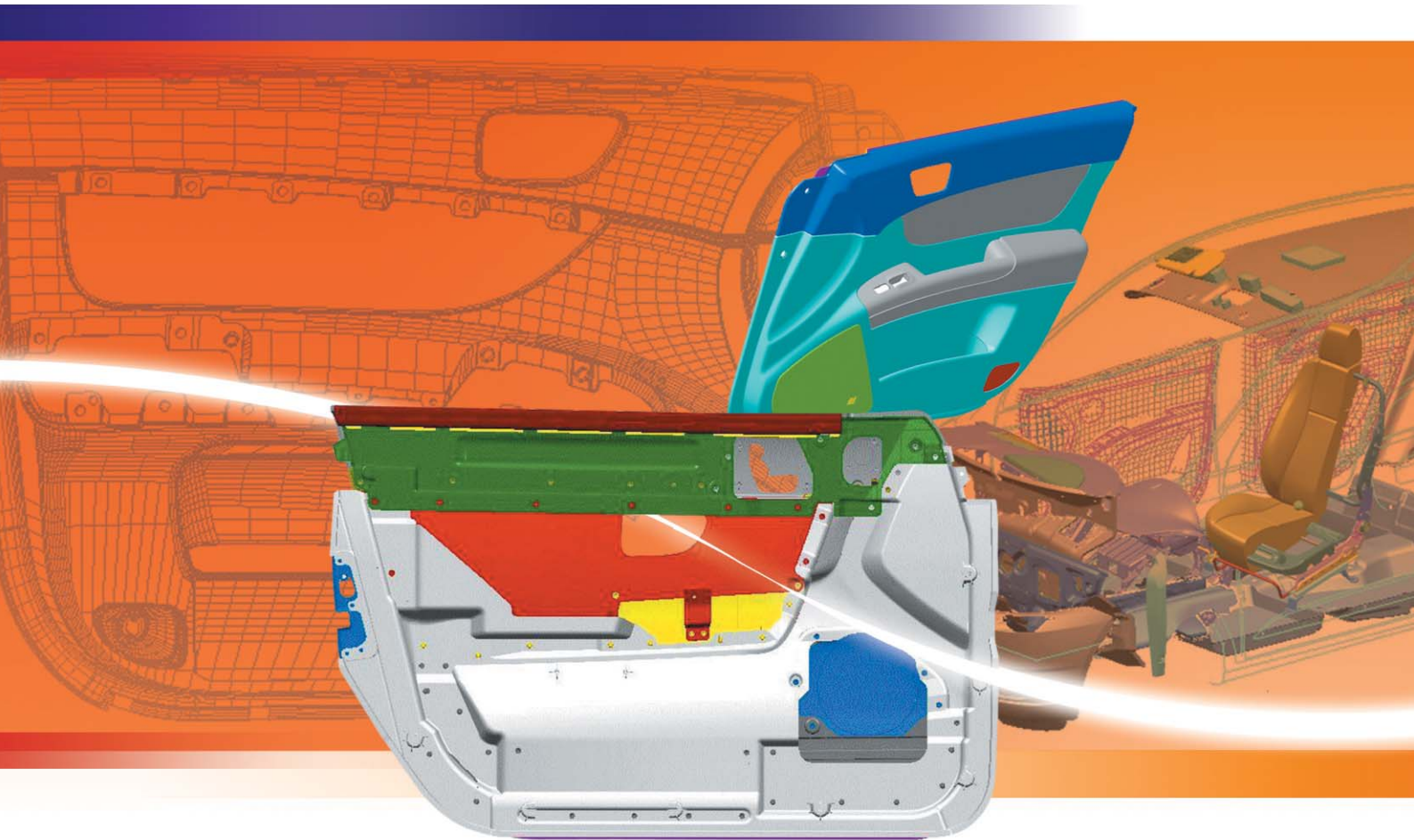


Hanil E-Hwa

Innovating auto interior parts with V5 PLM





Hanil E-Hwa Objectives

- **Increase speed of product shipping and reduce cost**
- **Effectively manage data from production to shipping**
- **Improve collaboration with clients and partners**
- **Streamline interactions with remotely located affiliates**



"Our design information was growing so quickly that we were beginning to lose control. We had created an island of data without even realizing it."

