Automotive

Service-Oriented Architecture Solves the Automotive Challenge

The pool of automotive suppliers continues to shrink as only those with the most flexible IT infrastructures can adapt to the increasing demands of automotive OEMs. The answer is Epicor for Automotive, our enterprise resource planning (ERP) solution built from the ground up for manufacturers using a 100% service-oriented architecture (SOA) combined with a Microsoft® .NET™ user interface. Messaging is a key factor: messaging between factory sites, messaging between the business system and user screens and messaging between the business system and trading partners. Other ERP systems install an “XML wrapper” around their systems and call themselves “SOA,” but that adds another layer of abstraction, complicating setup and slowing down transactions. Every business object in Epicor for Automotive is available as a collection of Web services, to be made easily accessible by your Trading Partners’ systems without a complicated application programming interface (API).
Epicor was the first in the industry to introduce a 100% SOA-based ERP system, but that’s not the only reason we’re at pole position. We have unparalleled experience in working with manufacturers to solve their business challenges for the past 20 years. Having successfully implemented more than 8,000 manufacturing customers, we’ve developed a deep understanding of the needs of manufacturers. Many of our customers are classified as strictly automotive, but many more span several markets, including automotive.

Many of Epicor’s manufacturing customers make complex products and by the same token, they view themselves as complex businesses that defy categorization. Our customers are able to be all things to their customers – public sector or private, domestic or foreign, because they are aided by ERP functions for every area of a manufacturing business, whether they are make-to-stock, configure-to-order, engineer-to-order, kit-to-order, or some combination thereof. Epicor for Automotive’s ERP functions are tightly integrated with each other and the financials for visibility and auditability. You can start small, tens to hundreds of users, on an easy-to-administer Windows platform for Microsoft SQL Server or Progress databases and you can also choose Unix or Linux.

“.net technology enables user friendly screens

One of the most important aspects of an ERP system is what your users see and control: screens written in Microsoft® Visual Studio® .NET™. They’ll see a state-of-the-art user interface that looks and acts just like the newest Microsoft Windows®-based applications they’re used to, with index tabs, F1 help, cut-and-paste with other Windows applications, such as Microsoft Excel, multiple open records and a scrolling grid with frozen rows. And they can “personalise” these screens too, by changing such things as tab order, grid sort order, menu shortcuts and hotkeys. These features are part of the Microsoft .NET Smart Client approach deployed with Epicor for Automotive. One of the benefits of the .NET platform is the ability to build applications based on Web services that have either a Smart Client or a browser-based user interface (or both).

Support for Global MMOG/LE Requirements

USE DEMAND MANAGEMENT AND PURCHASE CONTRACTS FOR RELEASE ACCOUNTING

Epicor for Automotive provides an efficient interface and process to manage the volume of data that is possible with long-term Just-in-Time (JIT) contracts. It includes Demand Management, which handles creation, analysis, manipulation and reconciliation of cumulative records for releases from your automotive customers (OEMs and Tier 1). The Purchase Contracts module handles cumulative records for releases to your automotive suppliers. Setting up and changing deliveries (e.g., delivery dates and quantities) on purchase orders is automated, so that you can make changes easily to the schedule as your needs change.

COMMUNICATE WITH YOUR TRADING PARTNERS

Epicor for Automotive contains the framework for electronic communication of release and ASN information to and from your automotive customers. Advanced EDI functions are tightly integrated with the Demand Management module. Our solutions support all industry B2B e-commerce standards and communication and security infrastructures.
IMPROVE LEAD TIME AND REDUCE WASTE WITH LEAN PRODUCTION
Epicor for Automotive is a real-time solution that was designed to support paperless manufacturing. Through the use of Kanban production, you can produce your fast moving products without setting up work orders and create queue records for the work that needs to be completed, therefore eliminating the need for paper.

SUPPORT BIDDING, ESTIMATING AND PROTOTYPING WITH PROJECT MANAGEMENT AND SUPPLIER CONNECT
Project tracking is entirely embedded within the ERP system for budgeting, accumulating, rolling up and analysing costs. You can generate a multi-level project at any time, in “broad brush strokes” in the Quotation Module, where established part numbers are not yet required, or later, in the Engineering Workbench. You can link jobs, orders and quotes to a project ID, which will then automatically capture their direct/indirect labour, material issues and purchase order costs. Project milestones can be set to trigger progress billing. Project management also supports a bi-directional integration with Microsoft Project.

