PolyWorks® V11

PolyWorks/ Inspector™ V11 sets new standards in the world of 3D metrology

The world's #1 dimensional control and point cloud engineering solution in the manufacturing community is more flexible, more universal, and more powerful than ever.

New statistical process control (SPC) methodology

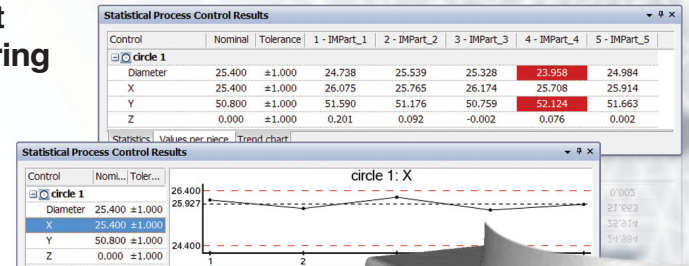
- Automatic recording of inspection objects measured on a set of pieces
- Comprehensive set of statistical measurements, including Cp and Cpk
- Trend charts for all dimensions
- Included in the standard PolyWorks/Inspector license at no additional cost

Mature probing solution

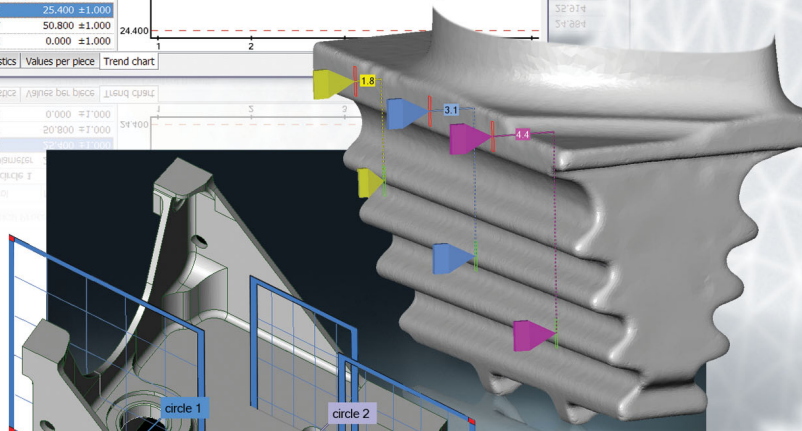
- New multiple coordinate system handling and alignment history
- New teaching mode for feature probing
- Enhanced management of multiple instruments and positions
- New plug-in for manual CMMs
- Numerous functional enhancements related to probing-only applications

PolyWorks/Inspector V11 in a nutshell

- Major upgrade of all CAD import technology
- New alignment method to bring a surface or cross-section within a tolerance band
- Improved RPS alignment, including edge and shank datum targets
- New offset cross-section object to handle cross-sections defined by multiple parallel planes
- Enhanced caliper technology, including calipers with offset axes
- Enhanced color map display with interpolated contour lines
- Improved point-cloud-sectioning algorithm, including smoothing and hole-filling capabilities
- Major GD&T upgrade, including full support of tolerance zone mobility modifiers, composite feature control frames, surface profiles, and color-mapping tools for analysis
- Re-engineered EZLayout reporting module, including new page-driven workflow and graphical tools

