



www.tesco.com



CHEROKEE.



Help Sheet

Unit 2 (a) Describe the different purposes for which the departments in Tesco use ICT

First of all find out about the company TESCO. What do they do? What are their aims? Describe your visit to the store (the moderator will give you more credit if you say that you have visited the Mold store).

Watch the video clips.

Describe using What, Why and How

1. **What** is the purpose of each department?
2. **What** happens in each department?
3. **Why** do they use ICT?
4. **How** does ICT help Tesco to:
 - a) Share **Information** between departments?
 - b) **Communicate** with staff from other departments, Head Office or customers?
 - c) Run their departments efficiently and effectively?
5. **How** does ICT link all of the departments together?

Use your creative imagination to describe what goes on within each department. To help you some of the uses of ICT within each of the departments in TESCO are listed below:

Communication/Administration

- Windows 2000 based PC connected to Internet/Intranet and Head Office can be used as bulletin board. (*Called TESCO Network*)
- Word Processing to communicate internally and externally.
- E-mail to other stores and Head Office.
- E-mail to suppliers.
- Internal telephone system to communicate with other departments and store support to contact Head Office
- Internet/E-commerce site to communicate with customers.
- Database of staff details.
- Customer complaints database (*detailing all the complaints made at store level*)
- *Powerpoint used for staff training. Along with Electronic data projectors etc.*

Purchasing/Stock control

- Hand Held Terminals for collecting information about products and stock checking.
- Internet for comparing pricing of competitors.
- EPOS (*Mainframe based with leased line secure connection. Interface is text based menu driven rather than GUI*)
- Batch Processing of check-out information. (*Information is collected at 9 p.m. and sent to the stock control system [SPR] for processing. The system updates stock information, sends out purchase orders as necessary and sends back reports and price changes back to the Mold Branch*)
- RFID Technology for expensive items such as DVD players, DVD films etc. See www.tesco.com/radiobarcodes
- Chillers/Freezers. (*Electronic sensors within the chilled cabinets monitor the internal temperature. These sensors would action whether or not to turn on/off the fans*)

Sales/Marketing

- EPOS including Barcode reader, keyboard, Chip 'n' Pin, magnetic card reader.
- Tills (*Each till has a local memory of the top 3,000 purchases in order to speed up the processing time rather than look up the information on the server*)
- Tesco.com e-commerce website.
- Standalone microcomputer with Windows 2000 for printing poster size promotional material. Uses software called Filemaker. See www.filemaker.com (*this allows the store to create its own promotional material rather than having to order it from Head Office*)

Finance

- Bespoke financial software linked to EPOS system similar in concept to SAGE. (*Includes sales tracking, accounts, staff payroll, other backoffice functions.*)
- Spreadsheets used for in-house financial analysis, such as checking targets etc.

Security

- Fire panel (*Each fire exit is alarmed so that if used the manager is able to pinpoint on the firepanel which door alarm has been activated*)
- Electronic tagging
- Computer controlled CCTV with bespoke software. Includes automatic number plate recognition externally and facial recognition internally.
- PC linked to Digital Video recorder which records feeds from 6 cameras. (*3 x 200Gb Hard Drives that can hold 2 and a half weeks of recorded footage.*)
- Both PCs have UPS (*Uninterruptible power supply*)
- Alarm barriers at store exits/entrances linked to CCTV

Unit 2 (b) Describe an ICT system used in Tesco and how it meets the needs identified in 2 (a)

Watch the video clips

1. It is suggested that you describe the ICT system used in **Sales/Marketing** department which includes Tesco.com (**dot.com**)
2. You need to group the devices listed below under **Input Devices, Output Devices, Processors, Ports and Cables, Software and Storage Devices**. You need to describe what each of the devices are and this description must link to how it is used in the **Dot.Com** department.

