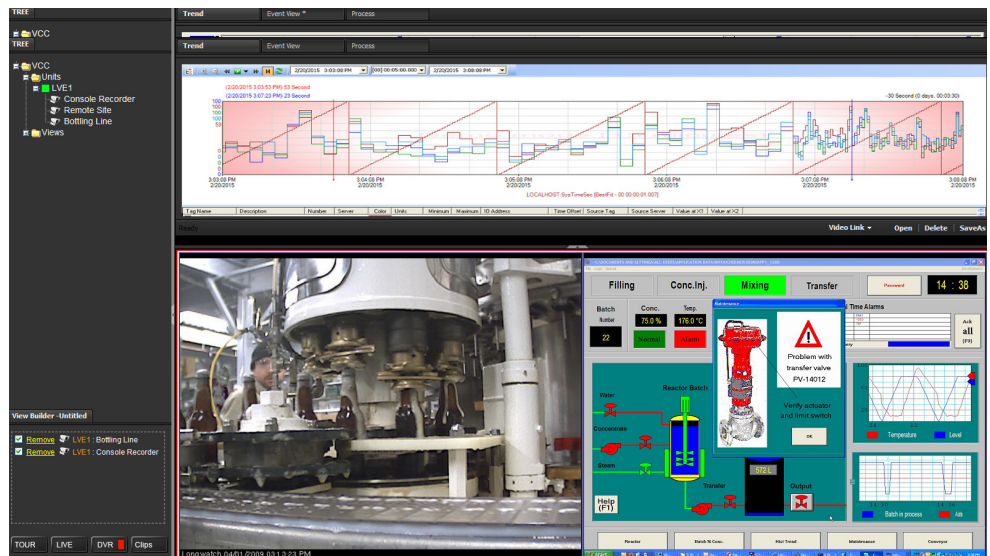# Longwatch™ Console Recorder

- Record MES, terminal server sessions

- View live and recorded clips

- OPC On/Off control

- Simultaneous multiple monitor recording

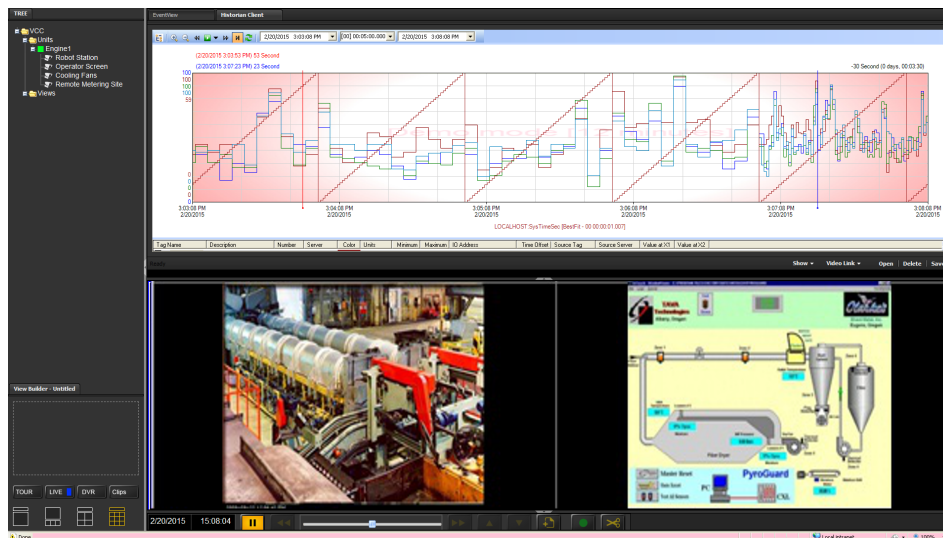- Real-time remote viewing of your plant's process

Record your operator screens

The Longwatch 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.

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Configuration and Features

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

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 records the operator monitors and sends the data to a DVR for continuous or programmatic storage. No special hardware required.
- Live and Recorded video capability.
- Read-only display provides better security.

