

# TRACKING

## ENOVIA X-BOM Unit Tracking



ENOVIA® X-BOM Unit Tracking captures the precise as-built and as-maintained bill-of-material (BOM) structure for all its product deliveries from concept to manufacturing and from delivery to retirement. Tracking and managing exact configurations of products shipped enables a business to quickly review product information to resolve issues with production, warranties, and product recalls. While all companies would prefer to catch product deficiencies early in the design process, having visibility to all end product BOMs either in manufacturing or already in-service is essential to ensure quality throughout the product lifecycle.

### Key Benefits

- Capture and plan physical end-item units early in the product lifecycle process
- Maintain a record of shipped products
- Track customer's deliveries relative to committed units in the plan
- Maintain a historical record of both installed and uninstalled serial subcomponents in a physical end-unit as-built structure
- Reduce the communication gap between engineering and manufacturing relative to production builds and their allocated designs

## Product Overview

It is expected and often mandated in today's demanding business environment that manufacturers provide proof that products have been built to a specific set of engineering and contract specifications. ENOVIA X-BOM Unit Tracking allows companies to manage all functional aspects related to production builds. Product deliveries are defined as physical end-items comprised of a multi-level structure of traceable sub-components (e.g., Left Wing # 23 to Aircraft # 5). The multilevel structure is modified as maintenance occurs throughout the life of the supported product.

It is critical to track the production builds before they are manufactured in order to validate the design and facilitate the early detection of issues. During the product development process, lower level sub-systems can be assigned to specific end-item builds allowing design engineering to perform analysis on all design changes that may impact production lines and customer deliverables.

Maintaining a record of a shipped product's as-built BOM allows manufacturers to deal with warranty and service issues. As units are returned for service, immediate access to historical records that describe installed and uninstalled serial numbers during the lifetime of the physical product contributes feedback to the design process, enabling a closed loop between service and design.

## Product Highlights

### Unit Part Marking

Engineers can identify and label parts that are tracked by serial number or lot number. Serialized parts may be related to multiple manufactured serialized units. Each serialized unit is installed and tracked on a physical end-item.

### Manage the As-Built BOM

The as-built BOM contains physical end-item units defined as a multi-level structure made up of traceable sub-components. Each unit can be tracked by serial number and can be modified as repairs and maintenance occurs throughout the life of the supported product.

During manufacturing or service maintenance of a physical end-item, manufacturing planners and product planners can install and uninstall serialized and non-serialized sub-systems into the as-built structure, reserve serialized and non-serialized sub-systems to a specific system as-built structure, and replace any installed unit with another unit.

### Lot Support

Lots represent non-serialized components that are tracked in the as-built BOM structure (e.g., fasteners, bolts, etc.). Users can use lots to group non-serialized component parts under a unit marking. Lots can be installed, allocated and replaced on an end-item unit in the as-built BOM.

### Unit Tracking and Allocation

Maintaining and keeping a record of customer ordered end-item units early in the product development process allows planners to communicate the intended production builds to downstream engineering processes. As units get allocated to specific product revisions, a unique unit number is assigned and referenced throughout its development process. As a unit enters the manufacturing process, a serial number is assigned to shippable end-items. The product line is then responsible for identifying all the serialized or non-serialized components, installed, or uninstalled during the manufacturing of the end-item.

### The Role of ENOVIA V6 and PLM 2.0

ENOVIA X-BOM Unit Tracking 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.



## Delivering Best-in-Class Products



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