

X-BOM

ENOVIA X-BOM for Oracle Manufacturing



ENOVIA® X-BOM for Oracle Manufacturing facilitates collaboration between product engineering and manufacturing by enabling real-time, bi-directional data exchange and sharing of part, bill-of-material (BOM), operational, manufacturing cost and inventory data, as applicable between ENOVIA and Oracle Manufacturing.

Key Benefits

- Provides a seamless information flow between ENOVIA and one or more Oracle Manufacturing instances
- Eliminates data entry errors by automatically exchanging “work in process” product information, such as preliminary BOM structures
- Provides product engineering with early access to manufacturing operations data in real time and in the context of their work
- Enables end-to-end data and process management without disruption to established system capabilities
- Eliminates unnecessary duplication of work and improve reuse by providing access to data from each system
- Provides 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 bill-of-material. 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 Oracle Manufacturing enables companies to realize this vision with the following business benefits:

- Provide seamless collaboration and data sharing between product engineering and manufacturing operations for speedier time-to-market
- Ensure that critical design changes are visible throughout the design and manufacturing processes regardless of the system that initiates the change
- Eliminate re-work and late-cycle change notices due to improved bill-of-material accuracy from automatic data transfers
- Reduce 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 Oracle Manufacturing meets these challenges.

Technology Overview

ENOVIA X-BOM for Oracle Manufacturing places few restrictions on the data model and may be configured to handle a variety of data. ENOVIA X-BOM for Oracle Manufacturing utilizes only standard available application programming interfaces (APIs) to ease future upgrades.

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

Part Data Transfer

ENOVIA X-BOM for Oracle Manufacturing allows for on-demand or process driven part transfers. If necessary, it can be mandatory to use an engineering change order (ECO) for the part transfer. 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. It is possible to create and update Oracle items and item masters including all attributes and "flexfields", item revisions, manufacturing part numbers, categories and category sets, and routings. Both real-time and batch Oracle item APIs are supported. Users can view and retrieve part information from Oracle Manufacturing while in ENOVIA to assist in design decisions. Examples of Oracle Manufacturing data available in ENOVIA include basic item data, pricing information and specific revision levels with effectivity cut in/out dates.

Bill of Material Data Transfer

ENOVIA X-BOM for Oracle Manufacturing fully supports the transfer of BOM information from ENOVIA to Oracle Manufacturing without manual intervention. This increases accuracy and throughput to production systems. ENOVIA X-BOM for Oracle Manufacturing allows for the transfer of a common or a plant-specific BOM. The transfer can be controlled through the use of an ECO, or performed as needed by a user with appropriate permissions. A single level BOM with associated metadata can be transferred. ENOVIA X-BOM for Oracle Manufacturing provides pre-transfer checks that allow specific business process protocols to be enforced and the ability to automatically instantiate parts into Oracle Manufacturing. ENOVIA X-BOM for Oracle Manufacturing supports BOM alternatives and quantity rollup as well as reference designators for electronics.

From within the ENOVIA user interface, users may query for and display a variety of information about bills of material stored in Oracle Manufacturing. Users may select a plant location and revision level to display the single level BOM with associated BOM alternatives.

ENOVIA X-BOM for Oracle Manufacturing has the following BOM reporting capabilities:

- Display single level Oracle Manufacturing BOM
- Compare EBOM with the Engineering or Production BOM from Oracle Manufacturing
- Display all revision levels of a BOM in Oracle Manufacturing with effectivity dates

Change Management Data Transfer

ENOVIA X-BOM for Oracle Manufacturing controls the release of information from an engineering design environment to manufacturing production. ECOs or Manufacturing Change Orders (MCOs) associated with the transfer of parts and BOM contain important metadata such as effectivity cut-in/out dates and is transferred on the change order release. MCO start date and status can be transferred back to ENOVIA, when updated in Oracle Manufacturing.

The Role of ENOVIA V6 and PLM 2.0

ENOVIA X-BOM for Oracle Manufacturing 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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