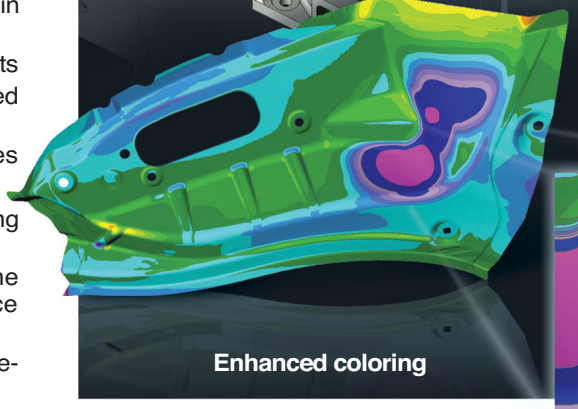


Statistical Process Control dialog boxes



Calipers with offset axes

Offset cross-section

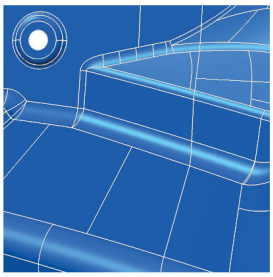


PolyWorks/Modeler™ V11 enables true interoperability with CAD/CAM applications

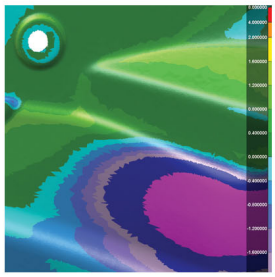
Whether models are made out of polygons or NURBS surfaces, or were created from point cloud data or your CAD/CAM application, PolyWorks/Modeler V11 offers you the optimal process that ensures the fastest lead time.

Combine digitized polygonal models and CAD models

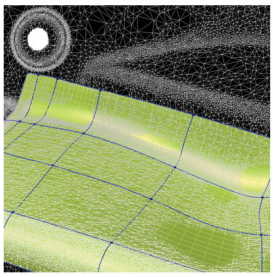
- Import IGES and STEP files
- Generate watertight tessellated CAD models
- Merge digitized and CAD polygonal models through surface stitching or volumetric Boolean operations
- Automatically reconstruct selected CAD faces using NURBS surfaces fitted on digitized polygonal models, ideal for updating CAD models of modified dies



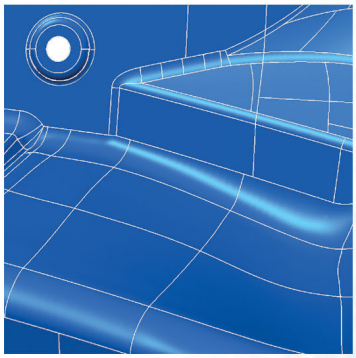
Original CAD model



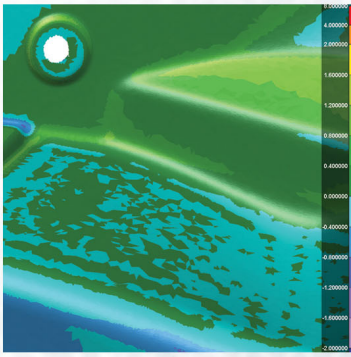
Part-to-CAD deviations



Reverse-engineered section



Reconstructed CAD model

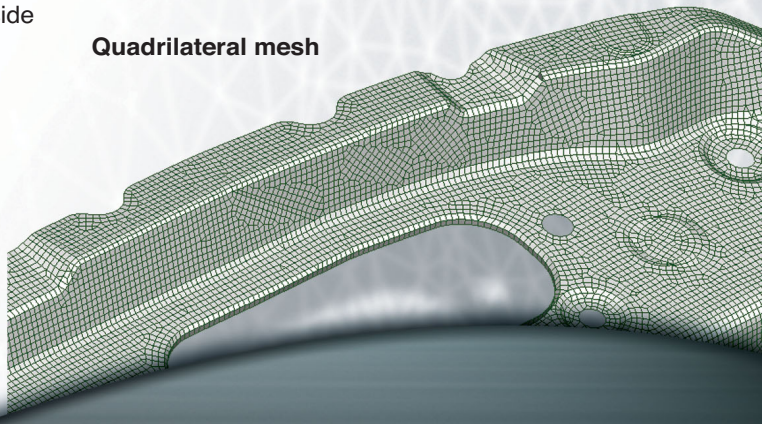


Updated part-to-CAD deviations

Create quadrilateral meshes for finite element analysis in a wink

- Morph tessellated CAD models onto digitized polygonal models (no polygon editing needed)
- Directly convert morphed models into quadrilateral models and export quad meshes to Nastran format (no NURBS surfacing needed)
- Create finite element meshes of sheet metal parts digitized on one side
- Create finite element meshes of sheet metal sub-assemblies

Quadrilateral mesh



Generate editable CAD surfaces from digitized polygonal models

- Dynamically construct surface patches in real time by laying down curves on polygonal models
- Maintain perfect curvature/tangent continuity (G2/G1) in areas where patch topology is rectangular
- Create N-sided patches and T-junctions in areas where multiple master surfaces blend
- Benefit from the enhanced surface smoothness of the new PolyWorks V11 surface-fitting engine

InnovMETRIC Software

Contact your local PolyWorks representative for more information

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