

LENSEC, LLC.

PERSPECTIVE VMS

Release Notes (Version 1.4.1)

LENSEC, LLC.

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RELEASE NOTES (VERSION 1.4.1)

Release Notes – Perspective VMS™

Thank you for choosing to install **Perspective Video Management Software (VMS) Version 1.4.1**.

LENSEC LLC, a leader in video surveillance management software, has designed Perspective VMS as an intuitive, feature-rich, scalable, and yet fully flexible platform for monitoring and interrogating video surveillance cameras and devices. Our latest release (Version 1.4.1) was first made available for installation on 08/02/2013.

This document is designed to provide an informational overview of features and issues that may be relevant to your installation of Perspective VMS.

1. Introduction

Perspective VMS Version 1.4.1 provides several new and enhanced features building upon the long running success of LENSEC's K12M and LENSEC VMS software platforms.

1.1. Scope

The release notes pertain to installations of Perspective VMS Enterprise, Standard, Express, Command View, and Trial Editions Version 1.4.1. Separately available is documentation for general use and installation of Perspective VMS.

2. System Requirements

2.1. Client-Side Operating Systems and Browsers Supported

Perspective VMS operates within the Microsoft® Silverlight™ platform and can be run as a client version through standard web-browsers including Microsoft Internet Explorer, Firefox by Mozilla, and Google Chrome.

Client Recommendations

Hardware	Software
Processor: 2.4 GHz (x64 Processor) or 1.3GHz (Dual Core).	Windows 7 or above (Recommended Windows 7)
Memory: Minimum 4 GB RAM.	Mac OSX or higher (Recommended OSX Lion)
Available Disk Space: Minimum 10 GB.	Internet Explorer 7.0 and above (Recommend IE 9.0)
Display: SXGA (1280 x 1024) or higher resolution	Google Chrome 10.0 and above (Recommended 27.0)
	Mozilla Firefox 4.0 and above (Recommended 6.0).

2.2. Server System Requirements

Web Server*

Hardware	Software
Processor: 2.4 GHz (x64 Processor) or 1.3GHz (Dual Core).	Windows 2008 Server or above (Recommended Windows 2008 R2 Server).
Memory: Minimum 4 GB RAM.	Internet Information Services 7 or greater.
Available Disk Space: Minimum 320 GB	MIME Types: .xap and .xaml files.
OS Partition (if applicable): Minimum 40 GB	Microsoft .NET Framework 4.0.
	Microsoft SQL Database Server 2008 (Express/Standard/Enterprise).

Archive/Streaming Server*

Hardware	Software
Processor: 2.4 GHz (x64 Processor) or 1.3GHz (Dual Core). Memory: Minimum 8 GB RAM. Available Disk Space: Minimum: 320 GB OS Partition (if applicable): Minimum 20 GB	Windows 2003 Server or above (Recommended Windows 2008 R2 Server). Internet Information Services 6 or greater. MIME Types: .xap and .xaml files. Microsoft .NET Framework 4.0. Microsoft SQL Database Server 2005/2008 (Express/Standard/Enterprise).

Database Server*

Hardware	Software
Processor: 1.0 GHz. Memory: Minimum 4 GB RAM. Available Disk Space: Minimum: 320 GB.	Windows 2003 Server or above (Recommended Windows 2008 R2 Server). Microsoft SQL Database Server 2005/2008 (Express/Standard/Enterprise)

* All services may be installed on a single stand-alone server

2.3. Server-based Software Prerequisites

2.3.1. Internet Information Services (IIS)

Internet Information Services with the following roles are required to host the application:

- Application Development
 - ASP.NET
 - .NET Extensibility (prerequisite for ASP.NET)
 - ISAPI Extensions (prerequisite for ASP.NET)
 - ISAPI Filters (prerequisite for ASP.NET)
 - CGI
- Security
 - Windows Authentication
- IIS 7 Management Compatibility

2.3.2. .NET Framework 4.0

PVMS is built on top of Microsoft's Silverlight Application Framework which requires .NET Framework 4.0 to operate.

2.3.3. Silverlight 5.0

PVMS is built on top of Microsoft's Silverlight Application Framework which requires Silverlight 5.0 to operate as a client.

3. Features

3.1.1 New Features, Bug-fixes, and Enhancements

Perspective VMS 1.4.1 is a Production Release update to Perspective VMS 1.3.0 and has the following feature additions and enhancements.

