REVERSE

VERISURF®

POWERFUL CAD/CAM-BASED REVERSE ENGINEERING

Verisurf *Reverse* is a complete Reverse Engineering (RE) solution offering many robust, powerful, and innovative tools to create CAD models from measured or scanned parts.

POWERFUL, VERSATILE REVERSE ENGINEERING SOLUTIONS

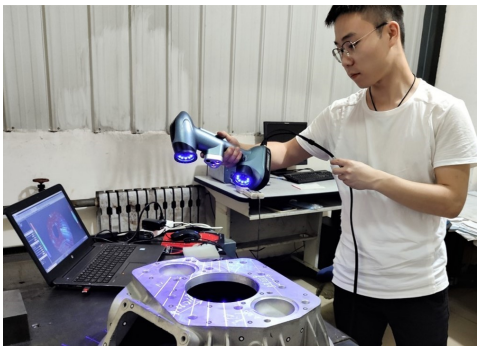
FEATURES & BENEFITS

Using data from virtually any scanning or measuring device, Verisurf *Reverse* automatically generates meshes, features, and surfaces as well as cross sections. Digitize a surface patch (NURBS) and trim, blend, offset or extend it. Quickly create multiple tangent surfaces from pointcloud meshes.

Save RE models in numerous CAD formats:

- **IGES**
- **STEP AP242**
- **STL**
- **CATIA V4/V5**
- **AutoCAD**
- **ACIS (SAT)**
- **Parasolid**
- **CADKEY**
- **VDA**
- **ACSII**

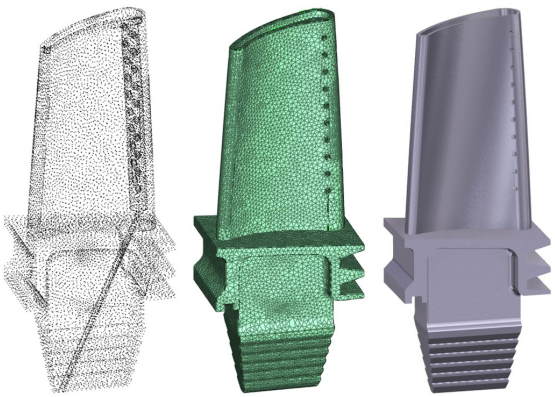
Verisurf ***Reverse*** provides the tools necessary for a complete scan-to-part workflow. Its single- and multi-patch surface routines provide an ideal solution for simple surfacing tasks. Use *Reverse* AutoSurface for rapid surfacing of complex, intricately shaped parts. For maximum flexibility, use mixed-modeling to blend STL meshes, surfaces, solids and geometric features in a single design.



Reverse Engineering a part using a handheld scanner and Verisurf Reverse

Smooth, Accurate Surfaces from Dense or Sparse Data Sets

With Verisurf *Reverse*, engineers can quickly create surfaces from sparse data sets. You can also manage and reverse-design clouds with millions of points into a mesh or surface- model that can be used for manufacturing, inspection, or tool building.



Import scanner pointcloud data

3D pointcloud mesh

Fitted NURB surfaces

Verisurf *Reverse* offers the most advanced and powerful CAD/CAM software tools for processing 3D scan data into usable manufacturing models. Using data from any 3D measuring device, Verisurf *Reverse* creates meshes, surfaces, solids and prismatic features from measurements of physical parts resulting in extremely accurate CAD models.

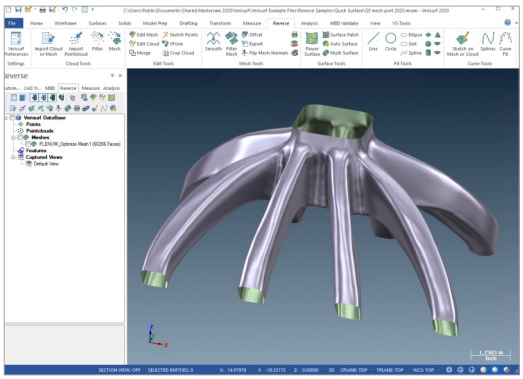
QUICK SURFACE
for **REVERSE**

A REVOLUTIONARY TOOL FOR EASILY SURFACING COMPLEX, ORGANIC MESHES

HIGHLY-ACCURATE AUTOMATED SURFACING AND VERIFICATION OF 3D MESHES

Quick Surface **is a seamlessly-integrated Verisurf Reverse option that fits smooth, freeform CAD surfaces through any mesh.** ***Quick Surface*** **is an ideal enabler for scan-to-part or scan-to-3D-printing workflows.**

