

VIDEO ANALYTICS PRODUCT OVERVIEW

Video analytics for video surveillance provide advanced intelligence for your security footprint. Analytics use mathematical algorithms to evaluate digital video based on previously defined parameters. These tools allow users to receive alerts based on intelligent analysis of digital video evidence. The use of video analytics improves confidence in monitoring events and reduces false alarms.

Many video analytics options are available, including intrusion detection, left or stolen object detection, vehicle speed, direction of traffic, occupancy rate, and many more. Advanced video analytics for facial recognition and automatic license plate recognition are also available.

Embedded video analytics are available as an optional per camera add-on to Perspective VMS®. LENSEC offers video analytics available à la carte or as a bundled package.

SYSTEM REQUIREMENTS

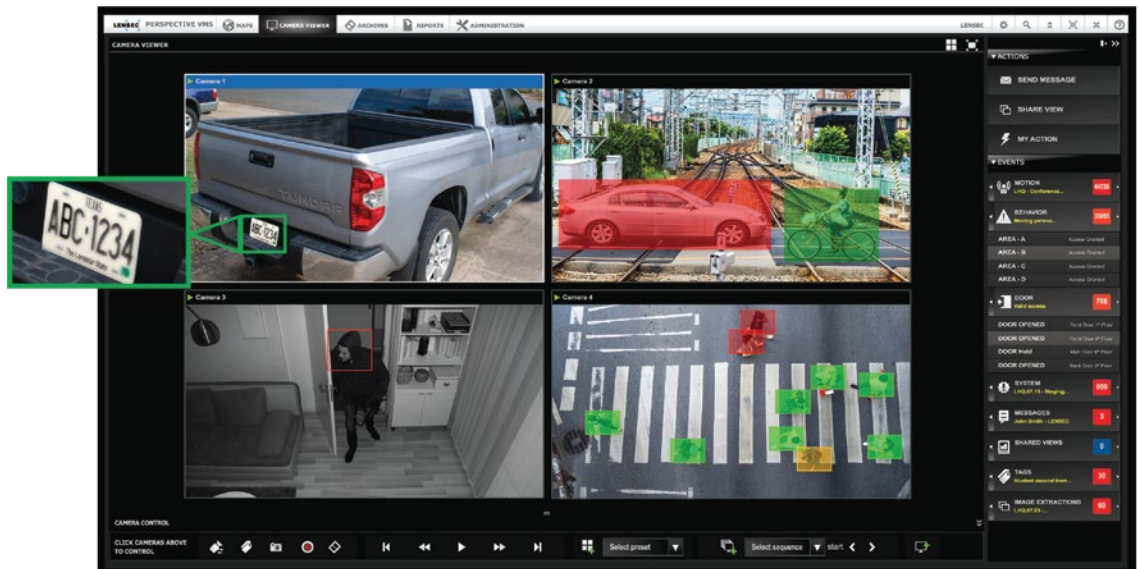
Perspective VMS® operates using multiple services and databases running on server hardware in a network environment. Depending on deployment parameters, additional servers and infrastructure may be required to accommodate the processing power and databases necessary to accomplish a complex network running advanced video analytics.

Talk with a LENSEC team member to evaluate your needs and plan accordingly.



VIDEO ANALYTICS

Video Analytics use smart algorithms for effective decision-making. They generate smart alerts to trigger actions and reduce false alarms.



TECHNICAL SPECIFICATIONS

Video Streams:

- IP Cameras (Optical or Thermal) Should be Compatible Through Standard Protocols (RTP/RTSP, MJPEG, or ONVIF)
- Analog Cameras Should be Compatible Via IP Video Encoder or by DirectX Video Frame Grabber or Video For Linux (Video Analytics Client)
- Compatible with Perspective VMS® Camera Integration
- Off-Line Videos in Standard Formats (.mp4 or .mov)

Conditions on Subjects of Interest in the Image in Order to be Effectively Detected:

- Subject Must be Clearly Visible in the Image to the Naked Eye, Including Difficult Environmental Conditions (Night, Heavy Rain, Snow, Fog, Sun Glare, Artificial Light Sources, or Light Reflection)
- Subject Must be Entirely Visible in the Image for a Minimum of 10 FPS (Continuous)
- Subject Must Have a Minimum Image Area Size of 100 pixels or 10 pixels/meter at the Farthest Point of Detection (i.e. - 10x10 pixels)
- Subject Must Have a Maximum Image Area Size of 1/4 of the Image

