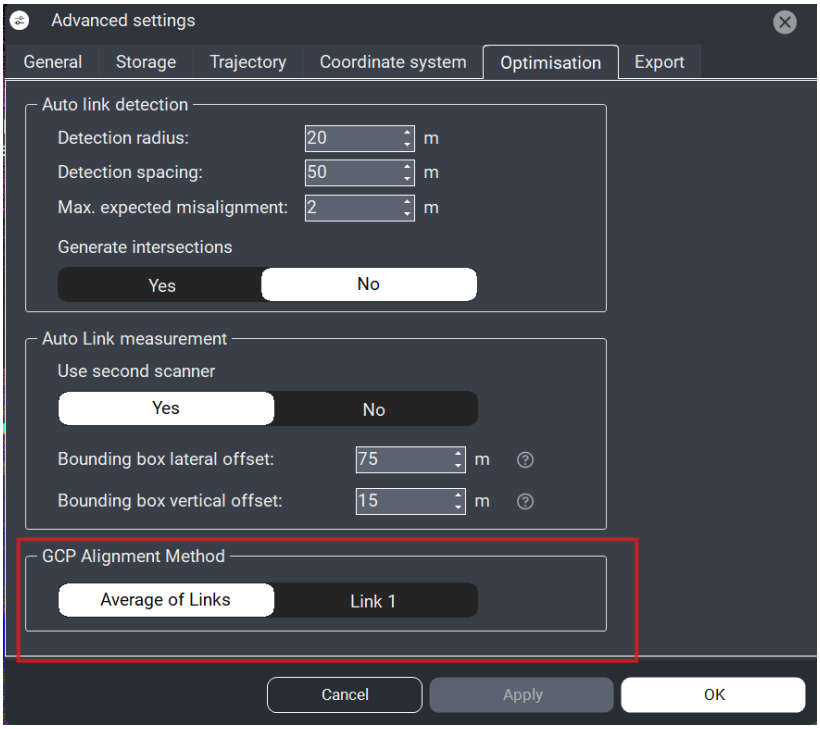


The list of known points can be modified with the Edit option in the Known Points panel. This function allows: Changing the class of a known point between GCP and CP, switching the Type between manual and Automatic, and deleting known points:



2.4 Possibility to align Ground Control Points to the measured average

From this release onwards, users can choose whether the Align to GCP adjustment tool aligns the point cloud to the first link measured to the GCP (as before) or to the average of all measured links, providing greater flexibility and accuracy in alignment.

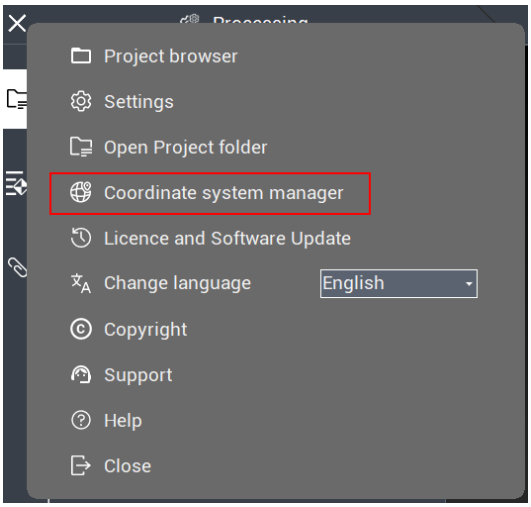


2.5 New Coordinate System Management

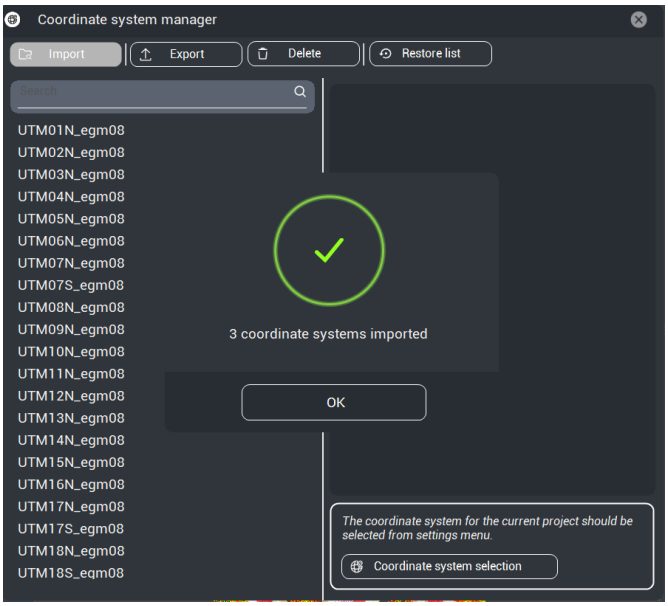
In this release, Leica Infinity is no longer included in the Pegasus OFFICE installation package, and the Coordinate System Manager has been updated.

