

Industrial Video Solutions for Metals Processing

- Instant visual verification of process data
- Improved site safety
- Increased operational awareness
- Quickly identify causes of system upsets or faulty product
- Point and click camera access and control from within SCADA HMI screens
- Ensure regulatory compliance

Rugged, complete video solutions

IVC is your source for video monitoring solutions for metals processing applications. We offer a wide variety of cameras that are engineered to operate reliably in the harshest industrial environments.

Our camera management software provides a consistent interface for viewing and managing your camera system. IVC's software has been tested and is used with the industry's

most popular SCADA and DCS systems. This means you can easily integrate live video and camera controls into your operators' HMI screens.

IVC can provide a complete video subsystem to meet your process, safety, and security monitoring needs. Let our video professionals tailor a solution that exactly meets your application requirements.

Video Monitoring Solutions for Metals Processing & Production

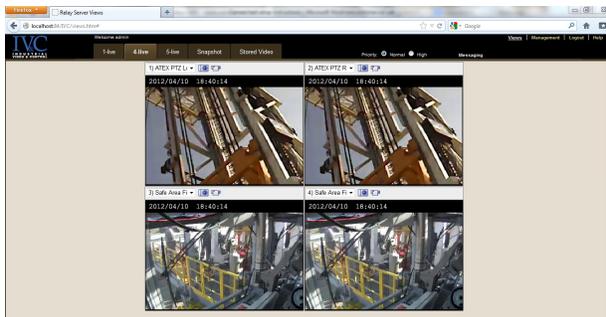
Since 2001, IVC has manufactured comprehensive video solutions for monitoring and surveillance of industrial facilities, military installations, and other critical applications. Because we bring networking, video, manufacturing, and software expertise to every project, IVC can tailor a video solution that exactly meets your needs. Our ruggedized cameras and camera management software are being used in a variety of metals processing and manufacturing applications including:

- Specialty Titanium Manufacturing
- Plasma Arc Furnace Monitoring
- Hot-rolled Coil Production
- HBI Production
- Hot-rolled Carbon Steel Manufacturing
- Carbon Steel Plate Manufacturing
- Carbon Steel Sheet Manufacturing
- Specialty Alloy Manufacturing
- Aluminum Products Manufacturing
- Rebar Manufacturing



IVC's Camera Management software provides a state-of-the-art framework for controlling and monitoring video from networks of cameras. Our software allows you to view live and stored video from a web-based client or a user-configured fat client. IVC's alarm management supports industry standard protocols, such as MODBUS and OPC, to easily integrate your process control system components with the IVC video system.

Our software includes APIs to facilitate the integration of live video into SCADA HMI screens. Additionally, our software can correlate saved video clips with SCADA historical data for quicker analysis of system upsets.



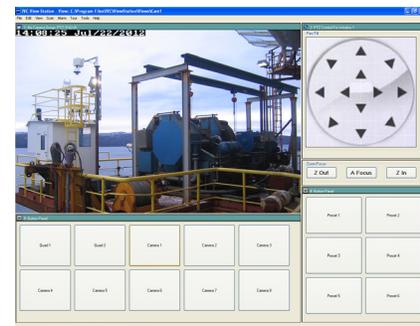
Browser Client for Live Remote Monitoring



SCADA HMI with Integrated Live Video



Recorded Process and Console Video Correlated with Historical SCADA Data



Fully Customizable Operator Consoles

IVC Cameras

IVC offers a wide variety of camera hardware to meet almost any environmental or operational requirement. We have also engineered camera solutions (see below) to meet the challenges found in the metals processing industry. Should our standard product offering not fit your needs, we can work with your facility engineers to design a custom solution that exactly meets your requirements.



