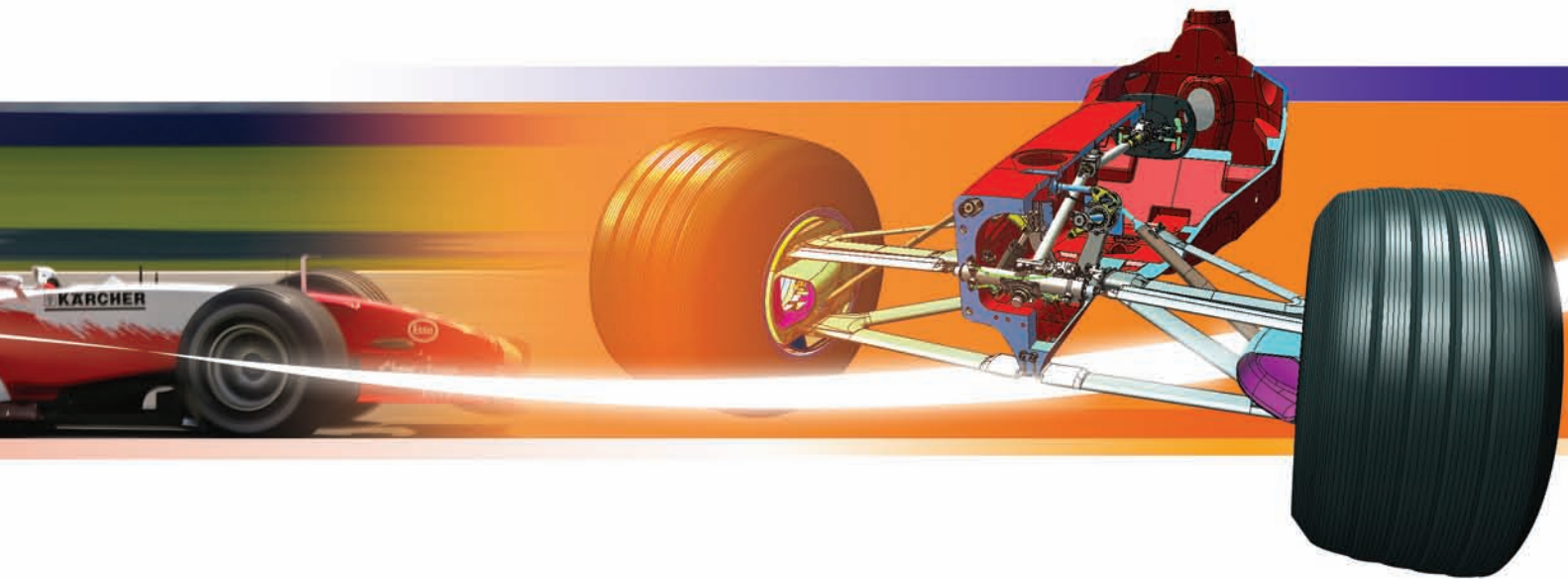


TOYOTA MOTORSPORT

Doubling design productivity with V5 PLM





Solution

In order to face its business challenges, Toyota Motorsport GmbH chose Dassault Systèmes (DS) Version 5 Product Lifecycle Management (V5 PLM) solutions. “We needed a long term PLM solution that covers our entire development process, as well as a partner capable of understanding our job,” said Thomas Schiller, General Manager, IT department, Toyota Motorsport GmbH.

CATIA V5 to optimize car performance

The Design Department uses CATIA V5 to speed up the process of ‘getting the right part on the track’. CATIA V5’s mechanical and surfacic design tools are used in a hybrid modelling way in conjunction with CATIA V5 analysis and simulation products.

In addition, engineers appreciate CATIA V5’s ease of use. “Designers say that they have fun working with CATIA V5!” said Markus Schwarze, Manager, Technical Applications, Toyota Motorsport GmbH.

ENOVIA to streamline collaboration

To support its continuously-evolving F1 car design, the design office needs to manage all development data and make it instantaneously accessible to the entire team. ENOVIA is the virtual product development environment where all designers, production, and track teams can share the more than 8,500 up-to-date car parts.

Moreover, ENOVIA links the virtual and real worlds. “Thanks to the openness of ENOVIA, we have an ERP interface. We automatically transfer all our master data and bills of material from ENOVIA to SAP,” said Markus Schwarze.

Generative Car Solution to accelerate F1 car development

To concentrate on the car improvements and shorten the design modification process, Toyota Motorsport GmbH implemented DS Generative Car Solution with the support of Dassault Systèmes Services (DSS), the services organization of DS.

Open V5 PLM ecosystem to fully cover virtual processes

Specialized applications from DS’ CAAV5 Software partners are used for specific design, manufacturing and simulation needs such as ABAQUS for CATIA V5 for nonlinear simulation, and LMS Virtual.lab Motion for dynamic motion simulation.



“In F1 racing, you have just two weeks to cover the complete development cycle in between races. Therefore, you need a comprehensive set of tools that constitute an end-to-end collaborative car development solution. That’s V5 PLM.”

Thomas Schiller, General Manager,
IT department, Toyota Motorsport GmbH





Future

In order to support its Kaizen philosophy, Toyota Motorsport GmbH will continue to enhance its use of V5 PLM solutions.

In particular, Toyota Motorsport GmbH is considering adopting the CATIA V5 Composites solution. "By using CATIA V5 composites tools, we expect to reduce by 20% overall design-to-production process time," said Thomas Schiller.



"We view all partnerships, and in particular the one we have with Dassault Systèmes, as a win-win opportunity. Dassault Systèmes offers us car development solutions that give us the cutting-edge performance that is required in Formula 1. At the same time, we like to think we're pushing their technology to new limits because of the ultimate challenge of material and performance that Formula 1 demands."

John Howett, President, Toyota Motorsport GmbH

V5 PLM FOR THE AUTOMOTIVE INDUSTRY

DS has been working with major automotive manufacturers and suppliers for more than 20 years to provide a range of leading PLM solutions.

Built from industry experience and addressing all key automotive development domains, Generative Car Solutions combine the best of Dassault Systèmes' CATIA V5, DELMIA, ENOVIA and SMARTTEAM products with dedicated automotive best practices.

Fostering the capture, sharing and reuse of company knowledge while optimizing the end-to-end process from concept to maintenance,

DS Generative Car Solutions help automotive manufacturers and suppliers to considerably reduce design cycle time and increase productivity, profitability, and rapid return on investment.

For information about DS Generative Car Solutions, visit www.3ds.com

The Dassault Systèmes home page can be found at www.3ds.com

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As world leader in 3D and PLM (Product Lifecycle Management) solutions, the Dassault Systèmes group brings value to more than 80,000 customers in 80 countries.

A pioneer in the 3D software market since 1981, Dassault Systèmes develops and markets PLM application software and services that support industrial processes and provide a 3D vision of the entire life cycle of products from conception to retirement.

Dassault Systèmes V5 PLM offering includes integrated solutions : CATIA, DELMIA, ENOVIA and SMARTEAM. CATIA® is a registered trademark of Dassault Systèmes.

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