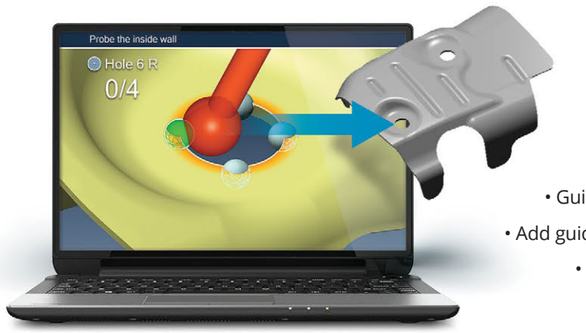
PolyWorks | Inspector™

Probing Package

The Universal 3D Metrology Software Platform for Single-Point Probing Devices

Operate all your probing devices from a common software platform

Supports major brands of articulated arms, optically-tracked handheld devices, laser trackers, industrial theodolites, and manual CMMs.



Implement repeatable operator-driven measurement workflows

- Guide operators to probe specific locations on features
- Add guiding instructions or images to measurement objects
- Use the Play Inspection tool to automatically guide the measurement of additional pieces with a step-by-step sequence

Enhance your measurement productivity on the shop floor

- Quickly create updatable inspection reports by choosing geometry controls from the measurement database and customizing the display style and content of report items
- Control PolyWorks® remotely and get live feedback while measuring a part using the PolyWorks|Talisman™ mobile app
- Invoke all typical measurement commands by talking to PolyWorks

Key features

Universal digitizing hub that interfaces with arm-based and hand-held probing devices, photogrammetry-based devices, laser trackers and manual CMMs, and includes all 3D metrology device plug-ins at no additional cost.

Universal workflow for performing all inspection tasks.

Parametric, traceable, and updatable solution that automatically records the operator's intent and ensures changes made to inspection projects are automatically propagated to all the project's 3D geometry and reports.

Integrated Play Inspection measurement tool to automatically measure a new piece without teaching or scripting.

Best-in-class management of multiple device positions with automatic probed-target matching, target analysis toolbox, bundle adjustment, and temperature compensation.

Powerful set of data-to-CAD alignment techniques that include techniques based on probed features, probed reference points, probed surface points, surface and cross-sectional best-fit, and more.

Multiple coordinate systems and part alignments.

Widest range of dimensional control tools on the market for a complete analysis of surface, boundary, and cross-sectional deviations, feature dimensions, flush and gap, profile radius, airfoil dimensions, and more.

GD&T™ engine based on algorithms prescribed by the ASME and ISO standards, advanced Datum Reference Frame capabilities (supports datum feature patterns, composite datum features, and datum targets), tolerance zone and datum modifiers, radial and slab-like tolerance zones, and more.

Build/Inspect mode for measurement-driven assembly that offers 3D or X, Y, Z tolerancing on individual objects, visual and audio guidance, autodetect and specific object-building modes, and more.

Extended report capabilities including customizable report layouts, automatic report generation, and export to Adobe PDF.

Integrated Statistical Process Control (SPC) toolset.

