



# Datasheet

## Video Analytics

### Milestone VMS



## Version 3.75

This Specification Sheet gives the details of system requirements, features and other salient points of AllGoVision advanced Video Analytics for Milestone VMS Integration

Revision Date: August, 2016

AllGoVision Technologies Pvt Ltd

Email: [contact@allgovision.com](mailto:contact@allgovision.com)  
Website: [www.allgovision.com](http://www.allgovision.com)

## Contents

COPYRIGHT INFORMATION .....	2
INTRODUCTION .....	3
SYSTEM REQUIREMENT .....	3
COMPREHENSIVE SOLUTION.....	4
VIDEO ANALYTICS PACKAGES & FEATURES.....	5
BRIEF DESCRIPTION OF FEATURES .....	6
ALLGOVISION GUI.....	11
INTEGRATION WITH MILESTONE.....	13
Federated Architecture .....	15
SPECSHEET AT A GLANCE.....	16

## COPYRIGHT INFORMATION

---

© 2016 AllGoVision Technologies Private Limited, Bangalore, India. All Rights Reserved.

All information contained in this document is the property of AllGoVision Technologies Private Limited., It is not to be disclosed by the recipients to third parties, neither allowed to be reproduced by or for third parties in any form or by any means, electronic nor mechanical, including photocopying, without prior written permission from AllGoVision Technologies Private Limited.

## INTRODUCTION

This Data sheet gives the details of system requirements, features and salient points of AllGoVision.

AllGoVision is a Video Analytics software product for actionable intelligence in security installations. The product provides excellent return on investment for a wide range of applications, including City Surveillance, Building Surveillance, Business Intelligence, Loss Prevention, Consumer Behavior Analysis, Intelligent Traffic Management, Parking Management and many more.

The technology evaluates the contents of video to rapidly determine the specific information about the video contents like specific data, behavior patterns, tracking movement of people/objects in monitoring zones.

## SYSTEM REQUIREMENT

AllGoVision analytics has the following system hardware and software requirements.

CATEGORY	REQUIREMENT
Operating System	Windows Server 2003, 2008, 2012 Window XP, Vista, 7, 8, 10
Network	Ethernet, 1 Gbit or higher recommended.
Hardware Requirement	x86 Platform
Server requirement (for QVGA resolution)	Core i7 (6 Cores), 3 GHz, 8 GB RAM for up to 18 channels Xeon 6 core, 3 GHz, 8 GB RAM for up to 18 channels Xeon 12 core, 3 GHz, 16 GB RAM for up to 36 channels (approx. 3 channels / core, suitable to add multiple CPUs in single server) Supports Nvidia GPU acceleration for Face Capture & Recognition (approx. 1 channel / 2 cores for Face Recognition based features) Note: For higher resolution and larger feature set consult AllGoVision
Frame Rate Requirement	>8 fps for Security Analytics (Perimeter Protection/Intrusion), Face Recognition >15 fps for PTZ Analytics, People Counting, Traffic features and LPR.
Camera Support	Axis, Pelco, Bosch, Sony, Honeywell, IQinvision, Hikvision, Dahua, ISD, Panasonic, Brickcom, ArecontVision, IndigoVision, Cisco, Samsung, Acti, Vision, Digital Watchdog, and others (ONVIF cameras). Any other camera requires URL to connect and get video feed. Supports MJPEG, H.264, MPEG4 Supports ONVIF camera, ONVIF PTZ control
VMS Software	Milestone (Express/Expert/Professional/Enterprise/Corporate)

## COMPREHENSIVE SOLUTION

The AllGoVision Analytics is robust to weather changes, lighting changes, tree swaying and other background distractions. The AllGoVision also works well in crowding conditions. The AllGoVision supports object classification.

The software is easy to install and simple to use with intuitive GUI. AllGoVision also supports customization through variation of features for specific applications. AllGoVision supports distributed architecture. Following are the salient features and options supported in AllGoVision.

- **Administrator** Login
- **Scheduler** to enable scheduling of Analytics
- **Failover** server
- **ONVIF** streaming of analytics overlaid video, video stabilization
- **Alarm video** creation and **Snapshot** creation
- **False Alarm Minimization**
- **Direct Camera** Connection
- Option to run the Application as a **Windows Service**
- People/Object/Vehicle **counting report** generation
- **Auto Emailer** & **FTP upload** options for reports
- **Save, Export** and **Restore** options for **Analytics Settings** of each Camera
- **Metadata** Storage & Search for object's Type, Time, Color, Size, Speed and Aspect Ratio
- **Privacy Masking** options – face masking and masking of view
- **Logical operation** on Alarms
- Both **Server** based and **Edge** based (on camera) analytics capabilities
- **Multi-region Analytics** on a single frame (alerts for multiple features/regions simultaneously)
- Options for Naming & **Priority** Settings for the regions.
- AllGoVision has its own alarm management client **Alarm Center**, providing below features:
  - Provides real time alarm snapshot and video. The database requirement is MySQL.
  - View / Search / Reporting & Analysis options for AllGoVision's video analytics alarms
  - Options for alarm **Pop-up, Preview, Playback, Thumbnail** view & **Video Summary**
  - Alarms **filters** based on object properties – time, type, color, size, speed & aspect ratio
  - **Live View** option for video wall and **Live Reporting** options
  - Provides search capability for **Forensic Search** based on metadata / object properties.
  - Analysis tools for operations management: **Heat Map, Motion Map, Flow Map**.
  - Reporting in **pdf, jpeg, excel, text** file and **scheduling** reports for **email** & **FTP**.
  - Provides **comparison reports** for time series analysis.
  - Supports following clients for video analytics based applications
    - **Parking Management** display
    - **Multi Camera Tracking** & Camera Mapping
    - **Face Recognition** client
    - **License Plate Recognition** client

