

SCENE

Redefining productivity for laser scanning workflows

FARO



INTUITIVE USER INTERFACE

SCENE features an enhanced intuitive user interface that offers guidance and support for complex tasks. In addition, with improved and automated workflows, target based registration can now be accomplished efficiently for the usage of survey control data.

POWERFUL SOLID 3D SURFACES RENDERING

The solid surfaces rendering engine presents point cloud data with unmatched clarity and detail. Intelligent algorithms reduce gaps in the point clouds to a minimum. The new full color detail functionality provides best color detail, including scan data collected at low resolution.

HDR MAPPING

The fully automatic HDR mapping function preserves realistic image details and true color appearances within the scan data captured with a Focus^{3D} HDR or Focus^S Laser Scanner even in challenging lighting conditions.

3D MESHING

SCENE provides a powerful new meshing tool for automatic modeling of free form shapes, such as statues, equipment, industrial components and buildings. Meshes can be calculated, viewed and exported into various standard formats all within SCENE, thus eliminating the need for 3rd party software.

SCENE software is specifically designed for all FARO Focus^S, Focus^{3D} and Freestyle Laser Scanners and third party sensors. SCENE processes and manages scan data efficiently and easily by using automatic object recognition, scan registration and positioning. Offering full color images SCENE also provides tools for automated targetless and target-based scan positioning while generating high-quality data quickly and conveniently.

Once SCENE has prepared the scan data the user can begin the evaluation and processing right away, from simple measuring to 3D visualization to exporting into various point cloud and CAD formats. Scan projects can now be published on the Internet with the push of a button.

SCENE WebShare Cloud is a cloud-based hosting service from FARO for easy and secure sharing of scan project data and collaborating worldwide via the Internet. With SCENE WebShare Cloud, FARO offers a comprehensive service to provide users with simple access to 3D scan data every time, everywhere.

BENEFITS

- ▶ Automated standard workflows reduce overall data processing cost
- ▶ Verification steps in scan registration ensure confidence in data and project quality
- ▶ Increased project efficiency by incorporating survey control registration results
- ▶ Minimized training effort through intuitive and efficient user-guidance
- ▶ Customized and expandable deliverables with SCENE's integrated plug-in apps
- ▶ Confident data quality through on-site compensation

SPECIFICATIONS

Processing Scan Data

- Automatic search for reference spheres and black and white reference targets
- Targetless scan placement by TopView based registration or cloud-to-cloud registration methods. Alternatively, automatic identification of edges, corner points and fast plane detection
- Improved registration results through intelligent fine registration and additive verification
- Object markers for the manual identification of spheres, black and white reference targets, circular reference targets, planes, and slabs
- Online correspondence search for the automatic assignment of reference points. Now even faster through parallelization
- Automatic coloring of the scans with the high-resolution color photographs of the FARO color option
- HDR coloring of scan points with the aid of imported color photos
- Editing of multiple scans at once in 3D View
- Generation of new scan files of selected areas
- Filters (including "dark points", and "stray points")
- Optional Edge Artifact filter for additional noise reduction
- Create and view watertight meshes from 3D selections and clip boxes
- On-site compensation: verification and adjustment of the scanner's compensation, available for the new Focus^s devices

Data Management of Extensive Projects

- Project database with multi user interface and project history
- Hierarchical structure
- Graphical project view to manage all existing scan projects
- Bundling of an unlimited number of scans to one project
- Printable registration reports (PDF)

Navigation

- Displaying of scan positions for viewpoint selection and changing to other scans by clicking
- 3D navigation supports 3Dconnexion Space Mouse devices
- Predefined views (front view, side view, top view)

WebShare Cloud

- Fully integrates with the SCENE WebShare Cloud service and SCENE WebShare 2Go 2.0
- Displays multi-overview maps exported from SCENE
- Automatically creates overview maps & panoramic scan images
- Enables simple measurements and the ability to add information, documents, hyperlinks, categories and tags
- Intuitive web-based administration tools to manage projects, users and sharing of information

Import & Export

- Control points for geo-referencing (.cor, .csv)
- Scan points (FARO Scan, FARO Cloud, ASTM E57, .dxf, VRML, .igs, .txt, .xyz, .xyb, .pts, .ptx, .ptz, .pod)
- CAD objects (.wrl, .igs and .dxf)
- Import digital photos (.jpg, .png, .bmp, .tif)
- Export panoramic images (.jpg), export orthophotos (.tiff)
- Export meshes in standard formats (.stl, .obj, .ply and .wrl (VRML))
- Direct data transfer to: AutoCAD®, Autodesk® ReCap™, Revit, Microstation®, Geomagic®, Polyworks®, Rapidform, Pointools™, JRC 3D Reconstructor®, AVEVA®, Intergraph®, LFMTM, FARO PointSense, PointCab™, Carlson and more than 100 others

Creating Workspaces

- Project Point Cloud for efficient navigation in 3D data
- Object fitting with visual quality indicators for spheres/tubes/ planes (including automatic border detection)
- The ability to take measurements
- Intuitive user interface with structure view
- Documentation objects to add notes and attach external documents via hyperlink technology
- Creation of virtual scans

Analysis

- Distance measurements
- Additional capabilities using plugins

Views

- Solid 3D surfaces rendering with full color detail
- 3D View, Planar View & Quick View
- Stereoscopic visualization with suitable graphics board and 3D capable device
- Scans are shown either in color or black & white
- CAD object display
- Correspondence view to control scan placement on the screen
- Multiple clipping boxes to control the visualization in 3D View

System Requirement

	Minimal Specifications*	Recommended Specifications
Processor	64-bit (x64) with at least 2-gigahertz (GHz) (For example, Intel Core i7)	Quad-core x64 Intel Core i7/Xeon, 8 physical cores
Graphics Card	OpenGL 4.1, or higher At least 2 GB Memory	Dedicated graphics card At least 4 GB Memory OpenGL 4.1 Nvidia Quadro (required for stereo rendering)
Main Memory	At least 16 GB	64 GB
Hard Disk	256 GB Solid State Drive	512 GB Solid State Drive + Regular HDD
Display	1366 x 768	1920 x 1080
Operating System	64-bit Windows 7	64-bit Windows 7 64-bit Windows 8, 8.1 or higher
Accessories	Mouse with 2 buttons and a scroll wheel Network card as it is required for licensing SCENE	

* Good for projects where the laser scanner resolution does not exceed 1/4, or the project size is less than 10 scans, and you are not using stereo rendering. Exceeding this may cause slow processing speed

Areas of Application

- Archeology and Historic Preservation
- Architecture
- Civil Engineering
- Construction
- Digital Factory
- Factory Automation/Planning
- Forensics and Accident Reconstruction
- Process and Power Industry
- Safety Engineering
- Surveying
- Virtual Effects/Movies/Games



Global Offices: Australia ▪ Brazil ▪ China ▪ France ▪ Germany
India ▪ Italy ▪ Japan ▪ Malaysia ▪ Mexico ▪ Netherlands
Philippines ▪ Poland ▪ Portugal ▪ Singapore ▪ Spain ▪ Switzerland
Thailand ▪ Turkey ▪ United Kingdom ▪ USA ▪ Vietnam

www.faro.com
Freecall 00 800 3276 7253
info.emea@faro.com

