



# Datasheet

# Intrusion Detection-PTZ



## Version 3.7

This Specification Sheet gives the details of system requirements, feature details and other salient points of AllGoVision's AutoPTZ features used in Intrusion Detection applications.

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## INTRODUCTION

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, Border Security, Business Intelligence 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.

This Data sheet gives the details of system requirements, features and salient points of AllGoVision's Automatic PTZ features used in Intrusion Detection applications.

The Video Analytics product offers the following features to monitor and detect the event of intrusion and thereby ensures safety for vulnerable and critical infrastructures, boundaries of industrial areas etc.:

- ✓ **Continuous Auto PTZ** – Automatic PTZ Operation to Auto-track any object
- ✓ **Smart Auto PTZ** – Automatic PTZ Tracking activated by rule violation by any object
- ✓ **PTZ Handoff** – Rule violation detected in any fixed camera triggers the PTZ camera to its view
- ✓ **PTZ Pre-set Analytics** – Analytics in different pre-sets of a PTZ camera set in a patrolling mode.

## 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 12 channels Xeon 6 core, 3 GHz, 8 GB RAM for up to 12 channels Xeon 12 core, 3 GHz, 16 GB RAM for up to 24 channels Note: Approx. 2 channels per core, suitable to add multiple CPUs in single server. For higher resolution consult AllGoVision
Resolution & Frame Rate Requirement	Resolution - QVGA (320x240) and above, up to 1080p Frame Rate >15 fps for PTZ Analytics
Stand Alone version 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).
VMS Support	Milestone, Genetec, IndigoVision, exacqVision, Honeywell, Cisco, DW Note: Any other VMS is supported through Alarm Center

## 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**
- 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.

## INTRUSION DETECTION PTZ FEATURES

The following video analytics PTZ features are used for effective surveillance for intrusion detection:

### Automatic PTZ Features:

AllGoVision provides AutoPTZ tracking. AllGoVision controls PTZ operation directly with camera or through VMS. Home or Preset position needs to be defined. AllGoVision supports PTZ control through ONVIF protocol.

#### Smart Auto PTZ

This feature allows 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.

Example: Detection of violation with closer view capture of violator for evidence as well as monitoring purpose.

The Analytic rules like Tripwire can be set on PTZ camera to enable Smart Auto PTZ. In this process there are below steps are performed in order.

- At first, the analytics system estimates Violator's position.
- Then, PTZ control automatically captures a closer view of the violator for evidence.
- When the violator has moved, the camera immediately returns to normal position for monitoring again.



Rule Violation by Object

Automatic tracking of object for close view

#### Continuous Auto PTZ

This feature allows Automatic tracking of object (Single or Multiple) using Pan-Tilt-Zoom (PTZ) camera.

Example: Continuous tracking of objects like intruder; Continuous tracking of vessels in Sea.

In Continuous PTZ there are 2 options provided

- Multiple object – Any object near the end of frame is tracked.
- Single object – An object is latched based on size and continuously tracked



Continuous AutoPTZ for monitoring vessels at Sea

### PTZ Handoff

Violation detected on any Fixed-camera triggers PTZ camera to its view for auto tracking of the violator object.

Example: Auto tracking of intruder with one PTZ camera covering multiple Fixed cameras, for instance, along the compound perimeter.

A typical set up can be achieved with PTZ cameras with multiple fixed cameras where the PTZ camera can cover in its PTZ range the views from the fixed cameras.



