SIEMENS

NX

Andreani Design

The right combination of skill and technology helps Andreani Design win new business; services now include product engineering and industrialization

Industry

Industrial design

Business challenges

Expand services to address highly demanding engineering requirements beyond design

Reduce product development cycle time and costs

Decrease the number of outsourced processes

Keys to success

NX for complete product development needs, especially modeling sophisticated surfaces and complex solids with parametric features

Results

Expanded services include design through industrialization

Faster design-through-engineering turnaround

Reduced project costs

Significantly less outsourcing

Greatly improved collaboration with partners and customers

With implementation of NX, industrial design specialist significantly improves portfolio offering and operational effectiveness

Specializing in automotive, motorbike, yacht and moving-object design

Pierangelo Andreani started his career in the 1970s at the Fiat Styling Center, then he moved to Pininfarina until 1976. Subsequently, Andreani worked for De Tomaso, where he created a number of design jewels, including the Guzzi and Benelli motorbikes and the Maserati Biturbo sports car. In 1981, he decided to open his own business, creating the Andreani Design studio. Since that time, Andreani has continued to work for car and motorbike manufacturers, collaborating with such brands as Cagiva, Renault, Nissan and Mitsubishi. He also currently works with Sanyang, where he is developing scooter concepts and other industrial designs through the Taiwanese company Nova Design.

In 1975, Andreani began projects for the yachting industry, including creating new designs for Cranchi, a boatbuilder committed to relentless quality since 1870. Andreani also began collaborating with the French group Beneteau about six years ago.

Since 1975, Andreani has been working in the boat industry, collaborating with leading companies like the French group Beneteau.

Andreani's powerful industrial design portfolio is quite diverse. He explains, "While I have always created moving objects, with a preference for engineering items, my experience has been gradually expanding and diversifying over the years with designs for electric bikes, woodworking machinery, motorbike accessories and ski gloves.

Business climate drives engineering/ industrialization services

Andreani Design offers complete product design and development services, including engineering and industrialization, as in the case of the coffee machine created for Gimoka. "Coffee machine manufacturers

Results *(continued)*

Delivering projects with greater speed and efficiency across industries

New orders up: more and more customers requesting engineered designs

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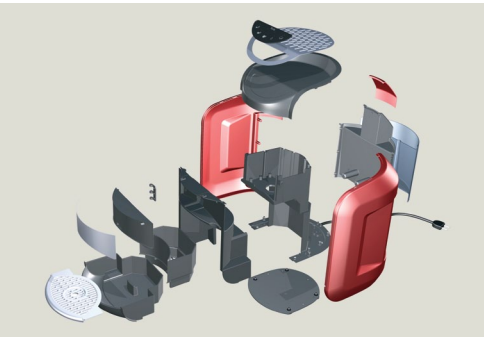
Pierangelo Andreani
Owner
Andreani Design

The Gimoka coffee machine is an example of the products the studio has developed and engineered with NX.



normally move their production to China for cost reasons," Andreani says, "but then they have to monitor their suppliers very closely to avoid problems. Gimoka had bought pod coffee machines from China for its office vending business. The core of this business is represented by coffee sales, while the machine is lent for free; but if it doesn't work, the customer changes to another coffee supplier. After facing several issues with its machines, Gimoka decided to produce its own models in Italy, managing the entire process from design to mold to construction. Gimoka turned to us for support, and the operation was a success." Andreani used NX™ software from Siemens PLM Software for the Gimoka project.

In fact, it is the requirements of projects like those of Gimoka that led Andreani to consider the adoption of more advanced technology for product design and development. "My job changed as customers demanded product engineering services beyond styling," says Andreani. "For many years, I was a pure designer, creating projects that were then engineered by someone else. This mainly happened with Japanese customers, who requested new concepts and models, and then took care of the engineering phase. On the contrary, other customers who operated without technical departments or qualified consultants, requested detailed studies that typically called for the use of computers and advanced software. For example, in addition to requiring the general concept of a machine and its outer surfaces, woodworking machinery manufacturers want to see a model and a prototype. That's why I needed a suitable 3D computer-aided design (CAD) package; otherwise I was limited to providing them with surfaces, lines and sections, but nothing more."

