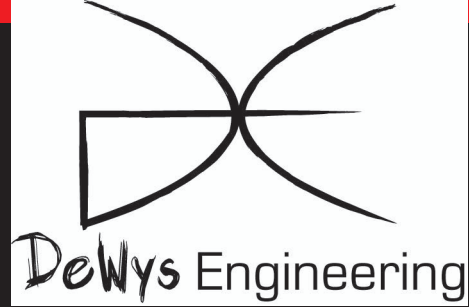


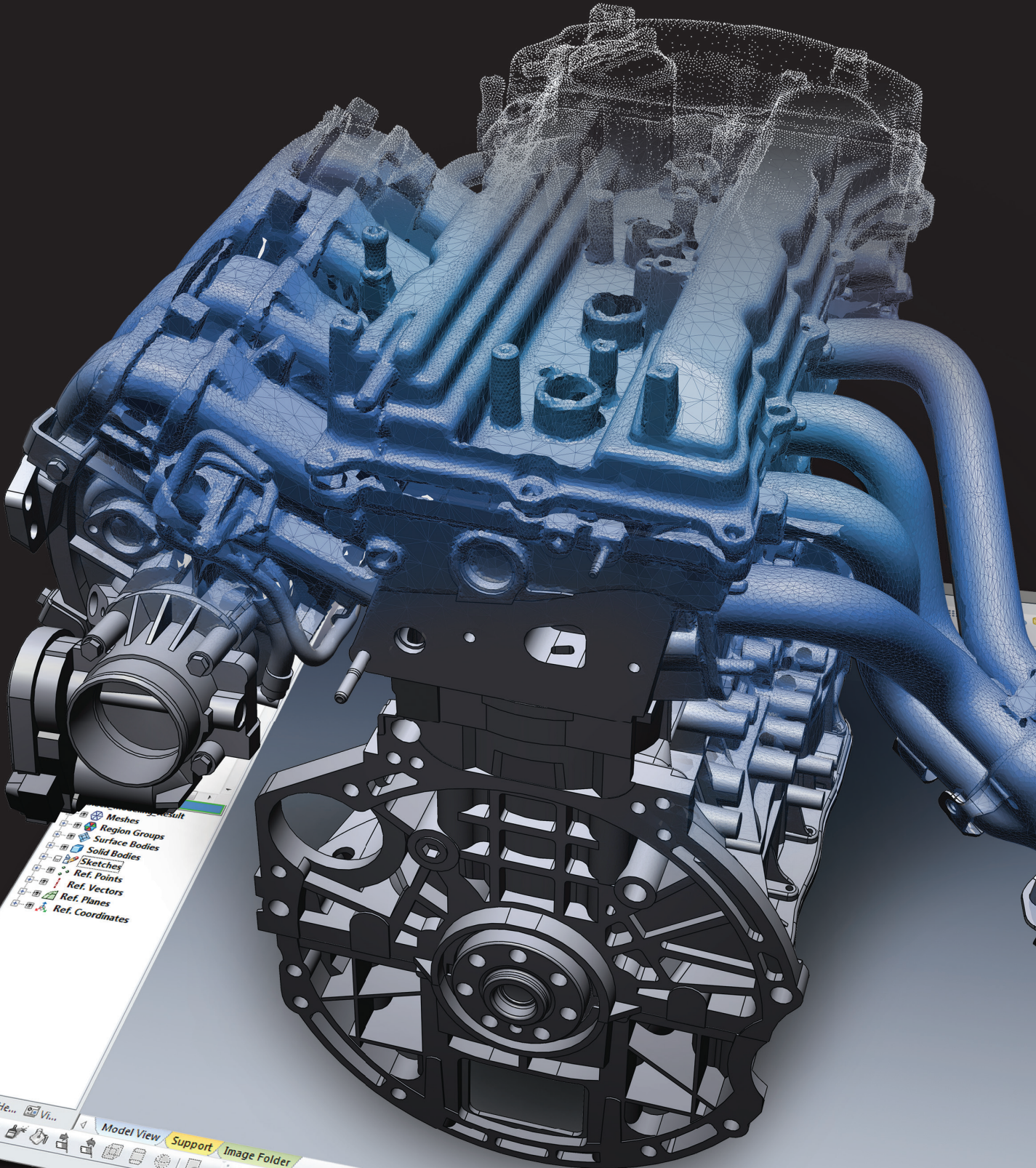


3DSYSTEMS®

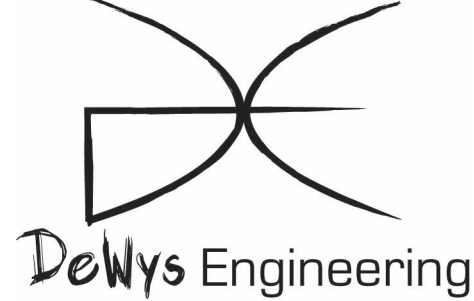


# Geomagic® Design™ X

The Fastest Path from 3D Scans to Your CAD Software







# Geomagic® Design™ X

Geomagic Design X (formerly Rapidform XOR), 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.

## Broaden Your Design Capabilities

Instead of starting from a blank screen, start from the real world. Geomagic Design X is the easiest way to create editable, feature-based CAD models from a 3D scanner and integrate them into your existing engineering design workflow.

## Accelerate Time to Market

Shave days or weeks from product idea to finished design. Scan prototypes, existing parts, tooling or related objects, and create designs in a fraction of the time it would take to manually measure and create CAD models from scratch.

## Enhance Your CAD Environment

Seamlessly add 3D scanning into your regular design process so you can do more and work faster. Geomagic Design X complements your entire design ecosystem, with native output to SolidWorks®, Siemens NX®, Autodesk Inventor®, PTC Creo® and Pro/Engineer®.

