



*"Licensing HOOPS/3dAF has helped us significantly improve the graphics performance and capabilities of our suite of tolerance analysis and dimensional data management solutions. HSF has provided us with a rich, lightweight exchange format and we've benefited from the tight integrations between the HOOPS technologies and the ACIS and InterOp components from Spatial."*  
*Dave Johnson, DCS Software Development Manager*

**Business Profile**

Product Using HOOPS  
3-DCS

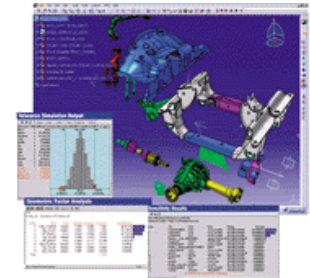
More Info  
[www.3dcs.com](http://www.3dcs.com)

Industry  
CAD Dimension  
Management

TS3D Products  
HOOPS/3dAF  
HOOPS Stream Toolkit

**Company Brief**

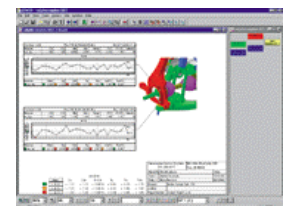
Dimensional Control Systems, Inc. (DCS), the world leader in Dimensional Management, is committed to developing leading-edge technology in dimensional engineering. The company develops Graphical Tolerance Simulation Software called 3DCS™, which is used extensively by manufacturers to thoroughly appraise design, fabrication and assembly robustness by quickly evaluating GD&T, assembly tooling and build sequencing well ahead of production release. DCS is also the developer of GDM-3D™, a complete dimensional quality data management tool for reporting manufacturing process variation. GDM-3D™ enhances any organizations ability to interpret and understand dimensional data and better address problem solving and/or product and process improvement.

**The Challenge**

DCS set a goal of significantly improving the graphics performance, functionality and stability within their suite of software solutions. The primary challenges were threefold: the company lacked extensive graphics expertise, was faced with a tight release schedule and needed a solution, which would mesh well with their existing architecture. Beyond graphics, DCS was also looking for a method for exchanging and representing graphically, assembly animation and part and process tolerance deviation information. This last challenge meant the chosen graphics solution must not only handle 3D well, but also gracefully animate the assembly process and visually deviate parts and assemblies based on part and process variation in real-time.

**The Solution**

Already a licensee of the ACIS and 3D InterOp components from Spatial, the company agreed to evaluate the complimentary HOOPS 3D Application Framework as a possible solution to help add excellent performance with large models, advanced selection and a tight coupling between graphical and non-graphical information. In addition, DCS tested the HOOPS Stream Toolkit for generating HSF files and found it to be the perfect solution for lightweight file sharing. Both tools fit nicely into the existing architecture and proved easy to use.

**The Results**

- Through HOOPS, DCS added rich, lightweight graphics capable of handling virtually any size assembly.
- DCS also was able to extend their applications to include smooth visual assembly animation and deviation of part and process variation.

**About Tech Soft 3D**

HOOPS toolkits from Tech Soft 3D (TS3D) dramatically simplify the design, development and maintenance of high-performance, interactive 2D/3D engineering software. HOOPS components are part of over 175 commercial software applications that run on millions desktops worldwide. Headquartered in Berkeley, CA, TS3D is on the web at <http://www.techsoft3d.com>. For more information, contact Ron Fritz, Managing Partner: 510.883.2180 x 201 or [ron@techsoft3d.com](mailto:ron@techsoft3d.com).