

What, everything costs just one euro?

...probably the most frequently asked question in the EuroShops operated by the Schum Group. What's hard for many customers to imagine, is that this is the product of many years of experience in the field of low-price items. The EuroShops offer attractive new products each week, supplemented by seasonal offers.

Ticketless picking for non-food wholesale distribution

Euro scanner

Major non-food distribution company, J. E. Schum, is the market leader in the one-euro item sector, and considers itself more as a service provider than as a trading company. The company is one-stop shop that offers its customers (retail chains) highly efficient solutions for off-the-shelf trade and promotional campaigns in the low-price segment. In an extremely efficient process, the „one-euro item“ goods are distributed from the modern central warehouse in Dettelbach, Germany, to - according to the target group - around 200 of the company's own EuroShops in Germany and to trading partners. The process sees pickers handle up to 20,000 pick items per day at peak times from approximately 500 orders. Operation is entirely ticketless and is performed online using warehouse hand-held devices from CASIO. In addition to much greater transparency in inventory management, it has proven possible to boost the pick rate by around 20% , while also reducing the error rate.

The retail sector expects a high level of goods availability and short delivery times in addition to competitive prices to cope with the ever-growing demands of the market over the coming years, J. E. Schum GmbH & Co. KG is investing even more in its logistics operations. Improvements made to internal processes and storage processes have proven particularly effective, such as the introduction of ticketless picking using modern hand scanners. The primary objectives were to improve transparency by posting all warehouse movements promptly and reduce the occurrence of errors during warehousing and picking. At the same time, the use of modern technology was also expected to significantly improve performance.

The first expansion phase saw around 50 employees at the central warehouse in Dettelbach provided with CASIO hand-held devices. The employees pick approx. 50,000 packaging units every day, with one-euro items in an average of 10,000 pick items; mainly for shipment to EuroShop branches operated by the company.

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| User: | J.E. Schum GmbH & Co. KG D-97080 Würzburg, Germany - www.schum.de |
| Industry: | Non-food wholesale distribution Operator of EuroShops |
| Application: | Ticketless picking |
| Products: | Hand-held device: CASIO DT-X8 Software: Microsoft® Dynamics |
| Partner: | Dataident GmbH D-21218 Seevetal, Germany - www.dataident.de |



At peak times, up to 20,000 pick items...

...are processed by around 50 employees every day in the EuroShop picking area with the new warehouse hand-held DT-X8 devices from CASIO. The staff are guided to the exact removal positions via easily readable information on the devices' colour displays. The barcode on the removal compartment is then scanned as a subsequent check.

Owing to the relative equal value of each item, no significant financial loss would be incurred if mix ups happen, yet the target completeness of the products in the branches would suffer. It was quite easily to mix up items using the former picking method; this is because the goods were removed at storage locations from cardboard boxes that looked the same on the basis of pick list item numbers.

Pick-by-Scan reduces errors

Today, paper lists are a thing of the past in the EuroShop picking area. Employees are guided to the exact removal positions via easily readable information on the warehouse hand-held devices' colour displays. The barcode on the removal compartment is then scanned as a subsequent check. „As well as significantly reducing the error rate, we also benefit from a considerably more precise inventory management system, which has been achieved by changing to real-time processing“, explains Marcus Curtius, Logistics Area Manager at Schum. „What's more, in addition to eliminating delays when switching between paper and electronic formats, the transfer errors that occur when persons acquire and pass on data are also prevented.“

Initial attempts to optimise the picking area with a mobile online solution in 2010, however, delivered little success at first. In the hunt to identify the perfect technology for the Würzburg central warehouse, se-

veral different solutions were examined and tested for their suitability for the picking process in the spacious halls. Although the use of a pick-by-voice system promised the required reduction thanks to the favourable dialogue capacity, the investment costs for reliable operation in the 25,000-square metre picking area, however, seemed incredibly steep. „In addition to this, employees took an immediate dislike to the idea of walking around in the warehouse day in, day out wearing a headset“, remembers Marcus Curtius. That left mobile data collection with pick-by-scan in the form of hand-held terminals communicating directly with the Microsoft® Dynamics warehouse management system.