## Leverage Existing Assets

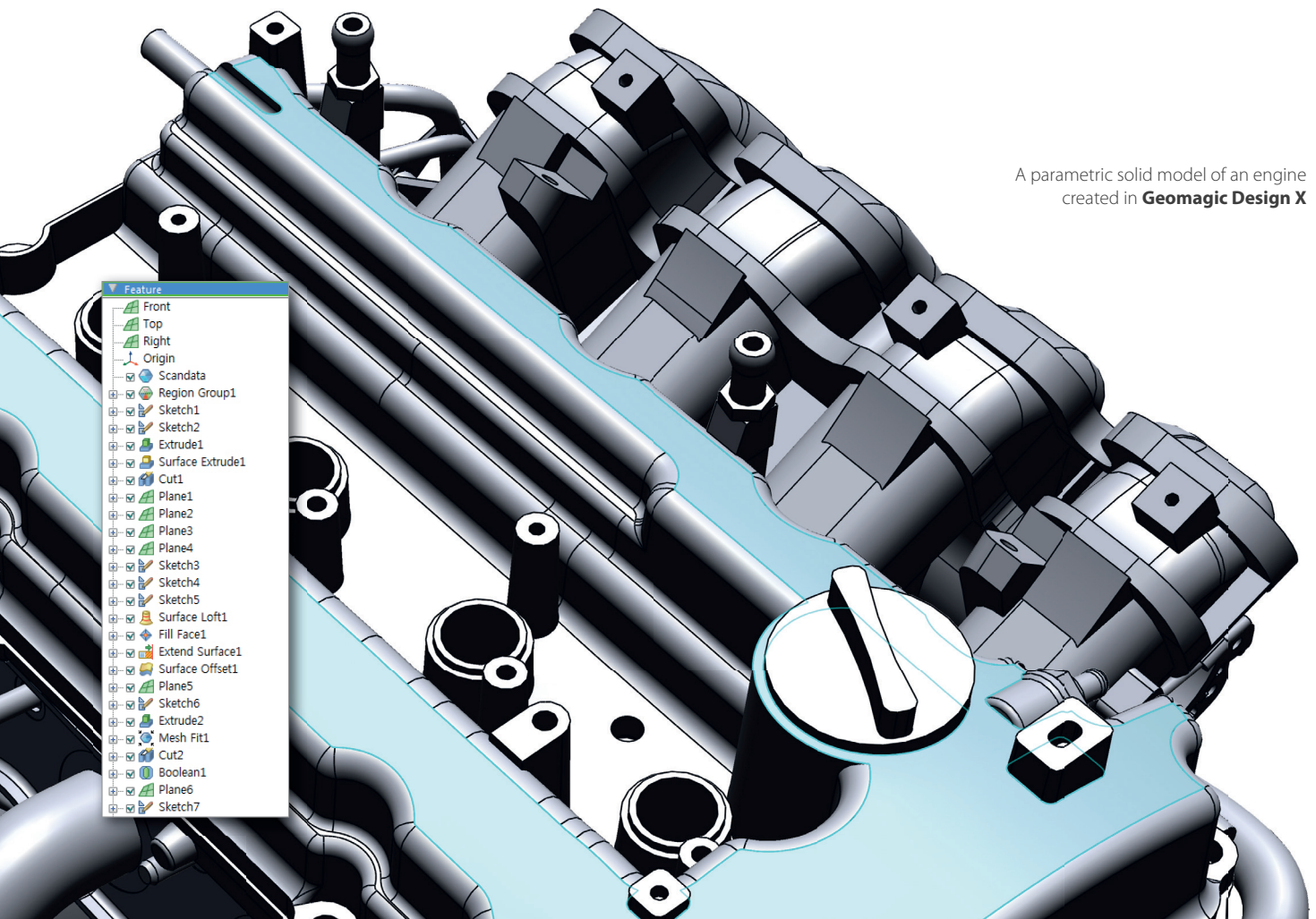
Every design is inspired by another. Make use of the intellectual property that's locked up in every physical object. Learn from it. Reuse it. Improve on it.

## Do the Impossible

Create products that cannot be designed without reverse engineering. Customize parts that require a perfect fit with the human body. Create components that integrate perfectly with existing products. Recreate complex geometry that cannot be measured any other way.

## Reduce Costs

Reuse existing designs without having to manually update old drawings or painstakingly measure and rebuild a model in CAD. Reduce costly errors related to poor fit with other components.



A parametric solid model of an engine created in **Geomagic Design X**

# The Fastest Path from 3D Scans to Your CAD Software

## Works Seamlessly with Your Existing CAD

Geomagic Design X connects directly to popular CAD software, including SolidWorks®, Siemens NX®, Autodesk Inventor® and PTC Creo®. Using unique LiveTransfer technology, Design X transfers complete models, including feature trees. So you can quickly create solid and surface models from 3D scans, transfer the data into your design environment, and work on them as you would any other CAD model.

## Powerful and Flexible

Geomagic Design X is purpose-built for converting 3D scan data into high-quality feature-based CAD models. It does what no other software can with its combination of solid modeling, advanced surface modeling, mesh editing and point cloud processing. Now, you can scan virtually anything and create manufacturing-ready designs.

## Heavy-Duty Capabilities for Demanding Projects

Geomagic Design X's extensive toolset marries CAD tools, industry-leading scan processing tools, and all the firepower you need to take on the most challenging projects. It handles billions of scan points and has a complete host of features to fix data issues, letting you skip scan cleanup and begin creating CAD models immediately.

## Works Like Your CAD Software

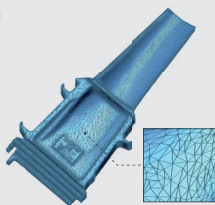
Geomagic Design X is easy to learn and use. In fact, if you can design in CAD, you can start using Geomagic Design X right away. It uses familiar history-based modeling tools found in all major CAD products, along with automated feature extraction from scan data.