Product Feature Name	Description
Live Streaming (Proxy) - H264	Ability to proxy camera streams via the streaming server to workstations where direct connection is unavailable using selectable H264 parameters
OnVIF Profile-S Integration	An ONVIF device compliant to the Profile S is an ONVIF device that sends video data over an IP network to a client. The Profile S also includes support for PTZ, audio and metadata streaming, and relay outputs if those features are present on the device. For example, a device compliant to the Profile S may be an IP network camera or an encoder device.
Unlimited Archive Settings	Enhancement: Corrected exceptions in saving new archive settings and enhanced ability to save as Frames per "Hour" for time-lapse recording
H.264 Archiving	Enhancement: Corrected condition that could result in an extraction not stitching the full time period.
Fast Archive Playback Control	Enhancement: Corrected fast-rewind and fast-forward features for Video archives (H264/MPEG)
External Audio Stitching	Enhancement: Corrected minor distortions in audio quality from external IP sources.
Downloadable Extracts	Enhancement: Lowered default compression to increase overall extracted video quality.
Snapshots Repository	Enhancement: Added a global snapshot repository path in Administration. This allows for easier upgrade migration for distributed systems.
Windows 2003 Server - Server Support	Enhancement: Added install shield support for Windows 2003 server.
Multi-view Presets	Enhancement: Allow for default alpha-numeric ordering of public and private preset lists.
Multi-Language Support (Russian)	Enhancement: Corrected an issue logging in with a Russian Language user.

3.2.1 Full Product Feature List

Product Feature Name	Description
Actions Panel (Component)	A set of collaboration tools and buttons providing the ability to dynamically share messages or views with other system users.
Active Directory (Read)	Active Directory Integration
Add Tag	Ability to mark/flag video, cameras, or events for fast search and quantifiable look-up from Camera Viewer
Administration Module (Module)	Intuitive and detailed interface module for configuration and operational management of users, devices, and system parameters.
Agent Vi Edge Analytic Integration	Integration with Agent Vi Video Analytics
Alert annotations	Ability to track alert acknowledgement by user/date as well as modify event to mark as active for additional follow up. Marked active event transactions are also tracked by user and date.

Analog Encoder Integration (Axis)	Ability to integrate with Axis Analog Encoders to incorporate hybrid analog and IP systems together.
Android Mobile App Connection	Provides the ability to view Perspective VMS installations on a mobile device
Apple OS X - Client Support	Ability to run on Apple OS X machines
Application Deployment (Out-of-Browser)	Provides the ability to run as a desktop client without the need of any browser.
Archive Audio	Ability to record/archive audio synchronized with video.
Archive Management	Monitors archive drive space and manages First-In-First-Out routine.
Archive Module (Module)	Allows users to quickly locate and playback archived video, provides functionality for timeline based archive retrieval, event and archive integration, downloading and sharing archived video and tagging archived information.
Archive streaming	Ability to stream recording video from the archive server (data repository) via the streaming server to a client workstation.
Archive Timeline Control	Dynamic timeline control for fast searching and visual historical search navigation
Area of Interest - Motion Detection	Provides the user the ability to define the area of interest for motion detection.
Audible Alert Notification	User-defined audible alert action upon event notification.
Audio streaming integration (Axis)	Audio Integration for all general Axis camera models (Series: M, P, Q, 200)
Audit Trail / Access Logs	Accessible audit trail report of users actions and history
Authorized User Logon	User generated password protected login for secure and audit-enabled access to the platform.
Axis Cross Line Detection	Allows for the incorporation of Cross-Line Analytic behavior from Axis Communications to Perspective VMS.
Behavior Events	Behavior-based event transactions and alerts. Most often used for Video Analytic alarms.
Camera Dock (Component)	Allows the user to drag and drop cameras from one or more maps into one common area (the Camera Dock) for viewing.
Camera Model Administration - Advanced PTZ Controls	Ability to define advanced custom PTZ controls within the administration of camera models
Camera Security Authentication	Provides the ability to utilize camera security credentials for viewing and administration.
Camera Viewer Module (Module)	The Camera Viewer module provides live video viewing, enabling you to monitor one or more live Views, create Sequences of Multi-Views, quickly initiate on-