Jong-Hyeon Nam, Researcher 2nd Design Team, Hanil E-Hwa

Company Overview Automotive Total Interiors HANIL E-HWA CO.,LTD

Since 1972, Hanil E-Hwa has been a leading manufacturer of auto door trim, accessories and seats in Korea. In 1988, Hanil E-Hwa opened a research institute to ensure its competitive advantage and leverage the technical expertise reflected by its ISO 9001 and QS 9000 certifications.

Hanil E-Hwa has five domestic affiliates and factories in China, India, and Turkey. The company's main partners are Hyundai Motor Company and Kia Motors. It also supplies seats to Hyundai Heavy Industries and Daewoo Heavy Industries (Doosan Infracore Co., Ltd).

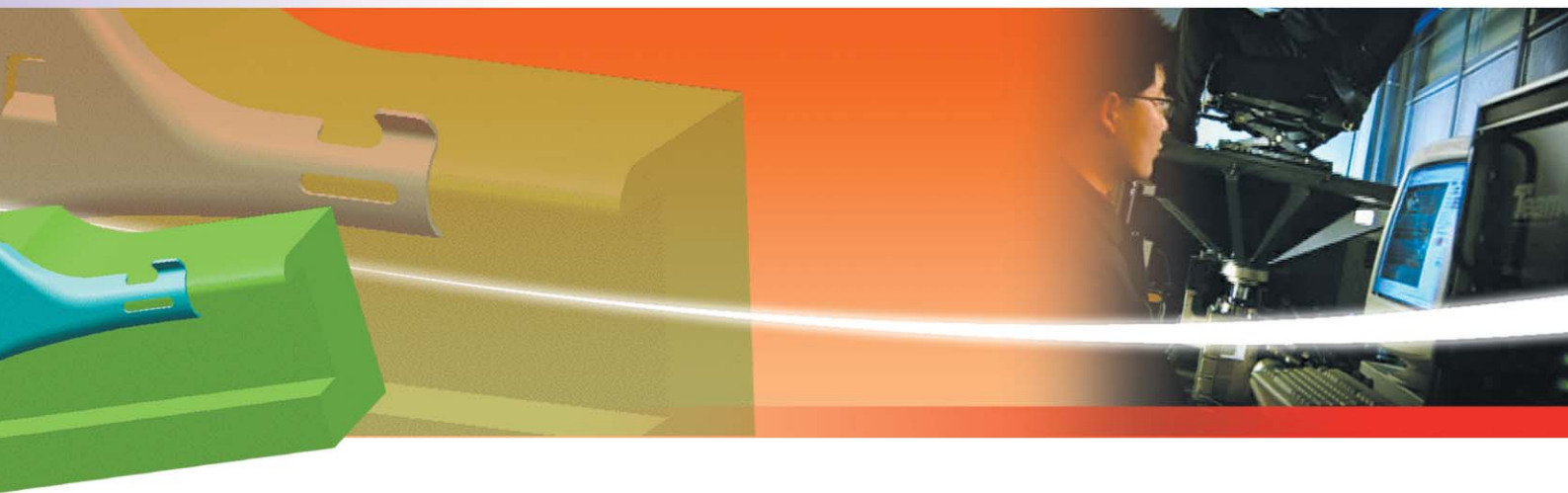
Business Challenges

To remain competitive, global auto industry manufacturers must produce products faster and relentlessly cut production costs.

Competition is particularly fierce among auto parts suppliers required to meet the production schedules of end product manufacturers. Therefore, competitive advantage relies on more agile design capacity and the reuse of existing design data.

Although suppliers face a variety of internal and external challenges, one of the greatest hurdles is organizing and using design data accumulated for many individual projects.

Since parts manufacturers have to produce and pack parts for dozens of new models for different carmakers simultaneously, they must effectively organize design data for a wide variety projects. This is particularly important for parts makers working to APQP (Advanced Product Quality Planning) standards.



Solution

To achieve its goal of innovation, Hanil E-Hwa reviewed many solutions before selecting CATIA V5 and ENOVIA SmarTeam to handle its production processes from design to product shipping.

