DASSAULT SYSTEMES

ENOVIA

X-BOM

ENOVIA X-BOM for SAP

ENOVIA® X-BOM for SAP enables real-time collaboration between product engineering and manufacturing with bi-directional data exchange and sharing of part, bill-of-material (BOM), operational, manufacturing cost and inventory data.

Key Benefits

- Provide a seamless information flow between ENOVIA and one or more SAP instances
- Eliminate data entry errors e by automatically exchanging "work in process" product information, such as preliminary BOM structures
- Provide product engineering with early access to manufacturing operations data in real time and in the context of their work
- Enable end-to-end data and process management without disruption to established system capabilities
- Eliminate unnecessary duplication of work and improve re-use by providing access to data from each system
- Provide early warnings for long lead-time components and potential manufacturing design issues by providing manufacturing engineers with visibility to preliminary BOM structures

Product Overview

Most companies have standardized on Product Lifecycle Management (PLM) systems for product planning and product engineering and Enterprise Resource Planning (ERP) systems for managing manufacturing and financial operations. Both types of systems rely on product information typically represented in the form of a BOM. It is also typical for both systems to allow data modifications to be made at different stages of the product lifecycle. As such, companies need both a process and technology strategy to keep product information synchronized without impacting product development innovation and manufacturing operations efficiency. ENOVIA X-BOM for SAP enables companies to realize this vision with the following business benefits:

- Provides seamless collaboration and data sharing between product engineering and manufacturing operations for speedier time-to-market
- Ensures that critical design changes are visible throughout the design and manufacturing processes regardless of the system that initiates the change
- Eliminates re-work and late-cycle change notices due to improved BOM accuracy from automatic data transfers
- Reduces product delays by providing manufacturing with early visibility for long lead time items and potential manufacturing issues with designs

Product Highlights

PLM and ERP systems are highly flexible and complex systems that companies configure to meet their existing business process needs. Companies need an interface between these systems that is fast, efficient and flexible enough to meet the needs of both systems. ENOVIA X-BOM for SAP meets these challenges.

Technology Overview

ENOVIA X-BOM for SAP places few restrictions on the data model and may be configured to handle a variety of data. ENOVIA X-BOM for SAP provides flexibility in configuring or extending the integration by supporting both BAPI and CSAP interfaces. System administrators can choose the method that conforms best to their existing environment.

ENOVIA X-BOM for SAP uses password encryption to provide a secure communication channel between ENOVIA and SAP. Data access is controlled through ENOVIA role privileges and synchronization of data lifecycles between ENOVIA and SAP.

Part Data Transfer

ENOVIA X-BOM for SAP allows the part name to be initiated in ENOVIA or in SAP, so customers can decide where part numbers are mastered and whether an Engineering Change Order (ECO) is required. Supporting multiple plant locations with the unique metadata associated with each location and ERP instance is a must in today's world of acquisitions where companies have manufacturing locations around the world. Users can view and retrieve part information from SAP while in ENOVIA to assist in design decisions. Examples of SAP data available in ENOVIA include basic material data, pricing information and specific revision levels with effectivity cut in/out dates.

Bill of Material Data Transfer

ENOVIA X-BOM for SAP is most effectively used for the transfer of BOM information from ENOVIA to SAP without manual intervention, which increases accuracy and throughput to production systems. ENOVIA X-BOM for SAP allows for the transfer of a common or a plant-specific BOM that is controlled through the use of tightly integrated engineering and manufacturing change processes. A multi-level BOM with associated metadata and classification information can be transferred.

ENOVIA X-BOM for SAP provides pre-transfer checks that allow specific business process rules to be enforced. ENOVIA X-BOM for SAP supports BOM alternates or substitutes and quantity rollup views as well as sub-items such as reference designators for electronics. From within the ENOVIA user interface, users may query for and display a variety of information about BOMs stored in SAP.

Users may select a plant location and an effectivity date to display a multi-level SAP BOM. Users can instantiate parts or BOMs from the production or engineering SAP BOM into the ENOVIA database. SAP BOMs can be compared to BOMS stored in ENOVIA to validate changes as well as to evaluate SAP BOMs for re-use in ENOVIA.

ENOVIA X-BOM for SAP has the following BOM reporting capabilities:

- Display a multi-level SAP BOM with date effectivity filtering
- Compare the ENOVIA EBOM with the SAP engineering or production BOM including sub-items
- Instantiate the SAP engineering or production BOM into the ENOVIA database
- Display all revision levels of a BOM in SAP with effectivity dates
- Display all BOM alternate and substitute parts with status
- Display a list of associated BOMs defined in SAP for the selected material

Document Data Transfer

ENOVIA X-BOM for SAP supports the transfer of associated supporting documentation from the ENOVIA part to the SAP document records. Supporting documentation could include drawings or captured graphic images that depict important manufacturing information. The data files can be copied to SAP to become SAP document originals, or the files can remain stored in ENOVIA where they become accessible from the SAP user interface.

Engineering Change Data Transfer

ENOVIA X-BOM for SAP controls the release of information from an engineering design environment to manufacturing production. ECO or Manufacturing Change Orders (MCO) associated with the transfer of parts, BOM and documents contain important metadata such as effectivity cut in/out dates and classification support. In addition, once ECO data is transferred from ENOVIA, SAP can issue its own change number.

Plant Maintenance and Purchasing Data Transfer

ENOVIA X-BOM for SAP can transfer plant maintenance and purchasing data to extend the benefit of the interface to other disciplines throughout the company. This enables engineers to consider downstream business process needs properly during the design process.

The Role of ENOVIA V6 and PLM 2.0

ENOVIA X-BOM for SAP supports PLM 2.0, product lifecycle management online for everyone, and the ENOVIA V6 values: global collaboration innovation, single PLM platform for intellectual property (IP) management, online creation and collaboration, ready to use PLM business processes, and lower cost of ownership.

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