## VIDEO ANALYTICS PACKAGES & FEATURES

### AGV-VA | AllGoVision Video Analytics Software

SECURITY		BUSINESS / RETAIL INTELLIGENCE	
AGV-VA-PKG-INTR-B	<b>INTRUSION DETECTION - BASIC</b>	AGV-VA-PKG-CNTG-P	<b>PEOPLE COUNTING &amp; REPORTING</b>
AGV-VA-TRPW	Tripwire*	AGV-VA-PPLC	People Counting*
AGV-VA-TRSP	Trespass*	AGV-VA-RPAN	Reporting & Analysis
AGV-VA-TMPR	Camera Tampering*	AGV-VA-PKG-MGMT-Q	<b>QUEUE MANAGEMENT</b>
AGV-VA-PKG-INTR-A	<b>INTRUSION DETECTION – AUTO PTZ</b>	AGV-VA-QUMT	Queue Management
AGV-VA-PTZC	Continuous Auto PTZ	<b>TRAFFIC &amp; PARKING MGMT.</b>	
AGV-VA-PTZS	Smart Auto PTZ	AGV-VA-PKG-MGMT-T	<b>INTELLIGENT TRAFFIC MANAGEMENT</b>
AGV-VA-PTZH	PTZ Handoff	AGV-VA-VHLC	Vehicle Counting*
AGV-VA-PTZP	PTZ Pre-set Position Analytics	AGV-VA-WWDT	Wrong Way Detection*
AGV-VA-PKG-SUSP-O	<b>SUSPICIOUS INCIDENT - OBJECT</b>	AGV-VA-IPDT	Illegal Parking Detection*
AGV-VA-LODT	Left Object Detection*	AGV-VA-SPDT	Speeding Detection
AGV-VA-MODT	Missing Object Detection*	AGV-VA-CNDT	Congestion Detection
AGV-VA-PKG-SUSP-P	<b>SUSPICIOUS INCIDENT – PERSON</b>	AGV-VA-PKG-MGMT-P	<b>PARKING MANAGEMENT</b>
AGV-VA-TGDT	Tailgating Detection*	AGV-VA-PRMT	Parking Management (Availability)
AGV-VA-LTDT	Loitering Detection*	AGV-VA-PKG-LPDR-A	<b>LICENSE PLATE RECOGNITION</b>
<b>ADVANCED SAFETY</b>		AGV-VA-LPDT	License Plate Detection
AGV-VA-PKG-ADVS-C	<b>CROWD MANAGEMENT</b>	AGV-VA-LPRC	License Plate Recognition
AGV-VA-CRDT	Crowding Detection*	<b>FACE DETECTION &amp; RECOGNITION</b>	
AGV-VA-CCNT	Crowd Counting*	AGV-VA-PKG-FACE-D	<b>FACE DETECTION</b>
AGV-VA-CFDT	Crowd Flow Detection*	AGV-VA-FCDT	Face Detection / Face Capture
AGV-VA-PKG-ADVS-S	<b>ADVANCED SAFETY – SMOKE</b>	AGV-VA-PKG-FACE-R	<b>FACE RECOGNITION</b>
AGV-VA-VSDT	Video Smoke Detection	AGV-VA-FCRC	Face Recognition / Verification
AGV-VA-PKG-ADVS-F	<b>ADVANCED SAFETY – FIRE</b>	AGV-VA-PKG-VIEW-A	<b>VIEWERSHIP ANALYSIS</b>
AGV-VA-VFDT	Video Fire Detection	AGV-VA-FACC	Face Counting
AGV-VA-PKG-ADVS-P	<b>ADVANCED SAFETY – PERSON</b>	AGV-VA-FACP	Face Presence
AGV-VA-SFDT	Slip & Fall Detection	AGV-VA-FACF	Face Frequency
AGV-VA-GSRC	Gesture Recognition	AGV-VA-PKG-DEMO-A	<b>DEMOGRAPHIC ANALYSIS</b>
<b>ENHANCED MONITORING</b>		AGV-VA-AGDT	AgeGroup Detection
AGV-VA-PKG-ENHM-S	<b>ENHANCED MONITORING – STITCHING</b>	AGV-VA-GNDT	Gender Detection
AGV-VA-VDST	Video Stitching	<b>SEARCH &amp; ANALYSIS</b>	
AGV-VA-PKG-ENHM-M	<b>ENHANCED MONITORING - MASKING</b>	AGV-VA-PKG-SRCH-A	<b>SEARCH &amp; ANALYSIS</b>
AGV-VA-FAMS	Face Masking (Privacy Masking)	AGV-VA-HEAT	Heat Map
AGV-VA-OBMS	Object Masking	AGV-VA-FLOW	Flow Map
AGV-VA-ONST	ONVIF Streaming	AGV-VA-VSUM	Video Summary
AGV-VA-PKG-ENHM-T	<b>ENHANCED MONITORING - TRACKING</b>	AGV-VA-MDAS	Meta Data Analysis & Search
AGV-VA-MCTR	Multi Camera Tracking		

**Note:** The Product, Package & Feature Ids are given in Orange coloured codes








For details on any feature, please contact AllGoVision

\* Features supported in Edge Analytics

## BRIEF DESCRIPTION OF FEATURES

#01	AGV-VA-TRPW	Tripwire	<p>Detection of a person or vehicle crossing (or touching) a virtual line drawn in the camera field of view. The line crossing event can be detected for both directions.</p> <p><b>Example:</b> Intruder detection on fenced areas, alert monitoring at the entrance, detection of illegal crossing of railway lines or getting closer to a restricted zone.</p>
#02	AGV-VA-TRSP	Trespass	<p>Detection of a person or vehicle entering or exiting virtual area drawn by the user.</p> <p><b>Example:</b> Intruder detection in restricted areas. Illegal entry into secured zones in Banks, Stores, Plants. Entry of person or vehicle into restricted area or exit from that.</p>
#03	AGV-VA-TMPR	Camera Tampering	<p>Detection of camera tampering efforts by camera focus change or view obstruction or video cable cut.</p> <p><b>Example:</b> Sabotage attempts by vandals (initiated with camera tampering) are detected and alerted and security personnel can take necessary actions.</p>
#04	AGV-VA-LTDT	Loitering Detection	<p>Detection of a person's or vehicle's persistence beyond a specified time (set by the user) in a monitored virtual area in the camera field of view.</p> <p><b>Example:</b> People loitering in malls even after closing hours; people or vehicle having longer dwell time in restricted area; people persistence near critical assets.</p>
#05	AGV-VA-TGDT	Tailgating Detection	<p>Detecting a person (individual) or vehicle following too closely the person or vehicle in front to get past access controlled entrances or barriers (like boom barriers).</p> <p><b>Example:</b> Unauthorized access at the mall entrance, gated communities, office premises, factories.</p>
#06	AGV-VA-LODT	Left Object Detection	<p>Detection of any object left behind in the monitored zone by a moving agent such as the owner of the object or baggage.</p> <p><b>Example:</b> Threat detection due to baggage left unattended in public places like malls, roads, railway station, airports etc. Unmindful passenger leaving any luggage.</p>
#07	AGV-VA-MODT	Missing Object Detection	<p>Detection of object(s) removed from the monitored zone in the camera view.</p> <p><b>Example:</b> Detection of removal or theft of precious items like paintings hanging on a wall. Critical Asset protection. Artefacts protection in museums, etc.</p>
#08	AGV-VA-PTZC	Continuous Auto PTZ Tracking	<p>Automatic tracking of object (Single or Multiple) using Pan-Tilt-Zoom (PTZ) camera.</p> <p><b>Example:</b> Continuous tracking of objects like intruder; Continuous tracking of vessels in Sea.</p>
#09	AGV-VA-PTZS	Smart Auto PTZ	<p>Automatic one step PTZ operation to capture closer video of an agent on any pre-set rule violation such as crossing a virtual line, or entering a virtual area etc.</p> <p><b>Example:</b> Detection of violation with closer view capture of violator for evidence as well as monitoring purpose.</p>