“We needed a reliable solution that we could use right away and that fits the way we work, without going through the trial and error that often comes with bringing in a new solution,” said Seok-In Song, Senior Director of Hanil E-Hwa’s R&D Center and leader of its process innovation efforts. “After studying many options, we found the DS V5 PLM solution to be superior in many areas, including technical vision, function expansion, upgrade capability, CAD compatibility, freedom of customization, work speed, and domestic application feasibility.”

Korean automakers are migrating to CATIA V5. Education and training are almost complete and CATIA V5 is now being incorporated into some products’ designs. This industry-wide transition to CATIA V5, coupled with the solution’s powerful functions and templates, convinced Hanil E-Hwa to adopt CATIA V5 across the board.

ENOVIA SmarTeam was introduced in 2004 for product data management and was used to build a PDM system that could overcome limitations of space and security. PDM has been implemented in a variety of areas, from drawing document management, interior parts-related data management, project management and Bill of Materials (BOM) to design modification, workflow, product quality and web portals.



“Our Dassault Systèmes V5 PLM Solution ensures that all processes, from product design to shipping, are comprehensively organized throughout the company’s structure.”

Oh-Hwan Jeon, Director R&D Center, Hanil E-Hwa





"Hanil E-Hwa is empowered by CATIA V5 and ENOVIA SmarTeam to pursue innovation throughout development to help us become a global player in the industry."

Senior Director Seok-In Song, Leading Research Department, Hanil E-Hwa

Results

Meeting OEM requirements

With the stable data management and collaboration capacity introduced to Hanil E-Hwa with ENOVIA SmarTeam, the company has received Hyundai Motors's and Kia Motors's Five Star supplier rating for the past two years.

Shorter design period

Since the introduction of CATIA V5, Hanil E-Hwa has enjoyed a number of benefits. Through the wide use of templates, the intent behind product designs is thoroughly captured and reflected, the time spent on drawing production has decreased, and 3D simulation allows for what was once thought impossible. Thanks to these changes, the company has reduced design and mold modification by 30% each.

Systematic data organization

With the PDM solution based on ENOVIA SmarTeam, Hanil E-Hwa can systematically manage interior parts data through standardized data organization and enhance work efficiency through BOM precision.

The company also can execute accurate history management and automatically organize drawing documents, resulting in enhanced work efficiency, quality improvement, and cost reduction.



Product schedule control

Now that Hanil E-Hwa is able to locate and isolate development risk factors, it has built a risk control foundation that can ensure maximum effectiveness. Consequently, the company's execution capability has improved because it is now able to quantitatively evaluate planning and performance. This ensures the company can stay abreast of the development schedule for delivery and align development personnel with its technology.

Information sharing and reuse

Since V5 PLM allows Hanil E-Hwa to efficiently monitor problems and issues arising during product development, the company has reevaluated challenges and problems it faced in previous projects and lowered development lead times.

Quality issues can be effectively managed phase by phase throughout the design and development process and thanks to standardization, data associated with existing designs can be reused, minimizing overlap and duplication of effort.

Improved BOM management

The formulation and approval of Bill of Materials by part is part of the PDM system, advancing the BOM process. This made it possible by organizing BOM information management from design drawing formulation to mass production. With a range of diverse inquiry conditions available, BOMs can be formulated quickly and accurately, encouraging the standardization and sharing of parts and accessories.

V5 PLM KeyBenefits:

- 30%

Design modification

Powerful CATIA V5 functions reduce the time for design modifications by 30%.

