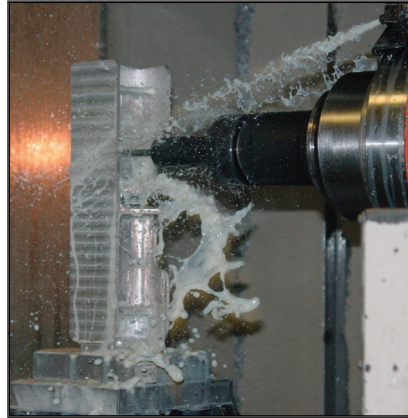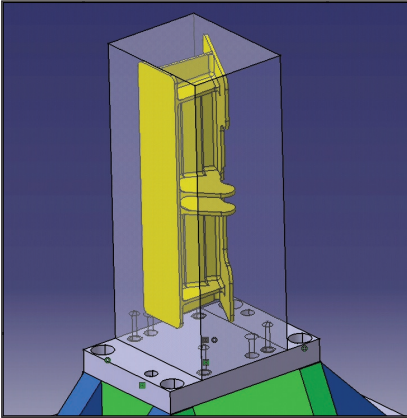**IBM**

Aerospace supplier Cam-Tech
Bucking the slow economy with CATIA V5

"Knowing that we have CATIA™ Version 5 enables Cam-Tech to go out, compete more effectively and produce parts quicker than we have in the past."
– Larry Broseh, Owner/CEO, Cam-Tech

Highlights

■ *Ageing computer aided design (CAD)/computer aided manufacturing (CAM) systems were standing in the way of the company's need to achieve faster modelling times and drive more complex machining tasks.*

■ *Graphical-based toolpath strategies with true-to-life representation of machining environments up to five axes eliminates unnecessary machining motions and enabling changes on the fly in minutes.*

■ *Modelling time cut 25 percent, programming time cut an additional 15-20 percent, and its CAD/CAM workforce productivity increased 33 percent thanks to faster, more efficient tooling operations.*

CATIA Version 5: A winning economic antidote

When demand for aerospace products slowed following the 9/11 terrorist attacks, Larry Broseh, Owner and CEO of Cam-Tech, knew the company needed a competitive edge. The Dallas, Texas-based manufacturer of complex machined parts got it with CATIA Version 5 (V5).

"CATIA V5 allows us to deal with our prime contractors in a much more effective way," Broseh said. "Our ability to bring native data, whether it's CATIA V4 or V5, directly into the model gives us an advantage because both the aerospace and automotive industries cater to companies that supply parts based on native data.

"When you have to convert data, you also lose data and spend a lot of money out on the floor remaking parts. Because we don't have to do that with CATIA V5, we have a definite competitive edge."

4 and 5-axis meltdowns made easy

CATIA V5 makes the design and milling of complex parts look easy. NC Programmer Mark Riley said Cam-Tech reduced the number of operations on a complex part from eight to two. "I've used many of the higher-end systems on the market," Riley said. "In my opinion, CATIA V5 is by far the most powerful and robust."

Eliminating grabs has also cut Cam-Tech's machine time by more than half, General Manager Roger Hagger said "Eliminating unwanted motion on a machine is money back in the company's pocket."

CATIA V5 + IBM IntelliStation = one powerful tool

Previously, Cam-Tech used five different CAD systems, including CATIA V4 for UNIX**. "It just became unmanageable to run five softwares to put products on the shop floor," Hagger said. "We wanted one solution we could integrate companywide."

Moving to a Microsoft** Windows**-based system also cut the company's maintenance expenses and streamlined training. "Our programmers came on line within two weeks and became fully proficient doing modelling and programming in five-axis parts in six weeks" Hagger said. Cam-Tech's new IBM IntelliStation* M Pro, meanwhile, optimises speed and performance while delivering powerful graphics capability.

Design meets manufacturability

Engineering benefits have been dwarfed by those in manufacturing, where the need to re-make first article parts due to programming errors has been virtually eliminated. "Our operators quickly learned to trust what was coming off the IBM CATIA V5," Broseh said.

Trust is as important to designers as it is to machinists, Riley said. "I have total confidence that what I'm seeing on the screen is what the operator is going to get on the floor, which is very important on tool path and tool path properties."

Being able to model parts in 3D also stimulates increased collaboration between designers and machinists, Hagger said. "We can bring in the shop people to see exactly how we're going to produce a part and get their input from the design phase."

When changes do become necessary, Hagger said, they are accomplished in minutes. "With other software, changes on the fly took six to seven hours. I need those changes in six to seven minutes and CATIA V5 delivers." The capability to build new models from existing ones also "has far exceeded anything we were looking for."

An optimistic future

Broseh now sees a bright future for Cam-Tech, even in an uncertain economy. "Being an early adopter of CATIA V5 will give us an advantage over many of our competitors," he said. "Since aerospace is down, we can look at the automotive market as well as other commercial markets. Knowing that we have CATIA V5 on our side is going to allow Cam-Tech to grow to its next stage of success."

For more information

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