

**A little more than a year after its ambitious foray into item-level RFID tagging at its stores, the clothing company is enjoying positive results.**

By Mary Catherine O'Connor

Dec. 12, 2008—Most RFID projects are born in warehouses and distribution centers, implemented by retail suppliers looking to comply with tagging mandates levied by their customers. Tags are applied to cases and pallets of goods, then used to track these items through shipping and receiving steps.

As a vertically integrated clothing manufacturer and retailer, [American Apparel](#) took a different tack: It has begun tagging individual garments to achieve item-level visibility within several of its nearly 280 stores, more than 175 of which are located in the United States. And it's now ready to expand and integrate RFID tagging across its rapidly expanding business.

The company attaches [Avery Dennison](#) hangtags with integrated EPC Gen 2 inlays to all items bound for RFID-enabled retail locations. At such stores, the tags are read as a means of recording the receiving of those goods, tracking inventory within each store and identifying items purchased (see [American Apparel Makes a Bold Fashion Statement With RFID](#)).

Today, this process is taking place at seven of American Apparel's New York City stores, and at one store in Santa Monica, but 10 additional New York City sites have been outfitted with RFID interrogators and will start using the technology to track merchandise in the coming months, according to Zander Livingston, the company's RFID technology director. Although American Apparel plans, in the future, to begin having garments RFID-tagged at the point of manufacture in Los Angeles, the tags are currently placed on products at the pilot stores, by shop employees.

The pilot at the company's first RFID-enabled store, located near New York City's Columbia University, required some customization of the hardware and software in order to optimize them for tracking at the item level, rather than for tracking case and pallet tags, which has traditionally been the dominant use case for RFID systems in the retail supply chain. "We had to change the way we used the hardware and tweak the software to address movement [of tagged items] from the back of the store to the front of the store," Livingston says. "Over time, we were able to achieve 99-plus percent inventory accuracy at our RFID-enabled stores."

Inventory accuracy, for American Apparel, means being able to keep the retailer's sales floors stocked—a tall order, given the wide range of colors and sizes available in the firm's extensive apparel line. And a better-stocked sales floor helps boost sales. "It's hard to give metrics, given the global economy right now," Livingston says, "but we showed a 15 percent [sales] increase in our Santa Monica store the week after we started the pilot there. A big part of the project was organizing the store in the first place, and that alone helps you increase the sales." The improved organization, he notes, resulted from handling and sorting the goods during the RFID-tagging process.

Improved inventory accuracy isn't the only benefit, however. The pilot stores have also been able to reduce labor by up to 60 hours per week since installing the system, because it negates the need for taking manual inventory.

An American Apparel store maintains between 25,000 and 45,000 items in inventory, depending on each site's size and storage capacity, according to Kris Doane, technical lead for the retailer's RFID project. Thus far in the pilot, the company has consumed well over 1 million tags—and it expects the stores will use 2 million additional tags before the end of the year.

American Apparel is utilizing RFID interrogators manufactured by [Motorola](#), as well as [Vue Technology](#)'s Intellipad reader antenna, used at the point of sale to read the EPCs encoded on the tags, in order to initiate the sale transaction. Vue's TrueVue software is used at the eight existing pilot stores to manage Electronic Product Code (EPC) and inventory data. When EPC data is collected at the point of sale, the software updates the item's status from in-stock to sold.

At one of the stores soon to come online, however, American Apparel will test a different EPC and inventory-management software product—the Clarity-ARS Advanced Retail System, produced by RFID solutions provider [Xterprise](#).

At present, Livingston says, the pilot stores are running the Vue software in parallel with [Retail Pro](#)—the point-of-sale and inventory management software American Apparel uses at its stores—and legacy business systems. But going forward, the company hopes to be able to integrate the software that manages EPC and store inventory data into those legacy systems. The Xterprise software is built on [Microsoft](#)'s BizTalk Server R2 middleware, which supports standard integration tools that will enable the retailer to link the RFID system with Retail Pro.

"Once we address these integration points," Livingston states, "we'll be able to introduce the RFID system [at additional stores] more easily, and with less impact [on the on stores' IT systems]."