

At a Glance

- Motor vehicle manufacturers face unique challenges when it comes to implementing Enterprise Resource Planning (ERP) software solutions.
- This article summarizes the benefits manufacturing-specific solutions provide to the entire production process “from shop floor to top floor.”
- Included are key features required by motor vehicle manufacturers, including benefits delivered by the Cloud model for streamlined operations throughout the enterprise.

Today’s motor vehicle supplier is challenged to do more with less in an increasingly competitive economy.

That’s why winning manufacturers rely on Enterprise Resource Planning (ERP) solutions to ensure they survive and thrive.

High-performing manufacturers have found that full integration of real-time operational data collected from the shop floor to the top floor is key to reducing costs, streamlining operations and improving customer satisfaction.

Full Integration

An ERP system that fully links production, quality, lean tools, materials requirement planning, supply chain, shop floor control and more is critical to the viability of the enterprise.

There’s power in the data collected on the shop floor. Real-time visibility into the production process brings manufacturers improved quality, increased production throughput, less scrap, and many more benefits.

One Size Does Not Fit All

It’s noteworthy that many ERP vendors claim to support motor vehicle manufacturing companies, but they do little more than accounting, order entry, and other office tasks.

These solutions provide little value to the manufacturing department. Many manufacturers indicate that traditional ERP software actually *hinders* manufacturing, rather than helps it.

The key is to implement a solution that includes job/production management, process instructions, production scheduling, ultra-detailed real-time inventory control, tool tracking, production tracking, traceability and part genealogy, labor tracking, PLC machine integration, and much more.

Full Traceability

Motor vehicle suppliers including metals and resin manufacturers must achieve a high degree of traceability in order to accurately track all aspects of the manufacturing process and better manage overall operations.

These organizations must have the ability to achieve complete process visibility— enabling them to meet stringent customer requirements and minimize the impact of product recalls or delays.

What About the Cloud?

Any discussion related to business software must include a close look at the Cloud.

The Cloud, or Software as a Service, is an application delivery model in which the user accesses software from the Internet, from anywhere, at any time.

The physical location and ownership/maintenance responsibility of the system is outside the responsibility and concern of the end users.

Cloud ERP is available to manufacturers via subscription-based pricing, rather than the “perpetual license” that usually accompanies client/server software.

In true Cloud or SaaS applications, all users run off a robust infrastructure and a single instance of the software.

Advantages of the Cloud Model

There are obvious financial and resource usage advantages to the Cloud model, as compared to the traditional on-premises software model, in which a manufacturer purchases a costly license.

In terms of initial cost, with subscription pricing, the manufacturer avoids up-front investment in software licenses, operating licenses, databases, servers, backup equipment, etc. The service provider bears all of these costs, which are passed along in the subscription pricing.

Because the service provider is operating the system, low-value but mission-critical IT operations are eliminated or reduced. These low-value operations include nightly backups, tuning databases, defragmenting storage systems, applying security patches, and more.

There are also benefits related to updated version control. True Cloud or SaaS applications are delivered via a “multi-tenant” system, which means that there is a single instance of the software running, and multiple companies use this system as if it were dedicated to their own use.

Users never face the hassles of an upgrade. New features and customizations are automatically folded into the base application, letting the motor vehicle manufacturer avoid costly IT support and maintenance.

This is in direct contrast to more traditional enterprise software models, where companies are either frozen onto an obsolete system or have to suffer through costly, painful, disruptive version upgrades.

ERP Must-Haves

Given the issues outlined here, motor vehicle suppliers must be sure their ERP system achieves the following:

- Simple, easy-to-use features for use by shop floor personnel.
- Real time information tracking production processes.
- Online for ease of access via a browser.
- Built-in barcode labeling, integration with machine PLCs, weigh scales, packaging machines, and other shop floor equipment.
- Anytime, anywhere access via the Cloud.
- Data security, safety.

Want to Learn More?

Plex Systems, developers of industry-leading Plex Online Cloud ERP for manufacturers, offers a [comprehensive online Resource Center](#) to help make sense of ERP system requirements.

An in-depth white paper entitled “[8 Must-Have Features for Automotive & Motor Vehicle Manufactures](#)” offers further detail.