

Gray Tools and Scancode: Integrating the Modern Warehouse

Gray Tools, Canada's last remaining manufacturer of industrial-quality hand tools, has a policy that its customers love: "no minimum order size." That said, the 94-year-old Brampton, Ontario-based company needs each order it receives to be processed as efficiently and economically as possible, from product procurement to receipt of the order and through to shipping. Because of this, Gray has long pursued technologies that optimize the efficiency of the order cycle. So when the company went shopping for a new Warehouse Management System in May 2005, they turned to a company they knew could work with their existing technologies, Scancode Systems Inc.

BY JIM HYNES

Mississauga, Ontario-based Scancode is a leading developer of integrated logistics software solutions and supply chain process consultant considered to be the only source for integrated warehousing and carrier compliant shipping solutions serving multinational organizations as well as complex, high volume environments. Its software solutions and integrated technologies are used by hundreds of Fortune 1000 companies in North America. Scancode works in a wide variety of industries, including the automotive, chemical, garment, giftware, electronic, fulfillment, pharmaceutical, financial, legal and third-party logistics industries.

A MODERN WAREHOUSE

"For the most part, companies today are relatively automated in the front office with most of the latest technologies. The warehouse is still, in most cases, the last place to be automated with technology," says Joe Mallozzi, vice-president, sales, at Scancode. "With pressures from customers demanding better service at lower costs and from management's need for stringent controls and real-time information, automation is the only answer."

As far as warehouse technology and automation are concerned, Gray Tools is ahead of the game. At the front end of its warehouse cycle, the company focuses on forecasting and demand planning systems to ensure stock will be available when needed. Its technologies for providing paperless order entry, such as its EDI, are being enhanced, and Gray's ERP system was modified to lessen the



Gary Nuttall, controller, and Ian B. Niven, director of Manufacturing at Gray Tools.

complexity of order processing and to reduce keying. For the back end of the cycle, Gray needed a WMS that would eliminate paper; increase efficiency in picking, packing and shipping; provide transparency of labour utilization and workload in distribution, carrier selection to reduce freight costs, visibility of order status to Customer Service and improved communication of data to the carrier.

er. And as Gray had already been using Scancode's shipping system for carrier selection and shipping documentation, they were familiar with what the company could do for them.

AN INTEGRATED SYSTEM

"In 2004, we made the decision to keep the ERP system we had installed in 1999," says



Gary Nuttall, controller at Gray Hand Tool Sales Inc. "This system met our needs in most areas of the business. So we decided to use third-party technologies interfaced to the existing ERP platform to enhance business efficiency. The Scancode WMS fit this need perfectly," he says. "The software was easily interfaced to the existing system and did not require replacement of existing technologies. The Scancode WMS could be modified to meet the needs of Gray's business processes with little effort or cost. Overall, the Scancode WMS provided the best fit with our stated needs at the least cost."

Indeed, the key to the success of the new system at Gray is how well the Scancode WMS is integrated with the host system. First, orders are entered into the Gray host system. Once they pass the required business rules, the orders are then passed to the Scancode System (called ATMS 3.30), where Scancode takes over managing the entire order prioritizing, sorting, routing, order splitting, picking, scanning, checking, shipping, labelling / documentation and updating the host at each milestone. The host system is updated as the orders are completed and ready for shipment.

Once orders are received in the Scancode system, they are automatically sorted, prioritized and dispatched to a queue, with "Rush" and "Customer Pickups" as the highest priority orders. Scancode creates waves of orders per picker, which for Gray's optimum are up to five orders or a maximum of 75 lines. Each picker requests the next wave of orders from their wireless handheld terminal and Scancode directs them through the orders identifying where, what and how many items to pick into each tote for that order in the most efficient direction throughout the warehouse. If an order contains a large toolbox where a forklift is required in picking, Scancode splits the order so that the picking of regular items can continue. The rest of the order (i.e., the toolbox portion) generates a pick request to the forklift operator who completes this portion. The toolbox order is placed on a skid at shipping waiting for the remainder of the order so Scancode can merge it together. Once the wave of orders is finished being picked, they are placed on a conveyor waiting to be checked and packed.

Orders are scan-checked by one of four Scancode stations verifying the item(s) / SKUs and the quantity ordered by the customer. This is a second check function, as a first scan-check occurs at picking via a handheld terminal. After the order passes the scan-check, it is packed and then shipped using Scancode's dynamic routing module, which allows Gray to select the most cost-effective carrier and service level based on the required transit time. All the barcoded, compliant courier and / or LTL labelling, BOL, customs documentation and email notifications are created by Scancode, including a clean packing slip. Scancode updates the host with all the relevant order and shipment details. At the end of each day an EDI is sent directly to the carrier's billing system.

BENEFITS OF THE SYSTEM

One of the most significant benefits of the new system, Nuttall says, is the ability to balance labour in the warehouse between picking and packing by accessing the number of orders and lines to be processed at each stage of the order cycle throughout the day. With hundreds of orders per day and hundreds of thousands of lines picked, packed and shipped per year, maximum labour utilization is critical. To date, Gray has handled increased sales volume without the addition of more people. Another key benefit is the ability of customer service to quickly answer customer queries on order status. Gray can tell if the order has been dispatched to the warehouse, picked, packed or shipped. It can also tell how it was shipped and view the tracing number for follow-up. In addition, Gray is in the process of implementing the automatic email function within Scancode to notify its customers that their order is ready for pickup or that their order has been shipped and that would also provide information on shipment contents, carrier and level of service, and a tracing number. Nuttall says that this will result in reduced call volume in customer service. The Scancode system also has the ability to prioritize orders, resulting in a consistent measured level of service on Rush orders. In addition, the ability to monitor the age of each order is improving Gray's order management within the warehouse function.

The elimination of paper and keying of orders shipped is another benefit. The Scancode WMS is internally paperless. The RF picking and shipping are interfaced to Gray's ERP system, eliminating subsequent keying of lines shipped. This has freed up labour in customer service and permitted increased sales volume while maintaining existing head count levels. Finally, the ability to implement cycle counting and eliminate expensive annual inventory counts has been a big plus for Gray. With real-time order picking status information, the company is able to determine exactly what should be in each part location at any specific time. This will allow Gray to implement an accurate cycle count routine. The Scancode system makes this process even more efficient by sending an email to Inventory Control whenever a zero quantity pick is completed indicating an inaccurate stocking situation. Inventory Control immediately double-checks stock levels, reconciles and adjusts inventory. Savings from the elimination of annual, full physical counts, Nuttall says, are significant.

AUTOMATION IS THE KEY

Like the people at Gray Tools, Joe Mallozzi and his colleagues at Scancode believe that automation isn't only for large companies anymore.

"Smaller companies are looking at WMS products sooner," Mallozzi says. "They realize much sooner in their growing up years that automation is the key to continued company growth. WMS products are now much more integrated into the host system and at different touch points," says Gray, who sees a future where integration to host systems will be even easier, with seamless order processing from end to end.

"For a small company like Gray, the ability to provide outstanding levels of service to our customers is critical to our future competitive advantage," Gary Nuttall says. The ability of a company of our size to take advantage of technologies formerly only affordable by large companies with deep pockets and significant volumes, surprises many people. The Scancode solution is allowing us to improve our service offering towards world-class level at an affordable cost. ■