Thermal Ladle and Process Monitoring

- Ideal for precise temperature monitoring applications
- Standard and radiometric thermal imager options
- Cooled enclosures for hot environments
- Dual imaging options with optical camera
- Multiple lens options
- CAT5e/6; Single- or Multi-mode fiber optional
- Pressurizable enclosures optional
- Stainless steel options

HD Surveillance Cameras

- Monitor warehouse or other non-engaged assets
- Ensure worker safety
- Integrate with access control systems to safely secure facility access
- 1080p resolution
- Rugged PTZ and fixed enclosures suitable for most environments
- CAT5e/6; Single- or Multi-mode fiber optional
- Motorized optical zoom options from 3x to 30x
- Integrated illumination options
- Pressurizable enclosures optional
- Stainless steel options



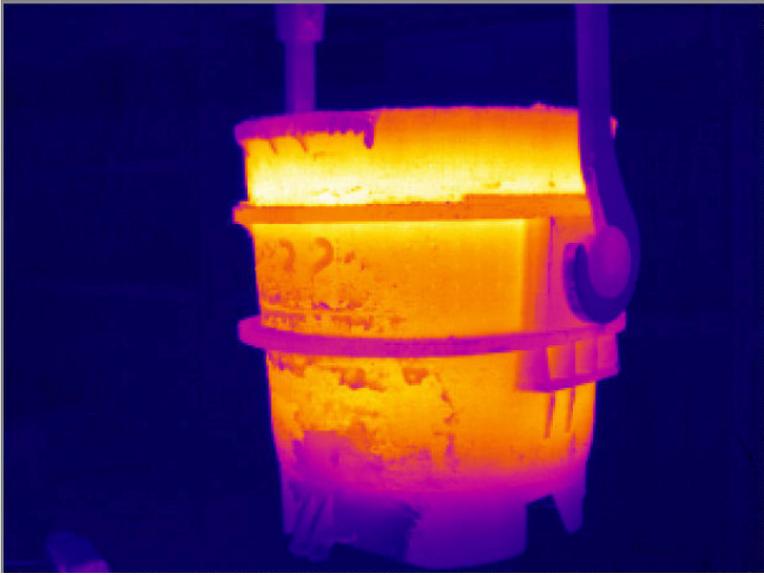
Monitoring System for Cranes

- Improve operator's situational awareness
- Specialized mounting designed for overhead, tower, and telescopic crane assemblies
- 36x image stabilized optical zoom
- Hazardous area-rated enclosure mounted to adjustable vibration dampening mechanism
- Rugged camera control panel and monitor options for operator location
- IP option



IVC Video Management Software

Industrial Video and Control Co. (IVC) is an industry leader in the development of state-of-the-art video surveillance and monitoring systems that are built to operate reliably in demanding environments. IVC's customer list includes leading metals processing and manufacturing companies. We have designed comprehensive video systems to meet a variety of demanding application requirements.



The ability to integrate various components of a security or process monitoring system under a single interface is key for most HMI and SCADA applications. Since video provides the “eyes” for the application, it is often desirable to view video along with the system status and controls. IVC software provides the facility to do this seamlessly.

IVC software provides a seamless integration of video and process monitoring with most popular industrial SCADA programs. Live video feeds can augment the operator's control of volatile processes. Video analytics that monitor the pixel image of the camera can trigger process automation alarms to alert the control room operator to an abnormal situation video camera data.

The following features are provided by IVC's camera management software:

- **Live Streaming Video Screen with or without Camera Steering and Zoom Control:** IVC's Click-to-Point features are included in the HMI display.
- **Simplicity for end-users:** End-users may have as little or as much control over the video system as the application requires.
- **Look and Feel:** The IVC video functions can have the look and feel of the SCADA system regardless of the cameras or other components that are selected for the installation.
- **Video/data Correlation:** Easily correlate historical process data with recorded video to quickly identify system upsets. Video may include recorded operator HMI screens to help determine human factors in root cause analysis.
- **Easy transition:** IVC's software architecture facilitates the support of legacy camera systems, reducing the cost of transitioning to an IP-based system.

Benefits of Integrated Video from IVC

- **Safety:** Enables an additional “all-clear” visual before the execution of a process start-up, shutdown, or turn around. Allows operators to monitor hazardous areas.
- **Security:** Additional eyes on the process area and/or site perimeter.
- **Productivity:** Live visual of process being controlled (e.g. boiler) alongside the process measurements.
- **Emissions monitoring:** With video monitoring for plant emissions, fines can be reduced to the minimum by demonstrating exact start and stop times to regulatory officials.



**MADE IN THE
USA**

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IVC
INDUSTRIAL
VIDEO & CONTROL