The Fastest Path to CAD™

XOR™
RAPIDFORM® XOR/REDESIGN™
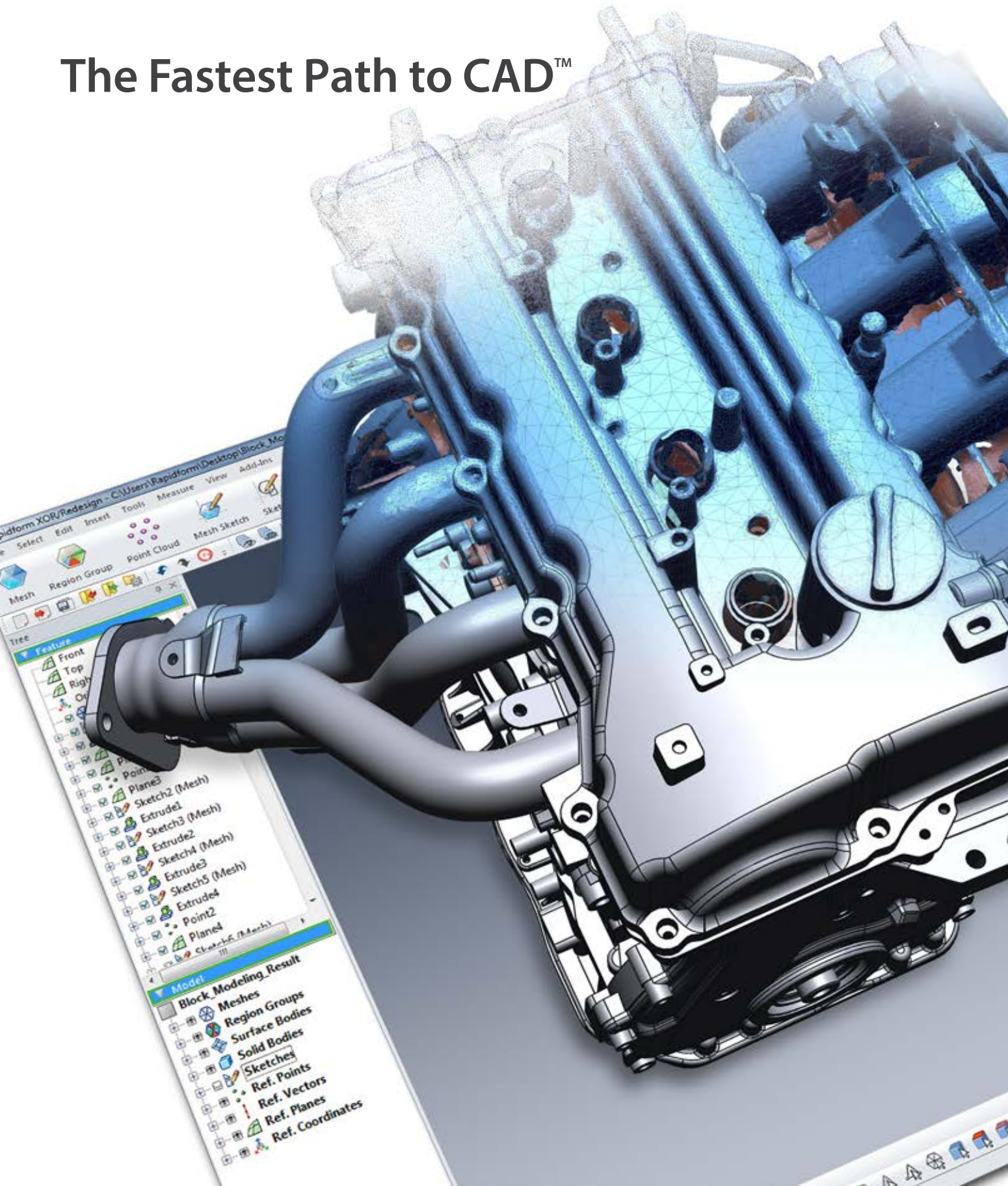
Convert Physical Objects to Real CAD Models

With Your 3D Scanner and RAPIDFORM® XOR™

Accelerate Time to Market

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

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 with existing products, accurate down to a few microns. Recreate complex geometry that cannot be measured any other way.

