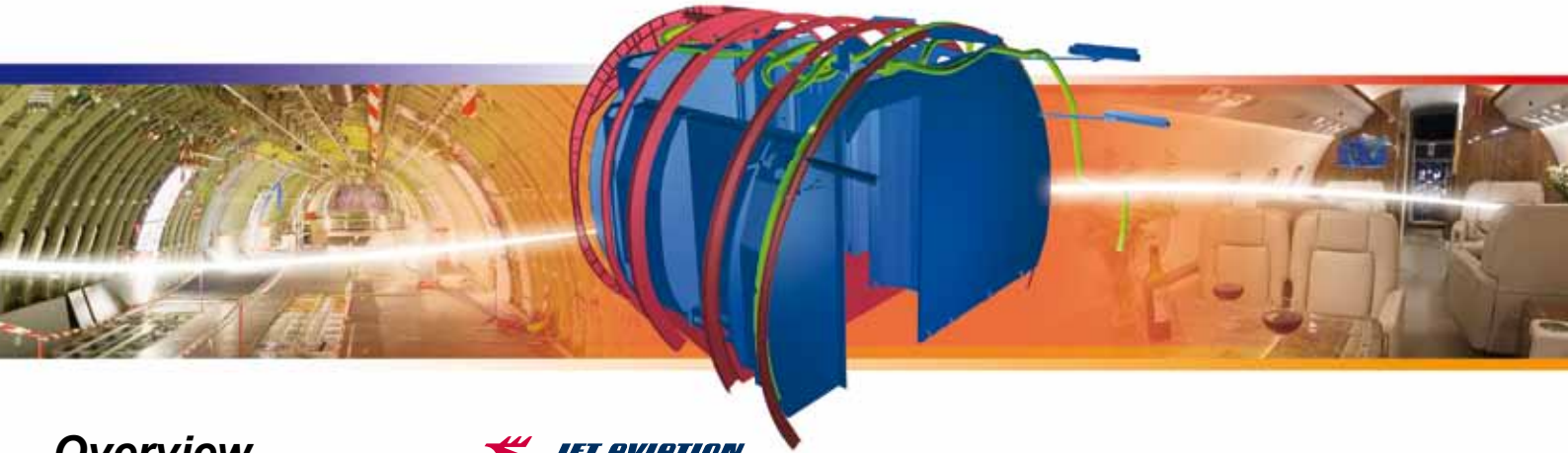


Jet Aviation

Making concurrent engineering a reality with DS PLM



Overview

■ Challenge

Jet Aviation, an international aviation service provider, wanted a faster, more secure way to process and document its client orders.

■ Solution

Jet Aviation introduced CATIA and ENOVIA SmarTeam to perform all mechanical engineering tasks for new projects with better collaboration and process support.

■ Benefits

The investment quickly paid off thanks to the direct use of native 3D data in stress analyses, production, and technical documentation as well as through efficient supplier integration.



“Jet Aviation replaced a 2D drawing tool with a modern business solution. The savings are simply extraordinary.”

Dagmar Heinrich
Manager of the CAD and PDM Competence
Center
Jet Aviation

Business jets for exclusive clients: fast production required

Need a multimedia conference room in a private jet? At Jet Aviation, that is not a problem. With 5,100 employees, it is one of the leading business aviation services companies in the world. The Switzerland-based global company is a subsidiary of General Dynamics. In addition to maintenance, engineering, and aircraft management, the company has been refurbishing private jets with customized interiors since 1967. Salons, dining rooms, bedrooms, and bathrooms are built into the aircraft using the finest materials for a perfect end result.

In order for Jet Aviation to complete its designs more quickly – some of which are highly elaborate – the company turned to concurrent engineering and thus began looking, in 2008, for an effective combination of 3D engineering and product data management. Because several engineers work simultaneously on design projects, data management and data

security must be optimized and concurrently guaranteed so that all users can access high quality engineering information.

The company found its solution in Dassault Systèmes. The airplane outfitter has been using the CATIA and ENOVIA SmarTeam applications in their Completions business unit since early 2009.

CATIA and ENOVIA SmarTeam introduced quickly

Initially used in the large carrier sector – Airbus 319 and higher – one year later, some 200 engineers are now performing mechanical engineering tasks for new projects exclusively with CATIA and ENOVIA SmarTeam. The company became operational with the solutions extremely rapidly thanks to the approach of preconfigured accelerators unique to Dassault Systèmes solutions.

Dagmar Heinrich, manager of the CAD and PDM Competence Center at Jet Aviation, said, “We rolled out the PLM Engineering



Express Template provided by Dassault Systèmes as a preconfigured solution. Right from the start, CATIA was linked to ENOVIA SmarTeam data management, which allowed us to take advantage of project management, secure exchange of engineering data, and a simplified approval process immediately.”

Savings through multiple usage of 3D data

The company’s investment paid for itself through initial projects alone by allowing high quality 3D CAD data to be reused in the process chain. For example, 3D installation space assessments prove highly valuable to developers because they enable verification of operating clearance early in the process. The existing 3D CATIA model can now also be used directly for stress analyses validation and technical documentation, resulting in significant cost savings. The same holds true for NC programming for internal and external production. In addition, the Development division was able to create potential further savings by linking to catalogs for standard parts and materials.

Jet Aviation has been able to realize substantial productivity improvements when suppliers and engineering design service

providers transfer data that now integrates seamlessly into the proprietary processes. To ensure that this continues to be the case, Jet Aviation will be incorporating CAD methodology and data exchange regulations into contracts with engineering service providers from now on, thereby eliminating expensive mistakes caused by inadequate CAD data quality or lacking standards when it comes to the design and exchange of CAD data.

When asked about the new solution’s most important advantages, Heinrich stated, “Today, we provide the company with high quality engineering data that is entirely defined via the database.” To do so, engineers use ENOVIA SmarTeam following a strict engineering approach that ensures that CAD data is always immediately organized and that each user can instantaneously access and understand all data. As a result, the company can learn to successively make the most of that data and to optimize the associated processes at the same time. Heinrich summarized by saying, “Jet Aviation replaced a 2D drawing tool with a modern business solution. The savings are simply extraordinary.”

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Jet Aviation



Dassault Systèmes
10, rue Marcel Dassault
78140 Vélizy Villacoublay – France
+33 (0)1 61 62 61 62



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