

## Automotive

# Hyundai Motor

## Hyundai Motor Company's use of Solid Edge

### Product

Solid Edge

### Business challenges

Manage large assembly files of up to 70,000 parts produced by design department

Resolve data translation issues

Enhance productivity of jig design

Improve surfacing capability

### Keys to success

Benchmarks test alternative design solutions to identify the most appropriate software for handling operational requirements, large assemblies, surfacing and reading the files supplied by the design department

### Results

Libraries and an automation program were developed to enhance the productivity of jig design

HMC is able to share libraries with other automotive component suppliers

### Application of Solid Edge

History: The main CAD system for HMC is Catia. However, the

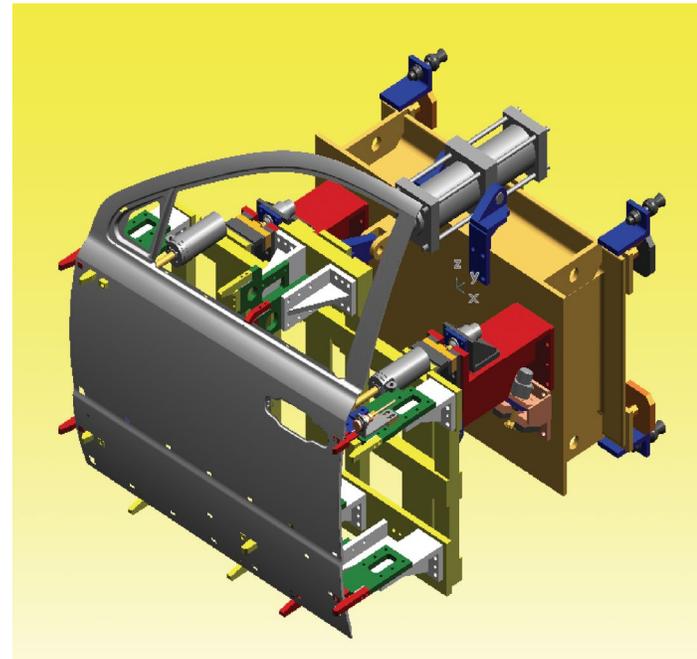
Automation Division in charge of jig and automation-line design purchased and started using Solid Edge® software in 1998. Hyundai's major challenge was translating Catia data for use in Solid Edge, which resulted in data loss and poor surface handling functionality. In 2002, HMC conducted a benchmark test with Catia and Solid Edge.

During the test, Solid Edge received high marks in its operational capability and large assembly handling. As a result, Solid Edge was reselected for continued use.

Enhancements to Solid Edge surfacing functionality – Rapid Blue and Catia data translation – improved to an acceptable level by using Catia translation software from Radial

Soft, a Solid Edge Voyager Program application. The use of Solid Edge is spreading within HMC, which plans to use Solid Edge data to collaborate with its suppliers.

When HMC's entire jig line is designed, an assembly composed of about 35,000 to 70,000 parts is created. The large assembly handling capability of Solid Edge is absolutely critical to HMC. The library also takes a very important role. Pneumatic cylinder product suppliers in Korea such as FESTO and SMC use Solid Edge to model



their product libraries and provide these libraries to HMC.

### Lessons learned/future

HMC is considering integrating its systems with its suppliers, some of which are already using, or considering Solid Edge as their main CAD solution for effective collaboration with HMC. HMC's success with Solid Edge is a very significant factor in influencing other Korean automotive manufacturers and their suppliers to adopt Solid Edge. In addition, HMC plans on

### Results (continued)

HMC is now planning to implement Teamcenter software's lifecycle visualization capabilities to visualize the jig line and develop product simulation using Solid Edge data



## Solid Edge was selected for its high performance operational efficiency and its ability to handle large assemblies for designing jig and production lines.

using Siemens' Teamcenter® system and its lifecycle visualization capabilities in conjunction with their Solid Edge data to facilitate overall jig line visualization and product simulation.

### Product/service perspective

Currently the Technical Automation Division of Hyundai Motor Company is using 34 seats of Solid Edge. Solid Edge

was selected for its high performance operational efficiency and its ability to handle large assemblies for designing automotive jig and production lines.

