DCS

DIMENSIONAL CONTROL SYSTEMS

ENGINEERING IN NEW DIMENSIONS

Visually Observe Dimensional Variation

3DCS Multi-CAD

Comprehensive Variation Analysis Solutions

3DCS Variation Analyst Multi-CAD

3DCS Multi-CAD is the best-in-class dimensional variation analysis tool for simulating design and manufacturing processes. As a Multi-CAD platform, 3DCS Multi-CAD allows the user to import native CAD files from any CAD system. In this way, 3DCS Multi-CAD is the perfect tool for simulating the assembly and variation of your products.

Take advantage of 3DCS Multi-CAD's additional Add-On Modules to increase its functionality. With the ability to model complex mechanical assemblies, compliant parts as well as unique types of analysis, 3DCS Multi-CAD can easily be customized to meet your company's specific needs.

Predict
the assembly variation of manufactured products with virtual prototypes

React
to specific contributors of cumulative variation for optimizing designs

Control
costs and dimensional integrity with proactive variation analysis

3DCS Multi-CAD Solutions

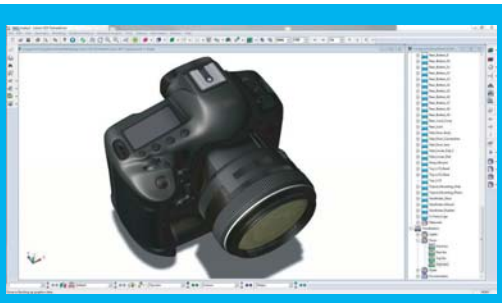
Business Values

Optimize Product Designs and Processes

The cost of design errors increases dramatically the later they are detected in the design/manufacturing cycle. 3DCS Variation Analyst Multi-CAD allows the engineering community to evaluate design and assembly concepts up front, where problem areas can be identified and corrected early in the product development cycle. Optimizing for dimensional integrity improves the robustness of design and processes by maximizing part tolerances while controlling the dimensional assembly requirements of the final assembly.

Reduce Cycle Time & Rework Costs

Shorten development time, accelerate time to market and reduce costs by utilizing the capability of 3DCS Variation Analyst Multi-CAD for virtual prototyping. By maximizing part tolerances while still controlling dimensional assembly requirements, manufacturing costs can be reduced with less rework to tools and gages, minimized scrap and reduced number of warranty defects.



Targeted Users

A comprehensive tool for the engineers who need to perform complex iterative analysis across multiple platforms.

Key Product Features

Three Types of Analysis Outputs - Monte Carlo Simulation, High-Low-Mean (Sensitivity Analysis) and GeoFactor Analysis

Perform What-If Analysis - Learn the impact on the final assemblies before costly design changes need to be made

Evaluate Geometric Factors in critical dimensions of parts and assemblies and enhance the robustness of their designs

Reuse Models - Capture commonly used processes and build your own library of easily accessible models

Flexible Assembly Compatibility with specialized routines developed for non-rigid parts

Use Manufacturing Data - Import real world data into 3DCS Variation Analyst Multi-CAD for root cause analysis to improve existing build processes

Identify Contributors - Localize tolerances and assembly processes responsible for variation

Incorporate your own GD&T and visually display part variation

Validate Assembly Process - Create exploded views and display parts moving sequentially to their final assembled positions

Animate Variation On-Screen - Users can visualize clearances & interferences on solid geometry or through a section by sweeping parts and assemblies within their statistical extremes

Quickly Build Analysis Models with an easy-to-use and easy-to-learn graphical user interface, all within a single window

Create Models Without Geometry - Perform tolerance analysis before CAD geometry exists

Specify Distribution Types - Select from a comprehensive set of statistical distributions to represent differing manufacturing processes

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