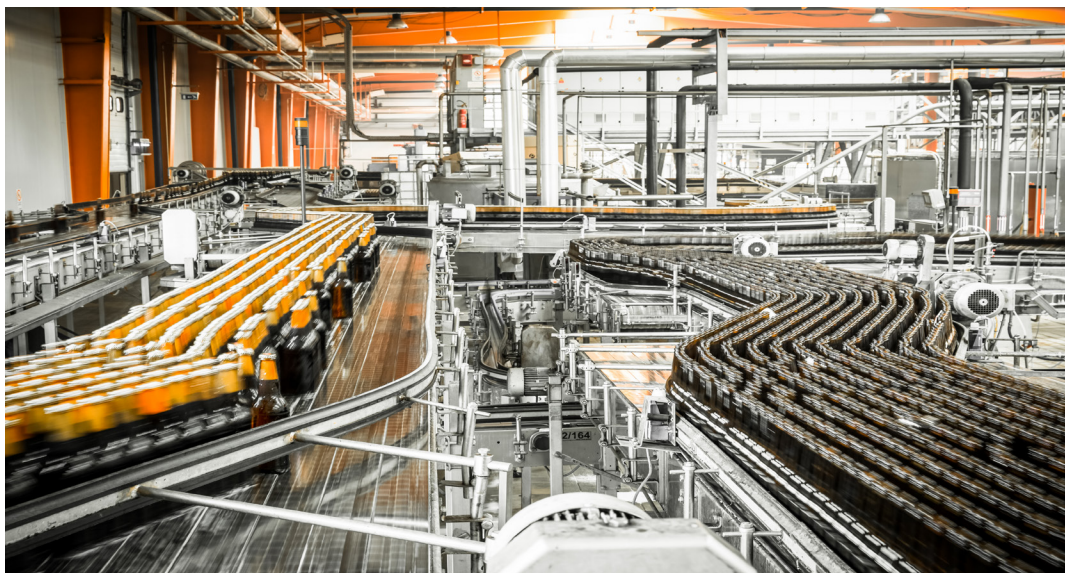# High Speed Video Monitoring for Industrial Applications

- Capture video of high speed manufacturing processes at up to 250 FPS

- Watch a frame-by-frame playback of critical line events

- Quickly pinpoint the root cause of downtime events

- Increase operational awareness

- Improve product quality



## When production downtime isn't an option.

When production stops on high speed manufacturing lines, every minute of downtime can impact a company's bottom line. Pinpointing the source of a line failure quickly is critical.

IVC's video monitoring solution captures video of high speed manufacturing processes and allows frame-by-frame playback of events to help manufacturers identify and resolve issues fast.

Comprised of IVC's GigE vision camera and Longwatch video management software platform, the solution gives operators a more complete picture of what's happening on a production line while improving operator visibility into critical processes.

The solution is ideal for monitoring and identifying equipment failures on high speed conveyor belts, production and packaging lines, and robotic assembly lines, across a range of industries.

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## Application Story: Large U.S. Food Manufacturer Turns to IVC for High Speed Video
# Mobile Solution Pinpoints Multiple Production Line Issues

**The Challenge:**
In the food & beverage industry, manufacturers rely on high-speed machinery to deliver quality products with greater efficiency to consumers. But, when something goes wrong, the downtime that results can adversely affect a company's bottom line.

When one of the largest U.S. food manufacturers recently experienced machine jams on their high-speed robotic granola bar packaging line, they turned to IVC for the video solution that could help them fix the problem. Because the jams were occurring on different parts of the line, the manufacturer required a quality, high speed video solution that could be easily moved as needed.

**The Solution:**
IVC's high speed video monitoring solution includes two IVC GigE vision cameras on articulation mounting arms and IVC's Longwatch Historian software. The solution is deployed on a mobile video cart that can be moved along the packaging line. When a problem occurs on the line, an operator moves the cart to that area to capture high speed video footage. Using IVC's Longwatch Historian software, the operator can review a frame-by-frame playback of the downtime event to identify the problem.

Since deploying the IVC video monitoring solution, the manufacturer can pinpoint the root cause of downtime events much faster, improving production output and worker accountability.

# GigE Vision Camera - HS-3430-1

Featuring a Sony IMX287 CMOS processor, 728 x 544 resolution, and an IP66-rated enclosure, IVC's GigE vision camera is engineered to excel in a variety of industrial environments.

GigE vision camera features include:

- **Sony IMX287 CMOS processor**: Delivers excellent picture quality at up to 250 frames per second
- **Compact design:** Makes the GigE camera suitable for monitoring in tight industrial spaces
- **H.264 video compression:** H.264 reduces bandwidth requirements to produce better image quality and allow for greater video storage capacity than standard CCTV and IP video
- **IP66-rated enclosure:** Ideal for harsh industrial environments and all-weather applications
- **PoE compliant:** Allows for easy installation by drawing power through the existing data connection

**IVC's GigE Vision Camera delivers up to 250 FPS**

# Longwatch Video Management Software Platform

The Longwatch video management software platform automatically links event and historical process data to recorded video. A picture is worth a thousand words; video can bring a new dimension of understanding to existing processes where process data alone fails to articulate the full story.

For high speed industrial video applications, IVC's Longwatch software platform delivers several key benefits:

- **Sync downtime events with recorded video:** Longwatch can sync event data with recorded video to allow for faster, more informed decision-making. Operators can track video of operations based on different criteria (lot number, batch ID, etc.) and overlay process data directly on video images to get a better understanding of what's occurring with a process. The ability to link recorded video to a downtime database lets operators instantly identify process issues to get back up and running quickly.

- **Frame-by-frame video playback options:** Longwatch supports several video playback options including super slow-motion playback, and both forward and backward frame-by-frame viewing – a critical capability for many high speed applications.

- **Flexible alarm management:** Longwatch supports industry-standard protocols, such as MODBUS and OPC, so you can easily integrate your process control system components with IVC's video system. Video analytics can trigger process automation alarms to alert operators when an unusual video event occurs.

- **Simplicity for operators:** Operators can have as little or as much control over the video system as the application requires.

## Recorded Process Video Correlated with Historical SCADA Data

# High Speed Video Monitoring Applications

IVC's high speed video monitoring solution is ideal for a range of industrial applications such as:

- **Food:** Monitor food processing and packaging lines
- **Beverage:** Monitor automated bottling processes
- **Pharmaceutical:** Monitor the assembly and packaging of pharmaceuticals
- **Automotive:** Monitor high speed robotic processes on assembly lines
- **Consumer Goods:** Monitor conveyor belts and 'pick and place' robotic arms



# About Industrial Video & Control

Founded in 2001, Industrial Video & Control Co. (IVC) is leading supplier of video cameras and video management software specifically designed for industrial applications. Our IP-based video solutions are used by customers worldwide for process evaluation, remote monitoring, personnel safety, site security, and regulatory compliance. IVC's success in the market has been driven by high-quality products, cost-effective solutions, and outstanding service. Based outside Boston, MA, IVC is an ISO 9001:2015-certified company.

**Learn More**
To learn more about IVC's industrial video systems and how they can help your organization, contact:

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