



Datasheet

Parking Management



Version 3.7

This Specification Sheet gives the details of system requirements, feature details and other salient points of AllGoVision's Parking Management Feature.

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INTRODUCTION

AllGoVision is a Video Analytics software product for actionable intelligence for safety, security and business analytics. The product provides excellent return on investment for a wide range of applications, including Traffic & Parking Management. The product analyzes rapidly the video for specific data, behavior patterns, tracking movement of objects including people and vehicles in the monitoring zones.

PARKING MANAGEMENT SOLUTION

This Data sheet gives the details of system requirements, description of feature and other technical details for AllGoVision's Parking Management Solution. The solution is applied for getting live status on parking occupancy and free parking slot availability in parking lots of offices, residential buildings, shopping malls etc.

SYSTEM REQUIREMENT

AllGoVision analytics has the following system hardware and software requirements.

CATEGORY	REQUIREMENT
Operating System	Windows Server 2003, 2008, 2012 Window 7, 8
CPU	Intel i7, RAM 16 GB for 4 channels Intel 12 Core Xeon, RAM 32 GB for 12 channels
Network	Ethernet, 100 Mbit or higher recommended
Hard Disk Space	50 GB for 1 week storage of alarm files (images & videos)
Database	MySQL 5.5.2
Resolution & Frame Rate	320x240 and above up to 1080p. Frame rate: 10 fps and above
Stand Alone version camera support (Works with/without VMS)	Axis, Pelco, Bosch, Hikvision, Honeywell, IQinvision, Sony, Dahua, ISD, Panasonic, Brickcom, ArecontVision, Indigovision, Cisco, Samsung, Acti, Vision, Digital Watchdog, and others (ONVIF Cameras)
VMS Support	Milestone, Genetec, IndigoVision, exacqVision, Cisco, Honeywell Note: With VMS all cameras supported by VMS will be supported

ALLGOVISION VIDEO ANALYTICS

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**
- **Counting report** generation with **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 **Parking Management** Client and shows occupancy and availability.

FEATURE DESCRIPTION

AllGoVision provides parking management to detect free slots available for parking. At entry and exit points captured in the camera view, the user has to draw a virtual line and set the entry and exit directions. The Analytics then detects and tracks vehicles coming in and going out, keeps a count and provides parking occupancy and availability data based on user defined capacity statistics.

Technical Features:

- Occupancy and Availability based on the number of vehicles entered and exited.
- Create any camera as entry and exit camera.
- Combine multiple cameras as one group.
- Multiple groups can be formed.



Camera requirements:

- Fixed camera mount.
- Minimum capture rate of 20 fps.
- Installation angular at a height of 3m-10m

INTEGRATION

AllGoVision Video Analytics application is available in 2 flavours:

With VMS:

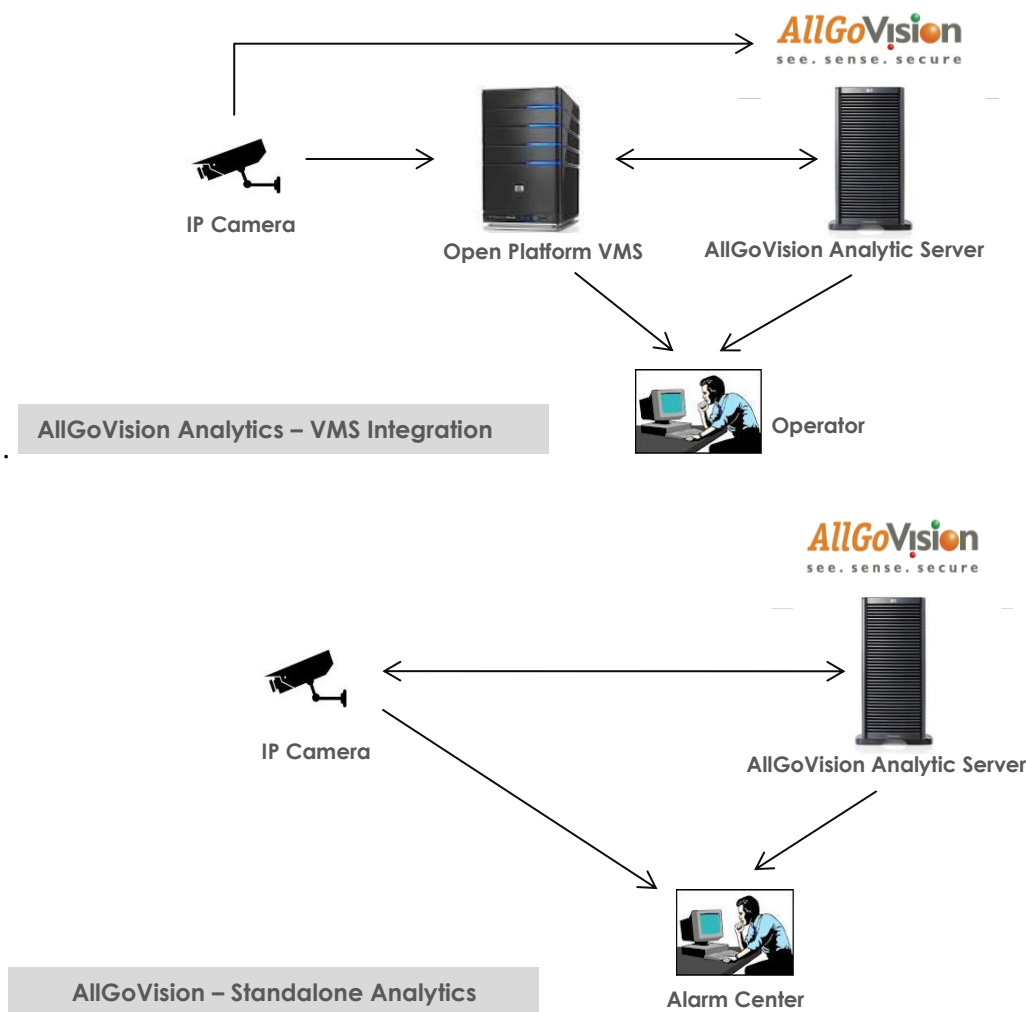
- AllGoVision application is based on Open Platform Standards.
- It is integrated with many open platform VMS.

Without VMS:

- It is a standalone application.
- It works independent of VMS.
- Directly takes the video feed from camera.

Architecture

Simple architecture schematics for with VMS and without VMS (Standalone) schemes are shown below. AllGoVision takes the video feed either from VMS or camera and processes in the AllGoVision video analytics server. The parking occupancy / availability data can be viewed in the Alarm Center (AllGoVision's Alarm Management Client). Any other alarm can be viewed either in VMS Viewer (VMS Client) or in the Alarm Center.



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.

