

The Kroger Company, one of the top retailers in America, improves product security

The Kroger Company, one of the top retailers in America, needed to significantly improve their failure-to-deactivate (FTD) rate at their store exits, while maintaining high productivity at the point-of-sale. Datalogic Scanning met the challenge by partnering with Sensormatic®, and produced the Magellan® 9500, with SmartSentry™, a high-performance scanner that scans and deactivates in one motion.

The Challenge

Kroger had a customer service problem. Their product security tags were not being deactivated properly, resulting in too many embarrassing false alarms for their customers at the store exits. Plus, Kroger was having to modify checkstands to accommodate separate scanning and deactivation systems.

“Kroger wanted to solve several issues at one time”, says Bruce Paris, Product Marketing Manager at Datalogic Scanning, Inc. “Significantly improving the failure-to-deactivate rate at the exits, and maintaining high productivity at the front end were at the top of their list”.

Paris has seen these issues many times before. “These needs are consistent among many top retailers.” High-volume scanning and security tag deactivation has always been somewhat at odds with each other.

A cashier scans at a high rate of speed, and either misses a security tag, or has to slow down and pass through the item a second time, over a separate unit to deactivate the tag, resulting in “wasted” motion and slowed scanning momentum. Kroger turned to Datalogic Scanning, Inc. for help, with its industry-leading Magellan 6-sided scanners. Datalogic saw a great opportunity to help Kroger and other top retailers as well, and joined a strategic partnership with another industry leader, Sensormatic Corporation, a division of Tyco Fire and Security. Product Marketing personnel from both companies visited several other top retailers to refine the requirements for a one-pass scanning and EAS tag deactivation model. All three companies agreed upon a goal to reduce FTDs, by 30 to 50%, while maintaining or improving front end productivity.

Datalogic Scanning and Sensormatic also agreed that the scanner and EAS subcomponents needed to operate as an integrated system to be successful - both physically for space reasons, and to promote good cashier productivity by consolidating scanning and deactivation motions into one. Kroger wholeheartedly agreed.



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The Solution

The first major hurdle for the partnership was fitting the EAS antenna into the area just below the Magellan scale platter without compromising scanner performance. This required Datalogic Scanning to design a new optics cavity and for Sensormatic to design a new EAS antenna to fit the available space. This would allow the scanner and deactivation antenna to fit in the footprint previously occupied by only a scanner, eliminating the need for another box.

“We both had a lot to learn about each other’s technologies and Kroger’s customer needs”, noted Bob Kortt, Datalogic Scanning Engineering Project Manager. “Sometimes it was painful but we both grew a lot during this development”.

Next came the creation of firmware that would integrate the processes of scanning bar codes, detecting EAS tags and deactivating them, while controlling the interaction of these tightly coupled processes.

This proved to be a crucial step in the project, as not all scanned items in a store require security tags. A high-volume scanner like the Magellan 9500 has to be able to operate in both modes at once, scanning at high efficiency, but detecting and deactivating EAS tags when they are present - whether or not the cashier notices them.

And, of course, the embarrassing beep at the store exit should be minimized.

To provide a useful user interface, Datalogic Scanning went the extra step of retooling the scanner bonnet and adding switches and visual indicators dedicated to the EAS function. For easy troubleshooting in the event of a system or EAS failure, the team also decided to use a digital failure code indicator on the scanner.

Extensive testing at Kroger stores was quite fruitful, giving Datalogic and Sensormatic performance indications in a real-world point-of-sale environment. “The IS and store personnel at Kroger were excellent to work with,” says Bruce Paris. “They were great at providing direct feedback, both good and bad, and they helped the team speed up the development process”.

Results

Datalogic Scanning met or exceeded all of Kroger’s main requirements for the project, and should realize all secondary goals soon as well. Besides the productivity and security issues, Kroger wanted to be able to easily update the firmware in the scanner by downloading new code from the IBM 4694 POS directly to the scanner’s flash ROM.

They also wanted to take advantage of the 9500’s value-added features, Productivity Index Reporting™ and Cashier Training™ with reports generated by the IBM POS system. And lastly, they wanted the 9500 to be Tivoli “Manager For Retail” compliant, for the purpose of automatically generating scanner



or EAS system failure alerts to the store. But the main issues with Kroger were the FTDs and frontend scanning productivity. In the beginning of the process, they had established base line targets on both. Intensive final testing was conducted over a period of several days with continual monitoring of the key criteria. The end results were impressive - reduced FTD's by 40%, while maintaining scanning productivity at the front-end.