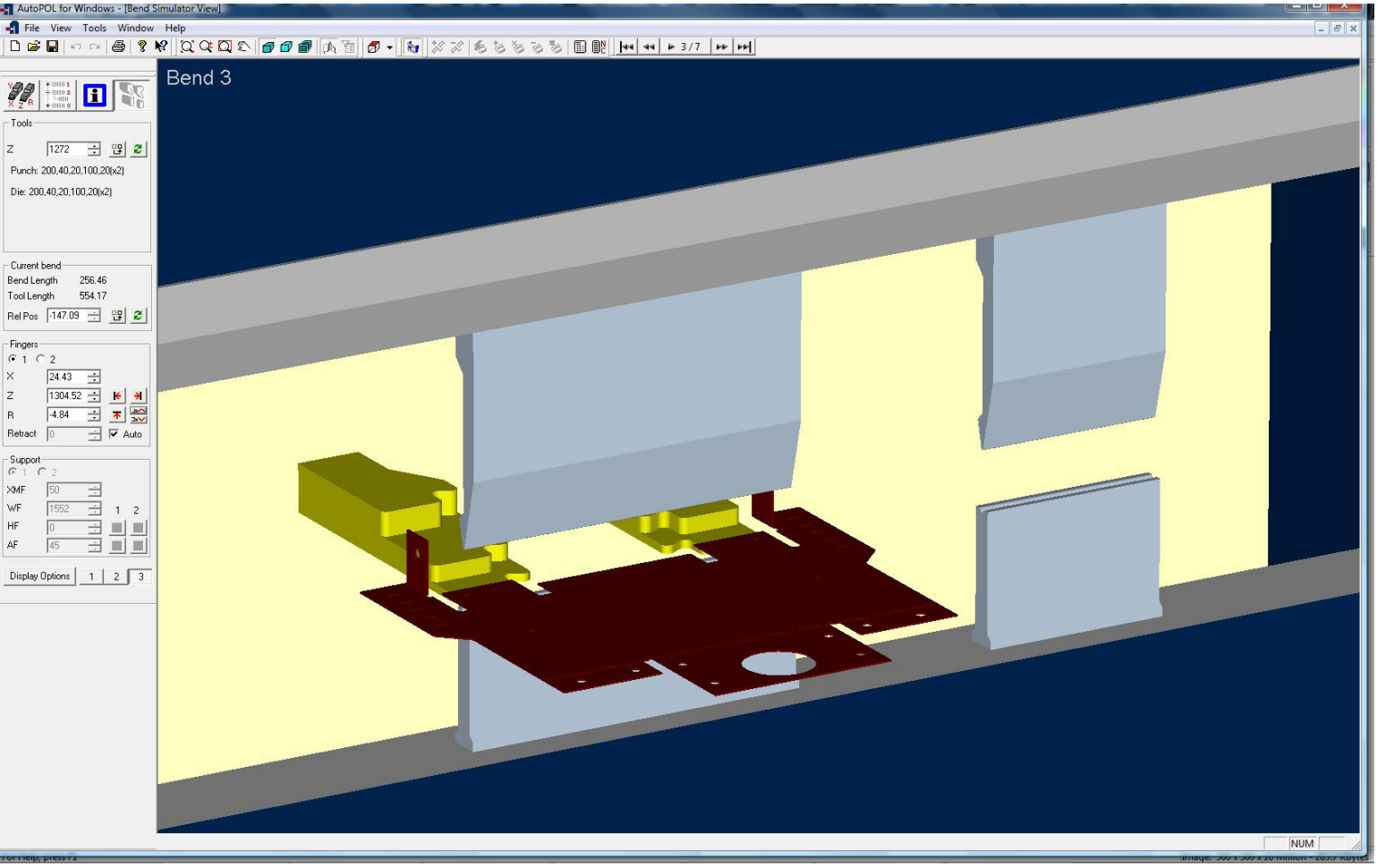
DASSAULT SYSTEMES

SPATIAL

FCC Software AB



FCC Software AB is a leading provider of CAD/CAM software for the sheet metal manufacturing industry

FCC Software

Market:
3D design, unfolding and bend simulation of sheet metal components.

Product:
3D ACIS® Modeler

CHALLENGES

Needed a geometry kernel that would deliver higher levels of functionality to satisfy industry demand.

Solutions:
ACIS geometry kernel to enable robust 3D modeling and simulation capabilities geared toward the sheet metal manufacturing industry.

Results:
Spatial's ACIS geometry kernel enabled FCC Software to bring a CAD/CAM software solution to the demanding sheet metal manufacturing market that provides reliable and an easy-to-use user interface.

COMPANY

FCC Software AB, based in Falköping, Sweden, has worked closely with the sheet metal design and manufacturing industry to provide CAD/CAM solutions for more than 20 years. The company's flagship product is AutoPOL, a complete package for design, unfolding and simulation of the sheet metal manufacturing process.

AutoPOL comprises four different modules that can be used individually or together. AutoPOL Bend Simulator is used for programming press brakes. Simulating off-line saves production time, minimizes scrap by "right first time" manufacturing approach, and validates the process before the part is taken into production. AutoPOL Designer enables the user to create 3D models and flat patterns, taking into account tooling, material and other production aspects. AutoPOL Unfolder is used to import and unfold 3D models created in any other CAD system. AutoPOL Piper creates ductwork, generating 3D models and flat patterns for piping sections.

