

# SCENE Version 2023.1

## Release Notes

### October 2023

FARO is pleased to announce the release of SCENE and SCENE LT version 2023.1.

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.

## Release Version 2023.1

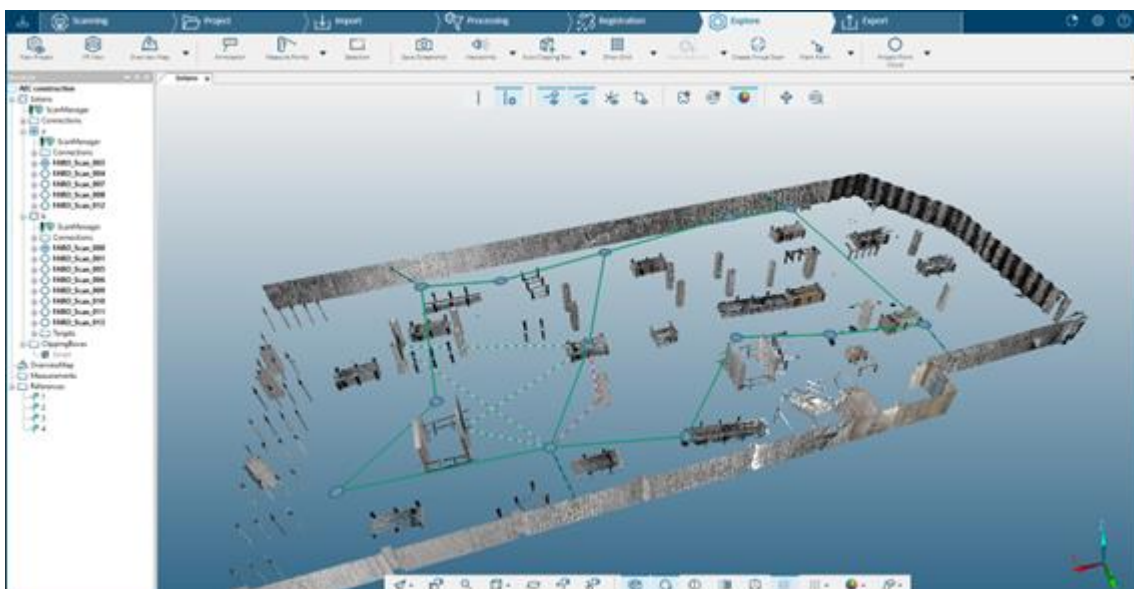
### Announcements

Starting from version 2022.2, SCENE comes with a changed license activation process. Make sure to read article [License Activation and Update for SCENE 2022.2 and Later](#) on the FARO Knowledge Base before you install SCENE 2023.1 for the first time.

### New Features

SCENE 2023.1 introduces Interactive Registration which provides users with a more intuitive and graphical workflow to register scans. This new workflow allows you to:

- Visualize and edit the connections between scans (add/delete/refine).
- Hybrid registration: Combine cloud-to-cloud connections with targets and reference points in the same registration.
- Lock and unlock clusters in a new, more intuitive way.
- Quickly update an existing registration after editing connections, etc.



## Improvements

- SC-7283/SC-7416: The ScanManager and the ScanFit dialogs have been improved. You can now resize these dialogs and columns have been reorganized to better reflect customer requirements. In addition, the ScanManager now shows inclinometer mismatches on the Scan Results tab and no longer on the Target Tensions tab.
- SC-7364: All selection boxes, for example the selection boxes shown when selecting an element in a 3D view, are now moved to a separate layer. This layer can be switched on or off in the visibility settings.
- SC-7351: It is now possible to identify to which scan a clicked scan point in the 3D view belongs.
- SC-7477: In the processing settings, users can now define that PanoCam scans are created for every stationary scan whose color was captured with the PanoCam. Then, after processing, only the PanoCam scans will remain in the project.

## Further Changes

- Several dependencies have been modernized to fix known vulnerabilities originating from third-party libraries.
- SC-7293: When a cluster has been locked, it is no longer possible to unlock a subordinate cluster.
- SC-7323: The legacy push/pull scan points functionality has been removed from the software.
- The behavior of scan folders and the root object have been changed. They now behave like clusters. Note however, that scans may still not be added directly below the root object, but the ScanManager may be directly below the root object.
- External references are now directly imported on the workspace level. All references must now be at the workspace level.

## Bug Fixes

The following issues have been fixed:

- NRT-467: SCENE sometimes crashed when a registration was canceled.
- SC-7005: On very rare occasions, SCENE crashed when accessing a project which did not yet contain any revisions.
- SC-7240: Accuracy losses occurred sometimes when using the API iterators to traverse scan points which have very large coordinates.
- SC-7291: SCENE occasionally crashed when opening and then directly closing a 3D view before the initialization had finished.
- SC-7324: On rare occasions, SCENE froze when processing Swift scans.
- SC-7327: In some cases, SCENE could not create compensated panorama images from scans using the PanoCam for color capture.
- SC-7409: On very rare occasions, SCENE froze when a 3D view was opened.
- SC-7413/SC-7538/SC-7512: Imported scans with a defined pose had an incorrect global pose after importing them into SCENE.
- SC-7439: The reported inclinometer mismatch in the scan properties did not consider that the root object would introduce a rotation, too. So, inclinometer mismatches reports were wrong.
- SC-7445: SCENE sometimes crashed when deleting objects.
- SC-7465: Occasionally, internal camera pictures could not be deleted after the colorization had been finished.

