

Automotive and transportation

Tofaş

Technological innovations support continuous improvement

Product

NX, Teamcenter

Business challenges

Integrated product development across locations

Secure and up-to-date product data

Knowledge re-use

Keys to success

Product collaboration via web, including from non-CAD users

Instantaneous synchronization across geographic sites

Unified database with single point of access

Ability to transfer and easily edit legacy data

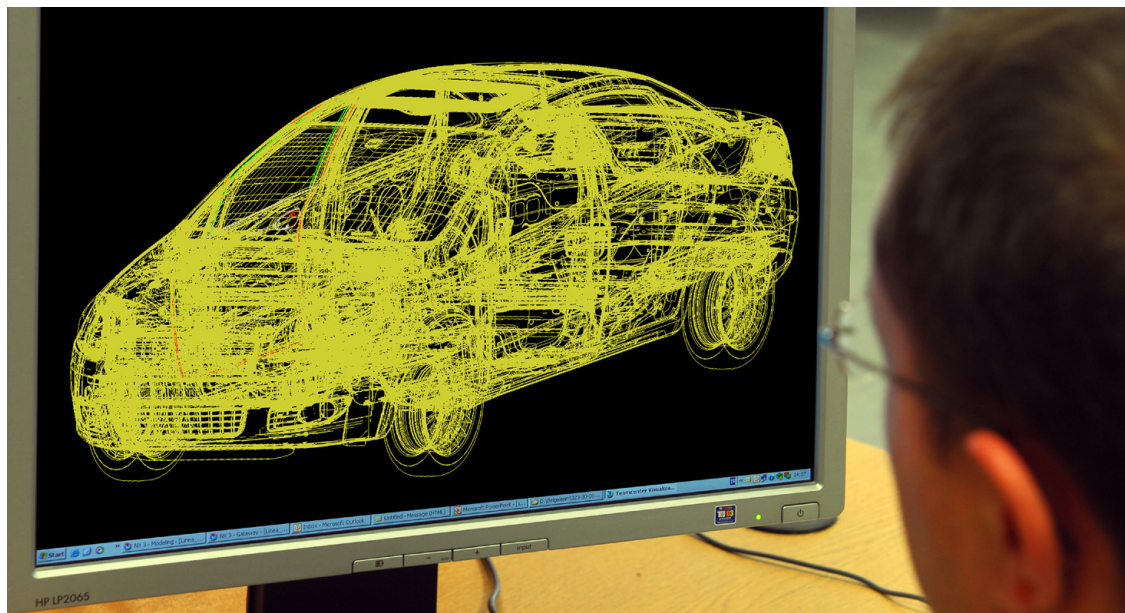
More efficient modeling tools

Results

Easier management of complex structures

Substantially more productive R&D staff

More projects completed in shorter time frames



Global automotive manufacturer manages its processes productively with NX and Teamcenter

Specializing in vehicle manufacturing for Fiat

Founded in 1968, the Turkish automotive company Tofaş is among three worldwide strategic manufacturing and research and development (R&D) centers of Fiat. With 6,500 employees, Tofaş has a manufacturing capacity of 400,000 automobiles and light commercial vehicles annually. The company produces vehicles for Fiat, Peugeot, Citroen, Opel, and Vauxhall at its world-class Bursa manufacturing sites,

which have achieved a "Gold" level among 175 Fiat Chrysler and 350 supplier plants. The company has invested more than 35 million euros in R&D, and continues to invest at rates that exceed the national average.

Since 2005, the company has been using Teamcenter® software for complete product lifecycle management (PLM) and NX™ software for computer-aided design (CAD). The company credits the successful implementation and transparent operation of these solutions to the proactive approach and strong technical services of Siemens PLM Software partner Boğaziçi Yazılım.

Results (continued)

Reduced equipment and operational costs

Increased productivity and quality across product and process, including significantly better change management best practices

“Experts in our other business units may need product data from time-to-time, even though are not directly involved in the design process. They can use the infrastructure that we call ‘virtual work-station’ to safely access Teamcenter from any location. Since all of these functions do not require powerful hardware, we realize significant cost savings.”

Emre Ülgen
Specialist
User Systems and Services
Management
Tofaş

Enabling collaboration with Teamcenter

Tofaş operates globally, collaborating with design centers at multiple locations worldwide, including the United States, Italy and Brazil. Siemens PLM Software’s solutions help Tofaş collaborate with designers at different locations, keeping product data secure and up-to-date. “Since we started using Teamcenter, we have been able to monitor the design work performed at multiple locations from a single source, and to make necessary changes via a single solution,” says Volkan Algün, who is responsible for management of engineering documents at Tofaş. “We have been able to productively share data with engineers all over the world as if we were in the same office.