Here is a list of some of the components of the Sales/Marketing Department:

1. EPOS System - Retailix Storeline with Windows XP Embedded Point of Service
<http://www.retalix.com/index.cfm?pageid=512>
 2. Concept Keyboard/Barcode Reader/Chip 'n' Pin etc connected by serial/parallel and RS-232
 3. Intermec Pocket PC 700C
<http://www.datasplICE.com/SolutionsProducts/handhelds/intermechh/intermec750>
 4. Microsoft Windows 2000
 5. Epson Label Printer M67LA
 6. HP 3 button Scroll Mouse
 7. HP 80Gb Hard Drive with an Intel Processor
 8. PSC Quickscan 6000 Plus
http://www.dealtime.com/xPF-PSC_QuickScan_6000_Plus
 9. Fujitsu Teampad
 10. Lexmark Optra S1855
<http://www.sussex.ac.uk/its/equipment/advice/page.php?pageID=prunivers>
 11. Filemaker software
 12. A0 size colour printer
- 3. Describe** how well a system component or software works and how it helps the people in the Sales/Marketing department do their job.
- 4. Explain** how the components work together as a system (this might include a labelled diagram as an illustration or a short descriptive paragraph).

Tesco Selects Intermec's New 700 Series Color Pocket PC

Wednesday, July 30, 2003

Leading supermarket retailer Tesco has announced it is to purchase nearly 10,000 of Intermec's market leading handheld computer device, the 700 Series Color, for use throughout its UK store network. A powerful, reliable and easy-to-use handheld computer, the Intermec 700 Series Color offers exceptional flexibility and functionality designed for supplying real-time information across businesses. Tesco's existing handheld terminals were reaching the end of their working lives and the company chose to take the opportunity to upgrade to the latest, high performance technology. The retailer needed a rugged device that offered radio frequency (RF) mobile communication and could accommodate moves from a text-based to a graphical platform as well as from terminal emulation to Microsoft's Internet Explorer.

"We are delighted that the UK's leading supermarket retailer, and one of the country's most forward-thinking implementers of retail technology, has chosen the 700 Color handheld computer," said Stuart Scott, Intermec director of business development and marketing. "The 700 Color offers a unique combination of technological features combined with practical performance in key areas such as ease of use, light weight, color display, extensive battery life and user comfort."

"We were impressed by the innovation, flexibility and adaptability of the Intermec 700 Color computer," said Philip Robbins-Jones, IT Strategic Development Director of Tesco. "Intermec's outstanding technical capabilities and commitment to providing a solution customized to our needs have helped to speed and ease the implementation of this technology."

Tesco is using the devices for in-store price mark-downs (in combination with a portable printer), shelf re-cubing (printing new shelf-edge labels), logging general stock transactions and producing planograms of product layouts and shelf designs. They are also being used in the field for checking delivery accuracy using GPRS connectivity to feed back data in real time and to check accuracy of deliveries against invoices.

The first device to integrate up to three wireless communication options in a single device, the Intermec 700 Color features a wireless local area (802.11b) radio, a GSM/GPRS wide area network radio and a fully integrated power-managed Bluetooth™ radio. These options allow the same device to be used to communicate status and information in real time from virtually any location, whether via wireless LANs in stores, warehouses and distribution centres or via wireless WAN for mobile operations such as delivery vehicles.

Rugged enough to withstand repeated 5-foot drops onto concrete, the 700 Color can comfortably take the abuse of shop floor, warehouse and mobile delivery environments. It features a large, brilliant color display 20 percent larger than most similar devices, combined with the power and speed of Intel's 400 MHz X-Scale processor. The 700 Color also comes equipped with a powerful 14.4 watt-hour lithium-ion battery and industry-leading power management, so that it can be operated for up to 14 hours before needing to be recharged. It combines impressive speed and generous graphics capabilities with an easy to read color touch screen that can be used with either pen or keyboard data entry.

The 700 Color is the first enterprise Pocket PC to offer an imager, suitable for reading barcodes (including 2D symbologies), taking photographs and capturing signatures, making it supremely flexible in use and ideal for home delivery verification. Tesco's future applications of the 700 Color technology may include use for Tesco.com home deliveries and signature capture.

Tesco is being supplied and supported by Herbert Retail Ltd, an Intermec Premier Solutions Partner with extensive experience in deploying Intermec computers and data capture systems among UK retailers.

Tesco's online drive

Sunday, March 07, 2004

Tesco.com is a masterclass in internet retailing. By adapting quickly to the fast-changing needs of its customers, and pioneering new solutions, the company is keeping several steps ahead of its competitors. Tesco.com relies on an EMC automated network storage infrastructure to provide its highly resilient and scalable information storage system. The seamless file sharing capabilities within the networked solution also simplify the management and protection of the Tesco.com site.

