

# N.SCHLUMBERGER

CATIA V5 and ENOVIA SmarTeam at the core of the development process



## Overview

### Challenge

- Develop innovative and more efficient products
- Reduce costs by improving standardization
- Three-year timeframe to develop new range of machines

### Solutions

- CATIA V5 and ENOVIA SmarTeam
- Business practices implementation
- Full integration with ERP

### Benefits

- 30% gain in global development time
- Reduce prototypes from three to one
- Enhance maintenance quality

“On the whole, after 18 months of production, we had gained 30 to 40% in design time which is really important since all our machines are customized for each client.”

Laurent Simon, CAD/CAM Manager  
N. SCHLUMBERGER

## n. schlumberger

### A worldwide leader

The NSC Group designs and manufactures industrial machines and equipment for the textile and packaging industries. NSC machines are used in the production of a wide range of products: wool suits, carpets and draperies, wipes, car interiors, and food and pharmaceutical packaging.

### An ambitious challenge

As a world leader, NSC started, at the end of the 1990s, to see the market move to eastern European countries, Turkey and China. “We decided to put even an even greater accent on innovation to develop more efficient and less expensive machines, while fighting against the growing second-hand market,” states Jean-Louis Dumas, Vice-President of the NSC Group. “We had less than three years to present our new machines at the industrial trade-fair of our sector.” NSC decided to become more competitive by creating more efficient machines and by improving the lifecycle management of its products. “Anything that can help us build our products using standard modules and design them in terms of functional sub-assemblies is crucial, since each machine must adapt to each client’s

precise needs,” explains Laurent Simon, CAD/CAM Manager, NSC Group.

Migrating to 3D immediately generated a change in the designer’s approach. “With 2D, everyone saw the part or the system in their own way. In 3D, when we review projects, everyone sees the same thing, and thanks to ENOVIA SmarTeam, all the people involved in the project have access to the same information, whatever their job function: design, manufacturing, management, purchasing, logistics, etc”.

### A successful implementation

The project team started with a three-month pilot project to test CATIA V5 in context and in parallel with ENOVIA SmarTeam to implement the synergy between the two software applications. The team used the support of IBM, Dassault Systèmes and the commercial partner INCAT to determine the criteria for the new design platform and a strategy for development adapted to N. Schlumberger’s business. After creating new collaborative design and manufacturing methodologies, the solution was deployed throughout the Fiber-to-Yarn division, to meet the

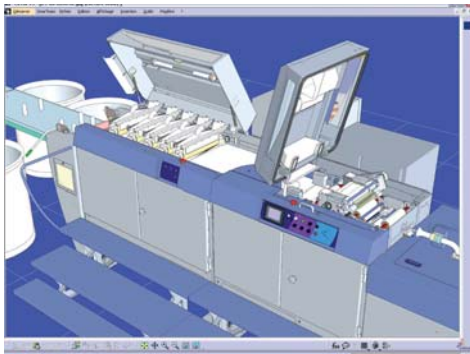
objective of a market launch of a new range of textile machines.

In addition, specific developments were performed by INCAT, which integrated the company expertise, its design rules, and interactive assistance enabling the designers to ensure the use of proper methodologies and the coherence of the classes of internal and external objects. The V5 PLM platform has become the framework of the lifecycle of the NSC machines.

### The achieved benefits

“On the whole, after 18 months of production, we gained 30 to 40% in design time which is really important since all our machines are customized for each client. But the core of the machine, the standardized part, represents 70 or 80% of the design. It is this core we had to recreate within two or three years,” states Simon. “Most of all, we have been able to study, using our standard sub-assemblies, all the possible machine configurations, with regard to the production capabilities requested in the specifications (dimensions, input and output volumes).”

The PLM project which, at the beginning, involved the R&D



Department was extended to the entire company with the integration of SAP in the product lifecycle chain piloted by ENOVIA SmarTeam and CATIA V5. All the departments, sales & marketing, purchasing, production, assembly, logistics, and maintenance have access through 50 ENOVIA SmarTeam client workstations to the data necessary to market the machines. “We created from scratch with CATIA V5, and integrated into ENOVIA SmarTeam, a full range of four machines representing over 250 major options. We set up a totally integrated CATIA V5 – ENOVIA SmarTeam – SAP platform which enables us to answer any type of request with delivery times that we could never have considered in the past.”

In concrete terms, implementing CATIA V5 and ENOVIA SmarTeam at NSC has added value and generated rapid return on investment. In particular, it has reduced the prototyping stage by eliminating three physical prototypes for each new project, to having only one today, which can be directly manufactured thanks to the digital mock-up. The new V5 PLM platform will also allow the testing of various 3D solutions, while including new components and mechanisms. In addition, the quality of the aftersales service will be greatly improved by facilitating, from the design stage, machine access for maintenance phases. Overall, V5 PLM has enabled N.Schlumberger to improve by 30% the development time for its new machines.

“In hindsight, with CATIA V5 and ENOVIA SmarTeam, we have much more than a design tool. We have a

production system, unique and totally integrated, that focuses the entire company on the development and the marketing of a product. I must admit that this result is beyond all the expectations we could have had five years ago,” concludes Jean-Louis Dumas.



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