

## Can Inspection in the Food Industry

In this application there are some clearly defined application objectives relating to checking of incoming cans:

- Checking the overall ovality of the product.
- Dents and rollovers of edges are common problems and therefore must be rejected at this stage.
- Foreign objects must not be in the can prior to fill.
- Inspection of the bottom of the can for bad defects/out of tolerance parts



figure1: The production line

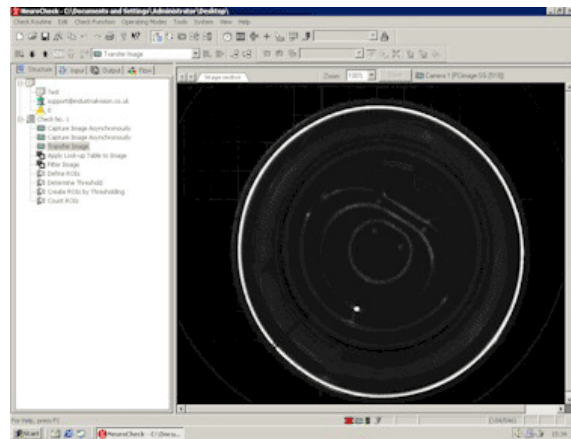


figure 2: Manual mode in NeuroCheck

As with all canning applications this inspection must take place at high speed with a typical throughput of 20 parts per second, therefore the inspection must be completed on a fast Pentium 4 based system to take advantage of the processing speeds this offers.

This application is easy to handle within the NeuroCheck framework. The initial image can be grabbed asynchronously and sent initially to the image tray - this then allows various different parameters to be checked in 4 individual checks relating to the criteria above, as shown in the manual mode (figure 2).

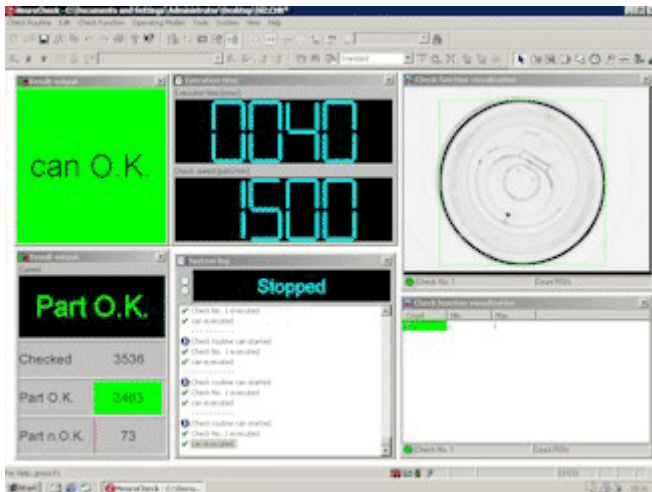


figure 3: Automatic mode in NeuroCheck

The system can handle up to 1500 parts per min and is connected to a reject mechanism to allow immediate rejection of the part upon a failure. The NeuroCheck system makes maintenance of the system simple and easy, if new criteria for inspection is needed the operator can simply add this in through the unique point and click development through the NeuroCheck architecture.

The system can cope with variance in can types (e.g welded seam v non-welded) due to the unique pre-processing algorithms which can be applied to the can to eliminate these issues (see figure 3, showing a filtered can).

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