The internet grocery subsidiary of Britain's largest, most prosperous, and most widely respected high street supermarket group was the very first to market in Britain and this innovative, pioneering spirit has assisted Tesco.com in achieving its enviable position today as the world's number one online grocery store. Every week, the company serves and satisfies more than 100,000 orders across Britain, and last year recorded an annual turnover of more than €350 million.

The two founding goals of Tesco.com are innovation and agility. "We're a very competitive company, which is always striving to do better," said Mike Yorwerth, head of operations and infrastructure at Tesco.com. "Everywhere you look, Tesco.com has consistently retained its innovative spirit, and this pioneering approach has been a critical success factor in the ultra competitive internet retail environment. Within six years of our launch, we have continually added an unrivalled blend of new products, new services, and new functionality to the site. Our competitors are forever playing catch-up."

According to Yorwerth, Tesco.com's agility has enabled the company to roll-out new solutions quickly, and capture a valuable 'time to market' advantage on its less-sprightly competitors. The company has launched a series of microsites aimed at niche opportunities, such as a Christmas gift site, Halloween and other time sensitive events.

"In the weeks up to Mother's Day, we created a microsite for our flowers delivery service, which automatically screen-popped on the homepage when a customer entered the site. This proved to be so successful, we recouped our development costs in the first 24 hours of it going live."

The technology challenges facing Tesco.com focus on three distinct issues: speed, resilience and change. The online retailer is experiencing a 100 per cent increase in site traffic every year, and it needs to ensure that the system continues to operate quickly, however, many customers are on the site.

"It's a complex environment. The number of customers is increasing; we have more and more complex transactions involving greater numbers of images; and customers are communicating through a variety of new devices. If the site is too slow, we risk losing customers to our competitors, possibly never to return," he said.

This accelerated delivery needs to be matched by round-the-clock service. System downtime is simply not an option: if the site stops, revenue stops. Tesco.com aims for non-stop availability, allowing customers to shop at any time of the day or night.

"Because of the need to undertake upgrades to the site, counter against lost links, or whatever, we have to have a highly resilient, bullet-proof technology infrastructure, delivering near 100 per cent availability."

Tesco.com's greatest pain point though is managing a rapid, constant, and inevitable cycle of change. Minor changes are incorporated onto the site on a daily basis, such as updating the homepage, incorporating new banner and other types of advertisements and other marketing information.

Tesco.com implements more significant changes every eight weeks, such as adding new functionality and applications, all of which means the development and testing is based on a six to eight week cycle. It has multiple, overlapping streams of applications and solutions in development at any one time, and they all need to be launched without any impact whatsoever on the customers.

Until recently, the technology infrastructure supporting Tesco.com made it difficult for the company to react to these challenges.

"We were relying on local attached disk and some fibre arrays," he said. This created three problems: the lack of resilience meant that if we lost a disk or a server, we had problems; secondly, database performance was inadequate; and thirdly, it didn't provide a NAS arena, which we needed to cache frequently used pages."

To support the site's regular content and technology updates, enable faster roll-out of new applications across the server farm, and eliminate site down time and the related productivity loss, Tesco.com has implemented an EMC automated network storage solution, based on a storage area network (SAN) and a network attached storage (NAS) infrastructure.

It hinges on EMC's network-attached storage solution, Celerra SE.

"Why did we opt for a high functionality, mid-range EMC solution, as opposed to a vanilla NAS box? That's because we wanted the SAN technology as well. We needed the SAN for speed and resilience, and the NAS solution to assist with the implementation of leading-edge, next-generation solutions."

To successfully manage its multiple waterfalls of development, Tesco.com will also rely on EMC TimeFinder software.

"We used to copy data over the network for test and development. Soon, using TimeFinder, we will be able to take a point-in-time snapshot of the system, and attach it to a new server in a matter of seconds. By accelerating the time-to-market for innovative new services, we are adhering to our agility goals, and capturing a lead on the competition," he said.

"To an extent, we simply imagined this SAN and NAS implementation as a simple, straightforward storage solution. By collaborating closely with EMC Professional Services, we were able to look at it more radically. Owing to their skills, we now have a powerful, flexible, cost-effective automated network storage solution, which delivers almost non-stop availability.

"Plus we have the assurance of working with the largest, most experienced storage company there is."

