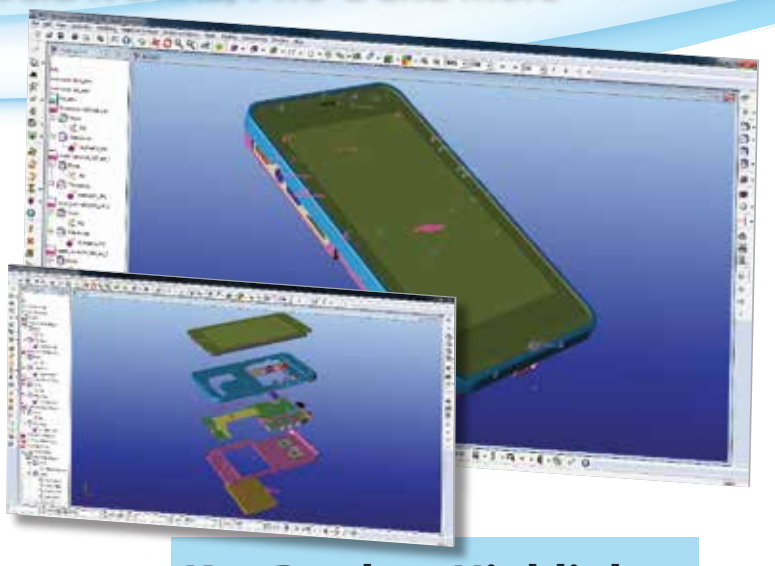
3DCS Variation Analyst Multi-CAD

CAD Neutral Software of NX, CATIA, SOLIDWORKS, PRO-E and More



The World's Most Used Variation Analysis Software

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 Multi-CAD is a stand alone CAD neutral software system for modeling variation caused by part tolerances as well as manufacturing and assembly processes. 3DCS Multi-CAD works with native CAD files (.prt, CADproduct, etc), STEP, IGES and JT files. This provides a single platform that can include products designed in many different CAD systems.

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 in a virtual environmnet, essentially creating digital prototypes to test and validate design objectives.

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

Determine Design Objectives with High End Visualization

View gap and flush conditions with given tolerances to determine the effect of variation on the appearanc of products.

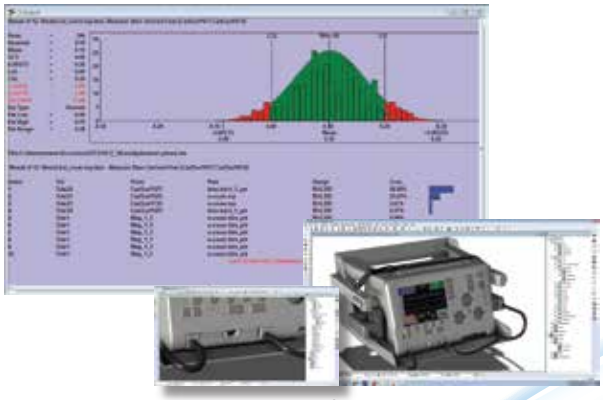
Assemble and Test in a Virtual Environment

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.



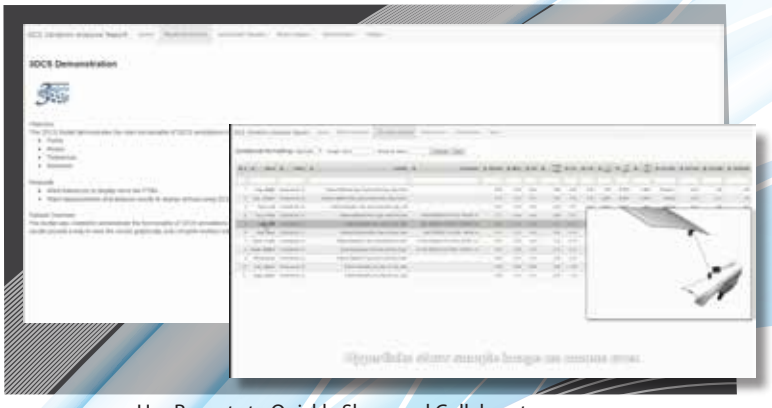
Use Six Sigma - View Primary Contributors to Variation

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.

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.



Use Reports to Quickly Share and Collaborate

DCS has been supporting quality management in industries including automotive, aerospace, medical device, electronics and industrial machinery for over 20 years. DCS solutions are used daily by companies like Airbus, BMW, GM, LG, Nissan, Phillips, Sony, Textron Aviation and VW. By applying DCS's 3D Model Based environment for Predictive Variation Analysis and Responsive SPC, manufacturers have reduced quality costs related to yield, scrap, rework and warranty issues.

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