CASE STUDY

Textile Manufacturer Sees Efficiency Gains with Worldwide Data Collection System Deployment

Coats North America (Charlotte, North Carolina), is part of the worldwide Coats family—the world's largest supplier of industrial sewing thread and craft products. With more than 60,000 employees worldwide, and manufacturing locations in more than 60 countries, Coats is the largest global supplier of sewing thread.

Coats North America required more sophisticated methods of handling its inventory, raw materials and finished goods at 22 manufacturing and distribution centers in North America, Central America and the Caribbean. Additionally, Coats wanted an open-source system for its own IT staff to continue the system implementation once the three pilot sites were completed. To accommodate its Spanish-speaking users in South America, the system also had to be bilingual.

The Challenge:

Coats North America wanted to replace, enhance and expand its existing inventory management systems at 22 total facilities in North America, Central America and the Caribbean. BarCode ID Systems began initial system implementation at Coats' manufacturing and distribution facility in Greer, South Carolina, and at two distribution centers in Toccoa, Georgia and Marion, North Carolina. All three facilities had to upload data to an AS400 host at their headquarters in Charlotte, North Carolina. After implementation in these three facilities, Coats wanted to be trained to install the system in their other facilities worldwide.

Coats' current system had not only outlived its functionality, it was also proprietary, thus prohibiting Coats from making any changes or updates to the system. The system was limited to handle only one warehouse function at a time, it could not produce shipping manifests, and it was not bilingual—all of which were requirements for Coats' new system. Additionally, Coats was using outdated handheld terminals that were malfunctioning and subject to frequent breakdowns. Coats was suffering productivity problems and labor inefficiencies due to unreliable equipment and an antiquated data collection system.

The Solution:

Coats turned to BarCode ID Systems (Atlanta, Georgia), to begin development of the data collection project in late 2002. BarCode ID presented Coats with a design specification for a batch data collection system, encompassing finished goods put-away, raw material receiving, shipping and inventory, and Coats purchased over 100 PSC Falcon 340 units with integrated laser scanners.

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The new system duplicated the functionality of Coats' existing proprietary system and added desired enhancements in six key areas:

- Receiving of Raw Materials
- Put-Away (Locating) of Finished Goods and Greige Yarn
- Issuing of Raw Materials
- Shipment Verification of Finished Goods
- Inventory (Cycle Count & Physical Count) of Finished Goods, Greige Yarn and Raw Materials
- Shipping Manifests of Finished Goods

The system consisted of a handheld batch application, a PC program with a Windows-based user interface and a Transaction Posting Program. The Transaction Posting Program delivered a fixed-length flat file to the current AS400 system through an automated FTP upload. The flat file system approach desired by Coats would also allow for integration to future systems as well, such as SAP.

One of the most important system enhancements required by Coats was the ability to run reports and review the data for accuracy before communicating it back to corporate headquarters. Previously, Coats' handheld terminals would send data to corporate that often contained inaccurate information. The host would generate an error or discrepancy report to send back to the users, who would then have to scan the entire order again and resend to the host.

BarCode ID Systems used Clarion to develop an intermediary PC application named *CAPR (Coats American Posting & Reporting), CAPR* would receive raw data files from the handhelds and populate fields in the SQL server database automatically. *CAPR's* user interface would then allow operators to perform Data Edits, where they could sort and review the data, identify errors, make corrections to the orders (without rescanning the entire order) and adjust the system data. Once reports were adjusted appropriately, the *CAPR* program would automatically return the data to the flat file format required by the AS400 host and upload to the secure FTP server. *CAPR* also included Report Retrieval functionality (users could sort and print based on timeframe, e.g., all data within the last 24 hours), and Manifest Reporting (group by shipment number, group by product, give totals by product, shipment, etc.) Coats' existing system did not have any shipping manifest functionality.

Several layers of security measures were also included in the *CAPR* system. The base level requires no passwords beyond a Windows login and allows users to view lists (uploaded data) and run/print reports. The *CAPR* administrator login allows supervisors or other management personnel to adjust records (change/add/delete) in addition to base-level activities. The third security level, an FTP login, has its own username and password which are setup and maintained by Coats' corporate IT department. The file naming convention for the FTP flat file upload also includes the username of the operator who posts the data, which adds accountability for the data being uploaded.

Key Factors and Results:

One key factor with the BarCode ID solution for Coats was that all warehouse program functions could be performed simultaneously. Operators could now toggle between receiving, put-away, shipping and inventory applications within one single program. Previously, the Coats system was comprised of eight separate programs and users had to select and download one desired function while the handheld terminals were cradled and connected to a PC. To change functions, users had to return to the central PC, upload the handheld's records, select a new function, download the new function and then return to scanning. With the new multitasking operability of the BarCode ID program, user efficiency has been greatly improved.

Another key factor is the bilingual functionality built into the system by BarCode ID Systems, allowing users to switch between English and Spanish language on demand. In the past, the Coats system was English only and only one language could reside on each device.

By November 2003, installations were completed at all three initial Coats facilities in South Carolina, Georgia and North Carolina. The Coats IT staff has been trained to continue roll-out of the system at 19 other facilities in North America, Central America, and the Caribbean, and they have realized significant gains in warehouse productivity and labor efficiency. With the reporting abilities of their new system and the clean data transfers to corporate, Coats' personnel productivity has increased and labor has become more efficient. Operators save time performing warehouse functions because all necessary applications are accessible immediately on one device, and inventory and shipping accuracy have improved. And, with on-the-fly bilingual access on every handheld device, Coats' Spanish speaking users have immediate access to all necessary programs without delay.

Coats North America, Charlotte, North Carolina, is part of the Coats Viyella Group based in London, England. As the largest global supplier of sewing thread, Coats North America also manufactures and distributes a wide array of products for home sewing, hand-knitting, and crafts projects.

BarCode ID Systems is a turnkey bar code system integrator and wireless solutions specialist. Established in 1993 and headquartered in Atlanta, Georgia, BarCode ID Systems provides supply chain automation solutions to industries including manufacturing, distribution and life sciences. . With sales offices in Atlanta, Greenville, South Carolina, Chicago and Boston, BarCode ID Systems provides visionary solutions, leading edge products, technical ingenuity and industry expertise. BarCode ID Systems is a Symbol Business Partner, Zebra Premier Partner, Intermec Honors Partner and Microscan Preferred Partner. Our core offering includes wireless solutions, bar code printing & scanning systems, compliance labeling, warehouse and inventory management, print & apply systems, ERP interfaces, software solutions and media.