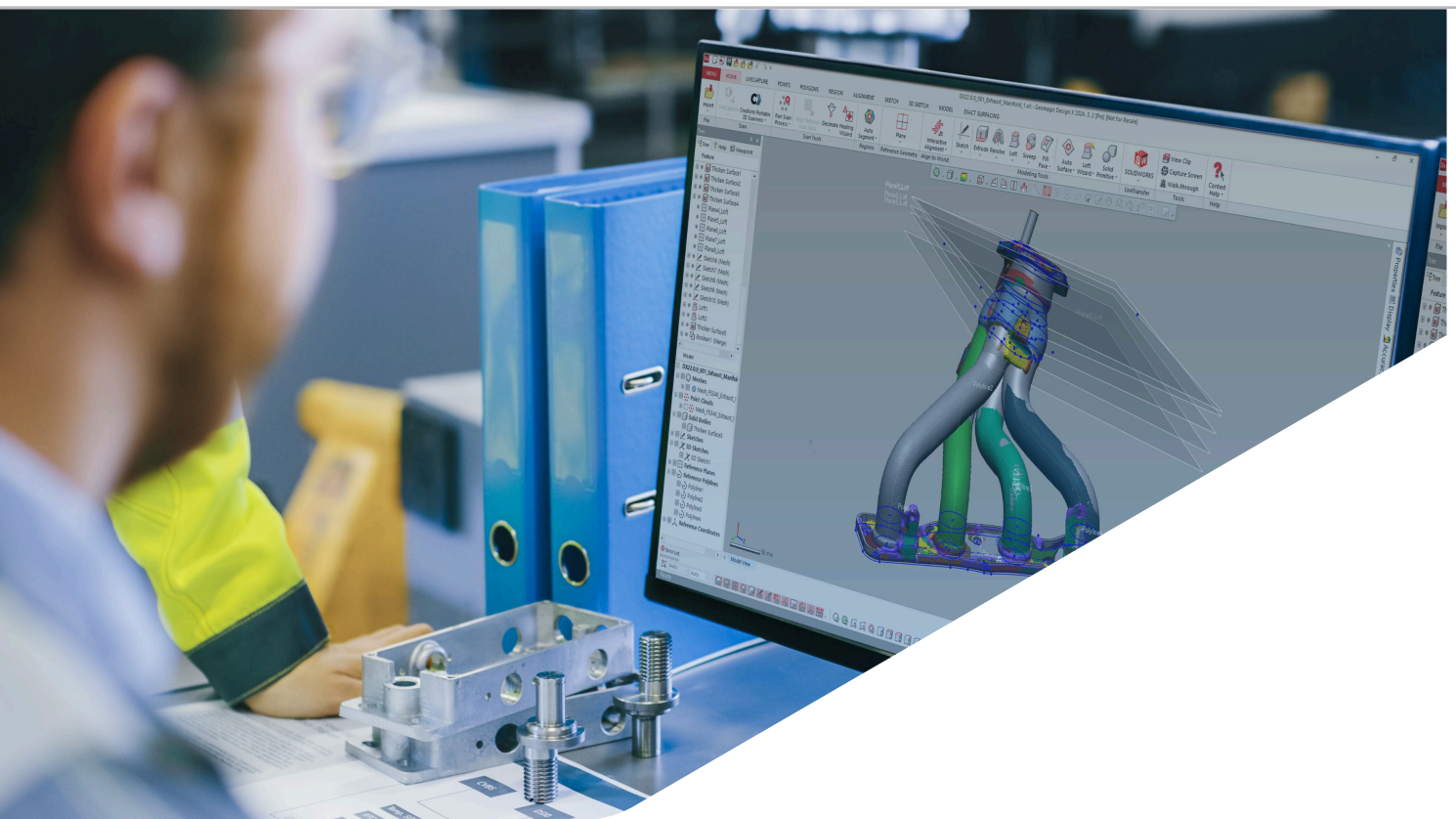




# Geomagic Portfolio

Software for scan-based reverse engineering,  
inspection, and organic, freeform design.

