

# Michigan State Industries

## ERP SOFTWARE CASE STUDY

### THE PROBLEM

Michigan State Industry's (MSI) legacy ERP system did not have the automated features that come standard with modern ERP. As a result, all shop floor data collection was performed manually on paper and spreadsheets. Inventory and other data had to be backflushed to get the numbers right. MSI was unable to track work in progress and was forced to rely on Michigan Technology Department for support.

### THE SOLUTION

Implementing Global Shop Solutions ERP software automated most of MSI's production processes, including shop floor data collection. It eliminated all the legacy databases, so MSI's 12 different operations are now managed from one integrated database. MSI now tracks WIP in real time. And with Global Shop Solutions' robust technical support, MSI no longer needs the Michigan Technology Department.

#### ERP APPLICATIONS USED

- Dashboards
- Inventory
- Paperless
- Purchasing
- Shipping
- Shop Floor Data Collection
- Shop Management



Customer Snapshot



CUSTOMER LOCATION  
Lansing, MI



FOUNDED IN  
1975



INDUSTRY  
Correctional



EMPLOYEE COUNT  
500

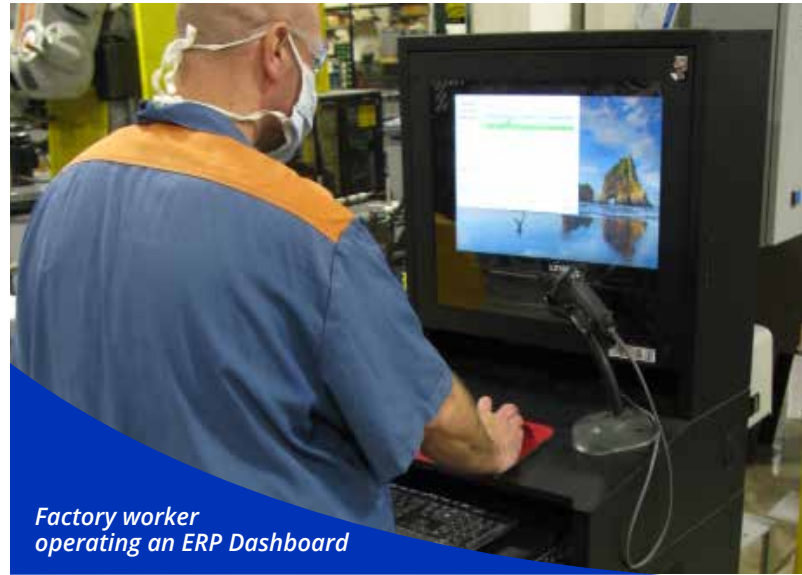


MODE  
Mixed Mode,  
Government  
Contract



CUSTOMER SINCE  
2019

Part of the Michigan Department of Corrections, Michigan State Industries (MSI) is a manufacturer that provides work opportunities for more than 500 incarcerated individuals in 12 industry operations. Authorized to engage in manufacturing, sales and service to 501(c)(3) non-profit organizations, state government institutions, the federal government and tribal nations, MSI produces a variety of products and services. These range from mattresses, textiles, garments, shoes, license plates and janitorial products to printing and laundry services.



Factory worker operating an ERP Dashboard

**In 2018, MSI decided to replace their aging legacy ERP system to automate production processes and improve efficiency.** They hired Bob Belmonte, an independent contractor with years of experiencing evaluating and implementing ERP systems, who reviewed bid responses from ERP vendors, determined the best fit for MSI's needs, and spearheaded the implementation process. He recommended Global Shop Solutions ERP software based on its robust capabilities and stellar reputation for training, customer service and support.

"Once we determined Global Shop Solutions had the functional richness and agility MSI needed, we talked with correctional facilities in other states that use the software," says Greg Dancer, MSI's Director/Administrator. "We learned Global Shop Solutions has successfully implemented their ERP in a number of Correctional Industry states. The software is easy to use and they have many things in place to facilitate implementation in a timely manner – project managers, consultants, and very knowledgeable

product specialists."

### **AUTOMATION CHANGES THE GAME**

MSI had several key objectives with the new ERP. They wanted to become GAP (General Accounting Principles) compliant; eliminate all redundant legacy databases; be able to track work in progress; enhance the skill sets of inmates; and no longer depend on the state of Michigan Department of Technology for support. However, the first order of business involved automating the entire operation using Global Shop Solutions' shop floor functionality, reporting, and material and labor tracking functions.

"Our old legacy system had no automation, which meant all shop floor data had to be backflushed," says Dancer. "For example, when creating work orders to issue raw material to the jobs, we had no way of knowing what inventory was already in process until after the work order for each job was closed, and had been forced to backflush all materials and labor."



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Since implementing Global Shop Solutions ERP software, it's a different story. With their and [EMS Barcode Solutions](#)' help, barcoded inventory transactions capture inventory and material movement as soon as it happens, such as PO receipts, automated picklist for shipping, work order materials issues, and online physical inventory processing. As a result, managers know the location of every part or material in inventory and where it's going next. [Shop Floor Data Collection](#) workstations automatically collect labor and production data, including when employees clock in and out of jobs, sequences, and machines.

"Global Shop Solutions offers complete data tracking from quote to ship, and it's all available in digital format," says Dancer. "The software automatically tracks and records the information we previously captured on paper or spreadsheets. The data is real-time, and it's available to anyone with access to the shop floor workstations."



Some of the MSI team with the Global Shop Solutions Team

## EFFICIENCY THROUGH CONTINUOUS IMPROVEMENT

MSI has increased efficiencies in many areas of the business using ERP software tools to drive continuous improvement. Automatic Work Order Generation gets work orders to the floor quicker by creating a work order for a manufacture-to-job sales order if one doesn't exist. It also checks inventory levels to make sure there is enough supply on hand

for manufacture-to-stock components. In a similar manner, Automatic Purchase Order Generation simplifies the buying process by automatically ordering raw materials for purchase-to-job and purchase-to-stock parts.

[GS Mobile](#), a tool for tracking and moving inventory from anywhere on the shop floor, has allowed MSI to eliminate previously used spreadsheets for inventory management. Estimated versus Actual Work Order Costs has increased the accuracy of MSI's routers, actual costs, and improved margins on products sold.

Some of MSI's favorite tools are the many [Dashboards](#) available within the system that summarize and detail information about specific processes. For example, the Estimated versus Actual Reporter Dashboard, which is designed to provide a look at all open and closed work orders within a certain date range, compares estimated costs for a job to what it actually cost to make.

"All of that information comes together in the Dashboard, making it easy to analyze how much the material and labor actually cost and whether we are high or low," says Dancer. "That tells us whether we need to reevaluate the router or change the item, material, labor or overhead to properly reflect the costs. Getting our true costs squared away makes the margins accurate, so I can determine whether to make changes to my selling prices as well."

Of all the changes fostered by the ERP software, Dancer believes the biggest impact has come from the relationship between MSI and Global Shop Solutions.

"The open communication and dialog at every level of Global Shop Solutions leaves no doubt that manufacturers are dealing with a trustworthy partner whose goal is to help them get the best return on our investment."

