Enjoy a single source for unimpeded innovation and information in the product lifecycle from design to retire.

Product Data Management
- Bill of Materials
- Routings
- Engineering Change and Revision Control

Financial Management

Supply Chain Management

Customer Relationship Management

Sales Management

Human Capital Management

Service Management

Product Data Management

- Product Lifecycle Management
- Product Costing
- Product Configuration
Epicor Product Data Management

Epicor Product Data Management (PDM) serves as a central knowledge repository for process and product history. PDM promotes integration and data exchange among all enterprise users who interact with products—including project managers, engineers, salespeople, buyers, and quality assurance representatives.

Epicor offers a solution that manages the powerful information traditionally contained in engineering documents, plant floor routings, change orders, sales orders, and quality documentation within a single solution that is easily shared across the enterprise.

Promoting collaboration throughout the value chain, Epicor PDM provides a complete end-to-end solution to manage all aspects of a product’s lifecycle, enabling enterprises to control the enormous amount of electronic documents they produce.

**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 introduces multilevel BOM management that incorporates not only single-level components and material requirements, but also internal and external routing steps for complete end assembly visibility, planning, scheduling, and costing. Epicor introduces visual engineering technology with indented tree structures and drag-and-drop BOM management.

**Methods of Manufacturing**

Manage product BOM and routings in one central location. Part specific methods of manufacturing are controlled through engineering and offer drill-down functionality to lower level subcomponents along with material and routing components required for each.

**Drag-and-Drop Interface**

Use a simple tree interface to easily drag-and-drop components, operations, or direct materials from another BOM, quote, or previously run job.

**Visual BOM Display**

Easily see the structure of a product, including multilevel components and subcomponents.

**Same-as-Except**

Manage BOMs easily with “get detail” functionality that enables the user to pull an existing method of manufacturing for a product and make modifications for future runs or similar products.

**Alternate BOM**

Use alternate BOMs to redefine multiple BOM structures for the same part with perhaps 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 for the planner to choose the most cost-effective build.

Use the Engineering Workbench to build a visual view of a new bill of materials, accessing similar structures and revision levels.
Expansive Part Number
Use up to 50 characters in part length for a part number. System settings optionally designate maximum length of the part ID used.

Reference Designators on BOMs
Reference designators provide the ability to store multiple reference designators on BOMs. Also offers explosion reports by component and by reference designator from quotes, jobs, and the engineering workbench.

Document Linking
Link product specific documentation (e.g., electronic drawing and machine instructions) for easy access and document control using document management.

Costs Stored
Besides material costs, additional costs for manufactured parts (e.g., labor, burden and subcontracting) are stored and monitored within the BOM structure.

Cost Replace
The cost replace function rolls up costs from the BOM and updates the finished goods inventory file.

Requirements Reporting
A summarized material option, in addition to the standard indented BOM requirement report, is available to provide total requirements for each material.

Critical Path View
Easily view the critical path for the product.

Phantom Structures
Stock assemblies in inventory or maintain phantom assembly structures, giving you the flexibility to process complex jobs without having to first establish a complete BOM.

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.

Methods of Manufacturing
Manage product 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.

Easy to Use Interface
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.

Expedite Engineering
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 job, then modify it for the project at hand with the Epicor “get details” functionality.

Alternate Routings
Define and maintain 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.

Flexible Production Standards
Manage and measure jobs using traditional time-based production standards including:

- Pieces per hour
- Pieces per minute
- Operations per hour
- Hours per piece
- Minutes per piece
- Fixed hours
- Operations per minute

Dimensional Planning
Plan by volume and quantity using dimensional planning that is not time constrained.

Daily Capacity
Add flexibility to your planning with daily production rates that are quantity-based rather than time-based.
Resource Planning
Allow the system to automatically pick or schedule the resource to be used or call out the specific resource at the time of planning. Routings can indicate general resource groups needed.

Plan as Assembly
Use Plan as Assembly to plan lower component manufacturing parts without the need to include them in the full assembly structure. This feature enables complex planning for multilevel complex parts with components that are typically stocked.

Capability Planning
With APS you can specify a capability of a resource and allow the scheduling engine to determine the specific resource based on availability of the capability or skill level.

Default Operation Standards
Enter new routings quickly and easily using default operations and operation standards for resources.

Decimal Precision
Built to manage the needs of precision manufacturers, the production standard field has 10 characters behind the decimal point.

Production and Setup Cost
Perform cost analysis of production separately from setup. This enables tight cost control of these key functions.

Fixed and Variable Burden
Assign resource-specific or variable burden based on the optimization of the schedule and available resources.

Subcontracting Services
Include outside services in routing steps for accurate planning of costs and lead-time. Communicate with purchasing, shipping and receiving, as well as production management for full visibility of subcontracting operations.

Online Routings
Communicate the latest routing changes to the shop floor efficiently with the electronic work queue.