# Workflows

### Scan Anything

- Scan directly inside Design X
- Use complete or even incomplete scans
- Skip mesh cleanup

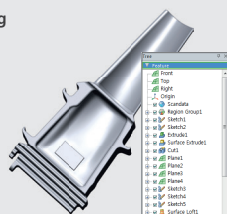
#### Mesh Editing



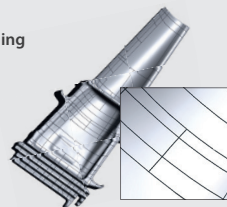
### Solid & Surface Modeling

- Extract design intent
- Build CAD model
- Confirm quality with Accuracy Analyzer™

#### Solid Modeling

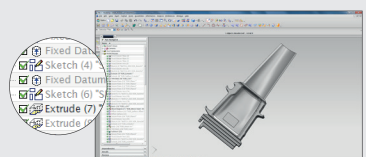
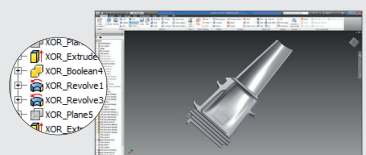
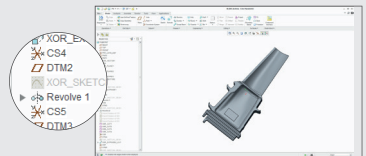
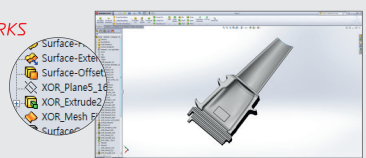


#### NURBS Surface Modeling



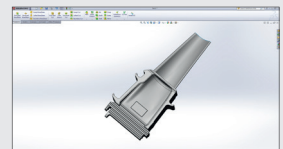
### Export to CAD Software

- Transfer to your CAD software with design history
- Save as neutral formats like IGES and STEP
- Native file export for CATIA V4, V5 and AutoCAD



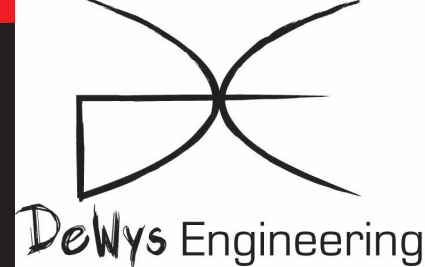
#### Neutral File Formats

Save as IGES, STEP or other surface formats for non-parametric use



# Geomagic Reverse Engineering Product Comparison

Design X outputs native models to your existing CAD software for further editing, whereas Geomagic® Design™ Direct is a complete standalone CAD solution.



Functionality	Design™ X	Design™ DIRECT
Scan directly into product	•	•
Import points	•	•
Import mesh	•	•
Point editing (delete, sample, reduce noise)	•	•
Basic mesh editing (fill holes, trim, mesh doc)	•	•
Advanced mesh editing (sandpaper, sculpt, etc.)	•	•
Intelligent extraction of surfaces/solids/sketches	•	•
Complete sketching and solid modeling	•	•
Mesh-to-solid deviation analysis	•	•
Native output to SolidWorks, NX, Inventor and Creo	•	•
Organic shape surfacing	•	•
2D drawing Creation		•
Creation and management of assembly relationships		•
Supports 100+ third party add-ins		•
History-based modeling	•	
Direct modeling		•

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## About 3D Systems

3D Systems is a leading provider of 3D content-to-print solutions including 3D printers, print materials and on-demand custom parts services for professionals and consumers alike. The company also provides CAD, reverse engineering and inspection software tools and consumer 3D printers, apps and services. Its expertly integrated solutions replace and complement traditional methods and reduce the time and cost of designing new products by printing real parts directly from digital input. These solutions are used to rapidly design, create, communicate, prototype or produce real parts, empowering customers to create and make with confidence.