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Sears Distribution Center | Printronix Solution Improved Bar Code Scan Rate by 48 Percent

Profile

Sears Roebuck & Co., headquartered in Chicago, Ill., provided its first catalog to U.S. consumers in 1888. Today, Sears operates 863 mall-based retail stores offering home-related products. Additional innovative ways to reach consumers have come from its new Great Indoors stores and the launch of Sears.com. Not only has Sears been on the forefront of consumer engagement, they also utilize innovative supply-chain techniques, such as a high-speed scanner sorter systems to move merchandise quickly to the consumer and reduce overall costs in the supply chain. Sears has more than 3 million SKUs, 5,000 ship points and 13 distribution centers; handles more than 35 million boxes; has more than 4,000 trading partners; and issues approximately 30 million purchase orders annually. Any bar code failure in the supply chain can mean a rejected item, manual recovery steps, time delay, loss in productivity, a disappointed customer or, ultimately, loss of business.

Situation

Sears needed an integrated total solution to meet its retail distribution bar-code labeling needs. To be effective, the solution had to perform three critical tasks: improve inventory within its international goods receiving and labeling process; leverage technology to improve operations and streamline costs in its supply chain; and enhance supply-chain efficiency between Sears and its vendors.

To improve its inventory operations, the Sears logistics group scrutinized its international distribution center. Goods arriving on the dock are not labeled. All goods must be marked with 4- x 6-inch UCC 128-compliant labels before being shipped to Sears' domestic distribution centers for fulfillment. The domestic distribution centers are equipped with the newest technology, using high-speed scanner and sorter equipment. To keep distribution lines flowing, it was mission-critical that Sears implement a solution ensuring 100-percent bar code accuracy.

As part of a Sears' quality-improvement program, the company tasked Printronix with improving the printing process and output experienced at the high-volume international distribution center. Non-Printronix printers with fanfold supplies were used to print labels for all international goods and cartons. These systems produced a high volume of non-compliant bar code labels. In addition, the costly printheads in place had a short lifespan and smudged labels, causing bar-code quality problems within the supply chain. Further complicating the situation, previous label-generation software, which used a four-step process of importing files from a central UNIX server, was labor intensive, error prone, cumbersome, did not allow for automated label design and had minimal database integration capability.

Sears wanted a solution to resolve immediate needs. In conjunction, it needed a proven solution to recommend to its vendor community. Although Sears achieves high levels of compliance with its vendors, the company seeks new ways continually to improve efficiency in its vendor-retailer supply chain.

Results

Sears turned to Printronix to analyze its situation and provide a complete solution for its compliance labeling problems. To improve efficiency and solve Sears' label scanning problems, Printronix recommended its T5000 printers with Online Data Validation (ODV™). Sears found that ODV provides a cost-effective, hands-free quality control process to ensure that faulty bar codes aren't affixed to products. With ODV, all defective bar codes are captured at the source and corrected, thus eliminating scanning problems at the domestic distribution centers and retail stores.

Sears worked directly with the Printronix Professional Services organization to create a complete solution. To eliminate unnecessary software and streamline the printing process — thereby reducing greatly the training and knowledge required by the workers — Printronix provided:

- A tested and improved quality of fanfold media to provide an exact ribbon match to eliminate smudging
- Additional assistance to convert bar code C128C to UCC/EAN 128 and to set up the hardware using a direct parallel connection
- A new software label design package

Plus, the Professional Services team reformatted Sears' database by creating an ODBC driver and mapping the drivers to make them database fields, integrated the database, label formatting and automated the label design piece.

Over an eight-month period, the Printronix implementation exceeded all of Sears' objectives for its international warehouse. It allowed Sears to move 250,000 additional cartons, improved scan rates to 98 percent from 66 percent and increased bar code scan rates by 48 percent. In total, the Printronix T5000 thermal printer and ODV solution:

- Reduced label compliance failures
- Increased the scan rate of bar codes
- Reduced maintenance costs
- Increased the quality of print jobs
- Improved supply chain efficiency from vendor to retail customer
- Reduced the overall cost of labeling

With a proven solution in place to address its in-house bar-code labeling needs, Sears then turned to its trading partners. By implementing the same solution with its trading partners Sears will be able to further reduce overall supply chain costs, improve cycle time and reduce or eliminate non-compliance charges due to print quality. In a program underway currently, selected Sears' vendors will be able to test a T5000e printer with ODV to reduce the number of charge backs due to bar code and label scanability.

Reaction

"The strike-out feature for ODV allows for unattended printing reducing labor costs. Before, a worker picked up a stack of fanfold labels and used bad ones on cartons, thus causing the conveyor system to slow down or even stop. Now, they don't worry about it. We know the bar codes will be accurate."

Jon Lissman
Sears Logistics Group, Vendor Relations Department

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