



PolyWorks[®]

V12

Self-learning,
parametric, traceable, and
updatable inspection solution for
all 3D metrology instruments with

PolyWorks Inspector[™] V12

**The new project updatability dramatically
simplifies multi-piece inspection tasks.**

Self-learning, parametric, traceable,
and updatable inspection projects

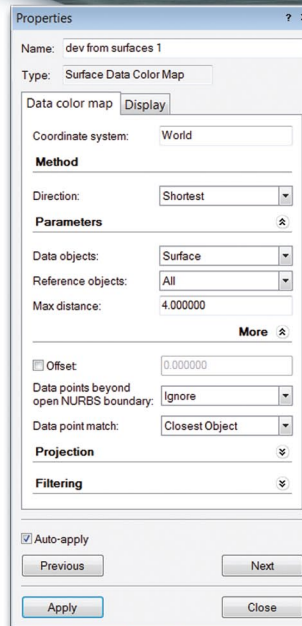
- Automatic recording of all measurement parameters, and geometrical and logical object relationships describing the operator's intent
- Possibility of modifying recorded parameters and object relationships
- Fully automatic update engine that updates alignments, measurements, and reports in line with the latest parameter values and object relationships
- Available for all point cloud digitizers and single-point probing devices

Integrated DirectReplay[™]
remeasurement technology

- Remeasure a new piece directly, without any setup
- No operation history tree, nor any inspection program
- Inspection projects can be modified, then directly remeasured
- Flexible remeasurement process, allowing the customization of a project for a specific piece
- Available for all point cloud digitizers and single-point probing devices

PolyWorks/Inspector V12 in a nutshell

- More efficient menu structure and file browsing experience
- Enhanced management of CAD data, including the detection of sharp edge curves and fillet tangent curves, that facilitates the definition of nominal geometry
- New Hemmed Edge comparison points for sheet metal analysis
- New specialized part-to-CAD comparison algorithm for parts made of composite material (honeycomb)
- Major enhancements to automatic feature curve fitting on point cloud datasets
- New PolyWorks/Talisman[™] intelligent remote control that brings PolyWorks/Inspector in the palm of your hand while measuring on the shop floor

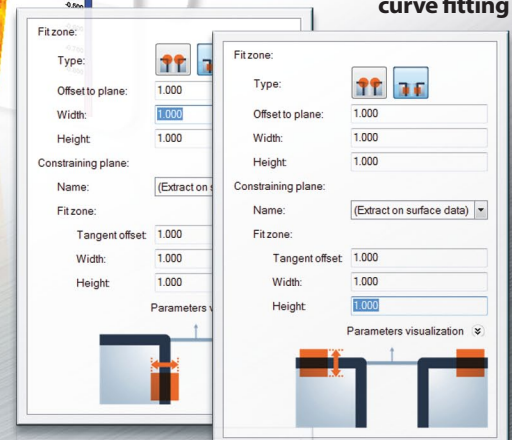


Parametric
objects

Enhanced
CAD curve
management

Honeycomb
deviation to CAD

Enhanced feature
curve fitting



Parametric 2D sketching in PolyWorks | Modeler™ V12

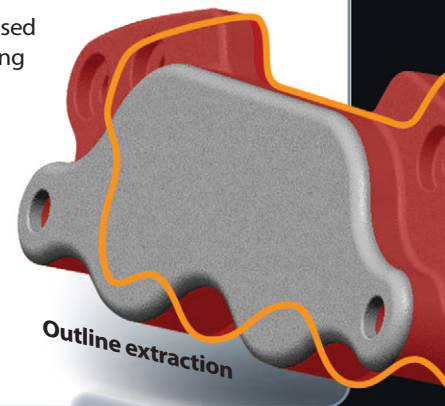
PolyWorks/Modeler optimizes the extraction of geometric entities on digitized models, accelerating the development of parametric and associative CAD models in **your** professional CAD/CAM solution.

Parametric 2D sketching

- Three-step sketch creation workflow: Define a sketch plane, compute a sketch outline from a digitized model, create a sketch guided by a sketch outline
- Sketch outline creation by slicing with one cross-section or averaging multiple cross-sections
- Sketch outline creation by computing a silhouette edge
- Compensation for draft angle
- Standard CAD-like operations to anchor entities (such as lines, arcs, circles, rectangles, and splines), view and modify entity parameters, drag entities, create horizontal/vertical line constraints, create relational constraints, create construction entities, and more
- Specialized reverse-engineering techniques including interactive entity and constraint fitting, corner reconstruction, real-time visualization of entity-to-outline deviations, and more