Reduce Costs

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

Bring the Power of Digital Design to the Real World

Leverage the power of your digital design process. Convert physical objects into 3D models so you can apply CAD, CAE, CAM and all the other tools in your digital design environment.

Design with Confidence

Know that the products you design will fit perfectly with whatever you need them to. Need a part to fit within an existing design? Scan it and design around it.
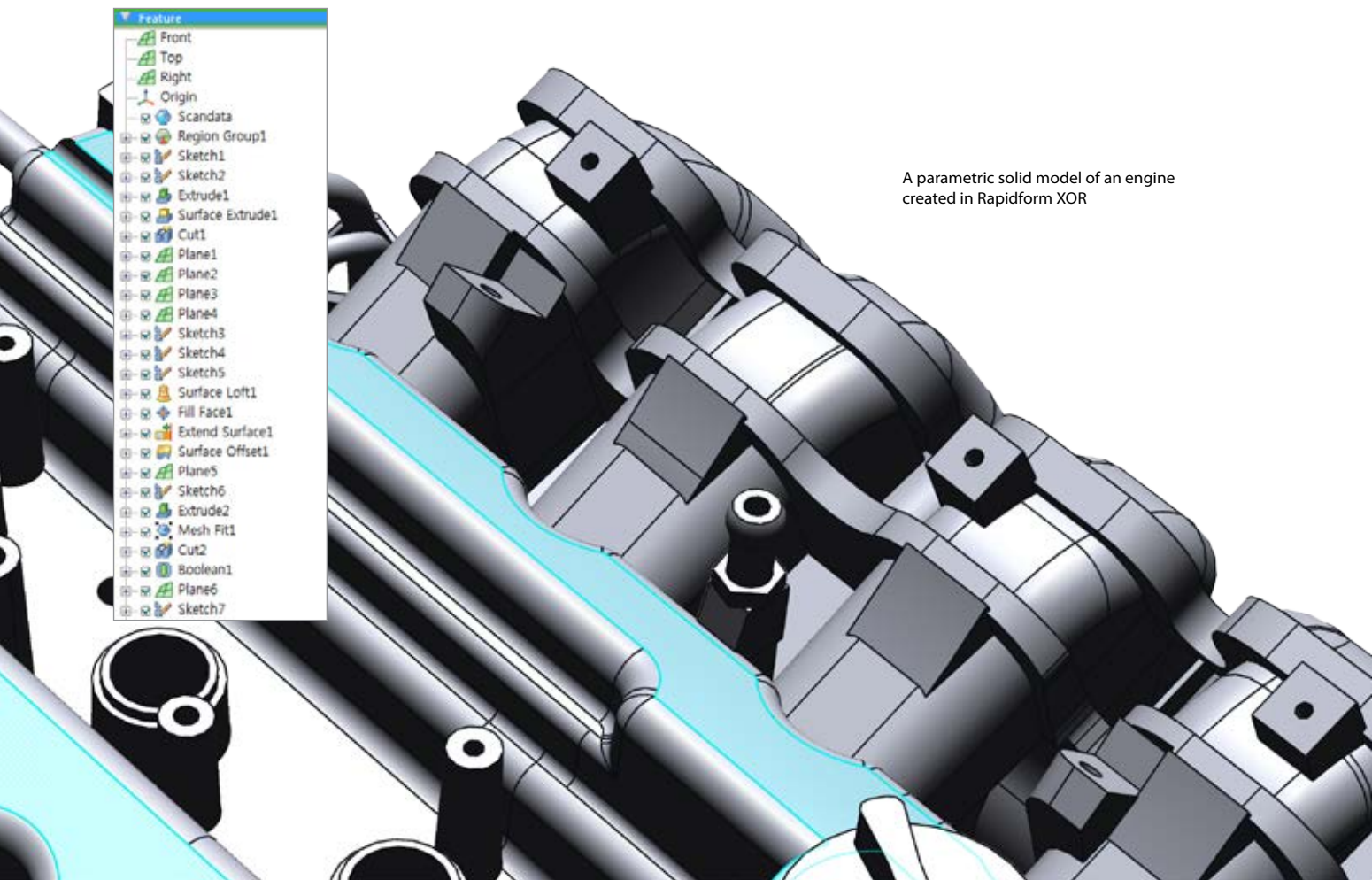
A parametric solid model of an engine created in Rapidform XOR

The Fastest Path to CAD

Workflows

Scan to Mesh

For archiving, animation, measurement, 3D printing and other polygon-based applications, Rapidform XOR includes a full suite of mesh processing tools. With the Mesh Buildup Wizard™, you can go through the entire scan alignment merging and mesh optimization processes with just a few clicks.