Before importing coordinate systems into Pegasus OFFICE, a TRFSET.dat file or a <CoordinateSystemGroupName>.csys (even in bulk) is required. These files can be created in Leica Infinity or obtained from a sales or support representative.

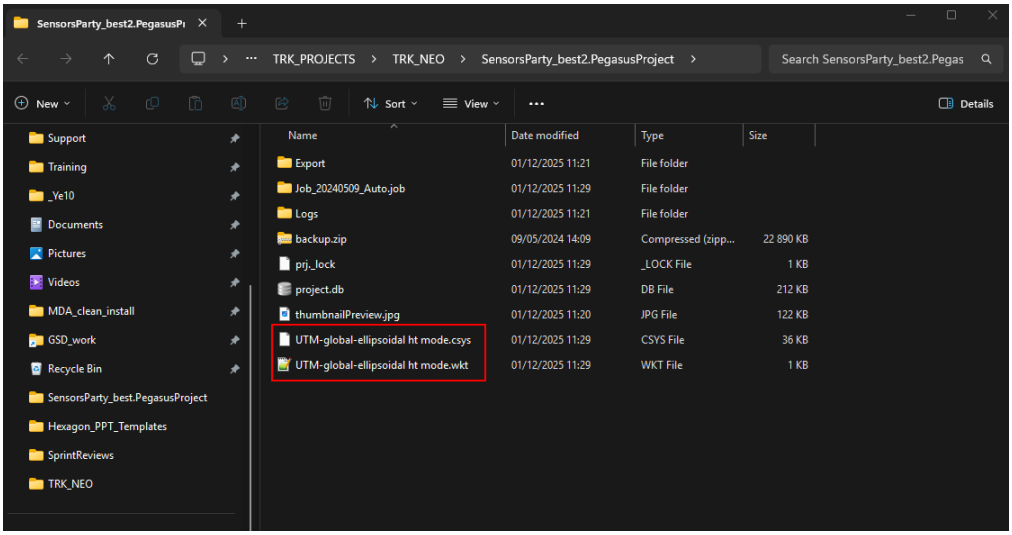
Users can access the Coordinate System Manager via the hamburger menu in Pegasus OFFICE.



Import the desired coordinate systems (UTM_egm08 is preloaded by default) from either previously exported files or the default UTM ellipsoidal file located in the installation folder. After a successful import, Pegasus OFFICE will confirm the number of coordinate systems that have been added.



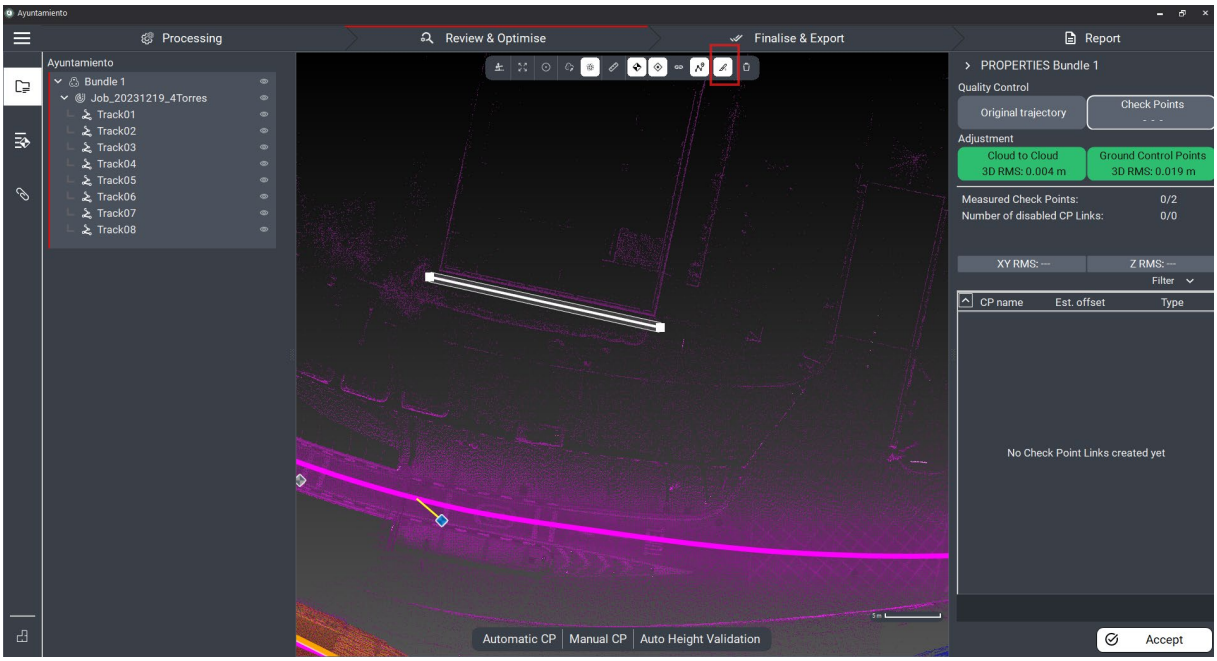
This is a one-time activity valid for all projects, but it must be repeated after every installation or update of Pegasus OFFICE. Therefore, it is recommended to store the .csys or TRFSET.dat files in a dedicated location on the computer or server.
Additionally, every time a project is closed, the coordinate system file and WKT file for that project are stored in the project folder. These files will be deleted when the project is restored to Raw or cloned as Raw.



