

Ocularis Analytics

Fully Scalable, Configurable, Rule-Based

OCULARIS
2009 North American Product
Innovation of the Year Award
FROST & SULLIVAN

Ocularis Analytics Due to increasingly larger systems, today's video surveillance systems produce more content than ever before. In many cases, the manned monitoring model has become impractical or cost-prohibitive. This calls for an entirely new set of tools that enable extracting critical information from vast amounts of live and recorded content. Ocularis Analytics increase the effectiveness and responsiveness of your IP-video system with automated detection of targeted behaviors based on fully scalable, rules-based video content analytics.

Ocularis Analytics enable the detection of movements and behavior patterns corresponding to configurable rules, including time-lapse events (e.g. loitering or stalled vehicle) that are often overlooked by security personnel. Analytics-generated alerts can be pushed automatically to users' Ocularis Video Clients, together with a graphical metadata overlay indicating the object or movement that triggered the event. Multiple detectors, for a variety of behaviors, can be applied to a single camera, and complex detection scenarios can be created by linking analytics rules based on a predefined sequence of events.

Event Fusion Ocularis' Event Fusion capability enables the generation of composite alerts by linking analytics-generated events to events received from access control, transaction or other systems. This reduces the false detection rate and increases detection accuracy.

Distributed, Scalable Architecture Featuring a distributed, open-systems design, Ocularis Analytics can integrate with an array of cameras and video encoders which perform the analytics processing on-edge (prior to image compression), thus maximizing bandwidth utilization. Ocularis Analytics are fully scalable, with no limit on the number of connected cameras, analytics modules per camera, or analytics servers.

Beyond Security Industry-specific analytic modules extend the functionality of the entire IP-video platform beyond security and safety. Transportation authorities can employ vehicle counting and detection for traffic control and analysis. Analytics can be applied to industrial assembly lines to detect exceptions. In retail, analytics can be used to count shoppers on cashier lines, detect shoplifting and 'slip-and-fall' incidents, and measure the time shoppers spend by a display, turning the analytics system into a profit center by sharing video with suppliers and analyzing consumer behavior.

OCULARIS Combining recording, event management, video intelligence and client access, Ocularis, OnSSI's physical security information management (PSIM) software platform, redefines the boundaries of intelligent IP video surveillance. Ocularis' open-architecture, non-proprietary solution enables integration with third-party physical security, video content analytics, transaction and IT applications. The touchscreen-enabled, map-based Ocularis Client, for desktop and video wall environments, provides instant access to cameras and camera groups, with multiple investigation tools including the revolutionary Time Slicer and Motion Slicer. Multiple operators at multiple sites are able to cooperatively handle events, from accessing video to thorough investigation, bookmarking and export of evidence, all within seconds.



Content Analytics integrated into the Ocularis Client

Ocularis Analytics Configurable Detection Modules

Movement-In-Zone – detection of human or vehicular movement in sterile/secure zones where no movement is expected, with filters for direction and speed of movement (OC-VI-ZONE).

Directional Line Crossing - virtual line ('tripwire') crossing for human and vehicular movement. Used for controlling crowds where movement is expected in the field of view, or for detection of vehicles crossing separation lines or entering unauthorized areas (OC-VI-LINE).

Crowding - alarm is generated upon crowd size reaching a user-defined threshold for a configurable period of time (OC-VI-CRWD).

Tailgating - detection of person or vehicle crossing entry/access-point line within a user-defined time interval following another person/vehicle. Can be integrated with access control systems via Ocularis Event Fusion (OC-VI-TLGT).

Loitering – detection of person sojourning within defined zone for user-defined period of time (OC-VI-LOIT).

Grouping – alerts for number of persons in defined zone exceeding exact threshold. Used for small groups within secure zones (OC-VI-GRPG).

Object Counting – directional counting of moving people and/or vehicles, with database storage of results and various statistics reports, including overall daily traffic, traffic density hot spots, comparison between specific hours and days and more (OC-VI-CNTG).

