

Must-Have ERP Features for the Automotive Industry



At a Glance:

- This paper summarizes the benefits an ERP solution provides to the entire manufacturing process “from shop floor to top floor.”
- Included are key features in a cloud ERP solution to help a manufacturer optimize performance throughout the enterprise.

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Challenges Faced by Automotive Manufacturers

Automotive OEMs and parts manufacturers are fighting for survival in an increasingly more competitive global economy. As large companies spin off parts of the whole and smaller companies are acquired by more substantial players in the industry, they share one common goal — streamlined, efficient operations that maximize profitability.

Manufacturers rely on ERP systems to ensure they thrive and succeed in the global economy. They have typically been judged on three criteria: initial capital expense, ongoing operating costs, and time to value.

To justify cloud ERP solutions in manufacturing organizations, champions are increasingly asked to prove tangible business value. In our exploration of cloud ERP, Nucleus found that there are a number of benefits beyond total cost of ownership to deploy cloud ERP, including increased flexibility, scalability, accelerating deployment, business continuity, and usability.*



Bringing the Best ERP Solution to the Automotive Manufacturing Industry

OEMs and automotive parts manufacturers rely on software solutions to help them achieve a high degree of traceability in order to accurately track all aspects of the manufacturing process and better manage their overall operations. Today's leading manufacturing solutions go beyond the historical ERP strengths of finance and accounting to give organizations the ability to achieve complete process visibility — enabling them to meet their stringent requirements and avoid or minimize the impact of product recalls or delays.

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1) Full Traceability

In order to achieve compliance with government regulations, manufacturers must be able to trace every component within their individual products to isolate problems quickly and with pinpoint precision. They must have a system that enables them to accurately track individual bins, containers, and packages as they flow through the manufacturing process and distribution chain.

Integrated ERP software like Plex Cloud ERP can meet this need, providing detailed historical information related to supply chain, production, inspection, genealogy, and usage — tracing every detail about a product from when it arrives at the plant to when it leaves as a finished product.

Because it is a cloud solution, Plex Cloud ERP provides its users the ability to instantly track the genealogy of any product, at any time, and from anywhere with an Internet connection.

2) Quality and Supply Chain Management

The ability to manage production quality is critical to automotive manufacturers. Their ERP systems must provide the capability to track real-time data on all aspects of manufacturing and supply during production, and to store the data in archives for audits or future reference.

“Our supply chain reacts more quickly and nimbly to changes in customer demand.”

Plex’s quality management functionalities enable manufacturers to track quality using tools like conformance/corrective and preventive action and statistical process control, and other best practices. With this industry-leading ERP system, the entire operation is integrated, so quality functions can link with supply chain management functions to give manufacturers a complete view of their quality performance one step back and one step forward in the supply chain — from their suppliers’ operations through the “next-step” customers and to the end consumers.

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3) Electronic Document Management

Like all companies today, manufacturers strive to achieve the greatest possible productivity. They must employ a software system that provides electronic document management in support of a paperless environment. Not only does this save employees time, it speeds up overall operations, reduces waste, and minimizes room for human error.

Plex Cloud ERP, for example, enables manufacturers to produce and attach electronic files in any format — JPG, Word, Excel, PDF, or any other format requested by the customer — to sales orders, item masters, purchase orders, or accounting transaction files. Additionally, all revisions of these documents are controlled in a Document Management System, for a complete product history record.

4) Inventory Optimization

In automotive parts manufacturing, excess inventory is an unnecessary expense and contrary to the lean manufacturing processes the enterprises are embracing. Inventory optimization is a must-have ERP feature for automotive parts manufacturers.

The ERP system must include traceability features with serialized container and individual tracking. It must also include materials requirements planning (MRP) functionality, enabling the manufacturer to plan just-in-time delivery of raw materials.

Plex Cloud ERP includes this functionality, enabling manufacturers to achieve detailed container-to-container traceability, both upstream and downstream through production to shipment. Its streamlined MRP functionality helps its users achieve higher profits by minimizing inventory holding costs and reducing delays caused by lack of required parts.

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5) Integrated Financials

Manufacturers must have the ability to quickly and easily access consolidated financial information. They need an ERP system that enables them to trace costs associated with individual products and product lines right down to the raw materials used in production.

