

SolidView Enables Midwest Composite Technologies to Provide Affordable Companywide Access to CAD Data

By DE Editors

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Many people in design and manufacturing companies require access to CAD drawings, but everyone does not need the stringent capabilities of CAD design tools.

Midwest Composite Technologies (MCT) is a full-service manufacturer. With an in-house design team, they provide CAD services for concept creation and review, rapid prototypes for form and function, and molds and prototypes for complex structures, as well as low-volume production and subassembly operations. According to Helmut Keidl, CEO of MCT, "We consider Midwest as our customers' partner in the concept-through-product stage."

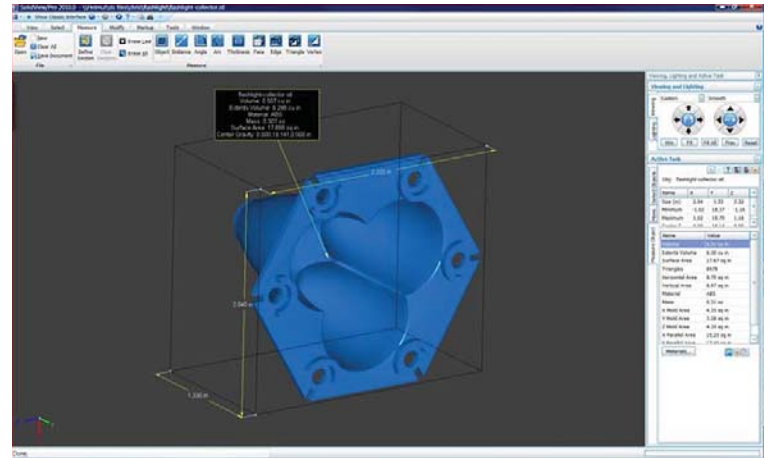
Growing Pains

As the company's business began to grow, Keidl was cautious with his finances and looked for ways to streamline its internal processes. To hold down expenses, he began using SolidView viewing software from Solid Concepts Inc. "I bought my first seat when SolidView appeared on the market," says Keidl. "The cost was a fraction of what it costs to buy another CAD seat."

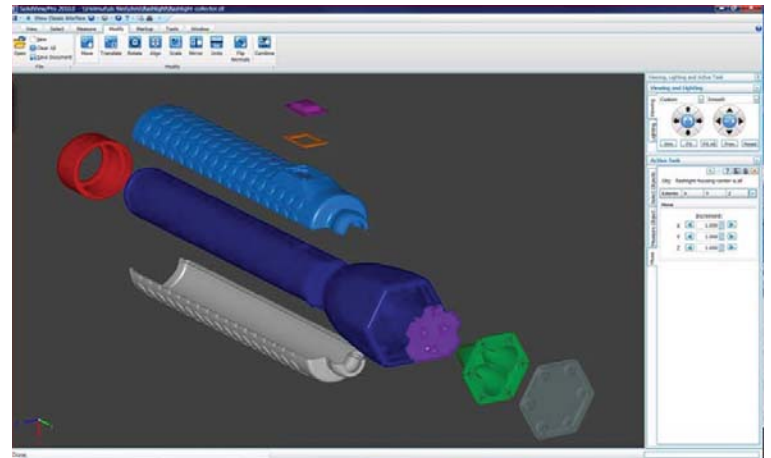
As workloads increased, MCT added more CAD designers and now has three seats of Pro/E, one of Unigraphics, and one of SolidWorks. Keidl also owns six seats of SolidView. "We use CAD information a lot here. If I had to buy a new CAD seat every time another person needed data, it would drive my engineering costs beyond what would be acceptable in the market," says Keidl.

