

## Computing the odds

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At a time when turning inventory in the most efficient manner possible is the key to turning a profit in the metals service center industry, new, more sophisticated versions of existing software is making that efficiency goal more achievable than ever. Electronic Resource Planning (ERP) software has been available for decades, but new versions tailored specifically to operators of metals service centers have created the availability to manage those operations in an entirely new way. Given the proper ERP tools, today's metals service center manager can establish a just-in-time inventory process, manage from the Cloud, and collect and analyze business data in a manner unheard of just a decade ago.

"From an ERP point of view, inventory is a key component to metals service center operations," Peter Weymouth, Axis ERP product manager with Atlanta-based Apteon Inc., said. "The whole name of the game is about visibility into your inventory, and you can manage your inventory better with the right ERP software."

Weymouth added that at a time of pricing volatility such as the industry has been experiencing in 2015, "having a lot of inventory is risky."

Ray Vasson, vice president of sales for Montreal-based Invera Inc., echoed those sentiments. "How we handle the inventory is a huge, foundational-type item," he said. "The part numbers can become so cryptic that the overall numbers are meaningless."

Weymouth explained that ERP software has been around in one form or the other since the 1970s. But much of that software was designed to serve the broadest segment of industry possible.

"In the early days," he said, "the software was much more focused on management planning. It was really simple. Things were much more generic back then. And metals always had a hard time with generic ERP."

Most people in the metals industry designed and built their own versions of planning software. Weymouth, who trained as a software developer, was working for the Falconbridge Copper smelter in Sault Ste. Marie, Ontario, when he built his own ERP system. Other software developers took solutions that already existed and adapted them to the metals industry. Weymouth said one early system was adapted from a solution for a carpet manufacturer. The carpet rolls, he said, were very similar to steel coils in how they were accounted for.

Peter Doucet, vice president of consulting at Invera, started working with the company 35 years ago. Today its senior business consultant, he said in the late 1970s the company provided software solutions for all industries, including chemical companies, light manufacturers, liquor distributors and shipping companies.

"The problem with that particular approach is that you are constantly having to learn a new industry," Doucet said.

Beginning in the 1980s, Invera looked at all the systems it provided. What it discovered is that one industry different from everything else in the ERP world was the metals service center industry. "That kind of threw us for a loop," Doucet said. What made them so different from an inventory standpoint is that the rest of the world operates by identifying a parts number or a universal product code (UPC), he added.

That's not the fact in the metals industry, where service center operators talk about the product itself. "You're dealing with things like an 18-gauge, 48-x-96 sheet, or pipe that is cut to virtually any length," he said, adding that often no two pieces in an order are alike. "The traditional part number system didn't necessarily work. You needed thousands of part numbers to cover all the dimensions."

Doucet noted that Invera designed its Stratix software for the metals service center industry with the diversity of the industry's product mix in mind. "Most software systems out there are designed to help you make things, like a bicycle," he said. "Most service centers do kind of the opposite. They slit a coil a half-dozen different ways. They cut a 50-foot beam in several different pieces for several different customers. It's the reverse of manufacturing."

Taking something and processing it is a daily occurrence for a service center. The process has to be highly efficient, and the shop floor has to be able to record it very efficiently.

"In essence, you separate the handle of the hammer, sell it, and return the head to inventory," Doucet said. "With that process, generic software gets a lot more complex, more cumbersome."

Invera has published a white paper on the topic titled "The Top 5 Reasons Generic ERP Solutions Don't Work for Metal Service Centers." It points out that generic ERP solutions aren't natively designed for the metal distribution and processing industry. They use the wrong units of measure, and don't offer dynamic dimensions. Generic ERP systems use part numbers to identify materials, and they don't offer enough processing speed.

"The product code in our software was a big difference" in helping metals service centers manage their business, Doucet said. "We have taken many, many years in focusing on this industry."

Vasson said they "can do end-to-end transactions in a fraction of the time it took before. We can do an order in under a minute. We made the system so we can streamline it. We are super efficient."

Designing and developing ERP software for the metals service center industry involves putting together a team that has both IT expertise and a background in metals. P.S. Data Services Inc. started in 1991 in Middletown, Ohio, to work with steel processors and service centers to solve their ERP needs. "Our president and founder worked with Southwest Ohio Steel," Ben Vaughn, a Detroit-area business development manager for P.S. Data, said. "He saw a need for software in the steel industry. What separates us from everybody else is we only work with flat roll service centers."

P.S. Data has about a dozen employees on staff, three of whom work remotely. Work is divided into teams of software specialists and a project manager who typically has experience in the metals industry. Each of the company's employees has worked at one point in their career in the steel industry. The company offers steel service center software and a less complex version for customers who simply buy or sell steel.

Vaughn said the company takes implementation of its software for a client one at a time. "There is no service center that fits into a cookie cutter approach," he said. "There's no two alike."

The software, however, is constantly being improved. Several years back, P.S. Data developed a complete ISO model for a client who had requested the ability to gauge quality issues. "We then took the ISO module into the next version of the software," Vaughn said.

Aptean's Weymouth said the company's Access ERP software incorporates functions that are designed specifically for the metals service center industry, including quality parameters, multiple units of measure and highly repetitive operations. "Those are all baked into the solution," he said. "Our systems are built specifically for metals producers, processors and service centers."

Weymouth said metals expertise is paramount in designing and developing software for the industry. "Our clients want to work with somebody who understands metals," he said. "A number of our developers came from the metals business; several of our employees were former customers of ours."

Invera's Doucet said knowledge of the industry is critical to the effective implementation of ERP software. "You have to understand how metals are handled and processed," he pointed out. "Our consultants know the plate business, they know flat rolled, they know oil country tubular goods. They provide our customers frontline support and consultation. We send our developers and design staff one-site for two weeks when a product goes live."

Metals service centers haven't necessarily been on the cutting edge of software technology, but as competition has gotten tougher and margins have gotten tighter, they have gotten far more savvy in how technology can help them survive and thrive in difficult times.

A lot of metals companies tended to be a little further behind the power curve on adapting technology, Weymouth said, "but they are certainly catching up with a vengeance." And that trend has only accelerated during the past decade, opening up exciting new applications for ERP software.

Doucet said a number of developments are coming up that will have significant impacts for the metals service center industry in the years ahead. He ticked off cloud computing, increasing use of mobile applications, and e-commerce as three trends that will likely be widely adopted by the industry in the next decade.

The cloud is simply the concept of maintaining data on an off-site server. Doucet said Invera calls the concept "on demand," and in the last 10 years, nearly half the company's customers have opted to have their software and data maintained off-site. With the company's Stratix software "on demand," Invera manages everything, including upgrades and the installation of new versions. "It's done completely on the customer's schedule," he said. "You don't even have to worry about upgrading. That is a big trend."

Another big trend is the completion of applications, or "apps" for mobile computing. "This is especially for the outside sales guy," Doucet said. "With the advent of notepads and smartphones, it's making the sales person so much more productive, having all the sales information immediately available. It makes them as connected as possible."

A third trend with major implications for the industry is having the customer do e-commerce over the Web. "That started slowly," Doucet said, "but we're seeing it more and more these days. We call it 'self service,' and it means the customer can do so much more over the Web, whenever and however they want. It really liberates the metals service center staff."

With an e-commerce upgrade, metals service center customers can actually place orders on the Web. The metals service center staff can enter a quote, or convert the quote to an order at any hour of the day or night.