

CASE STUDY

Optical Character Verification (OCV) System for Snack Foods

www.epicsysinc.com | (314) 334-1089

JOB OVERVIEW

Key Features

- PC with FlexOCV Vision Software
- HMI for product selection, defect monitoring and real-time image display
- PLC and encoder to track cans that fail inspection
- High speed pneumatic rejection system

Challenges

- Achieve a .03 false failure rate on a line running 1,000 cans/minute
- Design a vision system for easy installation and maintenance

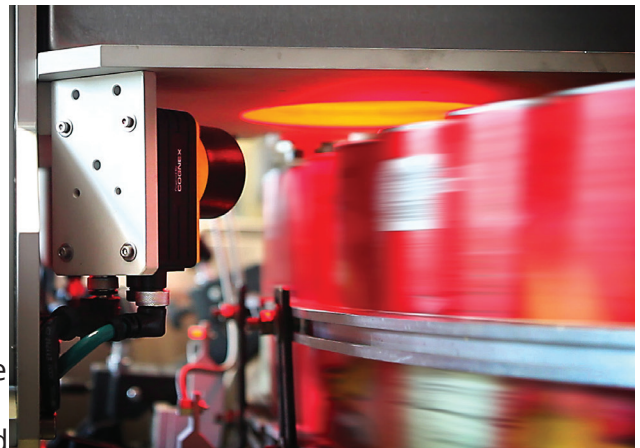
Impact

- 15 systems rolled out worldwide
- Drastic improvement in quality tracking and code verification systems allows for traceability and elimination of packaging mistakes

THE EPIC SOLUTION

The EPIC vision system is designed to be an on-line vision inspection system. It uses customized PC software, with Optical Character Verification (OCV) technology to inspect and verify the correct code, the quality, and legibility of the can date code characters. The OVC vision system uses PLC logic, an encoder and a high speed pneumatic rejecter to track and reject cans that fail inspection.

In total, EPIC produced 15 top-of-the-line label inspection and date-code inspection systems capable of read rates >1,000 inspections/min. This complete solution provided reading/verification of hard to read product date codes printed on the top of cans.



Cognex FlexOCV technology handles run-to-run print variation and achieves high read rates. Standard text verification systems apply strict font libraries that allow for little print variation. Even hard-to-read codes with wavy features or minor distortions were understood and inspected. Eight CPU cores were used for parallel processing.