

## Clarion Malaysia reduces design time by 50 percent with CATIA V5

### Overview

#### ■ Challenge

Clarion needed to improve product innovation and reduce time-to-market in order to increase consumer loyalty and maximize profitability.

#### ■ Why Become an

##### **On Demand Business?**

Clarion wanted to reduce time-to-market for new products, meet rapidly changing consumer trends, expand its markets, maximize profitability and increase customer loyalty.

#### ■ Solution

CATIA® V5, an easy-to-use, advanced 3D CAD system that produces superior designs in less time compared to earlier 2D CAD systems.

#### » On Demand Business defined

An enterprise whose business processes—integrated end-to-end across the company and with key partners, suppliers and customers—can respond with speed to any customer demand, market opportunity or external threat.



#### ■ Key Benefits

- 50 percent reduction in design time
- 60 percent reduction in tooling preparation time
- Superior 3D modeling helps cut materials use
- Greater productivity enables more iterations, yielding superior designs

#### Fast-changing customer demands

Clarion Malaysia, part of Clarion Group, is based in Penang's Bayan Lepas Free Trade Zone and employs 700 people. Using the latest technology, Clarion manufactures sound and car audio electronics for domestic cars made by Proton, Perodua and Naza, as well as vehicles made by Honda and Hyundai.

*“CATIA V5 opens the door to ‘relational design’ throughout the entire development cycle and provides for unmatched flexibility and ease-of-use in engineering change.”*

— Toshiyuki Nakazaki, Director of Research and Development, Clarion Malaysia

## ***Increasing consumer loyalty and maximizing profitability***

### **On Demand Business Benefits**

- Reduction in design time of 50 percent
- Reduction in tooling preparation time of 60 percent
- Easy-to-use software helps motivate designers, making them more productive
- Greater throughput helps improve product quality with less error
- 3D modeling helps Clarion communicate better with its suppliers

In a highly competitive market, where manufacturers have to quickly develop and introduce new products to meet rapidly changing consumer trends, Clarion knew it needed to pursue innovative new designs and improved product lines. Clarion also sought to expand its markets, maximize profitability and increase consumer loyalty.

To meet these demands, Clarion needed to improve the efficiency of its product development processes and expand its capacity to utilize product-related information.

“The establishment of new market categories requires insight in recognizing consumer trends, a shorter product development turnaround time and producing high-quality products,” says Toshiyuki Nakazaki, Clarion Malaysia’s Director of Research and Development.

### **Capitalizing with CATIA V5**

To meet its goals, Clarion wanted a CAD system that could reduce design time by at least 30 percent. After considering several solutions, Clarion chose to employ CATIA V5, part of the latest Product Lifecycle Management technologies from IBM and its technology partner Dassault Systèmes of France.

Clarion migrated its core CAD system (from 2D CAD and CATIA V4 installed in 1992) to CATIA V5 in 2000 with the help of IBM Malaysia. According to Nakazaki, the productivity gains brought about by the use of CATIA V5 have been quite dramatic.

### **CATIA V5 cuts design time by 50 percent**

Clarion Malaysia has reduced design cycle time by nearly 50 percent for new products, speeding time-to-market. Prior to the migration to CATIA V5, the company’s designers needed a total of 14 months to develop a complete new model. Now, Nakazaki says, design teams are able to complete a model in less than nine months.

Clarion finds the time savings has allowed it to be more competitive and to do more design alterations, which improve product quality.

But design speed is not the only advantage of CATIA V5. The solution has also helped Clarion reduce materials use, increase customer responsiveness and streamline tooling preparations.

In addition, CATIA V5 has helped Clarion reduce errors and cut costs. “The 3D capabilities of CATIA V5 have been invaluable,” Nakazaki says. “It is often difficult to grasp all of the nuances of the designs in 2D. Using 3D modeling helps us eliminate errors that would be expensive if not detected until production.”

Nakazaki says Clarion’s designers also appreciate the innovative and user-friendly features of CATIA V5. Because CATIA V5 is easy to use, he says, designers are more motivated and productive. CATIA V5 helps to “keep the designer’s minds challenged” and puts them on the cutting edge with innovative ideas, he says.

“CATIA V5 opens the door to ‘relational design’ throughout the entire development cycle and provides unmatched flexibility and ease-of-use when engineering changes within conceptual design are driven through the detailing of design phases and into downstream processes,” Nakazaki says.

Using CATIA V5’s 3D models, Clarion’s designers can more easily communicate with tooling suppliers to work out costs and areas for improvement. By sharing product data with vendors early in the product development cycle, Clarion has been able to cut tooling preparation time from two and a half months to just one.

CATIA V5 also has helped Clarion access and utilize its resident corporate knowledge. “The adoption of PLM solutions has been instrumental in capturing, managing and sharing corporate know-how to ensure compliance of products and processes with corporate standards and best practices in terms of integration and optimization,” Nakazaki says.

With styling and modeling improvements well under way with CATIA V5, Clarion’s next push will be targeted toward virtual simulation and knowledge-based designs.

#### **For more information**

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### **Key Components**

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#### *Software*

- CATIA V5

#### *Services*

- IBM Malaysia

#### *Business Partner*

- Dassault Systèmes
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### **Why it matters**

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*Audio electronics manufacturer Clarion Malaysia needed to improve its product design process in order to stay ahead of the competition and meet rapidly shifting consumer demand. Teaming with IBM, the company embraced the Product Lifecycle Management methodology that brings in a new level of design collaboration for new products. With CATIA V5 3D CAD, Clarion was able to reduce the design cycle time by 50 percent, giving it a key differentiator in a marketplace that is all about speed-to-market.*

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