

Teamcenter • NX

Kesslers International

PLM delivers significant competitive advantage and the winning way

Industry

Consumer products

Business challenges

Ensure finished product delivery in 3 to 8 weeks

Cut product development time

Enable customers to make design decisions late in the process

Keys to success

Improving customer service and reducing cost base by leveraging new people, plant and software investments

Implementing operational business model that takes advantage of PLM technology

Receiving training and mentoring in new technology

Results

Design changes per mold from 2.2 to 0.7

Sample parts delivered 30 minutes after design

Substantial re-keying and related errors eliminated

Teamcenter and NX enable Kesslers International to differentiate services and win business while making significant time, cost and quality improvements

Strategic PLM

Kesslers International Ltd. is Europe's leading manufacturer of permanent point-of-purchase display and merchandising units. Located in Stratford, London, on the edge of the London 2012 Olympic site, the company's state-of-the-art complex – including 110,000-square-foot corporate headquarters and manufacturing plant – houses design and manufacturing facilities that are run 24 hours a day by a highly skilled team of approximately 250 professionals. As part of its new fully integrated design, engineering and manufacturing approach, Kesslers International has introduced the latest technologies into these facilities, including large machines for laser cutting steel and plastics, fast metal presses, injection molding, wood processing, silk screening, new 3D CAD systems and computer-controlled machinery. These major investments are especially important for enabling the company to increase its export activities.

The nature of the company's business and its unique customer requirements play a key role in defining Kesslers International's technology needs. George Kessler CBE,



group director at Kesslers International, says, "We are a multi-material and hi-tech manufacturer. We process wood; we process metal; we process plastic. We are a project-based design and make-to-order business." Typically, customer orders range in size from 50 to 5000 units, with very little repeat manufacturing. Just as importantly, the company's clients do not decide exactly what features they need or how many units they require until late in the buying process." Kessler explains, "A client may take awhile to conclude negotiations with the store group where it is going to place the display. Once this is decided though, things move fast. We may only have between three and eight weeks to design, make and deliver the finished

Results (continued)

Substantially improved results in terms of time, cost and quality

Repeat business; new customers

"Everything is designed in NX and there is one model – and only one model."

Paul Copping
Technical Manager
Kesslers International

article, so it is essential that we get development times down to a minimum and get the design freeze time as late as possible."

To meet such demanding challenges and optimize its operations, Kesslers International decided the most advantageous strategy would be to leverage product lifecycle management (PLM) technology from Siemens PLM Software.

Critical investments

A private company with £20 million annual revenue and customers such as Revlon, Christian Dior, the U.K. Post Office, Bosch Home Appliances and Sony Electronics Inc., Kesslers International recently won the award for being the Best Employer of Apprentices in Greater London – 2009. Over the last five years, the company also has won three Manufacturing Excellence awards. "We invest heavily in people; we invest heavily in plant; we invest heavily in software – all to improve our customer service and reduce our cost base," says Kessler. "We recently bought a Trumpf punch press solution for nearly £500,000. The additional run speed, flexibility and weekend lights-out running enables us to manufacture more cheaply than any of our competitors. Our customers benefit by receiving lower prices and fast turnaround; we benefit by earning higher profits."

Changes cut in half using 3D

"We started on this track over 20 years ago with Anvil 5000, a good 2D system with some 3D, and importantly for us, with a strong machining capability," says Kessler. "We decided to move over completely to 3D with then SDRC's I-deas™ software (now part of Siemens' NX™ software) ten years ago and received massive advantages. At the time, we had numerous projects that required 10 or more injection moldings. Prior to adopting 3D, we had an average of 2.2 design changes per mold. A year later, we'd reduced that to 0.7 changes per tool. That saved enormously on lead times and costs and proved the value of designing in 3D."

"We also were investing heavily in CNC machine tools and wanted to make sure our operating model took advantage of all the technologies that were available at the time. Teamcenter® software provided vital functionality so we could make the transition from I-deas to the NX system, so we decided to take the opportunity to integrate our MRP system with our CAD system at the same time – in effect, to share one database."

Integrated design and manufacturing

Paul Copping, technical manager at Kesslers International, continues the story of the company's evolution: "Over the past three years, we've made fundamental changes in the way we run the business. The top level is what we do for our customer. The next level down is an integrated design and manufacturing model using Teamcenter and NX."

