

ATR

A project of total reengineering

Faced with an exponential growth in sales following revived interest for its turboprop aircraft, back in 2005 ATR launched the ASTRE project to reorganize the management of its spare parts. As well as a complete revision of its processes, of a reorganization of its research department and of its action plan towards its logistics partners and suppliers, the turboprop aircraft manufacturer also decided to replace its proprietary information system with SAP R3 and to pilot its stocks with the Servigistics solution.



Olivier Clair, Spares Forecasting & Inventory Control Manager chez ATR.

spare parts management and adapt to the market. Indeed, having suffered in the 1990s at the hands of private jets, propeller aircraft enjoyed a marked revival of interest in 2004. So much so, in fact, that ATR had to respond to the demand from its new clients and geographically extend its action range. Moreover, the global leader in the turboprop market saw its production quadruple in three years, going from a yearly average of 15 aircraft to 60. "Such a growth in demand has generated an upsurge in the need for spares, pushing us all along to improve the level of service of their distribution", explains Olivier Clair, Spares Forecasting & Inventory Control Manager at ATR. "The Astre project was launched in this context, to improve our ways of functioning and the quality of the service delivered to our clients. It is a veritable

long-term project, an enterprise project".

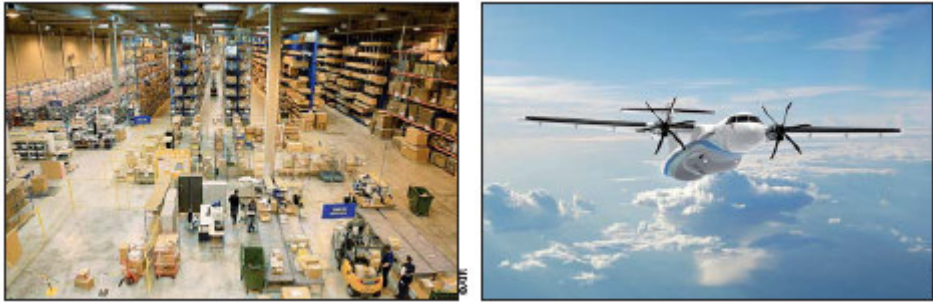
A large building site

Focused on spare parts, the Astre project is also concerned with other divisions, such as Finance and Research, namely through the transition from a proprietary ERP solution to SAP. Helped by consultancy firm Step Consulting, ATR started mapping all its processes and rethinking its organisation (e.g. of the Research department). Several actions were also undertaken, such as the restructuring of the logistics network: the central warehouse in Toulouse was relocated to a central hub in Paris; the Washington site was moved to Miami; the Singapore one stayed in place, with a new site opened in Oakland, New Zealand.

50% owned by EADS, ATR equally leveraged the synergy with this large industrial group to benefit from frame agreements with suppliers such as DHL, UPS... thereby improving performance. Sourcing action plans were put together with suppliers to ensure a collaborative working mode, namely when it came to sales forecasting. Finally, a large building site on stocks was opened, including the selection of an optimising software (APS for Advanced Planning System).

A 50 to 70-seater

turboprop aircraft manufacturer (ATR 42 et 72) de 50 à 70 places, ATR targets the regional client markets around the world (fleets of one or two up to several dozen planes). Its support division manages the maintenance of the whole of this park. The spare parts service depends upon it. In 2005, the assembler launched the project Astre (ATR Spares Total Reengineering) to revise its



The choice of Servigistics

As a result of establishing a Business Case within the context of the Astre project, a selection process commenced at the start of 2006. ATR sent out its RFQ to five specialized vendors: Clic Commerce (ex Xelus), Demand Solutions, MCA, Servigistics and Synchron. MCA and Servigistics made the shortlist, and it was ultimately the latter that was selected. ATR appreciated its extensive functional coverage (ability to develop forecasts, define optimal stocking levels on a global level, launch restocking actions and manage transfers). It was also seduced by its ergonomics and its ease of use. Calls into users in other companies finally backed up the decision made by the project team which consisted of Olivier Clair, of an IT team member and a buyer. "ATR has seized upon the strategic value of service, as well as the necessity of a solution dedicated to after-sales service to achieve its goals in this highly specialised field. Servigistics Parts Management allows them to improve the management of spare parts without delay, beginning with an integration with their old proprietary system and remaining focused on the connection to SAP, as soon as that part of the project will be complete", commented Kevin Tingey, VP and General Manager EMEA, Servigistics.

