



Geomagic® for SOLIDWORKS®

Geomagic® for SOLIDWORKS® delivers the seamless ability to 3D scan directly into SOLIDWORKS and use integrated industry proven toolsets to create solid models directly and accurately in your design environment.

v Geomagic® Design X™

Geomagic Design X, the industry's most comprehensive reverse engineering software, combines history-based CAD with 3D scan data processing so you can create feature-based, editable solid models compatible with your existing CAD software.

Direct Scanner Tools	Scan directly inside SOLIDWORKS	Scan directly into Geomagic Design X
Scanners Supported	Support of key scanners from FARO, Hexagon, Artec, Creaform, Nikon, 3D Systems Capture	Direct 3D scanner control tools and indirect file import for every major scanner on the market
3D file Import	STL, PLY, OBJ, G3D, .ASC, SCN, VTX, 3PI, .AC, BTX, GPD, PTX	Supports import of over 60 file formats including polygons, point clouds and CAD
Point Cloud Processing	Fast, automated processing	Expertly handles massive mesh and point cloud data alignment, processing and refining, mesh construction
Regioning Tools	Simple automated and semi-automated regioning of the scan data	Expert and comprehensive automated regioning toolkit: edit, combine, split, merge, resegment, enlarge, shrink, manually insert and draw regions, region groups of CAD tessellated & CAE data
Geometry Classification Visibility	N/A	Visualize, classify and decompose a scanned part into basic shapes
Mesh Tools	Standard toolset for automated decimation, smoothing, noise reduction, hole filling	Easy-to-use, comprehensive and intuitive mesh repair tools deliver state-of-the-art in rapid hole filling, smoothing, optimizing, rewrapping, sharpening smoothing and polishing tools. Mesh offsetting, booleans and more plus tools for processing of scan data with no normals.
Alignment Tools	Basic toolset for alignment of scan data, alignment to World Coordinate Systems	Comprehensive, fast and powerful scan alignment, alignment of multiple scans, target-based alignment, alignment to World Coordinate Systems
Parametric Feature Extraction	Extrude, revolve, sweep, Freeform surface, Primitive feature fitting, sketching, cross-sectioning	Extrude, revolve, sweep, Freeform surface, feature fitting, sketching, cross-sectioning, automatic constraint assignment of sketches, Pipe Wizard, Loft Wizard. All features are parametric-based which means that when edits are made the other features are automatically updated for greater productivity
Surfacing Tools	1-button auto-surfacing of Quad patch output	Comprehensive 1-button autosurfacing with editing of the curve network, intelligent patch network tools, choice of Quad patch fitting and T-junction patches, Boundary-fit and manual surfacing

Reference Geometry Tools	Extract plane and vector by selection	Extract plane, vector, point, polyline, coordinate system with multiple combinations of input
3D Comparison with Deviation Analysis	Simple deviation analysis tool compares between mesh object and CAD object at any time	Accuracy Analyzer™ toolset includes: 2D sketch, 2D curvature and Continuity, 3D curvature and continuity, 3D mesh-to-mesh deviation, 3D environment mapping analysis
3D Mesh Sketching	N/A	Automated curve layout toolsets for sketching curves on meshes include lofted slicing plans and extraction of sharp edges
Helix Tool	N/A	Automatic and accurate extraction of helical thread measurements
Color Scan Processing	N/A	Automatically processes color textures on meshes
Batch Processing	N/A	Automated macros for scan processing by node-based definition
Output to Feature-based CAD	Limited to SOLIDWORKS environment	Live Transfer™ supports the output of data to a choice of: Solid Edge®, NX®, Inventor®, Creo/Pro/ENGINEER®, SOLIDWORKS®
3D File Export Options	Limited to SOLIDWORKS environment	Supports comprehensive export of neutral CAD or polygon files
Photorealistic Rendering	Limited to SOLIDWORKS environment	Instantly create stunning renderings of your designs in Keyshot (supplied with Design X)

Authorized Reseller

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About 3D Systems

3D Systems provides comprehensive 3D products and services, including 3D printers, print materials, on-demand parts services and digital design tools. Its ecosystem supports advanced applications from the product design shop to the factory floor to the operating room. As the originator of 3D printing and a shaper of future 3D solutions, 3D Systems has spent its 30 year history enabling professionals and companies to optimize their designs, transform their workflows, bring innovative products to market and drive new business models.

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