

## Automotive and transportation

# Daelim Motors

Daelim Motors strengthens product competitiveness with Siemens PLM Software solutions

### Products

Teamcenter, NX

### Business challenges

Ineffective management of design data, Bill of Materials and quality information

Slow response of existing product data management system

Improve design process and reduce repeated work

### Keys to success

Professional consulting services from Siemens PLM Software and partner CITEK System

Replace inferior PDM system with Teamcenter

Improve information infrastructure with product lifecycle management

### Results

Systematic management and sharing of 3D design and BOM data

15 to 50 times faster system response for typical product data management tasks

### Leading South Korean manufacturer reduces development time and cost with Teamcenter and NX

#### A leading supplier of automobile and motorcycle components

Daelim Motors specializes in automotive parts for motorcycles and cars, and has led South Korea's domestic market with steady growth since its establishment in 1978. Through aggressive investments in technology and efforts to expand into the global market, the company has solidified its competitiveness and gained trust from customers in a variety of countries.

The company's motorcycle division leads the Korean motorcycle industry with competitive products and has steadily expanded its presence in the global market. The automobile parts division holds a competitive advantage in die-cast components, and is equipped with an advanced new product development capability, a certified quality assurance system and stable supply capacity. Daelim consolidated its research and development (R&D) capabilities to expand beyond motorcycle production, becoming a global automotive part supplier. The company's continuous investment in facilities has enlarged its presence in both the domestic and foreign automobile industries.

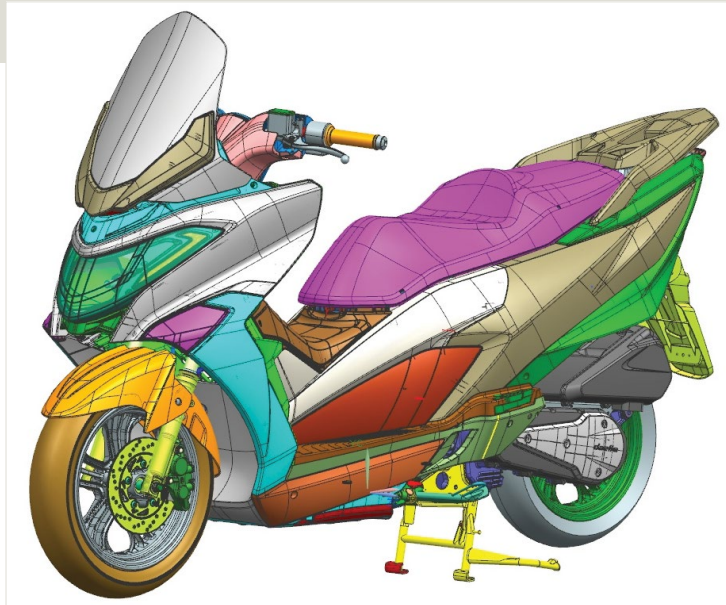


### Results *continued*

Enhanced design quality by simplifying BOM management

Improved competitiveness through accelerated product development

Improved quality and compliance with OEM quality assurance standards



### Upgrading design processes and systems

In the automotive industry, technologies are converging among products while customer needs are more various and complex. Automobile manufacturers are faced with many challenges – they must understand changing consumer behavior and fulfill regulatory and customer requirements in a variety of fields, including environmental issues, durability, safety, quality and drivability.

Daelim Motors sought a way to develop high-quality products that are differentiated from competing products, and to shorten product development times. To improve design and realize innovation, the company needed a product development solution that better supported collaboration.

For integrated design, Daelim Motors was searching for a solution to reduce repeated work and improve data management for its separate 2D and 3D computer-aided design (CAD) processes. In 2002, Daelim adopted 3D CAD, implementing NX™ software from product lifecycle management (PLM) specialist Siemens PLM Software to replace its 2D design solution.