He describes the impact of this approach: "We've gone over to a more project-based environment where my project managers actually control the design cycle and the design phases. Once an order is placed, project management kicks into action. The delivery date, which can be as little as five weeks or as much as eight weeks, is set in stone and the specification is partially confirmed. Forty percent of our work comes in at the concept stage through design agencies. For the rest, we typically produce three or four concept visuals before we move to further discussion or even prototyping. Then, we develop the detailed design. Everything is designed in NX and there is one model – and only one model."

The approach is key. Copping explains, "Our engineers understand about designing for manufacturing – so we don't have the additional delays, additional redesign or additional costs that people who subcontract manufacturing suffer. We can have a sample part within 30 minutes of designing it and if the customer decides to change it, we can respond immediately. That's another competitive advantage for us."



Christina Aguilera – By Night is one of 3 displays created by Kesslers International to have been nominated for a 2010 European POPAI Award.

There are other advantages. Copping notes, "For injection-molded parts, we include draft angles, injection points and so on. Then we give the toolmakers the real-world model electronically with full supporting information, including the runner balancing and machine to be used. The tools are high-speed machined in aluminium directly from the NX model. This method has saved money, improved quality and reduced errors. One recent Revlon design required 50 different injection molding tools, so you can imagine the benefits."

Complex business requirements made easy

"We are using the Teamcenter project planning modules and workflow modules, which the team loves, because they take all the heartache out of addressing complex business requirements," says Copping. "The shop floor can also interrogate Teamcenter. They can see how the job goes together and they can see where a component is used. That has given us some surprising savings. For example, say they have a scratched injection molding. They can decide immediately whether it

is scrap or whether it could be re-used where the scratch was not visible." Equally important according to David Pearson, the company's operations director, "The Teamcenter web interface will let you mark up and measure drawings on screen."

One company's pain is another's profit

The PLM systems – from Teamcenter software, which serves as a global portal, to NX software, which functions as a design front-end – are now in place. All are tuned to enable a rapid response to the company's customers. "The projects we undertake have to be very front-end oriented," says Kessler. "We need certain rules and protocols so that when we build on the screen, we build everything right down to the fastenings. This is because everything migrates through Teamcenter. If you miss one screw, it won't be in the product. So we have lots of checks and validation upfront."

Kessler notes, "Our CAD/MRP integration has worked very well. It has removed a huge amount of re-keying and eliminated a massive risk of error. We've reinvested the time saved into product and concept development. In turn, this gives our customers more opportunity to change the designs later (in the process). Up to two years ago, if the finished product was 90 percent of what they wanted, they would have gone for it. But today, it needs to be 99 percent. That's a huge pain for other companies, but for us it's a commercial advantage."

Driving design via configurator

"We were considering buying a separate configurator package until Siemens PLM Software pointed out how we could get the same superb functionality with Teamcenter and NX," says Kessler. "Using this for the ITL merchandising unit is a good example of why this matters. The Teamcenter configurator allows us to specify the width of the shelves. Then, it will add the side panels and work out the header and back panel parametrically. It

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Solutions/Services

Teamcenter

www.siemens.com/teamcenter

NX

www.siemens.com/nx

NX training/mentoring
(Majenta PLM)

Customer's primary business

Kesslers International designs and manufactures point-of-purchase display and merchandising units.

www.kesslers.com

Customer location

Stratford, London
United Kingdom

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also will know how many fasteners, back straps and other features are needed. In effect, Teamcenter is driving the design while leaving the designer to concentrate on the more important design issues. This gives us some real commercial advantages."

Mentoring matters

Kesslers International recently upgraded its NX software to the latest version. "This went well," says Copping. "We did a lot of testing and a lot of training in all aspects of NX, particularly using the system's sheet metal capabilities, which are years ahead of earlier versions of the software. NX is very accommodating of all the new specialized tools that we've purchased."

NX training was provided by Majenta PLM, a company that also runs a six-month mentoring program for Kesslers International's technical department.

"Mentoring is very much about getting under the skin of the company and how it operates," says Copping. "They had to understand all of our processes and discover what parts of the new NX we didn't understand to make a difference to our operations. Majenta has done an excellent job in creating our Teamcenter and NX configurator coursework."

Proof of success – the customer experience

With Teamcenter and NX, business is very good. Kessler sums up the advantages of the PLM software combination: "We know it works because we measure success through order increases and complaint reductions. We have a very, very low level of complaints. We have a good level of customer satisfaction and our customers keep coming back. And we have important new customers. That is the best proof we can have."

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