<p>#10 AGV-VA-PTZH</p> 	<p><b>PTZ Handoff</b> Violation detected on any Fixed camera triggers PTZ camera to its view for auto tracking of the violator object. <b>Example:</b> Auto tracking of intruder with one PTZ camera covering multiple Fixed cameras, for instance, along the compound perimeter.</p>
<p>#11 AGV-VA-PTZP</p> 	<p><b>PTZ Pre-set Position Analytics</b> Different PTZ pre-set positions can be assigned to different regions and analytics can be run to monitor each of those pre-set positions. <b>Example:</b> Analytics can be applied for monitoring various regions of interest in a wider zone within the range of a PTZ camera.</p>
<p>#12 AGV-VA-CRDT</p> 	<p><b>Crowding Detection</b> Detects crowd in the camera field of view / region of interest, and when the crowd formation goes beyond a specified threshold (crowd count / percentage of area) alerts against the over-crowding scenario. <b>Example:</b> Detecting illegal gathering of masses, or getting alert for overcrowding scenario in public places (malls/railway stations/airports) and entry/exit/lobby areas.</p>
<p>#13 AGV-VA-CCNT</p> 	<p><b>Crowd Counting</b> Measures the crowd level in terms of number of people occupying a specified region of interest in the camera field of view, provides live crowd count on screen <b>Example:</b> In festivals &amp; public places crowd counting is used for crowd management and for taking corrective action against crowd surge or overcrowding</p>
<p>#14 AGV-VA-CFDT</p> 	<p><b>Crowd Flow Detection</b> Analyses crowd movement patterns in different direction and marks it by different colours, and detects and movement of crowd in undesired direction. <b>Example:</b> Crowd movement tracking and crowd counter flow detection can help in avoiding mishaps due to crowd movement in wrong directions.</p>
<p>#15 AGV-VA-VSDT</p> 	<p><b>Video Smoke Detection</b> Detects presence of smoke for both indoor &amp; outdoor environments within only 5-10 seconds when it appears in the camera view and covers more than 10-15% of area. <b>Example:</b> Rapid detection of smoke as an early warning for smoke generation / initiation of fire in large indoor/outdoor areas, Warehouses, Server and Data rooms.</p>
<p>#16 AGV-VA-VFDT</p> 	<p><b>Video Fire Detection</b> Detects and alerts rapidly (in 5-10 seconds) against presence of fire in the camera view / monitored zone even when it is formed in 10-15% of the view. <b>Example:</b> Rapid detection of fire as an early warning for avoiding huge loss &amp; greater impact due to fire hazards in Oil &amp; Gas plants, critical infrastructure etc.</p>
<p>#17 AGV-VA-SFDT</p> 	<p><b>Slip &amp; Fall Detection</b> Detection of person slipping and falling on ground. <b>Example:</b> Used towards human safety, as necessary care could be taken promptly against alarm generated for slip &amp; fall of people in Malls, Airports, Metro etc.</p>
<p>#18 AGV-VA-GSRC</p> 	<p><b>Gesture Recognition</b> Detection of unusual gestures of persons by raising weapons (lathi/stick, rifle etc.) with intention to charge on others. <b>Example:</b> Used especially in riots or similar scenario where miscreants might attempt attacking others with raised weapons for detection and prevention of such action.</p>

<p>#19 AGV-VA-VDST</p> 	<p><b>Video Stitching</b>                  Stitches video feeds from 2-8 cameras (with 10% overlap in adjacent cameras) into a single continuous panoramic view and sends the stitched video to VMS as ONVIF camera. It also tracks object on the stitched video.  <b>Example:</b> Used for enhanced monitoring of large indoor and wider outdoor areas like in Airports, Railways, Border Security, large compounds, Traffic Intersections etc.</p>
<p>#20 AGV-VA-VDSZ</p> 	<p><b>Video Stabilization</b>                  Outputs stabilized video from shaking video inputs usually due to camera shaking  <b>Example:</b> Enhanced monitoring with stabilized output from unstable video input coming from a shaking camera due to wind blow or occasional vibration in the support structure.</p>
<p>#21 AGV-VA-OBCL</p> 	<p><b>Object Classification</b>                  Detects objects and classifies them as people or vehicle.  <b>Example:</b> Used for intelligent monitoring where other video analytics alerts are required only for certain type of moving object (either person or vehicle)</p>
<p>#22 AGV-VA-FAMS</p> 	<p><b>Privacy Masking / Face Masking</b>                  Ensures privacy by masking the faces of people in video stream from cameras at public places. While recording stream stores the unmasked video, the masked video is used for display or monitoring purpose.  <b>Example:</b> The masked video ensures privacy requirement for people in surveillance zones while not compromising the raw video footage stored for evidence purpose.</p>
<p>#23 AGV-VA-MCTR</p> 	<p><b>Multi Camera Tracking</b>                  Detects and tracks a specified person appearing with similar profile on multiple cameras in a network of cameras based on the object properties. It also shows a connection between the camera locations in a map.  <b>Example:</b> Used for enhanced monitoring by tracking movement through different physical locations connected by cameras.</p>
<p>#24 AGV-VA-PPLC</p> 	<p><b>People Counting</b>                  Counts the number of people traversing a certain passage. While angular camera can also be used, best results are achieved with head detection in overhead camera at entry / exit. Counts are provided in both directions (coming in/going out)  <b>Example:</b> People counting to analyse foot fall statistics in malls, retail stores etc. Conversion factor can be calculated by comparing footfall data with sales figures.</p>
<p>#25 AGV-VA-RPAN</p> 	<p><b>Reporting &amp; Analysis</b>                  AllGoVision provides extensive reporting and analysis options. Reports are generated in multiple formats (PDF, CSV, TXT, JPEG) with tables and plots. Reports can be scheduled for auto-emailer or FTP upload. Alarm Analysis and Comparison reports are also supported.  <b>Example:</b> Used in business decision making and time series analysis.</p>
<p>#26 AGV-VA-QUMT</p> 	<p><b>Queue Management</b>                  Detects queue properties for waiting time analysis (Ingress – in flow, Egress – out flow,  <b>Example:</b> Used in service counters, ticket counters / travel desk, check in counters, flight boarding areas for waiting time analysis and improvement of service process.</p>
<p>#27 AGV-VA-CUPC</p> 	<p><b>Cup / Beverage Counting (Loss Prevention)</b>                  Counts the number of cups / beverages passed over a line like in serving counter area.  <b>Example:</b> Count statistics are tallied with sales figure to find out shrinkage and steps can be taken for loss prevention.</p>



