Glide-Line leveraged the open SOLIDWORKS API, the GoAutomate open-source automation tool, and Microsoft Excel software to introduce IMPACT!, the industry’s first in-context conveyor configurator, which combines access to solid modeling tools and snap-to mating functionality with prices, part numbers, and ordering capabilities in real time.
Automation system designers have long desired an in-context configurator — one that combines access to solid modeling tools, prices, part numbers, and capabilities in real time — instead of configurators that deliver “fixed” models with no built-in intelligence. Making models intelligent — as well as incorporating advanced snap-to mating features, allowing multiple operational states, and allowing automatic ordering of configured systems — will streamline supplier interactions, save time and reduce costs. Companies who supply engineered-to-order industrial equipment have also wanted to let customers specify — and make changes to — layouts using a robust, in-context configurator, because it would enable them to shorten delivery lead times, save time, and drive out costs. Companies who supply engineered-to-order industrial equipment have also wanted to let customers specify — and make changes to — layouts using a robust, in-context configurator, because it would enable them to shorten delivery lead times, save time, and drive out costs.

Challenge:
Develop 3D model library of conveyor components, assemblies, and subassemblies, and then combine it with intelligent mating technology via Application Programming Interface (API) manipulation to provide customers with real-time, in-context configuration, editing, and ordering of conveyor designs.

Solution:
Implement SOLIDWORKS Professional design; SOLIDWORKS Premium design and analysis; and SOLIDWORKS Composer technical communications software, and leverage the open SOLIDWORKS API in conjunction with the GoAutomate open-source automation tool from SOLIDWORKS reseller GoEngineer.

Benefits:
• Cut delivery lead times in half
• Introduced first intelligent, in-context online conveyor configurator
• Improved user experience with unparalleled power and flexibility
• Helped customers save time and money

“We needed a powerful configuration platform so customers would have access to complete assemblies, could easily put systems together using automated snaps and manage operational states, as well as use the specific configuration that they created to obtain a firm price and place an order,” Mauger recalls. “Our assessment that only SOLIDWORKS had the intelligent mating technology, open Application Programming Interface (API), and user community necessary to achieve our goals has proven accurate.”

After evaluating potential solutions, Glide-Line chose SOLIDWORKS—implementing SOLIDWORKS Professional design, SOLIDWORKS Premium design and analysis; and SOLIDWORKS Composer technical communication software—because it’s easier to use, provides greater capabilities, and includes the technologies that led to the IMPACT! configurator. “The maturity of SOLIDWORKS was apparent because Autodesk Inventor was missing a lot of features that SOLIDWORKS provided,” Schwar recounts. “We also felt good about our SOLIDWORKS reseller, who has provided quality training and support.”

CONVEYOR CONFIGURATION WITH IMPACT!
Schwar literally walked into the company’s configuration solution when he attended GoEngineer’s GoAutomate technical session at the end of the SOLIDWORKS World 2016 Conference. “Those were the most important 15 minutes of the entire trip,” Schwar stresses.

Developed by SOLIDWORKS reseller GoEngineer, GoAutomate is an open-source tool based on Microsoft® Excel® that helps customers automate SOLIDWORKS models directly within Excel, allowing users to control features, dimensions, configurations, mates, and more. “The GoAutomate session was the last one, and I actually was asking myself how much cash I had on me when I discovered it was free. GoAutomate is the bridge connection to the SOLIDWORKS API and the engine of our IMPACT! configuration tool. The combination of SOLIDWORKS, its API, GoAutomate, and Excel enabled us to develop a configurator with no limitations or restrictions, providing a simplified, flexible solution without plug-ins, new software, or add-ins.”
Our 3DEXPERIENCE® platform powers our brand applications, serving 12 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the 3DEXPERIENCE® Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes’ collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 210,000 customers of all sizes in all industries in more than 140 countries. For more information, visit www.3ds.com.