

Industrial machinery and heavy equipment

Scanimix

Return to 2D? Never!

Product

Solid Edge

Business initiatives

New product development

Business challenges

Fewer people at decision-making levels can understand 2D drawings

Engineers' nonvalue-added activities hinder productivity

Keys to success

3D assembly models of machines

Exploded views and animations of Solid Edge software models

Digital simulation

Design data re-use

Results

A wider range of orders

Business growth

Improved product quality

Better communication with customers

Shorter development cycles

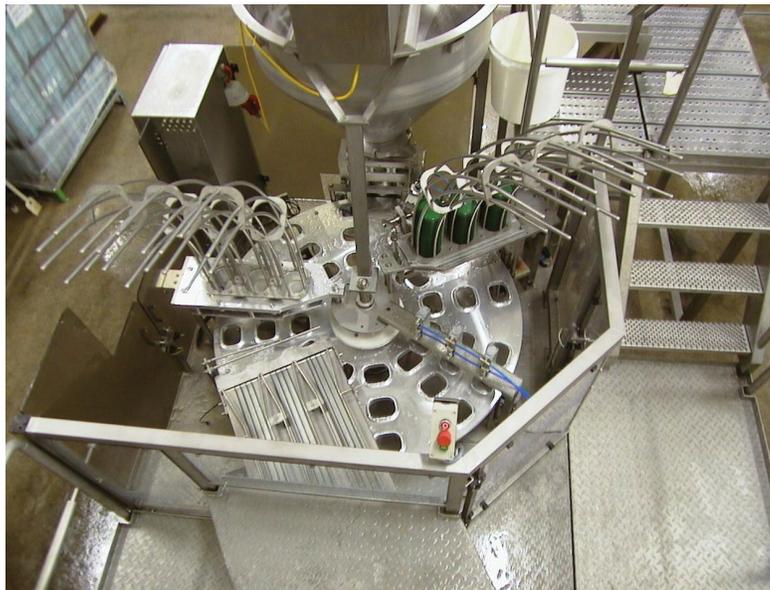
Solid Edge advantages for machine design have enabled this company to take on more and different kinds of work

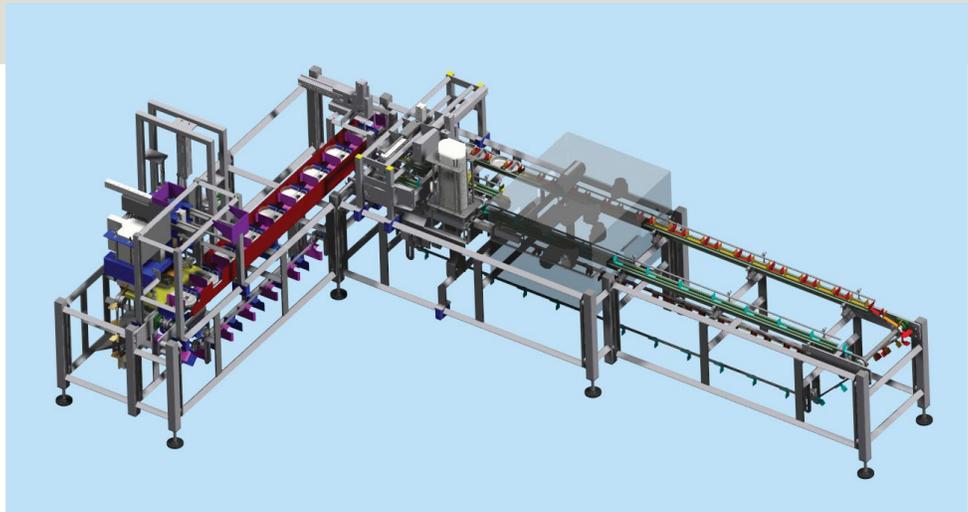
"Technology-mad" company

The Dutch company Scanimix was established in 1998 by John Legtenberg to produce industrial machinery (such as mixers, from which the company takes its name) and to perform the engineering services needed to install the machines and get them running. Right from the start, engineering services became the company's leading activity, with many requests for the development of new production lines and optimization of existing ones.

The company started out using 2D CAD but soon realized its limitations. "After drawing with CoCreate ME10 for two years, I noticed that customer communication was becoming increasingly difficult," says Legtenberg. "This was due to the fact that fewer and fewer people at decision-making levels can read plans. That was causing them to make mistakes." The other drawback to the 2D system was that much of the engineers' time was spent on non-value-added activities.

Scanimix is "mad about technology," as Legtenberg says. So the decision was made to upgrade to 3D CAD. After comparing Autodesk Inventor, SolidWorks and the





The successful use of Solid Edge has increased customers' trust in the company and resulted in a wider range of orders.

Solid Edge® solution from Siemens PLM Software, the decision was clear. "Solid Edge was the logical choice," Legtenberg says. "It is easier to use than the other two, yet has a high level of functionality. And with each new release, its functionality rises with the addition of practice-oriented enhancements." Scanimix purchased the software from the Solid Edge supplier, CAAP.

