PolyWorks®

V11

PolyWorks/Inspector™ V11

The world's #1 dimensional control and point cloud engineering solution in the manufacturing community
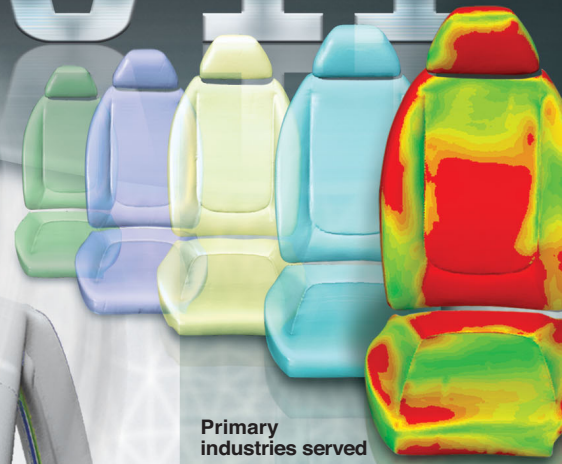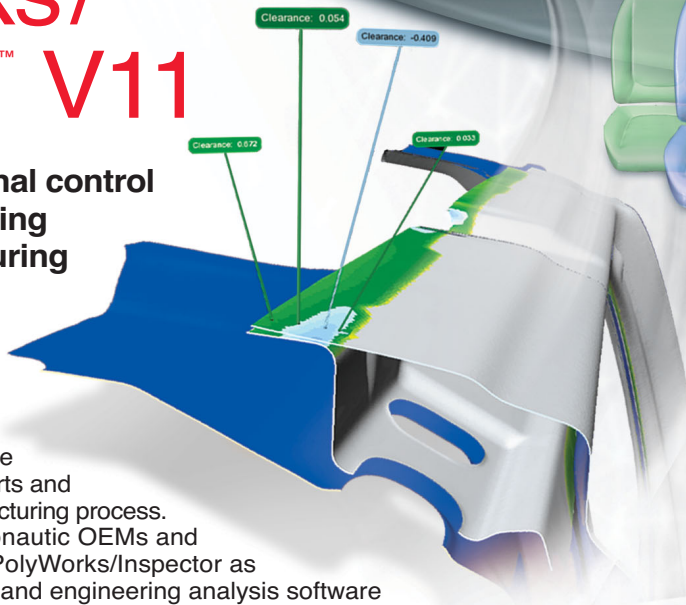
Overview

PolyWorks/Inspector is a powerful software solution that uses high-density point clouds and contact-probe datasets 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, and export to Adobe PDF

- **Total automation capabilities** and increased individual productivity through a user-friendly macro-programming language

- *Xtreme* **graphical user interface** that offers visual layout optimization capabilities including fully customizable menus and toolbars, ideal for corporate-wide deployment

- **Free PolyWorks/IMView™ viewer** that maximizes corporate-wide information sharing among users, managers, and suppliers

Included with each license

- Free PolyWorks training at InnovMetric's headquarters

- One year of technical support from highly skilled application specialists with optional annual renewals

- Access to InnovMetric's on-line technical support zone

- Access to a comprehensive network of partners that provide PolyWorks service work, like macro development and interface customization

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Primary industries served

Automotive
Aerospace
Consumer goods
Energy
Metalworking

Primary applications

Assembled part inspection
First-article inspection
Metal casting
Plastic molding 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

System Requirements

Windows 32-bit Edition (XP/2000/Vista) or Windows 64-bit Edition (XP/Vista)

Dual-core processor or two processors

2 GB of RAM or more

2 GB of free disk space and 2 GB of swap space

OpenGL graphics board (NVIDIA is recommended)

