ENOVIA CPG Accelerator™ for Integrated Product Management enables Consumer Packaged Goods (CPG) companies to use structured specifications to build and maintain multi-level formula, packaging and other kinds of bills-of-material (BOMs). It provides holistic change order process management, highlighting “where used” impact analysis of materials not only within the targeted BOM but also across product portfolios.

**Key Benefits**

- Build and maintain multi-level BOM structures from centrally-managed and approved components.
- Realize economies of scale across a distributed supply chain through raw material and supplier rationalization.
- Enforce quality and regulatory standards on materials and finished goods originating from multiple countries of origin (COO) and being applied in products across multiple countries of sale (COS).
- Execute change order requests holistically with “where used” analysis.
- Manage Manufacturing Equivalent Parts (MEPS) as trade names with their corresponding suppliers per location.
- Include optional ENOVIA products to manage manufacturing site-specific BOMs, BOM costing, materials compliance, and primary/secondary packaging design tools (bill of packaging).
Product Overview

ENOVIA CPG Accelerator for Integrated Product Management enables CPG companies to manage formula, packaging and other kinds of BOM data in a single, centralized, scalable structured data environment. In the CPG industry, BOM management, as a superset to specification management, is the foundation for Product Data Management (PDM). BOM management is the logical extension of specification management. Specification management enables enterprises to better manage and standardize the development, review, approval, and distribution of product specifications, including those related to packaging, raw materials, and formulas. BOM management allows enterprises to combine specifications into logical material hierarchies that define product structure.

With this product, research and development (R&D) can define any kind of CPG product specification and BOM including, but not limited to, formula, raw material, packaging components, and work instructions. Its specification development and change management processes have been designed specifically to ensure all impacted stakeholders are kept informed and given an opportunity to review the BOM/specification before its release. As a result, CPG companies can bring products to market faster while maximizing re-use of common specifications to reduce costs.

ENOVIA CPG Accelerator for Integrated Product Management can be further extended to manage manufacturing site-specific BOMs, BOM costing, formula optimization, materials compliance, dynamic label copy generation, and primary/secondary packaging design tools (bill of packaging). To ensure consistency between R&D and purchasing, users can integrate this product with transactional systems such as Enterprise Resource Planning (ERP) and Manufacturing Resource Planning (MRP).

In sum, ENOVIA CPG Accelerator for Integrated Product Management ensures that “a single version of the truth” is shared across the extended enterprise for product data.

Product Highlights

ENOVIA CPG Accelerator for Integrated Product Management supports a part-centric approach to manage products better with a unified view of technical specifications. Key capabilities include:

**Product Data Templates**

Templates drive standards throughout the enterprise by driving the format and definition of all new product data. Templates define attributes and/or sections as “mandatory” versus “optional” and specify which sections should be included in the internal PDF and which sections should be included in the external PDF. In addition, it is possible to define any number of different views of the data. Templates are also under change control. The change process allows the enterprise to notify owners of all derived product specifications of the change in order to take appropriate action.

**Support Organizational and Regional Differences**

Companies can manage product data globally or according to business unit and region. This allows companies to include global teams in the review and approval process. The review and approval process includes electronic signatures that comply with United States FDA (Food and Drug Administration) Part 11 guidelines for audit trails and authentication. Efficient global, regional and local product specification distribution are benefits also.

**Change Management Process**

CPG companies have complex organizational charts focused on their worldwide brands. Automated approval templates ensure that all necessary approvals throughout the CPG organization are obtained as part of a product data item’s release process. ENOVIA CPG Accelerator for Integrated Product Management provides a change management process that enables manufacturing compliance.

These best practices include an optional change request process, which qualifies, analyzes, reviews, and approves change requests for released data (formula, assemblies and technical specifications). The change request process ensures that users follow a common process and the right level of analysis and oversight is employed. Only “approved” changes are implemented, thus reducing the quantity and time associated with implementing the changes.
Proposed changes are sometimes too complex to implement as a single change request, and the development team requires more implementation flexibility. A change request can be split into multiple change orders to allow the change to be implemented as work processes dictate. The change order process applies the dynamic approval matrix on the affected components for the approval process. The approval matrix templates are predefined for the different part and specification types with additional selection criteria such as scope, owning responsibilities, etc. The approval matrix templates are assigned automatically to the data during the creation process and are invoked during the approval process.

**Dynamic Notification List**
Subscriptions notify users of changes and other events associated with the data. Email notifications are sent when data is at the approval stage, preparing users throughout the organization for the upcoming changes. This gives complete visibility at a business unit level to key stakeholders so that they understand the change impact to complete products or production lines. The benefits are more effective planning and reduction of downtime when changing materials or components.
Integrated BOM Management

ENOVIA CPG Accelerator for Integrated Product Management provides an intuitive BOM building process that allows organizations to develop validated, structured product bills from reusable product data components. The “where-used” analysis capability allows for a comprehensive understanding across products of the change impact on any of the component BOM items.

Users can structure BOMs for even the most complex products with thousands of parts organized across many levels of hierarchy. The BOM assembly structure automatically updates when new component revisions are released. An integrated structure browser allows users to navigate and edit multiple levels easily. Comprehensive BOM editing capabilities include copying components to and from existing assemblies, and replacing, adding, removing, and re-sequencing components in the BOM.

