

THE CHALLENGE

With digital prototyping already in place, Dassault Falcon Jet needed to increase efficiency and productivity in the upholstery shop.

LECTRA'S RESPONSE

Acquisition of a Versalis leather cutting solution enabled the customer to establish a full-fledged digital value chain, from seating design to leather cutting preparation and execution.

RESULTS

Digitalized processes enabled by Lectra's 3D prototyping software and leather cutting solution have allowed the customer to not only streamline operations, but also reinforce its reputation through faster turnaround times and enhanced quality.

LECTRA SOLUTIONS

DesignConcept

Versalis

Dassault Falcon Jet Digitalizes Its End-to-End Interior Design Value Chain

A key business enabler, digitalization of the interior design value chain is empowering Dassault Falcon Jet to exceed the expectations of its clientele with faster turnaround times and enhanced quality.



A CUSTOMER-DRIVEN BUSINESS TRANSFORMATION

Marked by a relentless pursuit of excellence and innovation building the most advanced business jets on the market, Dassault Falcon Jet has earned a reputation as the finest aircraft company in the world. The company focuses on high-quality production to personalize business jets meeting customers' exacting requirements. The process begins in France, where the airframe, engine and avionics are assembled, ending in Little Rock, where the aircraft is finished with a custom livery and interior hand-crafted to precise specifications.

Due to their customers' ability to change interior design specifications during completion, Dassault Falcon Jet needed greater flexibility to meet customer requests faster and more efficiently. Design for manufacturability is a major consideration due to aggressive cost targets and a chief reason behind the company's digital specification-to-delivery process—the most advanced in the industry.

The Little Rock upholstery shop has recently undergone significant reorganization to align the production of aircraft interiors with the digital specification-to-delivery process. After first streamlining its design studio with DesignConcept® 3D design and costing software, Dassault Falcon Jet turned once more to Lectra to revolutionize its cutting room with acquisition of a Versalis® digital leather cutting solution.

Digitalized processes help Dassault Falcon Jet meet business objectives by being able to Do It Right The First Time. The company can now test and finalize 3D seating and interior designs before they enter into production.

A FIRST MAJOR CHANGE WITH 3D DESIGN AND PROTOTYPING

Before working with Lectra, Dassault Falcon Jet used 2D software for the design and development of aircraft seating. The upholstery shop's highly manual prototyping process did not capitalize on the company's use of 3D data and often resulted in inconsistent quality.

Following a successful proof of concept, Dassault Falcon Jet progressively implemented six DesignConcept workstations, laying the foundation for a fully digital development process. Rollout of DesignConcept design and virtual prototyping solution enabled the customer to iterate into 3D designs directly, eliminating the need to make as many physical mock-ups.

FROM DIGITAL DESIGN TO A FULL-FLEDGED DIGITAL VALUE CHAIN

Following Dassault Falcon Jet's switch to 3D design and prototyping, the company turned its efforts to increasing efficiency and productivity in the upholstery shop. Acquisition of a Versalis has enabled the customer to extend the digital value chain from seat design through to leather cutting execution. Now Dassault Falcon Jet can develop patterns using DesignConcept prototyping software and directly export 3D data into the Versalis digital leather cutting solution.

Powered by data intelligence and advanced cut preparation software, Versalis eliminates variation and reduces the number of over-cuts to optimize yield on expensive full-grain leather. The advanced cutting technology incorporates hide scanning and laser projection to give operators a high degree of control over the placement of parts. By eliminating the deformation of cut parts, Dassault Falcon Jet has achieved a substantial improvement in quality. Leather cut execution is now more accurate, with a rate of rejected pieces approaching zero. The upholstery shop's leather yield has furthermore increased from 5% to 10%.

A SMOOTHER OVERALL PROCESS FOR THE PRODUCTION OF CUSTOM INTERIORS

With the addition of Versalis, Dassault Falcon Jet now benefits from an end-to-end digital process, with 3D design and prototyping, direct merging of data and digital cutting. The fully automated Versalis enables Dassault Falcon Jet to deliver within budget by cutting costs, improving productivity and minimizing waste. Because flexibility is even more important to the production of one-off custom interiors than to serial manufacturing, digitalization has enabled the company to both expedite operations and reinforce its reputation as a world-class aircraft manufacturer.

About Dassault Falcon Jet

Dassault Falcon Jet is a wholly-owned U.S. subsidiary of Dassault Aviation. Dassault Falcon Jet markets and supports the Falcon family of business jets throughout North America, South America and the Pacific Rim countries of Asia, including the People's Republic of China.



About Lectra

Lectra is the world leader in integrated technology solutions (software, automated cutting equipment, and associated services) specifically designed for industries using fabrics, leather, technical textiles, and composite materials to manufacture their products. It serves major world markets: fashion and apparel, automotive, and furniture as well as a broad array of other industries. Lectra's solutions, specific to each market, enable customers to automate and optimize product design, development, and manufacturing. With more than 1,550 employees, Lectra has developed privileged relationships with prestigious customers in more than 100 countries, contributing to their operational excellence. The company is listed on Euronext.

lectra.com