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LEAN MANUFACTURING

Making heroes of ones and zeroes

Software turns hard issues into opportunities

By Lincoln Brunner, Editor-in-Chief

Brad Stacy and Stephen Margles run vastly different operations, but the two sought similar vehicles to achieve the same goals: more time and better use of it.

Specialized flexibility

Let's say you're a service center looking for a best-of-breed software package to track your inventory. You're probably looking for a system tailored for the mill and service center sector, one that's database-driven and doesn't jolt you with the sticker shock of a scrap surcharge. In that case, **Steelman Software Solutions Inc.** might have what you're looking for.

Stephen Margles, general manager of marketing for Hamilton, Ontario-based Parkdale International, said his company has been able to pare down its operation with Steelman by giving people on the warehouse floor the responsibility of entering inventory data as material rolls in.

"It keeps us leaner, absolutely," Margles said. "Having people in the warehouse responsible for computer stuff has its challenges, but they learn, and the Steelman people have been good, too."

For years, Parkdale, a service center for secondary steel products, used a proprietary computerized book system maintained by a person who recently left the business. Parkdale was left with little choice but to switch to a modern software system supported by a company rather than an individual. Enter **Steelman**, a software system originally designed for steel mills that the company has adapted for service centers and now toll processors.

In a nutshell, Steelman is designed to handle any of the processes and product types

a service center might carry—taking in coils, slitting them into sheets, rolling them into tubes and more. And rather than try to be all things to all people, Steelman has aligned itself with ACCPAC, a leading provider of business accounting software, to provide functions such as accounts receivable/accounts payable (ARAP), general ledger and human resource management.

The software is a full Java, Web-based application, so it runs like a Windows desktop with nothing installed on a user's workstation. It is written on Oracle standards, uses the latest Oracle servers and databases and can perform common tasks such as provisioning, scheduling and allocating inventory simultaneously.
"We have shapes within our system, and within each shape, whether it be a coil, a blank, a plate, a rod or a pipe, you define how you want to dimensionally handle it," said Steelman Managing Director Daniel Brody.

That inventory control capability is what drew Parkdale to the **Steelman** product in the first place. Because Parkdale operates on an open order system with the mills for its secondary coils, quick and accurate product inventory is a must. And because the product is irregular by nature, description of those irregularities is key. Parkdale and Steelman codified a system for describing defects and measuring the steel, details of which get input right on the warehouse floor.

Warehouse personnel equipped with Intermec scanners record incoming coils into inventory, giving everyone in the 50-person operation instant access to the latest products rolling in the door.

"Each person does his job so the salespeople can sell the steel," Margles said. "It's a huge inventory job. [Steel] shows up and the guys in the warehouse have to download that information into the system in order for us to sell it.

Steelman can even allocate inventory for a service center customer's order before the steel has touched the service center's receiving dock.

"We can start tying up some tonnage right away, before it even comes in—that's assuming you don't have the goods," Brody said. "We optimize our allocation of inventory based on the most finished product on the floor, so we would show you if you had unallocated sheets that were the size the customer was requesting. Based on each processing step, because we've got the full workflow [in the system], we can then allocate inventory at any point in the entire processing line, if it's available."

The key is flexibility, which is another feature of the system that sold Parkdale.

"The way we describe steel, because of the different qualities and grades and defects, **Steelman** just seemed more open in terms of being able to plug in how we wanted to describe things, as opposed to having to fit into somebody else's system," Margles said. "Starting Jan. 1, [mills] came up with surcharges. As a result our purchase orders had to reflect an additional component.

"We couldn't have anticipated what the surcharges were going to be, but we knew that **Steelman** was going to allow for that type of scalability."

Timely reports, out of the box

A quick glance at Stacy's shop, QC Metal Fab Inc. in Elkhart, Ind., reveals little to differentiate it from the hundreds of other small job shops dotting the Midwest. That is, until you stroll over to a small table underneath a wall full of name badges. That's the first tip that QC is doing something a little different from many of its peers, courtesy of E2 Shop System software by Shoptech.