The company selected NX for its strengths in surface modeling and its user-friendly interface, which Daelim considered to be ideally suited for motorcycle design. In a year-long project, the company transformed its 2D-based design process to 3D using NX, testing the solution on a previous project that had been designed in 2D, then using NX in its first 3D motorcycle design project.

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# “The Teamcenter PLM solution upgraded the effectiveness of our design and manufacturing, and...raised our product competitiveness in the domestic and foreign markets simultaneously.”

Jin-Gun Park,  
Deputy Head  
Project Management Team  
Daelim Motors Co. Ltd.

The NX installation at Daelim has grown and includes key capabilities from 3D layout to drawing production, as well as computer-aided engineering (CAE) capabilities used to validate designs and computer-aided manufacturing (CAM) tools. NX is the key solution for sharing data in a multi-CAD environment, and as the company's business expanded to 4-wheel motor vehicles, NX is also used to develop automobile parts.

The company had previously established a product data management (PDM) system to manage design information, but encountered problems with the aging system, including slow transaction speeds for searching product information and creating new entries. The sluggish response degraded the efficiency of many tasks such as searching for part revisions, downloading part lists, and searching and copying Bills of Materials (BOMs). The company also wanted to establish an effective quality information management system to fulfill the quality requirements of its automotive industry partners.

## **Improving collaboration with PLM**

To improve the speed and performance of the PDM system, Daelim Motors teamed with experts from product lifecycle man-

agement (PLM) specialist Siemens PLM Software and CITEK System, a channel sales partner of Siemens PLM Software in Korea, to establish a PLM system using Teamcenter® software.

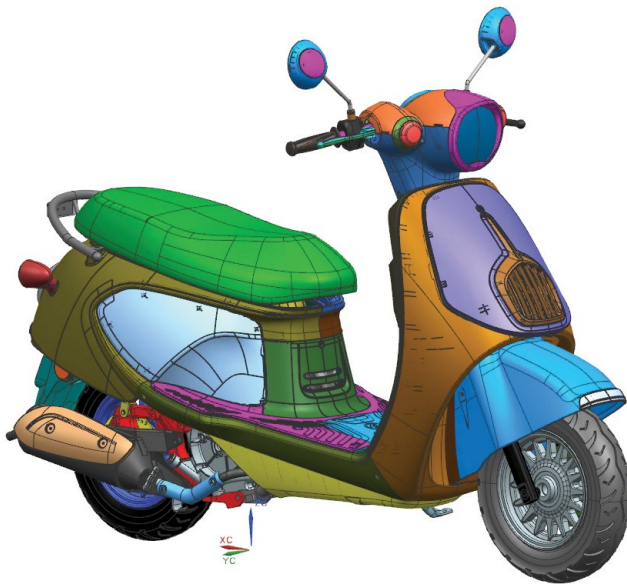
The team provided professional consulting services to verify Daelim Motors' process layout, redesign plans and general design workflows. In particular, the team focused on the use and sharing of 3D design data using the Teamcenter system. With an environment that enabled viewing, distribution and management of design data and BOMs, Daelim Motors aimed to improve the quality of designs and collaborate more efficiently.

The team also created and supported a system that handles project scheduling and manages quality assurance testing and standards, which are required by Daelim Motors' automotive partners. With the help of the team, the company successfully established the PLM-based system within a short period, and laid the foundation for process innovation.

## **Transforming and optimizing processes**

With the adoption of Teamcenter, Daelim Motors has transformed and optimized its product development environment and

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After adopting Teamcenter, Daelim Motors could take advantage of the most current computer operating systems to realize significant improvements in performance, including 15 to 50 times faster response for typical tasks.

processes. Based on the improved system, which addresses the entire process from design through manufacturing, the company has brought its competitiveness to a higher level.

The Teamcenter system has enabled the company to share and use multiple types of CAD data and has improved productivity and efficiency. Daelim Motors now systematically manages 3D models and drawings and has upgraded the entire development process, from design to specification management to distribution. Thanks to these enhancements, employees can work in an efficient collaborative environment. In addition, the company has expanded its design capacity and improved product quality.

