Universal Inspection Projects

Deploy ONE inspection project with ALL your 3D measurement devices

PolyWorks 2018 brings 3D metrology hardware interoperability to the next level. It empowers users to create and deliver shop-floor-ready inspection projects that are directly playable with all portable and CNC CMM 3D measurement devices.

Maximize the use of all your 3D measurement devices and minimize the risk of operator errors by creating and embedding multiple piece measurement templates within a single inspection project!

With piece measurement templates, preconfigure an inspection project to:

- Handle multiple CAD model versions and revisions.
- Set up for different laser tracker brands and models.
- Perform multiple piece measurements with CNC CMMs and portable scanning arms.
- Execute measurement sequences on bridge CMMs and horizontal arms.
- Handle multiple CAD model versions and revisions.

Universal inspection projects ensure total flexibility for the overall work organization of your 3D metrology processes.
**Universal 3D Metrology Workflow**

Perform all inspection tasks using a common workflow

**Enhanced alignment toolbox**

PolyWorks 2018 reference target and datum target alignment techniques are more powerful and more complete:

Balance part deviations using the integrated iterative alignment with reference targets bound to constructed features.

**Universal Digitizing Hub**

Interface with all 3D measurement devices

**Smart collision avoidance for CNC CMMs**

PolyWorks 2018 adds new measurement sequence fixers to the powerful real-time collision analysis technology. These tools allow inserting automatically computed Go to Position locations that modify the CMM measurement path in an optimal way as to prevent detected potential collisions.

**Robust measurement sequences for CNC CMMs**

PolyWorks 2018 offers intelligent solutions for measuring deformed, incorrectly aligned, or deviated parts without operator intervention:

- **Search hole**
  Triggers a spiral search when a hole is not located at its nominal position to estimate the actual hole location, and restarts hole measurement from the estimated location.

- **Locate hole center**
  Measures 3 points to estimate the actual hole location, translates the measurement zone to the center of the actual hole, and launches hole measurement.

- **Measure relative to other objects**
  Adjusts the position of the measurement zone based on the deviations of objects that are already measured.

**Simulate rectangular and circular fixture locating pads using the new datum target area.**

Align symmetrical parts. Balance blade edges.
User Experience
Enhanced usability and performance

The improved discoverability, ease of use, and performance of tools in PolyWorks 2018 promote valuable gains in user productivity:

- **Simplified icons** assure quick recognition, while retaining the original icon concepts.
- **Colors** are used to focus attention and better communicate results.
- **Intuitive annotation** positioning and editing tools directly in the 3D Scene.
- **Single-click** geometry transfer between products.

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