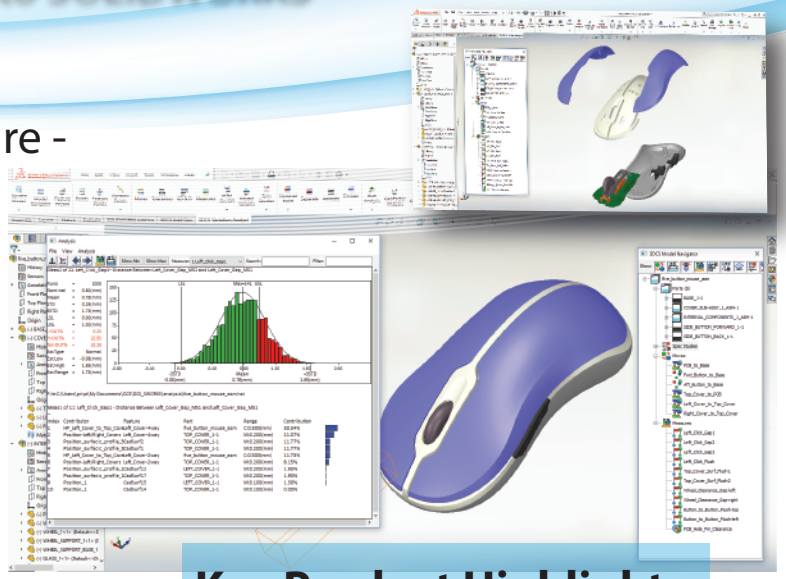
3DCS Variation Analyst for SOLIDWORKS

Tolerance Analysis Fully Integrated into SOLIDWORKS



Advanced Tolerance Stack-Up Software - Fully Integrated in SOLIDWORKS

3DCS Variation Analyst is used by the world's leading manufacturing OEM's to reduce their costs of quality. By controlling variation and optimizing designs to account for inherent process and part variation, engineers reduce non-conformance, scrap, rework and warranty costs.

The Leading Variation Analysis Solution - The What

3DCS Variation Analyst for SOLIDWORKS is a fully integrated tolerance analysis software solution that simulates product assembly, manufacturing processes, and part tolerances in a 3D stack-up through three types of analysis: Monte Carlo Analysis, High-Low-Mean (Sensitivity) Analysis, and Geofactor (equation-based) Analysis.

Model Part and Process Variation - The How

Using three methods of simulation, the software highlights the sources of variation, as well as the potential build issues of the product. By recreating the build process within a virtual model, the user can accurately simulate the product to validate fit and finish, gaps and contact surfaces.

Gain New Insight Into Your Design - The Why

By simulating products in a digital environment, engineers are able to account for variation in key areas, reducing rework, non-conformance and scrap during production. In addition to this, specifications deemed less critical can be relaxed, allowing for increased tolerances and the use of less expensive manufacturing processes thus reducing costs without affecting overall quality. 3DCS software has automatic report generation for fast, effective communication of analysis results, and easy collaboration with peers and managers.

Key Product Highlights:

Three Analysis Methods -
Monte Carlo Analysis, High-Low-Mean (Sensitivity Analysis) and GeoFactor Analysis (Relationship)

What-If Studies –
Test design changes using simulation to reduce the need for prototypes.

Identify the Source of Variation –
Find the true source of your problem to root cause build issues and non-conformance.

Apply Plant and Measurement Data –
Incorporate actual plant measurements to validate products and trouble shoot production.

Account for Processes and Tooling –
Model assembly process, tooling, fixtures, clamping, Datums, Locators and account for their added variation.

Customize Your Setup –
Use Add-on modules to quickly upgrade your system to utilize Finite Element Analysis, Mechanical Kinematic Assemblies and more.

Test and Optimize GD&T -
Move from general tolerances to more specific tolerances that reflect your processes and manufacturing capability.

