

SCENE

Redefining productivity for laser scanning workflows

FARO



INTUITIVE USER INTERFACE

SCENE features a new intuitive user interface that offers guidance and support for complex tasks. In addition, with improved and automated workflows, now the project transfer (e.g. from SD-Card), scan processing and initial registration can be realized in a one single step.

POWERFUL SOLID 3D SURFACES RENDERING

The brand-new 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 even on low resolution scan data.

HDR MAPPING

The fully automatic HDR mapping function preserves to preserve realistic image details and colour appearance within the scan data captured with a Focus^{3D} HDR laser scanner even in challenging lighting situations.

EASY COLLABORATION AND SECURE SHARING OF PROJECT DATA

FARO's hosting solution SCENE WebShare Cloud and the solution SCENE WebShare 2Go 2.0 provide project partners for faster workflows due to easy data sharing and worldwide collaboration.

SCENE software is specifically designed for all FARO laser scanners. 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 scan positioning and generates high-quality data quickly and efficiently.

Once SCENE has prepared the scan data you 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 everytime, everywhere.

BENEFITS

- ▶ Minimized data processing cost by widely automated standard workflows
- ▶ Reproducible project results due to modern workflow-driven and supportive user interface
- ▶ Reduced 3D modelling effort for visualization purposes due to life-like visualization with solid surfaces
- ▶ Minimized training effort through intuitive and efficient user-guidance
- ▶ Future-proof and extendible by SCENEs integrated plugin concept



SPECIFICATIONS

Processing Scan Data

- Automatic search for reference spheres and black and white reference targets
- Target-less 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
- 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 parallelisation
- Automatic colouring of the scans with the high-resolution color photographs of the FARO color option
- HDR colouring of scan points with the aid of imported color photos
- Editing of multiple scan at once in 3D View
- Generation of new scan files of selected areas
- Filters (including "dark points", and "stray points")

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 unlimited number of scans to one project

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
- 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)
- Direct data transfer to: AutoCAD, ReCap, Revit, Microstation, Geomagic, Polyworks, Rapidform, Pointools, Reconstructor, AVEVA, Intergraph, LFM, Point-sense, PointCab, Carlson and more than 100 others

Creating Workspaces

- Project Point Cloud for efficient navigation in 3D space
- 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 visualisation 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 visualisation in 3D View

System Requirements

- Microsoft Windows 7, 8, 8.1, 10, 64-Bit
- At least 2 GHz (2.5 GHz Multi-Core-x64-processor recommended)
- 16 GB RAM or more
- HDD: Min. 2GB free disk space
- Display: Min. resolution of 1280 x 768 (WXGA)
- Mouse with 2 buttons and scroll wheel
- Graphics card with 512MB and OpenGL 2.0 (NVIDIA cards recommended, Quadro class necessary for stereoscopic visualisation)
- Internet connection for licensing SCENE
- Solid State Drive for highest performance recommended

Areas of Application

- Process industry and power plant design
- Digital factory / virtual reality
- Architecture
- Civil engineering and plant design
- Surveying
- Archeology and cultural preservation
- Factory planning / automation technology
- Safety engineering and forensics
- Marketing, advertising and computer graphics