News Article 2 **END**

Shopping online at Tesco

Mar 07, 2002

Customers value the time savings of not having to drive to the store, manually pick the groceries, queue up to pay, drive home and unload the car. They do, however, enjoy the opportunity to touch and feel the produce. Tesco has managed to streamline the customer's shopping scenario while ensuring customers get the quality and the prices they want.

TESCO plc is a UK-based global supermarket chain with annual revenues of £20 billion. An established presence with a huge brick-and-mortar infrastructure, Tesco is also the world's most successful and profitable online grocer. It has worked hard to streamline the customer's grocery shopping scenario, both in-store and online. No other online grocer has seamlessly integrated customers' in-store shopping and their online shopping.

Customers value the time savings of not having to drive to the store, do the manual labour of picking out the groceries, stand in line to pay for them, drive home and unload the car. Customers do, however, usually enjoy the opportunity to touch and feel the fresh produce and to make 'impulse buys'. Here's how Tesco's team worked to streamline the customer's shopping scenario while maintaining the attributes that customers value: getting the quality, the assortment, and the prices they want.

Many online grocery services presume that it's more cost-effective to handle inventory and fulfilment operations from a distribution warehouse. But Gary Sargeant, who was appointed to head up the Tesco Direct operation in 1996, was a former store manager. He realised that customers would prefer to purchase online from the store in which they would normally shop in person. That way, customers would receive the same price for each item online as the price in the store nearest their home.

Customers were also familiar with the selection of products available in their local stores. By linking the online shopping application directly to each store's inventory systems, it was unlikely that customers would order a product that was not available, saving considerable time and effort for both customers and for Tesco. Finally, the servers in each store could save a history of each customer's favourite products, to ensure that these were always in stock. Tesco keeps track of what each family has bought, both in the store and online. And it doesn't violate customers' privacy by sharing that information with suppliers. This 'shop online from my store' scenario permits regional pricing variations to be maintained, boosting overall profits. (In the supermarket business, certain neighbourhoods support higher prices than others.) Yet customers' online prices would always be competitive with the prices charged by local stores. Gary handpicked a team of logisticians to help design the optimal in-store pick and pack system. The new streamlined system works like this: The pickers use a specially-equipped shopping cart with six trays and an online display. The display gives them their routes through the store and a list of the items to be picked as they go down each aisle. The store routes are optimised to avoid the peak in-store traffic areas. Items are scanned as they're dropped into each customer's tray, so they can't be mixed up. And if the item the customer ordered has gone out of stock in the few hours that have elapsed since the order was placed, the picking application proposes an alternative product from a list of items that the customer has previously purchased, either in the store or when shopping online. Seventy-five per cent of Tesco's online shoppers also shop at the store from time to time. And because most of them use Tesco's loyalty card, Tesco has a complete history of each customer's orders.

Once the shopping cart is filled, the trays are loaded directly into the delivery vans that are ready and waiting behind each store. Again, the routing is optimised so that produce doesn't sit for hours but is delivered immediately after being picked from the store. Deliveries are scheduled based on customers' preferences (within a two-hour delivery window to allow for traffic delays). Any items that have been substituted are carefully placed on the top of each order so they can be reviewed and accepted or rejected when the order is delivered.

Monitoring customer scenarios

Even before it ventured into e-business, the Tesco management had identified inventory replenishment as a key performance indicator it needed to monitor constantly at the individual store level. Keeping the shelves stocked is a key service that affects lots of customers.

Tesco tracks every step of its replenishment process, not just to increase inventory turns but also to keep operational efficiency humming. The goal is for customers to have a consistently good experience shopping at Tesco. Tesco's balanced score card — a wheel with green, yellow, and red lights for each indicator — is on the wall of each store where all employees can see it. Tesco's in-store personnel carefully monitor when the stock light goes yellow, meaning an item is close to being out of stock on the shelves.

The Tesco Direct team also takes the customer experience very seriously. They monitor on-time deliveries, accuracy of orders, and customer satisfaction. They also simulate customers' online shopping experiences to monitor the state of the end-to-end customer experience proactively. Gary's team runs shopping scenario robots using a variety of different browsers, Internet service providers (ISPs) and dial-in numbers. This constant monitoring of the conditions that customers are facing helps Tesco proactively sort out problems as they occur. For example, Gary reports that one well-intentioned ISP was caching the Tesco site (keeping a local copy in memory and serving it up to customers) so as to speed access. The problem was that it had cached the information — including pricing and availability — from one of 200 stores. Since each online customer might be shopping at a different store, this approach aggravated rather than improved customers' experiences.