The company attributes the success of its AutoPOL software to incorporating customers' input into the software's development and subsequent evolution. The result is software that is sophisticated, reliable and easy to use.

CHALLENGE

Computer built 3D models have increasingly become the basis for sheet metal manufacturing, taking the place of traditional paper or CAD drawings. As a result, the industry has demanded new 3D CAD/CAM technology with which to unfold, design and simulate sheet metal parts. In evolving from 2D to 3D capabilities, FCC Software sought to base its four AutoPOL modules on a more robust geometry kernel, selecting Spatial's ACIS technology as the solution.

SOLUTION

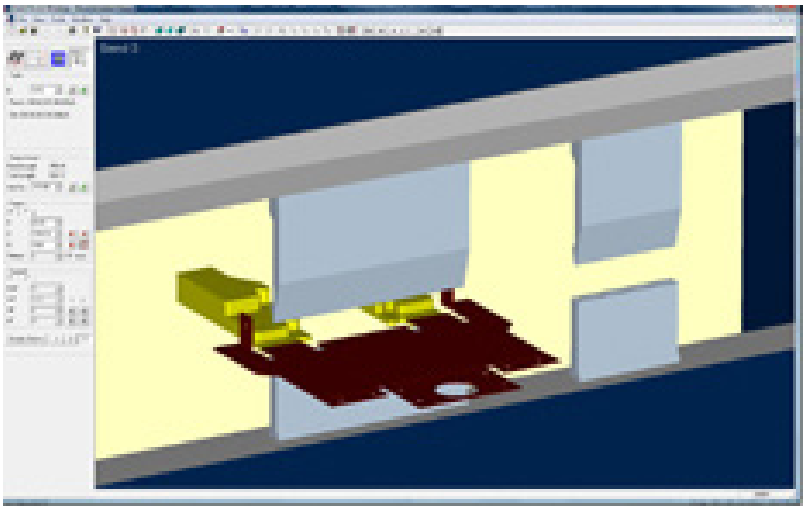
FCC Software learned of Spatial's ACIS geometry kernel as sheet metal application developers for Autodesk's AutoCAD and Mechanical Desktop. ACIS' reputation was that of being a robust kernel that would enable FCC Software to have a product ready for the market more quickly than with any other kernel or by developing it internally.

"Spatial's 3D ACIS Modeler provided us with a necessary 3D platform, including 3D modeling, file format and 3D graphics," says AutoPOL Product Manager Arto Hannula. "This enabled us to focus our development on AutoPOL's user interface, features and commands, leveraging our core sheet metal specific knowledge."

> "Our partnership with Spatial has worked very smoothly for more than a decade. Their understanding and respect for us as a small software developer has enabled our long-term relationship."
>
> *-- Arto Hannula, AutoPOL Product Manager, FCC Software AB*

Throughout the 2000s, FCC Software developed and launched AutoPOL Unfolder, AutoPOL Designer, AutoPOL Piper and AutoPOL Bend Simulator, all based on ACIS.

"The 3D kernel provided by Spatial is a vital base component in our application," says Hannula. "Without this 3D kernel it had not been previously possible for us to build our application. To develop and maintain a 3D kernel is not possible neither technically nor economically, if you want to make a niche application for limited number of potential customers. You need to cooperate with a partner such as Spatial, who can provide you with a necessary foundation, and build your application on top of that. "



RESULTS

FCC Software is one of few companies who can provide a complete tailor-made, off -line system fi tting most sheet metal manufacturing companies. In fact, the company's customers view AutoPOL as providing them with a signifi cant competitive advantage.

VeriForm, a leading Canadian high precision sheet metal and plate manufacturer, indicated that its AutoPOL software licenses paid for themselves in just two-to-three months. VeriForm President and Founder Paul Rak cited these strengths of AutoPOL among others:

- Enabled VeriForm to respond 5-10 times faster to customer technical inquiries
- Tested tooling combinations at least 4-6 times faster than usual and eliminated the production of scrap parts
- Produced blanks as much as 20 times faster than the previous method
- Company won projects they wouldn't have otherwise received, as a result of making online presentations demonstrating AutoPOL's parts bending and springback functionality
- Able to show customers technical issues that would be otherwise very diffi cult to explain verbally, such as holes in bend areas, fl anges crashing into the ram or tooling, etc.
- Put at least 10-20 times more production through to our lasers than manually calculated blanks
- Produced complex parts the fi rst time that would otherwise be literally impossible without trial and error multiple runs

Thanks to its partnership with Spatial, FCC Software now supplies the industry with needed 3D based software tools for sheet metal design, unfolding and simulation, all on the same universal platform. "Our partnership with Spatial has worked very smoothly for more than a decade. Their understanding and respect for us as a small software developer has enabled our long-term relationship," concludes Hannula.

Our **3D**EXPERIENCE platform powers our brand applications, serving 12 industries, and provides a rich portfolio of industry solution experiences.

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3DEXPERIENCE

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