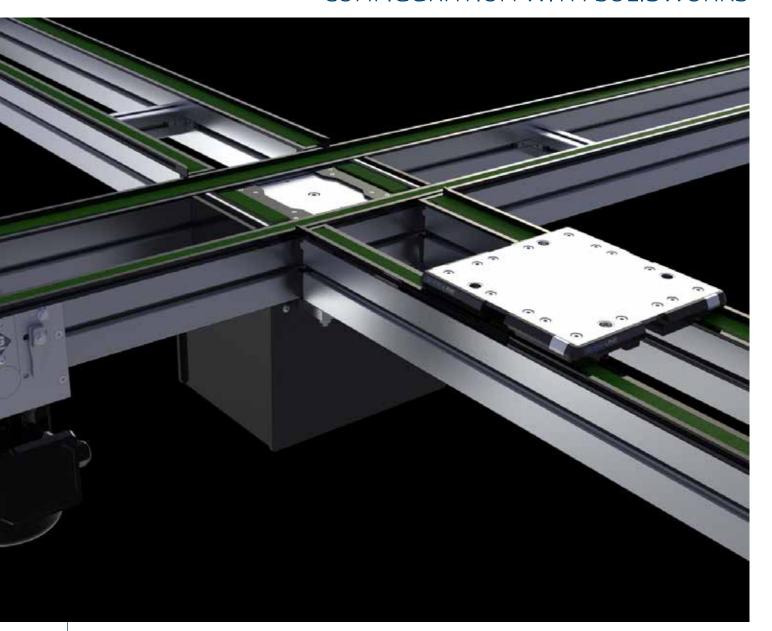


3 SOLIDWORKS

GLIDE-LINE

AUTOMATING IN-CONTEXT CONVEYOR CONFIGURATION WITH SOLIDWORKS



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.



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 opensource 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 unparalelled power and flexibility
- Helped customers save time and money

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. The introduction of the Glide-Line™ brand of configurable multi-strand panel and pallet handling conveyor solutions meets both needs.

Glide-Line is a subsidiary of NCC Automated Systems, Inc., which has helped clients overcome material handling challenges for over 30 years. Within NCC's customer portfolio are some of the longest established brands, including The Hershey Company, PepsiCo, Unilever, General Mills, Starbucks, Procter & Gamble, and Pinnacle Foods.

In 2013, NCC Automated Systems launched the Glide-Line brand of configurable conveyors. In 2015, the company introduced the IMPACT! (Interactive Modeling Program and Application Configuration Tools) application for configuring Glide-Line conveyor solutions. According to President Kevin Mauger, the company's migration from AutoCAD® 2D design tools to the SOLIDWORKS® 3D development platform in 2008 — along with Product Development Engineer Ron Schwar's visit to the SOLIDWORKS World 2016 Conference and Exhibition — made it all possible.

"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."



"The SOLIDWORKS configurator has allowed us to deliver systems in half the time, and because the

automation also helps reduce cost, we can deliver less expensive products faster than the competition."

- Kevin Mauger, President

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."

IN-CONTEXT DESIGN SAVES CUSTOMERS TIME AND MONEY

Because IMPACT! utilizes a customer's system configuration data to recommend the best-fit options from a range of SOLIDWORKS models — with literally millions of possible configurations in total — and lets customers make in-context design changes within SOLIDWORKS — with real-time pricing feedback — the solution has been well-received by customers. "I love two things," says DeWayne Merritt, an engineer at AutoLiv. "Accurate CAD files with high detail and the time this software saves me."

In addition to helping customers save time and money, the combination of SOLIDWORKS and the IMPACT! configurator has enabled Glide-Line to offer industry-leading aggressive lead times. "Now that we've introduced the first intelligent, in-context conveyor configurator, nobody can deliver as quickly as we can," Mauger notes. "The SOLIDWORKS configurator has allowed us to deliver systems in half the time, and because the automation also helps reduce cost, we can deliver less expensive products faster than the competition."

TAKING IT UP A NOTCH WITH GLIDE-LINE 360

Glide-Line recently introduced The Glide-Line 360 conveyor line, which combines powered-timing-belt-based conveyors working with the company's family of devices to accomplish almost any type of movement (e.g., orientation change, sort, or shift) in a small space. Designed entirely with SOLIDWORKS, the Glide-Line 360 makes it possible to shuttle, divert, merge, sort, stack, lift, lower, transfer, and turn a pallet or pallets cost-effectively.

"The automation that we've been able to achieve on the SOLIDWORKS platform is incredible," Mauger adds. "It gives us the speed and flexibility that we need to better serve our customers, introduce innovative products, and grow our business."

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Using SOLIDWORKS and IMPACT!, Glide-Line enables its customers to use their own system configuration data to recommend the best-fit options from a range of SOLIDWORKS models — with literally millions of possible configurations in total — saving time and money in the process.

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

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