Epicor® Enterprise
Resource Planning

Product Management

EPICOR®
Gold Partner

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Epicor ERP Diagram

Business Intelligence and Analytics

Governance, Risk, and Compliance

Business Architecture

ERP

Human Capital Management

Financial Management

Customer Relationship Management

Sales Management

Product Management

Project Management

Planning and Scheduling

Supply Chain Management

Production Management
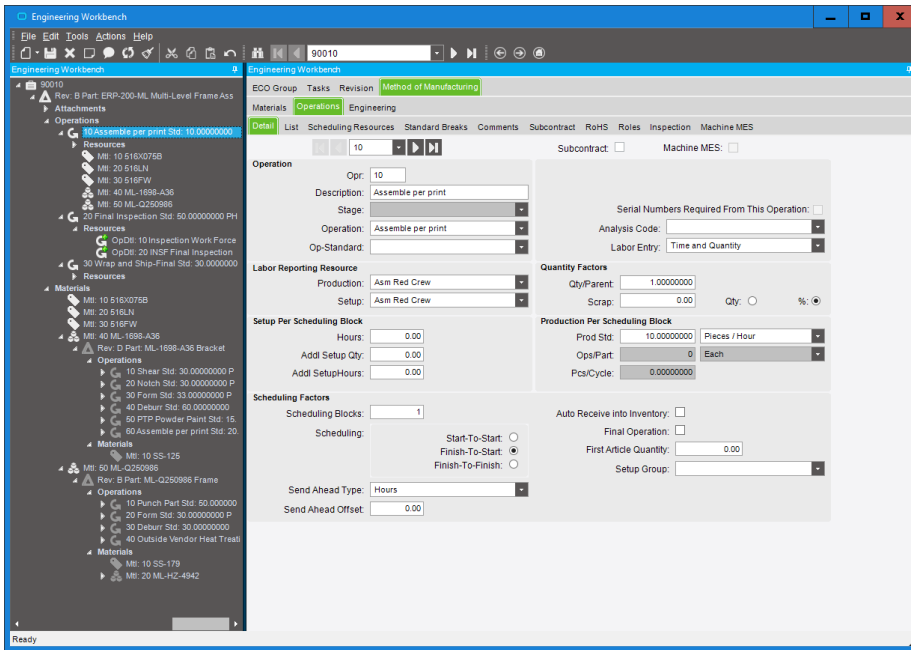
Service and Asset Management

Global Business Management

Product Management

- Methods of Manufacturing
- Bill of Materials (BOM)
- Routings
- Engineering Change and Revision Control
- Document Management
- CAD Integration
- Product Lifecycle Management
- Product Costing
- Product Configuration

Epicor Product Management serves as the central hub for your process and product data and history. It provides collaboration and data exchange among enterprise users who interact with your products—including product managers, engineers, salespeople, buyers, and quality assurance representatives. Epicor Product Lifecycle Management (PLM) provides a comprehensive end-to-end solution to manage all aspects of a product's lifecycle, enabling enterprises to control the enormous number of electronic documents produced. With Epicor Product Management, you can optimize the product lifecycle processes to increase the efficiency of your staff, create better quality products, launch new products in less time at a lower cost, and maximize profits.

explosion reports by component and by reference designator from quotes, jobs, and the engineering workbench.

Figure 3 *Methods of Manufacturing—Build a visual view of a routing for a new part using the integration to other engineering information and the drag-and-drop interface.*

Methods of Manufacturing

Manage product bill of materials (BOM) and routings in one central location. The part-specific method of manufacturing is controlled through engineering and offers drill-down functionality to lower level subcomponents—along with material and routing components required for each. Streamline engineering by modifying existing methods for same-as except quotations and production runs. Enable engineers to begin with an existing method of manufacture from the methods master, a quote, or a job, and then easily modify it for the project at hand. *(See fig. 3)*

Bill of Materials (BOM)

Epicor supports traditional BOM management with single-level part formats that recognize the materials and components required to build end parts. In addition, Epicor supports multilevel

BOM management that incorporates not only single-level components and material requirements, but also internal and external routing steps for complete end to end assembly visibility, planning, scheduling, and costing. Epicor supports visual engineering technology with indented tree structures and drag-and-drop BOM management. Easily create new BOMs with functionality that enables the user to pull an existing method of manufacturing for a product and make modifications for future runs or similar products. Use alternate BOMs to predefine multiple BOM structures for the same part with material or component substitutions. In a multi-plant environment, BOMs at the plant level facilitate choices of where to build the part using plant appropriate methods. Optionally have several BOMs within a plant, allowing the planner to choose the most cost-effective build. Gain the ability to store multiple reference designators on BOMs. You can also obtain

