The Safer, Easier Inspection Software™
Accelerate Your Inspection Process
With Your Measurement Device and RAPIDFORM® XOV™

Minimize Errors and Save Time
With CAD intelligence built-in, reduce the chance for human errors and speed up the inspection process by measuring directly from CAD data. Rapidform XOV recognizes features in CAD models and measures them on the fly, making even complex inspection routines fast and easy to perform.

Improve Productivity Exponentially
Rapidform XOV records all operations and parameters, as well as their order in a history tree. This makes multi-part inspections as easy as measuring a new part, because the software will automatically repeat the entire inspection routine without any user input. You can inspect one or multiple parts with the same setup effort.

Ensure Precise Results
Reproducibility is a critical aspect of every quality control process. Rapidform XOV makes achieving reproducible results easy, because it automatically extracts features from measured data without the need for user input. This automation reduces variability between operators.

One Software for All Your Measurement Devices
Leverage XOV's safer, easier inspection environment for both contact and non-contact measurement. Every measurement you take with a 3D scanner, portable CMM arm, optical CMM or laser tracker is saved in XOV's parametric history tree and can be used to perform deviation analysis and GD&T. All your data is in one place, with one easy to use inspection and reporting interface.

Make Inspection More Flexible
Since every aspect of the inspection is recorded in a history tree, modifying any step in an inspection routine intelligently updates all related steps. You're empowered to iterate and find the optimal results for each inspection.

Verify with Confidence
When it comes to inspection, every calculation counts. That is why Rapidform XOV’s geometry calculation algorithms have been tested by America’s NIST, Britain’s NPL and independently certified by Germany’s PTB metrology authority as Class 1 accuracy. Top manufacturers around the world trust Rapidform XOV to measure thousands of parts every day.

A color map and dimensions of an engine in Rapidform XOV
The Safer, Easier Inspection Software

Feature Intelligent Inspection
Rapidform XOV has CAD intelligence built in. Now defining measurements is as easy as clicking a feature on a CAD model. It’s the only point cloud software that recognizes features, so you don’t have to extract reference geometry before you define dimensions and tolerances. On parts with hundreds or thousands of dimension/tolerance callouts, this saves hours and reduces the risk of error by measuring directly from the CAD model.

Automatic Multi-Piece Inspection
Because Rapidform XOV tracks every step of the inspection process, once you’ve inspected one sample of a part, every subsequent sample can be inspected automatically. XOV recognizes features in the scan data and measures them on the fly without any user interaction needed. Gone are the days of writing macros to automate your work.

Safer and Easier
XOV is easy to use with a straightforward, logical workflow that makes setting up inspections simple. In addition, every measurement is automatically extracted. Reproducibility is ensured by its automatic feature extraction algorithms, which reliably extract measurements from both contact and non-contact devices.

Use Probe and Scan Data Interchangeably
XOV is built from the ground up to handle millions of points from any 3D scanner. It also supports many probe based devices with Livelnpect, Rapidform’s unique scanning/probing interface. Every measurement you take, regardless of the device it was collected with, is saved in XOV’s parametric history tree and can be used throughout the inspection process.

Probing

Contact based inspection for the most accurate measurement of features
- Compatible with every major probing device
- LiveInspect technology guides you through how to align and measure each part
- Compare to a CAD nominal or measure a part on the fly without CAD
- LiveDimension intelligently measures dimensions on features
- Use XOV’s extensive GD&T toolset to verify parts
- Make reports automatically, based on templates that show exactly what you want

Scanning

Non-contact based inspection for fast and comprehensive measurement of form
- Compatible with all 3D scanners
- Automatically align point clouds to CAD nominals
- Generate detailed deviation color maps showing where a part is in and out of tolerance
- Measure GD&T from a point cloud or mesh
- Repeat inspections completely automatically just by opening a scan file
- Make reports automatically, based on templates that show exactly what you want
Complete Part Verification in Only 4 Steps

- Import data from any measurement device and any CAD software, or measure directly within XOV
- Auto align 3D measurement data to a CAD model
- Create deviation color maps and measure dimensions & tolerances (GD&T)
- Auto report and share the 3D model to show inspection results
- Repeat for other parts with two clicks

Comparison Points
- Detailed point-by-point comparison to CAD

Width
- Import data
- Auto align
- Create color maps
- Auto report
- Auto click

Trend Analysis
- Batch processing of scans to inspection reports
- Easy statistical process control (SPC) reporting

Virtual Edge Deviation
- Inspect hard-to-measure sharp edges

Silhouette Deviation & Boundary Deviation
- Validate stampings for fit & function

Thickness Plot
- Check part thickness instantly

Curve Deviation
- Verify parting lines and feature lines

In-depth GD&T
- ASME Y14.5 compliant
- ISO compatible
- Material condition (MMC, LMC)
- Feature patterns
- Simultaneous requirements
- Projected tolerance zone modifiers

Section Inspection
- Deviation vector plots and easy 2D GD&T setup

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Due to its speed, increased accuracy and ease of use, Rapidform XOV has dramatically improved the capacity of our inspection and verification analysis.

Marian Petrescu
Senior Mechanical Engineer,
Motorola Solutions

3D scanning and Rapidform XOV prevented a $20,000 mistake. But what is more important is that it helped us avoid a four week delay that could have jeopardized an OEM’s production schedule.

Dave Chrisman
B & J Process Engineer

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
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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.
Submit any requests at support.rapidform.com
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