



ZEBRA CASE STUDY

Cart-mounted printing heats up efficiency for manufacturer

Challenge

When the weather heats up, so does the work at Four Seasons, which manufactures automotive air conditioning systems and components sold through thousands of auto parts stores across the United States. Employees at the 400,000-square foot production facility in Lewisville, Texas have to move fast to ship orders on time. But they no longer have to move far to get shipping labels, since Four Seasons began producing labels on demand wherever they're needed with cart-mounted printers. Migrating from centralized printing has taken a lot of the legwork out of operations and given a boost to labor efficiency.

"When we used stationary bar code printers throughout our facility, workers had to walk to a central print station when they needed a shipping label. More often than not, this meant waiting in line behind two or three other users while their print jobs were being processed," said Kevin Pentecost, network administrator at the Four Seasons Lewisville facility.

"Sometimes they might be 60 feet away from the printer. With some workers needing 200 labels a day, you can just imagine the amount of time that was wasted just walking back and forth."

Four Seasons wanted to find a process to cut the wasted time without requiring an undue amount of work or effort to change business processes, rewrite label printing applications, or make modifications to its homegrown warehouse management system (WMS) and JD Edwards enterprise resource planning applications (ERP) that resided on an IBM AS/400.

Solution

Four Seasons met its productivity and integration goals by making its legacy bar code shipment labeling applications mobile. The company took advantage of the wireless LAN from Symbol Technologies already in place at the Lewisville facility to implement wireless printing so that workers create labels where they need them. Four Seasons purchased compact, network-addressable desktop label printers from Zebra and mounted them on carts along with a battery and Symbol's CB 1000 wireless bridge. The printer plugs into the CB 1000 to connect with Four Season's wireless LAN, which provides access to its WMS and ERP systems for data needed to complete shipping labels. The battery can power about three days of work before it needs to be recharged.

Each worker has his or her own cart, which has eliminated time spent waiting for labels. Workers push the carts wherever they need as they go about filling orders. Workers also carry Symbol handheld computers to record work activity. When orders are complete, workers follow the prompts on their handheld and request a shipping label. The label request is transmitted to the host system over the wireless network, and the print job is relayed to the worker's cart-mounted printer. Within seconds, an accurate shipping label is printed – right where it's needed, with no waiting or walking.

Four Seasons has used stationary Zebra printers to produce shipping labels and other bar code applications. Pentecost and his team did not need to create new label formats or change any system programming to enable label printing on the new cart-mounted Zebra printers, which share the same ZPL printer command language as the legacy models. The ZPL compatibility paved the way for a rapid and simple integration.



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Results

The efficiency gained from cart-mounted printing helps Four Seasons maintain its high service and achieve fill rates of 95 percent and higher. "Our workers save time and ship their orders faster with the cart-mounted printers," said Efred Rivera, IT network manager at Four Seasons. The company ships more than 90 percent of its orders in three days or less, even during the busy summer season.

"Our workers are very busy and move around a lot to do their jobs. The mobile computers help them do that, but when you have to keep going back to a central printer, there goes your mobility," said Pentecost. "Zebra's printers had already proven to be reliable in our environment. Combining Zebra with the convenience of the cart gives us the true value of mobility."

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