Stickiness – counts people that remain in field of interest for more than the user-specified dwell time; useful for measuring the effectiveness of retail displays (OC-VI-STCK).

Moving Water Vessel – detection of water vessel movement, filtering out waves, sun reflections and typical waterscape phenomena (OC-VI-VSSL).

Object Left Behind – detection of abandoned object in area of interest with filters for size and length of time object is present (OC-VI-LEFT).

Illegally-Parked (Stopped) Vehicle – detection and generation of alert for vehicles stopped in one or more 'no-stopping' zones (e.g. fire lanes, highway shoulders) beyond a configurable time threshold (OC-VI-PRKD).

Road Obstacle – detection of obstacles in area of interest that remain stationary for more than the predefined amount of time, filtered for size of obstacle and duration (OC-VI-OBST).

Object Removal – detects the removal of an object from a user-defined region in the camera's field of view. An alert is generated whenever object is moved from the region (OC-VI-RMVL).

Asset Protection – detects the removal of up to 20 objects from a camera's field of view. Alert is generated when an object is removed or hidden for more than the specified amount of time (OC-VI-ASST).

PTZ Camera Analytics

- Motion Detection on PTZ Presets - during the PTZ camera's patrol between preset positions, motion detection is applied to each preset detecting motion of humans and vehicles. Each preset position is configured for object size, speed and direction; line crossing; non-detection zones, and/or other parameters (OC-AVI-PTZ-MD-1C).
- PTZ Tracking - triggered automatically upon motion detection by a fixed camera, which hands off the target to the PTZ camera. Supports the association of multiple static cameras to a single PTZ camera, as well as a single static camera to multiple PTZ cameras (OC-AVI-PTZ-TRCK-1C).



Multiple analytics modules applied to single camera. Shown: movement-in-zone, stopped vehicle and suspicious object

Ordering information

Analytics Master Base License
AVI-B (Required per each 100 analytics channels, with no charge beyond four licenses)

Ocularis Analytics Bundles
Available for one or two behaviors (excluding PTZ rules), per camera: OC-AVI-ONE-1C; OC-AVI-TWO-1C

Unlimited behaviors (excluding PTZ rules), per camera: OC-AVI-ENT-1C

For one- and two-behavior bundles, please indicate the requested analytics behaviors (see module descriptions for ordering codes).

PTZ Rules & PTZ Bundle
Available per PTZ camera:

Motion Detection on PTZ Presets:
OC-AVI-PTZ-MD-1C

PTZ Tracking : OC-AVI-PTZ-TRCK-1C

PTZ Bundle - includes both PTZ rules:
OC-AVI-PTZ-BNDL-1C

Software Upgrade Plan (SUP)
A 1-to-3-year Software Upgrade Plan (SUP) is optional; to order, add the prefix 'SUP' to the order code (for both the Base and analytic bundles), as well as a suffix indicating the number of years, e.g. SUP-OC-AVI-B-1Y for the Base License and SUP-OC-AVI-TWO-1C-3Y for camera licenses. SUP must be ordered for the entire Ocularis system and can not be purchased for individual components.

Vertical Applications

Public Safety, Education and Corporate

- Movement and behavior of persons/vehicles in restricted zones
- Unauthorized entry and tailgating detection at entry points
- Abandoned or lost packages
- Loitering
- Over-crowding in fire hazard areas
- Vandalism, camera-tampering and graffiti prevention.

Transportation

- Vehicles in restricted lanes
- Wrong-way driving
- Vehicle classification, density and counting
- Speeding, erratic driving and unlawful lane changing
- Tailgating at toll lanes & entry points
- Persons exiting vehicles at toll lanes
- Loss prevention at toll booths
- Detection of motion on water

Retail and Loss Prevention

- Loitering in high-value, high-theft retail areas
- Removed object (theft) detection
- 'Reaching over the counter' detection
- Motion detection at receiving and delivery docks
- Monitoring of traffic and purchasing activity
- Line queuing at points-of-sale
- Loss prevention via integration with POS and Transaction Systems