X-BOM CONNECTOR FOR SAP

OBJECTIVE

X-BOM Connector for SAP provides real-time collaboration and bi-directional data exchange between Oracle Manufacturing and Product Engineer and Manufacturing BOM Manager to share part, bill-of-material, operational, manufacturing cost, and inventory data.

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. **X-BOM Connector for SAP** enables companies to realize this vision.

HIGHLIGHTS

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

Technology Overview

X-BOM Connector for SAP places few restrictions on the data model and may be configured to handle a variety of data. **X-BOM Connector 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.

X-BOM Connector for SAP uses password encryption to provide a secure communication channel between the **3D**EXPERIENCE® platform and SAP. Data access is controlled through the **3D**EXPERIENCE platform role privileges and synchronization of data lifecycles between the **3D**EXPERIENCE platform and SAP.

Part Data Transfer

X-BOM Connector for SAP allows the part name to be initiated in the **3D**EXPERIENCE platform or in SAP, so customers can decide where part numbers are mastered and whether a Change Order (CO) is required. Supporting multiple plant locations with the unique metadata associated with each location and ERP instance is necessary in today's world of global manufacturing. Users can view and retrieve part information from SAP while in the **3D**EXPERIENCE platform to assist in design decisions. Examples of SAP data available in the **3D**EXPERIENCE platform include basic material data, pricing information and specific revision levels with effectivity cut in/out dates.

Bill of Material Data Transfer

X-BOM Connector for SAP is used most effectively for the transfer of BOM information from the **3D**EXPERIENCE platform to SAP without manual intervention, which increases accuracy and throughput to production systems. **X-BOM Connector for SAP** allows for the transfer of a common or a plant-specific BOM that is controlled by tightly integrated engineering and manufacturing change processes. A multi-level BOM with associated metadata and classification information can be transferred.

X-BOM Connector for SAP provides pre-transfer checks that allow specific business process rules to be enforced.

X-BOM Connector 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 **Engineering BOM Management** and **Manufacturing BOM Management** 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 **3D**EXPERIENCE platform. SAP BOMs can be compared to BOMS stored in **3D**EXPERIENCE platform to validate changes as well as to evaluate SAP BOMs for re-use in the **3D**EXPERIENCE platform.

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

- Display a multi-level SAP BOM with date effectivity filtering.
- Compare the Engineering BOM with the SAP engineering or production BOM, including sub-items.
- Instantiate the SAP engineering or production BOM into the **3D**EXPERIENCE platform.
- 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

X-BOM Connector for SAP supports the transfer of associated supporting documentation from the **3D**EXPERIENCE platform 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 **3D**EXPERIENCE platform where they become accessible from the SAP user interface.

Engineering Change Data Transfer

X-BOM Connector for SAP controls the release of information from an engineering design environment to manufacturing production. Engineering and manufacturing change data associated with the transfer of parts and BOM, such as effectivity and cut-in/out dates can be transferred on the change order release. Manufacturing change order start date and status can be sent back to the **3D**EXPERIENCE platform. In addition, once change data is transferred from the **3D**EXPERIENCE platform, SAP can issue its own change number.

Plant Maintenance and Purchasing Data Transfer

X-BOM Connector 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.

Key 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 BOM 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.
- Provide product engineering resources 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 reuse by providing access to data from each system.

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