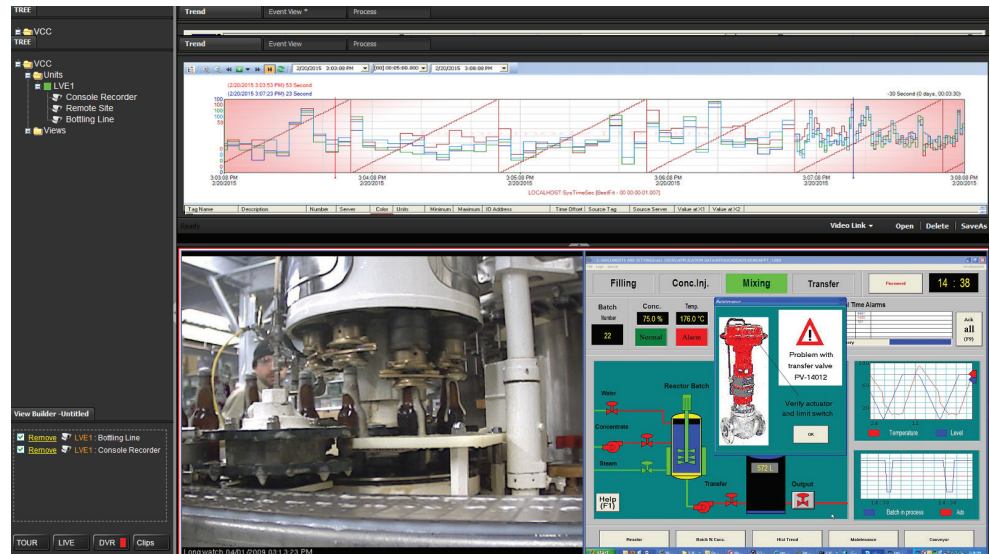


Console Recorder

- Record MES, terminal server sessions
- View live and recorded clips
- OPC On/Off control
- Simultaneous multiple monitor recording
- Real-time remote viewing of your plant's process



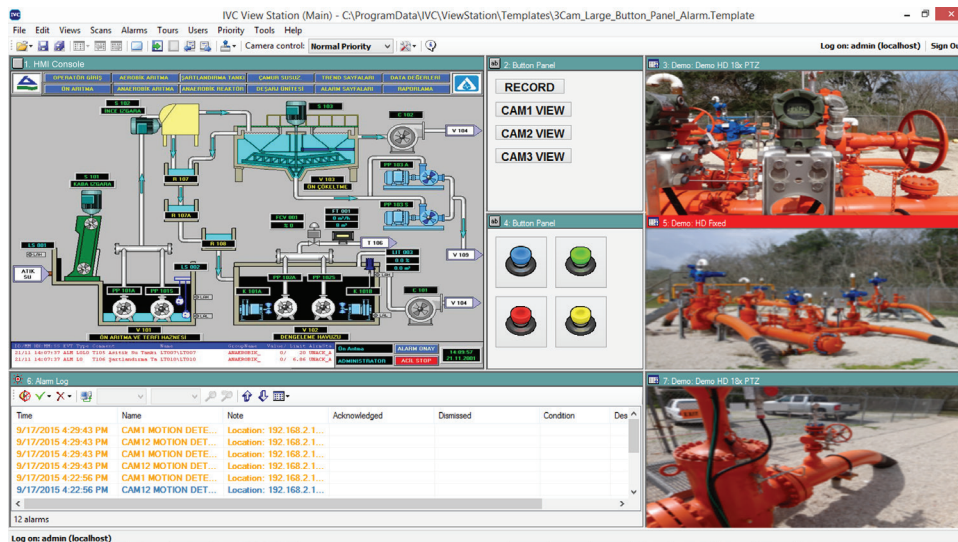
Record your operator screens

The Console Recorder is a software platform that automatically records activity on critical operator workstations. Just like a camera pointed at your monitor, the Console Recorder records everything being displayed, not just a recreation of events from a data historian. View your HMI, DCS, MES, or terminal server sessions live or go back in time to see exactly how an operator dealt with an event. The Console Recorder is an

invaluable method for troubleshooting, training, and process improvement.

