

Machining, Tooling, and Fixture Design

SpaceClaim enables manufacturing engineers to work with any CAD data to edit and prepare models for manufacturing. Its user interface allows anybody to work with 3D models, without expensive training in CAD.

Challenge

Traditional history-based CAD software was created for design engineers to create detailed models and associated documentation. When it's time to make parts, however, its complicated constraints and internal dependencies can get in the way of getting the job done. Too often, manufacturing engineers can get caught up in the theory of CAD and lose focus on getting parts out the door. And if the designs aren't right, it can be difficult to make the changes on-the-fly. Instead, change requests need to go back to the design team.

Solution

SpaceClaim Engineer makes it easy for manufacturing engineers to get models ready for manufacturing. SpaceClaim's unique user interface enables anyone to work in 3D but, it is not a "lifestyle" tool like complex CAD systems. Engineers don't need to use SpaceClaim daily to remain proficient. Engineers who aren't CAD specialists -- and don't want to be -- can learn SpaceClaim in hours not weeks.

- Open data from any CAD system
- Edit designs and prepare them for manufacturing
- Create in-process models and design associated jigs and fixtures
- Suggest changes directly in 3D and supply the design team with 3D markups that document the changes
- Remove or adjust rounds and chamfers, hole sizes, face offsets, draft angles and other geometry with no knowledge of how the model was built
- Easily extract surfaces for contour machining and parting geometry for mold making
- Convert basic designs into appropriate shapes for molding, casting, or forging

Advantages

- Prepare the parts quickly without hassle
- Train users in hours, not weeks
- Work with any customer CAD data
- Make real-time edits with customers and designers

Benefits

- No need to maintain installations of different, expensive CAD software
- Focus on getting parts made, not being CAD specialists
- Reduce lag time from ECOs
- Increase profitability

Case Study

[Batelaan Plastics – Draws on SpaceClaim’s Flexibility and Ease of Use to Create Unique Products for Global Companies](#)

Case Study Excerpt:

"Manually recreating designs in our CAD system was a cumbersome process: it did not showcase our work well for prospects, and it took a lot of time. Now with SpaceClaim I have no limitations for design, our communications with customers are improved, and we've saved 60% to 70% of our time, enabling us to take on more business."

Ed Swets, General Manager

Batelaan Plastics