Mass change operations automate complex BOM changes that affect many parent assemblies. Differences between BOMs can be listed in a detailed text format or an intuitive highlighted side-by-side format. Support for preparing a BOM for manufacturing is also provided. Users can define the BOM with location-specific preferred suppliers and component parts and provide a list of engineering approved “alternate” or “substitute” parts that can be used by manufacturing instead of the primary engineering part. BOM markup capabilities are provided to facilitate the change management process. It is also possible to manage Manufacturing Equivalent Parts (MEPs) as trade names and their corresponding suppliers per location.

Using specification templates, specification sections and/or attributes can be defined as mandatory to enforce organizational data standards.
Access to data can be established for the entire specification, or by sections within the specification. Template Administrators can create different views or reports of the data to accommodate different user groups. The “include package” option creates a zip file that packages all BOM children specifications along with the configured view/report of the parent.

A part-centric product management approach leverages an intuitive, structured and validated formula and packaging BOM management process.
**Constituent/Ingredients Management**

Ingredients can be managed along with CAS (Chemical Abstracts Service) and EINECS (European INventory of Existing Chemical Substances) information. ENOVIA CPG Accelerator for Integrated Product Management provides different flavors of constituent management:

- Part constituent management (requires ENOVIA® Materials Compliance Central™ and ENOVIA® X-BOM Materials Compliance license).
- MEPS constituent management (requires ENOVIA Materials Compliance Central and ENOVIA® X-BOM Materials Compliance license)/

**Reporting**

ENOVIA CPG Accelerator for Integrated Product Management has many standard reporting capabilities tailored to meet the needs of multiple functional areas. These reports provide valuable product information for cross-functional groups to make informed and timely decisions, thus contributing to overall product development and planning efficiency and quality. Reports can be formatted in a printer-friendly format or exported to Excel.

**Specification and Part Search**

ENOVIA CPG Accelerator for Integrated Product Management provides a powerful full-text search capability allowing users to search for parts, specifications, and other documents.

Users can navigate through the parts or specifications taxonomy and narrow down the results by filtering on metadata. Parts and specifications can be searched by constituents, organizations, suppliers and trade names. Keyword search can be performed against both metadata and file attachments.

Information pertaining to the countries a finished product is sold in is readily available.

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ENOVIA CPG Accelerator for Integrated Product Management

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BOM Reports (for Finished Product, Packaging and Formula BOMs):

**Multi-Level BOM**
Any number of BOM levels can be expanded and included in the multi-level BOM report.

**Bill-of-Material (BOM) Comparison**
This report improves item reuse and product quality by providing the ability to compare BOM differences. The report has many comparison options, including basis of comparison, attributes to display when a difference occurs, and BOM levels to compare.

Results can be displayed in either a printer-friendly table or in a graphical side-by-side format. If both ENOVIA CPG Accelerator for Integrated Product Management and ENOVIA® X-BOM Manufacturing are implemented, users of each product can compare any combination of design or manufacturing BOMs.

**Product Data Item Where Used**
The “where used” report provides a product data item’s single or multi-level parent usage, which is very useful in analyzing the scope and impact of changes.

**Consolidated BOM**
This report improves purchasing response time and reduces errors by providing a quantity roll up of items from multiple levels of a BOM.

**BOM Effectivity**
The effectivity report provides the ability to view a BOM based on a historical date. This report enables the user to see the “effective” BOM at a select date in the past.

**Approved Vendor List (AVL) BOM**
This report improves communication and reduces data errors internally and with suppliers by providing BOM views and data packages with optional location-specific preferred suppliers.

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Chemical composition of Raw Materials can be managed per Supplier providing valuable data for regulatory compliance and sustainability goals.

The same structured management process also allows for easy tracking and viewing of where materials and other components are used. This improves the change management and compliance tracking capabilities of a company.

Mass replacement of an item further enhances the change management capabilities.
Robust structure comparison allows for comparing formulas, packaging BOMs, and finished product structures

The unified change process releases any number of product data items at the same time through a Change Order

Subscription notifications make sure users are notified of changes of interest
Change Process Reports:
Change Request/Change Order Summary Reports
CR/CO summary reports are generated automatically and refreshed during the change process lifecycle and can be stored in HTML or PDF format. These reports provide a synopsis of the change so change board members can quickly review and approve complex pending changes.

CR/CO Metrics Report
These reports can be generated to capture lifecycle date and time metrics for CRs or COs. These reports are useful to determine trends in change process throughput.

The Role of ENOVIA V6 and PLM 2.0
ENOVIA CPG Accelerator for Integrated Product Management supports PLM 2.0, product lifecycle management online for everyone, and the ENOVIA V6 values, which are:
- Global collaboration innovation
- Single PLM platform for intellectual property (IP) management
- Online creation and collaboration
- Ready to use PLM business processes
- Lower cost of ownership.
Dassault Systèmes, the 3DEXPERIENCE Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes' collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 150,000 customers of all sizes, in all industries, in more than 80 countries. For more information, visit www.3ds.com.