<p>#28 AGV-VA-VHLC</p> 	<p><b>Vehicle Counting</b></p> <p>Counting of vehicles that cross a virtual line in a vehicle lane or entry / exit gates.</p> <p><b>Example:</b> Vehicle movement statistics for traffic study, traffic density calculation etc.; multi-lane vehicle counting; vehicle queue length and waiting time analysis at toll plaza etc.</p>
<p>#29 AGV-VA-WWDT</p> 	<p><b>Wrong Way Detection</b></p> <p>Detects vehicle movement in a direction opposite to user specified direction.</p> <p><b>Example:</b> Vehicle moving in wrong direction in one way road system; vehicles exiting / entering wrongly through entry only / exit only areas.</p>
<p>#30 AGV-VA-IPDT</p> 	<p><b>Illegal Parking Detection</b></p> <p>Detects parking or stopping by any vehicle in a specified virtual area (no parking zone or restricted zone) beyond a specified period.</p> <p><b>Example:</b> Illegal parking on road sides, in no parking areas or restricted zones, Illegal parking of the vehicle in front of the entry/exit gates.</p>
<p>#31 AGV-VA-SPDT</p> 	<p><b>Speeding Detection</b></p> <p>Detects speeding of any vehicle above specified speed limit observed in camera installed parallel to the road.</p> <p><b>Example:</b> Over speeding vehicles on highways, city roads and campus pathways.</p>
<p>#32 AGV-VA-CNNDT</p> 	<p><b>Congestion Detection</b></p> <p>Detects the percentage of area occupied by vehicles and alerts against vehicle congestion as the vehicles occupy area beyond a threshold value.</p> <p><b>Example:</b> Detects traffic jams and traffic slowness in zones which have moving traffic otherwise.</p>
<p>#33 AGV-VA-PRMT</p> 	<p><b>Parking Management (Availability)</b></p> <p>Provides the parking occupancy level and free parking slot availability by detecting vehicle entry and exit by monitoring these transition points in parking lot areas.</p> <p><b>Example:</b> Parking management with live parking availability status display at parking lots of malls, offices, factories, residential building complexes, airports etc.</p>
<p>#34 AGV-VA-LPDT</p> 	<p><b>License Plate Detection</b></p> <p>Detects the presence of vehicle license plate (or number plate) and captures the image of the license plate along with the vehicle.</p> <p><b>Example:</b> Records keeping of vehicles entering or exiting a specific zone. Used for evidence and monitoring purpose.</p>
<p>#35 AGV-VA-LPRC</p> 	<p><b>License Plate Recognition</b></p> <p>Extracts / recognizes the license number (registration number) from detected vehicle plates and can verify against a user defined black / white list.</p> <p><b>Example:</b> Used for traffic monitoring &amp; law enforcement (detection of traffic rule violation and identification of the associated vehicle, detection of stolen cars etc.); vehicle access control &amp; task automation; automated parking &amp; toll management.</p>
<p>#36 AGV-VA-FCDT</p> 	<p><b>Face Detection / Face Capture</b></p> <p>Detects and tracks the human face in the camera view, and also captures the face image and stores it in the database for future reference.</p> <p><b>Example:</b> Initiation of alarm or systems (to be integrated) which need activation on appearance of any person. Detected and captured faces are used for evidence / monitoring purpose.</p>