[www.geomagic.com](http://www.geomagic.com)



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

### **Broaden Your Design Horizons.**

Start your designs not from scratch, but from reality. Transform scan data into editable, feature-based CAD models with ease. It's the ultimate tool for seamlessly integrating 3D scanning into your design workflows.

### **Speed Like Never Before.**

From concept to creation, faster. Turn your ideas into designs in record time. Scan prototypes, parts, tools, anything, and cut days or even weeks off your development cycle. Forget tedious manual measurements and start designing smarter, not harder.

### **Seamlessly Connected.**

Enhance your CAD workflow with the power of 3D scanning. Geomagic Design X integrates seamlessly with tools like SOLIDWORKS®, Siemens NX®, Solid Edge, Autodesk Inventor®, and PTC Creo®. With LiveTransfer™ technology, transfer complete models, including feature trees, directly into your CAD system. Start with a 3D scan, finish with a solid or surface model, faster than ever.

## Purpose-built for perfection.

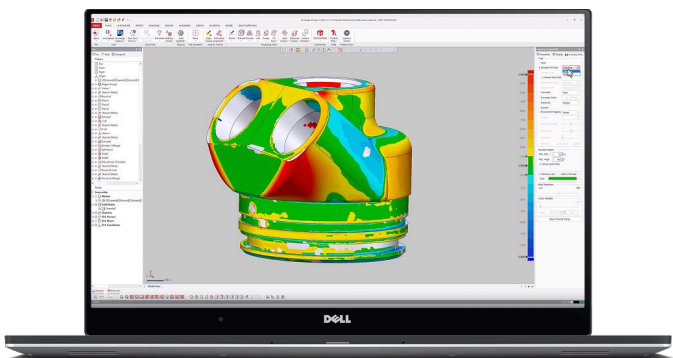
Geomagic Design X transforms 3D scan data into precise, feature-based CAD models with advanced tools like guided model extraction, exact surface fitting, and mesh editing. Scan anything, design everything, and create manufacturing-ready models with confidence.

## Built for the Toughest Challenges.

Geomagic Design X gives you the tools to tackle even the toughest projects. Combining advanced CAD features with powerful scan processing, it handles billions of scan points with ease. Skip cleanup and jump straight into CAD modelling, let the software do the heavy lifting.

## Instantly Familiar. Unbelievably Easy.

If you know CAD, you know Design X. Its user interface and intuitive workflows make it easier than ever to create precise as-designed and as-built models. Start working seamlessly, accurately, and with confidence, right from day one.



“

“So much faster than any CAD plugin on the market. It's the only sensible choice if you are working with scan data several hours or more per week.”

Ian, Product Manager, Machinery





**Design with Confidence. Fix Issues Fast.**

**Spot Problems. Solve Them. Stay on Track.**

## Streamline Quality Control.

## Prevent Failures Before They Happen.

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75.4  $\pm 0.1$

0.5

A B C

75.4  $\pm 0.1$

75.4  $\pm 0.1$

75.4  $\pm 0.1$

$\Delta$ Rad.	0.1099
Deviation X	~0.0438
Deviation Y	0.0467
Deviation Z	~0.0141





### Use Any 3D Scanner with Confidence

Direct integration with today's most popular systems, and designed to work seamlessly with data from any 3D scanner.



### Compare Scans to CAD

Intuitive, vivid colour maps show you exactly what's in or out of tolerance, and by how much.



### Measure Dimensions Instantly

Measure 2D or 3D features with ease, with automatic feature recognition.



### Align the Way You Want

Choose the perfect alignment technique for any scenario.



### Inspect Surface Damage or Wear

Detect even the slightest imperfections. Intelligently interpret a scanned object's ideal shape and measure deviations.



### Combine 3D Scans with Probing

Enjoy the best of both worlds, with non-contact scanning and tactile probing in one integrated interface



### Clear, Interactive 3D Reports

Create custom reports with auto-updating templates and built-in trend analysis, and share them as 3D PDFs viewable on any device.