Mesh Optimization

- Smooth
- Fill holes
- Optimize/reduce size
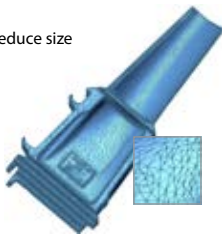
Mesh Modeling

- Deform
- Thicken/offset
- Apply color & texture

Export

Save as STL, OBJ or other mesh formats for archiving, 3D printing, rendering, or CAE use
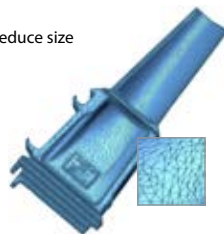
Scan to Surfaces

Rapidform XOR also supports NURBS surface fitting, which is useful for creating an identical copy of scan data that does not need editing. You can use Rapidform's powerful automatic surfacing technology to do the work for you, or take control and lay out the surface network just the way you want.

Mesh Optimization

- Smooth
- Fill holes
- Optimize/reduce size

NURBS Surfacing

- Auto Surfacing
- Interactive surfacing

Export

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

Scan to CAD

To make a CAD model suitable for manufacturing, Rapidform XOR employs a straightforward workflow that parallels today's well-known solid modeling processes. Instead of modeling from scratch, Rapidform XOR's feature wizards and other automated tools help you build the features directly from 3D scan data.
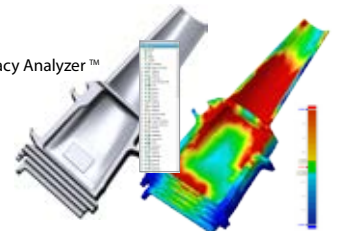
Mesh Optimization
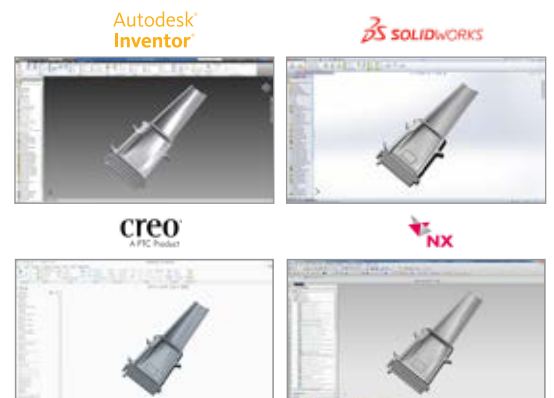
- Smooth
- Fill holes
- Optimize/reduce size

Skip It!

Solid Modeling

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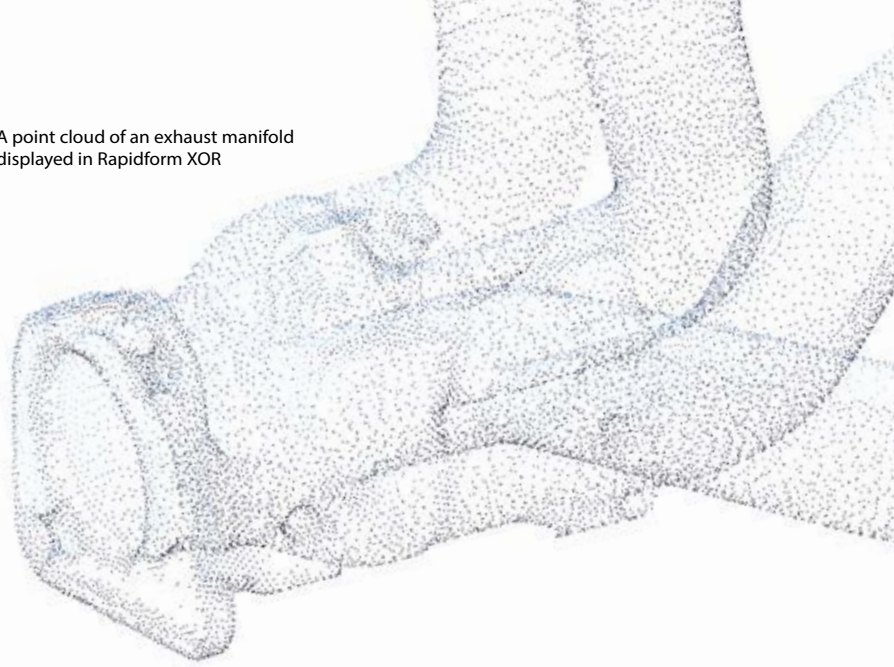- Confirm quality with Accuracy Analyzer ™