<p>#37 AGV-VA-FCRC</p> 	<p><b>Face Recognition &amp; Face Verification</b></p> <p>Matches the Face detected in the camera view with the registered faces in the database and sends alarms corresponding to match or mismatch.</p> <p><b>Example:</b> Face recognition &amp; verification is used in multiple applications such as VIP identification, Black List alarm, Forensic Face Search, People Authentication, Attendance Recording &amp; Reporting, and can be integrated with Access Control.</p>
<p>#38 AGV-VA-FACC</p> 	<p><b>Face Counting</b></p> <p>Counts the number of faces in the camera view at an instant and over any specified time period.</p> <p><b>Example:</b> Viewership / Audience Measurement for digital signage, advertisements / bill boards. Visitor statistics based on number of detected human faces.</p>
<p>#39 AGV-VA-FACP</p> 	<p><b>Face Presence</b></p> <p>Face Presence detects for how much time the detected faces persisted in the camera view and provides plot of time distribution for detected faces.</p> <p><b>Example:</b> Used in customer / viewer engagement analysis showing the engagement time analysis.</p>
<p>#40 AGV-VA-FACF</p> 	<p><b>Face Frequency</b></p> <p>Face Frequency detects how frequently any recognized face appeared in the camera and provides the plot of frequency distribution for recognized persons.</p> <p><b>Example:</b> Customer Retention information by analysing the frequency of visit by VIP Guests / Loyalty Customers etc.</p>
<p>#41 AGV-VA-AGDT</p> 	<p><b>AgeGroup Detection</b></p> <p>Demographic Analysis feature that approximates age group as Child / Young / Adult / Senior against human face appearing in the camera field of view.</p> <p><b>Example:</b> Customer profiling (may be used at retail product sections) or Viewership profiling (for digital signage, advertisements etc.) based on different age groups.</p>
<p>#42 AGV-VA-GNDT</p> 	<p><b>Gender Detection</b></p> <p>Demographic Analysis feature that detects the gender for human face appearing in the camera field of view.</p> <p><b>Example:</b> Customer profiling (may be used at retail product sections) or Viewership profiling (for digital signage, advertisements etc.) based on gender of the agents.</p>
<p>#43 AGV-VA-HEAT</p> 	<p><b>Heat Map</b></p> <p>Object movement density represented with color gradient over the monitored area or specified region of interest based on specified time duration.</p> <p><b>Example:</b> Used in finding customer movement hotspots for product placement. Used in layout optimization in operations management.</p>
<p>#44 AGV-VA-FLOW</p> 	<p><b>Flow Map</b></p> <p>People movement trend map (percentage share for various movement paths) in the monitored zone based on inputs gathered in specified time period.</p> <p><b>Example:</b> Used in finding customer movement pattern and identifying most popular movement directions, most visited product sections etc. For finding out movement bottlenecks and layout enhancement, if required.</p>
<p>#45 AGV-VA-MDAS</p> 	<p><b>Metadata Analysis &amp; Search</b></p> <p>Analyses each frame of the video for object metadata like appearance time, object type, properties such as color, size, speed etc, stored the metadata and provides search capabilities based on filter for these properties.</p> <p><b>Example:</b> Used for search and display of video based on object properties. Forensic Analysis &amp; Search.</p>

## ALLGOVISION GUI

AllGoVision product offers a graphical user interface with windows-oriented, tab based, point and pick interface. Extensive use of graphical icons, pull-down menus, buttons, check boxes, and radio-buttons are incorporated to reduce typing work to the minimum possible extent.

AllGoVision product GUI consists of following seven tabs:

### Server Setup Tab

The server setup tab consists of VMS or camera settings and other field details. You are able to view the video details from camera.

### Analytics Setup Tab

The Analytics setup tab gives options to set the analytics fields for different features.

### Advanced Setup Tab

This tab gives options to select advanced settings like camera environment, analytics processing complexity, shadow removal sensitivity, camera view, predefined object size and minimum object size.

### Video Stitching Tab

This allows stitching of Videos from 2-8 cameras. The output is displayed in the same tab. The objects detected are also shown with Red rectangles.

### Trigger Based

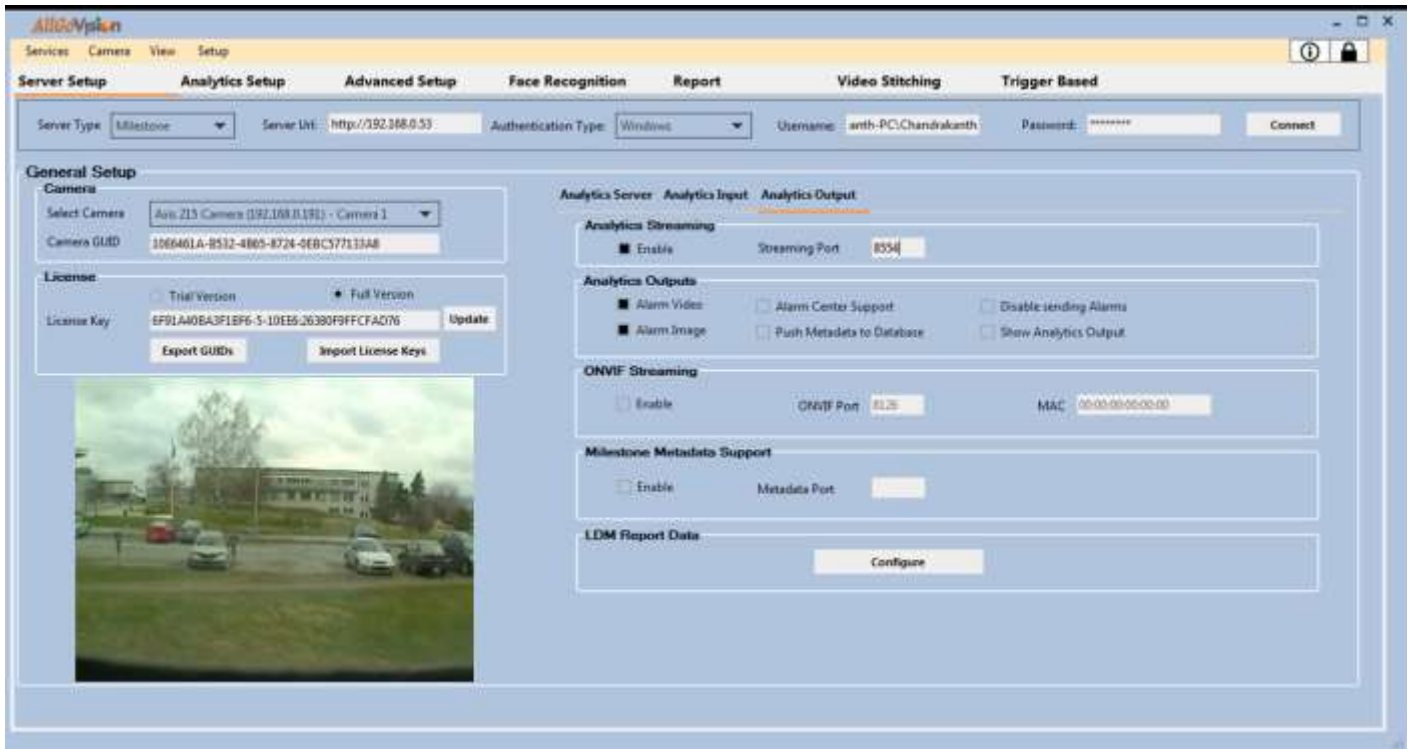
This allows running analytics from trigger like that from RFID.

