

# Integrated product development for the automotive industry

A unified product environment across programs







## The challenge

Today, more than ever before, automotive suppliers are being challenged with shorter lead times, increased competition, QS9000 and TS16949 standards compliance, and winning and keeping new business. To win new business suppliers must deliver products faster, drive down product cost, provide higher quality products and invest increasingly more resources into product development and innovation. All of this must be done while reducing expenses and increasing return on investment (ROI). Previous methods of managing information will not support today's more challenging OEM requirements. The company that survives in this climate will need to streamline business processes, improve access to information and optimize all aspects of product development.

#### The Multi-CAD conundrum

The automotive supplier community has long battled with the need to support various CAD systems. These various CAD systems do not share information easily. Translators such as IGES and STEP have been developed to pass partial information between unlike systems. Experts spend many hours 'fixing' these models from other CAD systems to create usable information.

#### **Required tools**

Competing in this environment requires integration among the many facets of product development. Information must be constantly updated and shared with others to enable rapid innovation during early phases of the design process. The ability to quickly test scenarios using previous designs and rapidly modify them to create innovative solutions that support QS9000 and TS16949 standards will separate those who can compete from those who cannot. The ability to integrate multiple CAD formats into the design process provides an even greater ability to beat competitors to market with innovative, cost-effective, high quality solutions.

#### The smart solution

SMARTEAM<sup>\*\*</sup> and ENOVIA<sup>\*\*</sup> DMU is a family of products that supports information management and provides the ability to collaborate with others regardless of CAD format. These tools not only manage disparate CAD and engineering data but support collaboration with others who can see the product take shape without complex translation procedures.

For the first time, information can be managed no matter where it originates. This powerful combination of products supports extended lifecycle collaboration and provides powerful tools on Microsoft<sup>\*\*</sup> Windows<sup>\*\*</sup> platforms that can be easily deployed across the extended enterprise.

#### Managing information

At most companies today there is no limit to the amount of information that is generated during a typical project. Much of this information resides in various incompatible formats, including: various CAD systems, spreadsheets, personal computer discs, and numerous proprietary programmes. None of this information is easily available for the next project. There is also no way to search among all of this information to find the best solutions. Often data is managed by more than one system with no integration. Easy access to all relevant information early in the design process will support innovation, increase quality, and lead to a competitive advantage and increased market share.

### The solution

# Full data management and data sharing between incompatible CAD systems has never been possible – until now!

With ENOVIA DMU and SMARTEAM, a comprehensive solution exists, for the first time, to manage all CAD data in one seamless environment.

With the powerful combination of SMARTEAM and ENOVIA DMU, information is managed and accessed in one place no matter where it originated. The powerful collaboration capabilities of ENOVIA DMU provides concurrent input to the design from more people earlier in the design process. These tools connect all facets of the business together into one seamless revenue-generating machine.

#### The SMARTEAM component

SMARTEAM provides a comprehensive suite of tools to manage information in any format. SMARTEAM products put you in control of your engineering solutions by driving engineering data across the extended enterprise through seamless cross-platform data exchange. These tools provide an easy way for suppliers to demonstrate compliance with QS9000 and TS16949 standards.

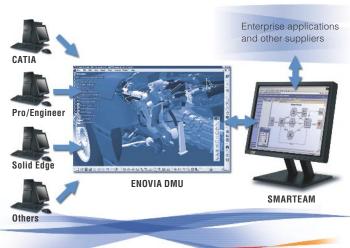
At the heart of each SMARTEAM environment is a secure vault where all product information is securely stored. Access through a basic Web browser makes the information easily available to all who need it. Integrated workflows and access to bills of material enable sharing of this information throughout the design process. Information in various formats can be viewed and evaluated by more people earlier and workflow processes can be integrated with other suppliers and partners. Access to information increases the opportunity for innovation and improves the quality of finished goods. Collaboration is easier and more effective for more people with SMARTEAM.

#### The ENOVIA Digital Mock-Up (DMU) component

With ENOVIA DMU, a comprehensive collaborative environment for multiple CAD systems is now available. This solution provides a simple environment where many CAD formats can be brought together for evaluation of space, fit, function, appearance, and annotations can be passed through the extended enterprise. Even more advanced analysis can be performed on these multi-CAD models, such as kinematics, clash analysis, ergonomics, serviceability, and high end visualisation. With ENOVIA DMU other disciplines in the enterprise can be included earlier in the design process: shop floor, technical documentation, sales and marketing, along with any other groups that need early access to design considerations.

Automotive suppliers who survive will be those that can manage information, support industry standards, and leverage information into an advantage that supports flexibility and innovation. This solution enables companies to tackle these challenges in a robust solution that is easy to use and implement.

Contact you Business Partner or an IBM representative today and let us show you how SMARTEAM and ENOVIA DMU can do this for you.



#### **ENOVIA DMU and SMARTEAM collaboration**



For more information about SMARTEAM and ENOVIA DMU contact your IBM Marketing Representative, IBM Business Partner, or call one of the numbers below:

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