Routings

Detailed routings facilitate planning, scheduling, and costing of products more efficiently. Everything needed to produce a product is managed in one central location. Managing changes to routings is simplified. Changes are automatically communicated to the plant floor execution system and operators have online visibility of the latest routing production notes, as well as standards and resource requirements. Easily understand, navigate, and revise even the most complex, multilevel routing in the tree structure of the engineering workbench. Free up engineers to focus on constructing the most cost-effective build. Quickly build new routings and easily modify existing routings using the Epicor drag-and-drop engineering tools. Alternate routings allows the definition and maintenance of multiple routings or material substitutions under a single part number. In a multi-plant environment, alternate routings at the plant level facilitate choosing where to build the part using plant appropriate methods. Manage and measure jobs with flexible production standards using traditional time-based production standards—including pieces per hour, hours per piece, pieces per minute, minutes per piece, operations per hour, fixed hours, and operations per minute. You also have the ability to allow planning by volume and quantity using dimensional planning that is not time constrained.

Engineering Change and Revision Control

Achieve control and consistency in your engineering change and revision process. Engineering Change and Revision Control is designed to enable engineering change management, multiple revision control of products, and engineering workflow management, and it offers detailed cost analysis of products during the engineering process. The engineering workbench gives engineers an area to manage all engineering tasks related to the modification, review, and approval of assemblies—including full revision updating and control, check-out procedures, security, engineering change orders, BOM maintenance, what-if BOM maintenance, what-if cost rollups, adding parts, placing parts on hold, and product routing maintenance. The engineering workbench also enables engineers to drill into all related information, like jobs, inventories, sales orders, and quotes.

Document Management

Epicor drag-and-drop attachments support the ability to manage and view attachments against any record or application process. With respect to BOMs, additional functionality exists to allow attachments linked to end products and components to automatically flow to production planning and—eventually—the production floor, ensuring strong control of product and process documentation at each product revision and production run. Attachments at the record level would typically provide information, drawings, documentation, or context specific to that record. All attachments can be secured using standard role-based security. Microsoft SharePoint® repository document management and attachments capability also offers the use of a Microsoft SharePoint document repository.This provides document versioning, check-out and check-in support, and facilitates integration to other document management systems.
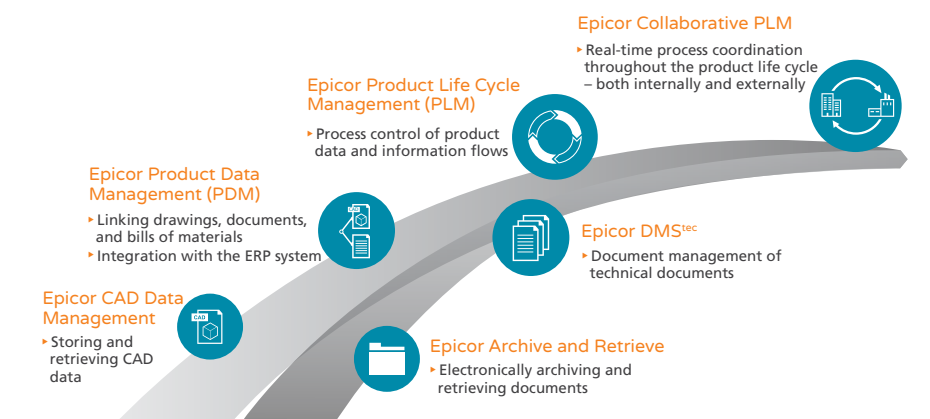
CAD Integration

For companies who do not require the full product lifecycle management solution, CADLink for Epicor increases the speed of engineering data flowing from the engineer's desktop to the rest of the business—in particular procurement and manufacturing. The CADLink for Epicor solution is designed to streamline the entire product development process, letting engineers push forward BOM revisions to Epicor ERP with a click of a button without leaving their familiar CAD environment. CADLink for Epicor eliminates all the burdens of disparate systems, allowing engineers to focus more on what they do best—engineering.

