Comply with The NIST PMI Test Requirements Using SOLIDWORKS

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DS SOLIDWORKS
Benefits of the NIST PMI Test Project

- Encourage CAD systems to improve
- Provide model-based manufacturers with better PMI capabilities
- Facilitate the digital thread in the industry
Methodology

- Eight models with 297 annotations
- Focused on ASME GD&T definitions
- Tested four CAD systems in 2012 and 2015 versions
Upgrade to SOLIDWORKS MBD 2017

- Upgraded existing eight models to SOLIDWORKS MBD 2017
- Built three more models
- Resolved 65% of the issues found in versions 2012 and 2015
Automatic Coordinate Systems

- Resolved 40 issues
- More intelligent
- Reusable by manufacturing software
3D Views

- Resolved 59 issues
- Visual
- Comprehensive
- Flexible
Ease of Use

- Read non-native CAD data
- Select a hole edge to define the entire pattern
3D PMI Compare

![3D PMI Compare Diagram](image-url)
More Enhancements per NIST Requirements
All-Around Profile Tolerance

Before

After
Combined Slot Callouts

Before

After
Control Supplemental Geometry Visibilities per Views

Before

After