	demand recording, manipulate Pan-Tilt-Zoom ("PTZ") cameras, and quickly review recently archived vi...
Copy Administration Records	A quick ability for users to copy administration records.
Cross Browser Interoperability	Provides the ability to run as a Rich Internet Application, smart-client, in Internet explorer, Mozilla Firefox, Google Chrome, Opera, and Apple's Safari browsers.
Custom Archive Paths	Ability to define custom locations for archive storage
Custom Icons	Offers users the ability to upload custom icons for use in the map layout design.
Customizable User Profile	Individual user profile customization options including: Default Layouts, Start-up Preferences, and Language Orientation.
Custom Map Layers	Ability to add definable layers to any map. These layers can be hidden or exposed depending on user configuration and preference.
Custom Maps	Provides the ability to upload custom generated map files of facilities, grounds, or regions.
Custom Motion Sensitivity	Ability to adjust the motion sensitivity is the amount of change in percent between two concurrent frames.
Custom Multi-view Sequence Editor	Provides the ability to create user-defined multi-view sequences. The sequences can rotate on a schedule for automated display of unlimited camera arrangements.
Custom Training URL	Offers users the ability to modify web-based training locations for end-users
DAS Support	Ability to support Direct Attached Storage
Direct camera interface link	Ability to open the camera interface directly from the Camera Setup screen
Display Active User Sessions	Provides status of all users actively logged into Perspective VMS
Distributed Streaming	Ability to stream camera feeds from across a LAN/WAN over multiple subnets in a distributed server architecture.
DNA Fusion Integration - PACS Video Call-up	Integration Feature that calls up video within Open Options DNA Fusion (Access Control)
Downloadable Extracts	Ability to download and view extracts in a standard video player
Drag-and-Drop Support	Perspective VMS offers drag-and-drop functionality throughout modules for efficient navigation and operation.
Dynamic Camera Icons	Icons change state based on status (alarm/alert, service/no service)

Dynamic Camera View Selector	Allows user to select and switch camera view arrangements through the utilization of a dialogue window consisting of thumbnail icons, devices, lists, or map views.
EULA	A one-time acknowledgement of the End-User License Agreement
Expandable Info Panel	An expandable information panel showing events for easy filtering and search by time, date, object, and grouping criteria.
Extended Tool Tips	Enhanced or detailed tool tips that are provided to the user on hovering over an object or item.
External Audio Stitching	Provides the ability to combine an external audio source (secondary IP source) with camera
Extraction List/View	A customized and filter-ready list view of extracts made.
Fast Archive Playback Control	Ability to rewind and control recorded video at upto 64x speeds from the Camera Viewer container of any camera
Fast-Find (MJPEG)	Ability to quickly search a camera field of view for motion events in a user-defined area by drawing a box and setting a sensitivity threshold.
Fit Window Viewing	Ability for the user to "Fill" or "Fit" the viewing area by not constraining video feeds to maintain defined aspect ratios.
Frame-by-Frame Archive Playback Control	Ability to rewind and control recorded video by frames from the Camera Viewer container of any camera
Full Screen Archive Monitoring	Ability to monitor video in full screen mode
Full Screen Monitoring	Ability to monitor video in full screen mode
Global Search	Provides the ability to rapidly search any content with Perspective VMS. From user entered tags or extractions, to multi-view presets, cameras, and Maps.
H.264 Archiving	H.264 protocol for recording/archiving video
H.264 Integration (Brickcom)	Basic streaming integration with IP cameras
H.264 Support (Axis)	H.264 Integration for all general Axis camera models (Series: M, P, Q, 200)
H.264 Support - Playback	Ability to stream and archive video in H.264 format.
Health Monitor Service (Service)	A Health Monitor Service which functions to check if system cameras defined in the VMS are up and running. If not, the service will notify the user about the offline status of the camera in question. The Service will also generate health report related t...
Image Extraction Search	The ability of scanning and searching through multiple image extractions.

Image Snapshot	Provides the ability to take and download a snapshot image from any one or multiple camera view(s).
Informational Camera Header	A header overlay with relevant information and real-time status about the camera.
Installation Wizard	A step-by-step process for installing Perspective VMS (Server) at your site.
iOS Mobile App Connection	Provides the ability to view Perspective VMS installations on a mobile device
IR Support (HIK Vision)	Basic streaming integration with HIK IP cameras
Last Login Report	Provides administrators with at-a-glance "last-login" reporting and audit of users who have logged into Perspective.
Live Audio Streaming	Ability to stream live audio back to PVMS
Live Monitoring	Live video viewing enables you to monitor one or more live Views either via direct streaming or server-side streaming (proxy).
Live Streaming (Proxy) - H264	Ability to proxy camera streams via the streaming server to workstations where direct connection is unavailable using selectable H264 parameters
Live Streaming (Proxy) - MotionJPG	Ability to proxy camera streams via the streaming server to workstations where direct connection is unavailable.
Map Integration	Ability to add custom or pre-defined map images into Perspective and add dynamic camera icons providing accurate situational awareness for any facility or site.
Map Items Group	Provides the ability to globally group items across all maps to be shown as distinct layers that may be toggled on or off.
Map Layout Designer (Module)	An intuitive drag-and-drop interface module for layout and design adjustments to map files including desired zoom parameters and optional layer and device placement options.
Map Locator	The quick locate function allows the user to find the location of any camera on one (or multiple maps) from within the Camera Viewer. Any map the selected camera is associated with will be displayed in a quick preview window.
Maps Module (Module)	An interface providing an at-a-glance geographic overview of the site or entire enterprise with the ability to interact with cameras and devices for relative field-of-view. Ideal for real-time situational awareness and to build visual familiarity of the...
MJPEG Server-Side Streaming (Mobotix)	Basic streaming integration with Mobotix IP cameras
Motion detection based events	Archived recording on motion events

