Chemical Manufacturer Effectively Streamlines Operations

BACKGROUND

ACSIS was tapped by a major division of a large chemical manufacturer to implement automated data collection technology that would increase supply chain productivity and efficiency, maximize warehouse capacity utilization, eliminate picking and shipping errors, streamline recall efforts, and improve overall customer service.

CHALLENGE

The Paint and Inks division serves the highly demanding automotive industry. In this competitive market, there is no room for error when it comes to product shipments. Materials are typically ordered "just in time," so any delay or errors can stop auto plant production cold. To ensure precise, correct shipments, the firm needed to optimize warehouse processing, eliminating picking errors and improving data collection accuracy. Optimization also extended to product labeling. Each automotive client has strict guidelines for how each product must be labeled, and each auto company handles this in a different manner. To meet each unique customer need, the company needed a way to create automated labels for each customer specification.

The company also sought to more effectively track shipment batches. Previously, the firm would manage materials as generic batches. However, if a defect was uncovered that warranted a recall, the company had no way to tell which batches were affected and where those batches had been shipped to. The only effective way to recall the right items was to recall everything that had been shipped during a particular timeframe. This meant the recalls were wider in scope than necessary.

To tackle these challenges, the Paint and Inks division looked for a solution provider who had a strong track record, along with a library of existing functionality they could leverage. This meant finding a vendor that had numerous existing process automation features that could be easily configured for their specific environment, instead of having to hand code new functionality. Ease of integration with SAP was also important.

However, the more closely the company integrated with SAP, the more reliant on SAP they would be. This was a concern, as the company operated in high-production mode, which required the ability to operate and collect data on the shop floor with 24x7 uptime. They needed to protect the system against planned or unplanned SAP outages.

The company chose a data collection solution from ACSIS. The software's loose coupling with SAP means the production facility can continue to operate and meet schedule commitments even when SAP is down. If the SAP system is down, ACSIS continues to accept transactions off the shop floor but replicates these locally. As soon as SAP is back up and running, this data is queued up and fed into SAP.

SOLUTION

ACSIS implemented an end-to-end automated data collection and process management solution for this client that tracked all finished goods movement, integrated shop floor devices and integrated with SAP in real time.

By utilizing a readily configurable solution instead of a custom coded solution, the company was able to cut the development/ deployment time in half. Instead of writing code for every interface, the firm capitalized on the rich functionality and user interfaces existing within the ACSIS software platform. The streamlined solution automated many shop floor activities to improve accuracy and productivity and eliminate human error. The company also replaced its existing process of manually inkjet-spraying batch numbers onto their cases with a clean barcode label in barcode and text formats that included material and batch number information as well as the material description.

The ACSIS application retrieves data from a production order, calculates the batch to a specified algorithm, and integrates with applicators on each side of each line to print and apply material/ batch barcode labels to each side of their cases. By establishing batch numbers for every pro- duction run, the company can now easily identify products to be picked for shipment, as well as any products impacted by a recall.

Once the products were barcode-labeled, the company chose to leverage this capability by utilizing mobile gun transactions to automate their processing. This increased productivity by providing data collection through scans versus manual entry. Once a pick request is completed, the employee uses the ACSIS system to validate that he or she is picking and shipping the correct items.

ACSIS designed and implemented automated transactions for nearly every finished goods movement operation performed, including goods receipt of materials, bin-to-bin movements, production goods receipt and putaways, physical inventory and cycle counts, picking cases for delivery onto pallets, and loading pallets onto trucks.

To simplify and automate warehouse processes with SAP, ACSIS also implemented additional automation using fixed mount scanners. At the production palletizers, the fixed mount scanners read the material/batch case tags and the pallet license plate barcode on each pallet as it leaves the palletizers. This information is formed to produce an automated goods receipt of every pallet out of production, with no human intervention. The operator simply drives up to pick up a pallet, without having to get off the fork truck.

Once the picking and packing of a pallet is completed, the operator drops the pallet onto the shipping rail, which includes a second set of fixed-mount scanners. As the pallet moves down the rail, these scanners read each pallet's license plate barcode. This scan initiates a look up and confirmation of all items picked to that pallet and then triggers the printing of a comprehensive and 100% accurate shipping label, which is applied at the end of the stretch wrap process.

BENEFITS

The Chemical Manufacturer has achieved unprecedented operational efficiency on numerous fronts. First, automation of data collection eliminates human errors in the picking, packing, and shipping processes. Second, employees receive real-time guidance to ensure that they are performing the right activities at the right time. They can see exactly where to locate items on the shop floor, eliminating paper trails, guesswork, and the need to key information into SAP. The number of data entry screens in SAP can be monumental; instead, ACSIS has collapsed these screens down so that all pertinent transaction data is streamlined into a single user interface. The seamless integration with SAP also means the company has access to a wealth of real-time data for planning and management. For example, better insight into actual in-stock inventory gives the organization the confidence to operate with less inventory.

Creating and printing of labels is completely automated. If there is a change in a customer's label requirements, it can be made in one place and propagated elsewhere to ensure the utmost accuracy. The company is also pleased with the ability to pinpoint batches that are impacted by product recalls and could potentially save millions of dollars by only recalling the specific batches impacted versus all batches shipped out over a certain time period. These operational efficiencies provide the firm with a strong competitive edge and significant financial returns.

For more information on ACSIS Cloud Solutions for the Intelligent Supply Chain, contact us at 856.673.3000 or email us at info@acsisinc.com