Trimble RealWorks

GEOSPATIAL

July 2022

Version 12.2 Release Notes

Introduction

These release notes describe the features and enhancements that are new in version 12.2 of the Trimble® RealWorks® software. For further information, visit www.trimble.com/support/.

System requirements

- Operating system: Microsoft® Windows® 8.1, 10 - 64 bit
- Processor: minimum 2.8 GHz (Quad-Core) or higher, (additional cores with Hyper-Threading support strongly recommended)
- RAM: minimum 16GB (32GB and higher recommended)
- Graphics card: OpenGL 3.3 compatible with minimum 1GB VRAM (3GB or higher and OpenGL4.4 recommended)
- NVidia graphics cards based on the Ampere architecture (RTX Axxx series) are currently not supported in commands 'Auto-Segment Steel Beams' and 'Auto-Segment Moving Objects'
- 3-button mouse

Other requirements

Solid State Drive (SSD) for maximum performance (pref. 500GB) - strongly recommended.

Upgrade procedure

Install the software from this location **(Internet connection required during installation and license or subscription verifications):** Support and Downloads

http://geospatial.trimble.com

New features and enhancements

Import/Data Management

Description	New or Enhanced	Feature Overview	Benefit/Comments
Trimble X12 laser scanner support	New	Added support for the Trimble X12 scanner/Trimble Perspective solution. Support for the extremely high resolution scans, HDR images, and area scans created by the Trimble X12. Import registered data from Perspective via TDX format or bring in data stored directly on the scanner.	Improved productivity and ease of use.
Added support for larger single scan files	Enh	The import of both structured and unstructured scans has been improved; a single scan can now contain more than 4 billion pts. This may occur when using the Trimble X12. The import is no longer limited to the available amount of RAM. For best performance in display and processing, it is still advised to import the data as it was acquired, i.e., keeping the actual scans instead of putting all the scans in one single entity.	Improved scanner support

Classification

Description	New or Enhanced	Feature Overview	Benefit/Comments
Auto-Classify Outdoor	Enh	The Auto-Classify Outdoor algorithm has been improved to automatically detect buildings from aerial lidar data. In this scenario, only the building roofs - no façades - are usually scanned. This required a new type of processing to detect these objects in the point clouds.	Better quality, improved interoperability
TZF scan-based processing: improved support of multiple scans per station	Enh	The Remove Points from TZF Scans command has been improved to support multiple scans acquired from the same station. In particular, it is possible to generate such data using the area scan functionality with the Trimble X12 scanner, but also with the TX series. Each point in the selected point cloud(s) will be removed from the exact scan it belongs to. You can then run the Auto-Segments Beams/Moving Objects command and choose to remove the resulting clouds from the original TZF scans.	Productivity

Inspection and Comparison

Description	New or Enhanced	Feature Overview	Benefit/Comments
Cloud-to-BIM 3D Inspection: increased performance	New	The performance of the 3D Inspection algorithm has been significantly improved for the case of cloud-to-mesh inspection. This is particularly the case for meshes of varying triangle sizes, such as the ones obtained from a CAD model of a building, e.g., having large walls modeled with large triangles.	Productivity

Resolved issues

JXL Import: fixed case of JXL files with points with 0 range

ZFS Import: fixed performance issue - introduced in 12.1

ZFS Import: fixed dark luminance issue - introduced in version 12.0

ZFS Import: fixed elevation issue on leveled scans

PTS Import: naming of stations now done according to file names

E57 Export: fixed export of 3D Inspection colors - issue introduced in version 12.1

OBJ Export: fixed format issue with textured mesh

RCP Export: improved stability in some cases (crash / minor loss of points)

Publish: improved estimation of the available VRAM

Scan Explorer Publisher: corrected issue - Create button <p> would sometimes not function with very few points

Auto-Extract Targets: better detection of targets close to the scanner in dense scans

TZF scan registration commands: fixed random crash (Auto-extract Planes, Refine Registration, Report)

Cloud-Based Registration tool: fixed some instabilities

Refine Registration using Scans: improved station ordering - UI and exported report

Auto-Segment Beams/Moving Objects: now asks for TZF scan reprojection if needed

Indoor Classification: now more robust with large point clouds

Mesh Editing: fixed crash when filling holes

Cloud-Based Modeler: fixed crash when extending rectangular boxes

Video Creator: fixed some display issues in the preview when using some point cloud display options

Merge clouds: now using the name of the first point cloud for easier operation

Legal Notices

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Release notice

This is the July 2022 release of the Release Notes. It applies to version 12.2 of the Trimble® RealWorks® software.