### Face Recognition Tab

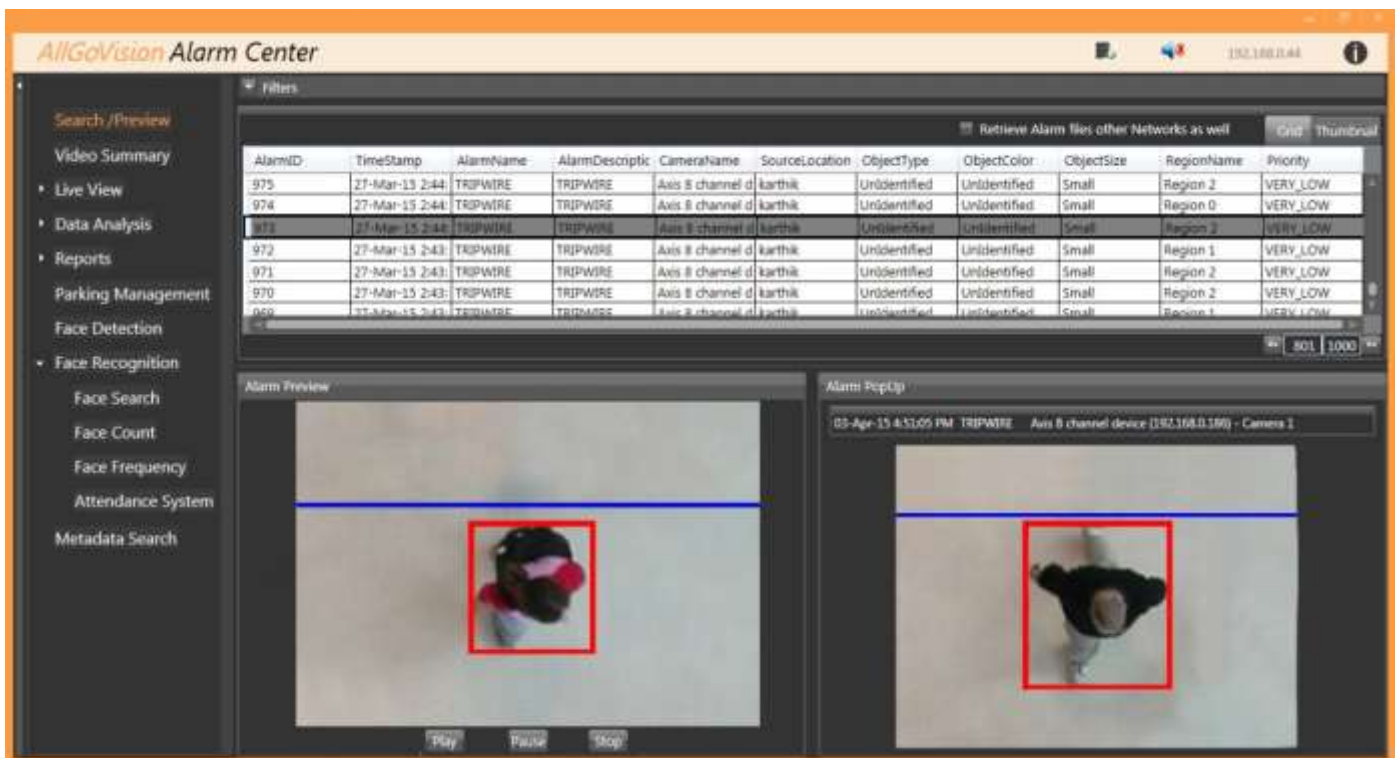
This tab provides registration application for Face recognition.

### Report Tab

This tab gives option to plot the statistics of counting applications. Both line and bar charts are possible. This also has auto e-mailer and export of plots and report.



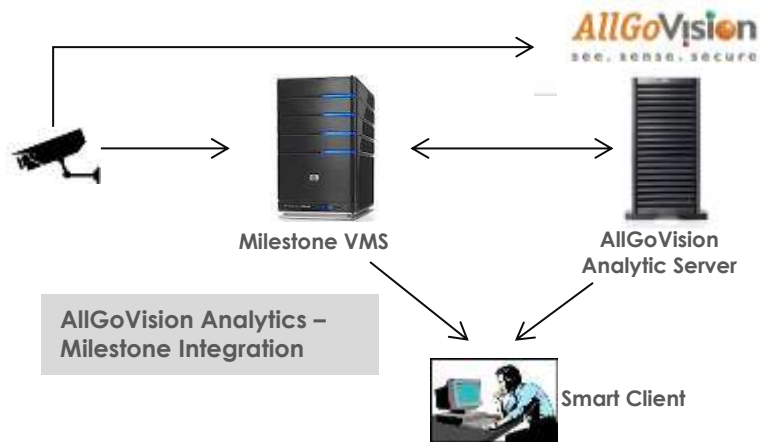
AllGoVision Management Client



AllGoVision Alarm Center

## INTEGRATION WITH MILESTONE

- AllGoVision application provides the flexibility in installation. It can be installed either in same machine with VMS or separate machine.
- AllGoVision can take the Video feed directly either from VMS or Camera.
- AllGoVision send alarms to Smart Client application.
- AllGoVision application can run as a windows service



### AllGoVision Management client

- AllGoVision Management client connects to Milestone and gets video feed
- The analytic rules are set in AllGoVision Management client and started as service
- The alarms are sent to Event server of Milestone