### Advantages of using Solid Edge:

- Design productivity and quality enhancement through 3D Solid Modeling
- Rapid 2D drawing output
- Efficient/rapid concept design through visualization

### Solutions/Services

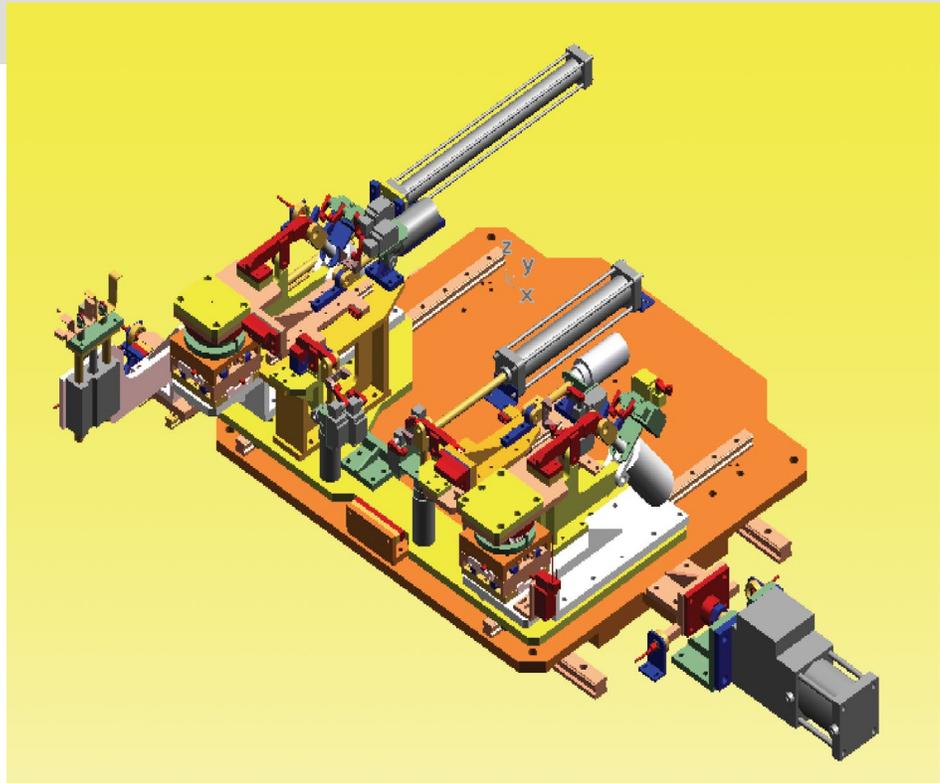
Solid Edge Insight.NET  
[www.siemens.com/solidedge](http://www.siemens.com/solidedge)

### Customer's primary business

HMC is the major automotive manufacturer in Korea, with marques including Hyundai and Kia. HMC employs 50,000 people worldwide and sells cars to 166 countries. The Group also includes over two dozen auto-related subsidiaries and affiliates.  
[www.hyundai-motor.com](http://www.hyundai-motor.com)

### Customer location

Ulsan City  
Korea



- Reduction in design errors and rapid design changes
- Ability to create database for Digital Factory

Reseller Youngchang CAD has worked with HMC to develop libraries and an automation program to apply to jig design. This

automation program enables designers to extract critical design points from the Catia data that they use when working with Solid Edge on jig design projects. This automation program is crucial to enhancing jig design productivity.

## An advantage of using Solid Edge is the reduction in design errors and rapid design changes.

### Siemens PLM Software

Americas +1 314 264 8287  
Europe +44 (0) 1276 413200  
Asia-Pacific +852 2230 3308

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

© 2014 Siemens Product Lifecycle Management Software Inc. Siemens and the Siemens logo are registered trademarks of Siemens AG. D-Cubed, Femap, Fibersim, Geolus, GO PLM, I-deas, JT, NX, Parasolid, Quality Planning Environment, Solid Edge, Syncrofit, Teamcenter and Tecnomatix are trademarks or registered trademarks of Siemens Product Lifecycle Management Software Inc. or its subsidiaries in the United States and in other countries. All other logos, trademarks, registered trademarks or service marks belong to their respective holders.

Z3 4667 4/14 B