Minimum Frame Rate: 8 FPS for Highly Dynamic Environments, or 4pm in Low Dynamic Environments

Suggested Image Resolution: Large Objects (CIF/QVGA), or Small, Far-Away Objects (4CIF/VGA/SVGA)

System Requirements:

- Modular, Scalable, and Flexible Software Architecture (Server Hardware OS: Windows 10 or Linux, 32/64 bit - for Video Analytics Client)
- CPU: Up to 5 Video Streams in CIF/QVGA Resolution at 8 FPS per Each 2.8GHz Single Core
- RAM: Minimum of 80MB per Each Video Stream

EMBEDDED VIDEO ANALYTICS - AVAILABLE FUNCTIONS

LENSEC offers numerous video analytics options available for functionality in Perspective VMS®. Embedded video analytics run in a server environment as opposed to video analytics running on an IP security camera at the edge of the physical security footprint. The available functions detailed below may be purchased à la carte per camera or in a bundled package as needed.



Intrusion

The Intrusion Video Analytic detects and signals intrusion within virtual areas or crossing of virtual lines in a specified direction by targets of interest.



Occupancy Rate

The Occupancy Rate Video Analytic estimates the percentage of occupancy of virtual areas by subjects of interest, and signals users when the percentage exceeds the defined threshold.



Left Object

The Left Object Video Analytic detects and signals personnel regarding objects left unattended within virtual areas for longer than a defined time.



Panic Disorder

The Panic Disorder Video Analytic detects sudden or anomalous variation in subject activity, such as speed and/or acceleration of targets of interest within defined virtual areas.



Vehicle Speed

The AV Speed Video Analytic estimates average speed of vehicles crossing double virtual gates, signaling users when the average speed is above or below a threshold.



Smoke/Fire

The Smoke Fire Video Analytic detects and signals personnel regarding the presence of smoke and/or fire within a virtual area.



Lack Refill

The Lack Refill Video Analytic detects and signals users regarding lack of stock items in a defined virtual area.



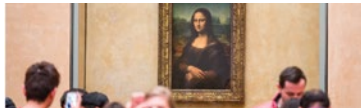
Gate Flow

The Gate Flow Video Analytic counts and collects the number of persons crossing virtual gates in a specified direction.



Hot Zone

The Hot Zone Video Analytic estimates and provides visualization of colors indicating zones with higher or lower density of persons within virtual areas across a defined timeframe.



Stolen Object

The Stolen Object Video Analytic detects and signals personnel regarding objects removed from virtual areas.



Slip Fall

The Slip Fall Video Analytic detects and signals when a person falls down and remains immobile for a period of time longer than the specified dwell time.



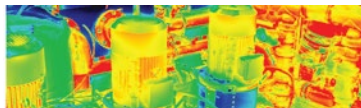
Stationary Vehicle

The Stationary Vehicle Video Analytic detects vehicles in virtual areas, remaining in the defined area longer than a previously specified period of time.



Skimmer

The Skimmer Video Analytic analyzes and detects when hardware exceeds normal visual parameters, signaling users when changes are detected.



Thermal

The Thermal Video Analytic detects and signals personnel regarding thermal signatures visualized within virtual areas, indicating when the signature exceeds the defined thermal range.



Face Detection/Recognition

The Face Detection/Recognition Video Analytic detects and/or recognizes faces, signaling users when a person's face is detected or recognized from a database.



Area Counting

The Area Counting Video Analytic calculates the number and dwell time of persons within specified areas, signaling when the number exceeds or falls below the threshold.



ATM

The ATM Video Analytic detects and signals the presence of one or more people who remain within a virtual area, such as around an ATM, for longer than a defined period of time.



Loitering

The Loitering Video Analytic detects and signals regarding subjects of interest remaining within virtual areas for longer than a defined time.



Counting

The Counting Video Analytic counts the number of subjects of interest crossing virtual gates moving in a specified direction.



Wrong Way

The Wrong Way Video Analytic detects subjects moving against a defined traffic pattern in a virtual area, signaling users of danger.



Parking Lot

The Parking Lot Video Analytic counts the number of vehicles detected in a defined parking area, signaling users of the status of free or occupied parking spaces.



Customize

The Custom Video Analytic is available for development, pending research and development of desired analytic and subsequent integration into PVMS.



Automatic License Plate Recognition

The ALPR Video Analytic detects and logs captured license plate numbers, comparing them to a database and signaling users when the LP number is recognized from a database.

