SUCCESS $ STORY

Panasonic.

Matsushita Boosts Sales and Virtually Eliminates Paper and Shipping Errors with NORAND® RF Technology

When Matsushita Electric of Canada Ltd. first started looking at RF (Radio Frequency) data collection and on-line warehouse management systems, the company had one objective in mind. It wanted to

CHALLENGE
Eliminate month-end physical inventory, minimize paperwork and shipping errors and improve overall operations

eliminate the need to shut down the warehouse one day each month to conduct a physical inventory. With the help of an NORAND RF data collection systems, and Warehouse Management System from TECSYS Inc., Matsushita has met this challenge. According to William Austin, logistics manager for Matsushita, "Changing to on-line daily cycle counting with our NORAND RF system, has eliminated our month-end close down and given us one more selling day per month. That has translated into a significant amount of money. We're talking about $12 million plus a year we have been able to gain."

After selecting TECSYS Inc. as a systems integrator, Matsushita began looking at RF systems from a number of providers. TECSYS, an Ontario-based company dedicated to providing logistics integration recommended the NORAND RF system. Although Matsushita looked at others, they chose Norand because of its modularity, flexibility and ease of use. The current system, which operates in four facilities at two locations, uses both UHF and spread spectrum technology. It consists of 56 NORAND RT1700 hand-held data collection terminals with integrated barcode scanners controllers and access

points. An AS/400-based Warehouse Management System from TECSYS, is also an integral part of the Matsushita mobile computing solution. Since its implementation, the system has not only eliminated the need to conduct physical inventory, but has significantly improved virtually all areas of operations. Plus, it has allowed Matsushita to operate in a paperless environment and has essentially eliminated all shipping errors.

"Most months we have zero discrepancies. That means everything ships without error— no model mixes, no product mixes, no incorrect amounts, no incorrect colors. In 26 years prior to our use of RF, this had never happened. It is 100 percent attributable to the use of the NORAND data collection system," Austin says.

One person's "work in process" is another one's "inventory" at Matsushita. Since the inventory is updated within 15 minutes of receipt, oftentimes products go directly from receiving to picking.

On-line Data Collection Reduces Receiving to Picking Turnaround from Overnight to 15 Minutes

Going paperless has allowed Matsushita to dramatically reduce the time it takes to move products from receiving to picking. Before implementing NORAND RF and the WMS system, the company generated orders overnight. Now the turnaround time is 15 minutes. "We get an advanced shipping notice from our factories on-line. We generate that into a receiving notice on the radio frequency system. We

SOLUTION
Integrate NORAND handheld data collection terminals into warehouse management system for a total network solution.

update, scan and acknowledge receipt all online. This updates our inventory in just 15 minutes," Austin says. The NORAND radio frequency data collection system plays an important role in every aspect of Matsushita's warehousing process. When truckloads or containers arrive, receivers start scanning the product. This calls up a receiving notice on the NORAND hand-held terminals. The count is entered and a license plate identifying a group of products is applied. From the license plate, a location is specified for putaway. As soon as the license plate is scanned, all the information is carried forward to the host—what the product is, the count, when it came in, what vessel it came in on, etc.—and when it is put away, all that information automatically goes into inventory.

"When you push enter, it uploads to the host, which in turn feeds and takes the order entry. So within 15 minutes of arrival, we can start releasing orders in inventory," Austin says. From there, orders go into the job-planning queue so that sorting can begin. Matsushita has the ability to sort any way it wants—by carrier, by customer, by destination, by route, priority, etc. But it primarily sorts by carrier or geographic area. At this point, the person running the shipping/picking area is in total control. Not only does he assign the job, but he can monitor what's happening on the floor as well. The picker is dispatched by a message that appears on the screen of his NORAND RT1700 hand-held terminal. So he goes out and picks the product. First he scans to verify location, then to verify product, and then enters the amount picked. When he indicates that he has completed picking that model, the hand-held directs him to the next one. When he is done, he pushes a function key indicating he is taking the product to the shipping dock. At the dock, a picking license plate is applied. The shipper scans the picking license plate, does a blind count through RF and verifies that the picked order was complete. That's it. Now the order is ready to go.
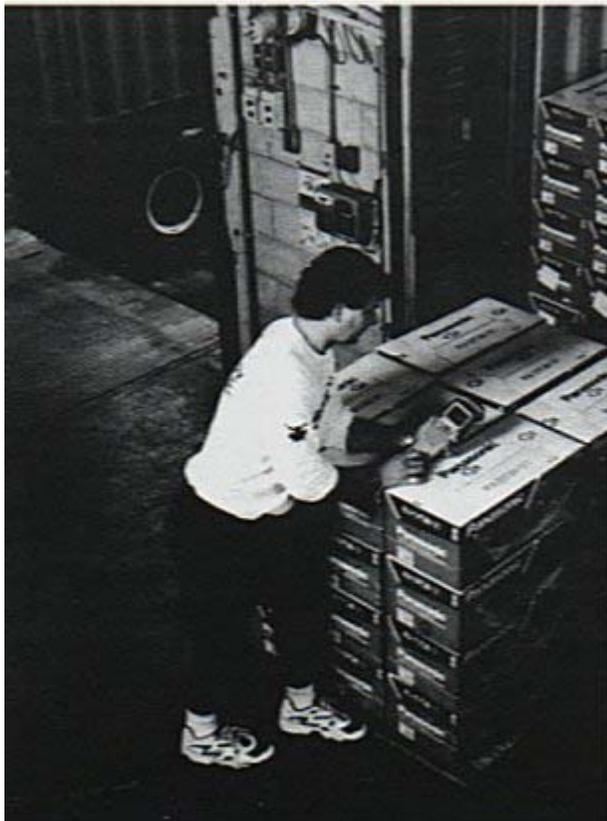
NORAND RF and the WMS system have not only improved receiving, inventory and picking, they have increased the efficiency on the dock as well. "The dock time we've saved has been astronomical. The speed and efficiency is like night and day. We figure our efficiency on the dock alone has increased by a minimum of 50 percent. There is no paper, or manual input, there are no mistakes, and we no longer have to have a person keying in confirmations all day. It happens instantaneously," Austin says.

