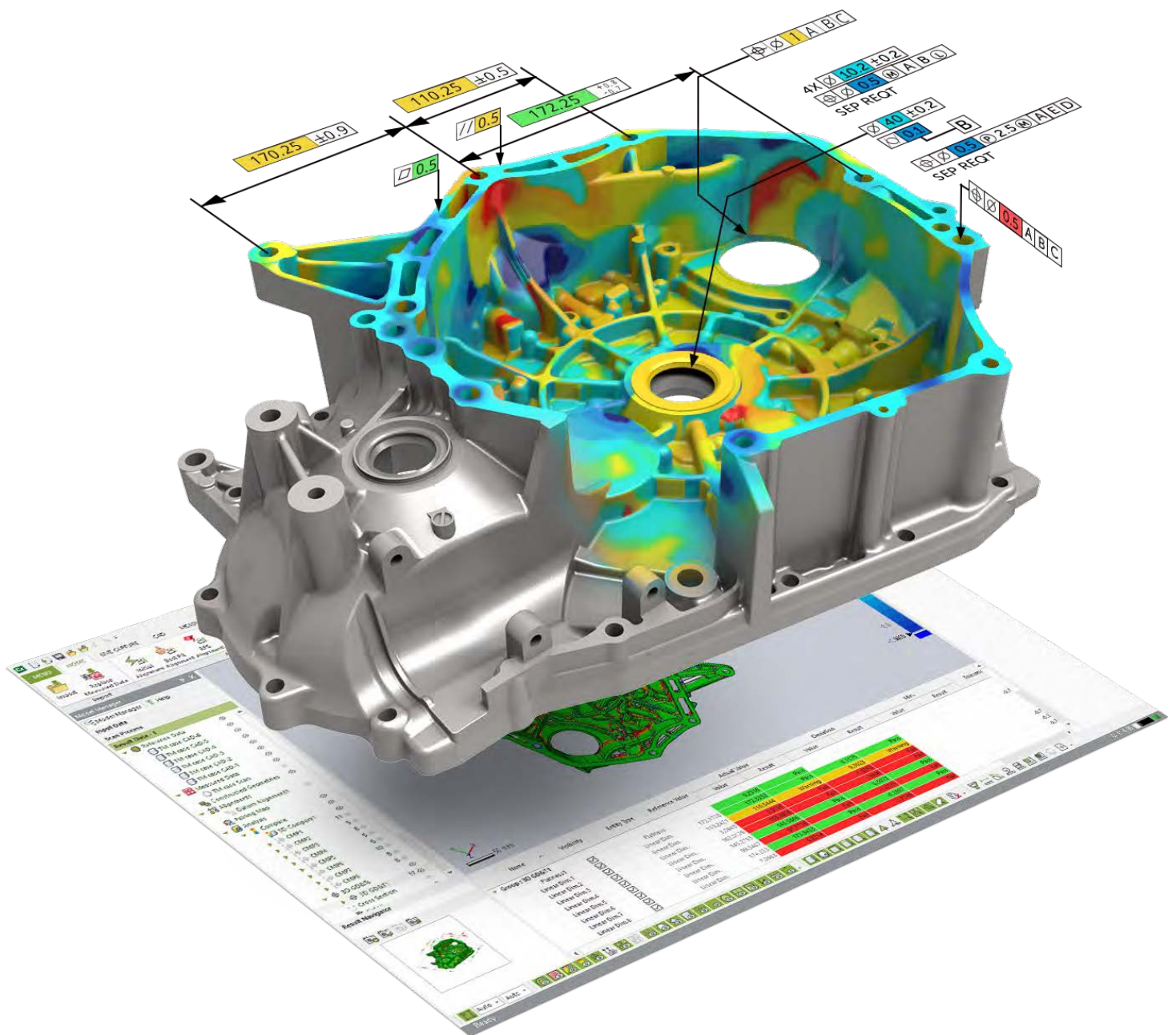




Geomagic Control X Essentials

Accessible, Quality Metrology Tools for All





Geomagic Control X Essentials

What Is Geomagic Control X Essentials?