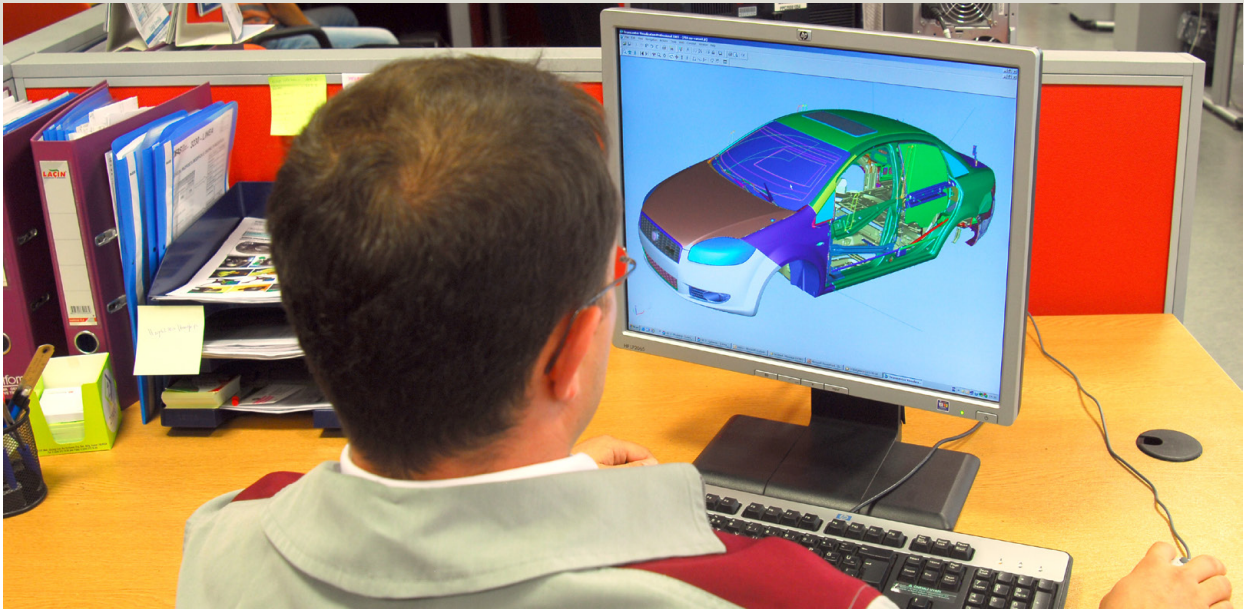
“Our engineering and R&D units can now share work, thanks to Teamcenter and NX CAD,” Algün adds. “We can design car parts in groups, utilizing a common structure. We can immediately detect any changes in the structure, and synchronize with Fiat Chrysler Automobiles’ networks and servers daily or weekly.”

Tofaş attributes much of its collaborative success to Teamcenter, which eliminates the communication gap between networks and servers, and enables concurrent design at different locations using a single, unified database. Security is of particularly vital importance in data sharing at Tofaş. Here, Teamcenter provides especially strong protection via restricted networks. Algün notes that the ability of Teamcenter to provide secure data distribution was a great advantage for the company during its ISO 27001 information security audits.

The company also appreciates a user interface that serves a wide range of user roles and profiles. For example, when attempting to view data without being connected to a specific workstation, users may instantly access information from any computer. A user-friendly web interface makes it possible to readily navigate the product structure and to open, view and explore it with the visualization/mockup capabilities. Tofaş management notes that greater access to information via Teamcenter enables significantly more users to substantially improve their utilization of data.

“Since we started using Teamcenter, we have been able to monitor the design work performed at more than one location via a single structure, and to make necessary changes via a single point.”

Volkan Algün
Manager of Engineering Documents
Tofaş



Emre Ülgen, a user system and service management specialist at Tofaş, notes, “Experts in our other business units may need product data from time-to-time, even though are not directly involved in the design process. They can use the infrastructure that we call ‘virtual workstation’ to safely access Teamcenter from any location. Since all of these functions do not require powerful hardware, we realize significant cost savings.”

Improved modeling with NX CAD

In the past, the company had experienced serious problems in assembly design, especially relative to its application of 3D. Thanks to NX CAD, Tofaş engineers are now significantly more productive, handling many more designs within the same time frame. NX enables the engineers to focus on single parts during tooling and mold design. When an engineering change is needed, an engineer can return to the main part within seconds using the

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Volkan Algün
Manager of Engineering Documents
Tofaş

Solutions/Services

NX

www.siemens.com/nx

Teamcenter

www.siemens.com/teamcenter

Customer's primary business

Tofaş is one of the three world-wide strategic manufacturing centers of Fiat Auto, producing both passenger cars and light commercial vehicles for Fiat, Peugeot, Citroen, Opel and Vauxhall.

www.tofas.com.tr

Customer location

Bursa

Turkey

Partner

Boğaziçi Yazılım

www.bogaziciyazilim.com

assembly structure capabilities of NX, make the necessary amendment and update the entire structure automatically.

NX modeling capabilities are especially useful to Tofaş as they allow the company to work to its customer's processes, methods and standards. "NX CAD makes a great contribution with its high-performance modeling. It gives us the freedom and flexibility to easily rotate and convert model features," notes Algün.

Utilizing legacy data is another advantage resulting from the use of NX, one that is especially important to Tofaş. "Using NX, we can fully exploit our design and manufacturing legacy data," says Algün. "We realized that, with NX, we can quickly make changes to old data. To effectively manage the repurposing of huge models, we did the work in-house, sometimes redesigning and sometimes converting data, depending on the situation. We

worked in harmony, synchronizing with each other through the product structure. Thanks to macros developed with NX, we are saving substantial time as well as increasing model quality."

"Being able to work on a fully integrated platform with Fiat throughout the process is not only convenient, it provides us with exceptional flexibility," says İlknur Arca, who manages User Systems and Services at Tofaş. "This integrated approach is possible because of our engagement of Siemens PLM Software technology. NX provides tools that accelerate modeling. Teamcenter fosters collaboration."

Arca concludes, "Siemens PLM Software technology meets the needs of our many different users, resulting in markedly increased productivity, quality and cost savings in terms of both product and operations."

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İlknur Arca

Manager

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