

Dollar Store Sees Dollar Signs in RFID

The Dollar Chest and its six franchisees are using the technology to improve order accuracy and visibility into available stock.

By Mary Catherine O'Connor

Nov. 29, 2007—What type of retailer has the most to gain from deploying RFID for automatic identification? Pose that question, and you'll get a range of answers, depending on whom you ask, but it's unlikely a dollar-store franchise would be among them. Nonetheless, [Dollar Chest](#), a Montreal-based franchisor of retail stores selling products with a price tag of a dollar or less, has deployed RFID across its operations, which it says has improved inventory accuracy and helped increase sales.

Many retailers that sell high-value items, such as jewelry or consumer electronics, have tested and, in some cases, embraced RFID because it allows them to uniquely identify and track cases of goods as well as individual items. Since all items that Dollar Chest sells retail for a Canadian dollar or less, the franchisor isn't interested in tagging at the product level because that would erase its profit margins. Instead, it's applying tags to cases of goods that arrive at its two warehouse facilities in Montreal, then using the RFID labels to receive goods into inventory while verifying order accuracy against an advance shipping notice (ASN). Dollar Chest then uses the tags to confirm orders pulled for shipment to the six stores its franchisees operate.

Alex Labarces, CIO of Dollar Chest, told attendees at this week's [RFID Journal LIVE! Canada 2007](#) conference that the company's RFID system, which uses EPC UHF Gen 2 tags and readers, has afforded the corporation better visibility into and control over the accuracy of its inbound shipments, as well as the shipments of product it then sends to its six franchisees. For the four franchisees that are reading the RFID tags on incoming shipments and utilizing the tags to track in-store inventory of cases, he said, the system provides better visibility into what they receive from the corporation, while also improving the accuracy of their inventory records.

Dollar Chest worked with RFID systems integrator [Ship2Save](#) to design and deploy the RFID system. When a shipment arrives at either warehouse, workers pull pallets into a staging area, where each case is verified against an ASN and tagged. The tagged cases are then reassembled back onto the pallets, with workers employing handheld readers to capture the EPC on each case as it is added to the pallet. Once a pallet is built, Ship2Save's Order Management System (OMS) software generates an EPC that is encoded to the RFID inlay embedded in a label used to identify the pallet. The pallet is then placed into inventory.

To fulfill an order from a franchisee, full pallets are pulled and mixed pallets are built up. Using either a portal RFID reader or handheld interrogators, workers collect all of the EPCs from a full order, and the OMS software generates an ASN containing the type and number of each product shipped, along with the EPCs of all tagged cases and pallets.

The receiving franchisee then downloads this advance shipping notice, via the Internet, from the central OMS server at Dollar Chest headquarters, and can verify the accuracy of the order using either a portal reader or handheld interrogator to read the EPCs on the cases and pallets it receives. The stores can also employ readers

to check inventory of tagged boxes in the back of the store. An interrogator mounted at each participating franchisee's cardboard compactor takes a final tag read as the case is crushed, and, via the Internet the central OMS updates the stockroom inventory level to account for the empty box.

According to Labarces, the franchisor's and franchisees' investment in RFID hardware and software has made the process of receiving and shipping product at the Dollar Chests warehouses more efficient than it had been using bar codes—especially if the shipments are large, since the number of minutes saved increases with the number of pallets processed via RFID. Before the cases were tagged, he said, it took warehouse workers up to 45 minutes to process an order for shipment—now, he says, it can take as few as 6 minutes. For the warehouses, the tagging of inbound cases also speeds the process of adding the products to the warehouse inventory, and helps employees identify missing or erroneous orders more quickly than using the manual, bar-code process.

Using RFID, Labarces adds, also helps the participating franchisees decrease the amount of time spent processing the products they receive.

RELATED_ARTICLES The benefits go beyond labor savings, however, according to Labarces. He told attendees that results from the company's initial pilot test of RFID technology showed that stock turnaround time on key products increased from 5.5 times per year to 6, indicating that more of the items were in stock more often in the stores using RFID and, therefore, sales of those items lifted.

In the long term, Labarces says, Dollar Chest hopes to work with its suppliers in Asia to begin tagging cases of goods at the point of manufacture. This would save warehouse workers in Canada from having to apply tags, and could help improve the order accuracy of shipments coming from Asia.

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