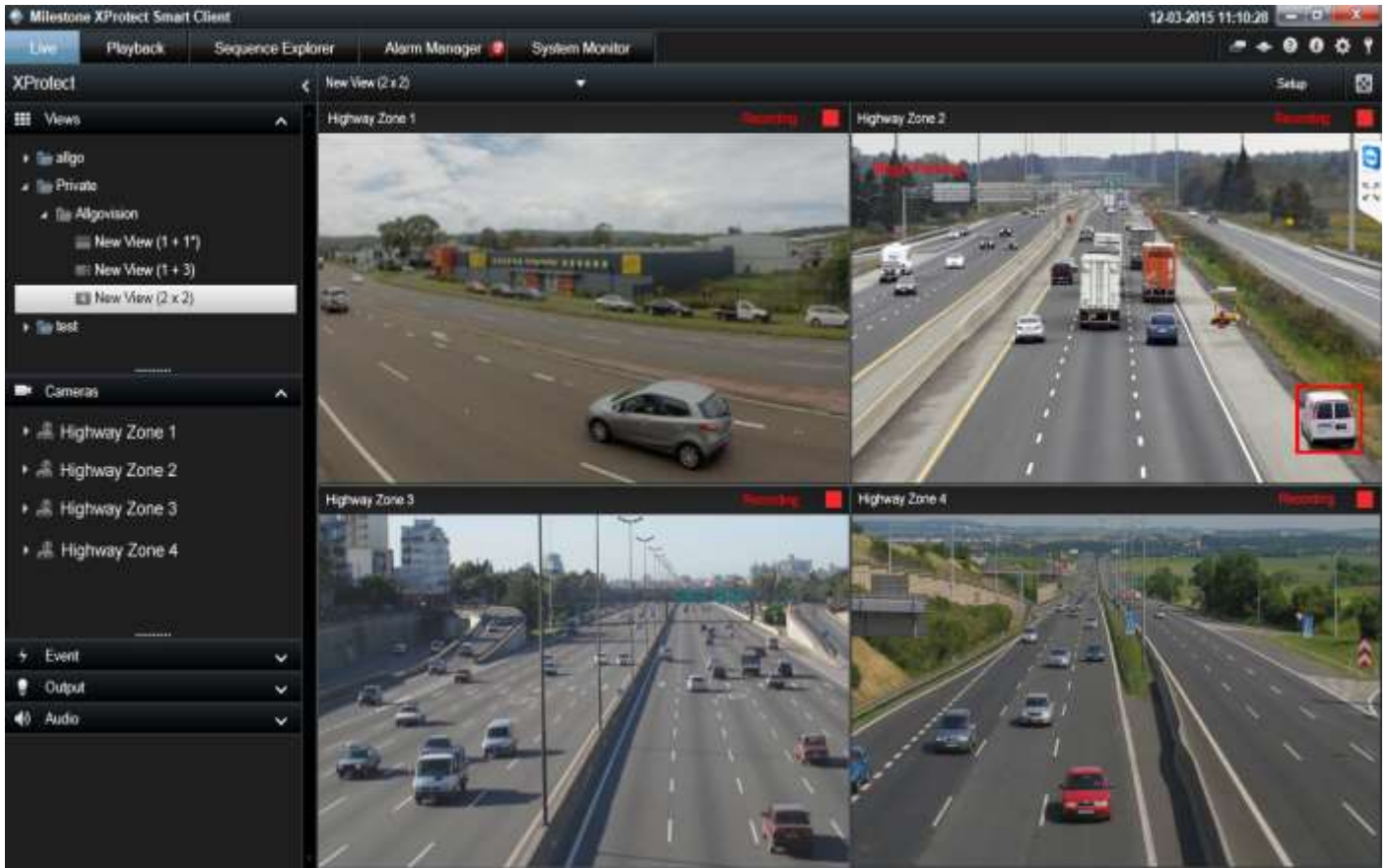
### Video Analytic Alarms

- AllGoVision Video Alarms/events are stored in event manager and seen in Smart client
- The alarm manager displays alarm in real time and would be able to search alarms
- The plugins provided for live view alarm, popup and alarm playback

The screenshot shows the 'Alarm Manager' window in Milestone XProtect Smart Client. The top bar indicates the date and time as 9/11/2013 7:43:48 PM. The interface includes tabs for 'Live', 'Playback', 'Sequence Explorer', and 'Alarm Manager'. Below the tabs, there are filter options for 'New View (1 + 1\*)' and a 'Setup' button. The main area displays a table of alarms with columns for Time, Priority Level, State Level, State Name, Message, Source, Owner, and ID. The table shows several 'TRESPASS' alarms from 'Camera 4' with owner 'aligo'. Below the table, a video feed for 'Camera 4 - 9/11/2013 7:12:40 PM' is shown. The video feed displays a person walking in a hallway, with a red bounding box around the person and a blue bounding box around the hallway area. A green line indicates the person's movement path. The video player controls at the bottom show the current time as 7:12:40.123 PM.

Time	Priority Level	State Level	State Name	Message	Source	Owner	ID
7:16:24 PM 9/11/2013	1	1	TRESPASS	TRESPASS	Camera 4	aligo	13094
7:16:23 PM 9/11/2013	1	1	TRESPASS	TRESPASS	Camera 4	aligo	13093
7:14:15 PM 9/11/2013	1	1	TRESPASS	TRESPASS	Camera 4	aligo	13092
7:12:39 PM 9/11/2013	1	1	TRESPASS	TRESPASS	Camera 4	aligo	13091
7:12:35 PM 9/11/2013	1	1	TRESPASS	TRESPASS	Camera 4	aligo	13090
7:08:14 PM 9/11/2013	1	1	TRESPASS	TRESPASS	Camera 4	aligo	13089
7:06:24 PM 9/11/2013	1	1	TRESPASS	TRESPASS	Camera 4	aligo	13088
7:05:24 PM 9/11/2013	1	1	TRESPASS	TRESPASS	Camera 4	aligo	13087