- 25%

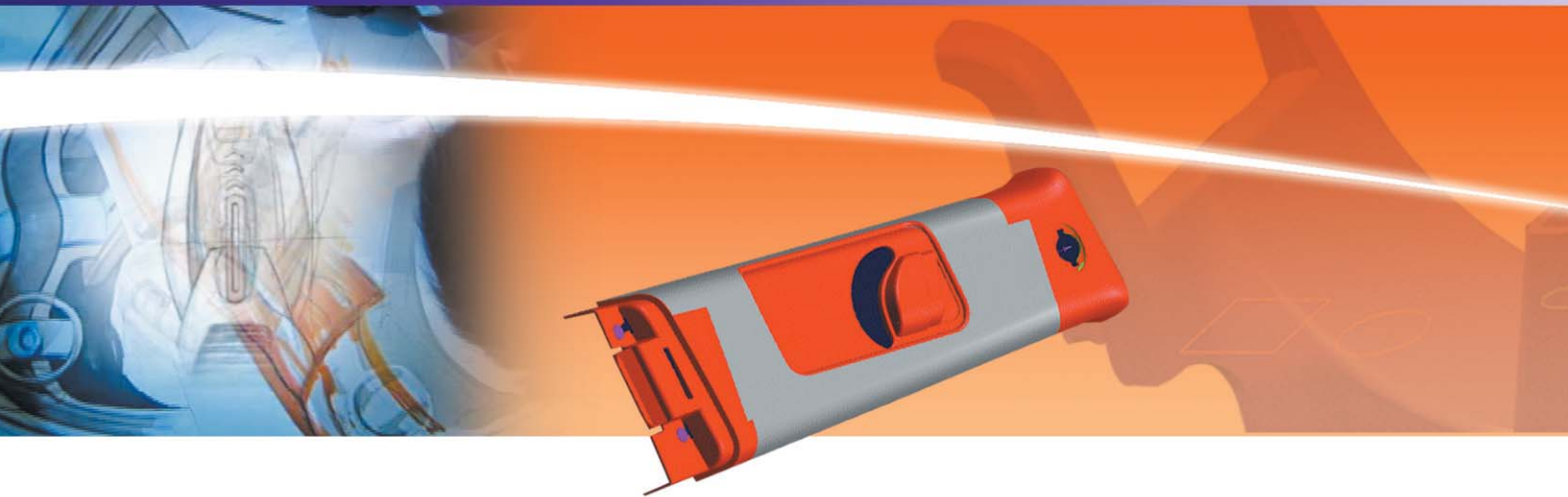
Mold change cost

Complete simulation slashes mold change costs by 25%.

- 20%

Shorter product development period

Systematic data management, based on ENOVIA SmarTeam shortens the overall product development period by 20%.



"Implementing a PDM solution using ENOVIA SmarTeam will give us more return on investment than we ever hoped for."

Seok-In Song, Senior Director R&D center, Hanil E-Hwa

Securing transparency in development information

Once development-related information is sent to managers through workflow according to pre-defined work procedures (TS16949), they can send a 'completion' signal after having finished the unit work. The information is then automatically sent to an officer who is supposed to review and approve or reject it, ensuring a high level of transparency in development information.

Successful CATIA V5 Certification

Working with Dassault Systèmes, Hanil E-Hwa offered CATIA V5 training courses for all of its engineers to speed adoption and ensure competency across its workforce.

More than 70 engineers, including 11 from Hanil E-Hwa's partner company, NVH, completed a two to four-week program designed specifically for the requirements of their work and department.

On the last day of each training course, students completed practical and written examinations to assess their understanding and ability. Nearly 80% of the engineers trained in the courses have been awarded two to three CATIA V5 Specialist Certifications, demonstrating the success of the training program and the practical skill levels of the designers.



Future

Since Hanil E-Hwa's V5 PLM platform was built with a combination of CATIA V5 and ENOVIA SmarTeam, it is compatible with the company's existing ERP system, ensuring that complex business processes with different clients/suppliers will be standardized and streamlined.

"The benefits from implementing the PDM solution using ENOVIA SmarTeam will give us more return on investment than we ever hoped for, when we take into consideration the relationships we will build in e-business in the future." said Senior Director Seok-In Song.

With CATIA V5 and ENOVIA SmarTeam, Hanil E-Hwa is positioning itself to become a global auto interior parts player and strengthening its competitive advantage.

V5 PLM for the Automotive Industry

DS has been working with major automotive manufacturers and supplier for more than 20 years to provide a complete 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's CATIA V5, DELMIA, ENOVIA and SIMULIA solutions 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 supplier to significantly 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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About Dassault Systèmes
As world leader in 3D and in PLM (Product Lifecycle Management) solutions, the Dassault Systèmes group brings value to more than 90,000 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 CATIA V5, DELMIA, ENOVIA, and SIMULIA. CATIA®, DELMIA®, ENOVIA®, and SIMULIA® are registered trademarks of Dassault Systèmes.

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