



# Warehouse & Shipping

Zebra Technologies, Preston, U.K.



Don't walk – run with a Zebra®

*Algebra was never Clive Fearn's favourite subject but when it came to working out how to make the Zebra distribution warehouse in Preston, UK more efficient, he kept coming back to the kind of mathematical problems he was set in school. If it takes one man three hours to walk one mile and five men to unload a delivery – how much time could they save if they didn't have to walk back and forth to a printer to fetch their packing labels?*

*It's not a problem unique to Fearn. Many warehouse managers despair at the time that is apparently wasted as their teams trudge back and forth collecting labels to match against packages. Cutting out this activity, and cutting out this time, would mean important efficiency gains for the whole operation.*

## How the challenge comes about

Zebra's Preston-based distribution centre is the hub for the delivery of all its auto identification products sold in Europe, the Middle East and Africa. The centre receives goods from suppliers and factories around the world – many of which are ready for immediate dispatch to its community of resellers. As each item is received, its product bar code is scanned and matched against a delivery sheet to ensure correct identification. The goods are then packed according to information generated using the code and stored in the warehouse.

However, not all items delivered to the Zebra distribution centre are labelled individually. Often, multiple packages arrive that need to be split down into individual units. Also, some suppliers deliver crates containing many different types of item, all delivered with one

packing instruction and one bar code.

In these cases, the individual units need to be bar coded in order that they can be correctly stored and successfully retrieved later.

Fearn said, "This was the part that we found tricky. The goods were scanned and matched by our Baan ERP system, which sent a print message to a Zebra S600 Stripe printer. Operators would have to leave their stations to collect the labels from the printer and return with them to label all the items that they had scanned. It was a bottleneck in the process with people walking back and forth across the warehouse. As all the labels were printed from the same printer, four or five people would be rummaging amongst them to select their own. The margin for error was larger than we would have liked as there was always a possibility that the items would be mislabelled."

## It's not as easy as you may think

One solution to the problem would be to install separate printers for each of the operators. This, however, would have been extremely complex and costly. Each printer would need to be wired into the network and have its own station. The wiring, the space and the costs ruled this option out.

Fearn says: "It's not just a case of scanning a label and having that replicated by a printer – that could be done simply by providing our operators with a mobile barcode printer. We need to check the incoming goods against the inventory system on our ERP solution and then generate specific labels for warehousing. Any printer would have to be connected to our network for it to be able to produce the labels we need."

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### Solution technology...

QL 420™ mobile printers fitted with wireless LAN connectivity modules

802.11b wireless network





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## The solution

The Preston distribution centre upgraded its S600 Stripe printer for a number of Zebra QL420 wireless-enabled mobile printers. Workers receiving the deliveries now have their own mobile printers either attached to their belts or worn with a shoulder strap. This means that items arriving without the appropriate labelling can be scanned and a label printed on demand. There is no more walking and no chance of labels being confused.

Fearn continues: “We already had a radio frequency network that we installed in 1998 which we used as a basis for the system. Upgrading the network to the 802.11.B standard gave us 11MB of bandwidth creating fast wireless connections to run the new system over. Now, goods are scanned and verified by the ERP system that sends back the information to generate new labels to lightweight portable printers being used by the operators. The whole process is easy now.”

Zebra’s Preston distribution centre is taking advantage of the very latest technology to make this solution work. The QL420 is the only wireless-enabled mobile printer capable of printing industry-standard 100mm labels currently on the market.

Furthermore, because the QL420 mobile printers use the same programming language as all other Zebra printers including the Stripe S600 they replaced, there was no need for any

costly and time consuming reprogramming of the print commands sent out by the Baan ERP system.

## The benefits

As a result of the implementation, Zebra’s Preston distribution centre has seen three main benefits:

- Process Improvement
- Since the introduction of the QL420-based solution, the team has achieved near 100% accuracy for the labelling of its inward-bound goods. The savings in terms of not misplacing goods and being able to fulfil orders is immense
- Time savings
- Since installing the system, the distribution centre has seen time savings of 30 minutes per person per day working in goods inward.
- Flexibility
- The team no longer relies on a single printer to handle the label printing for all the operators. The new solution offers a greatly improved contingency in the rare event of a system failure.

Fearn says: “The QL420 printers save us time, money and space. In fact, the time that we save in not fetching labels alone will make them pay for themselves in just 12 months. On top of that we have a more flexible, more reliable solution. Rolling the same printers out to be used in other applications, such as goods picking will ultimately make the investment even more worthwhile.”

## The final answer

So, if it takes one man three hours to walk one mile and five men to unload a delivery – how much time could they save if they didn’t have to walk back and forth to a printer to fetch their packing labels? Thanks to the QL420, Fearn now knows that it’s 30 minutes per person per day.

For further information on Zebra products or to find a local supplier, visit the Zebra website or contact us at:



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