

"In the early days of our design work, we used a lower-cost software package that provided much of the initial design structure we needed. However, the software crippled us every time we needed to make changes on complex parts—often requiring a start from scratch as the only option. With Space Claim, we design, test and modify without end. We think that working with Space Claim is a bit like working with clay that never hardens."

Daniel Zatz AgileCine/Zatzworks



AgileCine Uses ANSYS SpaceClaim to Design Next Generation Camera Equipment



Daniel Zatz is no stranger to aerial filming Alaska's beautiful landscape. He and his team have flown across this vast state in helicopter to film programs for Discovery Channel, National Geographic and the BBC. He's a 25 year industry veteran that lives out his passions of flying and filming.

As industry trends change and camera technology evolves, HD resolution cameras are becoming outdated, superseded by 6k-8k resolution cameras. However, camera stabilization equipment also needs an upgrade. This is where Daniel's company, AgileCine Engineering, was born. They design and implement camera stabilization equipment upgrades that keeps up with the pace of camera and lens developments.

Challenges

Cameras and the stabilization system, also known as a gimbal, are often attached together, making singular upgrades impossible. Hence, a camera upgrade alone also requires an upgrade in the stabilization system.

To design upgrades for the gimbals for content with 6k-8k resolution cameras, Daniel and his team initially worked with a low cost CAD tool. However, this package only took them so far down the road of a complete product development. After having tried a design concept, for example, they found themselves reworking models either to undo said concepts, or work through another. It was common for them to lose days of productivity having to rework CAD files.

Technology Used

ANSYS SpaceClaim

Engineering Solutions

One of AgileCine's suppliers, Jawi Metaalbewerking in the Netherlands, recommend ANSYS SpaceClaim as a multi purpose geometry tool. They quickly discovered they could design more concepts in a shorter amount of time, all the while doing continuous design modifications without getting stuck in CAD theory. After starting SpaceClaim, Daniel realized their parts were otherwise more refined, were generally optimized, and lighter weight. He attributes this to his time now spent on actual design work and less on the rebuilding of CAD models.

Benefits

Using ANSYS SpaceClaim was a major time and psychological gain for Daniel and his team. It took them only three weeks to become design proficient and make progress on their projects. When they need to improve a design, they found SpaceClaim infinitely flexible in making changes as compared to any other 3D tool they had used. Daniel and team expected SpaceClaim to help with their general design requirements, but they quickly realized several other functionality and benefits. In particular, they appreciated the lack of constraints when drawing 2D or 3D elements,



and found modeling in a cross section view vital to their rapid design changes.

Company Description

AgileCine designs and implements camera stabilization equipment upgrades for use in 6k camera systems. ZatzWorks is the sister company doing aerial filming of various natural landscapes. Their work has been featured in BBC Natural History National Geographic, and the History Channel. Both companies are located in Homer, Alaska.



