River Island

Optimization of sorting E-commerce orders

SORTER
The sorter has forty-nine destinations in total. Three of these destinations are reserved for NO-read barcodes, overflow and reject.

DISPATCH
Packages will be diverted to one of the five divert lanes with a maximum speed of 2,500 packages per hour.
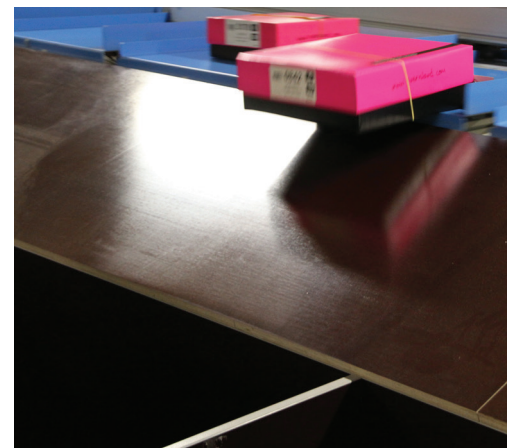
LOCATING TROLLEY
IntherLC will allocate the orders to locations on the trolley; this will ensure that all articles are put in the correct locations on the trolley.

River Island is one of the most successful fashion companies in the UK. The company has over sixty years of fashion retailing experience. Nowadays, River Island has close to 300 stores across the UK, Ireland, Asia, the Middle East and Europe. In addition, River Island also has an online shop. All E-commerce orders are shipped from the UK to over 100 countries worldwide.

Before Inther implemented a new sorter system, picking and sorting of the E-commerce orders was handled manually. The new sorter system has been placed to optimize the process.

Orders are collected in bulk using RF scanning, after which the orders will go to one of the three induct stations by cart. All articles are manually placed on a moving tray with the barcode on the upper side. The check gate behind the induct stations scans the articles which are located on the sorter. The sorter will then transport the articles to one of the forty-nine chutes in a constant speed; the software suite IntherLC will decide the destination of the article. The articles are pushed off the tray using a pusher, pushing them into the correct chute. Each chute contains a picklight which displays information about the chute: e.g. attached trolley number, number of items to be sorted, chute full, etc.

When the articles which are located in the chute have been sorted, they must be put to the correct location on a locating trolley. IntherLC will allocate the orders to locations on the trolleys. Each trolley has a number of locations varying in dimensions. Depending on the size and volume, an order can be allocated to more than one location. The allocations are sent back to the host system of River Island through an interface. The host system will send the instructions to the operator using RF. The operator logs on to the chute by scanning the chute barcode. After this, the operator scans the first item from the chute. The system will validate the barcode and will show the location where the item must be put. The operator should scan that location to confirm it, after which the item is put into the location. When all articles are located, the host system will inform IntherLC so it can detach the trolley from the chute. The trolley will go to the packing tables; this is where the articles are packed per order. After this is finished, the chute will be available again for new order allocations.

After packing the orders, the packages are placed onto the dispatch conveyor. There are two main dispatch conveyors behind the packing tables; those are on either side of the sorter. A label is placed on each package to identify the package. The shipping label will be scanned in the dispatch sorter area, after which the sorter will divert the packages to one of the five divert lanes. When a package is diverted to the correct dispatch lane it will be manually scanned, after which it will be put into a transport unit. The order is ready for shipment.

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