Reliable Monitoring of Cartoning Machines

VOC Industrial Event Camera Identifies Recurring Machine Downtime

At a Glance

- Event-driven video recordings up to 60 s before and after the trigger signal for simple remote diagnosis or automatic documentation

- Fast analysis: recording of relevant situations with timestamp and individual additional text

- Flexible use due to large field of view, high operating temperature range, and IP65 degree of protection

- High efficiency: reduced network load through optimized local data storage

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The Application

Cartoning machines in the packaging industry may experience jams during operation. Such jamming occurs when there is a blockage or obstruction in the system that prevents the smooth movement of cartons or packaging materials through the machine. There are many causes of jams, including misaligned or improperly folded cartons, problems with the packaging material, foreign objects, or mechanical failures.

The Goal

While regular maintenance can ensure a cartoning machine is in its optimal operating condition, the focus should be on identifying the root cause of the problem—including proper machine setup, material inspection, and operator training, as well as following the manufacturer's instructions for clearing jams. The ability to monitor machine operation in real time provides a solution approach for continuous improvement.

The Solution

The VOC industrial event camera monitors cartoning machines at distances from 0.5 m to more than 10 m, allowing reliable detection of recurring failures. The industrial event camera has an integrated circular buffer to record up to 60 seconds before and after a triggered event. The VOC can be easily integrated into existing machines and provides the ability to trigger video/image capture via UDP, HTTP, REST API, or a digital hardware input.
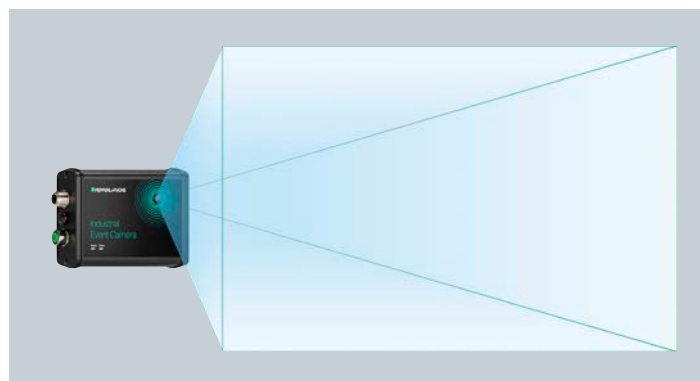
The Benefits

With the VOC industrial event camera, possible jams on cartoning machines can be monitored and displayed in real time around the clock. In addition to sensor signals from proximity switches, optical sensors or vibration sensors, the industrial event camera therefore provides visual information that can be collected in a central data acquisition system and used for safety and training purposes. The system automatically makes the data available for analysis—causes are reliably identified and downtimes minimized.

Technical Features

- HD livestream via Real-Time Streaming Protocol (RTSP)
- Digital hardware input for trigger sensor or trigger signal
- SD card stores up to 10,000 sequences
- Quick and easy classification of the relevant recording
- REST API for comprehensive integration into IT systems and into standard HMI displays with RTSP

For more information, visit: **pepperl-fuchs.com/px-voc**