

WS5070 Endura® Workstation

WITH WS5200 ADVANCED SYSTEM MANAGEMENT SOFTWARE



Product Features

- Provides Full Access to Operations and Administration Through User-Friendly and Highly Intuitive Graphical User Interface
- Microsoft® Windows Vista® Business 32-bit Operating System
- Highly Intuitive Graphical User Interface Optimized for Surveillance Professionals
- Unrestricted Scalability Easily Manages 10 to 10,000 Devices Simultaneously
- Optional Endura Mapping Interface Provides Editing and Alarm Monitoring/Management Tools
- Support for Standard Resolution and Megapixel Resolution Cameras
- Support for MPEG-4, H.264 Baseline, Main, and High-Profile Codecs
- Audio Streaming and Playback
- Zone of Interest™ Allows Independent View and Management of Specified Areas Within a Camera's Field of View in Live or Playback Views
- Synchronized Playback of Multiple Cameras
- Digital Zoom in Live or Playback Views
- Convenient Tear-off Options to Customize Display
- Maintains Camera's Native Aspect Ratio While Supporting 4:3 or 16:9 Aspect Ratio Monitors and a Mix of SD or Megapixel Video Content
- Capable of Up to 16 Simultaneous 4SIF/CIF Resolution, 30/25 Frames per Second (fps) MPEG-4 Decode, 12 H.264 4SIF/CIF Resolution, 30/25 fps H.264 Baseline Decode, or 2 Full 1080p



- EnduraView™ Technology Mitigates CPU Processing Requirements and Network Bandwidth Consumption for Multiscreen Configurations
- Integrated Configuration and Administration Interface Provides Full Management Capability for all Components
- Powerful Scripting Engine to Automate Virtual Matrix Functionality
- On-Screen Pan/Tilt/Zoom (PTZ) Controls Including Click to Center and PTZ to Selected Area
- Camera Call Up and PTZ Control from KBD5000
- Advanced Search Capabilities Including Motion, Alarm, Event, and Camera
- Integrated Event and Alarm Monitoring and Management Interface
- User-Specific Choice of Language, Rights and Permissions, and Screen Configurations
- Export Video and Still Images in Multiple Formats Including PEF, QuickTime®, MPEG-4, AVI, PNG, BMP, and JPG

The **Endura® workstation** is a high-end personal computer running Windows Vista® Business edition that is optimized for the **WS5200** advanced system management software. The **Endura workstation** can decode and display up to 16 video streams simultaneously and can process up to 30/25 (NTSC/PAL) images at 4CIF resolution per second, per stream. The **Endura workstation** includes the **WS5200** software package.

The **WS5200** software provides access to all operation and configuration features of the Endura system in a unified, intuitive, graphical user interface. The interface has been optimized for the demanding needs of surveillance professionals and utilizes drag-and-drop operations, shortcut menus, built-in tooltips, and online Help to enable the most direct, intuitive interactions with cameras and components distributed across the network.

Video Display Optimized for Surveillance

Surveillance operators require access to real-time live video and instant access to playback. The **WS5200** has been specifically designed to optimize performance, productivity, and effectiveness. Operators can customize up to six active workspaces. Each workspace can have its own screen configuration populated with any grouping of cameras. These workspaces allow the operator to rapidly switch from camera group to camera group. The workspaces and camera associations are automatically loaded upon logon, along with the user's language preferences and permission levels. This eliminates any lost time in changing screen layouts or configurations during shift changes.



by Schneider Electric



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The second generation of the **WS5200** has also been designed to deliver optimum decoding performance to take advantage of the latest capabilities of analog cameras and advances in compression technology. The **WS5200** supports MPEG-4 as well as all common profiles of the latest H.264 codec. Provided the host PC has enough processing power, users can simultaneously decode sixteen 4CIF, MPEG-4 video streams in real time, or twelve H.264 baseline profile streams in real time, or two 1080p streams in real time. Of course, any combination is also supported. Additionally, more cameras can be viewed simultaneously using the **WS5200's** convenient tear-off tabs and leveraging multiple monitors to display more content. Endura's patent-pending EnduraView™ technology will manage the CPU processing load and network bandwidth requirements by automatically seeking out and displaying a lower resolution, secondary stream (if one exists), or reducing the refresh rate to ensure that system stabilization is not jeopardized.

To take advantage of the latest developments in monitor technology and camera capabilities, the **WS5200** interface automatically detects the monitor's native resolution and aspect ratio and configures the display to accommodate what the monitor can support. Based on the monitor's native aspect ratio, the **WS5200** supports screen configurations in single-image, 2 x 2, 3 x 3, 4 x 4, 1 + 5, 1 + 12, and 2 + 8 for 4:3 aspect ratio displays and adds 3 x 2 and 4 x 3 for 16:9 aspect ratio displays. As different cameras operate in different aspect ratios, the **WS5200** will maintain the native aspect ratio of the camera to minimize any potential distortion of the image. An innovative Zone of Interest™ feature makes it convenient to leverage the power of today's megapixel cameras to cover a large field of view while allowing a user to independently select certain areas of the scene to get a closer view. The **WS5000's** zone of interest capability consumes no additional processing power or network bandwidth as a user creates up to six independently controlled zones of interest from a single camera.

