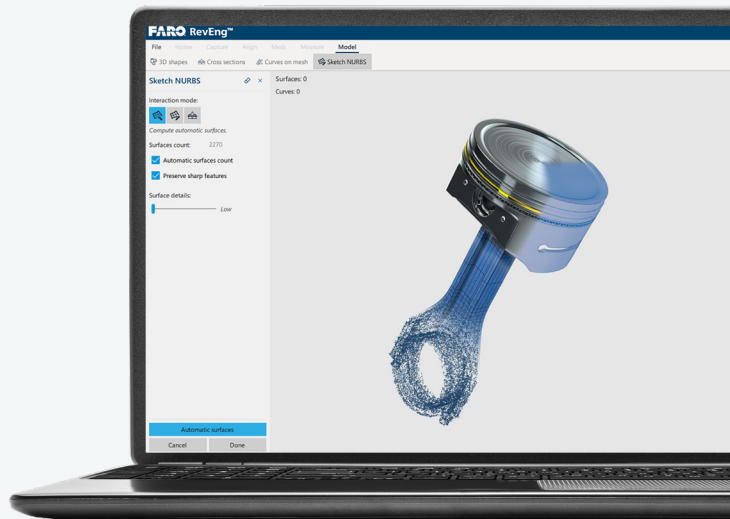# FARO® RevEng Software

Improve the way you capture and mesh objects

Versatile Software for a Streamlined Workflow

FARO RevEng is a user-friendly 3D point cloud capture, mesh generation and advanced editing software solution that offers an array of powerful tools for processing mesh models quickly and efficiently.

RevEng helps users to create high-quality 3D mesh models as well as prepare the models for downstream CAD development. Combined with FARO's portfolio of 3D scanning products, users are able to easily capture and edit meshes in color to create the perfect model or CAD-ready file.

Data ranging from high-resolution color point clouds to simple mesh files can be transformed into detailed meshes, providing more insight into the design,composition and visual differentiation between materials and textures. RevEng intuitive user interface visually displays all the tools within a single screen. This facilitates the easy manipulation and customization of a 3D object to meet specific design requirements, improving workflow productivity to provide users with a competitive advantage.

Features

Point Cloud Capture
- Direct interface with FARO ScanArms and 8-Axis
- Scan with color and texture
- Import point clouds from any standard format

Advanced Mesh Editing
- Automatic mesh fixing by repairing defects with one single click
- Advanced repair and adjustment tools
- Enhanced smoothing and fitting for basic geometric features

Export Watertight Meshes
- Advanced hole filling and simplification tools
- Generation of offsets and shells for the perfect hollow part
- Export mesh files ready for 3D printing

NURBS Sketch Tool
- Automatic NURBS (Non-Uniform Rational Basis Spline) surface creation
- Flexible control point placement
- Easily exportable to STEP file format for downstream design workflows

Benefits

Efficient and Rapid 3D Point Capture
Increase productivity by reducing data capture time and eliminating overlapping points. Create up to 1.75X lighter models with the grid management feature to obtain clean, light and consistent point cloud data.

Automatic Optimization Tool for Meshing
Obtain dimensionally accurate, reliable and repeatable mesh file results. The best in class single button tool provides quick performance and optimized surface quality.

Best in Class Mesh Editing Capabilities
Increase user efficiency with the powerful editing tools. Quickly optimize meshes up to 20X times faster than the current leading tools with the automated Mesh Fix tool and improve smoothing effectiveness up to 1.5X faster.

Fastest Scan to CAD Workflow
Streamline the process of getting exportable CAD surfaces from point clouds with the NURBS (Non-Uniform Rational Basis Spline) Sketch tool, by automatically generating the curves network and surface patches, while providing full control with its flexible control point placement.

FARO

Ideal Applications

Reverse Engineering:
Capture legacy parts in order to implement improvements and design replacement parts.

Aftermarket Customization:
Quickly and accurately scan sections of cars as the foundation for custom designs; create parts that fit like originals the first time.