2.6 Free TruSlicer tool to define custom slices on the point cloud

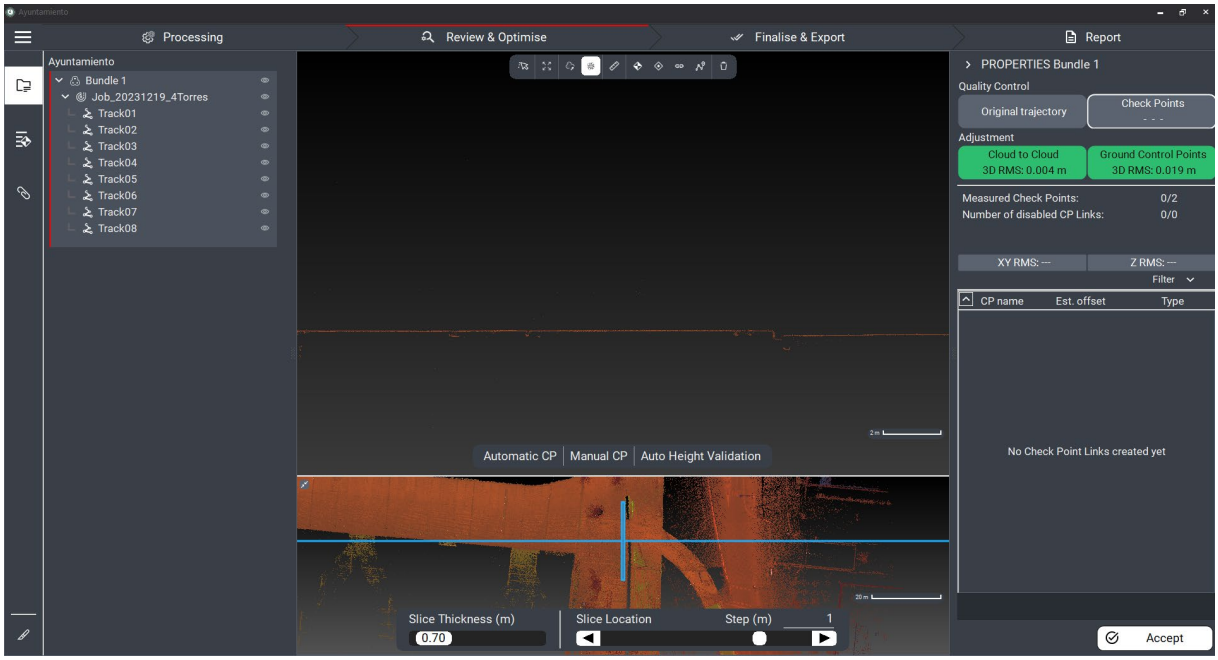
Free TruSlicer enables users to create custom cross-sections at any position or angle within the point cloud. This functionality is ideal for inspection and scan comparison, making it easier to verify geometry in complex environments—such as walls, tunnels, or repeated passes—without limitations on slice orientation.

Slices can be generated quickly using the button on the upper toolbar and complete the process in just three clicks—two to define the slice orientation and one to set the thickness.



