3DCS AAO - Advanced Analyzer & Optimizer
Save time and resources with easy to use tools

All the Tools You Need to Test and Optimize Your Products

3DCS AAO is an Add-on Module for 3DCS Suite of products. As a package of advanced tools, AAO gives engineers the tools they need to analyze variation results quickly, to make engineering decisions earlier, and at lower cost, in the challening task of quality risk management.

### Advanced Tools to Make Modeling Easier - The What

3DCS AAO is a set of Analyzers and Optimizers that can be used to quickly optimize designs based on set criteria, to analyze the relationships between parts and do it all in an isolated environment, creating a 'test lab' for design changes.

Optimizers and Analyzers - The How

3DCS AAO consists of four primary components: Advanced Analyzer, Critical Tolerance Identifier, Optimizer and Locator Sensitiviy Analyzer. The Advanced Analyzer creates a matrix of Geofactors and tolerances, showing a global view of the model and the relationship between the model's parts. The Optimizer optimizes tolerances based on quality criteria with the push of a button, while the Locator Sensitivity Analyzer tests locator strategies and moves.

Save Time and Get New Insight Into Your Design - The Why

Using AAO's analyzers, engineers can work more efficiently on large models, quickly honing in on key areas, and testing different 'what if' scenarios in an isolated environment to find the best one before updating the model. With the Optimizer, engineers have the power to optimize for cost or quality with the push of a button, making it easier to reduce costs on non-critical areas. All of these tools combine to make engineers more efficient and effective.
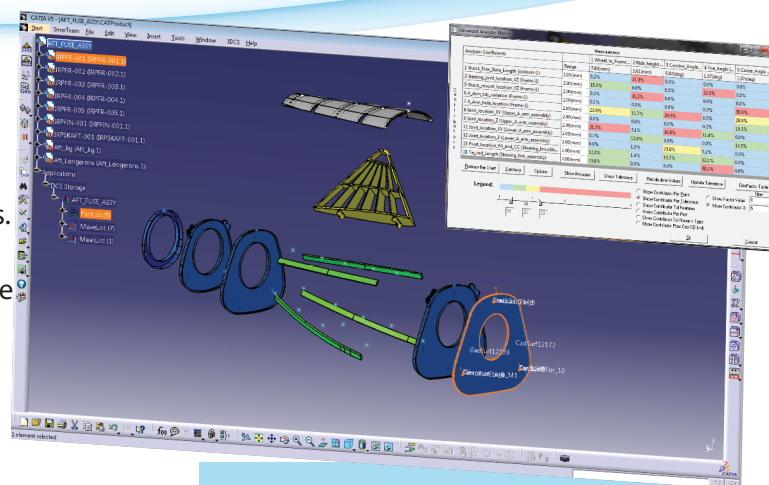
Key Product Highlights:

Four Tools in One -
Advanced Analyzer, Critical Tolerance Identifier, Locator Sensitivity Analyzer and Cost and Quality Optimizer.

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

Quickly Identify Contributors–
Find the true source of your problem to root cause build issues and non-conformance with the Critical Tolerance Identifier.

Global View of Model –
View all of your model tolerances and Geofactors in a single matrix. Quickly see and change multiple tolerances on large models.

Real Time Analysis – Modify tolerances and make changes in the Analyzer Matrix and see your results instantly, no need to run additional analyses.
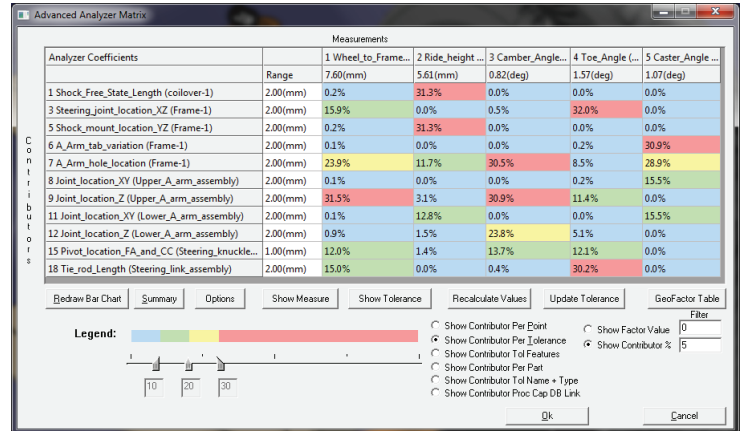
Use as a Design Test Lab –
Update the model when you're ready, not before. Make changes, see the results, and then start over without affecting your model.