3-button mouse or 2-button with wheel

PolyWorks/ Modeler™ V11

Enabling true interoperability between digitized polygonal models and CAD/CAM applications
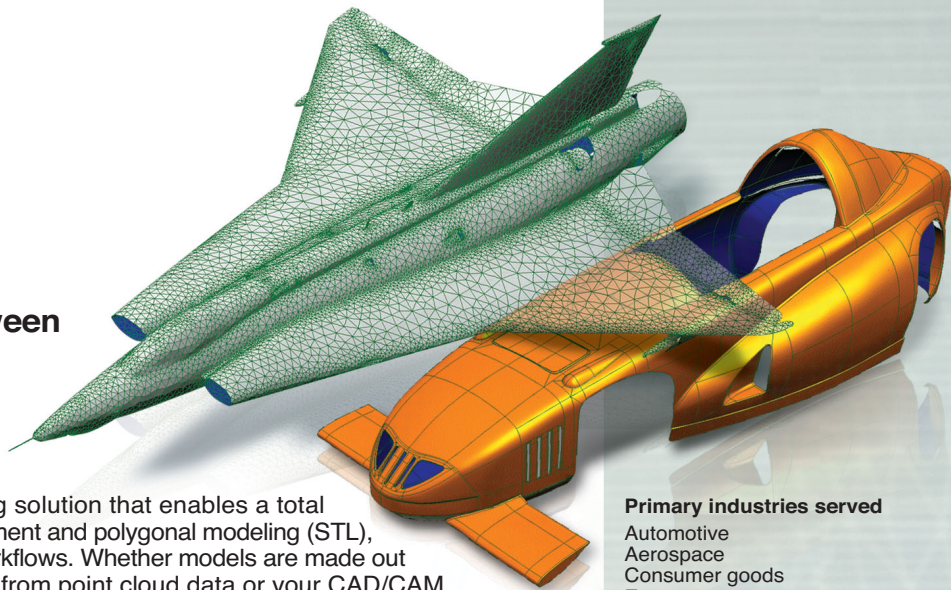
Overview

PolyWorks/Modeler is a comprehensive modeling solution that enables a total interoperability between point cloud digitizing equipment and polygonal modeling (STL), surface modeling (NURBS), and solid modeling workflows. Whether models are made out of polygons or NURBS surfaces, or were created from point cloud data or your CAD/CAM application, PolyWorks/Modeler offers you the optimal process that ensures the fastest lead time.

Key features

- **Universal platform** that supports all high-density point cloud digitizers by importing native and neutral file formats and digitizing using plug-ins

- **Complete alignment toolbox**, including best-fit alignment of individual point clouds or multiple scanning sessions and statistical analysis

- **World's best adaptive-meshing technology** with distributed processing capability over a computer network

- **Total polygon-editing toolbox** for correcting imperfectly digitized geometry using flat and curvature-based hole filling, boundary reconstruction, sharp edge and corner reconstruction, and more

- **Rapid NURBS surfacing capabilities** including automatic and interactive curve network creation, support of N-sided patches and T-junctions, automatic NURBS surface fitting with G2/G1/G0 continuity, and more

- **Advanced interoperability with CAD/CAM applications** including import of IGES/STEP files, watertight tessellation of NURBS surfaces, morphing of tessellated CAD models toward measured models, volumetric or surface-based merging of digitized and tessellated CAD models, local reconstruction of CAD faces using fitted NURBS surfaces, and more

- **Finite element meshing** through the quadrangulation of triangulated models

- *Xtreme* **graphical user interface** that offers visual layout optimization capabilities including fully customizable menus and toolbars, ideal for corporate-wide deployment

- **Free PolyWorks/IMView™ viewer** that maximizes corporate-wide information sharing among users, managers, and suppliers

Included with each license

- Free PolyWorks training at InnovMetric's headquarters

- One year of technical support from highly skilled application specialists with optional annual renewals

- Access to InnovMetric's on-line technical support zone

- Access to a comprehensive network of partners that provide PolyWorks service work, like macro development and interface customization

Primary industries served

Automotive
Aerospace
Consumer goods
Energy
Metalworking

Primary applications

Advanced visualization
Copy milling
Design and reverse engineering
Rapid prototyping
Simulation
Tooling manufacturing

Supported languages

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

System Requirements

Windows 32-bit Edition (XP/2000/Vista) or Windows 64-bit Edition (XP/Vista)

Dual-core processor or two processors

2 GB of RAM or more

2 GB of free disk space and 2 GB of swap space

OpenGL graphics board (NVIDIA is recommended)

3-button mouse or 2-button with wheel

InnovMETRIC
Software

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