

SIEMENS

Ingenuity for life



**GEOMETRIC
SOLUTIONS**

Consumer products and retail

Julbo

Global eyewear manufacturer uses NX to enhance product quality, increase tool paths and reduce tool breakage

Product

NX

Business challenges

Increase design quality and accuracy of 3D modeling

Stay ahead of style and mechanical design trends

Overcome design and manufacturing constraints

Keys to success

Execute highly technical designs with precision

Optimize aesthetic quality of products

Break away from geometric design constraints

Results

Improved product quality

Increased tool paths by 20 percent (from 70 to 90 percent)

Reduced tool breakage by 70 percent

Improved performance of processes and tools

Streamlined digital chain

Siemens PLM Software solution enables Julbo to improve processes and tools while streamlining its digital chain

Experts in sunglasses for over a century

In the early 20th century, Jules Baud founded Jura, which would later become known as the global brand Julbo. He designed the first cristallier glasses, marking the start of Julbo's solar optics adventure. Cristalliers are stones found in the Chamonix mountains. Julbo was originally located in the Jura area of France, and the first glasses were created at the request of mountain climbers to protect their eyes from the sun.

After the Flou-Fun trend in 1980, the Nautique and Baby range launches in 1990 and the introduction of the flagship Looping model in 2000, the company sought to extend its expertise. Julbo accomplished this by offering a complete range of solar eyewear adaptable to all sports and outdoor pursuits, including mountaineering, Alpine skiing, Nordic skiing, hiking, water sports, mountain biking and endurance sports.

Julbo develops its products in close collaboration with top-level athletes, affectionately referred to as "Team Julbo." By doing this, Julbo connects with its target audience and meets the needs of sports enthusiasts and professionals alike.



“NX has been warmly welcomed and widely adopted by our users, and we can already talk of tangible gains in terms of quality and productivity at all levels: design office, research department and production.”

Flavien Saniard
Designer
Julbo



Julbo controls production in-house. In fact, the creation, design, molds, manufacture of eyeglass lenses, marketing and commercial strategy are all centralized in the company's headquarters in Jura, France. The company now exports almost 50 percent of its production to more than 80 countries.

Combining technical excellence with style Julbo's optical frames have optimized shapes that deliver maximum protection against the sun's rays, the widest possible field of vision, excellent ventilation and optimal adherence to the face/head. This is the result of uncompromising design and a plethora of technical innovations.

“Sporting practices evolve extremely quickly, and trends do, too,” says Christophe Baud, chief executive officer (CEO), Julbo. “Today's equipment is

increasingly specialized. We have expanded our range of sunglasses and goggles to new sports such as trail running, freeriding and Nordic skiing while staying committed to quality. Athletes, whether professional or amateur, seek equipment that is comfortable, lightweight, resistant and aesthetic. Our design tools must allow us to respond to the two-fold requirement of technical excellence and style.”

NX: a perfect solution

After a benchmarking process that lasted several months, Julbo opted for Siemens PLM Software's NX™ software to replace its existing design tool, PowerShape® software by Autodesk. Flavien Saniard, a designer at Julbo, oversaw the software assessment process and subsequent selection of NX. A mountain sports enthusiast

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with a passion for industrial design, Saniard’s industrial engineering background convinced him NX was the best solution for Julbo.

“We were looking for a software solution that would give us sufficient freedom to design, while taking into account the multiple technical constraints we faced in terms of design and manufacture associated with the technical nature of our products,” says Saniard. “NX is a flexible, powerful solution that stands at the crossroads between style and mechanical design. In essence, it’s the perfect tool for an engineering designer.”

The quality of 3D surface tools, synchronous technology and convergent modeling capabilities in NX impressed Julbo’s design teams. The company particularly appreciated NX capabilities, such as advanced surface creation, and handling and analysis features, including joins, tangencies, bend radii, salient points, lines of reflection in real time and analysis of drafts to guarantee demoldability. The Julbo designers use visualization and realistic rendering tools to optimize the aesthetic quality of the products.

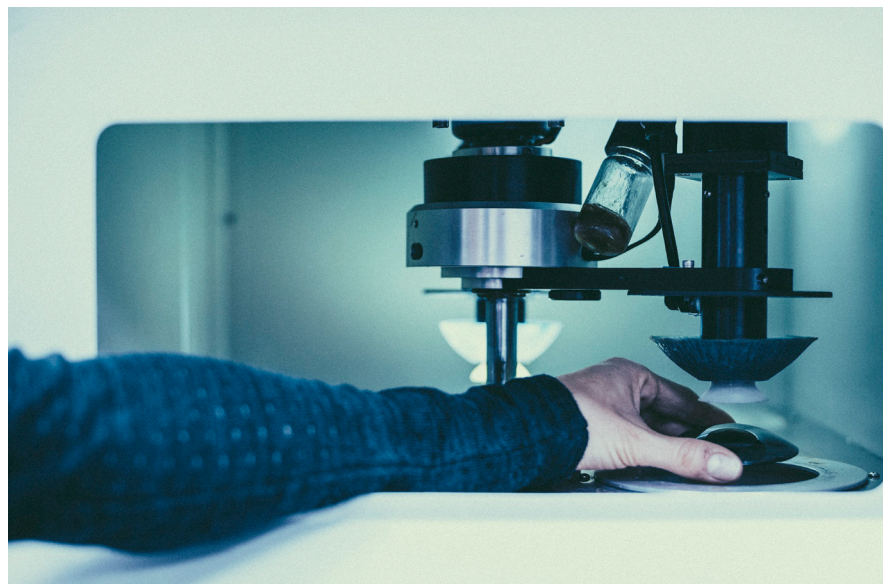
The synchronous technology in NX combines the speed and simplicity of direct modeling with the precise, rigorous control of parametric modeling. This technology can be used to quickly apply geometrical changes by breaking away

from geometric design constraints. Julbo is now considering using it for designing molds developed internally by its design office.