Find Geometric Relationships -
See the Geofactors related to your parts, the Geometric relationships between components that determine

3DCS Variation Analyst

Quickly Validate and Test Your Model
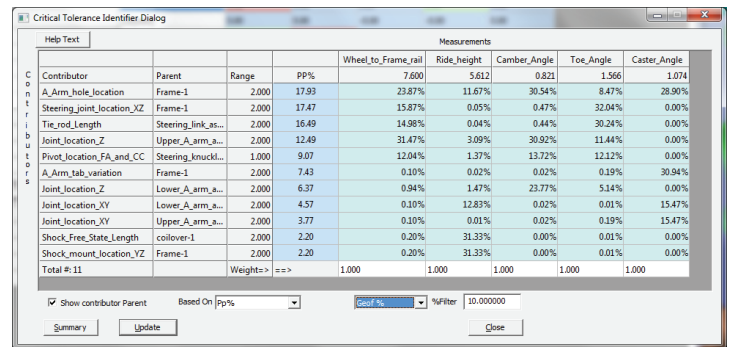
Create a Matrix to Get a Global View
View all of the products tolerances and Geofactors in a single color coded matrix based on given specifications. Change the specifications with a drag bar to instantly identify trouble areas. Use to view and change many tolerances quickly on large models.
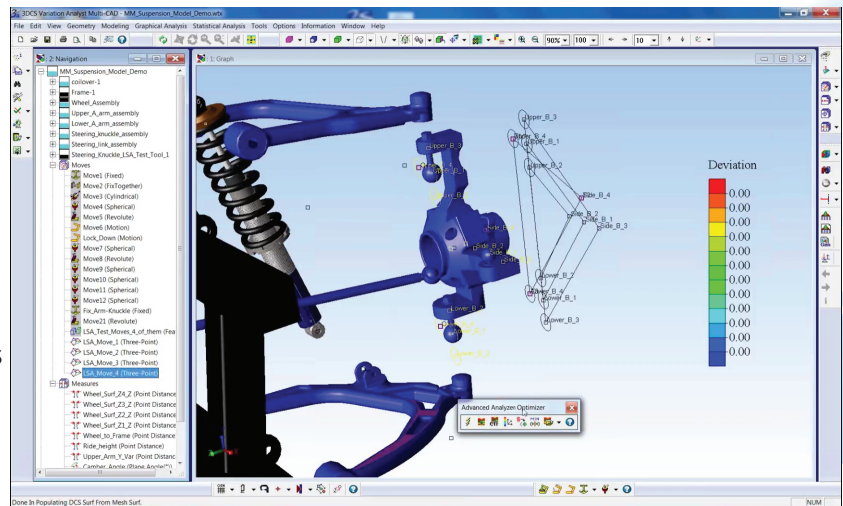
Optimize for Cost or Quality
Choose cost or quality goals and have AAO optimize your model for you. Look through the changes and keep the ones you like, updating the model only when you're ready.

Account for Mean Shift and Non-Linearity
Use Simulation Based Sensitivity to account for mean shift in your model, and gain more accurate analysis for non-linear relationships and contributors. Find out how tolerance interactions affect your model and how much bonus tolerance they add.

Validate Moves and Locator Strategies
Use Locator Sensitivty Analyzer (LSA) to determine the effect of different locators on a part. Discover optimal assembly conditions, check the difference between different strategies and validate your move and assembly processes.

Make Changes and See the Results
Change tolerances, assembly processes or design characteristics and determine the outcome. Find issues and test solutions before building expensive prototypes or beginning production. See the results of your changes in the Matrix right away, without having to run additional analyses or simulations.

Advanced Analyzer Matrix shows Geofactor results and global tolerances

Critical Tolerance Identifier quantifies the effect of each tolerance on the total product

Locator Sensitivity Analyzer tests Locators and Assembly Moves

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.

DCS ENGINEERING IN NEW DIMENSIONS

CERTIFIED Gold Product — 3DS SOLIDWORKS

SOFTWARE PARTNER V6 Partner — 3DS

SOFTWARE PARTNER V5 Gold Partner — 3DS

PLM Market Place — 3DS

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