Gary's team uses simple sanity checks as well. By trial and error Gary discovered that, if any store's orders fall 15 per cent below the orders for the same time period on the previous day, there may be a technical problem. He now has a simple alert set to go off whenever that condition occurs. Honing a profitable business model. Tesco charges customers £5 per delivery. This fee covers 60 per cent of the operational costs of actually performing the service. The rest of the costs are covered by the fact that online in-home shoppers order more profitable items than in-store-only shoppers. Grocers measure customer profitability by shopping basket. Gary reports that the `basket mix' of Tesco's online shoppers is 2-3 percentage points more profitable than the average customer's in-store market basket. Why is that? I would speculate that, when a customer grocery shops online, it's easier to check off a list of items and add to that list than it is to lumber down supermarket aisles picking out each item by hand. And Tesco's online shopping site does a good job of cross-selling and up-selling. When you check off an item (such as bread), other related items (such as marmalade or butter) pop up on the screen.

In the spring of 2000, Tesco.com became a separate subsidiary under the leadership of John Browett, CEO, and Carolyn Bradley, COO. While it's still 100-per cent owned by Tesco, the separate governance has allowed the dotcom unit to continue to move at Internet speed. "We were beginning to get bogged down in the corporate business processes," Gary reports. "We needed the ability to move faster." Now John has a direct line to Tesco's board. And the subsidiary is able to create its own incentive structure that is more competitive. "All Tesco employees will benefit from our success," Gary reports, "but with our own stock options and pay structure, we can compete for talent."

Let's briefly recap the brilliance of Tesco's in-store pick-and-pack model. First, the company doesn't need to set up separate warehouse distribution centres to support its online shoppers. Companies that have tried to do this have had particular difficulty with the perishables in the warehouses; there isn't enough volume and turnover to keep the freshest produce fresh.

With the Tesco in-store pick-and-pack approach, the online business is leveraging the inventory and rapid turnover of the existing stores. Because the Tesco Direct system optimised the traffic patterns through the store, the regular shoppers aren't inconvenienced. Best of all, the customer gets the same products at the same prices whether she shops online or stops at the store on her way home from work. Every purchase the household makes — online and offline — is captured. That information is used to improve the shopper's convenience and her customer experience with Tesco. By saving customers' time, Tesco has leapt ahead of the competition.

News Article 3 **END**

Is it OK ... to use loyalty reward cards?

September 27, 2005

Every little helps. Every little piece of data about your shopping habits helps supermarkets such as Tesco march forth in their quest to claim as much high-street business as they can cram into their already bulging trolleys.

This has long been the charge made against loyalty reward cards; you may think you're saving money by expressing your loyalty to a particular store, but what you are really doing by gifting them your name, address and preferred flavour of ice cream each week is enabling them to further strengthen their grip on your wallet or purse through highly targeted marketing and responsive store design. Why else would some of the supermarkets choose to spend millions each year running such schemes?

But what is really the harm in them knowing such mundane information if you can earn, say, £50 off your Christmas shop, or some free cinema tickets? It pays to look at two things: how much these schemes actually save you, and how the information you hand to the retailers is used.

Much can be learned by examining Tesco's Clubcard and Sainsbury's Nectar card - by far the biggest schemes in the UK (Asda and Morrisons, the other members of the so-called "Big Four", do not favour reward cards). Both these cards offer a standard 1% discount off store prices, or a range of reward deals such as vouchers for fast-food chains, airlines and theme parks. So to get £50 in vouchers you would need to spend £5,000. Or to earn, say, a standard Eurostar return to Paris via the Nectar scheme you would need to spend about £6,000.

To some, these may seem reasonable perks for being a loyal shopper, but what is the true price for entering into such a deal with these stores? Understanding just how useful the details of your shopping habits are is crucial to determining whether you will still feel happy about using them.

Take Tesco, the UK's largest, most profitable supermarket. In recent months its mighty Crucible database has been receiving lots of attention in the press due to the extraordinary power and depth of analysis it can achieve. Fed every second by Tesco's 12 million Clubcard holders, Crucible could in theory generate about 12bn pieces of data a year if each card-holder bought just 20 items a week. This alone would paint a rich portrait of each user: a car owner who lives alone with a dog and who likes to splash out on luxury food ranges, say, or a family of four who are all vegan, buy fair-trade bananas and prefer Australian wine.