2.7 2D MiniMap available while using TruSlicer for easier navigation

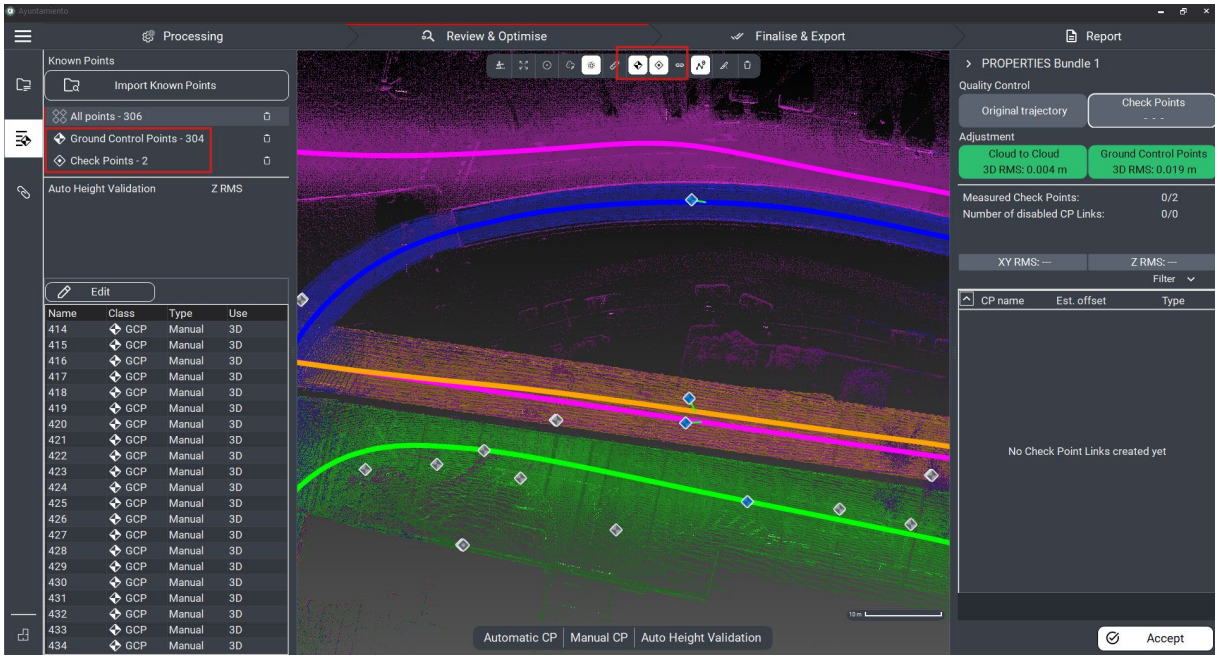
The MiniMap provides an overview of the point cloud in a 2D view and indicates the current slice location. Although it is not interactive, this visual reference provides navigation and spatial awareness, enabling users to orient themselves quickly.



2.8 Specific Icons for GCPs and CPs, Color-Coded by Measurement Status

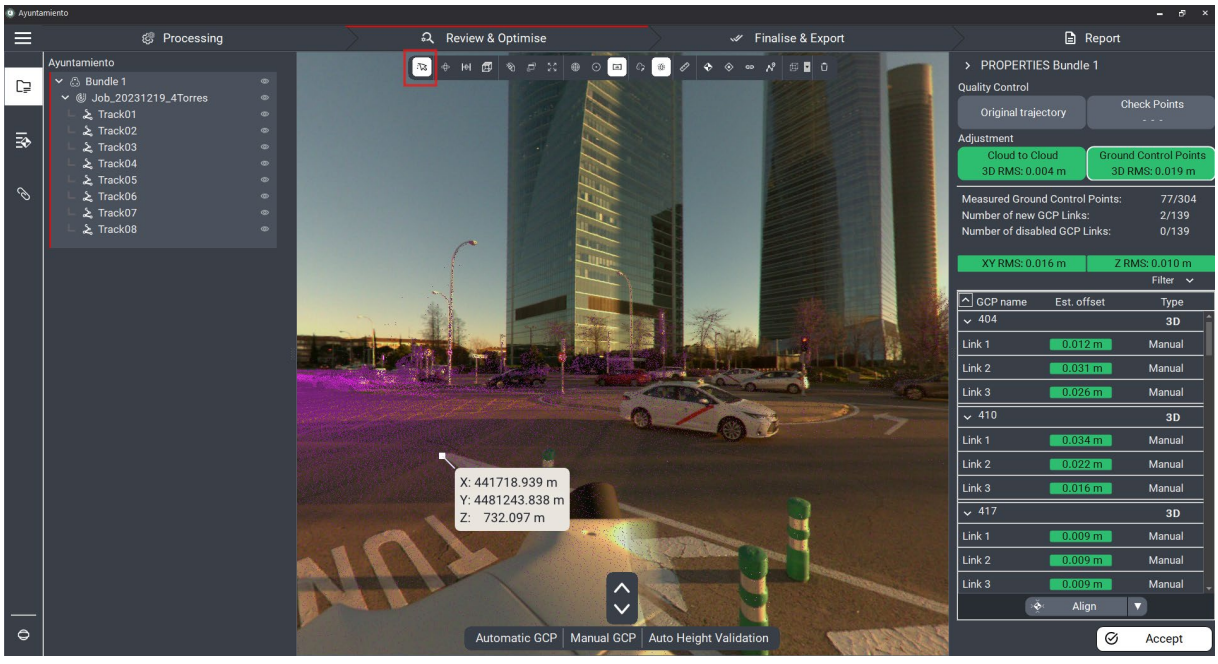
Ground Control Points (GCPs) and Check Points (CPs) now have dedicated icons that are color-coded based on their measurement status, making identification and status checks faster and more intuitive. Blue indicates that the point has been measured, while gray indicates that it has not been measured.

