

# TECHNOLOGY UPDATE



**S**ource tagging is going to revolutionize electronic article surveillance (EAS) for both retailers and manufacturers.

These 'intelligent' tags, which employ radio frequency identification (RFID) technology, are capable of not only guarding against theft, but can also compile information that can be used to track products, manage inventories, and monitor warranty frauds and counterfeiting.

"There is a lot of excitement about RFID technology among retailers and manufacturers doing source tagging," says Suzanne Irwin-Whyllie, source tagging manager for Checkpoint Canada Inc. The company introduced radio frequency electronic article surveillance (RFID-EAS) tags last year at a high-end china retailer in Toronto, Ont.

## 'NEXT EVOLUTION'

RFID technology is the "next evolution" of electronic article surveillance, agrees Chris Brown, director of source tagging for Sensormatic Electronics Corporation. Putting intelligence into source tags offers expanded sales opportunities as well as "tremendous savings" with regard to shrinkage, he says. Sensormatic expects to begin testing its RFID-EAS technology at the retail level by the end of the calendar year.

Presently, standard RF tags are read-only. They're programmed at the factory and can't be changed. But intelligent, or smart, tags feature an embedded integrated circuit that is triggered by a radio signal. The signal not only activates the security alarm but can also

record pre-programmed information.

RFID-EAS intelligent tags can be customized to compile SKU numbers, where a product was manufactured, where it was shipped, and so on. The tags can also automatically invoke warranties and keep track of warranty fraud and counterfeiting.

"Specific product information is not res-

be read through objects, such as parcels or packaging, and help reduce inaccurate or misread information due to damaged, dirty, or obstructed bar codes.

Source tagging can also be a "big boost" to ensure the accuracy of inventory control, says Brown. RF technology allows multiple items to be read simultaneously. Retailers can simply "wand over" inventory, says Irwin-Whyllie. It's much more reliable and accurate for inventory replenishment than systems dependent upon cash registers for monitoring stock.

As well, RF tags offer added security features. If somebody were to steal an item with one of these tags, for example, not only would the alarm be triggered but the intelligent chip would also tell the retailer exactly what product was stolen by its registration number.

Or, if an item were successfully removed from a store and an attempt was made to return it for a cash refund, scanning the product would advise store staff that the item had never been purchased in the first place.

Presently, the cost of RFID-EAS technology makes it prohibitive for all but very high-end products. The cost of a tag itself is currently US\$1 and to have the radio frequency scanning system installed requires a significant capital investment.

But the cost is coming down – and rapidly.

Members of the hardware sub-committee for the RF Users Group (which includes representatives from Canadian Tire, Mills Fleet Farm, Pep Boys, and Target) have met with power and hand tool manufacturers in an effort to establish a process for RF source tagging.



ident on the tag," explains Tom Upshur, senior director of RFID Marketing for Checkpoint Systems, Inc., Checkpoint Canada's parent company. "But each intelligent tag has a unique code which links each product or item to the host database." Unlike bar codes, RF tags do not require line-of-sight for scanning. They can

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Suppliers from Makita, Skil/Bosch/Dremel, Ryobi, Cooper Tools, and Stanley Tools were presented with an overview of RF technology – its advantages, future applications, and source tagging success stories.

## 'DIALOGUE WAS POSITIVE'

"The dialogue was positive," says Robert DeGrace of Mills Fleet Farm. "We made some real headway, especially with the power tool vendors."

"I think we established a good process for how retailers can work with vendors," says Canadian Tire's Matt Casey. "For the vendors who were there, it was a good education from both the technological and the retail perspective and it was a show of retailer support for RF technology."

Suppliers agreed to investigate methods of implementing RF source tagging and

asked retailers to supply them with the SKUs they want to see source-tagged to determine the logistics involved.

Source tagging itself – having security labels affixed to products either during the manufacturing process or in packaging – offers a number of advantages not only to retailers but to manufacturers, as well.

Some of Canada's largest retailers – including the Hudson's Bay Company, Canadian Tire, and The Home Depot – support the widespread adoption of source tagging among manufacturers and retailers throughout the country.

"The benefits of source tagging go beyond loss prevention and provide retailers with new opportunities in both merchandising and operations," says Brown.

One of the key advantages is product accessibility. Source tagging allows retailers to get products out of lock-up. Studies have pro-

duced conclusive evidence that sales increase dramatically when product lines are out in the open and accessible to the consumer.

"A lack of accessibility leads to lost sales and possibly lost customers," says Irwin-Whylic. "It's critical. Consumers have a hands-on approach and that means bringing product out of lock-up."

Manufacturers are benefiting from source tagging in a variety of ways. It's much easier for a manufacturer "to track inventory" and they have "a lot more control" over their product lines, says Irwin-Whylic.

"From a manufacturer's perspective, many are embracing this as an opportunity to sell more product," says Brown. "If products are in a cage, in lock-up, the consumer can't get at them for impulse purchases. While it may be hard to steal 'em, it's also hard to buy 'em." ○