A major advantage of Plex Cloud ERP is the integration of production and accounting modules. Rather than a traditional scenario of separate software packages, Plex contains natively integrated functions that cover virtually every process and department within the manufacturing enterprise, so data flows seamlessly between departments that used to have standalone silos of information. There's no need to build "patches" between systems or reconcile different reports that were generated from different systems. Every department accesses the same, real-time information.



6) Built-in Barcode and OEM Shipping Labels

Plex Cloud ERP includes built-in support for printing, reading, encoding, and utilizing barcode labels. Using Plex's barcoding function, part numbers, purchase order numbers, lot numbers, or any other information can be encoded into the machine-readable patterns of predefined bar and space patterns that comprise barcodes. Labels can be created and printed, and quickly and accurately read by a scanner and a computer.

For example, Plex customers utilize barcoding processes to track containers and individual parts on the factory floor using handheld pocket PCs, wireless scanners, and other similar devices — and information about each container's production stage is immediately available to all users, including the management team. Users can also scan containers and parts as they are transported around the shop floor, driving a highly accurate, real-time inventory system. In addition, they can utilize barcoding to receive and record raw materials and components; identify machines/assets, tooling, and MRO supply crib items; locate parts; calibrate gages; create, read and identify shipping labels; and track labor, time,

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and attendance via employee badges. A seamless flow of materials through receiving, inventory, production, and shipping is enabled by barcoding, with all details tracked within Plex.

7) Built-in EDI Templates

EDI is required for doing business with many OEMs. Setting up and maintaining an EDI system can be cumbersome, time-consuming, and expensive. Plex Cloud ERP simplifies and streamlines the process. The Plex EDI capability is built into our enterprise manufacturing system, which leads to substantial savings in cost and time. The single instance of the application means that the Plex Systems' expert staff keeps up to date on the latest standards, protocols, and trading partners.

“The automated, paperless system saves time and effort, and helps with ISO compliance.”

Plex Cloud ERP facilitates and streamlines Release Accounting with automotive OEMs, tier-one suppliers, and other companies that utilize cumulative-based releases. By providing a fully-integrated system that includes EDI, Blanket Orders, Cumulative Releases, Barcode Labeling, and Shipments, Plex provides a best-in-class solution based on years of experience in the industry. The Plex Release Accounting system can be integrated with an existing ERP system or as part of the comprehensive ERP solution. With extensive libraries of existing documents and protocols — and the ability to map new configurations rapidly — Plex can support any and all trading partners.

8) Tooling and Maintenance

Manufacturers benefit from Plex's tooling functionality because it specifically tracks which tools are used — as well as the lots of raw materials used in the making of the product — and how many parts are produced before replacement or adjustment is necessary to maintain proper quality specifications.

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Maintenance protocol and histories are saved and accessible to ensure machines function as efficiently as possible, resulting in reduced waste and more cost-effective production processes.

Getting What You Must Have

A flexible, Internet-based solution such as the industry's leading ERP manufacturing solution, Plex Cloud ERP, brings manufacturers serving the automotive industry the features they must have to produce the highest quality products, operate efficiently, and maximize their profitability.

In addition, because it utilizes the cloud delivery model, Plex Cloud ERP enables automotive manufacturing enterprises to avoid costly licenses and complex hardware and software infrastructures. Its customers use the Internet to access systems that are deployed and maintained off-premises. They enjoy ease of use as well as industry-leading security and connectivity. And perhaps best of all, they never need to suffer from using an outdated system, or fear losing customized functionality in the next upgrade. With Plex, all users are always on the most up-to-date version of the software, and new features and functions are made available on a daily basis.

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*** Six Reasons Why Manufacturers Should Consider Cloud ERP. The Bottom Line.**

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About Plex

Plex is the Manufacturing Cloud, delivering industry-leading ERP and manufacturing automation to nearly 400 companies across industries including aerospace and defense, food and beverage and motor vehicles. Plex pioneered Cloud solutions for the plant floor, connecting suppliers, machines, people, systems and customers with capabilities that are easy to configure, deliver continuous innovation, and reduce IT costs. With insight that starts on the production line, Plex helps companies see and understand every aspect of their business ecosystem, enabling them to lead in an ever-changing market.