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, components, operations, and materials 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. Documents attached at the process level would typically contain information associated to process execution, workflow, or business practices for the process itself. 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.

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, engineering workflow management, and offers detailed cost analysis of products during the engineering process.

Engineering Workbench
Give 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 (e.g., jobs, inventories, sales orders, and quotes).

Engineering Approval
Enforce the approval of a method before it can be pulled into a job or quote.

Multiple Revision Capabilities
Store and manage every revision of a product individually along with effectivity dates, historical change, and audit logs.

Revision Effectivity
Manage revision by effectivity date.

Powerful Search
Look for previously used parts by creating a quick wild card search of all parts in the system.

Revision Control
Employ complete revision tracking of fields that you specify, including an audit trail of date, user ID, and description of the change.

Revision Compare
Dynamically and visually compare product methods for product plans that change before the product is complete. Easily compare methods of manufacturing for any part to a quote or job for the part and visually see the changes highlighted in color.
Engineering Workflow
Automatically assign and route the work needed to process changes as well as the process for engineering new products. Tasks are tightly embedded into the system ensuring that transactions can only be updated if the task is at the right status.

Where-Used
By displaying every product or assembly in which a specified component is used, you are able to identify those parts that would be affected by a design change or material substitution being considered.

Mass Replace/Delete
Efficiently update all BOM structures when engineering changes occur.

Express Check-Out
Use express check-out, designed for quick-change environments, for quick check-in and check-out of parts.

Product Lifecycle Management
Epicor Product Lifecycle Management (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 more than 12 computer aided design (CAD) systems as well as 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
- 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.

Electronic Vault
Epicor PLM contains a secure vault, a product knowledge repository that holds documents in a password protected electronic data vault accessible only via the PLM system.

Document Security
Provide a tight level of security. Control who can view or access documents. Protect your specifications, CAD models, drawings, e-mail messages and NC programs from loss or unwarranted access.

Check-In/Check-Out
Prevent users from altering documents that are currently checked out by other users.

Search Capabilities
Search and retrieve by multilevel classification, key fields, or graphically navigate through a document hierarchy.

Document Viewing
Preview drawings or documents, enabling your engineers to quickly view a large drawing without downloading it to their CAD system.

Document Relationship
Maintain relationships of documents to parts, projects, customers, and more. View the relationships between parts and documents (as well as document contents) via a structured tree view, so engineers can quickly see the impact and use of all documents.

Export or Import Documents: Documents can be retrieved from Epicor PLM’s protected electronic vault for external processing. At any time later, they can be checked in again. While checked out, drawings are labeled as ‘locked,’ avoiding any modification conflicts.

Document Linking: Link product specific documentation, for example, electronic drawings and machine instructions for easy access and document control using document management.

Workflow Management: Epicor PLM provides configuration functions that describe the rules for workflow state transitions.

Change Log
Use document change logs for access to historical details of changes.
**CAD Integration**
Integrate your PLM processes into each CAD program’s native menu system. Your product data, versions, revisions and BOMs are directly transferred into the drawing title block, which is automatically updated whenever a modification occurs.

**Sub-Document Management**
Control and dynamically build documents or drawings that are comprised of multiple components (e.g., pictures, text, or other documents separately). This uniquely enables Epicor PLM to manage multilevel complex assembly documents in a single step.

**BOM Push from CAD**
Push BOM data directly from within the CAD application to Epicor PDM.

**Updating Title Blocks**
Automatically transfer changes to part master information onto the title block of any associated drawings.

**Revision Management**
Manage version and revision of CAD documents.

**Automatic Generation of BOM**
Automatically generate the BOM for a part from CAD files, including “where-used” information.

**Drawing Copies**
Generate drawing copies in a neutral data format (e.g., HPGL and TIFF).

**CAD Systems Supported**
Integration is available with a variety of CAD systems including AutoCAD®, Autodesk® Mechanical Desktop®, Catia®, Inventor®, ME10™, MEDUSA™, MicroStation®, PRO-CAD 2D™, Pro/ENGINEER®, Solid Edge®, SolidWorks®, and Unigraphics®.

**E-mail Integration**
Epicor PLM supports Microsoft Outlook® and IBM® Lotus Notes® e-mail packages, allowing you to store e-mail messages and file attachments in the secure vault and manage the distribution and access to those messages and files. This is critically important for managing customer relationships and adhering to legal and regulatory mandates.

**Microsoft Office Integration**
Epicor PLM records documents at their place of origin and works fully integrated in Microsoft Word, Excel® and other Office applications. Text documents or spreadsheets that have been drafted using these applications are directly stored in the database.

**Product Costing**
As a manufacturer or distributor, you consistently monitor product cost and analyze profitability as a way to pass on cost savings 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.

**Elements of Product Cost**
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

**Costing Workbench**
Create a view of the product integrated with engineering to manage the product from design through production.

Maintain and view costing by part type and cost type, and access this information throughout the system.
Manage 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.

