Dx Geomagic® Design X™

The Ultimate
3D Scan-to-CAD Solution

OR3D
Digitise Dimension Design

3D SYSTEMS

Dx 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.

Broaden Your Design Capabilities

Instead of starting from a blank screen, start from data created by 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®, SolidEdge®, Autodesk Inventor®, PTC Creo® and Pro/ENGINEER®.

Leverage Existing Assets

Many designs are inspired by another. Easily scan into your CAD system. Learn from it. Reuse it. Improve on it. Easily rebuild your old parts into current CAD data, create drawings and production designs.

Do the Impossible

Create products that cannot be designed without reverse engineering, customized 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

Save significant money and time when modeling as-built and as designed parts. Deform an existing CAD model to fit your 3d Scans. Reduce tool iteration costs by using actual part geometry to correct your CAD and elimination part springback problems. Reduce costly errors related to poor fit with other components.

A parametric solid models 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®, Solid Edge, 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.

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 automatic and guided solid model extraction, incredibly accurate exact surface fitting to organic 3d scans, mesh editing and point cloud processing. Now, you can scan virtually anything and create manufacturing-ready designs.
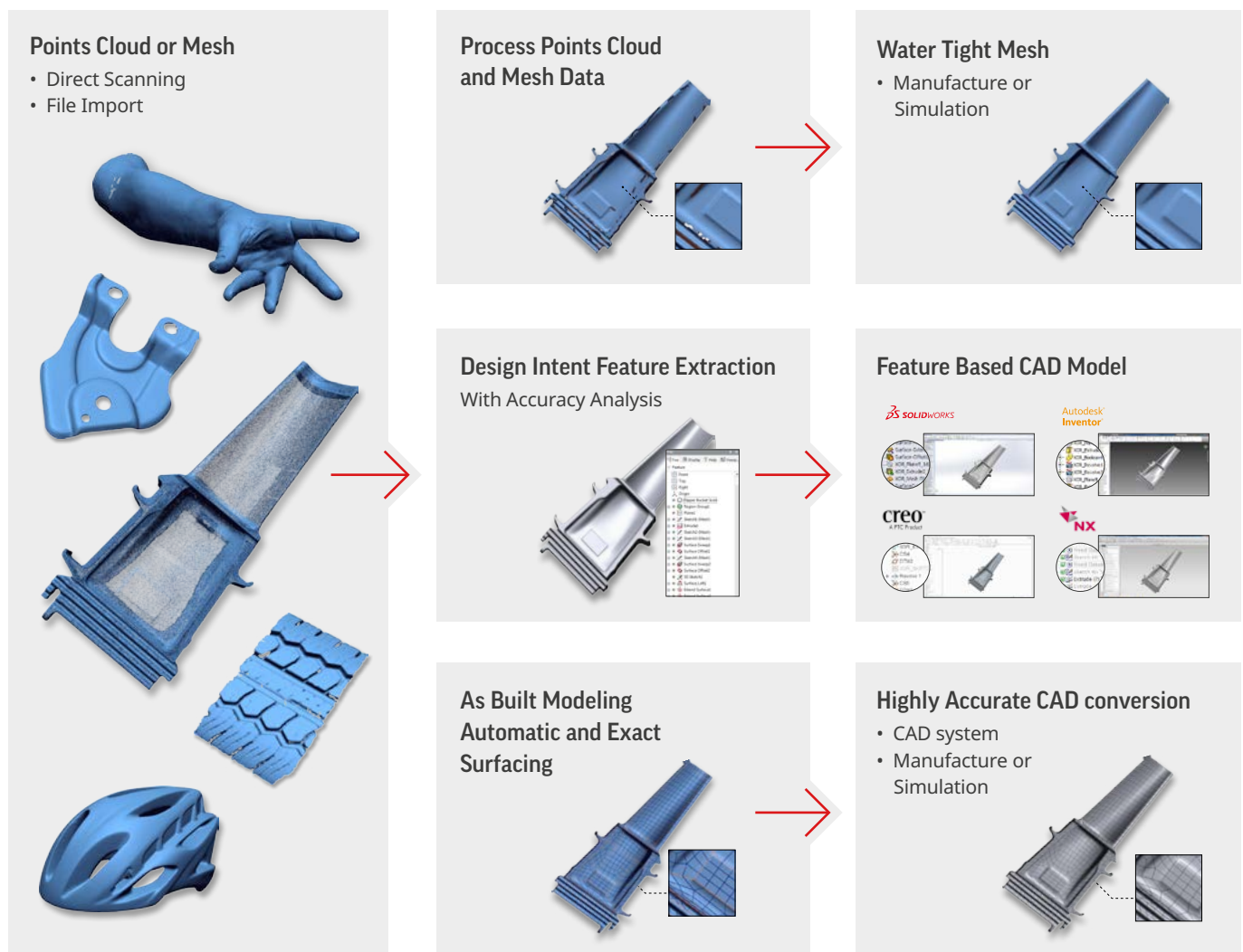
Heavy-Duty Capabilities for Demanding Projects