Recorded footage can be instantly accessed for any camera without impacting the ability to maintain live surveillance over other cameras on the same monitor. Flexible synchronous playback allows operators to synchronize the playback of 16 cameras for investigations that require multiple vantage points of the same event. Additionally, the **WS5200** allows users to review recorded footage from any camera while simultaneously viewing the live stream from that camera on the same monitor. Camera controls, PTZ operation, video playback controls, snapshot capture, and export tools all conveniently appear over the video when the cursor is placed on the desired camera's view.

Fully Integrated Administration and Management

In addition to access to live and recorded video, the **WS5200** also serves as an administration and management console for the Endura system. With proper user credentials, administrative users can easily configure all devices and users on the system. Camera, encoder, recorder, and decoder hardware and software parameters can be accessed and managed from the administrative screens. Software patches and updates can easily be pushed out to select or multiple devices from the same console. User passwords, preferences, and credentials can be centrally managed from one **WS5200**.

All diagnostic messages from every component on the Endura network are available to any user and any viewing device. With proper credentials, administrators can easily configure all users and devices on the system. User actions and system messages are continuously logged and available for audit trail purposes.

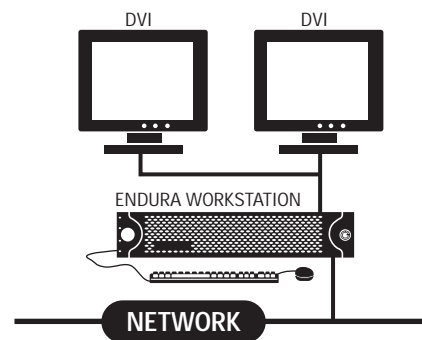
Integrated Alarm Management Engine

The **WS5200** has a built-in alarm management engine. System alarms, motion, and video analytics alarms are displayed in a dedicated alarm workspace. As the alarm is generated, indicators display the type of alarm, the priority level of the alarm, and the current state of the alarm. Users can simply select the alarm and visually verify its cause before determining whether to acknowledge or snooze the alarm. Comments and instructions inserted by an administrator serve to provide more detail about the alarm or to instruct the operator about the next actions taken. Operators can also add their own comments to be logged with the associated alarm.

Extensible Architecture

The **WS5200** offers an optional interface to Endura Mapping. The mapping extension adds editing and map construction tools while providing for a convenient way to monitor the entire facility for alarms. Multiple layers can be turned on and off to provide access to key devices. In addition, multiple maps can be hyperlinked together to provide for easy navigation between map views.

As a fully integrated component of the **WS5200**, the mapping interface provides a convenient visual verification from a pop-up view. In addition to access to recorded and live video from the pop-up, operators can acknowledge or snooze the alarm, manually execute relays and scripts as a response to the alarm, capture a snapshot, or direct the associated camera onto the Endura monitor wall for further analysis and action.



IMPORTANT NOTE: PLEASE READ. The network implementation is shown as a general representation only and is not intended to show a detailed network topology. Your actual network will differ, requiring changes or perhaps additional network equipment to accommodate the system as illustrated. Please contact your local Pelco Representative to discuss your specific requirements.

TECHNICAL SPECIFICATIONS

WORKSTATION HARDWARE SPECIFICATIONS

Processor	Intel® Core™ 2 Quad Q9400
Internal Memory	4 GB RAM
Operating System	Windows Vista Business SP1, 32-bit version
User Interface	Graphical User Interface, WS5200 version 2.X, advanced system management software
Video System	Graphics card with 512 MB video RAM (nonshared memory), 2560 x 1600 display resolution-capable, and DirectX® 10; true color (32 bit), 2 dual-link DVI outputs

VIDEO

Video Standards	XVGA (2560 x 1600) 60 Hz capability for NTSC 75 Hz capability for PAL
Video Coding	MPEG-4; H.264 baseline, main, and high profile
Video Display Speed	480/400 fps (NTSC/PAL) in each workspace
Video Display Modes	1 image, 4 images (2 x 2), 9 images (3 x 3), 16 images (4 x 4), 6 images (1 large + 5 small), 10 images (2 large + 8 small), 13 images (1 large + 12 small); High definition monitors can also display 6 images (3 x 2) and 12 images (4 x 3)
Video Decoding Supported	MPEG-4 ASP; H.264 baseline, main and high profiles
Decoding Performance	16x real-time MPEG-4 streams at 704 x 480 12x real-time H.264 baseline profile streams at 704 x 480 2x real-time H.264 baseline profile streams at 1080p
Video Outputs	2 DVI or VGA outputs (2 DVI- to-VGA adapters supplied)

