

Hush Puppies

Company	Hush Puppies
Sector	Footwear
Year	2008
Format	Passive UHF RFID
Application	Warehouse management
Suppliers	Trace Tecnologías (inlays), Toshiba and NextPoint
Integrator	Cité Trade Technologies
Status	Roll-out
Country	Spain

INDEXPORT, S.A., the manufacturer and distributor of Hush Puppies® brand footwear, accurately and precisely manages its real-time stock in its Spanish distribution center in Castellón. Thanks to its accurate information, it efficiently fills customer orders and correctly restocks materials to avoid stock-outs.



COMPANY

Indexport, S.A. is the licensed manufacturer and distributor of Hush Puppies® in Spain, through its own network of stores and as a supplier of multi-brand and department stores, such as El Corte Ingles. Hush Puppies® footwear is extremely comfortable and comes in both casual and formal styles for all ages and customers (men, ladies' and children). The company's philosophy is that all Hush Puppies® shoes should be fun, comfortable and authentic, whether they are for business or pleasure.

Thanks to the combination of advanced comfort technologies with a carefree and fashionable style, the company has remained timeless.

The brand name Hush Puppies® dates back to 1958, when Jim Muir, a sales manager for the company, was served deep-fried cornmeal balls called "hush puppies." Curious, he asked the client about the origin of the name and was told that the food was often used as a treat to quiet barking dogs. As English-speakers often refer to sore feet as "barking dogs," Muir thought that this

would be an ideal name for the new line of comfortable shoes he was envisioning.

In 1994 Hush Puppies spun off as its own brand and became a division of Wolverine. It was precisely that year when sales of the brand took off. This spectacular growth continues today, as Hush Puppies® is one of the best-known footwear brands in the world.

Hush Puppies® is present in over 150 countries, such as Albania, Argentina, Australia, Bahamas, Botswana, Canada, Germany and the US. In Spain, the brand currently has eight own stores and sells its product in all El Corte Inglés stores.

Indexport is the exclusive distributor of Hush Puppies® products in Spain.

NEEDS

Due to the handling, visual verification and manual entry required in certain logistics processes prior to entering articles in the IT system (i.e., purchase orders and customer returns are verified visually upon reception), the company did not have real-time

stock availability information. In certain cases, information on availability was not fully accurate, which led to errors in receiving orders, as the management software system information did not coincide with the actual flow of materials.

It was necessary to implement a technology that would automate and streamline current processes and step up productivity. Although bar codes could be used to identify all products, accuracy and precision were not as good as with RFID. In addition, bar codes had to be scanned on an item-by-item basis, making it necessary to have the product within sight. RFID technology addressed the issues of visibility, reading capacity and single identification. Once it was clear that RFID was the optimal solution, the company needed to conduct an in-depth study of its implementation.

OBJECTIVES

The manual paper-based processes that led to human error needed to be eliminated completely, as this undermined the company's efficiency, especially in terms of availability and logistical management



Hush Puppies® store in the La Rinconada Shopping Center (Seville)



Box tagging process

of products distributed. Before specific decisions could be made to improve the company's processes, it was important to measure and analyze all procedures. The precise situation of the company needed to be determined.

PREVIOUS SITUATION

To identify its products, the company used the EAN-13 bar code system, which at the



Close-up of RFID tags

time it was implemented cut costs and optimized resources. For example, replacing paper and pencil with bar code scanners considerably reduced inventory-taking time, heightened reliability of inventory counts, and ensured a more transparent process.

However, despite those advantages, bar code technology has its limits. Following the example given above, the inventory processes was not flawless: at times the same box was read twice, boxes were not scanned, and item counts were sometimes higher than they should have been.

With the implementation of RFID technology, inventory-taking time was reduced even further and process errors have been completely eliminated.

SOLUTION

Prior to implementing the solution, process information and flow was analyzed in detail. Suppliers label pair of shoes by article type prior to sending them to the distribution centre.

Employees use various ATID Wi-Fi-connected RFID handsets (model NPH Easy Tag-3 supplied by NextPoint Solutions, a RFID wholesaler).

Reader archways have been installed in two loading/unloading docks and each archway was designed to fit the client's needs. The integrator Cité Trade carried out a number of tests and studies to that end.

The archways feature a metallic and polycarbonate structure containing the necessary electronic equipment for managing the archway. Each archway is outfitted with three antennas with a built-in Deister Electronic UDL 500 reader, also supplied by NextPoint. Standard LLRP (Low Level Read Protocol) has been implemented for reading data and interfacing the control unit of archway antennas with the middleware developed by Cité Trade.

Each archway has visual and audio signals to report incidents occurring during operations. The side of each archway has a small touch screen so that operators can interact with the archway operations and visualize specific information (alarms, incidents, purchase and sales order being read, units read, etc.).