But what makes Crucible so uniquely useful to Tesco is that all this information is being inputted alongside other data such as that found on the electoral register, the census, credit data services, the land registry and so on, to build up an intricate map of the nation's consumption. (Gillette, P&G, GlaxoSmithKline and Nestlé have all used the services of dunnhumby, the firm behind Crucible which Tesco, which now accounts for £1 in every £8 spent on the high street, judged so crucial to its success that it has secured a 51% controlling stake.)

All of this is legal, of course, and governed by the Data Protection Act (as is the case with all other such schemes). Even if you fail to tick all the "don't ever bother me with junk mail or cold calls" boxes, they are not allowed to pass on personal information about you, just to "use and share information relating to groups of customers, without identifying individuals", as the Clubcard forms say in the small print.

This scotches the belief held by some card holders that they are somehow beating the system by entering in false details. This tactic misses the point - the big companies are not bothered about whether or not you really are Mr or Mrs Smith of 3 Acacia Avenue. But they do want to know what all shoppers like you buy. By labelling and sorting all consumers into neat boxes they can then better tailor and target their services and, of course, better increase profits and market share. Ultimately, all the supermarkets are looking to isolate the most profitable groups of consumers; 75% of a supermarket's profit comes from just 30% of its customers. Loyalty reward cards are a proven way to do this.

If you are unsettled by the advance of the supermarkets, cutting up your card is one little way to help rein them back.

News Article 4 **END**

News Article 5

Tesco unveils RFID strategy

26 Nov 2003

Tesco will have radio frequency identity (RFID) technology in operation throughout its supply chain by 2007. The supermarket giant has secured its lead in the UK's RFID race by detailing a four-year timetable that clarifies its plans for the technology.

Tesco will focus on tagging cases of non-food items for distribution rather than individual items, and will work closely with suppliers to make sure they can meet its targets.

'We don't have an exact date for getting all our suppliers on board, but it is likely to be sometime in 2007,' a Tesco spokesman told Computing. 'We want to work at a pace that suits both us and our suppliers.'

Tesco is clearly aware of the privacy concerns surrounding RFID and is using its marketing savvy to promote the technology to customers and suppliers as 'radio barcode' technology.

'We will be putting radio barcodes on cases of non-food items, not at an item level, starting with a phased rollout in April 2004,' said the spokesman.

The firm will review technology standards next April before detailing its requirements to suppliers about what products will need to be tagged. The company will start a two-year roll-out in September next year, covering priority products, before extending the technology to cover all remaining products by September 2006.

Tesco started a trial last month at its Milton Keynes distribution centre, tagging cases to improve supply chain visibility between the centre and two stores at Peterborough and St Neots. This followed on from an earlier DVD tagging trial in Sandhurst and Leicester, which will conclude early next year. Alien Technology, IBM Business Consulting Services, Intel and Integrated Product Intelligence will supply all the necessary technology, although Tesco will not reveal how much it or its suppliers are expected to spend.

News Article 5 **END**



TESCO GET PORTABLE



The Company

Tesco was founded in 1924. Over the last seventy years, as the food retailing market has changed, the company has grown and developed, responding to new opportunities and pioneering many innovations. Today Tesco is Britain's leading food retailer.

It is vital to Tesco that every aspect of its operation is controlled or monitored by IT - stock, distribution, payroll, accounts and so on. For example, when an item has its barcode read at the checkout, the system not only logs the price onto the till, but also logs the financial transaction between Tesco and the customer and the fact that the stock has been reduced by one item. IT is so critical to the operation that last year Tesco spent approximately £133 million on IT (approx. 1.4% of turnover).

The Requirement

The Tesco Extra store in Peterborough has extremely high standards of customer service throughout the vast 94,450 sq. ft. shopping area, however one area was not as efficient as they'd have liked. When product pricing was reduced due to damaged packaging, or the product nearing its sell by date, a 'reduced' label was placed over the barcode which required the checkout attendant to peel off the label to scan the barcode then make a manual keyboard entry to confirm the price reduction.

This system slowed down progress through the checkout by the customer and was very frustrating for the checkout staff.

