

Cardinal Scale Manufacturing Company

Intuitive® ERP

Intuitive ERP Helps Scale Manufacturer Take the Weight Off With Streamlined Operations



Weighty Problems

Cardinal Scale Manufacturing Company (Cardinal Scale) has achieved worldwide brand name recognition for its complete line of weighing products and systems, including truck and railroad track scales, medical scales, food service scales, floor scales, weight indicators, load cells and vehicle weight management software. Headquartered in Webb City, Mo., Cardinal Scale has warehouses in Canada and the United Kingdom and distributors in over 100 countries. Its products were recently featured on two TV shows, "How It's Made", a popular series on the Science Channel, and "World's Greatest!" on the ION channel.

For more than 20 years, Cardinal Scale relied on an MRP system interfaced to a third-party accounting package. "Over the years, we created many disparate systems to manage the business, residing on servers and workstations throughout the company," said Larry Hicks, vice president of operations at Cardinal Scale. "We wanted to consolidate under one system and move to current technology, with a business software solution that would integrate all areas of our company, including manufacturing, finance, sales and production.

"One the biggest problems we faced was the lack of visibility to work in process. It took two days to process shop floor transactions, by which time the information was out of date. We also realized that the lack of accurate and timely management information was impacting our decision-making. Finally, we wanted to provide our regional sales managers with customer, sales, shipping and accounting information.

"Our old system was very unstable. We were looking for a progressive company that was not too big, yet aggressive and growing and constantly enhancing their software. We also wanted a Microsoft SQL-based product, so Intuitive ERP rose to the top of the list. After visiting Intuitive's Kirkland office and Consona Corporation's Indianapolis headquarters, we were convinced that Intuitive ERP, backed by the Consona organization, offered what we were looking for," said Hicks.



ROI at a Glance:

Intuitive ERP helped Cardinal Scale Manufacturing Company, a designer and manufacturer of weighing products and systems, streamline and improve its operations with accurate, up-to-date information. Specifically, Cardinal Scale has achieved the following results:

- Reduced the number of open work orders by 26 percent.
- Improved forecast accuracy.
- Reduced number of past due orders by 10 percent.
- Improved decision-making with instant access to accurate information.
- Improved customer service by processing 20 percent of sales orders via EDI.

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— **Larry Hicks**, V.P. Operations, Cardinal Scale Manufacturing Company

External Forces Threaten Implementation

Like many other manufacturers, Cardinal Scale felt the negative impact of the economic downturn in the fall of 2008. Nevertheless, the company went ahead with its implementation of Intuitive ERP on schedule.

“We went live on January 5, 2009, and on January 8, 2009 we had a very significant reduction in our work force, many of whom had spent the last six months in intensive Intuitive ERP training. But we were pleasantly surprised that, after a week, we were back to a normal pace of work, and Intuitive ERP enabled our reduced workforce to keep up with the day-to-day operational requirements.”

The project included, not only the base ERP product, but also Intuitive’s Shop Floor Manager on 30 shop floor terminals. The system was implemented at Cardinal Scale’s three U.S. locations, (Webb City, Atlanta, and Miami) and a warehouse operation in Ontario, Canada. During January 2010, Cardinal Scale successfully completed the implementation of Intuitive ERP at its United Kingdom location.

Consona Consultants Play a Vital Role

In addition to 125 concurrent user licenses, Cardinal Scale purchased Consona ERP’s full-service implementation methodology, under which an expanded Consona implementation team performed the entire project management portion of the implementation process to guarantee success. “We wanted to ensure a smooth transition from our existing system to the Intuitive ERP system by taking advantage of Consona’s experienced consultants and developers,” said Hicks.

According to Hicks, Consona consultants played a vital role all the way through the implementation process, culminating in a successful go live.

“The first thing we did was create an Intuitive ERP training room—a place where the implementation team could work away from the distraction of their day-to-day jobs and really focus on the project. We established a team of 11 people from key functional departments. We adopted a train-the-trainer approach, and the implementation team was responsible for the first round of training. It was then the team members’ responsibility to train their people,” explained Hicks.

Hicks continued, “Our Consona consultants emphasized the importance of writing work instructions and step-by-step procedural documents. The implementation team leaders created the work instructions for their own departments. Once they understood how the Intuitive system worked and created the work instructions, it was a simple task to train their people. The work instructions were also a big asset after the implementation in training new employees.”

“The Consona consultants also stressed the importance of conference room pilots. So, we ran about 10-12 pilot sessions, taking an order all the way through the system. I believe that this was key to a successful ‘go live.’ By the time we got to the ‘go live’ date, we’d been through the process many times and worked out all the bugs. The Consona consultants really gave us good advice on how to set up and conduct the implementation,” concluded Hicks.

“We have reduced the number of open work orders from 3,000 to an average of 2,200, or a 26 percent reduction since moving to Intuitive ERP.”

