Renault drives the customer experience with Version 6

Olivier Colmard, vice president, Information Systems for Engineering & Quality, Renault

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Olivier Colmard says through Renault’s Quick Win deployment approach the company has been able to implement 3D collaboration with 3DLive among its sites. The immediate and future benefits are clear, he explains.

“First, we can measure savings in travel time. We no longer have to send our Romanian and Korean designers to France and vice versa. This saves the time, cost and the environmental impacts of travel,” Colmard says. “And we also have the ability to understand each other better and interact more easily with colleagues in foreign languages through the common language of 3D drawings or scans. I think there are real benefits to working around a screen together, even if it’s remotely with 3DLive.”

Renault also sought a solution that would allow it to easily access and manage all of the company’s data – from product design and process to simulation, testing and resources information – while ensuring its traceability.

“We wanted a single PDM that could be deployed worldwide to cover all of Renault’s needs for data management across product, process, simulation and performance,” says Olivier Colmard, vice president, Information Systems for Engineering & Quality, at Renault. “This new tool, in addition to being modern and efficient, must facilitate collaborative design between our corporate technocentre and Renault’s other technocentres around the world. In addition, we sought a solution that would support openness to outside collaborators, suppliers, our Alliance partner Nissan and other partners such as AvtoVaz and Daimler as part of Renault’s extended enterprise.”

“Renault chose Dassault Systemes’ Version 6 PLM platform as the cornerstone of its global automotive engineering processes to support an internal program called NewPDM,” says Colmard. “Version 6 met these requirements, while offering a strong dose of ergonomics over older systems. It was important for us to simplify 3D navigation through a vehicle or engine that allowed access to all of our engineering documents or deliverables.”

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In the two years since its selection of Version 6, Renault has worked closely with Dassault Systèmes to enhance and implement Version 6 in a variety of pilot and production projects that are beginning to prove its integral value to Renault’s future and help keep it a step ahead of its competitors.

With PDM Test, Renault will be managing all the results of its physical or bench testing centers. And Colmard says PDM Calculation allows the company to store and manage both the input data for simulations and calculations, including aerodynamic and other tests required by regulators, and the results of each of these calculations for the different versions and configurations of the digital models its engineers use. Eventually, he says, these solutions will be deployed throughout the company.

Being able to display the complete digital mock-up of a car or engine in real time is another key advantage, Chatenet says. “This was a dream when I started with PLM 20 years ago, but we saw three years ago that with Version 6 it was quite possible,” he says. “You can view parts, explode sections, get drawings – all in real time.”

Chatenet says because Version 6 enables even those not skilled in the use of CATIA to access and view digital mock-ups, an advantage Renault calls democratization, DMUs can be used to navigate, review and retrieve information. “You can quickly assess the level of maturity of a design and even casual users can see where there are problems or where validation is still required,” he says.

Ronald also sought a single, integrated platform for all of its PDM/PLM tools. “In the past, we had CATIA V5 with a variety of PDM/PLM solutions,” Chatenet says. “We saw with functional design, for instance, it was difficult to use CAD from one vendor and PLM from another. Because we had CATIA and did not want to change, Version 6 with CATIA V6 completely integrated was an obvious choice. It guarantees relationships between objects are managed and we know we’ll be able to better manage functional design.”

Once Version 6 is fully implemented and all engineering information is inside the same system, Chatenet says, Renault will be able to manage the associativity or digital continuity among different domains or clusters of information that today are split between different systems. “For example, today inside DMU, we manage parts, but not welding points and process information like body-in-white assembly graphs are in another system,” he explains. “With Version 6, it will be managed in the same system with relationships between process information, function and part instance through strong relationships between BOM and DMU.”

“As you know, the car has become a complex system,” Colmard explains. “With more electronics, computers and onboard telematics, we need a tool to manage all this complexity and systems engineering using NewPDM allows us to do that. Also we can manage and test physical simulation data and results to optimize our systems and processes. And the level of digital continuity Version 6 provides will allow us to leverage engineering data in marketing and even after-sales activities such as repair and diagnostics. There is a digital continuity from start to finish, from design to the customer.”

Since September 2011, Renault engineers use CATIA V6 and ENOVIA V6 for PDM on a new engine project. Chatenet says all of the parts for the motor will be designed and managed using Version 6. And plans are underway for a new vehicle project to begin using Version 6 at the beginning of 2012.

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NewPDM program will enable us to better manage different configurations and optimize the maximum weight, aerodynamics, etc. while effectively reducing our time to market and meeting our customers’ expectations.

PARTNERING WITH DS

Renault is proud of its partnership with DS to develop next generation solutions that meet the unique needs of the automotive industry. The company praises DS P&D as a strong force for innovation and believes its PDM solutions are a tipping point for the industry.

“Together, we are not doing another optimization of an existing generation of PDM, but a new generation of PLM 2.0 based on the processes and needs we have at Renault,” Colmard says. He believes Renault’s partnership with DS to develop new solutions gives his company a leg up on its competitors on implementation of Version 6.

For more information: www.renault.com www.3ds.com/automotive