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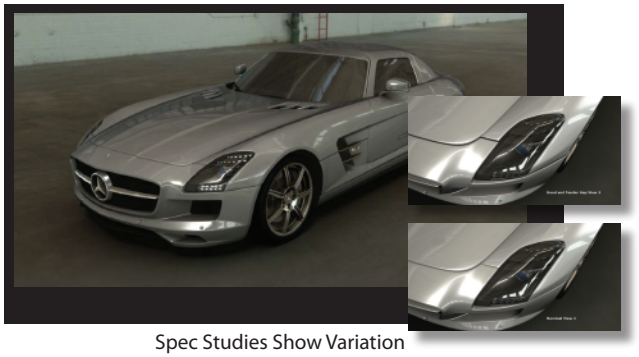
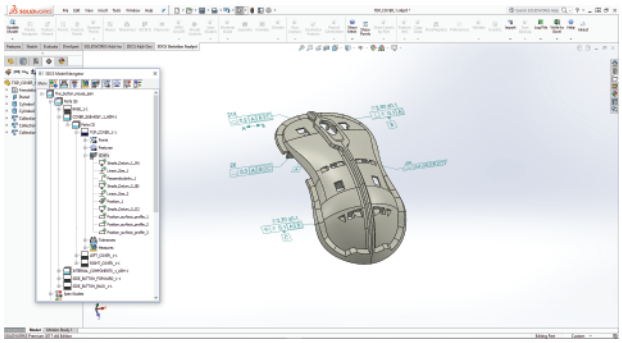
Control Variation Through Design Optimization



Spec Studies Show Variation

Utilize Embedded GD&T - PMI

Take advantage of your CAD model's PMI, Joints and Constraints by reading them into your 3DCS Model. Validate and optimize PMI and update your CAD when you're ready. Streamline your process with PMI to improve efficiency and communicate more effectively downstream.



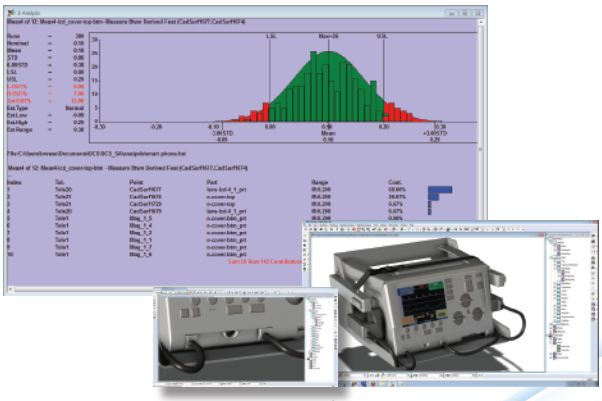
Utilize Embedded GD&T - PMI

Create a Model to Simulate Product and Process Variation

Apply part and process tolerances to simulate manufactured products. Test design and assembly options for optimal final configurations.

Run Analyses to Determine Contributors and Critical to Quality Features

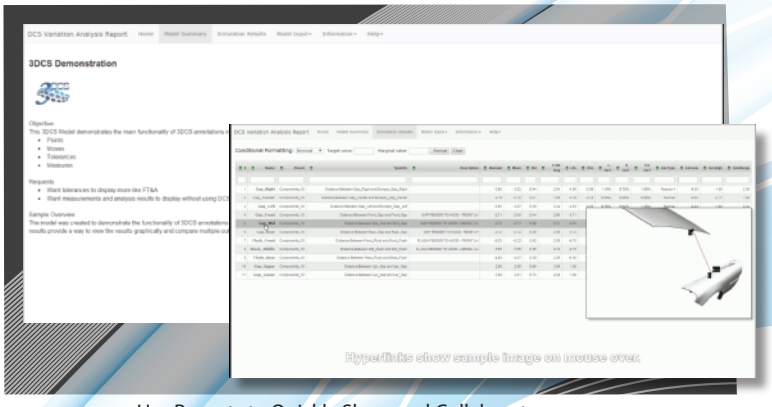
Find primary contributors to variation and focus in on critical to quality features to monitor through production. Determine mathematical relationships between parts to maximize design changes. Find issues before making any products.



Use Six Sigma - View Primary Contributors to Variation

Create Reports and Collaborate

With push-button reporting, instantly create html and excel reports from your analysis results to share with colleagues and present to managers. Collaborate with teams in different regions while effectively communicating your results.



Use Reports to Quickly Share and Collaborate

Make Changes and Test Your New Design

Change tolerances, assembly processes or design characteristics and determine the outcome. Find issues and test solutions before building expensive prototypes or beginning production.

DCS is a software developer providing tolerance analysis and quality inspection solutions to the automotive, aerospace, medical device, electronics and energy industries. With more than 20 years' experience, DCS has grown to include clients from every region of the globe including companies like Airbus, BMW, GM, LG, Jaguar Land Rover, Phillips, Sony, Textron Aviation and Volkswagen. As a quality solution provider, DCS prides itself on providing clients not just software, but services, staffing and dedicated support to guarantee the success of their quality initiatives.

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