— **Larry Hicks**,

V.P. Operations,

Cardinal Scale Manufacturing

Company

Visible Benefits Experienced

Since going live with Intuitive ERP, Cardinal Scale has seen improvements in every department. Streamlined operations, system reliability, real-time information and improved decision-making are just some of the benefits the company has received.

One of Cardinal Scale's key objectives was to improve how the company collected and processed data from the shop floor. It was essential that the information was made available to management in real time.

"One of the key selection criteria was to include a real-time shop floor data collection system," said Hicks. "With our previous system, shop floor transactions were sent to a clerk for data entry and batch processed the following night. As a result, the information available to the shop supervisors was two days old and of little value. Today, with Shop Floor Manager, supervisors have visibility into every job and employee currently logged on to the system, and can adjust priorities in real time to meet daily demands. We have also developed extensive labor reporting, providing management with insight into each department's efficiency, utilization, and productivity, to immediately identify potential bottlenecks and problem areas."

The fact that Cardinal Scale now runs MRP nightly has dramatically improved materials management. The company also uses master scheduling on two high volume, high profit product lines, which reduced the requirements for a couple of key components by over 10,000 parts.

"With our old system, we could only run MRP once a week (over the weekend)," said Hicks. "Now with Intuitive ERP, when we receive a large order, it's broken down by MRP into purchasing and production requirements the next morning or, at most 24 hours from order receipt. This has reduced our reaction time on new orders by 85 percent. We also found that the logic within Intuitive's MRP process has improved materials planning, and allows easier maintenance of existing purchase and work orders. We manage about 40,000 items, 125,000 BOM structures, and 50,000 routing operations, and the MRP process now runs in about 10 minutes. We have reduced the number of open work orders from 3,000 to an average of 2,200, or a 26 percent reduction since moving to Intuitive ERP"

Using Intuitive's EDI capabilities, Cardinal Scale now processes nearly 20 percent of its orders automatically. "We are in the process of moving our EDI processing from a third-party VAN to Intuitive's business partner—Acclimate," said Hicks. "Acclimate has further enhanced the process that evaluates inventory levels and follows basic rules for determination ship dates, thus eliminating the need for manual customer service intervention."

Better Decision-Making

Accurate and timely management information is essential to making good business decisions. Intuitive's Advanced Reporting module has enabled Cardinal Scale to unlock the wealth of information contained within their ERP system.

"Advanced Reporting has been our tool of choice for creating new reports," said Hicks. "Today, we have over 300 reports created internally to meet the needs of our managers and employees. An additional benefit of Intuitive ERP and Advanced Reporting is that we can now view information online, and have virtually eliminated printed reports. Previously, we had four high-speed printers that produced thousands of pages of paper every week."

About Consona ERP

Consona products support the needs of a wide range of manufacturing companies. **AXIS** is the premiere solution for manufacturers of metals, wire and cable, as well as metals service centers. **Cimnet Systems** offers comprehensive support for printed circuit board engineering and fabrication, including design, fabrication, and certification.

Configuration Solutions' rules-based configurator integrates with the aforementioned Consona offerings and others. **Encompix** goes beyond simple ERP to offer project scheduling and management for engineer-to-order projects that involve multitudinous manufacturing activities and close tracking of projects, costs and schedules. **Intuitive** offers rich functionality for a broad range of manufacturing environments and makes implementation easy for small to midsized companies. **Made2Manage** provides full ERP capabilities for custom manufacturers centered on a "casual" bill-of-material for making complex products, while continuing with design and engineering activity.

Making use of the analysis capabilities in Intuitive ERP, Cardinal Scale has improved its forecasting accuracy and reduced the number of past due orders loaded to the shop floor.

Hicks explained the problem: "During a seven-week study using Intuitive's Sales Forecast Analysis tool and a custom Advanced Reporting query, we were able to determine that forecasting inaccuracy meant 25 percent of the orders loaded to the shop floor were already past due. Using the information contained in these reports we were able to make adjustments to the forecast, and subsequently we have reduced past due orders by 10 percent."

Solution for the Future

"The decision to purchase Intuitive ERP was driven by the fact that our old system was over 20 years old and unreliable, and we needed a solution to take us to the next decade," said Hicks. "Our primary goal was to find a fully-integrated, fully-supported ERP solution that we could use to establish metrics to see where we were and where we were going. During the past 12 months, we have been able to utilize Intuitive ERP's capabilities to examine many metrics that were not available with our old system.

"The biggest thing we realized initially with Intuitive ERP was that it allowed us to operate with a reduced workforce. Today, the information is available instantaneously. Reliability is also a big factor. With our old MRP system, database errors caused significant downtime. So far with Intuitive ERP, we've not experienced any problems. Finally, the accuracy and speed with which information is available has improved our decision-making."

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