

Consumer products • Electronics and semiconductor

TheAlloy

A holistic approach to innovation

Product

NX

Business challenges

Understanding customers' problems and goals

Delivering innovation quickly

Significantly reducing customers' engineering efforts

Accelerating supply chain communications

Keys to success

Complete control from project inception

Global collaboration

Industrial and mechanical design processes using same data

Ease of use, advanced visualization, flexibility – NX product development software

Results

Saving customers on average 50 percent to 60 percent of engineering effort

Delivering strategic design in weeks versus months

TheAlloy uses NX to drive experience-led industrial design and gain competitive advantage

Building profitable brands

TheAlloy is one of the larger industrial design firms in the U.K. and one of the top five in the business. Established in 1999, it is renowned for its delivery and effectiveness. On average, every six seconds, there's a person somewhere in the world buying a product designed by TheAlloy.

TheAlloy helps companies build profitable brands through three key services: product design, interaction design and innovation strategy.

In the area of product design, the firm provides comprehensive services covering user and contextual research, design development, rapid prototyping and full realization support including mechanical engineering. For interaction design, which involves addressing the look, feel and behavior of software user interfaces, TheAlloy provides the auditing and analysis of existing systems, and the creation of new software concepts driven by user and contextual research. In delivering innovation strategy, the company helps its clients understand how they can move their businesses forward, with typical engagements addressing product planning, brand identity coordination and innovation process improvement.



For TheAlloy, it's all about innovation, which involves great challenge. "Designers need to be leaders, says Gus Desbarats, the company's chairman. "They're the people that are pulling together all of the risks and the issues, because at the end of the day we're creating this definition of the look, the feel and the behavior of the object, and everything else falls into line behind that."

Results (continued)

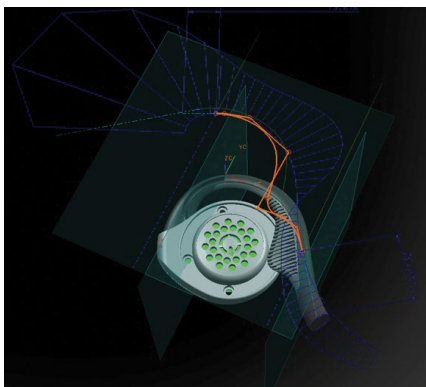
Providing customers better quality of design options

Enabling absolute proficiency throughout customers' supply chains

Delivering extraordinary brand continuity and innovation

"NX gives the designers wonderful control over what they're doing from the very, very beginning of the process. We have never ever had a situation where our creative intent has been restricted by the tool."

Gus Desbarats
Chairman
TheAlloy



The company focuses on experience-led design. "We spend an awful lot of time talking to end-users and actually understanding how we can solve their problems and make the product better to use through its external form," says Ben Griffin, senior designer at TheAlloy. Further to this, Desbarats notes, "We win a lot of awards for design effectiveness." This includes repeatedly winning the UK's DBA Design Effectiveness Award, which measures the commercial impact of design.

TheAlloy has a reputation for customers that keep coming back. "We have a lot of long-term relationships and it's a fact that our creativity is focused on what users need," says Desbarats. "And we are very good at making this leap from being human focused to very, very technical."

Holistic approach

"Our competitive advantage comes from the way we actually achieve a holistic approach to innovation," says Desbarats. "We're doing 40 to 50 projects a year and NX™ software allows us to maintain a high degree of productivity at this core strategic stage in the innovation cycle. What used to be strategy that took months is being condensed down into weeks. And NX is absolutely central to that."

Collaboration plays a critical role. "Most of our work, 80 percent of it, involves collaborations with mechanical engineering teams and electronic teams all over the world," says Desbarats. "Innovation is one of the big benefits from using us. It's a combination of solutions that are better fitted to customer need, delivered more efficiently."



Saving 50 percent to 60 percent of the engineering effort

For TheAlloy, completeness and accuracy of the product definition is essential to working with customers' supply chains. "In the context of global innovation supply chains, the reason it's so important is the complexity of those supply chains," Desbarats says. "Our ability to create a very precise hand-over to them is hugely beneficial. And if you think of how much work is involved in recreating the industrial design shell, then we can save people up to 50 percent to 60 percent of their engineering effort if they take our designs and go with the flow."

