

LENSEC, LLC.

# PERSPECTIVE VMS

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Release Notes (Version 1.4.0)

LENSEC, LLC.

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# RELEASE NOTES (VERSION 1.4.0)

## Release Notes – Perspective VMS™

Thank you for choosing to install **Perspective Video Management Software (VMS) Version 1.4.0**.

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 1.4.0) was first made available for installation on 06/05/2013.

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 1.4.0 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 1.4.0. 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 1.4.0 is a Production Release update to Perspective VMS 1.3.0 and has the following feature additions and enhancements.

Product Feature Name	Description
<b>Alert Annotations</b>	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.
<b>Axis Cross Line Detection</b>	Allows for the incorporation of Cross-Line Analytic behavior from Axis Communications to Perspective VMS.
<b>EULA</b>	A one-time acknowledgement of the End-User License Agreement
<b>External Audio Stitching</b>	Provides the ability to combine an external audio source (secondary IP source) with camera
<b>H.264 Integration (Brickcom)</b>	Basic streaming integration with IP cameras
<b>MJPEG Server-Side Streaming (Mobotix)</b>	Basic streaming integration with Mobotix IP cameras
<b>MxPEG Server-Side Streaming (Mobotix)</b>	Basic streaming integration with Mobotix IP cameras
<b>ONVIF Camera Discovery</b>	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).
<b>PTZ Support (HIK Vision)</b>	Basic streaming integration with HIK IP cameras
<b>Time-lapse Extractions</b>	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.

#### 3.2.1 Full Product Feature List

Product Feature Name	Description
<b>Actions Panel (Component)</b>	A set of collaboration tools and buttons providing the ability to dynamically share messages or views with other system users.
<b>Actions Panel (Component)</b>	A set of collaboration tools and buttons providing the ability to dynamically share messages or views with other system users.
<b>Active Directory (Read)</b>	Active Directory Integration
<b>Add Tag</b>	Ability to mark/flag video, cameras, or events for fast search and quantifiable look-up from Camera Viewer
<b>Administration Module (Module)</b>	Intuitive and detailed interface module for configuration and operational management of users, devices, and system parameters.

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

<b>Camera Viewer Module (Module)</b>	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...
<b>Copy Administration Records</b>	A quick ability for users to copy administration records.
<b>Cross Browser Interoperability</b>	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.
<b>Custom Archive Paths</b>	Ability to define custom locations for archive storage
<b>Custom Icons</b>	Offers users the ability to upload custom icons for use in the map layout design.
<b>Customizable User Profile</b>	Individual user profile customization options including: Default Layouts, Start-up Preferences, and Language Orientation.
<b>Custom Map Layers</b>	Ability to add definable layers to any map. These layers can be hidden or exposed depending on user configuration and preference.
<b>Custom Maps</b>	Provides the ability to upload custom generated map files of facilities, grounds, or regions.
<b>Custom Motion Sensitivity</b>	Ability to adjust the motion sensitivity is the amount of change in percent between two concurrent frames.
<b>Custom Multi-view Sequence Editor</b>	Provides the ability to create user-defined multi-view sequences. The sequences can rotate on a schedule for automated display of unlimited camera arrangements.
<b>Custom Training URL</b>	Offers users the ability to modify web-based training locations for end-users
<b>Direct camera interface link</b>	Ability to open the camera interface directly from the Camera Setup screen
<b>Display Active User Sessions</b>	Provides status of all users actively logged into Perspective VMS
<b>Distributed Streaming</b>	Ability to stream camera feeds from across a LAN/WAN over multiple subnets in a distributed server architecture.
<b>DNA Fusion Integration - PACS Video Call-up</b>	Integration Feature that calls up video within Open Options DNA Fusion (Access Control)
<b>Downloadable Extracts</b>	Ability to download and view extracts in a standard video player
<b>Dynamic Camera Icons</b>	Icons change state based on status (alarm/alert, service/no service)
<b>Dynamic Camera View Selector</b>	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.