Major enhancements to curves

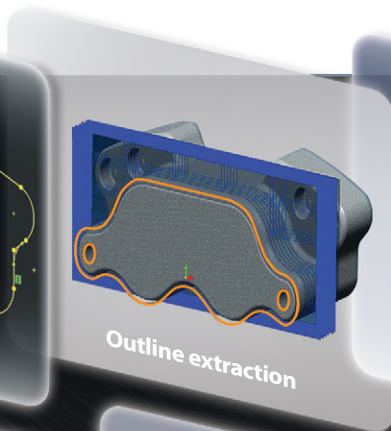
- Intelligent curve magnetization engine that allows editing a curve in a network of patches without losing patch topology information
- New curve mathematical engine that produces smoother curves
- Intuitive curve reshaping tool based on dragging and interactive fairing
- Enhanced usability through simplified dialog boxes, less user-defined parameters, and improved terminology and workflows



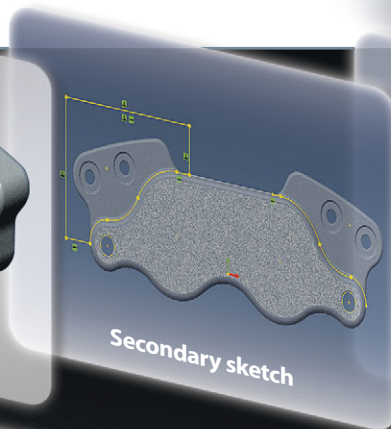
Outline extraction



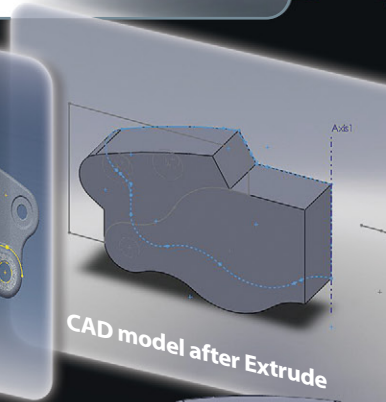
Primary sketch



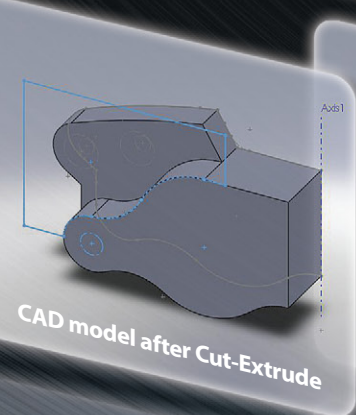
Outline extraction



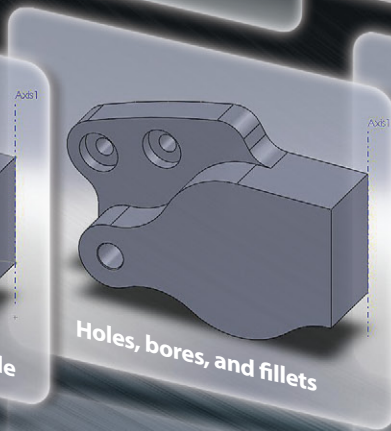
Secondary sketch



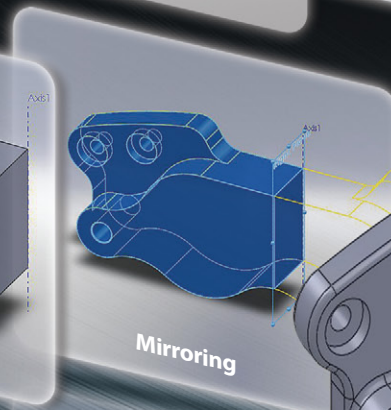
CAD model after Extrude



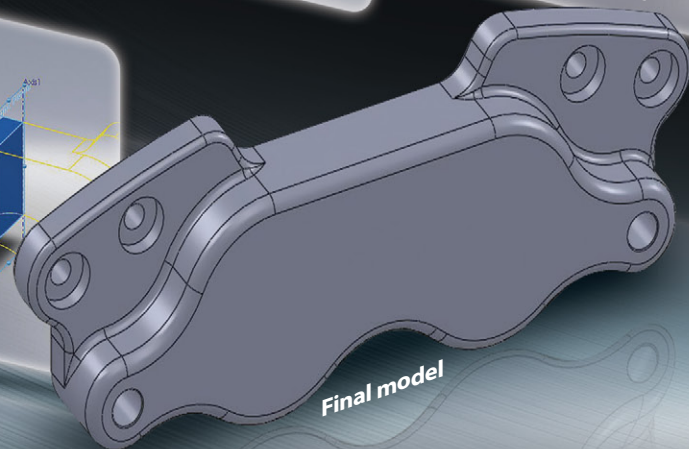
CAD model after Cut-Extrude



Holes, bores, and fillets



Mirroring



Final model


InnovMETRIC
Software

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