Product Lifecycle Management

Epicor Product Lifecycle Management (PLM) solutions provide you with CAD data management, product data management (PDM), and technical document management system capabilities that can be expanded to deliver a fully featured, collaborative product lifecycle management solution that is designed to seamlessly integrate into your Epicor ERP. Epicor PLM serves as a central knowledge repository for process and product history and promotes integration and data exchange among all enterprise users who interact

with a product. Epicor PLM manages all documentation associated with a product throughout its entire product lifecycle and includes full integration with numerous computer aided design (CAD) systems and various electronic design automation (EDA) systems. Epicor PLM is particularly useful for companies that design what they manufacture, want standardized methodologies around work flow, use CAD or EDA systems, or use drawings to produce a quote or an order. Epicor PLM provides an electronic vault where documents can be securely stored and where access and versioning can be tightly controlled. The type of sophisticated document management that PLM offers is critical for those organizations that need excellent audit tracking and control of all documents across the enterprise. PLM also provides advanced document search and retrieval functionality. Increase your productivity by more efficiently managing the product life cycle—from design to end-of-life. Engineering change order (ECO) processes are supported—including the ability to have as many 3D models as desired and any number of derived technical drawings from one or more CAD systems assigned to each part.

Epicor Collaborative PLM
▸ Real-time process coordination throughout the product life cycle – both internally and externally

Epicor Product Life Cycle Management (PLM)
▸ Process control of product data and information flows

Epicor Product Data Management (PDM)
▸ Linking drawings, documents, and bills of materials
▸ Integration with the ERP system

Epicor DMStec
▸ Document management of technical documents

Epicor CAD Data Management
▸ Storing and retrieving CAD data

Epicor Archive and Retrieve
▸ Electronically archiving and retrieving documents

Figure 3.1 *Product Lifecycle Management—A step-by-step model to follow your own evolutionary path to PLM, fully integrated into your Epicor ERP.*
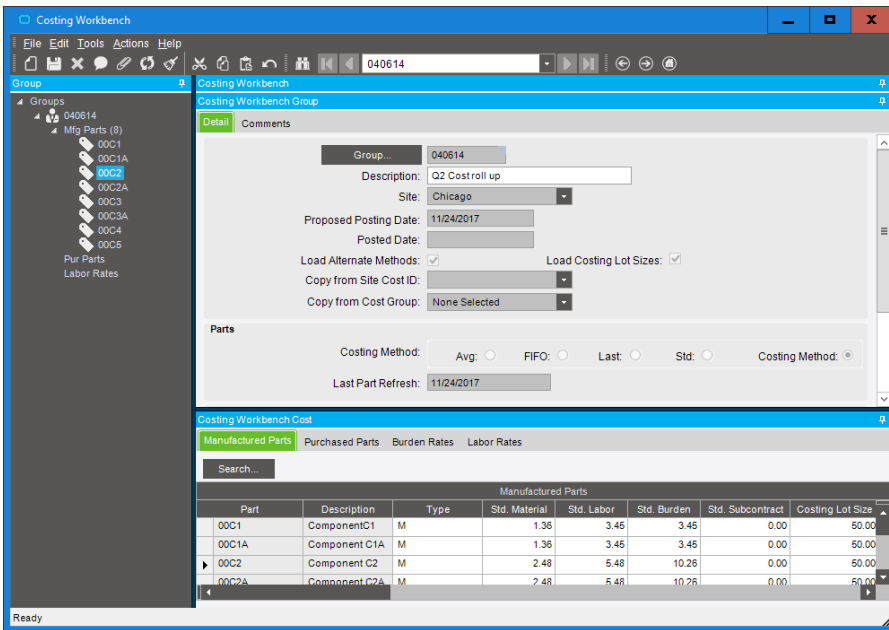
Figure 3.2 *Product Costing—Maintain and view costing by part type and cost type and access this information throughout the system.*

Epicor PLM supports the entire product change order management. All changes to CAD models or drawings are documented in a change history. History entries include date, change reason, and user. Additionally, processes defined using Epicor PLM Workflow assures change order control—from the beginning of the modification to the final release. All part master data, characteristics, and the change history journal are transferred and documented in the title block of the respective drawings. Upon further modifications, this data is updated automatically. Additionally, the BOM can be inserted into the drawing. *(See fig. 3.1)*

Product Costing

As a manufacturer or distributor, you consistently monitor product cost and analyze profitability as a way to pass cost savings on to customers while staying competitive. Epicor offers the flexibility and accuracy needed to analyze product cost on a customer-by-customer, part-by-part, and job-by-job basis. Maintain elements of product cost in separate buckets—including material, labor, burden, subcontracting, and material burden cost. Costing methods include average, lot, last, first in/first out,

and standard. The costing workbench supports the management of part costs in a single location. Specialized tools pull in the most recent costs and automatically perform cost rollups. Designed with full audit capabilities, the workbench offers variance analysis prior to posting new cost tables along with the effective dates of the costing changes. The costing workbench offers easy manipulation of resource, resource group, and operation cost.
*(See fig. 3.2)*

Product Configuration

Product Configuration enables on-the-fly configuration of highly customizable and dimensional products via a straightforward question and answer evaluation. It is web enabled and you can mark configurators as Epicor Web Configurator (EWC) and deploy them to Epicor Web.