Convergent modeling was introduced in NX and combines exact facets, surfaces and solids within the same model. For Julbo’s designers, this technology is particularly valuable for representing textures, such as wood, that integrates grains that are difficult to model using standard tools.

Gains in quality and creativity

Just eight months after adopting NX, Julbo found a solution that meets the company’s requirements for quality.



“Today we have successfully replaced our old design tool,” says Saniard. “NX has been warmly welcomed and widely adopted by our users, and we can already talk of tangible gains in terms of quality and productivity at all levels: design office, research department and production.”

The design office uses NX to facilitate quality and accuracy in its 3D modeling. Freed from quality issues, the designers can focus on their core vocation, which is more boldly exploring new ideas and presenting innovative proposals. Using NX allows Julbo’s designers to unleash their creativity.

The research department found that with its former design tool, Julbo’s engineers spent an inordinate amount of time reworking computer-aided design (CAD) models that could not be used as-is for computer-aided manufacturing (CAM) purposes. Since incorporating NX, 90 percent of the CAD models were good for CAM purposes, an increase of 20 percent from the previous tool Julbo used. NX offers a seamless digital process, from design to manufacture.



Meanwhile, the production workshop discovered the quality of the models reduced tool breakage by an estimated 70 percent.

“The deployment of NX is part of our efficiency approach, which aims to improve the performance of our processes and tools,” says Anais Lamy, head of development, Julbo. “We seek to ably absorb each step and ensure its reliability before proceeding to the next step; this is the key to success for us.”

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Head of Development
Julbo

Solutions/Services

NX

www.siemens.com/nx

Customer's primary business

In 1888, Jules Baud started his business in the French Jura mountains, designing the first cristallier glasses at the request of Chamonix crystal hunters wanting to protect their eyes in the mountains. Driven by innovation, Julbo is now a world leader in the design and production of sunglasses, prescription eyewear, ski helmets and goggles.

www.julbo.com/en_us/

Customer location

Longchaumois (Jura)
France

Partner

Fealinx is an integrating partner of Siemens and has deployed NX, Teamcenter, Solid Edge and Mechatronic solutions throughout France for over 20 years.
www.fealinx.com

A step-by-step approach

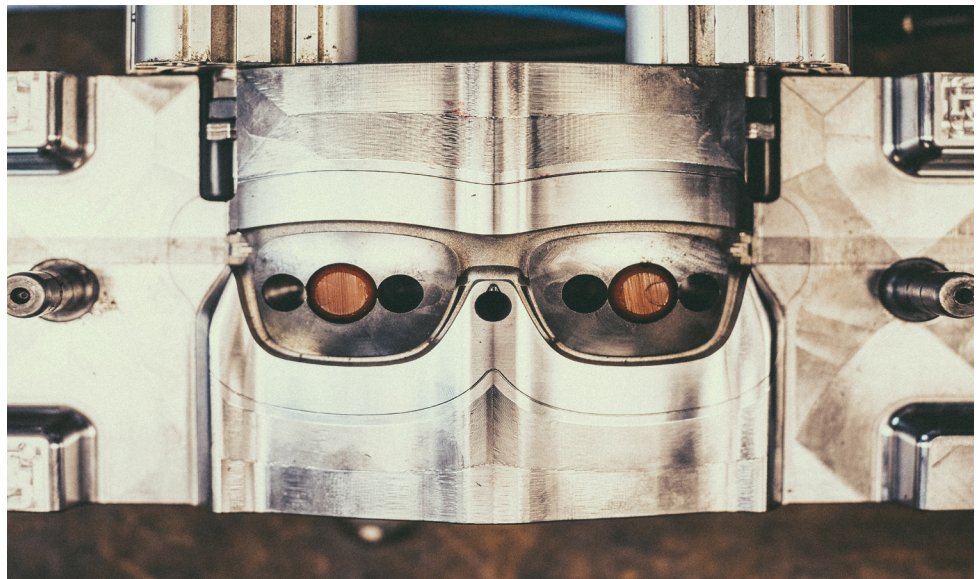
Fealinx, a Siemens PLM Software partner, supports Julbo in its digital transformation approach in completing the digital chain from product lifecycle management (PLM) to enterprise resource planning (ERP) to product information management (PIM) and beyond.

"We are particularly committed to optimizing the quality of all of our internal processes and streamlining the digital chain. Basically, we create digital bridges," says Hervé Labarge, Business Development Manager, Fealinx. "With Julbo, we focused on the 'why' before considering the 'how' to set up bespoke support and training tailored to the company's business lines and processes."

Plans for the future

For 125 years, Julbo has stayed ahead of the field thanks to its product quality. Its commitment to high-performance athletes, with whom it works on the design of its new collections, and its presence on the ground at sporting events, keeps them on top of the competition.

Julbo expects to expand its use of 3D models to other users such as product managers and marketing personnel to avoid the back-and-forth between different departments and, in turn, increase operational quality. This quest for efficiency is intended to benefit a team accustomed to taking on the most daunting sporting challenges.



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