Geomagic Design X's extensive toolset combines 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

If you can design in CAD, you can start using Geomagic Design X right away. It's fully-renewed user interface and workflow tools make it easer than ever before to quickly and accurately create as-designed and as-built 3D CAD and model data.

Workflows

Points Cloud or Mesh
- Direct Scanning
- File Import

Process Points Cloud and Mesh Data

Water Tight Mesh
- Manufacture or Simulation

Design Intent Feature Extraction
With Accuracy Analysis

Feature Based CAD Model

As Built Modeling Automatic and Exact Surfacing

Highly Accurate CAD conversion
- CAD system
- Manufacture or Simulation

Geomagic® Design X™ Features

- Direct 3D scanner control tools for the widest range of the most popular devices
- Full integration with Geomagic Capture Scanners
- Supports import of over 60 file formats including polygons, point clouds and CAD
- Expertly handles massive mesh and point cloud data alignment, processing and refining, mesh construction
- Easy-to-use mesh repair tools deliver rapid hole filling, smoothing, optimizing, re-wrapping and polishing tools such as Smart Brush
- Automatic, feature-based solid and surface extraction direct from 3D scans
- Rapidly creates solids or surfaces like you would in CAD
- Automated Accuracy Analyzer™ tools compare and validate surfaces, solids and sketches against original scan data
- Live Transfer™ supports the output of data to the industry's leading CAD systems
- Industry-leading "Exact" surface creation converts organic shapes to precise CAD models
- Supports comprehensive export of neutral CAD or polygon files
- Instantly create stunning renderings of your designs in Keyshot

Geomagic Capture® for Design X™

Powerful Scan-Based Design for the most demanding applications. Create CAD models in Design X and transfer them, with complete feature trees, to Siemens NX, PTC Creo, Pro/ENGINEER, Inventor and SOLIDWORKS.

Package includes:
Capture or Capture Mini scanner,
Geomagic Design X software

About OR3D

OR3D is a premier partner with 3DSystems, providing CAD, reverse engineering and inspection software tools through the range of Geomagic products. As the UK's main accredited training partner to 3D Systems, we supply and provide training for Geomagic Design X, Geomagic Control X, Geomagic Freeform and Geomagic Wrap.
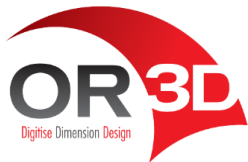
+44 (0) 1691 777 774   www.or3d.co.uk   info@or3d.co.uk

@OR3D.co.uk   @OR3D   OR3D

Chirk Head Office   OR3D, 2 The Sawmill, Brynkinalt Business Centre, Chirk, Wrexham, LL14 5NS, UK
Bristol Office   OR3D, Future Space, UWE North Gate, Filton Road, Bristol, BS34 8RB, UK

3D SYSTEMS

www.3dsystems.com