3 Manufacturers Who Transformed Their Businesses with Tailored ERP

By Adam Grabowski
Global Shop Solutions

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In the early days of ERP, manufacturers got the features, functions and capabilities that came with the product. No customization. No modifications. Very little, if any, flexibility. Fortunately, times have changed. We are now well into the third decade of the 21st century, and flexible ERP software has become an essential tool rather than a nice-to-have.

What makes tailored ERP software a must-have? The ever-increasing complexity of modern manufacturing requires an ERP system that is configurable and customizable. If your system can't adjust to changing business processes, workflows, rules, or regulations; if it doesn't provide the flexibility to adapt to specific business needs or processes that can deliver efficiency, cost, quality and profitability, your competitive position will lag behind competitors with tailored ERP.

Keep in mind that ERP software basically runs the business. However, Tailored ERP should allow you to select, implement, or replace individual modules or components without affecting the whole system. Depending on the ERP system's platform, relatively simple tailoring that produces meaningful results can be implemented in-house without changing the software's underlying coding. More complex changes require an expert coding engineer, usually from the ERP vendor company or a software consulting firm. Either way, Tailored ERP lets you work the way you need to.

Benefits of Tailored ERP

Tailored ERP provides a wide range of software flexibility from creating, scheduling, and automating reports to customizing workflow beyond an ERP system's standard applications. Some of the tailored modifications that are used widely throughout the industry include:

- Customizing existing screens with user-specific behavior
- Augmenting existing screens with supplemental data and functionality
- Scheduling processes and reports to run at regular intervals
- Creating custom applications specific manufacturing processes
- Automating a string of tasks or workflows
- Integrating the flow of data into or out of an ERP system with the package of choice

While the above benefits focus on specific areas of the business, others have a broader impact throughout operations like:

Improved Efficiency. Changing standard screens by adding or removing functionality can maximize efficiency for ERP users. Combining data and functionality from several screens into one enables users to work all day from a single screen.

Scheduling and Automating. With ERP's real-time data tracking, users can create, schedule, and automate reports or workflow beyond what is included in the system's standard applications.

Customizable Dashboards. With tailored software you can modify standard dashboard screens to show only the data you need to see. Some ERP systems let you create your own custom dashboards.

Software Safety. ERP software that includes the use of business data objects – self-contained software entities that consist of data and functions to manipulate data – removes the risk normally associated with extending an ERP system. Conducting the reading and manipulation of the data via business data objects insulates your system from changes to the underlying data structures, preventing your tailored programs from breaking.

Tailored ERP Case Studies

As you review ERP software, you'll need to decide if you want to tailor the software to fit your processes and people. If that's the case for you, choose a vendor that provides a software development kit (SDK) right out of the box. You can use SDK to build and modify reports or applications on top of the core system, or you can work with the vendor to build more complex tailored ERP modifications. Here are three examples of manufacturers who modified the system to make it work for them.

1 Managing Variance When Every Job is Different

Great Western Valve repairs and remanufactures control, pipeline, and relief valves for a variety of industries. The company never repairs a valve the same way, creating variance between jobs that used to be difficult to track and manage with the company's hodgepodge of accounting and database programs.

Seeking to bring all the data together on each job, management asked Global Shop Solutions to replicate the unwieldy process within their ERP system. Two separate valve roster database programs were created – one for the control valves and one for the safety valves – making control of the data collection process quicker and more efficient.

These tailored software programs also changed the way employees work on the shop floor. Instead of filling out handwritten forms, workers now do it digitally. Instead of creating separate reports, quality control people can input most of their information into the valve roster. Sales and customer service can access the valve roster when working over the phone with customers. Most important, the valve roster program can scale with the company as it grows.
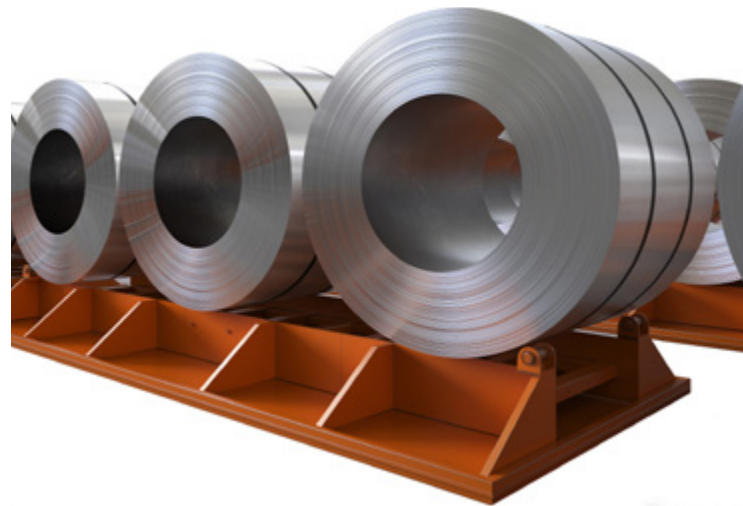
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Going Paperless on the Shop Floor

