



**SPECIALISTS IN  
DATA CAPTURE**  
BEC SYSTEMS INTEGRATION



## TECHNOLOGY

# VISION

### LABEL AND PRODUCT CONFORMANCE

As increasing demands for quality goods and services are placed on companies, many are turning to Vision. Machine Vision provides organisations with 100% assurance that their products, packaging and labelling all conform to the latest standards and expectations.

Vision is a revolutionary technology that allows computers to view and examine images or objects. It uses non-contact optical devices such as digital cameras to sense, extract and analyse complex information in a single frame. This information is used to control machines or business processes on the shop floor.

The versatility of Vision enables the technology to be used for a wide range of applications ranging from quality assurance, component analysis and labelling compliance.



### SOLUTION

Product Identification Control and Conformity (PIC<sup>2</sup>) has been developed by BEC (Systems Integration) Ltd as a Label & Product Conformance Solution. Combining state of the art data capture and machine vision technologies, PIC<sup>2</sup> ensures 100% labelling compliance and peace of mind.

Production schedules are extracted from the host MRP system and issued to operatives on the shop floor. Entering a schedule number on a data capture terminal establishes: the product to be produced, its associated product code, label detail and any relevant text detail such as the best before date.

PIC<sup>2</sup> utilises the latest technology to read product labels on the label web. The sophisticated vision sensors positioned on the production line, scan labels before they are applied to the product. Each label is compared to the production schedule. If a match is not found or a substandard label can not be read, PIC<sup>2</sup> immediately issues an alert to a display board. The production line is then halted until the issue can be rectified.

The system ensures that the item's packaging is correct by using digital cameras to capture images of the product. The image is analysed to determine a wide range of information ranging from the colour of the packaging to weight, size and shape.

BEC's Vision solution also prevents products from being produced without a schedule number. It counts the number of products as they are labelled and periodically updates the host system with the finished stock figures.

Exceeding simple barcode scanning and validation, BEC's Vision solution is a complete, integrated system that offers verification and grading of barcodes. Using the latest technology, PIC<sup>2</sup> provides functionality for a wide range of conformity challenges including:

- Linear & 2D barcode presence and validation
- Image validation
- Print quality inspection
- Date and lot code inspection
- Liquid fill levels
- Colour Validation - milk bottle tops
- Shape sorting / routing
- Presence validation - straws on drinks cartons

### BENEFITS

The introduction of BEC's Vision solution can greatly reduce the incidence of incorrect labelling. It can offer positive results, such as:

- Elimination of costly financial penalties for non-conformant labels
- Significant savings from the avoidance of stock withdrawal and restocking costs
- Reduced cost of ensuring compliance with regulatory and customer requirements
- Improved timeliness and availability of production information, leading to improved planning
- Subsequent improved relationships with the major retailers
- Greater opportunity for the retention of business
- Validation speeds of up to 1000 parts per minute

BEC provides systems integration for the whole system including all production line installation and commissioning.