

Project: **Integration of FeatureCAM with SolidWorks**

Customer: **SysCamGmbH**
www.syscam.de

Project Type: SolidWorks Customization

Problem:

SysCam GmbH is a service provider offering solutions for Computer Aided Manufacturing (CAM) and Computer Aided Design (CAD). To their manufacturing customers they offer computer-aided solutions for cutting and design. SysCam also develops software products for numerical control manufacturing of jewelry for a Germany-based company, Carl Benzinger GmbH.

One of SysCAMs major software tools, FeatureCAM, is equipped with the following capabilities. It:

- Selects Tools
- Calculates Feeds and Speeds, including Stepovers and Depth of Cut
- Determines Roughing and Finishing Operations
- Generates Toolpaths and NC Code

In order to expand their customer base, they decided to integrate FeatureCAM with SolidWorks.

Solution:

Since SysCAM did not have a deep SolidWorks API expertise and it would take them a while to accumulate such knowledge on their own, they decided to outsource development of this SolidWorks plug-in to AMC-Bridge.

Software Description:

Inside Chamfering is a SolidWorks plug-in that smoothens sharp inside edges of cut-outs in any solid model. A ball mill chamfers the sharp inside edges by cutting upper sides of the flutes. The user can select any edge in SW and the plug-in will calculate the appropriate toolpath for the ball mill. Models can either be imported from any CAD system or created directly in SolidWorks.

The software displays inside radius of the part, instead of the designed outside fillet. Calculation of the toolpath is completed without collision checking of the tool shank. Inside Chamfering works inside FeatureCAM and starts SolidWorks OEM from the main application FeatureCAM.

User interface of the plug-in is similar to that of SolidWorks.

Results:

AMC provided SysCAM with a fully functioning plug-in that enabled the company to penetrate SolidWorks customers' market. If SysCAM had decided to implement the project internally, they would have encountered a number of challenges associated with lack of API expertise. Outsourcing the project to AMC significantly reduced their time-to-market while providing them with top-quality integration work.