

SCENE Version 2024.0

Release Notes

June 2024

FARO is pleased to announce the release of SCENE and SCENE LT version 2024.0.

We would like to thank customers who provided valuable product input.

This release includes feature enhancements that are designed to increase productivity, mobility and ease-of-use.

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New Features

- You can now upload a SCENE project to Sphere XG. In addition, you can synchronize newly added scans, clusters and modifications in the project between SCENE and Sphere XG.
- Post registration scans optimization: The process analyzes the geometry within the overlap areas of multiple scans to compensate deviations in the scans.

Improvements

- SC-6914: When you exported a SCENE project to create a backup, both the original and the new project had the same UUID. As a result, the SCENE project selector only showed one of these projects, however you could open both manually. Starting from this version, the exported project gets a new UUID.
- SC-7611: You can now use clipping boxes to clip objects like scan positions and connections in the interactive registration.
- SC-7642: If you ran a target-based registration on a project that had reference points, the registration automatically looked for correspondences between the objects of the clusters and the reference points. The registration settings for the target-based interactive registration now provide an option to enable or disable this behavior.
- SC-7650: The interactive registration toolbar now has a toggle to show or hide connections to reference points.
- SC-7666: The interactive registration toolbar now has a toggle color mode button in the quick view. With this button, you can toggle between color and grayscale (intensity) mode. In grayscale mode, detecting spheres is sometimes easier.
- SC-7714: The Autodesk ReCap SDK has been updated to version 24.0.1.48. The SDK now utilizes parallel processing which improves the affected operations.
- SC-7751: The SCENE API can now be compiled with C++17 without setting any preprocessor definitions.
- SC-7828: If you ran a manual registration with correspondences for a cluster alignment, correspondences could have a negative impact on the cloud-to-cloud optimization. Now, correspondences are deleted automatically before running a cloud-to-cloud optimization.
- SC-7844: Exported .e57 scans now also include areas without scan points, for example the sky. This improves the quality of the scans' panorama pictures.

Bug Fixes

The following issues have been fixed:

- SC-7532: When structured .e57 data with a minimum row/column size less or equal 0 were imported, the result of the row/column calculation was invalid.
- SC-7604: SCENE sometimes crashed on opening the quick view.
- SC-7617, SC-7631: In the target-based registration user-specific target names were sometimes changed automatically.
- SC-7624: In some situations, coordinates were not shown in the lower half of the quick view. In addition, making measurements as well as creating annotations or new targets was not possible.
- SC-7654: After deleting some points in a project point cloud, then saving the project and wiping the project history, the deleted points were available again.
- SC-7655: After importing project *a* into project *b* and then saving the combined project and wiping the project history, the scan point clouds of project *a* were no longer available.
- SC-7656: The export of high-resolution panorama images and .e57 data stopped working after 100 scans.
- SC-7668: PanoCam scans and Flash scans did not have grayscale (intensity) values in WebShare and SCENE 2go after creating data for these applications in SCENE from a project which had both, color and grayscale values.
- SC-7669: After deleting a scan in the interactive registration view, the scan icon was still visible.
- SC-7762: Resolution and quality in the scan *Properties* dialog, tab *Scan Area*, were sometimes not displayed correctly.
- SC-7738: The registration to reference points did not show target connections below high-detail scans in the Scan Manager.
- SC-7770: When using the *Apply Pictures* functionality to colorize scans, the contrast in the intensity image was reduced considerably. This effect was visible in the SCENE quick view and in the exported panorama view in WebShare.
- SC-7801: In the correspondence view, no handlers were shown for clusters directly below the root object.
- SC-7827: The target-based registration did not work properly with PanoCam scans.
- SC-7829: The feature for measuring the height of a suspect using an image did not work in SCENE 2023. This functionality has been reactivated. You can find further information on this feature under [Measure a Suspect's Height Using an Image](#) on the FARO Knowledge Base.
- SC-7830: In some cases, SCENE consumed a large amount of memory when importing and processing non-ordered scans as .las or e57.
- SC-7840: On rare occasions saving projects failed with error code 94.
- SC-7858: When registering a high detail scans cluster in which the main scan was a PanoCam scan, the registration result had an offset between the high detail scans and the PanoCam scan.
- SC-7917: Target properties regarding their usage during the correspondence search were ignored by the interactive registration.
- SC-7915: In some cases, a scan-to-scan connection line was pointing from a scan to a sphere.

Further Changes

- SC-7643: Double-clicking a scan point error in the Scan Manager automatically zooms in to the location in the registration view and the connection is highlighted. This behavior is now also available for target tensions.
- SC-7644: When SCENE could not find or access the calibration parameters for the PanoCam or the scanner, it did not colorize the scans and did not report an error. Now, an error is reported in this situation. Scans were also not colorized if the Windows user name contained special characters. Special characters are now supported and in cases where a special character is not recognized an error is reported.
- SC-7645: The registration kept showing a red cluster for the root object, although the clusters below were registered and locked. Now, the Scan Manager below the root object automatically runs an *Update Statistics* procedure and is subsequently locked.
- SC-7646: The UI in the progress bars of the interactive registration has been improved.
- SC-7670: Target connections in the interactive registrations are now visible (enabled) by default.
- SC-7750: The cloud-to-cloud registration and the registration statistics now ignore points from opposite sides of the same wall.
- SC-7831: Calculating scan-point-based statistics or target-based statistics is no longer required due to the new hybrid bundle adjustment. Therefore, these UI options were removed from the *Registration Settings* page.
- SC-7859: The scanner API, previously deprecated, has now been removed from the stand-alone API. The replacement is the web api. If you still need this functionality, use one of the previous API releases.

Further Information

Online Help and Video Tutorials

FARO's Knowledge Base provides a variety of online tutorials for SCENE software. Access them from the Help menu within SCENE or with the following link:

knowledge.faro.com/Software/FARO_SCENE/SCENE

Visit the FARO Customer Service area on the Web at www.faro.com to search our technical support database, which is available 24 hours a day, 7 days a week. The link to the technical support database is also accessible from within SCENE.

Version History and Release Notes/

The full version history and past release notes can be found on the [FARO Knowledge Base](#)

Computer System Recommendations

A detailed list of computer system requirements and recommendations can be found in the SCENE user manual.

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