

Innovative Label Print and Apply System uses Touch Screen Technology

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Premier Foods was experiencing unreliability and capacity problems in label printing and application for traded-units on its canning lines. A traded unit being shrink-wrapped tray of 12 or 24 cans. The existing system involved a database server, serial line multiplexers and a badly located PC for operator use. To compound the situation production rates were planned to increase, making the print and apply labelling system a critical area for improvement.



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Client

As a leading UK food producer, Premier Foods manufactures some of the nation's favourite foods including Hovis bread, Mr Kipling cakes, Sharwoods Asian foods, OXO stock cubes, Batchelors soups and noodles, Lloyd Grossman sauces, Bisto gravy, Quorn meat-free products, Ambrosia custard and rice pudding, Branston Pickle and Hartley's jams and marmalades and Jelly. In fact, their top ten brands alone have retail sales of over £1.1 billion.

Industry sector

Manufacture of food products, beverages and tobacco

Challenge

To achieve reliable and improved capacity in label printing and application for traded-units on its canning lines.

Solution

Advantech TPC642 Touch Panels

Implementation

The touch panels were positioned on the line close to the operator. The panels were connected between the central database and the Cobalt IS print and application machine. The unreliability caused by the serial multiplexers was completely eliminated by the use of Ethernet networking connectivity.



Many suppliers were approached, resulting in six on-site pilot tests to solve the problem; Cobalt IS's proposal included the use of Advantech TPC642 Touch Panels supplied by SolutionsPT. This Windows CE solution allowed the line operator to have improved information and better control over the labelling process. The Touch Panels being positioned on the line close to the operator. The panels were connected between the central database and the Cobalt IS print and application machine. The unreliability caused by the serial line multiplexers was completely eliminated by the use of Ethernet networking connectivity. The pilot tests showed that this scheme was the only one that would deliver the performance that was required, and provide improved operator guidance.

The printing and application of labels requires batch-specific information to be accessed as well as a product-specific label design. The batch data is held on a MAP80 system and has to be accessed by the printing system. Cobalt IS designed software to extract the data and convert it for use. The data is fed to the touch screen and from there released to the print engine. Using the touch screen the operator can confirm that the correct batch information is being accessed and that the process is ready to begin, once started, label printing and application is executed at a rate of 86 per minute, with a capacity of 100 per minute. The functionality of the touch screen PC has also given a benefit to the central server as it is no longer continually interacted with once the data has been obtained, relieving the server of an intensive work load.

Process labelling of this type requires that the labelling is correct and consistently legible, the label data being a crucial part of the traceability and logistics system. Financial penalties can be incurred through failures in these requirements. Cobalt IS technology allows for checking and verification of the label data and for continuous label print quality monitoring, alarms being set if the system may be in error or if it requires routine maintenance.

Premier Foods now have a labelling system that meets their increased production rates. The system has a calculated 15% surplus capacity at the higher rates. The Cobalt IS system delivers reliable and accurate labelling for Premier's traded-units. Over twenty lines have been upgraded with the Cobalt IS system. The innovative use of Touch-Screen technology has resulted in a labelling solution that will be the basis of further expansion at the site. Cobalt IS has delivered a competitive system that has bettered all comers and has provided Premier Foods with very secure high performance labelling for the future.

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