When you enter a configurator record and set it to EWC, all Client processing is moved to the web and the existing Server side logic remains in the Epicor ERP application. It is also available to users employing Commerce Connect including the Dealer Network Portal. This simple-to-use module gives you the ability to formalize all configurations

prior to circulation and approval and includes detailed audit trail logs noting ID and approval date. In addition, you can tie a configuration to a BOM structure containing multiple options—each with its own set of rules—and optimally create unique configurations and rules for each revision. Configuration responses are stored with other product information for historical auditing and accuracy.

ConfiguratorLink for Epicor is a powerful tool that extends the native functions of the Epicor Configurator to allow it to become a Parametric Configurator. ConfiguratorLink automatically rebuilds 3D models according to Epicor Configurator parameters defined and mapped to CAD models, allowing users to produce 3D models and drawings quickly in sales and production processes. Helping employees and customers visualize the configured product is a few clicks away. ConfiguratorLink also has the ability to search and pull configuration parameters and automatically create CAD files for production processes such as burn table or CNC lathe. Quote integration produces 3D CAD files that are ideal for customer approval and signoff. Finally, ConfiguratorLink can push parameter data back to Epicor. Any parameter changes made in CAD will be saved back to the configuration parameters in Epicor—no need to jump back and forth between CAD and ERP.
(See fig. 3.3)
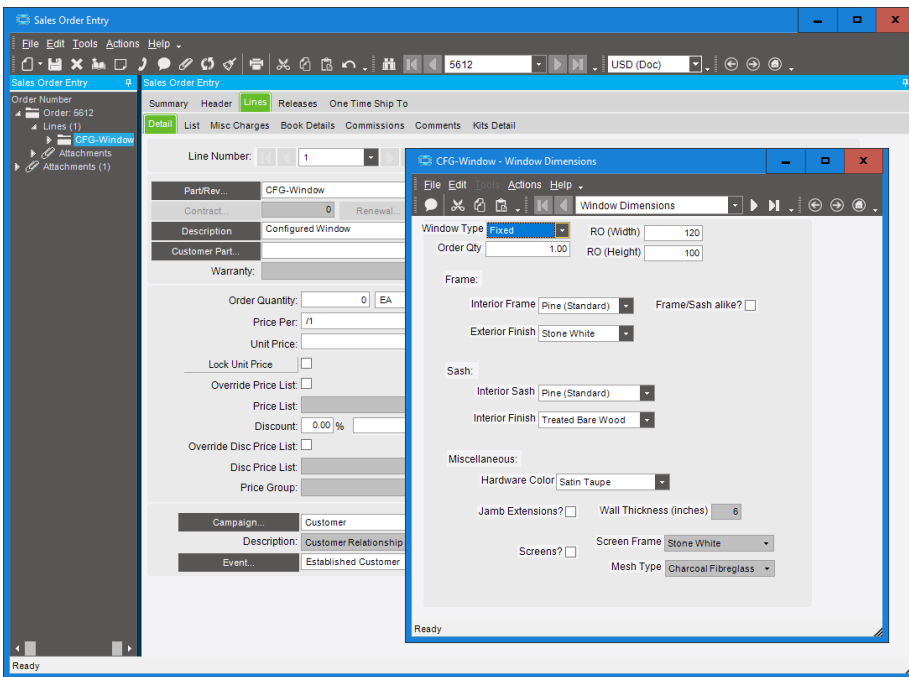
Figure 3.3 *Product Configuration—Build complex and flexible configuration models with attractive interfaces.*

About Encompass

Encompass Solutions is a business and software consulting firm that specializes in ERP systems, EDI, and Managed Services support for Manufacturers and Distributors. Serving small and medium-sized businesses since 2001, Encompass has helped modernize operations and automate processes for hundreds of customers across the globe. Whether undertaking full-scale implementation, integration, and renovation of existing systems, Encompass provides a specialized approach to every client's needs. By identifying customer requirements and addressing them with the right solutions, we ensure our clients are equipped to match the pace of Industry.

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