On the table sit the day's work orders, every one of them bar-coded, as are the name badges above. Before beginning a new job, an employee punches in on the clock, hits "Start Job," and the software takes it from there. The employee scans in his ID, the work order number and the operation, be it shearing or punching or plasma cutting.

For now, QC, which mainly serves the RV and aftermarket automotive markets, uses the E2 software for cost estimating, accounts payable, accounts receivable, purchasing and time tracking (with hopes to move into scheduling and inventory soon, Stacy said). While the 25 or so employees on the shop floor haven't seen a big difference in the speed of their work routine, the software has saved Stacy and other office staff an aspirin bottle's worth of headaches.

"Their reports save us a lot of time," said Stacy, the shop's general manager. "The things that I would have to do manually to find out where we lost time on a job, with this, all I do is run one report, and it tells me everything I need to know. Before, I'd have to look through several different quote packages to pull the information I needed. I get all that information now with the click of one report."

Time savings has been the primary benefit for QC. For example, in the 18 months QC has been using the E2 package, Stacy has been able to slash the time it takes him to monitor the individual operations within the shop.

"I think it helps us compete because it keeps our overhead down," Stacy added. "Instead of having to hire more staff to pull those reports, we're letting the software do it. To double-check jobs, it could take me quite a bit of time in just of the course of a week. Now, it probably takes me a quarter of the time to check jobs and see how they've turned. Of course, I've got other things that I need to concentrate on. Before, I wasn't as thorough as I can be now."

With his cool, quiet manner, Stacy exudes the meticulousness that a young general manager needs to keep a shop working, especially in an environment in which costs of many materials have shot up 100 percent since the beginning of the year. The E2 system has made tracking those costs a click-and-view process rather than a thumb-and-peruse one.

"With our system, we can pull up the inventory, and then we can click on that bill of material and see what we paid for it the last time right from the quote," Stacy said. "There again, it saves us a lot of manual tracking, finding out what we paid for it. Before, we'd have to pull that purchase order, find out what we paid for that material and double-check it. Now a click of a button gives us our information, and we just adjust our price accordingly."

Stacy checked out four different software packages before settling on the E2 system, which happened to cost the least. Starting packages with a single seat and the basics are about $2,500, with average packages going from about $12,000, according to Jerrod Phillipps, territory manager for E2.

"[QC] is the quintessential customer for us," Phillipps said. "They're the perfect fit as far as fab shops go. This is designed for the mom-and-pop shop that has grown up to be a 20- or 30-man-plus shop."

Stacy said he paid around that average price for QC's system, the equivalent of which would have cost him about $80,000 from a competitor just a few years ago, when the company was looking for a Y2K-compliant software solution. QC ended up putting a DOS-based patch on its old system and waiting for the right package to emerge.

"Our waiting has paid off, and we basically saved ourselves about $65,000 or $70,000 in comparison to what it would have been in 2000 for something that does even more than what that system would have done," said Stacy. "A lot of people came in and said, 'Our system can do that, we can change that, we can get it to do what you want.' E2's [system] already did it, standard, with no additional charges to get the basics that we needed."

Phillipps said one of E2's notable benefits is its ability to track all of a shop's machine capacity and parse it out accordingly throughout the day to keep work moving through the shop in the most efficient manner, a feature Stacy hopes to use soon. "As orders are being put into the system and jobs are being created, they can throw it into this schedule so they can see 'I'm overloaded in this area, I'm under capacity here,'" Phillipps said. "I can do all kinds of scenarios. If an employee calls in sick, I can remove him from the schedule. Or, if a machine is being repaired, [E2] can remove it from the schedule, reprocess and give me the best-case scenario on what I can get done for the day."

Not only that, but the people trying to keep track of what goes out of QC Metal Fab on a daily basis aren't swamped by busy work because of an inefficient tagging system that generated packing slips off invoices rather than vice versa.

"That was sort of a pain," Stacy said. "Now we generate a packing list and then we invoice off the packing list. It saves mistakes, and it saves interruptions to our controller. She had to do all that before, so if my plant supervisor needed to run something out rush, he had to interrupt her. Now he can just run it himself, and he turns in everything we ship at the end of the day. She can just run invoicing all at one time, rather than having to run invoicing two or three times a day."