



PolyWorks Modeller II

POINT CLOUD REGISTRATION AND ALIGNMENT

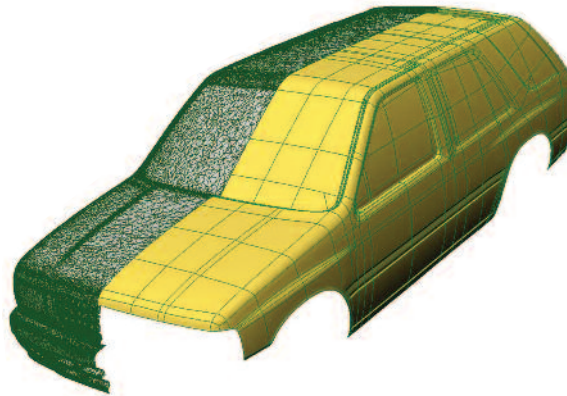
PolyWorks has the capability to merge multiple point cloud objects which have been scanned from different locations and therefore have different co-ordinate systems.

Highly advanced mathematical algorithms enable the software to piece together overlapping scan patches into one complete point cloud data set, ready for post-processing to a triangular mesh surface.



POLYGON MESHING

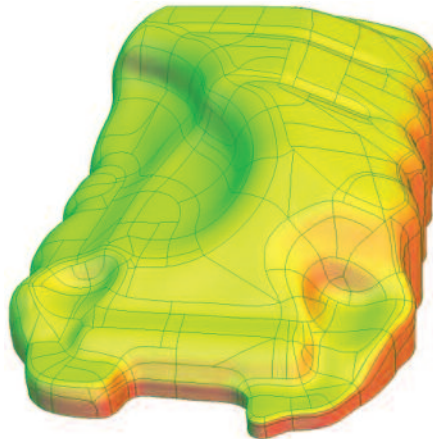
At the heart of PolyWorks Modeller is the capability to produce high quality polygonal meshes from point cloud scan data. With its unmatched adaptive point cloud meshing technology and capability to reconstruct perfect geometry from imperfectly digitized parts, PolyWorks has dramatically expanded the use of polygonal models (STL) in industrial applications, enabling remarkable new applications, such as aerodynamic simulation on digitized clay models or mould and die duplication from polygons. With its renowned adaptive meshing technology, PolyWorks gives you more smoothness and more accuracy compared to any other software.



NURBS SURFACES

With superior meshes in hand, PolyWorks allows you to easily track the most complex feature lines and quickly outline sets of patches for NURBS surface fitting.

With a brand new curve and NURBS surface fitting engine, dynamic patch generation, and the possibility of reconstructing portions of CAD models, InnovMetric now brings PolyWorks to new heights, making it an indispensable tool for your product engineering process.



PRIMARY INDUSTRIES SERVED

- Automotive •
- Aerospace •
- Consumer goods •
- Energy •
- Metalworking •

PRIMARY APPLICATIONS

- Advanced visualization •
- Copy milling •
- Design and reverse engineering •
- Rapid prototyping •
- Simulation •
- Tooling manufacture •

SUPPORTED LANGUAGES

- English •
- Japanese •
- German •
- French •
- Chinese (simplified & traditional) •
- Spanish •
- Italian •
- Czech •

Measuring the future in 3D

SOFTWARE



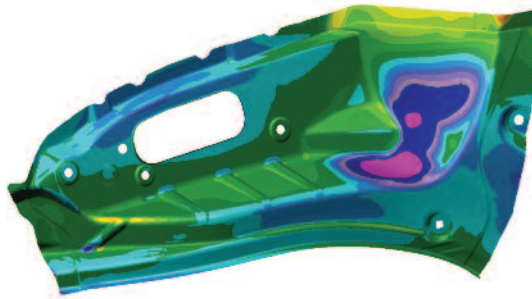
PolyWorks Inspector II

OVERVIEW

PolyWorks/Inspector is a powerful software solution which uses high density point clouds and contact-probe data sets to control the quality of parts and tools at every phase of your manufacturing process. Today, major automotive and aeronautic OEMs and tier-one suppliers worldwide use PolyWorks Inspector as their standard dimensional control and engineering analysis software for prototype, first-article, manufactured, and assembled parts inspection.

KEY FEATURES

- **Universal platform** that supports high-density point cloud digitizers, arm-based and hand-held probing devices, photogrammetry-based devices, laser trackers, and manual CMMs for hybrid metrology applications
- **Powerful set of data-to-CAD alignment techniques** that include constrained surface and cross-sectional best-fit, best-fit within tolerance, as well as techniques based on features, reference points, flush and gap gauges and more
- **Widest range of comparison and measurement tools** on the market for a complete analysis of surface and cross-sectional deviations, feature dimensions and GD&T controls, flush and gap, profile radius, airfoil dimensions, clearance, thickness, and more
- **Integrated Statistical Process Control (SPC)** methodology
- **Embedded SmartGD&T™** technology from Multi Metrics
- **Extended report capabilities** including customizable report layouts, automatic report generation, export to Adobe PDF
- **Total automation capabilities** and increased individual productivity through a user-friendly macro-programming language
- **Xtreme graphical user interface** which offers visual layout optimization capabilities including fully customizable menus and toolbars, ideal for corporate-wide deployment
- **Free PolyWorks/IMView™** viewer which maximizes corporate-wide information sharing among users, managers, and suppliers



AIRFOIL GAUGING

Designed and tested in collaboration with market-leading global airfoil manufacturers, the PolyWorks Airfoil Gauge module offers you a toolbox dedicated to controlling airfoil dimensions at various stages of the manufacturing process.



Thanks to the most robust camber line fitter in the industry, PolyWorks gives you the unique ability to analyze airfoils measured by any hardware measurement device, including white-light digitizers, laser scanners, X-ray scanners, and CMMs.

PRIMARY INDUSTRIES SERVED

- Automotive
- Aerospace
- Consumer goods
- Energy
- Metalworking

PRIMARY APPLICATIONS

- Assembled part inspection
- First-article inspection
- Metal casting
- Plastic moulding inspection
- Prototype part inspection
- Sheet metal inspection
- Tooling inspection

SUPPORTED LANGUAGES

- English
- Japanese
- German
- French
- Chinese (simplified & traditional)
- Spanish
- Italian
- Czech

CAD FORMATS SUPPORTED

- IGES
- STEP
- CATIA V4 and V5
- UG
- Pro/E
- Parasolid
- SAT
- Inventor
- SolidWorks
- VDA-FS