RFQs can be tied to a project from both the quote and the job. The RFQ requirements entered by the project manager/engineer are immediately visible to the buyer via the Buyer Workbench, where the buyer has a coordinated view of sourcing, procurement and expedited requirements. The buyer has the option of consolidating purchasing across multiple projects to gain superior economies of scale. In addition to the Buyer Workbench, Epicor for Automotive aids project procurement via the Supplier Connect Web Portal. Supplier Connect enables online, efficient access for your suppliers to bid on RFQs, receive your POs and view scheduling information.

Customize Products On-the-Fly
Epicor for Automotive’s Product Configurator not only allows for easy selection of product features and options, it can perform calculations and present specific choices based on parameters entered by the user, such as dimensions of a door opening. Product Configurator verifies the selections against the rules and may present additional options based on its calculations against engineering specifications. It rolls up costs and pricing and generates bills and routings. Your customers can also log into the Web Configurator that is part of Epicor for Automotive’s Customer Connect and execute these same rules to configure their product options.

Effectively Manage Global Growth
Epicor for Automotive supports enterprise purchasing management and advanced multi-plant management, which enables companies to synchronise their manufacturing operations globally, by deploying and consolidating enterprise information across multiple companies, multiple servers, multiple databases and multiple countries.

Epicor for Automotive supports many languages, most notably traditional and simplified Chinese. The underlying SOA makes the ERP system inherently “internationalised,” so that it can be adapted to any region and any user easily without modifying the source code. The ERP system is also localised to address the various and necessary requirements for doing business in other countries. For instance, it supports the “Information Technology—Data Interface Specification of Accounting Checking Software,” a standard proposed and drafted by the People’s Republic of China Audit Department and the Finance Bureau.

Epicor for Automotive Currency Management automates the process of both buying and selling in foreign currencies. With tracking of default currencies as well as extensive exchange rate tables, manual transactions are reduced. Lock transactions in at a specified rate with automatic gain or loss reporting, reducing the guesswork from handling foreign transactions. Throughout the system, the currency symbol is displayed notifying the user of the currency being used.

Create AIAG-Compliant Labels
Epicor for Automotive provides the information necessary to support AIAG-compliant labels tied to ASN and also the ability to create RFID labels.

Integrate Seamlessly with Other Systems
Any of the ERP system’s business objects can be published as Web services. As a result, XML data from the outside going into the ERP system via these Web services will obey the business rules of the business objects. In other words, if it’s bad data that could corrupt your database, the business rules will stop it dead in its tracks. Epicor Service Connect is the preferred business integration platform for connectivity to the ERP system. In it you can set up secure workflow orchestrations between the ERP system and external applications or processes, such as EDI or PLM. Epicor Service Connect consists of security, messaging, workflow orchestration, transformation, scheduling, notification, exception handling and Web service components.
About Epicor

Epicor is a global leader dedicated to providing integrated enterprise resource planning (ERP), customer relationship management (CRM), supply chain management (SCM) and professional service automation software solutions to midmarket companies and divisions of the Global 1000. Founded in 1984, Epicor serves over 20,000 customers in more than 140 countries, providing solutions in more than 30 languages. Employing innovative service-oriented architecture (SOA) and Web services technology, Epicor delivers end-to-end, industry-specific solutions for manufacturing that enable companies to increase efficiency, improve performance and build competitive advantage. Epicor solutions provide the scalability and flexibility to meet today’s business challenges, while empowering enterprises for even greater success tomorrow. Epicor offers a comprehensive range of services with its solutions, providing a single point of accountability to promote rapid return on investment and low total cost of ownership. To learn more about Epicor for Aerospace and Defense, please visit www.epicor.com.

Manage the Entire Product Lifecycle

Epicor PLM is the product data and document management system that supervises the entire process, the product life history, in conjunction with the ERP system. Workflow management, scan and plot management, as well as document viewing in large heterogeneous networks and over the Internet, complete the range of powerful Epicor PLM features employed. Key features of the Epicor PLM application include full integration with more than 12 computer aided design (CAD) systems and Microsoft Office. Using classification and indexing substantially reduces the expenditure for retrieving documents. Drawings, bills of material or product descriptions can be re-used for similar products and comparable projects. Push BOM and routing data directly from within the CAD application to the ERP system.

Manage All Aspects of Quality from a Single Data Source

Epicor Advanced Quality Management is a suite of applications that address the mission-critical issues impacting automotive manufacturing profitability. Quality improvement initiatives reduce scrap and rework, produce fewer non-conformances, lower production PPM, reduce warranty exposure and improve time to market. Complete APQP and PPAP management, product and process documentation gives you control over your business processes to streamline product launches and dramatically reduce warranty exposure. Supplier performance management creates scorecards for ongoing supplier performance ratings. TS 16949 quality performance management dramatically reduces the time and effort typically associated with compliance audits. Maintain all documentation, issue resolution records, employee training and skills records and all key audit information in one easy-to-access system.

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