IBM

Cross Functional BOM Management

Handling Bill of Materials Management from As-Designed to As-Built

•**Utilizes a single platform for BOM management across the product lifecyle, from as-Designed to as-Built/Serviced**

• **Facilitates real-time collaboration between all design disciplines (mechanical, electrical, software)**

• **Provides easy access to global part libraries for standardization and re-use**

• **Implements "New Part Request" process allowing participation of all product development stakeholders**

• **Maintains end-to-end product IP and BOM traceability from design to manufacturing and services functions**

• **Analyzes parts usage and change impact across the enterprise using powerful "where-used" capabilities**

• **Optimizes BOMs for materials compliance and other parameters early in the product development phase while change costs are low.**

Industry Business Drivers

No industrial sector has penetrated our way of life more than electronics. Electronics are becoming more and more pervasive as a common enabler across industry sectors and a key driver for innovation. Every day we discover that electronic systems have entered a new industry segment, driving the market differentiation of a new product. High-Tech and other companies that manufacture electronics components are facing top-level business drivers such as shorter product lifecycles, fewer resources, or the integration of global design, manufacturing, and test teams. Managing product intellectual property (IP) and Bill of Materials (BOMs) throughout the product lifecycle has become even more critical in today's competitive environment.

Design, testing, manufacturing and services processes, which are often conducted in different sites scattered geographically, must all be synchronized to allow for end-to-end traceability needed for issue resolution. To support a "Design Anywhere, Manufacture Anywhere, Service Anywhere" (DAMASA) business model, companies need a strategy that enhances the company's adaptability to ever changing business models and markets drivers.

The Solution

As part of IBM's comprehensive Product Lifecycle Management (PLM) V6 solution, the Cross Functional BOM Management solution enables High-Tech organizations to handle Bill of Materials management across the product lifecycle - from as-Designed to as-Manufactured, as-Planned, and all the way to as-Built and Serviced stages. The solution gives globally dispersed High-Tech organizations access to BOMs and other information related to product development activities.

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By standardizing product development processes across diverse organizational teams and the supply chain, best practices can be implemented across the enterprise to maximize efficiency, while reducing costs and time-to-market. In addition, the solution facilitates global part re-use and standardization to assure optimization across product management, design, manufacturing and procurement processes.

The Cross Functional BOM Management solution helps High-Tech companies manage product data and processes in support of the DAMASA business model. Thanks to the highly scalable PLM platform from IBM, product data can be easily but securely accessed and distributed across a global network, allowing teams to collaborate more efficiently. Customers, partners and suppliers can now be included to be a part of the BOM work-in-process (WIP), release and management processes.

When used in conjunction with the Collaborative Mechatronics Engineering solution, IBM's PLM system facilitates integrations to most 3rd party design tools, enabling automatic capture and synchronization of product design IP across engineering disciplines with varying authoring tools. This reduces errors associated with poor collaboration and hand-offs.

Global part libraries can be easily set up and accessed by design teams across locations, product lines, and disciplines in order that components are standardized and BOMs optimized for cost, quality, and location preferences. New Part Requests can be created for new parts with full participation from stakeholders across the organization. Alternate and substitute parts can be identified in the context of any BOMs to allow for manufacturing and sourcing options as required. In addition, BOM comparison capabilities allow BOMs and Approved Vendor Lists (AVL) to be efficiently optimized.

Powerful "Where-Used" capabilities are provided to allow for analysis of part usage and change impact across the enterprise. When the Cross Functional BOM Management solution is used in conjunction with the Issue & Change Management solution, companies can raise and resolve issues related to BOMs from any geographic location or role in the organization. The full participation from all stakeholders and the out-of-the-box automated workflow processes reduce the cycle time of changes related to the BOMs.

The Cross Functional BOM Management solution integrates the following sub-processes:
• BOM Configuration Management
• Part Alternate/Substitute Management
• BOM Grading/Analysis
• New Part Request and Development
• BOM Change and Affectivity Management

The Cross Functional BOM Management solution is supported by the following products:
• ENOVIA® Engineering Central™
• ENOVIA® Live Collaboration
• ENOVIA® Live Collaboration for Workgroup

For more information contact your IBM Representative, IBM Business Partner, or visit the IBM PLM Web site at:

ibm.com/software/plm