Geomagic Control X Essentials is a professional metrology software that lets you process the data captured by a broad range 3D scanners and other devices, lowering the barrier-to-entry for precise 3D metrology tools. Regardless of your budget, project frequency, or inspection background, Control X enables more people in your organization to:

- Measure faster
- Measure more often
- Measure more completely
- Measure anywhere

What Can You Do with Control X Essentials?

Design for Manufacturability

Use Control X Essentials to check prototypes and address manufacturability issues.

Don't Just Find Problems, Fix Them

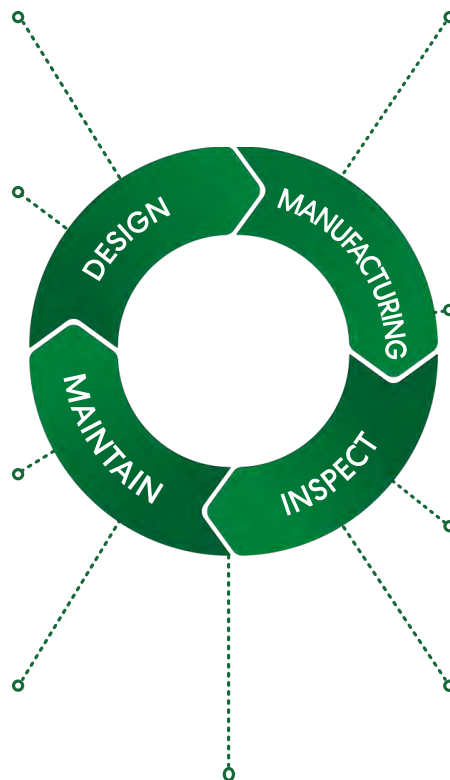
Any inspection software can show you where parts are out of spec. Control X Essentials integrates tightly with CAD and Geomagic Design X Essentials so you can update your 3D CAD models to compensate for any problems.

Assess Damage Accurately and Consistently

Scanning reveals wear or deformation even in unanticipated places. Control X Essentials' automated alignment tools make it easy to locate and measure part defects.

Predict Part Failure Before It Happens

Monitor changes in a part's geometry over time to catch unforeseen problems and take corrective action. Control X Essentials includes trend analysis and reporting, so you can predict when a part or tool might fail.



Identify and Resolve Manufacturing and Assembly Issues

Scanned parts provides a complete view of your parts. Control X Essentials empowers users of hardware of any level by providing the tools and the flexibility to understand how and why a part may have issues and keep production on track.

Eliminate Costly Scrap and Rework

Empower more people to inspect incoming parts from suppliers to prevent defective parts from making it to assembly.

Expand your Measurement Capabilities

Control X Essentials has the tools to satisfy your quality control requirements, so you can solve your day-to-day metrology challenges, even with entry-level scanners. Go beyond simple alignments and color maps.

Reduce Quality Control Bottlenecks

Control X Essentials is so intuitive, you don't have to be a highly trained or experienced metrologist to use it. Address the growing skill gap in manufacturing with a metrology toolset accessible to all.

Improve Quality Documentation

3D scanning a part creates a complete digital record of all of its geometry. Once the data is collected, additional measurements can be taken at any time, even without the part. Discover an issue six months from now? Just pull up the scan and check any dimension – no need to remeasure the part.



Geomagic Control X Essentials

Ensure Quality Everywhere

Bring the power of 3D scan-based inspection to more people in more places with software that makes it easy to interpret scan data.

Gain Deeper Insights Beyond Pass/Fail

3D scanners capture far more information than a hand tool or CMM ever could. Control X Essentials lets you leverage that rich data to understand why parts are in or out of tolerance.

Optimize Manufacturing Processes

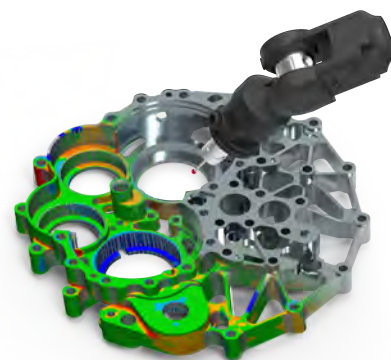
With insights gained from comparing scanned parts to CAD models or golden parts in Control X Essentials, stakeholders can recognize and address issues faster than ever.

1 solution

A single metrology software for all your inspection workflows, regardless of inspection knowledge

7x faster

Inspect up to 7x faster than with a CMM, reducing costly downtime



Why Choose Control X Essentials?