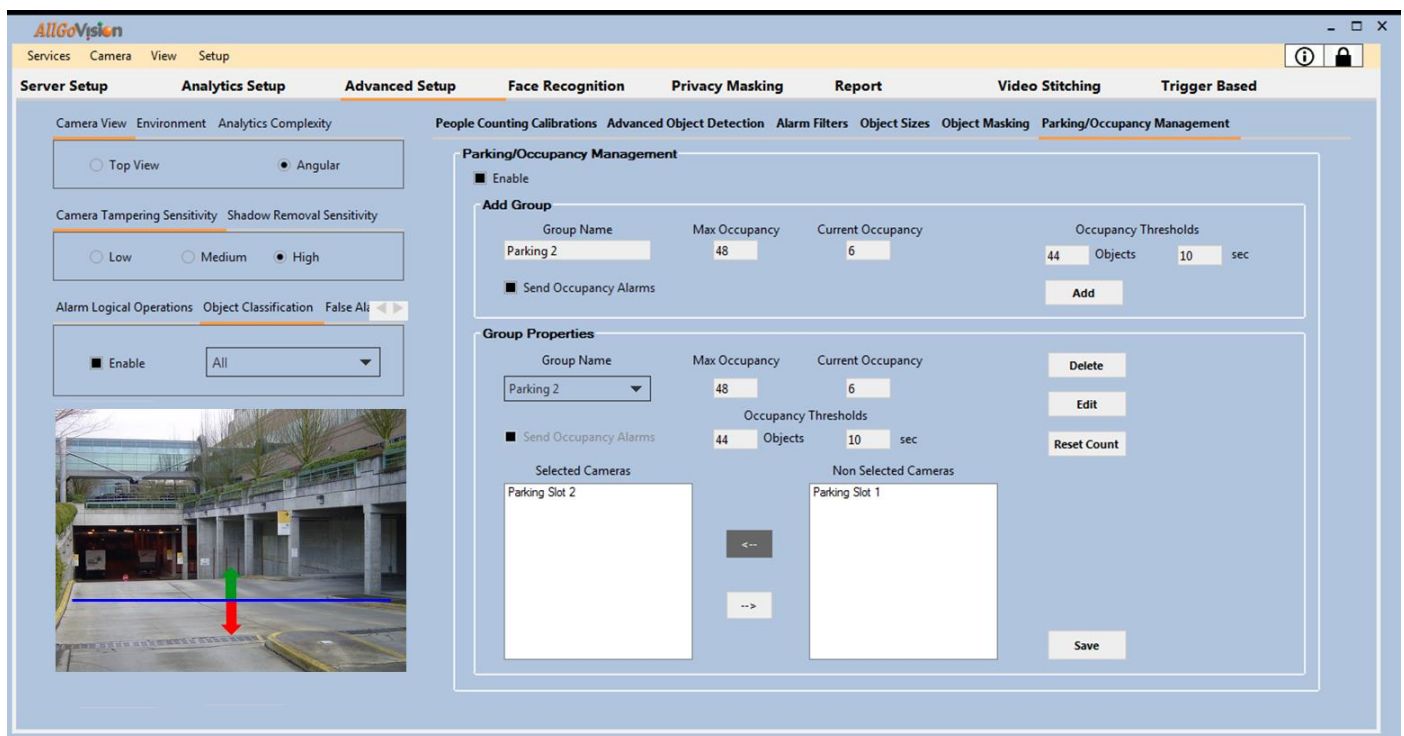
Advanced Setup Tab - This tab gives options to select advanced settings like camera environment, analytics processing complexity, shadow removal sensitivity, camera view, predefined object size and minimum object size.

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 GUI – Parking Management Setup

AllGoVision Alarm Center 192.168.0.216

Filters

Retrieve Alarm files other Networks as well Grid Thumbnail

AlarmID	TimeStamp	AlarmName	ObjectType	CameraName	SourceLocati	AlarmDescrip	ObjectColor	ObjectSize
146	9/10/2013 10	OBJECTS_CO	Vehicle	Camera 1	Entrance	IN = 3 OUT =	Unidentified	Unidentified
145	9/10/2013 10	OBJECTS_CO	Vehicle	Camera 1	Entrance	IN = 2 OUT =	Unidentified	Unidentified
144	9/10/2013 10	OBJECTS_CO	Vehicle	Camera 1	Entrance	IN = 1 OUT =	Unidentified	Unidentified
143	9/4/2013 9:51	OBJECTS_CO	Vehicle	192.168.0.186	Entrance	IN = 3 OUT =	Unidentified	Unidentified
142	9/4/2013 9:51	OBJECTS_CO	Vehicle	192.168.0.186	Entrance	IN = 2 OUT =	Unidentified	Unidentified
141	9/4/2013 9:45	OBJECTS_CO	Vehicle	192.168.0.186	Entrance	IN = 1 OUT =	Unidentified	Unidentified
140	9/4/2013 9:45	OBJECTS_CO	Vehicle	192.168.0.186	Entrance	IN = 0 OUT =	Unidentified	Unidentified

Alarm Preview

Alarm PopUp

9/10/2013 10:36 OBJECTS_COUNTING Camera 1 VEHICLE IN=3 OUT=2

Vehicle Counting Alarms in Alarm Center

AllGoVision Alarm Center 192.168.0.216

Parking Management

Group	Maximum Occupancy	Current Occupancy	Total In	Total Out	Availability
Group1	100	1	1	0	99
Gr3	100	0	0	0	100
GR1	100	4	22	18	96
GR2					

Parking Availability in Alarm Center