

Dutch Bookseller Soon to Use RFID to Locate Items on Shelves

Boekhandels Groep Nederland is installing RFID interrogator antennas on shelves to facilitate the tracking of special-order books.

By Claire Swedberg

April 11, 2007—Boekhandels Groep Nederland (BGN), Netherland's largest bookseller, has taken the next step in its deployment of item-level RFID tagging. In May, the retail chain plans to install RFID interrogator antennas on shelves in its two stores that are currently RFID enabled. The shelf-edge antennas and readers, provided by Vue Technology, will allow BGN to capture the location of each specially ordered book stored on an RFID-enabled shelf. Vue Technology is teaming with CaptureTech Netherlands, which had provided system integration for the two store's initial RFID systems.

Thus far, BGN has installed an item-level tracking system in two stores, located in Almere and Maastricht. That system has allowed BGN to know when its distributor ships books to the two stores, when those books arrive, the general area where each book is shelved and the date each is sold. The bookseller intends to expand this system to six commercial stores by the end of 2007, and to all of its 16 consumer stores and some of its 26 college stores by the end of 2008.

By adding shelf-edge technology, the stores will be able to pinpoint, in real time, the exact shelf on which an item is located in the special-orders section. BGN may eventually install shelf-edge technology in other sections of the stores as well, explains BGN CIO Jan Vink, but for now, the company considers it good business sense to begin with special-order books—items not normally stocked on site, ordered upon the request of individual customers—by making those books easy to locate in a hurry. BGN sells about 100 to 150 special-order items per month in each store.

Customers can special-order books using computerized self-serve kiosks available at the store. "The kiosk is a new tool for us," says Vink. "It gives us the opportunity to generate more sales at the store." A customer ordering a book receives an e-mail notice alerting them to its arrival at the store. At that point, Vink says, "the customer wants to pick up the book in as short a time as possible." Traditionally, he says, bookstores often have trouble locating a special-order book once the customer arrives to buy it.

In this case, the TrueVUE RFID platform makes it possible to locate the exact shelf where the book is located. The shelf system consists of one RFID reader per store, as well as VUEPoint antennas, and middleware and software designed to allow the storage of that data in BGN's back-end management system.

The shelf-edge antennas capture the ID numbers of the books on each antenna's shelf, then transmit those numbers—along with each antenna's location—to the reader, which forwards that information to BGN's back-end system.

"The TrueVUE hardware and software platform being installed at BGN," Vue's senior vice president of sales,

Gordon Adams, explains, "is capable of reading thousands of antennas embedded in shelves, all supported with a single reader."

BGN has been using Gen 2 UHF passive RFID tags since April 2006 for books shipped to its Almere location (see [Bookstore RFID-enables Its Operations](#)), and since November for books shipped to Maastricht. The company's book distributor, [Centraal Boekhuis](#), attaches a self-adhesive passive EPC Gen 2 RFID label, supplied by [UPM Raflatac](#) and made with an [Impinj](#) IC, on the back of each book it ships to the stores. The distributor's employees scan the bar code and the new RFID tag being attached to the book, linking the tag's ID number with the book's details in the back-end system. Centraal Boekhuis electronically sends BGN an advance shipping notice (ASN) over the Internet, which includes the unique tag ID numbers of the books in that shipment.

Book shipments arriving at the store pass through an RFID tunnel equipped with a CaptureTech interrogator at the delivery door. The system matches the unique RFID tag numbers with those from the ASN, and is designed to alert the store if any books are missing that were supposed to arrive in the same box.

Books being shelved are loaded onto a CaptureTech RFID-enabled mobile cart that transmits data indicating which books are en route to the shelves. All tags are disabled at the point of sale once a customer purchases them.

Both BGN and Centraal Boekhuis use [Progress](#) software to integrate the data into existing enterprise-management systems. Eventually, Adams says, the TrueVUE platform will manage all third-party RFID devices, including the mobile cart, front-door security portals, a receiving station, RFID printers and POS devices. "This enables the client to use one single RFID software platform," he adds, "substantially reducing the total cost of ownership of the solution."

RELATED_ARTICLES Thus far, Vink notes, results of item-level tagging at the two stores have shown a 12 percent increase in sales, as well as a decrease in receiving and inventory costs, and inventory labor hours (see [Reading Books Reduces Out-of-Stocks](#)).

Shelf-edge tracking is most important initially in the special-order and display areas, Vink states. "These are the areas where we need to see how fast a book is moving," he says. "By doing the first exercises in the special-orders area, we can work with smart-shelving technology and, eventually, implement it in other areas."

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