Easy to Learn

Don't have time to become an expert in inspection software? Control X Essentials is for you. Start getting results with little or no training.



Quick to Use

Control X Essentials is flexible – it follows the way you work, not the other way around. It's scan-native algorithms built on a CAD kernel make handling huge data sets fast and easy.



Everything You Need

Control X Essentials comes with everything you need for simple and reliable inspection and reporting, enabling you to reduce scrappage and manufacture better parts.



Work with any 3D Scan Data

Control X Essentials support files from any 3D Scanner, empowering more people to measure their parts by lowering the barrier to entry for accurate inspection workflows.



Professional Inspection Capabilities



Use Data from Any 3D Scanner with Confidence

Control X Essentials was born to work with data from any 3D scanner, from entry-level to industry leading. Use data from any 3D scanner, without having to learn another software interface.



Compare Scans to CAD

Beautiful, intuitive color maps show you what is in and out of tolerance and by how much. Control X Essentials supports myriad comparison techniques, including 3D and 2D cross-sections.



Align the Way You Want

Control X Essentials has streamlined alignment techniques to cover every inspection scenario:

- Automatic feature-based alignment
- Best fit alignment with constraint options
- RPS, datum, and 3-2-1 alignments



Measure Dimensions Instantly

Because Control X automatically recognizes features in nominal models (regardless of whether they're CAD models or scans of golden parts), measuring dimensions in 2D or 3D is incredibly quick and easy.



Compare Scans to Golden Parts

You can use scan data as a golden part/nominal model to compare back to. Control X Essentials treats the scanned nominal just like a CAD model, automatically adding feature intelligence to every scan (it knows a plane is a plane, for example).



Iterate and Explore to Understand

You can make changes to any part of the inspection process at any time. Try different alignments, different measurements – anything at all – and Control X Essentials will recalculate your entire inspection project and show you updated results in an instant.



Clear, Interactive 3D Reports for Everyone

Control X Essentials was born to work with data from any 3D scanner. We've built direct interfaces to many of the most popular systems. You're set for the future too – add any 3D scanner at any time, without having to learn another software interface.



2D and 3D GD&T

Complete Geometric Dimensioning & Tolerancing tools, for size, form, orientation, and location analysis to ASME Y14.5M standards. Control X Essentials measures:

- Linear, angular, radial, elliptical, bore depth, counterbore, countersink, and thickness
- Straightness, flatness, circularity, cylindricity, parallelism, perpendicularity, angularity, position, concentricity, symmetry, line profile, surface profile, runout, and total runout



Repeatable Routines





Inspect, learn and perfect. Easily develop an inspection routine that works. Easily use it again and again, with different measured data. Save yourself the laborious, time consuming hours of redevelopment every time you inspect a new part.

Geomagic Control X Editions

Package Comparison Geomagic Control X offers three software packages to best fit your inspection needs:	Essentials Affordable and Powerful Inspection for Everyone	Essentials Connect Powerful Inspection for Portable CMMs and Scanners	Professional Professional Inspection for Advanced and Automated Workflows
Comprehensive Inspection Tools (Import, Edit, Align, Extract, Compare, GD&T)	•	•	•
Reporting Tools	•	•	•
Repeatable Inspection Routines	•	•	•
Direct Plugin Scanning		Hexagon Structured Light Plugin only	•
Portable Metrology Device Support and Tools		•	•
Automated Inspection			•
Multi-Result Inspection			•
Surface Defect Inspection Tools			•
Native CAD Importer			•
Airfoil Analysis			•
Visual Scripting			•

The World's Number One 3D Scanning Software Platform

Oqton Geomagic unlocks the potential of 3D scanning with advanced technology built to work with the massive data sets produced by today's high-end optical scanners. From scan-based design and reverse engineering to quality control, Geomagic software is an essential component of every 3D scanning system. Control X Essentials is a modern inspection software that builds on more than 20 years of innovation in making the most out of 3D scan data.

Scan-based Design/Reverse Engineering	Scan Processing	Quality Inspection
 Geomagic Design X Essentials  Geomagic for SOLIDWORKS	 Geomagic Wrap	 Geomagic Control X Essentials

Get In Touch

Contact us for a demo at hello@oqton.com