Handing over such precision to suppliers requires an advanced, flexible and easy to use product development system, according to Desbarats, pointing out: "NX gives the designers wonderful control over what they're doing from the very, very beginning of the process. We have never ever had a situation where our creative intent

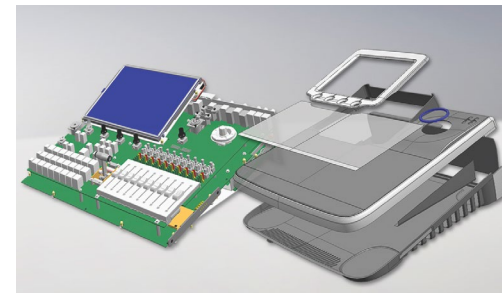
has been restricted by the tool." Griffin explains, "NX is invaluable for us in the early phases of the project. It allows us to design quite advanced form, but in complete confidence that we're not doing anything that's going to cause problems further down the production process." Jim Blyth, principal designer at TheAlloy, adds, "NX allows us to really drill into the detail on things. If we're doing the full mechanical engineering, we're making sure that what we're seeing when we're first talking to people follows through the whole process from initial concept designs in NX all the way through to final specification."

Delivering big brands – quickly

TheAlloy doesn't just deliver effective brands, it does so quickly. "NX is a very powerful tool for industrial design, especially when you're working within the context of a large brand," says Griffin. "When we are doing a family of products, NX allows us to create one piece of basic geometry for a product with all of the key features in it, which make up the brand identity. Then we can take that piece of basic geometry and link it in to all of the other parts of the modular system to create a very consistent look and feel. It saves us a lot of time and obviously it saves the customer cost because we're able to re-use data that we've created without having to go back and start from scratch with every new project."

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Desbarats says, "Running NX has meant that the quality of the options is better." Griffin concurs, "Any shape that we create in our heads or sketch on paper or create in the modeling studio, we don't have any problem recreating that onscreen in a constrained and controlled way using the modeling tools." Desbarats adds, "On top of that, you've got all this analysis. And that's brilliant because the analysis feeds the information back to the designers. You take better decisions."

Are there specific instances of how these better decisions are reached? "When we're modeling there are certain tools that we're using continuously, so the advanced visualization techniques in NX do allow us, for example, to look at reflections on a surface," says Griffin. "Then you can go to the stage of actually putting curvature combs on there to check tangency and curvature continuity."

One of the specific elements of NX that TheAlloy particularly values is WAVE, which is a systems-based product engineering approach. WAVE uses a control structure to communicate design criteria to subsystem developers (including

suppliers), enabling design teams to work concurrently within a common product framework. "One of the ways that WAVE had helped us on a project was on a Bluetooth headset," says Blyth. "The key thing is that one of the guys was actually able to model the Bluetooth headset itself and make sure that all the details were great whilst another guy WAVE-linked the basic form of a headset into another file and started creating the cradle and everything that it interacted with. So it allowed two people to be running on the same project."

Leveraging synchronous technology

"When we do concept modeling, we do our design in two phases," says Desbarats. "In the early phase, we don't have to be quite so tight about thinking about parametric structures for things. It's a hybrid modeler, so you don't actually need history. History is there to help you build. So with synchronous technology, it means that if we're creating a shape and we come in to review and we say it's a little bit too square at the top and someone says, 'Well, if I try and make that change, it's going to blow up my model,' that won't happen anymore."

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Solutions/Services

NX
www.siemens.com/nx

Customer's primary business

TheAlloy is an industrial design consultancy renowned for delivery and effectiveness. The company builds profitable brands through product design, interaction design and innovation strategy. Recipient of numerous design awards, TheAlloy specifically helps organizations deliver excellent user experiences by creating the look, feel and behavior of products and screen-based interfaces.
www.thealloy.com

Customer location

Surrey
United Kingdom

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Blyth points out, "The synchronous technology is very easy to use. You can move things. You can close up around key apertures. You can change the flanges. There's a real benefit there. And it stops the data from going backwards and forwards, which is always going to be saving time."

Desbarats describes another advantage of synchronous technology: "When somebody wants to do a facelift on a 3 or 4-year-old design, synchronous technology just takes a bit of the hassle and the time out of getting legacy projects expedited."



Total flexibility = innovation

"NX has been at the heart of our process for over 10 years," says Desbarats. "The flexibility of NX, the fact that it can do absolutely anything that we want it to do is priceless to us. It's really changing the way designers work and the way they contribute to innovation."

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