After adopting Teamcenter, Daelim Motors could take advantage of the most current computer operating systems to realize significant improvements in performance, including 15 to 50 times faster response for typical tasks. For example, the inquiry time for revised parts was reduced from 150 seconds to 10 seconds, and BOM copy time decreased from 7,200 seconds to 120 seconds. The upgraded processes helped the company detect and resolve problems in the early stages of development, reduce time-to-market, and minimize costs by reducing rework and design errors.

Daelim Motors also created a solution for managing quality information based on the PLM system. With this solution, the company can easily track quality history and efficiently manage data to fulfill its customers' requirements for systematic quality management.

By upgrading the information infrastructure with Teamcenter, Daelim Motors is now seeking to introduce products more rapidly and with higher quality, and will focus on development of new products targeting global markets.

"The Teamcenter PLM solution upgraded the effectiveness of our design and manufacturing, and its management of product development information and quality records raised our product competitiveness in the domestic and foreign markets simultaneously," says Jin-Gun Park, deputy head of the project management team at Daelim Motors. "We were able to establish a firm foundation to introduce high-quality products quicker than anyone in fierce global market competition."



### Solutions/Services

Teamcenter  
[www.siemens.com/Teamcenter](http://www.siemens.com/Teamcenter)  
NX  
[www.siemens.com/nx](http://www.siemens.com/nx)

### Customer's primary business

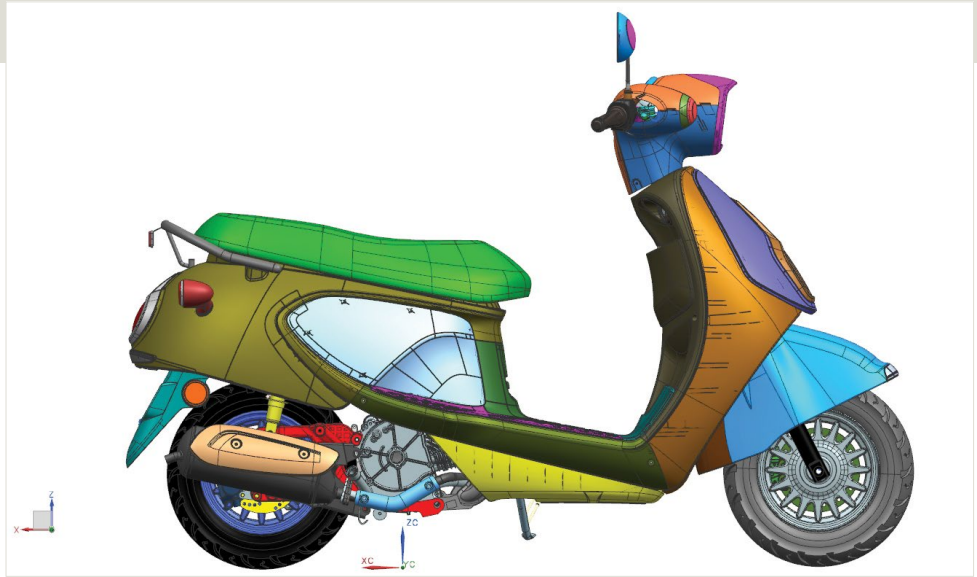
Daelim Motors Co., Ltd. leads the Korean motorcycle industry and is a major player in the high value-added automobile parts industry.  
[www.dmc.co.kr](http://www.dmc.co.kr)

### Customer location

Gyungnam  
South Korea

### Partner

Citek System  
[www.citek.co.kr/](http://www.citek.co.kr/)



The Teamcenter system has enabled the company to share and use multiple types of CAD data and has improved productivity and efficiency.

### Siemens PLM Software

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[www.siemens.com/plm](http://www.siemens.com/plm)

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