Impinj's Monza chips are used in tags created in Spain by Trace Tecnologías, Impinj's official supplier. Tags are encoded using the standard EPC marked by GS1. Tags are printed and encoded using a Toshiba model SX4 printer.

HOW IT WORKS

When the company receives a shipment from the manufacturer (each box already has an RFID tag affixed), the products are automatically moved through the RFID reader portals located in the incoming and outgoing doors. An employee drives a forklift carrying the palletized boxes and the system verifies the entire content at once, validating the information with the management system and performing certain movements.

At this time the goods received are checked against the order submitted to the manufacturer. If the goods do not match, processes are begun to resolve the situation, given that the company knows exactly which articles are missing (with details regarding size, model, color and quantity). The system records the entrance of the products in the warehouse, updating the real-time availability of each article.



RFID reader portal at the warehouse loading/unloading entrance

The boxes of shoes received are sent to the quality assurance area. In this process, part of the company's quality protocol, the products are inspected to ensure they meet certain standards. Mobile RFID handsets are used to read the labels on rejected products and classify as such in the system, after which they are separated from other products. Upon completion of this process, the goods are sent to the definitive warehouse. If any of the boxes declared "rejected" are transported, the system detects this and notifies employees.

Once all warehouse products are identified, the system detects any modification or movements by using mobile readers and RFID portals. For example, in the event a sales representative needs to remove a few pairs of shoes as samples for store visits, the



Inside the Hush Puppies® warehouse



RFID portal located between the warehouse and quality control

representative would select the shoes and, when passing through the reader portal located at the door, the system would detect and record the product movement, updating available stock in real time. Likewise, the system registers products taken out of the warehouse to be sold at the factory store. When a customer wishes to purchase shoes that are not available at the store, the salesclerk checks the system and if the item is available in the warehouse, picks up the shoes from the warehouse itself. When the salesclerk takes the shoes through the RFID door, the system detects this movement and records it automatically. The system also records any incoming products, such as shoes that were not sold in the store.

Antennas read the identifier codes and broadcast them to the built-in reader. Readings are filtered and recorded in the partly-automated system developed by Cité Trade. Movements are classified as either programmed or non-programmed. For non-programmed actions, the warehouse supervisor must identify the reason for the movement, such as removal due to breakage, loss or uncontrolled returns. At this time the item, which has been previously market as unavailable, is removed from the warehouse list.



Picking process or modification of order content

For the picking process, the system generates an order and assigns it to an employee. The employee uses a mobile RFID handset to locate and assign each box of shoes to the order until the order is complete. The box is assigned through the mobile device software developed by the RFID integrator, which updates the availability of stock in the system by reserving the subject product. Orders are processed on the basis of their priority. Accordingly, if sufficient products are not available, the flexible system can reassign a product from a less urgent to a more urgent order. All these modifications are updated in real time in the company's management system and can be monitored.

Operators look for a specific pair of shoes in the warehouse or perform stock counts in different areas by specifying the operation they wish to carry out in the handheld reader software. When looking for a spe-

cific product, the operator indicates the product sought and moves the reader over the warehouse boxes. When the software detects the product in question, it alerts the operator so he or she can retrieve the product easily and quickly. Alternatively, operators wishing to perform an inventory specify this in the software and move the hand-held device over all rows and stacks of shoes in the warehouse or in the specific areas to be inventoried.

In terms of management, reports can be printed on yields, stock, completed orders, pending orders, product rotation and historical tracking of a specific item. The system records the history of each product, thereby offering a precise and reliable record of all processes.

BENEFITS

The company knows the precise and real-time situation of stock of each product. Therefore, it can offer better service to its customers, such as information on whether an order can be filled quickly or whether a factory order must be made because the product requested is out of stock.

Employees now carry out processes, such as a picking of customer orders, in less time, and dispatch products with greater efficiency and productivity.

Another important benefit is the elimination of errors in dispatching orders. Furthermore, company managers can generate a number of reports, such as order fulfillment time and the amount of time a certain product has been in the warehouse.

Data provided by the RFID solution makes it possible to measure all the company's processes. Managers can analyze results and make decisions for improvements.

PLANS FOR THE FUTURE

After having verified the potential of unmistakably identifying each pair of shoes distributed, the Hush Puppies® company aims to use RFID technology in future in-store marketing actions. The objective is to increase sales thanks to more complete product information and more precise actions.