Rapid Prototyping:
Digitize hand-made prototypes, then refine and optimize the mesh for 3D printing or transition into production.
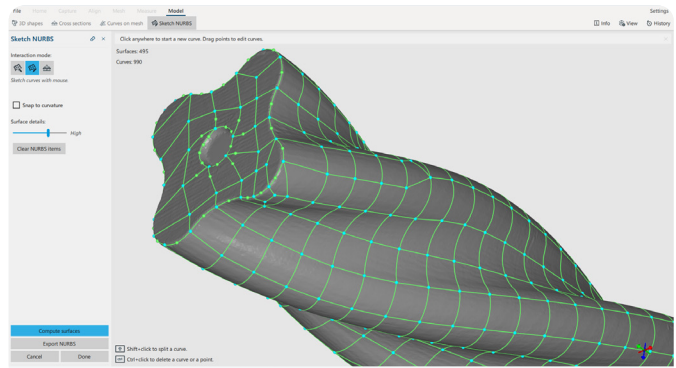
Computer Graphics:
Easily optimize captured objects to add real-world elements to the virtual world for VFX, AR/VR, and digital marketing projects.
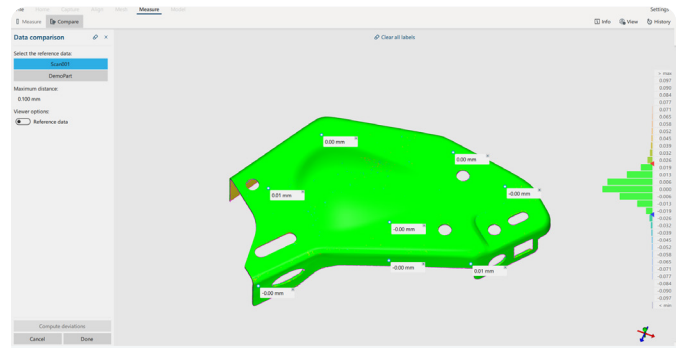
Cultural Heritage:
Create digital libraries with greater detail for the preservation and virtual display of historical artifacts.
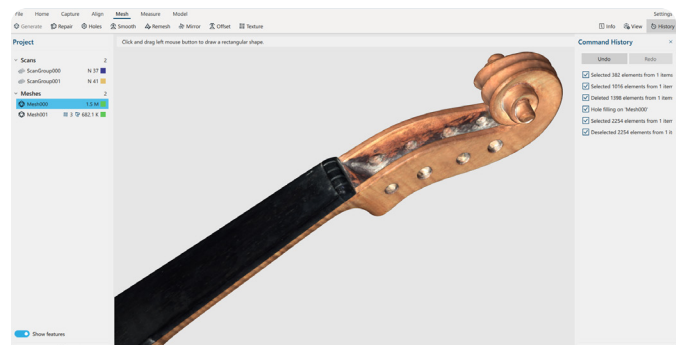
Casting:
Scan original artwork or patterns and scale to the desired size, archive wooden patterns for future use, and 3D print molds and inserts for a complete digital process.

Fastest Scan to CAD workflow with automatic NURBS surfacing tool.

Validate generated mesh against original point cloud with color analysis and labels.

Quickly undo or redo any operation using the detailed action history list.

Technical Specifications

Minimum Computer Requirements	
Platform	Windows 10 64-bit
CPU	i7 (6th generation)
RAM	min 16 GB
Ports	1 USB
Graphic Card	nVidia GeForce GTX or Quadro min 8 GB DDR5
Display Resolution	1600 x 900, 16 millions of colors or higher

Local offices in over 25 countries around the world. Go to **www.faro.com** to learn more.

FARO Global Headquarters
250 Technology Park, Lake Mary, FL 32746, USA
US: 800 736 0234 MX: +52 81 4170 3542
BR: 11 3500 4600 / 0800 892 1192

FARO Europe Regional Headquarters
Lingwiesenstr. 11/2
70825 Korntal-Münchingen, Germany
00 800 3276 7253

FARO Asia Regional Headquarters
No. 3 Changi South Street 2, #01-01 Xilin
Districentre Building B Singapore, 486548
+65 65111350