DASSAULT AVIATION
AEROSPACE & DEFENSE CASE STUDY

Challenge:
Dassault Aviation's Falcon Spare Parts department needed to provide a consolidated view of all spare parts information worldwide.

Solution:
The division uses **3D**EXPERIENCE technology from Dassault Systèmes, including EXALEAD, to deliver uniform search and access to its heterogeneous data worldwide.

Benefits:
3DEXPERIENCE helps Dassault Aviation employees find spare parts faster and improve customer response time.

Global spare parts network

Managing a global network of more than 80,000 spare parts requires precise logistical coordination, especially when growing customer expectations is a key part of the equation. "Over the past fifteen years, customer requirements have evolved. They want information in real time and expect a quick response to their problems," said Jacques Chauvet, senior vice president customer service at Dassault Aviation. "Fifteen years ago, our track record was delivery of 65% of spare parts within the requested timeframe. Today, 98% of our parts are delivered on-time."

Timely delivery of spare parts is the raison d'être of Dassault Aviation Falcon Spares. "Keeping the 1,950 Falcon jets currently in service flying safely and reliably is an objective our 450 support and maintenance personnel do not take lightly," said Guillaume Landrivon, vice president worldwide Falcon Spares. "People flying in a Falcon jet can rely on our two main logistics centers in Le Bourget, France, and in Teterboro, NJ in the US, as well as our 11 regional distribution centers around the globe, to get them off the ground as soon as possible."

Dassault Aviation Falcon Spares performs over 200,000 shipments per year to over 75 countries. "We handle 300,000 part references in our various data centers, representing a total catalog value of US$730 million," Landrivon said. The Spares team attributes its success to better and more widespread use of information technology solutions.

Access to information in a heterogeneous environment

Personnel at Falcon Spares' sites use different solutions to manage spare part references and related information. This can include peripheral data such as maintenance schedules or information on when and where each plane has been serviced. "Our sites handle a huge amount of heterogeneous information stored in a variety of applications, info centers and local databases, and with more or less detail depending on the location of the service center," said Alain Bianchina, head of innovation. "Over the years, each site has come to rely on its different solutions to locate the appropriate spare parts but, as a company, we did not have an overall and global view of our data. Moreover, these different solutions use different technologies – mainframe-based or client-server – which contributed to the isolation of each of our sites. To gain in efficiency, we needed a consolidated view of all our spare parts from any of our locations."

Another concern was providing non-technical personnel with access to spare parts information. "Whereas technical and administrative employees had no problem finding information in the two ERP systems, managers may not have access to these specialized tools and need easy to use dashboards to make decisions quickly," Bianchina continued.

Information intelligence with 3DEXPERIENCE

Dassault Aviation Falcon Spares turned to the **3D**EXPERIENCE platform and chose EXALEAD to access the wealth of data stored in its multiple data management systems. EXALEAD can explore, gather and analyze structured or unstructured information stored in Dassault Aviation Falcon Spares' various data sources and provide a consolidated view of that information in a way that has meaning to the person performing the search.

"Even though the data is still stored in our different databases," Landrivon said, "we can now access it from anywhere with a single application. The advantage, for a manager or non-technical employee, is that they are not required to learn three or four applications to find the information they need; they have one unique and intuitive user interface and one consolidated view. Moreover, if we wanted to see all our data, we would have to search in every one of our applications separately. With EXALEAD, it does the search for us. In addition, its natural language processing capabilities provide users with a more fluid search experience. For all these reasons, the advantages are perceived at every level of the company," Landrivon said.

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> Vice President Worldwide Falcon Spares
> Dassault Aviation

Minimizing a plane's ground time is on every busy customer's wish list. "A plane that needs servicing is usually a rush job. We have stocks of spare parts all around the world yet our customers' time constraints force us to find the right part fast," Landrivon said. Access to spare parts information worldwide with EXALEAD enables the company to locate the appropriate part faster. "Our response times have improved, which means that our customers are getting better service," he said.

Users find the interface of Dassault Systèmes' application for information intelligence intuitive and easy to use. "If we were to compare EXALEAD with other Internet search tools, the learning curve is just as low. It is easy to use," Bianchina said. "In addition, there are other possibilities offered by EXALEAD in the way of facets that filter the results to refine the initial query and provide a more targeted search. This is an enhancement over traditional search capabilities. For example, we could use a faceted search to see, year after year and by plane, the number of times a part has been used. It can give us a new perspective on the way our spare parts are managed. We can see, for a particular part reference for example, on which plane it has been installed, the different customer orders worldwide, or repair orders currently underway in Teterboro and Le Bourget."

New perspectives

EXALEAD's ability to handle heterogeneous data gave Landrivon's team the idea to include a photo with each part reference. "The project we launched and which is currently underway involves scanning, weighing and measuring 80,000 part references and storing the images and associated information in a folder," Landrivon said. "EXALEAD automatically indexes and links, with no additional effort on our part, the photos with all the other information associated to each part reference, regardless of its location and format - pdf, jpg, email, and so forth. It makes our catalogues clearer and more attractive."

Expanding to military planes

The company's military aircraft division will also benefit from EXALEAD, in particular for diagnostics and troubleshooting. "We have a fantastic opportunity to exploit the massive amounts of data collected throughout the lifecycle of our fighters, like the Rafale," Bianchina said. "We plan on using EXALEAD to comb through huge volumes of data to help us find information that we do not necessarily know exists but that we suspect may help us make more accurate diagnostics, faster," he said.

Dasssault Aviation Falcon Customer Service

Dassault Aviation's military aircraft division will also benefit from EXALEAD

Focus on Dassault Aviation Group
Founded in 1936, Dassault Aviation is a major player in the global aviation industry.

Products: Business and military aircraft

Employees: 12,000

Headquarters: Saint Cloud, France

Revenue: Consolidated 2011 sales of €3.31 billion

For more information
www.dassault-aviation.com

"We can say it's like finding a needle in a haystack," Landrivon said. "On the Rafale, for example, when we perform diagnostics to determine the operations that need to be performed before approving an aircraft for flight, we need to search through the craft's entire history – maintenance reports, types of operations performed on its equipment and on the plane in general. EXALEAD will save us considerable time by navigating through all this information rapidly. We know the data exists. We just need to find it to be able to use it in our analyses. In essence, we will rely on EXALEAD to shorten the period that a plane stays on the ground," Bianchina said.

Landrivon also has sustainable development on his radar screen. He wants to capitalize on all the data related to a spare part's design and manufacture throughout its lifecycle. "We need traceability and EXALEAD will help us find all the information needed to make sure our parts respond to the principles of eco-design," he said. "It is important to our customers, so it is important to us."

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