Three reasons for selecting NX

For three years now, Andreani Design has been using NX. Andreani, utilizing his extensive industrial design experience, personally selected NX, which features a complete set of flexible shape creation,

manipulation, and analysis tools. “I had known NX in my previous experience in the automotive industry, where it is extensively used and appreciated as a surface modeler, solid modeler and parametric CAD software,” notes Andreani. “These three aspects offer great benefits as they enable the designer to create a model, develop it and, if required, step back and make changes, even at a late stage. I watched car and motorbike designers use NX and I could see how much they appreciated it for these reasons. So, when the need emerged to expand our services from design to engineering, I found NX to be the most natural and efficient choice.”

The Gimoka coffee machine is just one example of the type of products Andreani Design studio has developed and engineered with NX. Andreani notes that, with NX, his firm can handle the most diverse and challenging projects, including a recently completed co-molded part for a snowboard glove. “I started to work as a designer without any PC (personal computer); I sketched on paper with a pencil and then passed on my creation to a modelist,” he explains. “In the past, objects were simpler. However, today, all products are the result of computer-based technology and, in many ways, their complexity and sophistication is fostered by the use of advanced software like NX.”

Competitive tools

Using NX has enabled Andreani Design to expand its scope of services. This is especially evident in the work it has completed in the yachting industry. Andreani describes the process: “When we design a new boat, we focus on the dead works, which is the part above water; however, we frequently exchange data with the design studios that develop the hull. It’s an iterative process. On the first hull concept we receive, we develop three to four alternative proposals for the customer to choose. We then deliver a preliminary project that is evaluated with an iterative approach through continuous file exchange, until we get to the final design

Andreani Design offers a complete product design and development services, including engineering and industrialization.

ready to be manufactured in the shipyard. In this process, the use of NX has proved its effectiveness and flexibility, as it generates models and data that can be easily read by other software, enabling an efficient and reliable file exchange.”

Another important value of NX is the great ease with which a designer can utilize the software to simultaneously draw sophisticated surfaces while handling complex solids. “These are essential elements for a design studio like ours, because we cannot be satisfied with anything less than perfect when we model a surface,” says Andreani.

Use of NX is especially effective when a designer has to engineer objects and view models in sections or in motion. The software’s ease of use is a marked competitive advantage, according to Andreani. “It would be impossible to work without NX from both a technical and an economical point of view,” he says. “Our studio has acquired new projects and new orders just because, with NX, we can engineer a single detail or the whole product as requested by the customer. In the past, we had to rely on external partners with sophisticated software; now we can do everything internally, minimizing costs and cycle time.”

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Solutions/Services

NX
www.siemens.com/nx

Customer's primary business

Andreani Design is a design and styling studio that, leveraging the longstanding experience of its owner Pierangelo Andreani, collaborates with Italian and international leaders in the automotive, motorbike, yachting and industrial design industries.
www.andreanidesign.com

Customer location

Sondrio
Italy

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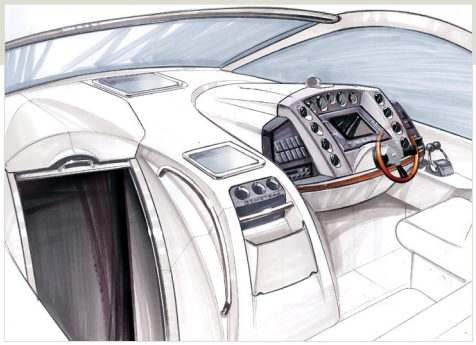

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Andreani concludes, "Against the widespread belief that high-end software is intended for companies above a certain size, I can state that using NX brings extraordinary benefits to small design studios like ours who are looking for a solution that enables them to provide customers with a complete service offering. My business is larger and more successful as a direct result of using NX."

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