Solutions

Budget demands always stretch a company's resources. With SolidView, MCT is able to supply the necessary functionality to those who need only certain CAD functions, providing data to all who needed it, from concept to



This screen shows how easy it is to measure a component using SolidView. Image courtesy of Midwest Composite Technologies



Even complex assemblies are easy to produce with Solid Concepts' SolidView/Pro RP. Image courtesy of Midwest Composite Technologies

product. Customers upload a file in its native program, and SolidView pulls it onto the screen for real-time rendering of the component. The software also has the ability to rotate; obtain volumes, dimensions, and measurements; and add comments with ease.

"I particularly use SolidView for writing proposals," says Keidl. "Because the software allows me to add notes and markups to an existing SFX file, it's easy to communicate design intent or to highlight changes or errors. I also print a copy of the part out, with all my notes, and put it with the final proposal."

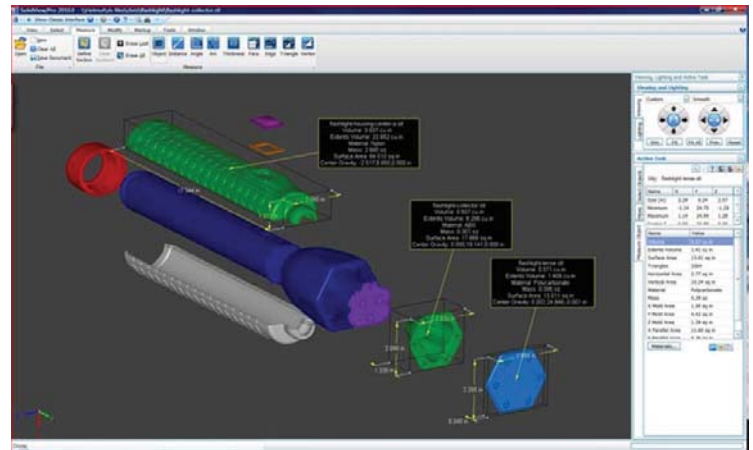
SolidView/Pro also offers users an exclusive publishing capability. This allows the user to send the company's free version, SolidView/Lite, with the design. The Lite version provides rendering, reads Solid File eXchange (SFX) files, provides 3D dimensioning of SFX data, and supports STL, SolidWorks, VRML, and OBJ CAD files. By passing the Lite version along, the recipient can view and measure the altered design without having to purchase any software. SolidView/Pro provides the added capability of cross-section display with measurements, too.

Features

SolidView/Pro is a highly useable package for any company, and it offers a number of key features, such as real-time rendering without hardware acceleration on all Windows programs, from Windows 95 forward. It also offers advanced OpenGL rendering and supports STL, SolidWorks, VRML, DWG, DXF, and OBJ CAD files (as well as popular 2D vector and raster formats).

For advanced design collaboration, the software provides translate, scale, rotate, mirror, copy and combine 3D data, and assembly-viewing tools. Tools for 3D dimensioning of edges, faces, arcs, points, objects, and assemblies help with writing proposals for complex jobs.

SolidView/Pro also provides flexible, multi-level security and 2D and 3D Web publishing and viewing. Optional interfaces are available for Pro/E, CATIA, Unigraphics, IGES, ACIS,



Communicating everything from simple to complex designs through SolidView helps companies like Midwest Composite Technologies to partner with their customers in the evaluation and analysis of multiple design alternatives.

STEP, Parasolid, SolidEdge, SW Geometry, SDRC Web Access, and BridgeWorks.

MCT provides SolidView seats to various departments in the company. This enables employees not involved in the design process to easily identify and access data on components visually and not have to rely on a drawing or part numbers. This has not only helped to make processes move more rapidly, but it has also eliminated many mistakes as well.

"SolidView is a great communications tool," says Keidl. "I consider it a 3D power point that I can use to explain designs or to pass along specific measurements that might lead to design suggestions.

The company also uses multiple versions of the SolidView/Lite, the free version of the software that allows only viewing. "What's so neat about their software is that they'll let anyone download it," says Keidl. "Even someone who isn't familiar with design software, such as those in marketing departments, can use the free version and actually see what we're up to." MCT uses SolidView for all its rapid prototyping jobs, as well.