Videos of Relevant Situations for Analysis and Optimization

VOC Industrial Event Camera Monitors Automated High-Bay Warehouses

At a Glance

- Rugged industrial camera stores image or video sequences of relevant events
- Targeted image information for fault analysis and process optimization
- Easy integration without additional PC hardware
- Access via web browser or individually programmed user interface



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The Application

Automated high-bay warehouses with stacker cranes are a central element of modern intralogistics. They enable quick storage and retrieval and make optimal use of the warehouse area. When installed in deep-freeze storage facilities, their components must withstand the special requirements of the –30°C refrigeration temperature. The uninterrupted cold chain must be guaranteed throughout the movement of goods stored there.

The Goal

The stacker crane is designed to achieve maximum throughput with reliable precision and high speed. Failures and downtimes should be avoided at all costs, because any delay can trigger an expensive cascade of subsequent problems. Immediate action is required if a fault occurs. However, most of the locations in the high-bay warehouse are difficult for operating personnel to access for inspection. The fault situation should therefore be analyzed before taking the next steps, such as readjusting the stacker crane.



The Solution

The industrial event camera is mounted directly on the stacker crane and monitors the storage and retrieval processes. In its integrated circular buffer, it continuously records an image or video sequence of the last 900 seconds of the livestream. Faults or defined events in the sequence act as triggers for the camera to transfer cached data to the integrated 8 GB permanent memory. All recordings last for up to 900 seconds before and after the event. This enables them to be used to identify the cause of the event and the state that subsequently occurred. Only relevant situations are recorded. The sequences can be used for immediate fault analysis or for long-term process documentation and optimization.

The Benefits

Unlike a continuous video sequence, event-oriented storage not only handles data streams economically, but also allows direct access to recordings of the relevant situations. The date, time, and error message are displayed in the text overlay of the recording. A digital hardware input can record trigger signals that come directly from the control system or a trigger sensor.

The password-protected user interface can be displayed on any web browser. It provides a live image in HD quality and enables the device to be easily configured. Additional PC hardware for integration and storage is not required. The REST API can also be used to program an individual user interface and directly integrate the device into the IT system. The camera's IP65 degree of protection makes it impermeable to dust and water jets.

Technical Features

- Full HD video livestream via WebRTC stream or real-time streaming protocol (RTSP)
- Digital hardware input for trigger sensor or trigger signal
- Internal circular buffer for video sequences 900 s before and after each event
- Integrated 8 GB memory stores up to 10,000 sequences
- Quick and easy classification of the relevant recording
- REST API for comprehensive integration into IT systems
- Temperature range of –30° C to +50° C
- IP65 degree of protection
- Encrypted data transmission through HTTPS protocol



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