Motion-JPEG Support - Playback	Ability to record and archive video in Motion-JPEG format
Motion-JPG Archiving	Motion-JPEG image recording/archiving of video
MPEG-4 Support - Playback	Ability to record and archive video in MPEG-4 format
MPEG Archiving	MPEG protocol for recording/archiving video
Multi-Floor Navigation	Provides the ability to navigate to floors in a building or site location.
Multi-Language Support (Arabic)	Operation in Arabic
Multi-Language Support (English)	Operation in English (US/UK)
Multi-Language Support (Russian)	Operation in Russian
Multi-Language Support (Spanish)	Operation in Spanish
Multi-Level Mapping	Provides the ability to navigate multiple maps through an intuitive interface with dynamic pan-tilt and zoom on each graphic.
Multi-login	Provides the ability to allow multiple logins by one user to Perspective VMS. Also allows for this permission to be denied to users/groups.
Multi-Streaming Archive Player	Ability to playback multiple archived video streams simultaneously.
Multi-View Monitoring	Ability for custom defined multiple live streaming camera view arrangements. with several pre-defined templates for easy and fast viewing configurations.
Multi-view Presets	Ability to save a selected camera configuration and view as a preset for quick retrieval.
MxPEG Server-Side Streaming (Mobotix)	Basic streaming integration with Mobotix IP cameras
NAS Support	Ability to support Network Area Storage
Neighboring Cameras	Provides the ability to associate cameras together in custom multi-view arrangement of a logical group for quick display of "neighbor" cameras or devices.
Neighboring Cameras - Archive	Provides the ability while in archive playback mode within the camera viewer module, to associate cameras together in custom multi-view arrangement of a logical group for quick display of "neighbor" cameras or devices.
ONVIF Camera Discovery	Provides administrators and systems integrators the ability to add cameras directly from the network using a discovery tool. (Applicable to cameras that are ONVIF-ProfileS compliant).

OnVIF Profile-S Integration	An ONVIF device compliant to the Profile S is an ONVIF device that sends video data over an IP network to a client. The Profile S also includes support for PTZ, audio and metadata streaming, and relay outputs if those features are present on the device. For example, a device compliant to the Profile S may be an IP network camera or an encoder device.
Open in Administration	Ability to open the camera administration (based on permissions) from the camera overlay
Open in Archives	Ability to open selected camera from Camera Viewer into Archive Module
Panoramic Camera Support (Axis)	Panoramic camera support for Axis models with 360-degree FOV. Will display Overview, Panoramic, and Quad View support.
Print-ready views	Ability to print configuration views for easy site commissioning and reporting. Includes ability to define which columns and sort should appear in the view.
Private and Public Extracts	Provides the ability to annotate whether an extract can be viewed by other system users or to be maintained as a private event by the owner and administrator.
PTZ Control	Ability to Pan/Tilt/Zoom by using a standard Joystick control, Click to Zoom or Click to Center.
PTZ Control Sphere (Component)	Provides a unique interactive interface tool allowing the user to navigate the field of view of the PTZ camera using a sphere graph.
PTZ Lock	Ability to lock a PTZ in position, preventing another user from moving the PTZ without first over-riding the lock action.
PTZ Presets	Ability to control PTZ cameras and set preset stopping coordinates.
PTZ Sequence Editor (Tour)	Ability to configure PTZ presets into a tour configuration
PTZ Support (HIK Vision)	Basic streaming integration with HIK IP cameras
PVMS Favicon	The use of a browser icon shall be available to differentiate the application from other web/browser tabs.
Real-Time Extraction	Ability to live record and extract video with or without motion or external trigger by a simple one-click interface on any camera view.
Reporting Module (Module)	Provides the ability to launch data reports within the Perspective VMS application.
RFID Camera Tracking (SIRIT)	Ability to call-up or associate cameras in archives with an RFID event
RFID Event Integration (SIRIT)	Transaction-based event integration with RFID readers and tags from SIRIT.
SAN Support	Ability to support Storage Area Networks