Every known point and link now has a dedicated visualization icon displayed in the upper toolbar. These icons allow users to easily identify and sort Ground Control Points (GCPs), Check Points (CPs), and Cloud-to-Cloud links by their respective classes.



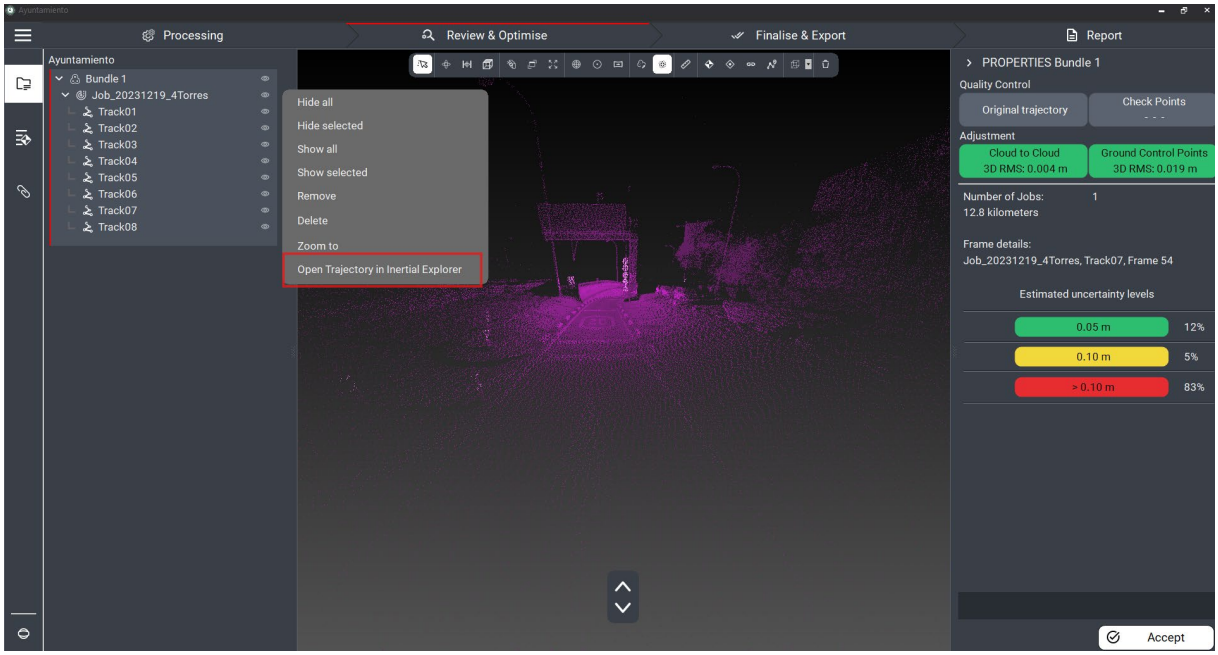
2.9 Point Picking in Image View with Active Point Cloud

This release introduces the ability to pick points directly in Image View while the point cloud is active. Users can now select precise points from images without switching views, making workflows faster and more intuitive.



2.10 Button to Open the Job Trajectory in NovAtel Inertial Explorer from Pegasus OFFICE

This release enables users to open the job trajectory in NovAtel Inertial Explorer directly from Pegasus OFFICE. This integration simplifies the workflow by allowing quick access to advanced trajectory visualization and assessment tools in Inertial Explorer.



3 Improvements

3.1 Support for Korean Base Maps

Pegasus OFFICE now supports Korean base maps, enabling users to work with localized mapping data, ensuring regional compatibility.

3.2 Updated default Side Camera orientation parameters

The default orientation parameters for side cameras have been updated to reflect the redesigned camera holders and adjusted camera positions. These changes provide a more accurate initial alignment, reducing the need for extensive manual corrections and improving the refinement process when using the Camera Orientation tool.

