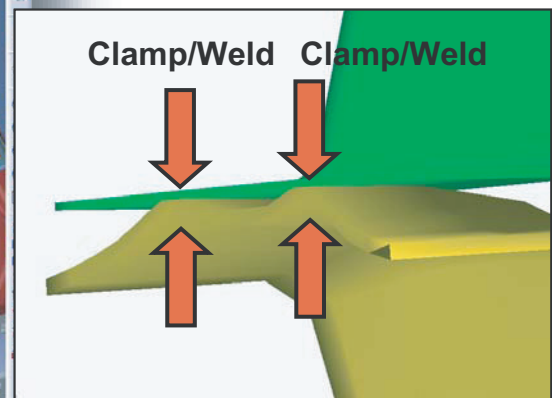
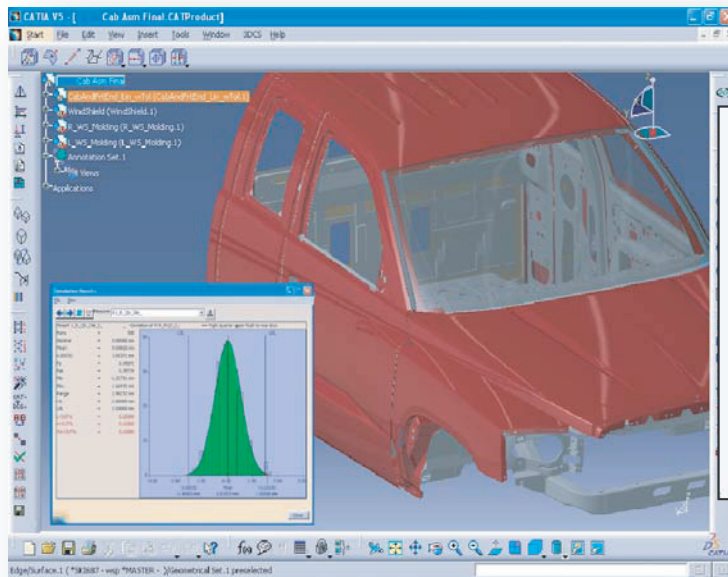


Visually Observe Dimensional Variation

3DCS FEA Compliant Modeler

Manufacturers need to manage risk associated with product quality. Simulating dimensional variation is a key component in assessing the digital design's relationship to product quality. Material deformation can often be a significant contributor to this variation. Manufacturers need to make decisions during digital phases that influence costs, timing and tooling. 3DCS FEA Compliant Modeler solves this challenging aspect of simulating assembly variation for deformable parts and assemblies.



3DCS FEA Compliant Modeler enhances the ability to easily and quickly model deformable parts and assemblies. With 3DCS FEA Compliant Modeler, engineers can more accurately simulate dimensional variation within assemblies that contain deformable parts such as sheet-metal, plastics, composites, glass etc... 3DCS FEA Compliant Modeler simulates the dimensional variation of part deformation resulting from spring-back, gravity or fabrication/assembly manufacturing operations (clamping, unclamping, welding, fastening, force application etc...). 3DCS FEA Compliant Modeler opens up a whole new world of tolerance simulation capabilities.

Predict

the assembly variation of deformable assemblies with virtual prototypes

React

to specific contributors of cumulative variation for optimizing designs

Control

costs and dimensional integrity with proactive 3D tolerance analysis

3DCS Add-On Solutions

3DCS FEA Compliant Modeler

Business Values

Cost avoidance through improved product design

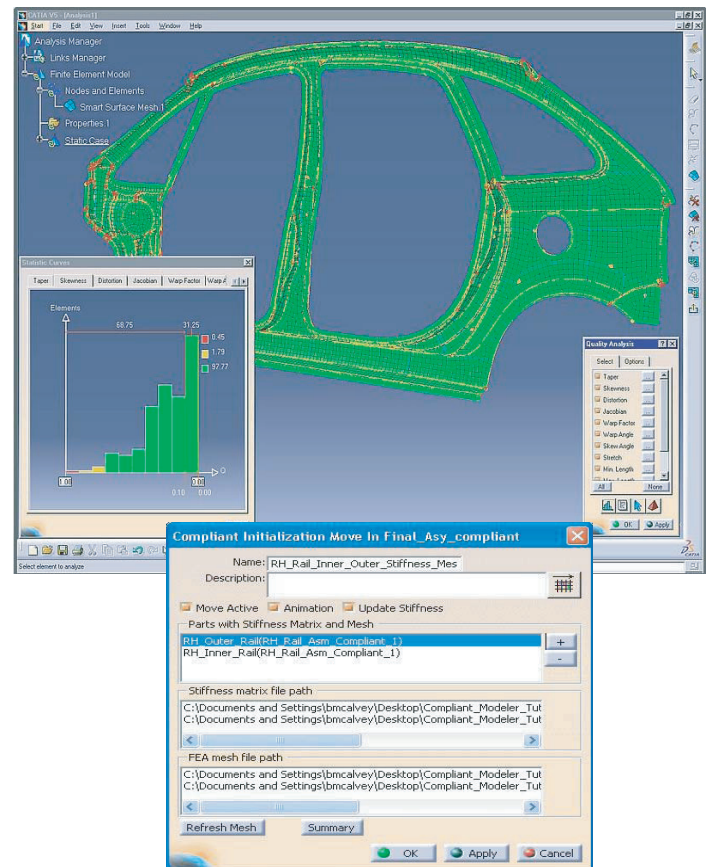
The downstream cost of a design error increases dramatically the longer it goes undetected in the design/manufacturing cycle. Scrap, rework, engineering changes and tooling delays can all add up to cut deeply into profits. 3DCS FEA Compliant Modeler provides the engineering community with an efficient method of evaluating the influence of material deformation during the digital prototype phases. Problem areas can be identified and corrected early in the product development cycle. Optimizing the dimensional integrity improves the robustness of design and processes by maximizing part tolerances, while controlling the dimensional requirements of the entire compliant assembly.

Targeted Users

Engineers who wish to assess the impact of dimensional variation in compliant/deformable assemblies.

Key Product Features

- Simulate deformation within the virtual assembly process
- Render photo realistic deformation
- Support Monte Carlo, contributor analysis and equation based tolerance analysis
- Support for diagnostic functions including key contributor analysis and Geofactor, available in 3DCS
- Incorporate part deformation resulting from clamping, welding, fastening, gravity, force application and spring-back
- Leverage existing FEM/FEA models to accurately reflect deformable parts
- Easy to learn, intuitive graphical user interface



Dimensional Control Systems, Inc. (DCS)

DCS is a world-class provider of Dimensional Engineering Consulting Services and Software Solutions. DCS is a trusted source of highly-acclaimed 3D tolerance analysis technology. 1DCS, DCS-DFC, 3DCS, 3DCS CAA V5 Based, QDM-3D and DataGrabber are all trademarks of Dimensional Control Systems, Inc.

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