20,000 to 30,000 active references

With regards to the Servigistics implementation, the project team comprised of a system integrator to define the technical architecture and the interfaces with the integrated management system, and two stock and replacement management experts who assisted Oliver Clair. Kicked off in November 2006, this phase resulted in a "go live" in August 2007. "We took a month to simulate the parameter combinations and find the one that worked the best", specifies the Spares Forecasting & Inventory Control Manager. ATR manages 20,000 to 30,000 active spare parts references (i.e., references that have been used at least once in the previous two to three years), plus the others. "We sought to determine the spares that impact the most on stock performance", he continues. "To do so, we kept it simple and segmented parts into two categories: aircraft structure parts and accessories. As for complex statistical models for the Servigistics solution, we selected the Part Numbers for which stock was needed". The Servigistics software established 12-month forecasts for each type of part, by decreasing order, for all the spares (i.e. over 30,000 references). It established part chaining rules (links being defined between parts that could be substituted for one another). Eight stocking policies, based on the various distribution centres and product types, were devised.

Mastering the stock of parts sold

"The project has known some highs and lows, but everybody has reacted well", says Clair. "The ambitious timeframe goals that we initially set ourselves have not been maintained in so much that, during the course of the project, we decided to change the version we were installing to enjoy a better response to our needs through the standard version and limit specification requirements". The objective of improved requirement identification has been achieved. Equally, ATR now plans its needs starting from its target stock levels, based on the suggestions of the Servigistics system. Order placements for stock replenishment or stock transfer can be either automatic or manual. "At the start, we undertook several validations. But we rapidly reached cruising speed, whereby we only check the more expensive pieces", observes Clair, who continues:



“Following the implementation of Servigistics, we have improved shelf stocking levels by 15% without increasing stock levels exponentially in a way that you often do with the implementation of such tools. Our stock levels have not decreased, because our business is growing, but we have mastered them and limited them within the targets that we had set ourselves”. If the new tool has made its effect felt on the parts sold side, it’s not failed to do so on the service side, where stocks rose from 5 to 10% in a year. Today, the software is used by five people: “Minor resistance to change on the user side where swiftly removed by the range of possibilities the tools offers and its ease of use. And if I asked them to return to using paper, they would clearly refuse!”, states Olivier Clair, who estimates that the tools is very friendly and brings “excellent visibility into each references through a very clear and very useful graphical representation”.

Several functions remain to be explored

“We haven’t really finished exploring the possibilities of the Servigistics software, because we are cautious and we move forward step by step”, acknowledges Olivier Clair. “We will extend this way of working to the service activities”. He hopes to open a site before the end of 2008 to resize the stock pool of the service division. ATR underwrites Maintenance Agreement contracts in which it commits to make available to clients parts for standard exchange. It must therefore be able to set up a pool of these pieces on the basis of the number of aircraft to maintain, of time commitments on returns and repairs, on number of exchanges per month, etc. “We will continue to follow the developments of Servigistics, as they enjoy a solid R&D team making some interesting propositions”. Thus, during the last user conference organised by Servigistics, Oliver Clair was intrigued by the option offered by the software to deliver a batch of spare parts for the exploitation of a new aircraft delivered. For the time being, this function is managed through an in-house tool, but “that could

change and Servigistics consulted to manage it”. Similarly, ATR has equipped itself with a new network organisation with a central hub in Paris serving the other three sites. “Our strategy consists in stabilizing the level of stock in all our distribution centres in a first instance, and in the coming months, we will test the Optimizer function to decrease safety stock levels”, announces Olivier Clair. Other benefits of the tool: the ability to test new scenarios, for example of stock management policy, on a test server. “We can simulate the impact of our decisions on delivery performance and the future developments of impacts of our decisions on stock levels”, indicates the project head who has therefore not finished progressing in his use of this tool...

Cathy Polge