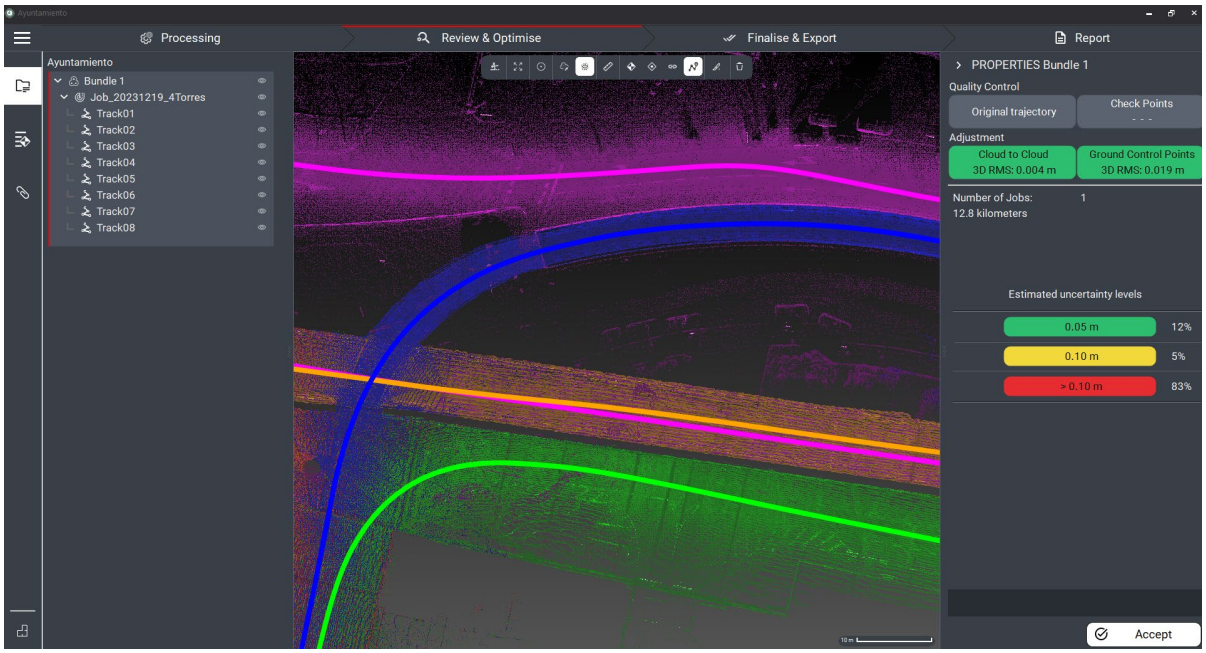
3.3 Detailed RMS Values for CPs, GCPs, and C2C

RMS values are now reported separately for XY and Z, in addition to 3D, offering more precise quality assessment for Check Points, Ground Control Points, and Cloud-to-Cloud comparisons.

In addition, in report tables, offsets are now displayed as XY, Z, and 3D, rather than X, Y, Z, and 3D, which improves clarity and consistency in reporting.

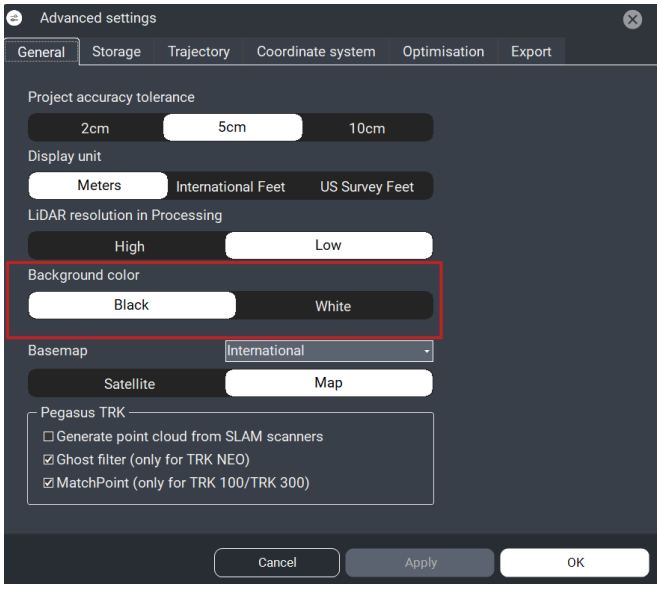
3.4 Point cloud and track color aligned

From this version onwards, the displayed trajectory and point cloud of the same track are colour aligned.