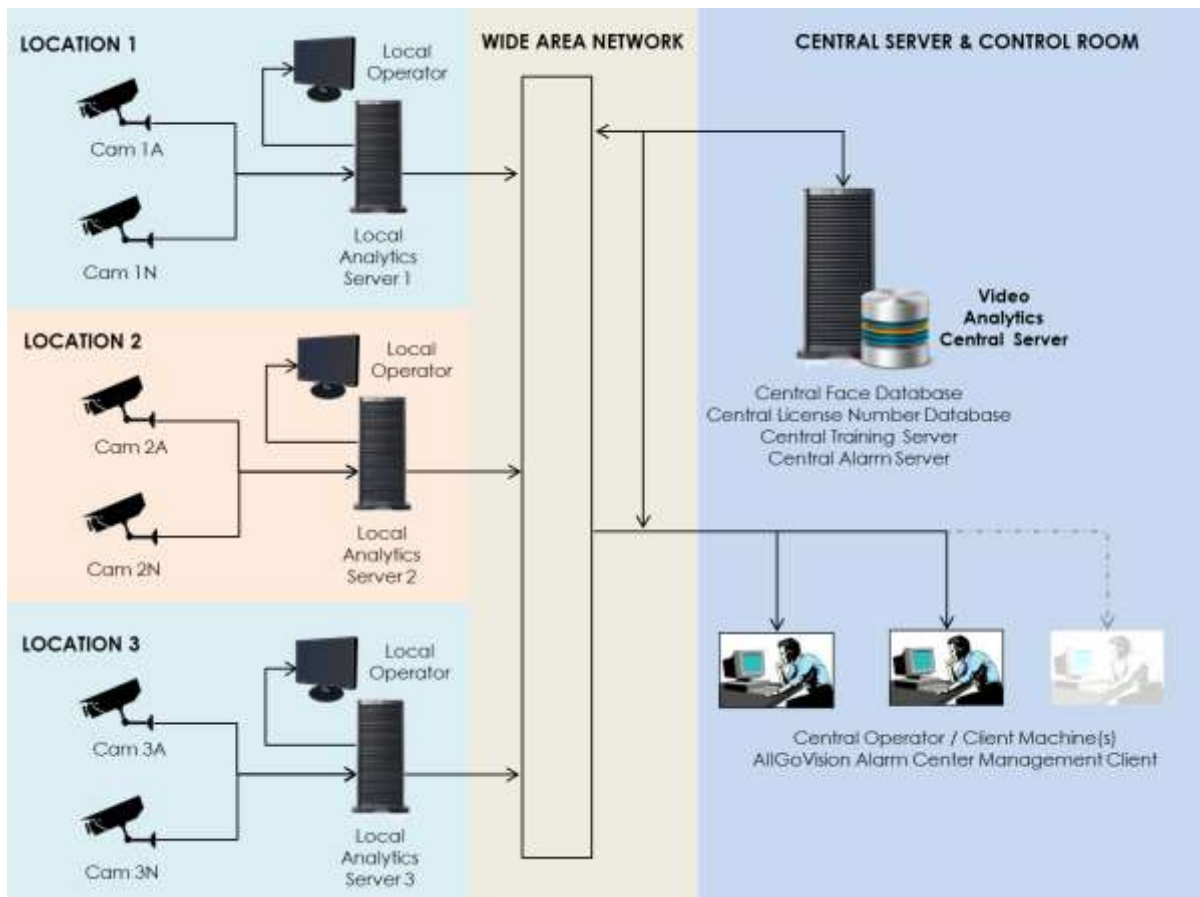
Alarms received in Milestone XProtect Smart Client from AllGoVision, Viewed in Alarm Manager



Alarms shown on the Live Video through AllGoVision plugin

## Federated Architecture

- With Federated Architecture, analytics can be done at local servers and viewed by local operators.
- A central server with a central operator can view all the alarms in the system.
- Alarms from different clients can be seen at the central Alarm Center and alarms are differentiated through Client IDs.



## SPECSHEET AT A GLANCE

<b>VA Make / Model</b>	AllGoVision / V3.7			
<b>Supported VMS</b>	Milestone XProtect			
<b>Supported Cameras</b>	ONVIF IP Cameras			
<b>Video Format</b>	H.264			
<b>Video Input Mode</b>	RTSP, ONVIF			
<b>Output Data Format</b>	Alarms to Milestone, Video overlaid analytics to RTSP stream (mpeg4) – Optional			
<b>PTZ Support</b>	ONVIF			
<b>Analytics Resolution</b>	QVGA (240x320) and above, up to FHD (1080p)			
<b>Analytics Frame Rate</b>	> 8 fps - for Security Analytics, Face Recognition. >15 fps - for PTZ Analytics, People Counting, Traffic features and LPR.			
<b>Analytics Range</b> (Calculator Available)	Distance at which analytics works depends on resolution and camera angle (horizontal field of view). The ranges calculated for human object detection at different camera angles and resolutions are given below:			
	<b>Resolutions</b>	<b>60 degrees</b>	<b>75 degrees</b>	<b>90 degrees</b>
	QVGA, 320x240	28 m.	21 m.	16 m.
	VGA, 640x480	56 m.	42 m.	32 m.
	720p, 1280x720	112 m.	84 m.	65 m.
	FHD, 1920x1080	169 m.	127 m.	97 m.
<b>Network</b>	Ethernet, 100 Mbit or higher recommended			
<b>Hardware Requirement</b>	X86 Platform			
<b>Operating System</b>	Windows Server 2003, 2008, 2012 Window XP, Vista, 7, 8, 10, Virtualization Supported			
<b>Storage Requirement</b> (Calculator Available)	Optional – Applicable for separate alarm storage in AllGoVision machine.			
	<b>Analytics Resolution</b>	<b>Storage Requirement per Alarm</b>		
	QVGA (240x320)	200 KB		
	VGA (480x640)	500 KB		
	720p (1280x720)	800 KB		
	FHD (1920x1080)	1250 KB		
<b>Processing Power</b> (Calculator Available)	Server Cores Requirement depends on feature type and resolution and it increases with number of channels. Calculation consideration is:			
	<b>Feature Type</b>	<b>Default Resolution</b>	<b>Required No. of Cores</b>	
	Generic Features	QVGA (320x240)	3 Channels / Core	
	AutoPTZ Features	QVGA (320x240)	2 Channels / Core	
	Counting Features	QVGA (320x240)	2 Channels / Core	
	Smoke & Fire Detection	VGA (640x480)	1 Channel / Core	
	Video Stitching	VGA (640x480)	1 Channel / Core	
	Face Detection	720p (1280x720)	1 Channel / 2 Cores	
	Face Recognition	720p (1280x720)	1 Channel / 2 Cores	
	Face Count & Analysis	720p (1280x720)	1 Channel / 2 Cores	
	Vehicle LPR/ANPR	720p (1280x720)	1 Channel / Core	
<b>VA Features</b>	Tripwire	Trespass	Camera Tampering	
	Continuous Auto-PTZ	Smart Auto-PTZ	PTZ Handoff	
	PTZ Pre-set Analytics	Loitering Detection	Tailgating Detection	
	Left Object Detection	Missing Object Detection	Crowding Detection	
	Smoke & Fire Detection	Video Stitching*		
	Slip & Fall Detection	Gesture Recognition	Privacy Masking*	
	People Counting	Queue Management	Occupancy Mgmt.*	
	Vehicle Counting	Wrong Way Detection	Speeding Detection	
	Illegal Parking	Congestion Detection	Parking Mgmt.*	
	License Plate Detection	License Plate Recognition		
	Face Detection	Face Recognition	Face Forensic*	
	Face Count*	Face Presence*	Face Frequency*	
	Age Group Detection*	Gender Detection*		
	Heat Map*	Flow Map*	Metadata Search*	
	*For these features, Alarms are not sent to Milestone			