- SC-7466: SCENE sometimes crashed when scans were colorized with an external PanoCam. Now, SCENE reports an error if a problem occurs during colorization.
- SC-7478: The Focus scanner angles reported in the scan properties did not match the actual values.
- SC-7491: Sometimes filters did not work on an already processed scan.
- SC-7566: Exported unstructured point clouds sometimes looked sliced after being georeferenced. Now, the exported pose of unstructured point clouds is set to the same position as the scan has in SCENE.
- SC-7578: When closing a large SCENE project, the confirmation dialog for saving or discarding changes was sometimes hidden behind the progress dialog.

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## Release Version 2023.0.1

### Announcements

This is a hotfix version due to some critical issues found in SCENE 2023.0. We highly recommend installing this new version.

### Improvements

SC-7308: The logging of scan data related errors has been improved.

### Bug Fixes

The following issues have been fixed:

- SC-7239: Loading a raw Flash scan sometimes failed returning an unknown error.
- SC-7240: The SCENE API gave wrong point positions when a scan had very large transformations.
- SC-7296: Canceling a registration sometimes caused SCENE to crash.
- SC-7300: SCENE sometimes crashed on the following occasions: creating point clouds, opening a quick view, during scan data loading
- SC-7302: SCENE sometimes crashed on opening a Flash scan quick view.
- SC-7303/SC-7319: In some cases, some scan parameters provided by the FARO Focus Laser Scanner were ignored. As a result, inaccurate points were not filtered.
- SC-7328: In some cases, SCENE returned error 18 when saving the project after processing.

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## Release Version 2023.0

### Announcements

Starting from version 2022.2, SCENE comes with a changed license activation process. Make sure to read article [License Activation and Update for SCENE 2022.2 and Later](#) on the FARO Knowledge Base before you install SCENE 2023.0 for the first time.

### Improvements

- The compatibility with the e57 standard has been improved.
- SC-7233: Some third-party libraries were updated to include the most recent security patches.
- The Quality Manager App has been updated to improve the graphic user interface for high-resolution monitors. The update also fixes a bug that caused SCENE to crash if a scan had points recorded far from the scanner.

### New Feature

SCENE 2023.0 supports the new FARO Flash Scans captured by the FARO Focus Scanner.

### Bug Fixes

The following issues have been fixed:

- SC-5144: Detail scans were used during cloud-to-cloud registration although these scans should not be used for this purpose. This caused inaccurate registration results.
- SC-7082: SCENE crashed when trying to run a registration with an empty point cloud.
- SC-7118: SCENE sometimes crashed during startup when checking the compatibility with the graphics card.
- SC-7127: SCENE sometimes crashed when running a target-based registration.
- SC-7128: When exporting a project to a path containing non-ANSI characters, SCENE either used a wrong target directory for the scans or crashed.
- SC-7153: SCENE sometimes showed wrong scan times for FARO Focus Premium scans.
- SC-7170/SC-5723: Some e57 files failed to import.  
Resolution: The compatibility with the e57 standard has been improved.
- SC-7170: Some e57 files could be imported and scan points could be loaded and were visible, but when saving the file, SCENE reported an out of memory error and could not save the file.
- SC-7170/SC-7216: SCENE sometimes crashed when importing e57 files.  
Resolution: Now, SCENE will report Error Code 97: Access out of bounds. Instead of crashing, SCENE will not import the e57 file.
- SC-7170/SC-7217: Creating scan point clouds of imported, large e57 files took very long sometimes and seemed to freeze.  
The performance of scan point cloud creation of large e57 files has been improved. For example, creating a scan point cloud of an 8GB scan could have taken up to 8 hours, but now may take as little as 30 minutes.
- SC-7186: If there are FARO Focus scans in a SCENE project whose colors have been captured with a PanoCam and if the user only selected one scan for processing, then the calibration scans in the project were not computed.  
Resolution: If the user selects at least one scan for processing, calibrations are calculated for all PanoCam calibration scans in the SCENE project.
- SC-7188: SCENE sometimes crashed when the processing settings for scans with PanoCam images contained setting Colorize Scans and the processing was canceled.

- SC-7209: SCENE sometimes crashed when a plane was used to align the project.
- Rare crash when rendering multiple scan point clouds.

### **Further Changes**

PanoCam scans are only colorized if a matching calibration is known to SCENE. Otherwise, the scans will not be colorized and will be available only in grayscale.

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## 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](https://knowledge.faro.com/Software/FARO_SCENE/SCENE)

Visit the FARO Customer Service area on the Web at [www.faro.com](https://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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