Export

Transfer to your CAD software as a native model with design history and parameters

Native file export for CATIA V4, V5 and AutoCAD

A point cloud of an exhaust manifold
displayed in Rapidform XOR

Training

New User Training

World class training options are at your fingertips. Join one of our regularly scheduled training courses at a Rapidform office, or have a Rapidform expert come to your facility and train your whole team.

Ongoing Learning

Join us at Rapidform Success, our annual training conference designed to keep you at the forefront of 3D scanning technology. Keep up with the latest tech tips at support.rapidform.com

Updates & Support

New Version Releases

New version releases include major new functionalities as well as enhancements to existing functionality. These new functions are must-haves if you want to stay competitive with the latest tools and technologies.
Find the latest release information at www.rapidform.com/new

Service Packs and Hotfixes

Every day, new challenges are on the horizon. We are constantly improving Rapidform software to ensure you can overcome any challenge you face
Get product updates at www.rapidform.com/product-updates

Technical Support Services

Stay productive and efficient with Rapidform technical support services.
With cutting-edge tools like live web meetings and technical blogs, we devote unparalleled time and effort to your needs.
Keep up with the latest technical support at support.rapidform.com

Product Enhancement Privileges

Sometimes our best new features are from you. You can submit suggestions and feature requests that help optimize your workflow, assuring that you stay efficient by making the software work for you.
Sumit any requests at support.rapidform.com

Request a Live Demo at **www.rapidform.com**

The Fastest Path to CAD

Plant

Quick Learning Curve

If you can design in CAD, you can start using Rapidform XOR right away. It uses familiar tools found in all major CAD software, and skips the old reverse engineering workflows that involved painstaking polygon and surface generation.

Powerful and Flexible

People are doing amazing things with Rapidform every day. Because XOR is built on a complete CAD Kernel (Parasolid), it seamlessly integrates with your current CAD process. It gives you the flexibility to make real CAD models the way you want with watertight data transfer. In addition, its automated scan data processing tools make it easy to unlock the full potential of your 3D scanner.

Rapidform XOR Makes 3D Scan Data More Useful

3D scanners create point clouds or meshes, which aren't that useful for most design needs. Rapidform XOR is purpose-built to create usable 3D models directly from scan data.

The Fastest way to get from raw scans to real CAD models

There is simply no faster way to get from unprocessed 3D scans to completed, feature-based solid models. XOR's automated redesign tools save valuable time compared to rebuilding a model in your CAD software.
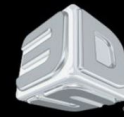

Automotive

Consumer Products

Tool & Die

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Rapidform®
Shiningform

Geomagic Global Headquarters

3D Systems Korea, Inc.

Seoul, Korea **T.** +82.2.6262.9900 **F.** +82.2.6262.9999
Sales. info@rapidform.com **Support.** support@rapidform.com
www.rapidform.com

Americas

Geomagic U.S. Office

Denver, Colorado, USA **T.** +1.866.727.4336 **F.** +1.408.340.7128
Sales. us.sales@rapidform.com **Support.** us.support@rapidform.com
www.rapidform.com

Europe, Middle East & Africa

3D Systems GmbH

Darmstadt, Germany **T.** +49 (0)6151 357 141 **F.** +49 (0)6151 357 222
Sales. eusales@rapidform.com **Support.** eusupport@rapidform.com
www.rapidform.com/de

Japan

Geomagic JAPAN K.K.

Tokyo, Japan **T.** +81.3.3265.9446 **F.** +81.3.3265.9447
Sales. japan.sales@rapidform.com **Support.** japan.support@rapidform.com
www.rapidform.com/jp

China

Geomagic Technical Center (RTC)

Dalian, China **T.** +86.411.8475.6233
Support. china.support@rapidform.com
www.rapidform.com/cn

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