

# 3DCS Design Variation Modeler

## Easy-to-Use 3D Tolerance Stack Software for Designers

### Tolerance Analysis for Designers to Run Fast 3D Tolerance Stack Simulations

Upgrade from your Excel Tolerance Stacks with 3DCS DVM, an easy to use 3D tolerance analysis tool fully integrated into your CAD platform. Get real answers, save valuable time, and expand quality throughout your organization.

#### Stop Using Excel Stacks - The What

3DCS DVM (Design Variation Modeler) is an entry-level equation-based 3D assembly GD&T prediction tool integrated in the major CAD Platforms. DVM is intended for components assembled in one station with planar and axial locating features.

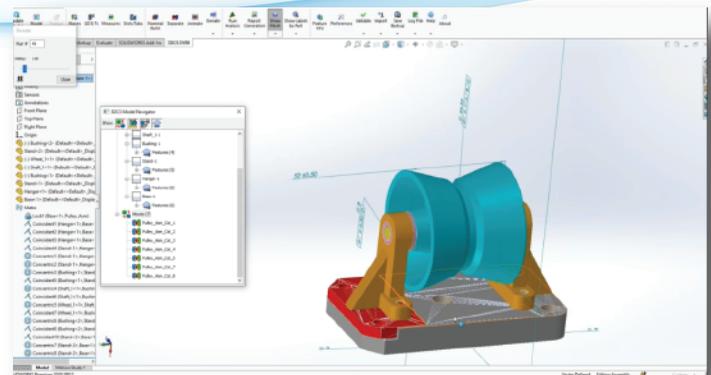
#### Model Part and Process Variation - The How

3DCS DVM leverages an equation-based analysis. Equation-based analyses provide instant results from your tolerance stack up simulation. These analyses determine both the sources of variation as well as the risk of potential build issues in the product.

Extract Product Manufacturing Information PMI - GD&T - and Joints and Constraints from your CAD model to instantly create a tolerance simulation. Use DVM's moves, measures, and tolerances to complete the model and get additional information.

#### Reduce the Risk of Failure and Scrap - The Why

It is well known that the earlier in the product lifecycle an issue is found, the cheaper it is to fix. When a product is still in the digital design phase, an engineering change can be as simple as a click of a mouse. However, as soon as the product gets into the customers' hands though, a simple engineering change may mean recalls and warranty claims. This costs exorbitantly more than updating a CAD model.



### Key Product Highlights:

**Integrated and Standalone Versions -** Use 3DCS DVM integrated into CATIA V5, 3DEXPERIENCE, Creo, NX, SOLIDWORKS, or the CAD neutral standalone version - Multi-CAD.

**Learn Quickly -** Learn to use 3DCS DVM with little training, and get working faster.

**Get Answers Fast -** Find the sources of variation and begin reducing your risk of failure.

**Use Irregularly Without Retraining -** Designed to be easy-to-use and learn, 3DCS DVM is the perfect tool for irregular work, letting you quickly get your studies done without timely retraining.

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

**Fast Change Management -** Change, update, and alter your design & model, and get immediate results without having to rebuild or remake the model.

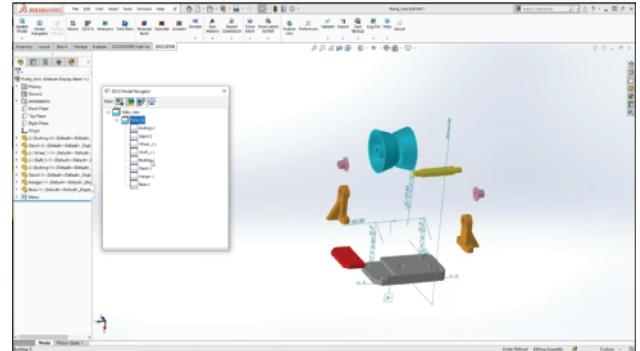
**True 3D Analysis -** Excel only analyzes in one-dimension, possibly missing key dimensional influences and variation.

## Find Design Defects Early in the Product Lifecycle

### Quick Build with GD&T (PMI) & Joints and Constraints

Extract Product Manufacturing Information PMI - GD&T - and Joints and Constraints from your CAD model to instantly create a tolerance simulation. Use 3DCS DVM's moves, measures, and tolerances to complete the model and get additional information.

- Build models faster with PMI
- Streamline processes utilizing Model-Based Definition
- Reduce reauthoring of information by making the CAD model the single source of information
- Combine with DVM's inbuilt tolerances, moves, and measures

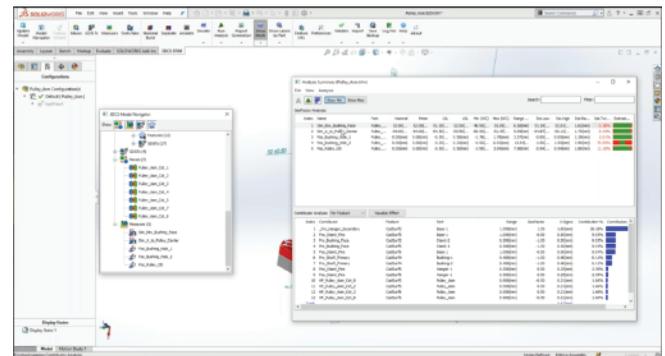


Read in embedded GD&T in the form of PMI and FTA

### Update without Rebuilding - New CAD Parts, New Specs

Change, update, and alter your design & model, and get immediate results without having to rebuild or remake the model.

- Part and design changes can be updated with a single button click
- Changes to tolerances, GD&T, assembly, and part geometry can be quickly incorporated without rebuilding
- Allows for fast iterative design changes to determine the impact of alterations and variants
- Add new measures without creating a new tolerance stack



See All Tolerances and Parts Influencing Each Measurement Result

### Root Cause Variation - Find the True Source of Problems

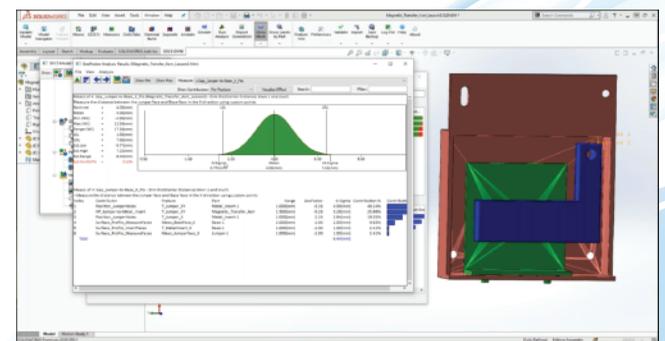
Find the sources of variation and begin reducing your risk of failure.

- Find primary source of variation issues from either tolerances or assembly process
- Use iterative changes to create the optimal design for maximum quality and minimum cost

### True 3D Stacks - Analyze 3-Dimensional Influences Fast

Determine variation from 3-dimensional influences without timely modeling.

- Incorporates 3-dimensional analysis
- Provides a much more accurate picture than 1D Stacks
- Create your simulations and stacks faster than doing the same analysis in Excel



True 3D Results in Less Time Than Calculating a Single 1D Stack in Excel

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.