

Producing the right product version

Improving connectivity between development and the supply chain is one of the main challenges today, with industrial supply chains now reaching every corner of the world.

Connectivity between the development organization and the supply chain – or ERP in earlier days – has been problematic ever since the introduction of product data management systems. Very few companies have been able to provide adequate solutions for the integrated exchange of product data between development and the supply chain. Many have ended up with solutions involving a vast amount of manual activity, low repeatability in the event of changes and limited transparency, not to mention cost inefficiency.

Being a leading consulting partner for the industry in product development/ PLM and Supply Chain Management, Capgemini is in a unique position to work with its customers at the cutting edge of existing technologies. We create vision and design and implement

solutions that add value to business and change the way people think and work. Below are details of two unique customer experiences that demonstrate our strengths in this area.

Consumer goods manufacturer

The first case concerns a leading global consumer goods manufacturer which has to make increasing efforts to communicate and manage the information flow from its development environment to the expanding supply base. Product development, utilizing Product Family Management methodologies (multiple product variants using the same product architecture) supported by a PLM



system, has to exchange and manage an ever increasing network of over 100 industry partners. To support the supply chain configuration process, a new methodology and a supporting software solution have been developed.

The main element in the eMatrix-based solution is the ability to restructure the Engineering Bill of Materials into one or more Manufacturing Bill of Materials, depending on the sourcing scenario. Partners in the supply chain are allocated on the basis of their role in the supply chain. Details of allocated Manufacturing BOMs are sent to the industry partners and to internal supply chain systems like SAP for planning and logistical processing.

To gain maximum control at the supply chain an integrated process for product changes is realized assessing production impact. Confirmed changes are routed towards the right industry partners. Feedback loops from the manufacturer complete the solution.

Integrated Circuit (IC) developer and manufacturer

The second case concerns a leading global IC developer having multiple development centers and manufacturing plants spread around the world. The objective of this multi-faceted organization is to streamline and provide information transparency through the product life cycle, from design, development, and manufacturing through to the supply chain and service.

Gaps between engineering and manufacturing interrupt the process because systems in both domains are not integrated (PDM/eMatrix versus SAP). These gaps are a result of manual data input actions in the different systems.

The solution is designed as a staging area and interface between design, development, manufacturing, shop floor control and logistics. It reads the engineering data along with Bill of Materials generated in the form of XML by the design and development departments. It performs BOM comparisons and mutates the relevant attributes to deliver plant-specific manufacturing data and process activity flows. Since the solution resides within SAP, this information is transferred directly to manufacturing (shop floor control).

One department of our client creates yearly around 300,000 BOMs and routings with 15% new products and 25% modifications. Manual entry of this volume requires 17 man years excluding discrepancies. This new solution will drastically reduce the amount of manual input required and the number of mistakes.

Instead of traditional software development for such a situation, Capgemini recommended using the available out-of-box technology known as 'Integrated Product and Process Engineering' (IPPE) in combination with Recipe Management within the SAP software to bridge eMatrix with SAP Supply Chain.

Conclusion

Capgemini designed and built the application in close cooperation with the customer. Our solutions were perceived as being innovative, easy to operate and maintain, and – more importantly – fit for their purpose.



About Capgemini and the Collaborative Business Experience

Capgemini, one of the world's foremost providers of Consulting, Technology and Outsourcing services, has a unique way of working with its clients, called the Collaborative Business Experience.

Backed by over three decades of industry and service experience, the Collaborative Business Experience is designed to help our clients achieve better, faster, more sustainable results through seamless access to our network

of world-leading technology partners and collaboration-focused methods and tools. Through commitment to mutual success and the achievement of tangible value, we help businesses implement growth strategies, leverage technology, and thrive through the power of collaboration.

Capgemini employs approximately 55,000 people worldwide and reported 2003 global revenues of 5.7 billion euros.

For more information, please contact:

Capgemini Technology Services
Product Lifecycle Management
P.O. Box 2575 - 3500 GN
The Netherlands
Tel. + 31 30 689 3394

www.capgemini.com/consulting/supplychain