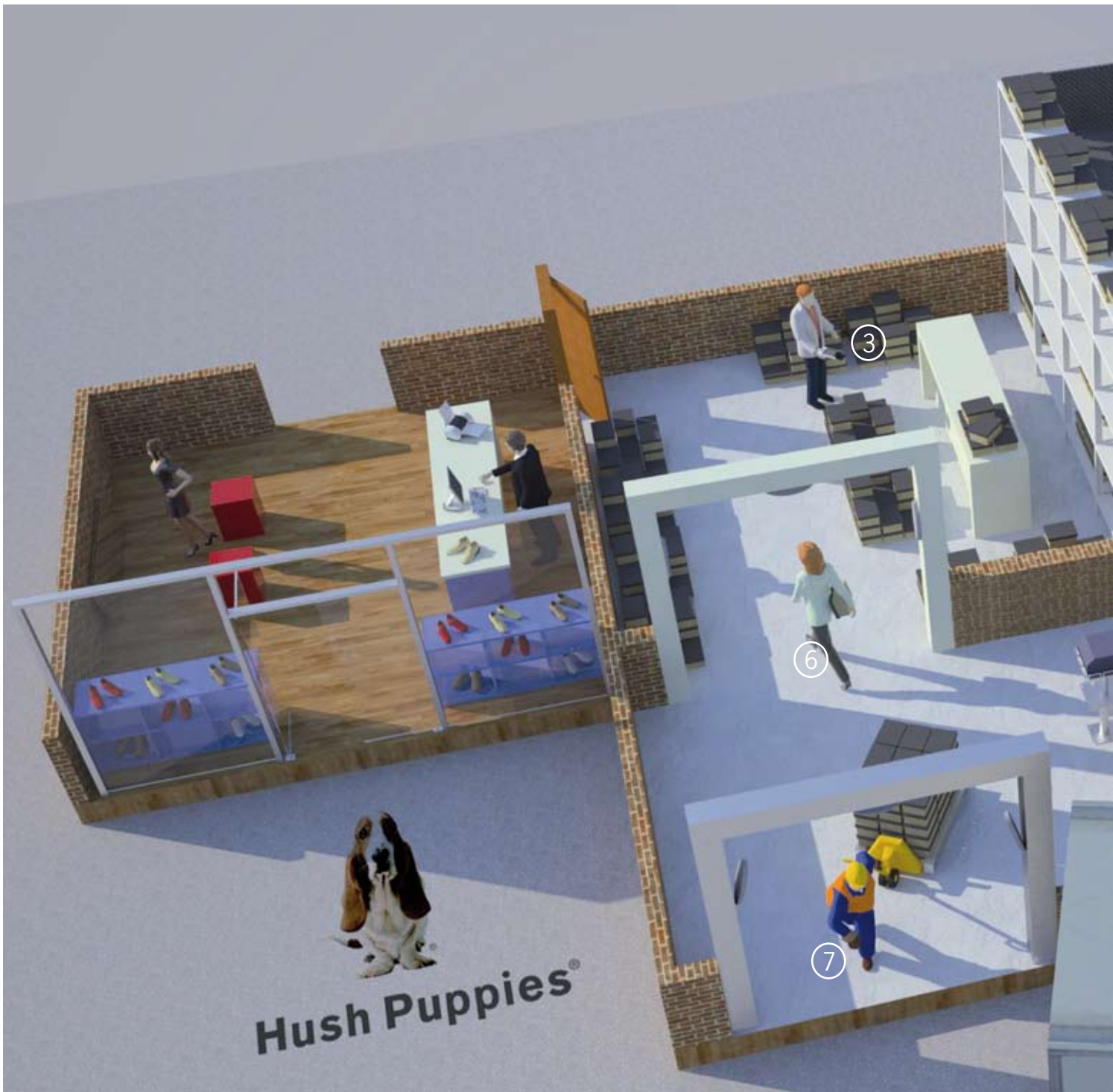


Products are warehoused on the basis of shoe model, without pallets



The portal automatically detects any incoming or outgoing movements





1. INCOMING PRODUCTS

Boxes of shoes sent by suppliers are automatically registered when they pass through the reader portal at the door.



2. INVENTORY/SEARCH

Employees can use handheld readers to perform quick and precise inventories or to locate a specific product.



3. QUALITY CONTROL

Los productos que no han superado satisfactoriamente el protocolo de calidad se identifican inequívocamente y se alerta en el momento que alguien los manipula erróneamente.



4. PICKING MANAGEMENT

Employees verify that boxes of shoes correspond to the specific order being prepared. Products can be assigned to different orders or blocked on the basis of the priority of the order.



5. SALES SAMPLES

If a sales representative takes a pair of shoes for use as a sample, the system detects and registers the movement.



6. FACTORY STORE SALES

The flow of goods between the warehouse and the factory store is automatically recorded when articles are passed through the archways.



7. LOADING OF ORDERS

When loading each order in the distribution truck, the system verifies that products match the information shown in the management software.



8. MANAGEMENT

Managers and administrative employees can view all information in real time. Various processes are fully automated.