**Cost Set Grouping**
Group multiple parts together for fast and easy periodic cost updates.

**Multiple and What-If Cost Sets**
Manage multiple cost entries per part with effectivity date per cost set. Optionally generate what-if cost scenarios and review change analysis prior to posting.

**Part Cost Per Plant**
Set up a unique cost set for each plant allowing part cost per plant to be closely defined.

**Cost Load**
Pull in initial cost from previous cost sets and make changes for easier cost adjustments. Cost sets can be generated from alternate BOMs or routings for what-if scenarios.

**Cost Rollup**
Generate a new cost for a product with an automated cost rollup based on the existing routing for the product and current cost values for material, labor, burden, subcontracting, and material burden. For complex parts with many assemblies, you can specify whether to roll up subcomponents.

**Costs Stored:** Besides material costs, additional costs for manufactured parts (for example, labor, burden, and subcontracting) are stored and monitored within the BOM structure.

**Use Alternate Methods**
Optionally use alternate routing in performing cost rollup. This is especially useful when generating what-if cost analysis.

**Cost Rollup Group Report**
Print what-if changes prior to posting. Review proposed change detail including variance percentage.

**Product Configuration**
Product Configuration enables on-the-fly configuration of highly customizable and dimensional products via a straightforward question and answer evaluation. Product Configuration can be accessed from quote entry, order entry, and job entry. It is Web-enabled, and is also available to disconnected users employing Epicor Mobile Connect.

**Approval**
Formally approve all configurations before they can be put into circulation. When a configuration revision has been formally approved, it can be pulled into a quote, order, or job. An audit trail logs user ID and approval date.

**Bill of Materials**
Tie a configuration to a BOM structure containing multiple options. Each option can also have rules attached. Rules are executed during entry of a configuration to correctly configure the BOM and routing.

**Revisions**
Optionally create unique configurations and rules for each revision of a BOM. Configuration responses are stored with other product information for historical auditing and accuracy.

**Component Price Lists**
Allows you to use the component level price lists as the product is configured.

**Copy/Paste**
Allows users to copy configurator rules from one module to other (copy/paste).

**Screen Input Builder**
Build custom screens in which product features and other inputs can be entered during quote and order entry. Form controls (e.g., fill-ins, combo boxes, and toggle boxes) are used to prompt users for data.

**Dynamic Lists**
Building conditional options is easy with dynamic lists.

**Generic Part/Multiple Rules**
Allow use of the same generic part with multiple rules on multiple assemblies.

![Build complex and flexible configuration models with attractive interfaces to customers.](image-url)
Global Variables
Provides the ability to hold and use global configurator variables.

Import/Export Configurations
Provides the capability to import/export configurations.

Pricing
Calculate pricing as a product is configured. Either features/options or rules-based pricing can be applied.

Options
Define the features and options of a product at design time, then customize during quote and order entry.

Rules
Build your own unique rules with an easy-to-use expression builder. Process rules during quote and order entry to create an accurate BOM from the features and options selected.

Add Comments to Rules
Capability to add comments to document formulas used when creating the rules.

Keep When Rules
Allows for a configuration at all levels of a part, but only for the subassemblies that are stored. Subassemblies have ‘keep when’ rules.

MRP Inclusion
Configured parts can optionally be included within MRP to help manage mass produced custom product lines.

Excel Interface
Optionally interface to Microsoft Excel to map values to tables instead of building complex rules within the configurator.

Ensure Rule Accuracy
Test rules and inputs during design mode to eliminate surprises during processing. Full reporting is available as an audit trail.

Smart Part Number
Build a smart part string during entry of a configuration to allow easy identification of the options selected.

Create Part Numbers
Optionally create actual part numbers in the inventory master file using the configured smart part number. Creating the part automatically eliminates manual entry when a new part is configured and ordered.

Configured Parts within Configured Parts
Deploying rules based configurations with configured components can be tricky. Epicor offers a solution for managing the complexities of these configurations with real business benefit.

Multilevel Configured Parts
Manages multilevel configured parts, with the ability to configure and sell an assembly in one company, and produce it in another.
About Epicor

Epicor Software is a global leader delivering business software solutions to the manufacturing, distribution, retail, hospitality and services industries. With 20,000 customers in over 150 countries, Epicor provides integrated enterprise resource planning (ERP), customer relationship management (CRM), supply chain management (SCM) and enterprise retail software solutions that enable companies to drive increased efficiency and improve profitability. Founded in 1984, Epicor takes pride in more than 25 years of technology innovation delivering business solutions that provide the scalability and flexibility businesses need to build competitive advantage. Epicor provides a comprehensive range of services with a single point of accountability that promotes rapid return on investment and low total cost of ownership, whether operating business on a local, regional or global scale. The Company’s worldwide headquarters are located in Irvine, California with offices and affiliates around the world. For more information, visit www.epicor.com.

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