



END-TO-END PLM SYSTEM FOR AUTOMOTIVE DESIGN

TechniSat is introducing CATIA and ENOVIA for mechanical design tasks in the automotive sector – the company expects quicker implementation of new product developments and enhanced process security.

TechniSat is an innovative enterprise that develops and manufactures high-tech products in Germany, successfully competing with Asian providers to serve a steadily growing market. Among TechniSat's products are innovative infotainment systems for mobile navigation and communication in automobiles.

END-TO-END PROCESSES USING CATIA AND ENOVIA

The Development Center in Düsseldorf, where more than 300 TechniSat employees work, decided to introduce Dassault Systèmes PLM systems for the automotive segment, and to rely on CENIT as an implementation partner. Here, PLM means starting with the very first step of mechanical design under Catia V5, and continuing on to electronic development. It also means organizing and managing all the data on the way – including data exchanges with OEMs via the PLM solution ENOVIA.

As a systems provider for OEMs from the automotive industry, it's vital that TechniSat is able to implement the latest

product developments quickly and directly, without having to turn to external service providers.

TWO-STEP IMPLEMENTATION WITHIN 6 MONTHS

Having an experienced partner like CENIT at your side is an advantage when introducing a PLM solution. "With their sector know-how, the CENIT experts were able to customize and optimize the system to suit our process requirements precisely", says Jürgen Beuthner, CEO of TechniSat. The CATIA applications environment was introduced along with CATIA V5 PLM Express, as well as the CENIT software CATMEN, whose job is to ensure and maintain accordance with OEM requirements. Thanks to integration with ENOVIA, the data can always be adapted to the requirements of the respective OEM, meaning that the right project environment is available at all times.

A decisive factor in successfully introducing a PLM system is having a well-defined concept. A joint analysis of the processes can avoid misinterpretations, and a functional specifications document must clearly and comprehensively document tasks regarding customizations and priorities. In this way, "hidden" cost-cutting potentials can be identified even before systems introduction begins.

The PLM solution was implemented quickly via a two-step process. CATIA was introduced as the underlying CAD solution, and then complemented by ENOVIA. That ensured that all productive data was available within the database from the very beginning. It also made it possible to easily include users who don't have an own CAD license – the integrated viewing functions allow them to quickly gain an overview of the current project status. After 6 months, data exchange links to the most important OEMs were up and running and the introduction process was complete.

FAMILIAR ENVIRONMENT FACILITATES SWITCH TO NEW SYSTEM

The main "customer" of the new solution is TechniSat's mechanical design department. Developers, designers and project managers benefit equally from the PLM solution. Additionally, the CATIA-integrated Circuit Board Design function enables the transfer of circuit board data to Mentor Graphics. As a first step, 6 to 8 staff members are being trained in the new way of doing things. Further staff will be included over the next one to two years via step-by-step training of further designers and other staff in how to work with the new solution.

PLM under CATIA and ENOVIA isn't just a switch to a different type of software. Experience and thorough expertise in 3D modeling have made the change an easy one for TechniSat's staffers. The new possibilities inherent in an integrated PLM solution also provide a means for optimizing the way the staff works. In practice, this may mean that previously cherished tools may have to be abandoned so that processes can be documented more clearly and accelerated when making changes later on. CENIT as a partner contributed the experience needed to establish a meaningful link between CAD methodology and data organization within the PLM system.

"The switch to the new CAD system was easy for the users because they were already very much at home in the 3D world", explains Norman Birnstein, key user in TechniSat's auto design segment. "Working with ENOVIA does require a change of thinking, but we realized and accepted the benefits quickly. Several users can work on the same project without overwriting each other's data. And sticking to the requirements of the change service and the release management is easy and comprehensible, almost a natural process."

FURTHER EXPANSION PLANNED

Already TechniSat has seen that the costs and the considerable efforts that once had to be spent on integrating external providers of design services are a thing of the past. That frees up elbow room for creative work by TechniSat's own staff and boost acceptance levels on the part of the company's clients. And that's what collaborative engineering is all about.



A PLM solution is always dynamic, and it grows step by step as new requirements arise. TechniSat's managers have recognized the benefits and are now planning ways to further expand the PLM project.

TechniSat has shown great interest in the Dassault Systèmes vision of using 3D technology to integrate fields such as mechanical and electronic design as well as software development and customers into a single solution. This interest was piqued by the insights that Dassault Systèmes and CENIT provided into the general solution portfolio and the special solutions for tolerance management, simulation and systems engineering. TechniSat will keep focusing on these topics in the years to pursue the goal of strengthening the company's market position and developing innovative and intuitive products while maintaining maximum quality standards.

TechniSat
AUTOMOTIVE

ABOUT TECHNISAT

TechniSat Group develops and manufactures entertainment electronics at facilities in Germany and other locations within the European Union. Highest technical quality and modern design can be found in the company's digital receivers, other satellite products, TV devices and PC cards. Time and again, tests conducted by Stiftung Warentest (Product Testing Foundation) have confirmed this aspiration.

For more than 13 years, TechniSat Automotive has been developing and manufacturing high-end products for the car infotainment sector, particularly car radios and radio navigation systems. The ISO/TS 16949-certified business segment serves customers such as Volkswagen, Audi, Škoda, Seat and other reputable car makers.