During a shutdown or upset, get to the root cause of the issue more quickly. Video document your operations for regulatory compliance and continual process improvement. Video streams of your operator monitors can be viewed on laptops, tablets, and smart phones for on-the-go review and troubleshooting.

Configuration and Features



Live or recorded HMI screen can be integrated into View Station views

Applications

- Stoppages or upsets – Get to the root cause quickly and make sure mistakes aren't repeated.
- Remote operator assistance – Live video streams of operator screens can be accessed anywhere for real-time troubleshooting.
- Document your process for analysis and continuous improvement.
- Track your manufacturing for quality monitoring and regulatory compliance.
- Noninvasive operator monitoring – View new operator actions live or go back in time to see how operators dealt with specific events.

Simple and Effective

- Software captures the operator consoles for continuous or programmatic storage. No special hardware required.
- Live and Recorded video capability.
- Read-only display provides better security.

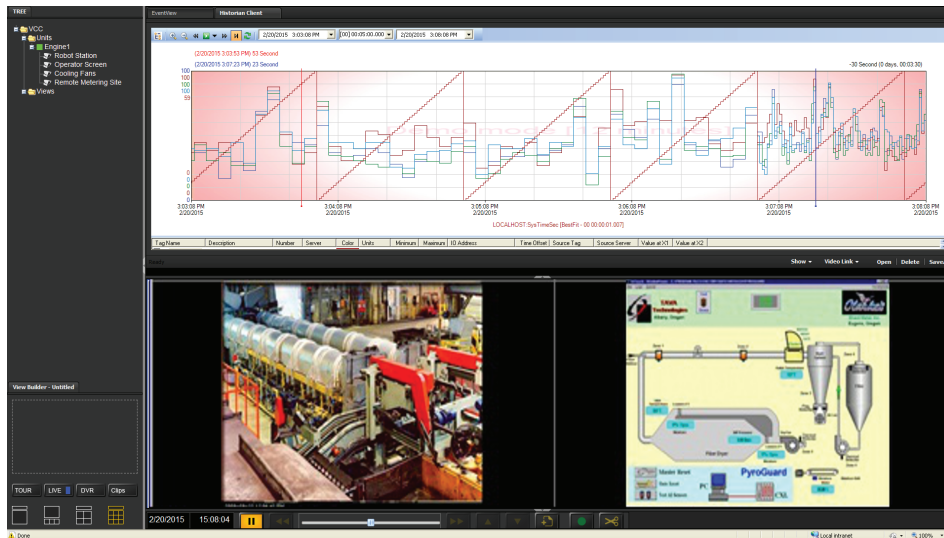
Stand-alone Playback

- Display one or multiple consoles simultaneously.
- Playback does not interfere with real-time operations.
- Video playback can be viewed on any local or remote client, including tablets and smartphones.

Industry Standards

- Record any Windows, non-Windows, or ACP thin client session.
- Display using iVC's View Station, web-based Longwatch or Relay Server viewers, or ActiveX controls in your application

Complete Recording and Archiving Video System



Playback of recorded operator screens synchronized with video from cameras brings a new dimension to overall process monitoring.

The Longwatch version of the Console Recorder features a multi-mode viewer that enables live and recorded video to be displayed from one or more consoles simultaneously. Process alarms at the top of the display can be clicked to automatically display video from the time the alarm occurred.

Console Recorder coupled with Longwatch's flexible DVR system, automatically assigns system-wide values to each event archived. This allows the user to quickly sort and organize stored clips as well as search for conditions present, notes assigned, or a specific process step. The user can quickly find out what was being displayed on every HMI console when a specific alarm was triggered, removing the guesswork and allowing for instant system diagnosis.