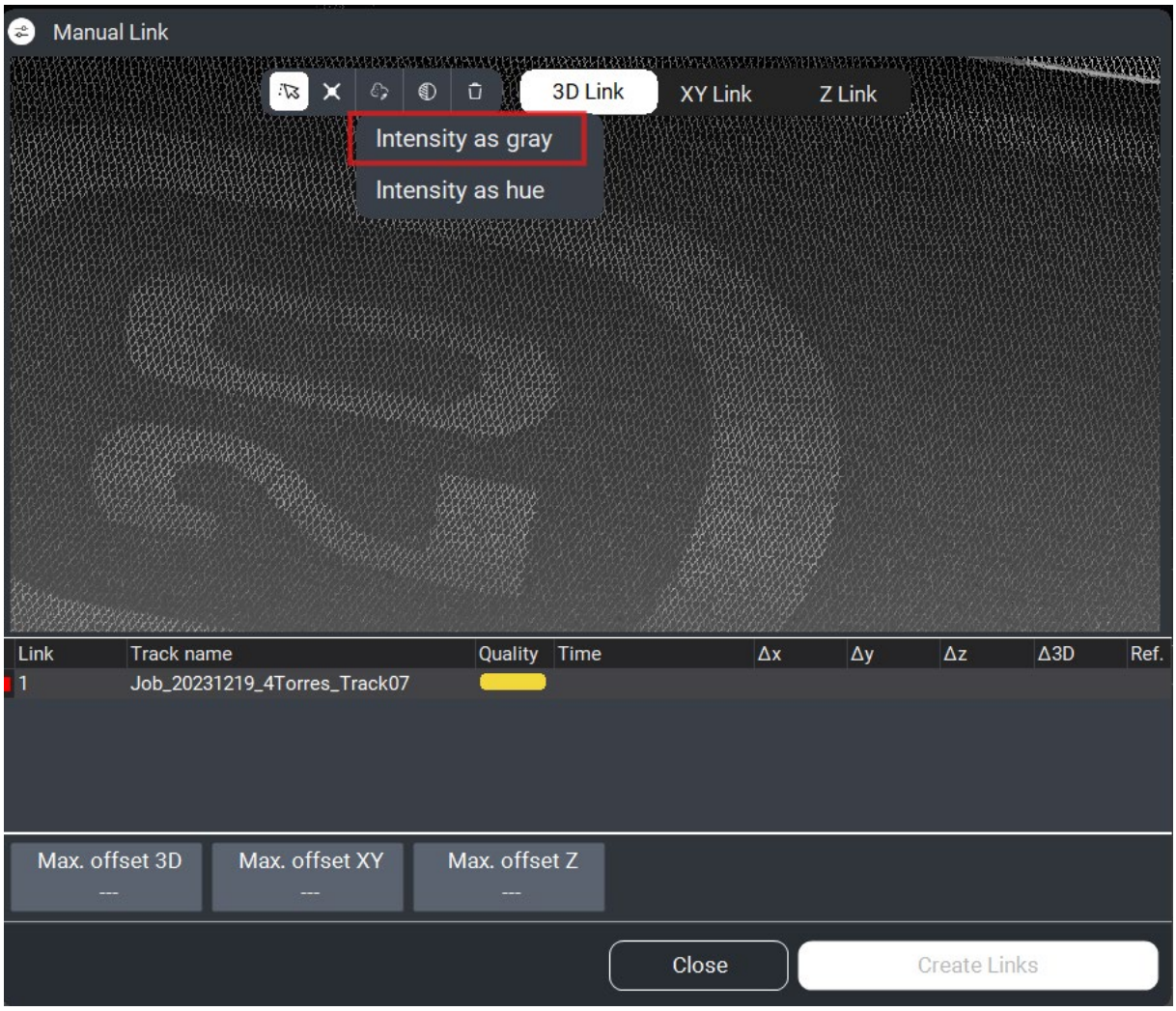
3.5 White background color available

The background color can be modified between Black and White for user convenience



3.6 Possibility to Display Point Clouds in Hue or Grayscale in Miniature Windows

Users now have the option to display point clouds in miniature windows using hue or grayscale intensity, providing improved visualization options for more accurate point picking in various scenarios.



3.7 Optimized Responsiveness and Speed of Known Point Miniature Generation

Miniatures are now generated significantly faster during Known Point import, reducing waiting times. Additionally, the responsiveness of Known Point miniatures has been enhanced, allowing for quicker interactions and smoother navigation for users.

3.8 Image Enhancements Applied to Point Cloud RGB Colorization

When users manually enhance one or more images, these improvements are now applied to the RGB colorization of point clouds. This ensures that the point cloud visualization reflects the enhanced image quality, resulting in more accurate and visually appealing color representation.

3.9 Improvements in the Installation and Uninstallation Process of Leica Pegasus OFFICE

Pegasus OFFICE now performs a clean installation by uninstalling the previous version and installing from scratch. This process removes user-specific data and prevents the incorrect copying of files. During uninstallation, a complete cleanup is executed to avoid potential upgrade issues.

3.10 Leica Pegasus OFFICE supports the New Client License Management (CLM) version

Pegasus OFFICE now supports CLM version 2.26.

3.11 Leica Pegasus OFFICE supports CUDA 12.8

Pegasus OFFICE has been updated to support CUDA 12.8 for anonymization and point cloud classification algorithms.