<b>EULA</b>	A one-time acknowledgement of the End-User License Agreement
<b>Expandable Info Panel</b>	An expandable information panel showing events for easy filtering and search by time, date, object, and grouping criteria.
<b>Extended Tool Tips</b>	Enhanced or detailed tool tips that are provided to the user on hovering over an object or item.
<b>External Audio Stitching</b>	Provides the ability to combine an external audio source (secondary IP source) with camera
<b>Extraction List/View</b>	A customized and filter-ready list view of extracts made.
<b>Fast Archive Playback Control</b>	Ability to rewind and control recorded video at upto 64x speeds from the Camera Viewer container of any camera
<b>Fast-Find (MJPEG)</b>	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.
<b>Fit Window Viewing</b>	Ability for the user to "Fill" or "Fit" the viewing area by not constraining video feeds to maintain defined aspect ratios.
<b>Frame-by-Frame Archive Playback Control</b>	Ability to rewind and control recorded video by frames from the Camera Viewer container of any camera
<b>Global Search</b>	Provides the ability to rapidly search any content with Perspective VMS. From user entered tags or extractions, to multi-view presets, cameras, and Maps.
<b>H.264 Integration (Brickcom)</b>	Basic streaming integration with IP cameras
<b>H.264 Support (Axis)</b>	H.264 Integration for all general Axis camera models (Series: M, P, Q, 200)
<b>H.264 Support - Playback</b>	Ability to stream and archive video in H.264 format.
<b>Image Snapshot</b>	Provides the ability to take and download a snapshot image from any one or multiple camera view(s).
<b>Informational Camera Header</b>	A header overlay with relevant information and real-time status about the camera.
<b>Installation Wizard</b>	A step-by-step process for installing Perspective VMS (Server) at your site.
<b>iOS Mobile App Connection</b>	Provides the ability to view Perspective VMS installations on a mobile device
<b>IR Support (HIK Vision)</b>	Basic streaming integration with HIK IP cameras
<b>Last Login Report</b>	Provides administrators with at-a-glance "last-login" reporting and audit of users who have logged into Perspective.
<b>Live Audio Streaming</b>	Ability to stream live audio back to PVMS



<b>Live Monitoring</b>	Live video viewing enables you to monitor one or more live Views either via direct streaming or server-side streaming (proxy).
<b>Live Streaming (Proxy)</b>	Ability to proxy camera streams via the streaming server to workstations where direct connection is unavailable.
<b>Map Integration</b>	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.
<b>Map Items Group</b>	Provides the ability to globally group items across all maps to be shown as distinct layers that may be toggled on or off.
<b>Map Layout Designer (Module)</b>	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.
<b>Map Locator</b>	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.
<b>Maps Module (Module)</b>	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...
<b>MJPEG Server-Side Streaming (Mobotix)</b>	Basic streaming integration with Mobotix IP cameras
<b>Motion detection based events</b>	Archived recording on motion events
<b>Motion-JPEG Support - Playback</b>	Ability to record and archive video in Motion-JPEG format
<b>MPEG-4 Support - Playback</b>	Ability to record and archive video in MPEG-4 format
<b>Multi-Floor Navigation</b>	Provides the ability to navigate to floors in a building or site location.
<b>Multi-Language Support (Arabic)</b>	Operation in Arabic
<b>Multi-Language Support (English)</b>	Operation in English (US/UK)
<b>Multi-Language Support (Russian)</b>	Operation in Russian
<b>Multi-Language Support (Spanish)</b>	Operation in Spanish
<b>Multi-Level Mapping</b>	Provides the ability to navigate multiple maps through an intuitive interface with dynamic pan-tilt and zoom on each graphic.
<b>Multi-login</b>	Provides the ability to allow multiple logins by one user to Perspective VMS. Also allows for this permission to be denied to users/groups.

<b>Multi-Streaming Archive Player</b>	Ability to playback multiple archived video streams simultaneously.
<b>Multi-View Monitoring</b>	Ability for custom defined multiple live streaming camera view arrangements. with several pre-defined templates for easy and fast viewing configurations.
<b>Multi-view Presets</b>	Ability to save a selected camera configuration and view as a preset for quick retrieval.
<b>MxPEG Server-Side Streaming (Mobotix)</b>	Basic streaming integration with Mobotix IP cameras
<b>NAS Support</b>	Ability to support Network Area Storage
<b>Neighboring Cameras</b>	Provides the ability to associate cameras together in custom multi-view arrangement of a logical group for quick display of "neighbor" cameras or devices.
<b>Neighboring Cameras - Archive</b>	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.
<b>ONVIF Camera Discovery</b>	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).
<b>Open in Administration</b>	Ability to open the camera administration (based on permissions) from the camera overlay
<b>Open in Archives</b>	Ability to open selected camera from Camera Viewer into Archive Module
<b>Panoramic Camera Support (Axis)</b>	Panoramic camera support for Axis models with 360-degree FOV. Will display Overview, Panoramic, and Quad View support.
<b>Print-ready views</b>	Ability to print configuration views for easy site commissioning and reporting. Includes ability to define which columns and sort should appear in the view.
<b>Private and Public Extracts</b>	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.
<b>PTZ Control</b>	Ability to Pan/Tilt/Zoom by using a standard Joystick control, Click to Zoom or Click to Center.
<b>PTZ Control Sphere (Component)</b>	Provides a unique interactive interface tool allowing the user to navigate the field of view of the PTZ camera using a sphere graph.
<b>PTZ Lock</b>	Ability to lock a PTZ in position, preventing another user from moving the PTZ without first over-riding the lock action.
<b>PTZ Presets</b>	Ability to control PTZ cameras and set preset stopping coordinates.
<b>PTZ Sequence Editor (Tour)</b>	Ability to configure PTZ presets into a tour configuration

