



## **Major Consumer Products Manufacturer deploys Zynergy Solutions' Vision Studio to ensure label integrity.**

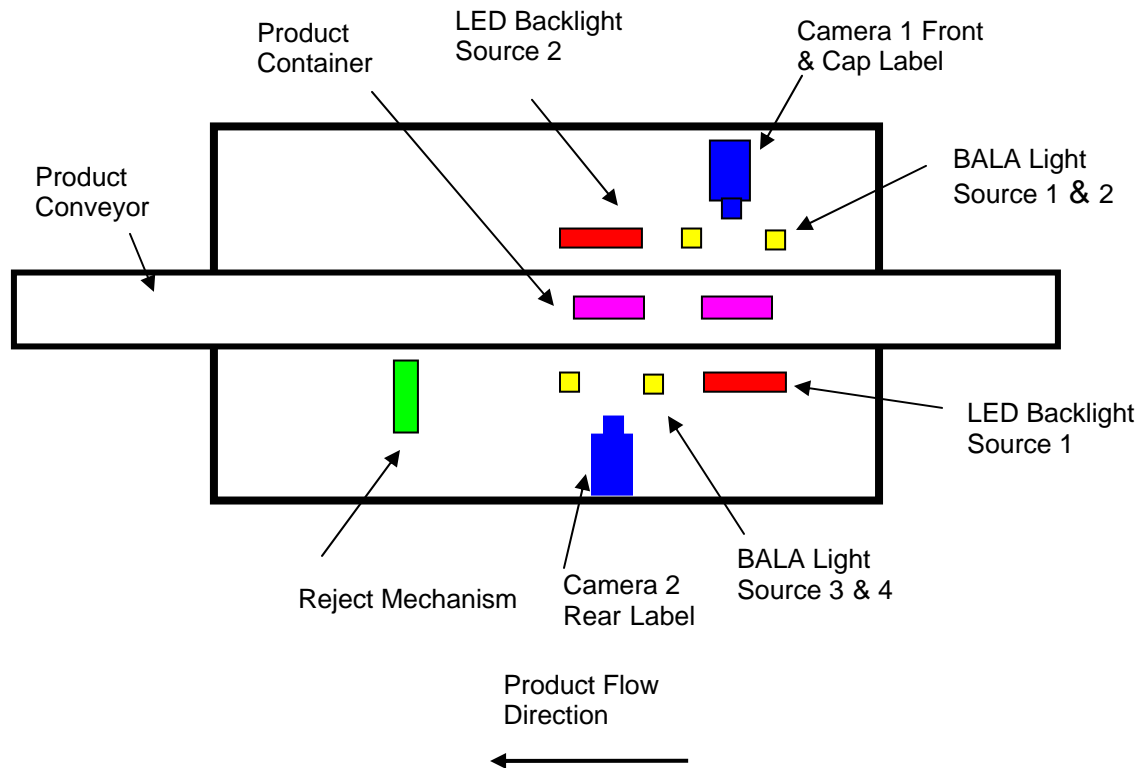
### **The Challenge**

A major consumer products company needed to replace three aging, proprietary machine vision systems on their filling and packaging lines and wanted to upgrade to the latest in label inspection and reject tracking systems. After months of investigation and research, the customer selected Zynergy Solutions and the Vision Studio, Inspection Wizard application software. The customer had several requirements in selecting a new vendor and a new inspection system including:

1. The ability to inspect the front, rear and cap labels of packages for label Presence, position and skew at a rate of 320 ppm.
2. Software ease of use for product set-up and change over. The customer currently has over 500 SKU's that could be run at anytime on any one of their filling lines.
3. Reduce the product change over times and false reject rate from those encountered with the existing vision systems.
4. The large variety of products produced by the customer requires a system that is trainable at the time of product change over in order reduce software maintenance issues.
5. Integrated reject tracking and the capability to communicate via the customers' preferred PLC protocols.
6. The ability to have their technicians and mechanics readily trained in the setup, operation and maintenance of the inspection system
7. The ability to work with a vendor that has not only developed the product but is also a systems integrator who can install, setup and train the customer and their employees on the use of the system.

## The Solution

Zynergy Solutions worked with the customer to develop a turnkey Inspection module that could be easily deployed over the existing production line. The Inspection solution which was installed was based on Zynergy Solutions' Inspection Wizard, a standard component of the Vision Studio Software Platform. The Inspection Wizard provides the user with an interactive product training/setup tool called Auto Train Wizard which greatly simplifies the process of product change over. The Auto Train Wizard uses Zynergy Solutions' concept of "Show & Go Vision Technology" whereby the operator can readily train on unique features of a "good" label sample and is aided by the step by step setup and training instructions provided for in the Auto Train Wizard. The preprogrammed accept and reject limits stored in the vision system are applied during runtime and allow the system to discern between good and bad label placement in relation to the "trained sample". The deployed solution included two inspection stations (one for front label inspections and one for back label inspections) housed in an extruded enclosure. Each inspection station was equipped with a double speed progressive scan camera and continuous LED light sources. The inspection module also included a reject station at the output of the enclosure which allowed for rejected product to be diverted automatically, under the control of the inspection system.



The inspection solution also consisted of an electrical enclosure which houses all computer hardware, I/O interfaces and the system PLC. The systems' PC houses the vision processor board and was pre-loaded with Zynergy Solutions' Vision Studio Inspection Wizard software. Vision Studio is a suite of inspection and control software modules built in the Microsoft .NET programming environment which allows for easy expansion for future inspection requirements. The system is configured with a 17" touch screen operator Interface panel display, keyboard and pointing device all connected to the main inspection enclosure via a swing arm mount.



## **The Results**

- The inspection module approach allowed the system to be tested and debugged in Zynergy Solutions' facility allowing for installation and startup of the system at the customers' site within 7 hours.
- Vision Studio's Auto Train Wizard feature reduced the number of products required to be stored from 30 on the old system to 3 on the Vision Studio system.
- The Auto Train Wizard allows setup personnel to configure the system for a new product in under a minute. The previous generation systems would required the system to be off-line for up to 60 minutes while product change over was completed. With some products the customer was spending up to 4 hours fine tuning the inspection settings to get the legacy system to perform to specification.
- There was an immediate reduction in false reject rates allowing the customer to sell more of the product they are producing and reducing their overall waste rates.
- With Zynergy Solutions' Vision Studio system the customer now has an "open inspection system" which can readily interface with other automation and control equipment via Microsoft .NET and COM/Active X based programming environments
- Based upon the success and cost savings of installing the 1<sup>st</sup> inspection system during the summer of 2004, the customer has placed orders for 3 additional systems and has written their label inspection specification around the Zynergy Solutions Vision Studio platform.