Automatic Video Linking
- Click on a system event or alarm and automatically bring up video of the corresponding operator screen.
- Link recorded video to any SQL database for new insights and information.
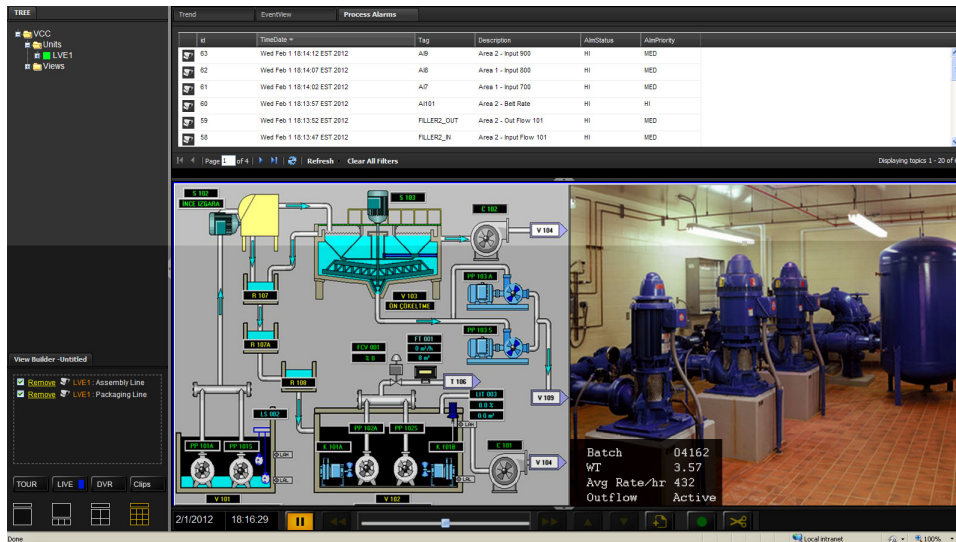
Stand-alone Playback
- The Longwatch Viewer can display one or multiple consoles simultaneously.
- Playback does not interfere with real-time operations.
- Video playback can be viewed anywhere using Internet Explorer, a tablet, or smart phone.

Industry Standards
- Record any Windows, non-Windows, or ACP thin client session.
- Display using the Longwatch Viewer on Internet Explorer or ActiveX controls in your application

Complete Recording and Archiving Video System

Synchronize recorded Console Recorder sessions and process video.

The Longwatch 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
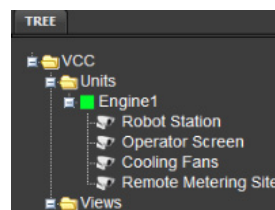- Alarm Event
- User Entered Text Description

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.

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Longwatch Features

Console Recorder

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.

Video Surveillance

Longwatch stores video in a variety of accessible formats allowing for complete and open integration across your pre-existing system. These include:

- **HTTP** - Use a web browser to view and playback video, control cameras, view alarm information, and for system configuration.
- **OPC Data Access Server** - Bidirectional interface with SCADA system. Alarms through Longwatch appear in existing alarm summary screens. Events triggered on the SCADA system can control camera views or control other connected devices, such as lights, doors, or PAGA systems.
- **Video Controls** - Drop Longwatch video windows directly onto your pre-existing operator screens. View live video and event-driven video clips with integrated Pan-Tilt-Zoom controls.
- **Event Clips** - Video clips are stored as open format .avi files. Play, edit, and share your video using commonly available media players on any system with no additional software to install.
- **Email Notification** - Events and alarms along with video can be sent directly to operator screen, email addresses, or smart phones for immediate assessment and quick response.

▶ system requirements

Minimum System Requirements	Video Control Center (VCC)	Longwatch Video Engine (LVE and CRE) Max 4 per server	Client (LWViewer)
Minimum Hardware Requirements			
CPU	iCore 7 or Server class Xeon - Minimum of 2 cores	iCore 7 or Server class Xeon - Minimum of 2-4 cores for 1-2 engines, 4-8 cores for 3-4 engines	iCore 7 or equivalent
Available Hard Disk Space	50 - 100 GB depending on # of event clips	For LVE - ~12 GB/day/camera for medium resolution/frame rate For CRE - ~1-2 GB/day/console	N/A
Available Memory	2 GB	2 GB per engine	2 GB or more
Networking	1 Gb	1 Gb	1 Gb
Software Components Required			
Operating System	Windows 7 / 8.1 Windows Server 2008 R2 / 2012 R2	Windows 7 / 8.1 Windows Server 2008 R2 / 2012 R2	Windows 7 / 8.1
For Windows 2008 and 2012 R2 Server	Desktop Experience Feature .Net 3.51 Feature	Desktop Experience Feature	N/A
Internet Explorer	Version 8 or above	Version 8 or above	Version 8 or above
Acrobat Viewer	Version 5.0 or later	N/A	Version 5.0 or later
Microsoft Media Player	Version 9 or later (supplied with Desktop Experience)	Version 9 or later (supplied with Desktop Experience)	Version 9 or later (supplied with Desktop Experience)

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 View Station Software. Ask your IVC representative about this option.

Part Number	Description
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

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