<b>PTZ Support (HIK Vision)</b>	Basic streaming integration with HIK IP cameras
<b>Real-Time Extraction</b>	Ability to live record and extract video with or without motion or external trigger by a simple one-click interface on any camera view.
<b>Reporting Module (Module)</b>	Provides the ability to launch data reports within the Perspective VMS application.
<b>RFID Camera Tracking (SIRIT)</b>	Ability to call-up or associate cameras in archives with an RFID event
<b>RFID Event Integration (SIRIT)</b>	Transaction-based event integration with RFID readers and tags from SIRIT.
<b>Send Messages</b>	Allows users to send messages within the application, for instant collaboration
<b>Server Administration</b>	Provides the ability to define stand alone or distributed servers and administer their respective services from any instance of Perspective VMS.
<b>Services Administration</b>	A configuration area within Perspective VMS to monitor and administer actions performed on PVMS Services such as Start, Stop, and Restart
<b>Share View</b>	A collaboration tool providing the ability to dynamically share any view the user is currently seeing with any other user.
<b>Silverlight 5 Integration</b>	Integration for Microsoft's Silverlight Version 5
<b>Snapshot Preview</b>	Provides a snapshot preview (or live stream) of the camera as it's being placed into the map
<b>Software License</b>	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.
<b>SQL Server 2008 R2 Integration</b>	Provides the ability to operate and run using Microsoft SQL Server 2008 R2.
<b>SQL Server Express Integration</b>	Provides the ability to operate and run using Microsoft SQL Server 2008 R2 (Express).
<b>Streaming Archive Player</b>	Ability to playback archived video.
<b>System-based Alerts</b>	Diagnostic alerts on system actions of a camera or service
<b>System Help</b>	Integrated System Help files navigation and operational support of Perspective VMS
<b>Tagging</b>	Ability to mark/flag video, cameras, or events for fast search and quantifiable look-up
<b>Time-lapse Extractions</b>	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.

<b>Touch Enabled</b>	Perspective VMS offers full functionality for all touch surfaces and with no hidden menus or right clicks, touch is a great medium for PVMS.
<b>Tutorial Videos</b>	Interactive tutorial videos showing brief functional instructions to common operating interfaces.
<b>Universal Camera Model Driver</b>	Perspective VMS allows users to define or setup custom camera model configurations via HTTP or RTSP command strings.
<b>Unlimited Archive Settings</b>	Provides the ability in configuration to customize Frames Per Second (FPS), Motion Sensitivity, and Overlay controls for any custom camera.
<b>Unlimited Cameras</b>	Ability to add an unlimited number of cameras in Perspective VMS
<b>Unlimited Sites</b>	Ability to add an unlimited number of buildings/sites in Perspective VMS
<b>Unlimited Users</b>	Ability to add an unlimited number of users/operators in Perspective VMS
<b>User Audit Trail</b>	Ability to track users activities within Perspective VMS
<b>User Groups</b>	Groups allow multiple users to share the same permissions sets for efficient administration
<b>Video Analytics</b>	Ability to incorporate 3rd-party behavior-based video analytics within the Perspective VMS Events container
<b>Video Extract Player</b>	Ability to play extracted video within Perspective VMS and download for external playback
<b>Virtual Pan/Zoom</b>	Ability to digitally pan and zoom on any image from any camera view, providing more analysis of an area of interest.
<b>Visual Camera Status Indication</b>	A visual alert within the events panel, annotating the camera status for quick reference.
<b>VMware Workstation Integration</b>	Ability for the application to be installed and maintained on a VMware instance
<b>Welcome and Login (Module)</b>	Welcome area with navigation to components and modules within Perspective VMS
<b>Windows 2008 Server - Client Support</b>	Ability for Perspective VMS to operate as a client on Windows 2008 Server
<b>Windows 2008 Server - Server Support</b>	Ability for Perspective VMS Server application to operate on Windows 2008 Server
<b>Windows 7 - Client Support</b>	Ability for Perspective VMS to operate as a client on Windows 7 (Home and Professional)
<b>Windows 7 Server - Server Support</b>	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)