After using their ERP software to dramatically shrink the large amount of paper on the shop floor, precision metal manufacturer Jones Metal Products decided to eliminate all of it. Global Shop Solutions helped them achieve their goal by creating a custom material dispatch handling script.

The company's material handlers constantly need to know what products should be delivered to their workcenters or picked up at their workcenters and put into bins. Instead of using paper dispatch reports forklift operators now use iPads to dispatch materials in real time – without ever leaving their forklifts.

When materials are needed for an upcoming job, operators use the material dispatch handling script to access the labor sequence and request material, allowing a dispatch of the materials to be moved from a bin to the workcenter. When that labor sequence is completed and a move ticket is created, the GAB script populates the dispatch screen with the materials that need to move from that workcenter to a bin. It also displays a dynamic dispatch list that material handlers use for picking and delivering product.

The material handler then clicks on the screen to notify the system they are picking up and delivering the material. When the move is complete, the material handler enters pickup and delivery of the material into the system, preventing incorrect deliveries of material being picked up by someone else.

The GAB script produces a smoother workflow on the shop floor. Material handlers are more productive. Best of all, Jones Metal has achieved its goal of removing all paper from the shop floor.

3 Shipment Validation a Real Game Changer

House of Doolittle makes a wide variety of home and business paper products from 100% recycled paper with 100% post-consumer fiber. Every day it ships thousands of custom-printed and stock products with some customers receiving hundreds of boxes on one order.

For years House of Doolittle's shipping process involved error-prone duplicate data entry and manual cross-checking of paperwork orders, bills of lading, and packing slips. They now ship all their products error-free with Shipment Validation, a tailored software application created by Global Shop Solutions consultants to transform shipping into a highly efficient wireless process that rarely misses a beat.

The color-coded tracking feature ensures accuracy of even the largest orders. As workers scan the barcoded labels on the boxes, the color of the line item on the screen changes to blue. A line that remains red indicates one or more items missing from the order, and the system emits a warning beep if incorrect items are scanned into the order. When all line items on the sales order turn blue, the order is ready to be shipped.

The system then automatically prints a customer-specific shipping label with one click of a button. Each packing slip is barcoded with the order number and suffix for easy scanning into UPS WorldShip or FedEx Ship Manager. There is no manual cross-checking or multiple data entry to inject error into the system, and everything flows through one simple screen. For House of Doolittle, Shipment Validation is indeed a real game changer.

How ERP is Tailored

ERP can be tailored in three basic ways.

1. Do it yourself.

The best tailored ERP software comes with a software development kit (SDK) that enables manufacturers to customize and accessorize their ERP software on their own. Having SDK knowledge and skills enables you to build and modify applications and reports on top of your ERP's core system. Otherwise, training from the vendor is needed.

2. Let your ERP software developer do it.

This option is typically chosen when the business doesn't have the skills or resources to do-it-yourself or the change is complex. Your vendor knows the software better than anyone and can minimize disruptions that may occur during the customization process.

3. Download applications from your ERP software developer's app store.

Some ERP vendors maintain an online library of tailored software customizations created by or for the manufacturer who implemented it. These can be downloaded from the vendor, often at no cost. You then have the option of a do-it yourself implementation or having the vendor do it.

When undertaking a tailoring project, whether DIY or vendor-driven, it's a good idea to:

- Assess your requirements

- Discuss the project with your ERP vendor

- Describe the scope and plan of the customization

- Select between DIY and vendor driven

- Test and validate the customization upon implementation

- Train and educate your users

Tailored ERP software offers manufacturers the flexibility and efficiency needed to adapt to the ever-changing landscape of modern manufacturing, empowering businesses to optimize processes, streamline operations, and stay ahead of the competition.

ABOUT THE AUTHOR

Adam Grabowski is the Director of Marketing at Global Shop Solutions. He is responsible for translating the company's business objectives into successful brand, marketing, and communication strategies to drive awareness, revenue, and loyalty.

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