

Cardinal Systems, Inc.

ERP SOFTWARE CASE STUDY

THE PROBLEM

Cardinal Systems, Inc. struggled to record actual labor and material costs, manage inventory effectively, and capture shop floor data in a timely manner. Most production processes, such as creating work orders and performing inventory counts, required time-consuming manual procedures that led to inefficient use of labor.

THE SOLUTION

Since implementing the software, the company has generated a 50% improvement in recording production data on time. Inventory counts are fast and accurate. Material transactions can be performed in real time from anywhere in the shop. Workers can perform multiple inventory, labor, and administrator actions quickly and accurately.

ERP APPLICATIONS USED

- BOM Compare
- Dashboards
- Inventory
- Nesting Interface
- Order Management
- Paperless
- Purchasing
- Shipping
- Shop Floor Data Collection

Customer Snapshot



CUSTOMER LOCATION
Schuylkill Haven,
PA



FOUNDED IN
1976



INDUSTRY
Metal Fabrication,
Plastics



EMPLOYEE COUNT
250-500



MODE
Make-to-Order,
Make-to-Stock



CUSTOMER SINCE
2019



Owning a home has long been the American dream and many homeowners like to adorn their residence with an upscale in-ground swimming pool in the back yard. [Cardinal Systems, Inc.](#), a manufacturer of custom swimming pool products, has been helping that dream come true for nearly 50 years. Located in Schuylkill Haven, PA, Cardinal Systems specializes in the production of steel, plastic, vinyl, and aluminum pool products ranging from steps, to deck drains and coping to benches, walls, thermoformed steps, and custom vinyl liners.

A separate division, Fox Pool, designs and builds luxury pools and spa systems as well as a variety of custom swimming pool products. Both divisions distribute their products to dealers and installers throughout the U.S.

Like many manufacturing firms founded decades ago, Cardinal Systems found itself in the 21st century still relying on an outdated accounting software product to track costs and production processes. Unable to determine their true labor and material costs, control inventory, or efficiently manage other vital tasks, management decided to invest in a fully integrated ERP system. After nearly a year of research, demos and feedback from various ERP users, they selected Global Shop Solutions ERP.

AUTOMATION DRIVES FAST, ACCURATE COSTING

Upon going live with the software, Cardinal Systems' top priorities consisted of capturing costs and managing inventory more efficiently. Their strategy: using Global Shop Solutions ERP to automate as many of their processes as possible.

"Our old software wasn't strong enough for our manufacturing environment," says Denise Gilbert, ERP Support Specialist for Cardinal Systems. "Consequently, we had a lot of manual procedures in place that required large amounts of time."



"Our biggest cost problem was labor and overhead," adds Gilbert. "We simply weren't able to grasp what any of that was costing us. Not only did we want accurate costing, but we also wanted to do it faster."

Installing 15 [Shop Floor Data Collection](#) stations on the shop floor achieved both goals. Workers now digitally log on to work orders and job sequences and the application tracks all labor time as it happens. When a job or sequence is completed, all labor costs are captured down to the penny.

"Workers don't even have to type their logins," says Gilbert. "Instead, they use barcodes to scan into the work orders and labor sequences they will be working on. They don't have to spend time locating the work order because it's right there in the system. One quick scan and they're ready to go."

INVENTORY COUNTS IN HOURS, NOT DAYS

The ERP software also changed material movement and [inventory management](#) from a hunt-and-find endeavor to having accurate information instantly at managers' fingertips.

"In the old days, inventory was mostly visual. Someone would say it looked like we needed certain parts and we would make them," says Gilbert. "We also moved inventory manually, which consumed a lot of time, especially with our bill of material setups. Now inventory data goes into the system right away so we always know what we have and where it is."



Cardinal Systems also uses GS Mobile, a [Paperless software](#) built into the ERP system, to execute material transactions in real time from anywhere in the shop. Using mobile devices, workers can perform multiple inventory, labor, customer relationship management, and administrator actions quickly and accurately.

“Material movement now takes a fraction of the time it used to, giving us better control of inventory in a more timely manner,” adds Gilbert. “It used to take two and a half days to manually do inventory. Using GS Mobile devices it only takes six to eight hours, resulting in huge cost savings. Accounting and upper management receive better information so they can make better decisions.”



Barcode scanner using GS Mobile

SIMPLIFIED SCHEDULING WITH ERP

Scheduling also benefitted from improvements in inventory and material handling. With their old

system, Cardinal Systems had no way to determine their total capacity. With over 300 orders a day and customer turnarounds as short as three days, schedulers often tried to cram 20 hours of work into an eight-hour bucket. Now [scheduling](#) is much more systematic, consistent, and efficient.

“The ability to establish reorder points and order quantities, automating work order production and closing, automatically backflushing material – these and other automations have simplified our scheduling process,” says Gilbert. “If we still had to do those things manually it would require three more full-time employees.”

TRAINING DRIVES CONTINUOUS IMPROVEMENT

During the COVID pandemic customer orders grew by leaps and bounds. At the same time, Cardinal Systems experienced high employee turnover. This made it hard to get products out the door on time, and sometimes led to ERP training mistakes with new hires. To get back on track, Cardinal Systems is currently using many of Global Shop Solutions’ [training opportunities](#) to ensure users learn how to properly use the software.

“With [BOM Compare](#), [Nesting Interface software](#), GS Mobile and many other automation tools we’re constantly learning how to make things better,” concludes Gilbert. “Even accounting has made significant strides. We can see where we are financially and know its accurate, and we can consolidate financials from both divisions with one push of a button. Thanks to Global Shop Solutions, Cardinal Systems has become a more mature and sophisticated company. It’s great to be up to speed with the 21st century!”



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