Cross Docking is Alive and Well at Matsushita Thanks to NORAND RF System   One person's "work in process" is another one's "inventory" at Matsushita. Since the inventory is updated within 15 minutes of receipt, often time products go directly from receiving to picking. "Basically, every transaction is an inventory location," says Austin. "The receiving dock is an inventory location. The picker is an inventory location. Sometimes products don't even get put away. They go directly from receiving to picking. We're even nearing the point where we can cross-dock back orders. So when we receive them, they will be put away in an area close to the shipping dock."

The NORAND RF system allows Matsushita to do freight consolidation. It identifies when a customer has two orders released the same day—making it possible to consolidate the shipments and save the customer both time and money.

In addition to cross docking, the NORAND RF system allows Matsushita to do freight consolidation. Before using RF data collection, there was no way of identifying when a customer had two orders released on the same day. More than likely, the customer would receive two separate shipments and have to pay twice. Now Matsushita's RF system identifies when a customer has two orders released the same day making it possible to consolidate the shipments and save the customer both time and money.

OUTCOME
The company achieves on-line cycle counting, dramtically improves receiving, inventory and picking; increases efficency on the dock and strengthens overall productivity.

Shipping and Receiving Data Automatically Routed To Accounts Payable

Fully integrated with Matsushita's warehouse management system, the NORAND hand-held computers automatically route transaction data to the appropriate department. For example, once a carrier signs *off* on his load manifest, it is scanned. That confirms the order, which is instantly routed to accounts receivable. An invoice, which includes freight charges is generated and mailed to the customer. For those customers set up on Matsushita's EDI (Electronic Data Interchange) system, an ASN (Advanced Shipping Notice) is generated and downloaded to the customer on-line. Customer invoices with freight and time of shipping are also sent through EDI.

According to William Austin, logistics manager for Matsushita, NORAND RF data collection and the WMS system have allowed the company to operate in a paperless environment and essentially eliminated shipping errors."Most months we have zero discrepancies— no model mixes, no product mixes, no incorrect amounts, no incorrect colors," Austin says.

Dramatic Bottom-Line Results Prompted Expansion of NORAND RF to Matsushita's Parts Department and Other Facilities

According to Austin, the NORAND RF and WMS systems have allowed Matsushita to dramatically increase its volume without having to expand the facility or add employees. "Our largest day previously, has been exceeded about 15 to 20 times since RF. So basically, we ship more with the same facility and the same people. We're moving a lot more volume out the door and we are doing it a lot more accurately.

Our customers are happier, too. Now we can receive and ship just about any order the same day. Instead of waiting two hours for pick up, customers only have to wait about 10 to 15 minutes," he says.

Due to the positive results of the RF system in Matsushita's industrial and consumer warehouses, the company decided to expand its use to its parts department. "We have a parts department with 120,000 SKUs," Austin says. "Our parts supply record was dismal, but since we implemented RF, our record has completely turned around. We have improved our parts turnaround from 48 hours, to in-by-one, out-by-five."

In addition to using the NORAND RF data collection system in three of its facilities in the Toronto area, Matsushita has also implemented RF in its Vancouver warehouse which services all the Western Canadian provinces. Plus, the company has attracted worldwide attention as a model RF warehouse for Panasonic (its parent company), as well as other corporations. "I think I must give two or three facility tours each week. We seem to have become a model for businesses that want to improve their warehouse management and inventory control," Austin says. With Matsushita's innovative spirit and Austin's unwavering commitment to implementing new technologies to improve operations and increase profits, we're sure the company will remain one to watch.