However, with this technology too, the perfect solution was not found immediately. „We are committed to providing a pleasant and safe working environment for our employees,“ explains Christian Schum, Managing Director. „With this in mind, we wanted to offer our pickers a particularly ergonomic solution, with which the terminal with display is carried on the forearm and the scanner on the index finger like a ring. This too, however, proved short of the ideal solution and unfortunately unsuitable for our purposes, with employees constantly getting caught on the cardboard boxes by the devices attached to their arms.“



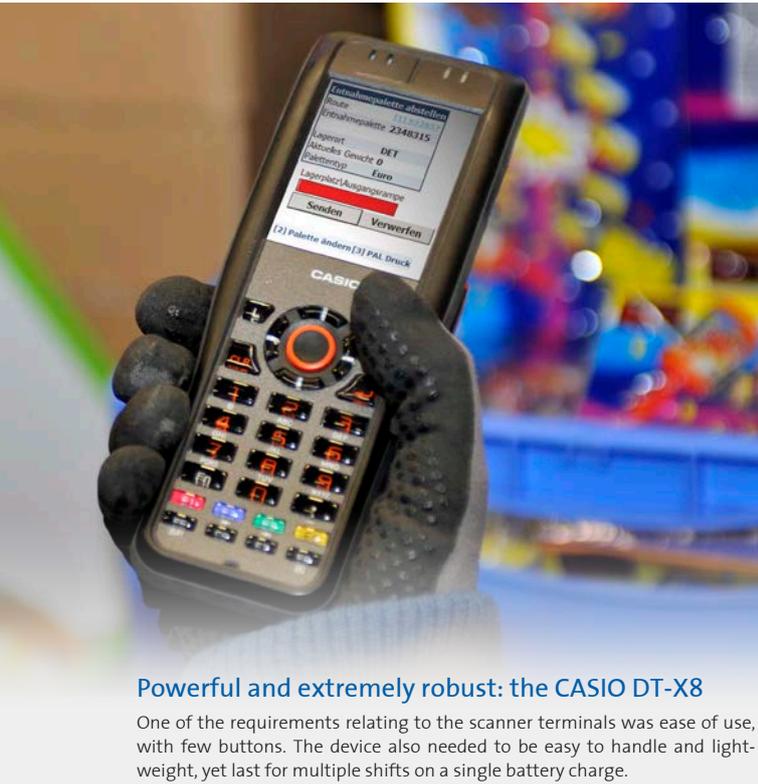
Barcode scanning prevents mix-ups

It was quite easily to mix up items using the former picking method without the warehouse hand-held devices; this is because the goods were removed at storage locations from cardboard import boxes that looked the same on the basis of pick list item numbers.



Schum central warehouse in Dettelbach near Würzburg, Germany

The modern central warehouse has a fully automated high-bay warehouse and state-of-the-art warehouse technology spanning more than 100,000 square meters with around 150,000 pallet load positions. Through accurate inventory management and maximum picking quality, delivery dates are met with precision.



Powerful and extremely robust: the CASIO DT-X8

One of the requirements relating to the scanner terminals was ease of use, with few buttons. The device also needed to be easy to handle and lightweight, yet last for multiple shifts on a single battery charge.

Employees help chose the device

The opportunity to examine the latest MDE devices of all major providers eventually came about at the Logi-MAT trade fair; it was then possible to narrow down the selection. The warehouse hand-held DT-X8 from CASIO stood out in particular. It fulfilled all technical requirements, was much lighter and at the same time seemed more robust than all other devices on the market. Independent of the IT-related assessment, the order pickers were also included in the selection process, and the warehouse hand-held device from CASIO proved to be a favourite with them. Field testing in the picking area demonstrated that the lightweight device supports extremely quick and convenient data capture for employees during picking. The

balanced shape of the housing with the scanner head pointing slightly downwards and the arrangement of the scan buttons were found to be very ergonomic. The field tests revealed that the DT-X8 barcode scanner boasts a very high read quality, meaning that even faded labels can be read quickly and without any problems. „An additional requirement relating to the scanner terminals was ease of use, with few buttons. The device also needed to be easy to handle and lightweight, yet last for multiple shifts on a single battery charge. The CASIO devices satisfy all of these requirements. Furthermore, owing to their extreme robustness, they provide a high level of investment security“, explains Andreas Schapperer, South Office Manager, Dataldent GmbH.

Rapid payback

The CASIO hand-held devices were delivered with Windows® Embedded CE, which was moved by Dataldent to „kiosk mode“ in order to prevent other applications outside of the web-based application in Microsoft® Dynamics. Acceptance amongst employees in the warehouse is very high, as they were involved in the selection process and also because the devices fare well in day-to-day use. The error rate has decreased considerably in just a few short months after the new solution was implemented. And the pick rate in EuroShop picking



has increased by approximately 20 percent - without any complaints from employees about a higher workload. The low procurement costs of the CASIO hand-held devices and the manageable costs of integrating them into the company's IT system make the solution very cost-effective. This cost-effectiveness results in an ROI of maximum nine months.

Marcus Curtius, J.E. Schum GmbH & Co. KG



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