3D drives expansion

The successful use of Solid Edge has increased customers' trust in the company and resulted in a wider range of orders. While most of the previous work was limited to engineering, Scanimix now delivers a complete package related to the construction of special machines, ranging from engineering and procurement all the way to production and installation.

Business has been so good in 2007 that Scanimix has had to hire an additional two employees in the meantime to tackle the increased workload. The company has even moved to a larger site with its own production facilities. "With Solid Edge we

are able to develop qualitatively high-grade products with minimum risk. What is developed in 3D fits and works," Legtenberg notes.

This growth fits well with the trend shown by customers to outsource their engineering and maintenance work. Johma, the salad manufacturer, is a good example. In Johma's market, it is not uncommon for product packaging to be renewed on a regular basis. This requires adjustments to filling stations and packing machines. Since many machines and buildings have been in use for a long time, drawings or models are often not available. In such cases, measurements are made on site.

For Scanimix, this is the perfect job for Solid Edge. "We know the production boundary conditions such as filling material and filling rate so we design the alterations in Solid Edge, starting from a rough structure increasingly going into more and more detail," Legtenberg explains. "The designs include all the necessary data so that we can rapidly generate a parts list." At times, the shapes of Johma's cartons are

“With Solid Edge we are able to develop qualitatively high-grade products with minimum risk. What is developed in 3D fits and works.”

John Legtenberg
Founder
Scanimix

not available as 3D digital models. In these cases, the company uses a 3D scanner to import the shapes into Solid Edge.

Innovation leads to new machines

Other examples of Scanimix’s work include a machine for ClimaRad, which manufactures active radiators that also purify the air, and a new washing machine design for Urenco that brushes products during the production process to ensure a high level of purity. “The machine that Urenco had originally purchased for this task was not producing satisfactory results,” explains Legtenberg. “We made an adjustment that was a success. Based on our new washing concept, we are now developing a brand new washing machine.”

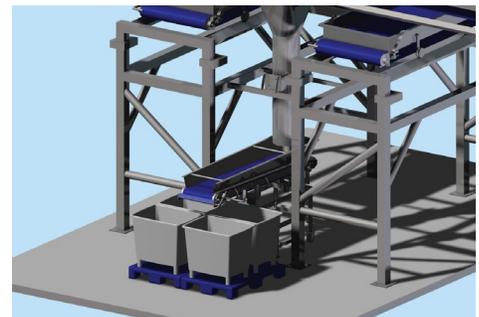
On large jobs, the Solid Edge digital assemblies may contain ten to twenty thousand parts. “Solid Edge continues to perform well in such cases,” Legtenberg notes. “Much has been done with Solid Edge in the past years to handle large assemblies and we like to use it. In addition, the catalogues of standard parts are a wealth of data.”

Aside from the engineering advantages of Solid Edge, Scanimix benefits from the increased transparency of the designs. Not only does this help the engineer, the customer especially benefits. “In the 2D era, it could take a long time before a design was given the go-ahead, and this lead time has significantly been reduced with the use of



3D,” Legtenberg says. “Models are easier for people to understand. They show much more rapidly how something works and whether it indeed works. This is mainly due to fast exploded views, visualizations, videos and digital simulation.”

Scanimix performs simulations in-house using Solid Edge built-in finite element analysis (FEA) functionality, Femap™ software, which uses



Solutions/Services

Solid Edge
www.siemens.com/solidedge

Customer's primary business

Scanimix designs, manufactures and installs production machinery for a range of applications.
www.scanimix.nl

Customer location

Hengevelde, Hof van Twente
The Netherlands



the NX™ Nastran® solver. “By designing according to the FEA results, we have assurances that would have been unthinkable when we were using 2D,” says Legtenberg.

Data management is currently being carried out at directory level but Scanimix is considering the use of Solid Edge with Insight™ design data management

solution. This will allow the company to introduce version management and to improve communications with its partners. “We don’t want to stand still with Solid Edge. It has brought us so much that we can’t even imagine going back to 2D. And we are very quick to implement new releases of Solid Edge so that we always get the most out of the software,” concludes Legtenberg.

“Using Solid Edge built-in finite element analysis (FEA) functionality...we have assurances that would have been unthinkable when we were using 2D.”

John Legtenberg
Founder
Scanimix

Siemens PLM Software

Americas +1 314 264 8287
Europe +44 (0) 1276 413200
Asia-Pacific +852 2230 3308

www.siemens.com/plm

© 2014 Siemens Product Lifecycle Management Software Inc. Siemens and the Siemens logo are registered trademarks of Siemens AG. D-Cubed, Femap, Fibersim, Geolus, GO PLM, I-deas, Insight, JT, NX, Parasolid, Solid Edge, Syncrofit, Teamcenter and Tecnomatix are trademarks or registered trademarks of Siemens Product Lifecycle Management Software Inc. or its subsidiaries in the United States and in other countries. NASTRAN is a registered trademark of the National Aeronautics and Space Administration. All other logos, trademarks, registered trademarks or service marks belong to their respective holders.

14430-Y5 12/14 B