Send a Shared View	Ability to dynamically share your view from any module to another user in a simple yet collaborative method.
Send Messages	Allows users to send messages within the application, for instant collaboration
Server Administration	Provides the ability to define stand alone or distributed servers and administer their respective services from any instance of Perspective VMS.
Services Administration	A configuration area within Perspective VMS to monitor and administer actions performed on PVMS Services such as Start, Stop, and Restart
Share View	A collaboration tool providing the ability to dynamically share any view the user is currently seeing with any other user.
Share View Info Panel	Component feature for listing and administration of historical shared views
Silverlight 5 Integration	Integration for Microsoft's Silverlight Version 5
Snapshot Preview	Provides a snapshot preview (or live stream) of the camera as it's being placed into the map
Software License	A software license key allows each site to be configured properly towards the scope of work. The license will determine the instance edition (Standard or Enterprise) as well as enable purchased add-on modules.
SQL Server 2008 R2 Integration	Provides the ability to operate and run using Microsoft SQL Server 2008 R2.
SQL Server Express Integration	Provides the ability to operate and run using Microsoft SQL Server 2008 R2 (Express).
Streaming Archive Player	Ability to playback archived video.
System-based Alerts	Diagnostic alerts on system actions of a camera or service
System Help	Integrated System Help files navigation and operational support of Perspective VMS
Tagging	Ability to mark/flag video, cameras, or events for fast search and quantifiable look-up
Time-lapse Extractions	Provides the ability to record video in increments of Frames per Hour(s), thereby allowing for archive viewing or video extractions spanning multiple weeks, months, or even years.
Touch Enabled	Perspective VMS offers full functionality for all touch surfaces and with no hidden menus or right clicks, touch is a great medium for PVMS.
Tutorial Videos	Interactive tutorial videos showing brief functional instructions to common operating interfaces.
Universal Camera Model Driver	Perspective VMS allows users to define or setup custom camera model

	configurations via HTTP or RTSP command strings.
Unlimited Archive Settings	Provides the ability in configuration to customize Frames Per Second (FPS), Motion Sensitivity, and Overlay controls for any custom camera.
Unlimited Cameras	Ability to add an unlimited number of cameras in Perspective VMS
Unlimited Sites	Ability to add an unlimited number of buildings/sites in Perspective VMS
Unlimited Users	Ability to add an unlimited number of users/operators in Perspective VMS
Up-to 10 Cameras	Ability to add up-to 10 Cameras in Perspective VMS
Up-to 10 User Accounts	Ability to add up-to 10 Users/Operators in Perspective VMS
Up-to 1 Building/Site	Ability to add 1 Building/Site in Perspective VMS
Up-to 25 User Accounts	Ability to add up-to 25 Users/Operators in Perspective VMS
Up-to 5 Cameras	Ability to add up-to 5 Cameras in Perspective VMS
Up-to 5 User Accounts	Ability to add up-to 5 Users/Operators in Perspective VMS
Up-to 64 Cameras	Ability to add up-to 64 Cameras in Perspective VMS
User Audit Trail	Ability to track users activities within Perspective VMS
User Groups	Groups allow multiple users to share the same permissions sets for efficient administration
Video Analytics	Ability to incorporate 3rd-party behavior-based video analytics within the Perspective VMS Events container
Video Extract Player	Ability to play extracted video within Perspective VMS and download for external playback
Virtual PTZ Control	Ability to digitally pan and zoom on any image from any camera view, providing more analysis of an area of interest.
Visual Camera Status Indication	A visual alert within the events panel, annotating the camera status for quick reference.
VMware Workstation Integration	Ability for the application to be installed and maintained on a VMware instance
Welcome and Login (Module)	Welcome area with navigation to components and modules within Perspective VMS

Windows 2003 Server - Server Support	Ability for Perspective VMS Server application to operate on Windows 2003 Server
Windows 2008 Server - Client Support	Ability for Perspective VMS to operate as a client on Windows 2008 Server
Windows 2008 Server - Server Support	Ability for Perspective VMS Server application to operate on Windows 2008 Server
Windows 7 - Client Support	Ability for Perspective VMS to operate as a client on Windows 7 (Home and Professional)
Windows 7 Server - Server Support	Ability for Perspective VMS Server application to operate on Windows 7 (Home and Professional)
Windows 8 - Client Support	Ability for Perspective VMS to operate as a client on Windows 8 (Home and Professional)