AUDIO

Audio Decoding	G.711 speech codec
Audio Bit-rate	64 kbps
Audio Levels	
Input	Electret microphone
Output	Up to 3 Vp-p, adjustable, minimum load of 8 ohms
Audio Connectors	3, 3.5 mm stereo jacks
Connector Tip	Signal left (input and output)
Connector Ring	Signal right (input and output)
Connector Sleeve	Common
Audio Inputs	Microphone and line-in
Audio Outputs	Speaker or line out

PTZ CONTROL

PTZ Interface	On-screen
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NETWORK

Interface	Gigabit Ethernet RJ-45 port (1000Base-T)
Security	2 modes: secure mode (device authentication) and unsecure mode

AUXILIARY INTERFACES

USB Ports	7 USB 2.0 ports (1 front, 6 rear)
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FRONT PANEL

DVD±RW/CD-RW Drive	
CD read/write speed	24X
CD rewrite speed	24X
DVD read/write speed	8X
DVD dual layer read/write speed	8X/6X
Buttons	Power, configuration/reset
Indicators	
Power	Blue if power
Network Activity	Green when activity
Unit Status	Green, yellow, red

POWER

Power Input	100 to 240 VAC, 50/60 Hz, autoranging
Power Supply	Internal
Power Consumption	Operating Maximum
100 VAC	160 W, 1.60 A, 547 BTU/H
115 VAC	160 W, 1.39 A, 547 BTU/H
220 VAC	160 W, 0.72 A, 547 BTU/H

ENVIRONMENTAL

Operating Temperature	50° to 95°F (10° to 35°C) at unit air intake (front of unit)
Storage Temperature	-40° to 149°F (-40° to 65°C)
Operating Humidity	20% to 80%, noncondensing
Maximum Humidity Gradient	10% per hour
Operating Altitude	-50 to 10,000 ft (-15 to 3,048 m)
Operating Vibration	0.25 G at 3 Hz to 200 HZ at a sweep rate of 0.5 octave/minute

Note: The temperature at the unit air intake can be significantly higher than room temperature. Temperature is affected by rack configuration, floor layout, air conditioning strategy, and other issues. To prevent performance failure and unit damage, make sure the temperature at the unit is continuously within the operating temperature range.

PHYSICAL

Construction	Steel cabinet
Finish	
Front panel	Gray metallic with black end caps
Chassis	Black matte finish
Dimensions	17.0" D x 17.1" W x 3.5" H (43.2 x 43.4 x 8.9 cm)
Mounting	Desktop (feet) or rack (2 RU per unit)
Unit Weight	28.8 lb (13.06 kg)

TECHNICAL SPECIFICATIONS

MODELS

Use the following table to create a model number for your WS5070. For example, the model number for a unit with a United Kingdom power cord would be WS5070-UK.

Model	Country Code	Description
WS5070	US = North America AU = Australia AR = Argentina EU = Europe UK = United Kingdom	Endura Workstation with WS5200 version 2.x advanced system management software package (WS5200-1) and regional power cord
	CN = China	Endura Workstation with WS5200 version 2.x advanced system management software package (WS5200-1) and no power cord

SUPPLIED ACCESSORIES

Pelco Keyboard
Pelco Mouse
Resource Disc
Recovery Disc
Nero® StartSmart Disc
Windows Vista Business Edition Disc
Rack Mount Kit (for mounting in a 2 RU rack)
Power Cord

Note: Units shipped to China do not include a power cord.

OPTIONAL SOFTWARE ACCESSORIES

WS5200-MAP Endura Mapping interface

CERTIFICATIONS

- CE, Class A
- FCC, Class A
- UL/cUL Listed
- S-Mark for Argentina
- CCC
- C-Tick

STANDARDS/ORGANIZATIONS

- Pelco is a member of the MPEG-4 Industry Forum
- Pelco is a member of the Universal Plug and Play (UPnP) Forum, Steering Committee
- Pelco is a member of the Universal Serial Bus (USB) Implementers Forum
- Pelco is a contributor to the International Standards for Organization / Electrotechnical Commission (ISO/IEC) Joint Technical Committee 1 (JTC1), "Information Technology," Subcommittee 29, Working Group 11
- Compliance, ISO/IEC 14496 standard (also known as MPEG-4)
- Compliance, International Telecommunication Union (ITU) Recommendation G.711, "Pulse Code Modulation (PCM) of Voice Frequencies"

NOTICE: Judgment as to the suitability of the products for users' purposes is solely the users' responsibility. Users should refer to the Operation manuals for cautionary statements regarding user selected options and how they might affect video quality. Users shall determine the suitability of the products for their own intended application, picture rate and picture quality. In the event users intend to use the video for evidentiary purposes in a judicial proceeding or otherwise, users should consult with their attorney regarding any particular requirements for such use.

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