Quick Surface is a powerful, new *option for Verisurf Reverse that efficiently creates smooth, high-quality surfaces from meshes derived from scan data or STL files. Quick Surface maintains curvature continuity between adjacent surfaces and is ideal for creating smooth, high-speed toolpaths.



Quick Surface creates smooth, high-quality surfaces continuous across adjacent boundaries that are suitable for downstream machining or 3D printing.

Features and Benefits

- Load data from any scanner using industry-standard STL, colored PLY, or OBJ mesh files
- Reduce and clean up the number of polygons while keeping the original reference mesh for best results
- Quad surfacing enables freeform surface reconstruction (not possible with standard surfacing methods)
- Real-time fit analysis and advanced snap-to-mesh Technology allows novices to create shapes in no time
- Easily create smooth, high-quality NURB surfaces on organic shapes with the click of a mouse button

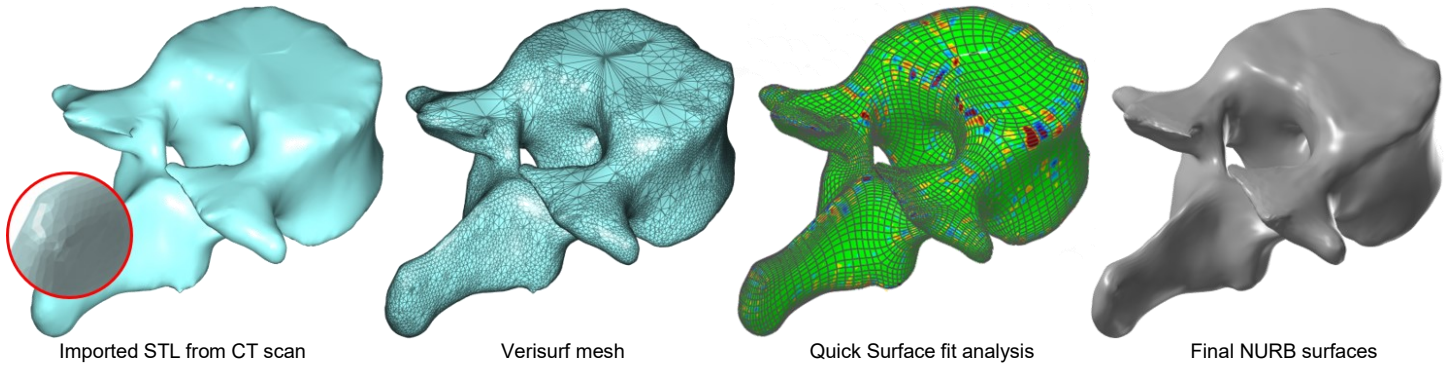
* Verisurf CAD and Reverse are prerequisites for use of Quick Surface

With ***Quick Surface***, it's a snap to produce freeform CAD surfaces from organic or prismatic Verisurf meshes and assess the surface-to-mesh fit quality prior to export for additional, downstream modeling or other processing.

Verisurf with Quick Surface

Perform any R.E. task with ease

- ✓ Import and export data in any common CAD/CAM format.
- ✓ Combine, segment, register, edit large, dense pointclouds.
- ✓ 2D and 3D pointcloud meshing with multiple, advanced editing and fully-automated optimization tools.
- ✓ Extensive mesh surfacing options with fine tuning controls and a full CAD system for building solid models suitable for downstream inspection, manufacturing, and tool building.



Imported STL from CT scan | Verisurf mesh | Quick Surface fit analysis | Final NURB surfaces

VERISURF
3D Measurement Solutions

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