Event Window

Automatically archive operator displays based on:

- Date and Time
- Batch ID
- Alarm Event
- User Entered Text Description

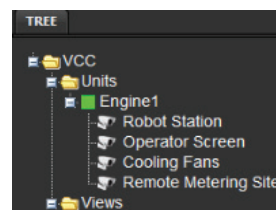
Process Events						
ID	TimeDate	Tag	Description	AlarmStatus	AlarmPriority	
2142	Thu Feb 19 13:43:14 EST 2015	A/B	Area 2 - Input 900	HI	MED	
2141	Thu Feb 19 13:43:09 EST 2015	A/B	Area 1 - Input 800	HI	MED	
2140	Thu Feb 19 13:43:04 EST 2015	A/I7	Area 1 - Input 700	HI	MED	
2139	Thu Feb 19 13:42:59 EST 2015	A/I01	Area 2 - Belt Rate	HI	HI	
2138	Thu Feb 19 13:42:54 EST 2015	FILLER2_OUT	Area 2 - Out Flow 101	HI	MED	
2137	Thu Feb 19 13:42:49 EST 2015	FILLER2_IN	Area 2 - Input Flow 101	HI	MED	
2136	Thu Feb 19 13:42:44 EST 2015	TEMP101	Area 1 - Oven Temperature	LO	LO	
2135	Thu Feb 19 13:42:39 EST 2015	FILLER2_OUT	Area 2 - Output Flow 101	HHI	HI	
2134	Thu Feb 19 13:42:34 EST 2015	FILLER1_IN	Area 1 - Input Flow 101	HI	MED	
2133	Thu Feb 12 17:31:20 EST 2015	A/B	Area 2 - Input 900	HI	MED	
2132	Thu Feb 12 17:31:15 EST 2015	A/B	Area 1 - Input 800	HI	MED	
2131	Thu Feb 12 17:31:10 EST 2015	A/I7	Area 1 - Input 700	HI	MED	

Simple click-to-play interface

Intuitive Control



Configurable views allow you to easily locate past events while continuing to monitor the rest of your system.



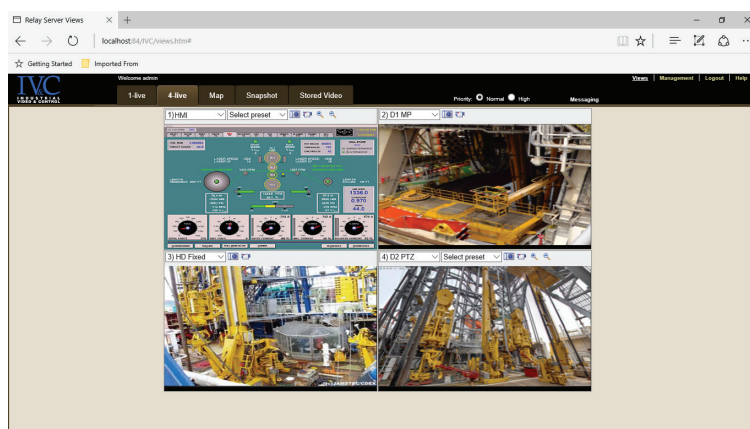
Simple windows-based system architecture allows you to organize all of your operator monitors with ease.

Solve Real Issues

The Console Recorder solves real issues:

- The NTSB recently reported that operator interface issues account for delayed or erroneous response to pipeline events.
- The Center for Energy Workforce Development estimates 50% worker turnover in the next 5 years.
- The International Atomic Energy Agency recommends video as a means of retaining and sustaining best-practice knowledge to manage operating risk.

The Console Recorder addresses these issues – and more – by becoming a “flight recorder” for your plant’s cockpit – operator workstations.



With Console Recorder HMI screens may be integrated into Relay Server web-based views

► system requirements

Minimum System Requirements	Client (View Station & VS Lite)
Minimum Hardware Requirements	
CPU	Core i7 or equivalent
Available Hard Disk Space	N/A
Available Memory	16 GB or more
Networking	1 Gb
Software Components Required	
Operating System	Windows 10 Professional Windows 11 Professional
Browser	Microsoft Edge in IE Mode
Note - for smaller systems the VCC and LVE can reside on the same hardware. Size accordingly. Note - SQL Server 2008 R2 Express is installed as part of the VCC install	

► ordering information

To simplify your installation, IVC offers computers pre-configured with the appropriate software. Ask your IVC representative about this option.

Part Number Description

For IVC Longwatch Software:

CRE Console Recorder Engine
CR-100 Screen Capture Component
CR-500 Console Recorder Platform includes: CRE and 4x CR-100
VH-CR-500 Video Historian Platform with Console Recorder

For IVC Relay Server Software:

CR-100 Relay Server Console Recorder
RSS-40xx Relay Server Software