### Compare Scans to Golden Parts

Geomagic Control X treats scanned nominal data like CAD. Use a golden part as the perfect reference model for your comparisons.



### Iterate & Explore to Understand

Make adjustments on the fly. Experiment with different alignments, remeasure as needed, and replace reference data.



### Analyze Airfoils

Perfect airfoil measurements made simple. Assess turbines, blades and blisks with dedicated analysis tools.



### 2D and 3D GD&T

Measure and analyze feature size, shape, orientation, and position using comprehensive geometric dimensioning and tolerancing tools.



### Automate the Entire Process

With Python or Visual Scripting, the Automation Server or Batch Processing, Geomagic Control X makes automated metrology for everyone.

## The Only Complete Scan-to-SOLIDWORKS Solution

A powerful, fully integrated reverse engineering solution that enables users to transform 3D scan data into editable, feature-based CAD models directly within your SOLIDWORKS environment.

### Effortless Design At Your Fingertips

Use Geomagic tools in SOLIDWORKS for scan alignment, mesh editing, auto sketching, and feature creation—plus deviation analysis for precise CAD models. Easily reverse engineer complex or custom-fit parts, and capture detailed shapes to ensure perfect fit and design intent. Geomagic for SOLIDWORKS quickly compares CAD and mesh data, using deviation analysis to ensure design accuracy.

### Rapidly Recover Lost Design Data

When you need to redesign parts without existing drawings or repair damaged components, Geomagic for SOLIDWORKS combines scan-based modeling and dimension-driven design to rapidly recreate complex parts directly as SOLIDWORKS models.

## **W** Geomagic Wrap

## Scan It, Mesh It, Surface It. In minutes.

A powerful toolbox for transforming complex 3D scan data and imported files into 3D models for immediate use downstream.

### Revolutionize Your 3D Workflows

Geomagic Wrap provides the digital bridge to allow you to create perfect data to use directly in 3D printing, milling, archiving and multiple other 3D uses. With advanced Exact Surfacing tools, scripting and macros, Geomagic Wrap delivers power and speed across many cutting-edge modelling functions.

### Accurately and Effortlessly Build Usable 3D Data

Transform point cloud data, probe data and imported 3D formats (STL, OBJ, etc.) into 3D polygon meshes and surface models for immediate use. Unique automated tools for rapid point cloud cleanup and surfacing allow you to perform complex tasks quickly and with confidence.



## Intuitive. Engineered. Done

Freeform enables designers to model traditionally handcrafted sculptural or organic forms, difficult or even impossible in traditional CAD.

### Design With A Different Approach

Break through the limitations of traditional CAD design and bring your visions to reality. Geomagic Freeform offers a comprehensive design and sculpting toolset allowing you to sculpt, detail and deform virtual clay models into any form you desire.

### Add Organic Design to Traditional CAD

Geomagic Freeform is purpose-built to get your design into production, including its robust interoperability tools to handle import and export of 3D file formats including STL, OBJ, PLY, IGES, STEP and other neutral formats.

### Add Structure to your Design

Geomagic Freeform's comprehensive StructureFX™ toolset delivers the freedom to select existing patterns or create custom complex, internal and external lattice structures for lightweight and beautiful designs.

### Quickly Import and Repair 3D Data

Easily import STL, CAD, scan and other 3D data from any source and instantly use them in your designs. Quickly repair faulty and low-grade 3D data into smooth workable models.

**Geomagic Freeform®** is a leading hybrid design platform that solves complex precision design and manufacturing challenges within scan-to-print and CAD workflows.







Hexagon, is the global leader in precision technologies at any scale. Our digital twins, robotics and AI solutions are transforming the industries that shape our reality.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 24,800 employees in 50 countries and net sales of approximately 5.4bn EUR. Learn more at [hexagon.com](https://www.hexagon.com) and follow us [@HexagonAB](https://twitter.com/HexagonAB).