

IP Unveils RFID-Enabled Warehouse

International Paper has gone live with a completely automated RFID Warehouse Tracking System that manages inventory at one of its mills.

Aug. 14, 2003 - A lot of companies are talking about putting RFID in their warehouse. International Paper has done it. IP, the world's largest paper and forest products company, announced today that it has gone live with a fully automated RFID Warehouse Tracking System (WTS), which manages inventory at its Texarkana mill and warehouse.

"This is a significant achievement in inventory management," says Steve Van Fleet, director of IP's smart packaging business. "Our goal is to roll it out as quickly as we can over the next year. By working with EPC standards we are also well positioned to offer these services to our customers."

The WTS combines RFID with real-time location tracking. IP says it can pinpoint items to within six inches. Not all customers will need that level of precision, but International Paper says the system can be adapted to meet a range of operational requirements and budgets in roll and palletized environments.

"The warehouse is a hard environment to make RFID work in," says Van Fleet. "But when you can track rolls and pallets to within six inches, it opens up a whole different opportunity for how you are going to run your warehouse."

IP has been working on RFID solutions since 1999, when it joined the Auto-ID Center. The company began looking at its internal operations to see where it would benefit from the technology. Warehousing was an obvious opportunity. The paper manufacturer was using as many as three bar codes on each one-ton roll of paper, but bar codes are easily damaged or dirtied in the warehouse environment, which renders them useless.

In 2000 and 2001, International Paper interviewed 200 customers to see what their needs were and how IP might help fill them. Based on the results, the company's RFID team got support from management to launch several projects to develop products. Instead of developing applications in a lab and then testing them in a warehouse, the team worked hand in hand with the operations people at the Texarkana warehouse. The WTS went live at the end of July.

Here's how it works. A UHF (915 MHz) RFID tag from Matrics, a Columbia, M.D., RFID technology provider, is inserted into the core of a paper roll. The tag must be read through as many as 72 inches of paper. Once the tag is associated, all warehouse movements are tracked by forklift-mounted readers.

Information about where it should be taken is transmitted in less than a second to a driver terminal mounted inside the forklift. "That's critical," says Guillermo Gutierrez, International Paper's marketing manager. "The driver doesn't want to wait for five or ten seconds for instructions or confirmation that the location is right. He wants to pick up and drop."

If the forklift driver delivers the roll to the wrong storage bay or shipping dock, he immediately gets an alert. The system asks if he wants to override the instructions. The driver presses yes or no. If he presses yes, he

gets a list of reasons and he must choose one. A real-time locating system also tracks the trucks movement and position, which not only gives IP the ability to track where a roll was dropped, but also makes it possible to optimize the warehouse.

Piyush Sodha, president and CEO of Matrics, says the WTS is one of the most robust RFID warehouse systems in use today. "It will revolutionize the way companies benchmark operational efficiencies," he says. "The system will provide complete inventory visibility and compatibility throughout the supply chain."

IP's goal was to develop a system that is better than 99.7 percent accurate. The company is cycling though non-tagged inventory, but Gutierrez says it is meeting its target on tagged rolls.

International Paper is currently developing a plan to deploy the technology in its warehouses. And since the technology works as well with pallets as with paper rolls, the company is formulating plans to offer the solution to its customers and even those outside the paper industry. It will do site analysis, develop a business case, advise on the installation of the warehouse system.

"This paves the way for IP to offer smart packaging solutions to our customers," says Tom Gestrich, senior vice president of International Paper's Consumer Packaging Business.

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