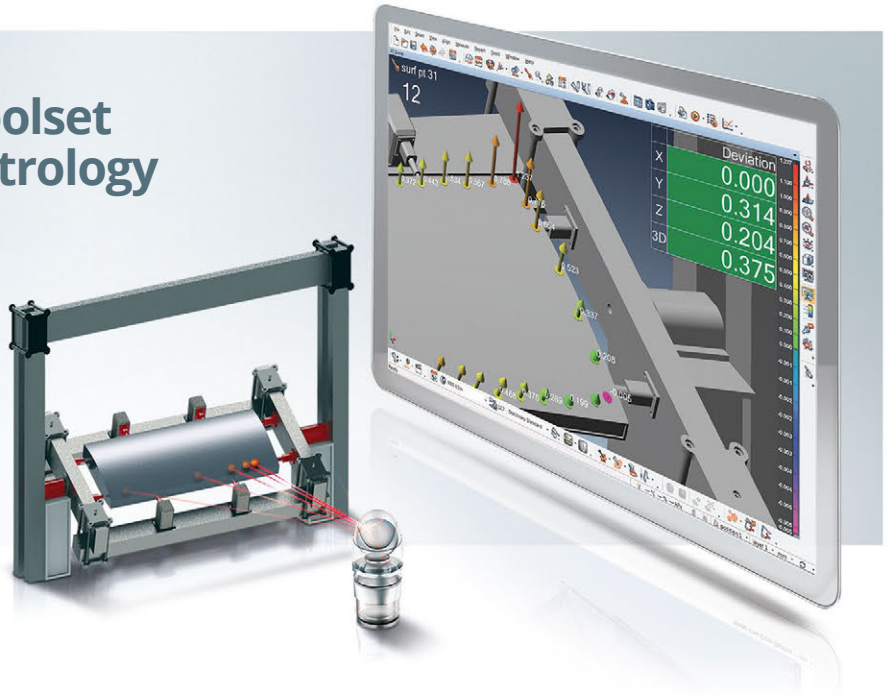
User-friendly macro programming language for advanced process customization.

Total compatibility with the PolyWorks|Inspector™ point cloud metrology platform.

Free PolyWorks|Viewer™ solution to deliver metrology results in 3D to everyone in the organization.

Offers a complete toolset for large-volume metrology

- Multiple device position alignment by automatic matching of probed targets
- Real-time bundle adjustment
- Device position uncertainty analysis
- Temperature compensation by specifying material and temperature, or by best-fitting targets



System requirements

Minimum

Adequate for use when probing with single-point probing devices and using CAD models files that are smaller that 50 MB.

CPU: Dual-core CPU

RAM: 4 GB

Graphics cards: Hardware-accelerated, professional OpenGL graphics card (such as a NVIDIA Quadro series card) equipped with 1 GB of memory

Operating system: 64-bit Windows 7, 8.1, or 10, Professional Edition

Input device: Two-button mouse with wheel

Recommended

Covers a broad range of applications, including using large CAD models and laser scanning large parts with a high resolution.

CPU: Quad-core CPU

RAM: 32 GB

Graphics card: NVIDIA Quadro series graphics card equipped with 2 GB of memory

Operating system: 64-bit Windows 7, 8.1, or 10, Professional Edition

Input device: Two-button mouse with wheel

Supported probing devices

Arms
Faro
Hexagon (Cimcore, Romer)
Nikon
Mitutoyo
Kreon
Tomelleri-SpaceArms

Laser trackers
API
Faro
Hexagon (Leica)

Theodolites
TDRA6000

Optical trackers/ Photogrammetry
Aicon
Creaform
Geodetic
Metronor
NDI
Nikon Metrology
Steinbichler

Manual CMMs
Deva
I++
MZ1060 (Zeiss)
Renishaw
Samsoft

Supported CAD file formats

CATIA V6, V5, and V4
NX (UG)
Creo (Pro/E)
Inventor
SolidWorks
ACIS
IGES
JT
Parasolid
STEP
VDA-FS

Supported languages

Chinese (Simplified & Traditional)
Czech
English
French
German
Hungarian
Italian
Japanese
Korean
Polish
Portuguese
Russian
Spanish

© 2016 InnovMetric Software Inc. All rights reserved. PolyWorks® is a registered trademark of InnovMetric Software Inc. InnovMetric, PolyWorks|Inspector, PolyWorks|Modeler, PolyWorks|Talisman, PolyWorks|Viewer, and "The Universal 3D Metrology Software Platform" are trademarks of InnovMetric Software Inc. SmartGD&T is a trademark of Multi Metrics Inc. All other trademarks are the property of their respective owners.

PTB Certified SmartGD&T™

Corporate Headquarters:

innovmetric
Your 3D Metrology Software Partner

InnovMetric Software Inc.
2014, Cyrille-Duquet, Suite 310, Québec QC G1N 4N6 Canada
Phone: 1-418-688-2061 | 1-888-688-2061
info@innovmetric.com | www.innovmetric.com