Tesco needed a solution that would allow them to print barcoded price reduction labels whilst standing by the product.

The Solution

Symbol and Toshiba TEC recommended a joint solution which allowed staff to check price information using Symbol's wireless mobile computers which are equipped with "micro radio" links to Toshiba TEC portable printers worn on the belt.



Using this solution, staff can scan-in a barcode, see the full selling price, set a discount price and print a yellow barcoded discount label which registers the reduced price when scanned at any of the store's 55 checkouts.

The wireless solution uses a frequency-hopping backbone with IEEE 802.11 compliant Symbol Air I/O 2 MB/x universal access points and PTC 960SLFH mobile computers running Symbol's 'Air Vu' ANSI emulation application. The wireless network used the non-proprietary TCP/IP protocol to communicate with an in-store RS6000. The Toshiba TEC B-211 portable printers produce 2" custom labels with EAN 128 barcodes.

Benefits

Total accuracy - Checkout staff do not have any manual keyboard entries to make, cutting down on accidental keyboard errors that can result in loss of money to the company or to the customer.

Faster throughput time - Now that customers do not have to wait for the checkout attendants to peel off the reduction label, throughput at the checkout is significantly faster - a benefit for both the company and the customer.

John P. Garrett, Tesco New Technology Controller comments "Real time mobile communication is a major technology asset in a store of this scale. With the Symbol and Toshiba TEC solution we can be confident price reductions are implemented rapidly, giving Tesco customers the most efficient service at the checkout."

The Future

Peterborough is one of a number of Tesco stores currently being equipped with the solution with others to follow throughout Europe. Paul Reynolds, Toshiba TEC Barcode Sales Manager, concluded: "The solution created by Symbol and Toshiba TEC is very exciting. Working together, we have introduced a solution ideal for all retail outlets. We have already had interest from several other companies."

News Article 6 **END**

News Article 7

Tesco Upgrades Store Systems Worldwide

Tesco, one of the world's leading retail chains, begins a worldwide upgrade of its store systems to Retalix StoreLine V8 with POS, Front Office, Back Office and Mobile PocketOffice applications.

The first Tesco store to implement the complete Retalix solution is a Kipa hypermarket in Turkey, which has been running the system successfully since June. The store is located in Bodrum, with 35 tills, 10 Retalix PocketOffice units and 11 terminal servers.

"The new solution will help us to improve availability and price integrity in our stores across the world and will mean more staff on the shop floor serving our customers," says Colin Cobain, Group IT Director at Tesco. "The system has been running successfully with excellent performance and stability in Turkey, and we are looking forward to seeing the benefits of the planned global deployment of this solution in all of our stores."

Currently, the Retalix StoreLine V7 solution is installed in more than 2,000 Tesco sites worldwide. Called "Tesco in a Box," the new solution will be the standard platform for all Tesco stores in the U.K., Europe and Asia.

The Retalix solution includes Windows-based StoreLine POS, Front Office and Back Office applications, including Cash Office, Receiving, Inventory Management and Shelf Labeling. The integrated system is designed to streamline store operations and inventory management, allowing employees to spend more time on the sales floor, providing better service to customers. In addition, the mobile solution Retalix PocketOffice is fully integrated into the system, and is used for receiving and counting stock, enabling employees to update critical information from anywhere in the store.

Tesco also has selected Metrologic's Stratos bi-optic, in-counter scanner/scale solution. Subject to a successful pilot in approximately 400 lanes, there will be a commitment for 2,000 units to be supplied to Tesco during its current fiscal year, through February 2006.

"In addition to Metrologic demonstrating its understanding of the issues Tesco is addressing at the checkout, the Stratos performed well against the established competitors," says Neil Finch, IT project leader for Tesco. "Stratos' advantages of built-in resilience and ease of maintenance combined with the productivity benefits for the operator, deliver the benefits that the simpler checkout was designed to produce."

The bi-optic scanning/scale solution puts the scanning hardware used by the checkout operators directly in front of them during checkout operations, preventing cashiers from having to twist and turn.

The Stratos also provides 360 degree scanning capability, which allows the operator to pass the product across the scanner in one movement from one hand to another, providing faster throughput and enabling the operator to pack the goods directly into the bag while selecting the next item to be scanned.

Retalix Storeline has Windows XP Embedded Point of Service running on the system.

Article 7 **ENDS**