

Qingdao Hisense Electric Ltd.

High Tech Case Study



Challenge

Due to growing market pressure for interactive, intelligent televisions, Hisense Electric needed to strengthen its competitiveness and preserve its leadership in China's flat-screen television market.

Solution

Hisense Electric chose Dassault Systèmes' ENOVIA Version 6 (V6) application on the 3DEXPERIENCE Platform to manage product design data and improve its product development processes.

Benefits

The integration of ENOVIA V6 and Hisense Electric's ERP system, SAP, has yielded a 50% reduction in keystrokes, increased data accuracy by up to 99%, and helped avoid unnecessary and costly purchases due to incorrect data.

Enhancing the consumer experience with ENOVIA V6 on the 3DEXPERIENCE Platform

Qingdao Hisense Electric Ltd. (Hisense Electric) is a leading flat-screen television set manufacturer and the largest subsidiary of China's Hisense Group. Hisense Electric boasts state-of-the-art digital TV set production lines and R&D centers in China and around the globe, permitting around-the-clock R&D activity. A global exporter as well as China's leader in television technology patents and the country's market leader for eight years running, the company ushered in the "Hisense Era" for flat-screen television sets in China.

Television viewing in China is undergoing profound change. Viewers are turning to online video, and the number of subscribers to traditional television is dropping. To address this evolution, TV manufacturers are working to create designs that enhance the consumer experience. For Hisense Electric, this means making television sets more intelligent and interactive.

To maintain its market leadership and enhance product development, Hisense Electric chose to implement Dassault Systèmes' (3DS) ENOVIA Version 6 (V6) application for collaborative innovation on the 3DEXPERIENCE Platform. "We compared several PLM solutions on the market and we opted for Dassault Systèmes' ENOVIA V6 due to its superior and robust architecture," explains Shi Chen, director of Information Management for Hisense Group.

ENOVIA V6 offers out-of-the-box functionality to address challenges commonly faced by consumer electronics companies, helping them create smart services that improve consumers' experiences with their products. The specific functionality implemented by Hisense Electric

focuses on product and project management that helps consumer electronics companies master execution and continuously improve product development processes.

Enhancing knowledge re-use

"ENOVIA V6 is a powerful and adaptable solution that facilitates the reuse of Hisense Electric's engineering data and provides change management solutions for global collaborative product development," says Li Pengwei, IT project manager for the ENOVIA implementation team at Hisense Electric. "It reduces development costs and minimizes information errors between our engineering and manufacturing divisions. This reduces waste and avoids rework, shortening time to market. Research shows that reusing existing information can reduce design time by as much as 70%," he says.

To achieve its reuse target, it was critical for Hisense to set up a basic framework for sorting, collecting and managing reusable data. This allows the company to accelerate product development and delivery to maintain its competitive edge. With ENOVIA V6 on the 3DEXPERIENCE Platform, users have an easy yet effective means to search and navigate information in the knowledge library. "It is a repository of our past knowledge, experience and problems, and new recruits can familiarize themselves with our designs quickly," Pengwei says.

Experience exceeds expectations

"By incorporating best practices from the most innovation-conscious companies in the world and combining the out-of-box 3DS solution with its easy configuration capabilities, ENOVIA is by far the most flexible PLM solution," Pengwei says. ENOVIA's functionality spans the entire product development lifecycle, enabling Hisense to adjust its business processes quickly and meet the specific needs of its users now and in the future for minimum cost.

"The time it takes to select a process template has been reduced from 90 seconds to only 10 seconds, an 88% increase in efficiency," Pengwei says. "To reverse-check a single component took approximately half an hour previously, but takes only seconds now, an increase of 99% inefficiency. In addition, integration with information from our ERP was previously a manual process with poor accuracy due to the large number of people entering the data. The integration of ENOVIA and SAP, our ERP system, has resulted in a 50% reduction in keystrokes, increased data accuracy by up to 99%, and eliminated purchasing errors due to incorrect information."

Experience transforms project management

With the product and project management capability of ENOVIA V6 on the 3DEXPERIENCE Platform, Hisense Electric project teams worldwide can collaborate and make informed decisions based on information collected in real time. "The ability to automatically upgrade information and project status enables our users to focus on product development instead of project management," says Sheng



Hanbo, director of project management at Hisense Electric. "The company can provide accurate information to teams around the world, ensuring that projects run smoothly and meet the demands of an increasingly short product lifecycle."

For example, with Hisense Electric's previous processes, the huge amount of data required for the annual analytical report to management was difficult and tedious to compile. The report often took as much as a week to generate, with no guarantee of accuracy. Now, with the aid of ENOVIA V6 on the 3DEXPERIENCE Platform, the report can be produced with only a few clicks of the mouse – a quantum leap in terms of time and precision.

"Before the introduction of the experience, project costs, particularly for unpursued projects, were impossible to calculate. Today, the number of employee hours and financial status for each project can be quickly and regularly assessed," Hanbo says.

Enabling targeted project management

"From a management perspective, we can now take into account the needs of our staff at different levels with the role-management functions," Hanbo says. "Senior management can, for example, review cost and project information, such as project stages and on-time status, risks and suitability. Middle management can obtain access to more detailed information, such as whether a project needs assistance or cooperation from additional team members, and project managers can review information such as tasks already completed in various projects," Hanbo explains.

The application of information technology has put Hisense Electric at the forefront of Hisense Group. The company's I'TV, the world's first personal mobile intelligent TV, and its new-generation XT710 series large-scale Cloud Intelligence TV products, with multiple screens and interactive features, all rely on the 3DEXPERIENCE capabilities from Dassault Systèmes. "ENOVIA Version 6 is a huge success at Hisense Electric, and an indispensable asset to our work," concludes Wang Zhihao, vice president and group CIO of Hisense Group. "We will continue to push ahead to transform the television market, in China and abroad."

"There are many opportunities in the future to adopt more 3DS solutions to enhance our R&D and management capabilities and position Hisense to lead the successful transformation of the intelligent TV industry," Zhihao says.

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**Wang Zhihao, Vice President & Group CIO,
Hisense Group**



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3D Design



Virtual Planet



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Digital Manufacturing



Social Innovation



Collaborative Innovation



3D Communication

Dassault Systèmes, the **3DEXPERIENCE** Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes' collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 150,000 customers of all sizes, in all industries, in more than 80 countries. For more information, visit www.3ds.com.

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