3.12 ESC Key Issue in Miniature View

In previous versions, pressing the ESC key while in miniature view closed the miniature view and unintentionally disabled Ground Control Point (GCP) selection in the main view. This bug has been fixed, so pressing ESC now only closes the miniature view without affecting GCP selection.

3.13 Improved LAS Export Speed in US Survey Feet

A bug that caused LAS export in US Survey feet to be significantly slower than in meters has been fixed. Export times are now at least 10 times faster.

3.14 Corrected NMEA String Generation

The NMEA output now correctly handles leading zeros in single-digit minute values for latitude and longitude and correctly outputs negative coordinates.

3.15 Fixed Missing End-of-Image Byte in Exported JPGs

Exported JPGs now include the end-of-image byte (0xD9), resolving compatibility issues with some image viewers.

3.16 Fixed unstable point of view when switching between Ortho, 3D, and Image View

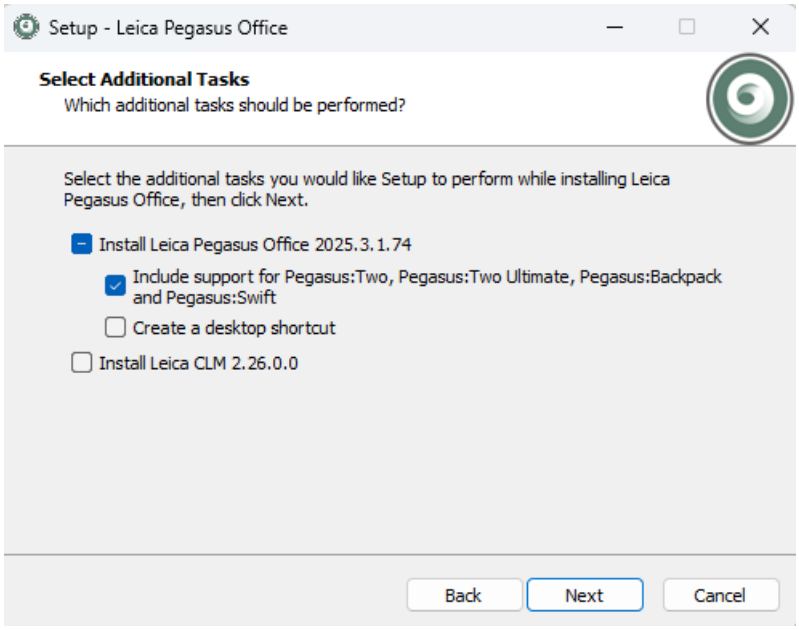
Previously, switching between Ortho, 3D, and Image views could cause the user to lose their focused position and zoom level, resulting in inconsistent navigation. This issue has been resolved, and the focused area and zoom level are now preserved when toggling between views, ensuring a smoother workflow.

3.17 Fixed Missing Measurement Units in Link Labels

Link labels now display measurement units correctly.

3.18 Installation Option for Legacy Dataset Support

A new installation option allows enabling support for legacy datasets from Leica Pegasus platforms (Backpack, Two, Two Ultimate, Swift). If not selected, Pegasus TRK users without legacy data can avoid installing unnecessary components, including some that are end-of-life (EOL).



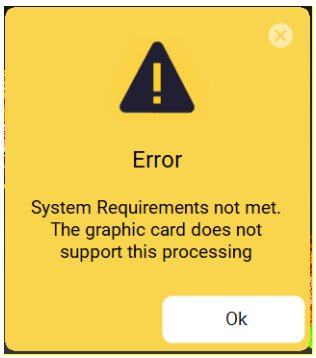
3.19 Several other minor User Experience improvements, Interface, and Bugs were fixed

This release included several minor bug fixes, improvements to user experience, and interface improvements, such as text enhancements.

4 Important Notes

4.1 Note on PC-GPU requirements

Image anonymisation and point cloud classification depend entirely on the hardware used on the PC. If the graphic card requirement does not match, the process is stopped with a notification:



The graphic card computing capability needs to be 7.5, 8.6 or 8.9.

Compare the listed computing capabilities for each Nvidia chipset here:

https://developer.nvidia.com/cuda-gpus

Computation capabilities, other than those listed above, must be checked by the Leica Geosystems R&D department to ensure that the image anonymisation works according to expectations. Suppose the graphic cards should be used with higher computation capabilities. In that case, the users should contact the Leica Mobile Mapping support team to verify if the hardware can function accordingly.

4.2 Compatibility

With the 2025.3.1.74 release, Leica Pegasus OFFICE is supporting these versions of the following Hexagon/Leica Geosystems software products:

- Inertial Explorer SDK 9.0
- Leica CLM 2.26

4.3 Support of virtual machines

Please note that running the software on virtual machines is not supported.