

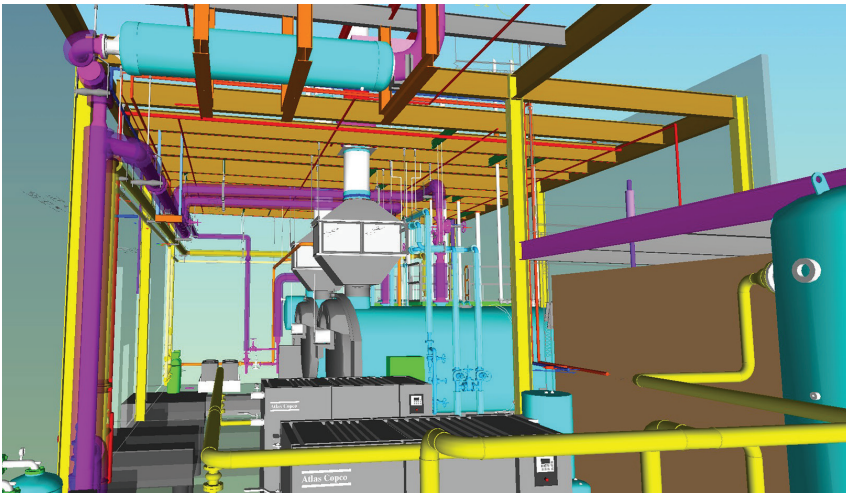


SPACECLAIM + Cadventures

"SpaceClaim is a "no-brainer" This is the software to keep. The relative low cost of the software and the low cost of maintenance is a big help to small business people like me. Knowing there are real people that care just an email or phone call away is very assuring."

Curt Long

Cadventures Finds Quick and Easy 3D Model Editing is no Pipe Dream With SpaceClaim



About Cadventures:

- Handles contract CAD 3D solid modeling, mechanical piping systems, and building information modeling
- Has completed pipe and piping systems fabrication projects from Seattle, Portland, Phoenix, Colorado Springs, Bangkok, Thailand and Tianjin, China

Goals:

- Find an easy to learn and use modeling software for 3D model editing
- Import third party CAD files in various formats and edit them for use in creating pipe systems
- Keep costs down to maximize profitability

Results:

- Saved hours of modeling time by using models from third party part manufacturers rather than recreating them
- Edit and correct CAD files from any source
- Quickly edit pipe designs without recreating the drawings

Curt Long, a CAD detailer doing business as Cadventures, has designed pipe systems since 1991 for a wide range of clients across continents. His work history includes projects such as the Sea-Tac Airport terminal, The University of Washington Oceanography building, the Harborview Medical Center IEB building, and the State Route 99 Alaskan Way Tunnel in Washington.

He began working with 3D models in 1995. At first it was just for the convenience of having a complete view of the model for perfecting design and showing clients multiple cross sections, but it soon proved to be a significant business imperative. Curt had taken on a large, high-stakes project with very expensive materials. The cost of miniscule errors was high, and the client would accept at minimum a 93 percent accuracy in the design. "They said I would only get 60 percent accuracy with 3D modeling," but Curt was able to deliver 97 percent accuracy, defying all expectations and returning a substantial profit for his client. "That sold me," he recalls thinking, "I'm doing 3D from now on."

As 3D Use Expands, so Do Long's Needs

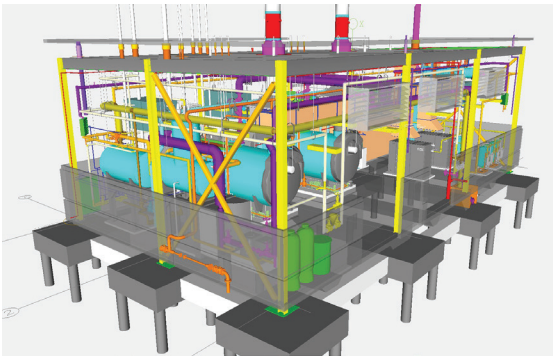
His pipe system design software, now called Solid Pipe Designer, and AutoCAD® were enough to handle the bulk of his work, but he soon found that he needed to integrate other elements into his designs.

His work requires AutoCAD in a 3D environment for models that include 3D piping. Most of the 3D models of equipment and specialty valves are created with other software, such as SOLIDWORKS®, and most of those vendors don't know how to export to AutoCAD or convert their files for his use. He bought SpaceClaim primarily because of its ability to import models from one

CAD format and then export to ACIS for importing into AutoCAD. “SpaceClaim to the rescue,” says Long. With SpaceClaim, he was able to easily import, de-feature, clean up and edit the CAD files for use in perfecting his designs.

Not Just an Import Tool

He sees direct modeling as the future direction and natural progression for CAD or design software. When you include the ability to translate other CAD geometry the way SpaceClaim has, “it’s a no-brainer,” he says.



Curt has also found that it can help repair solids from AutoCAD much quicker than using AutoCAD even if he has to export the solid, fix it in SpaceClaim and then export it back out as an ACIS file to be re-inserted into AutoCAD. He offers this example: “After subtracting cylinders from a sloped 3D floor,

the General Contractor decided to move them around. AutoCAD has no way to fill those holes if they penetrate at any angle other than perpendicular to the surface.”

“I don’t keep track of return on investment, but I knew right away it was an important tool. It can save me a day or two every time I use it.”

The Software (and Company) to Keep

As a sole proprietor that doesn’t have the time for support hassles, he also places a high value on the ability to contact SpaceClaim people directly when needed and the extra measures they go to help users understand the program by actually working on personal design problems and then supplying a private video with voice of that process. “I have used that feature several times and it never took more than one full day to get the help requested. Knowing there are real people that care just an email or phone call away is very assuring.”

As he looks to the future, Long is focused on becoming a “maker,” designing projects for personal use that solve his daily problems. Here again, he finds SpaceClaim is the tool he needs. “I have recently discovered and used the web viewer to share models with friends.” The most recent one is a cabinet layout inside his camper. He also designed a solar panel for the roof of his camper that powers all of the electric equipment he needs.