Fixed Camera

PTZ Camera

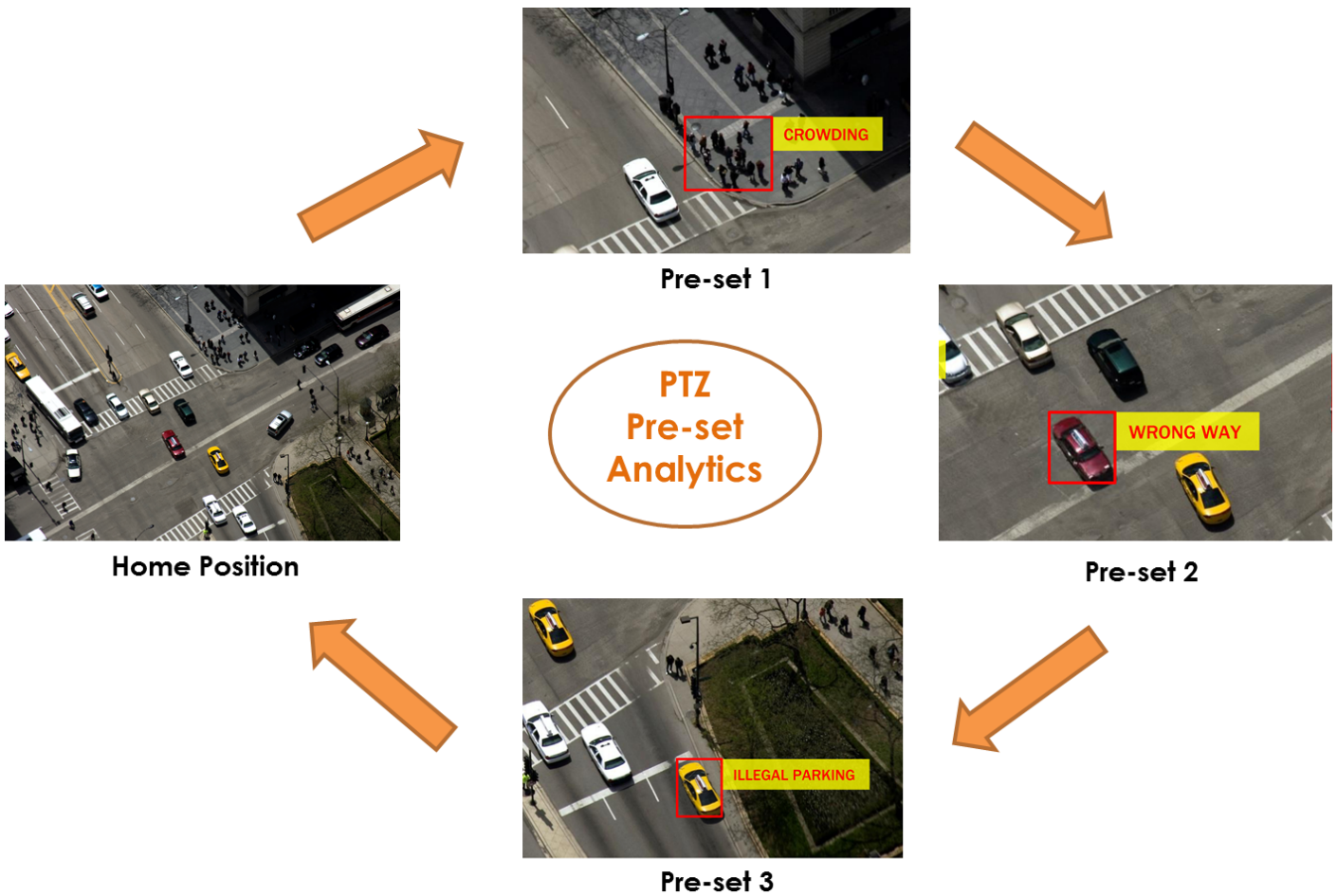


### PTZ Pre-set Analytics

A PTZ Camera has different pre-set positions at different Pan-Tilt-Zoom level to have closer view of critical areas within the reach of PTZ range of the camera. With PTZ Pre-set Analytics, the analytics would run for each pre-set one by one in a cyclic order and send alerts against any detected rule violation.

Similar or different analytics features (rules) can be run on different pre-set positions. The time interval can be set by the user so that after that defined interval the camera would move to the next pre-set view and analytics would be run on that particular view.

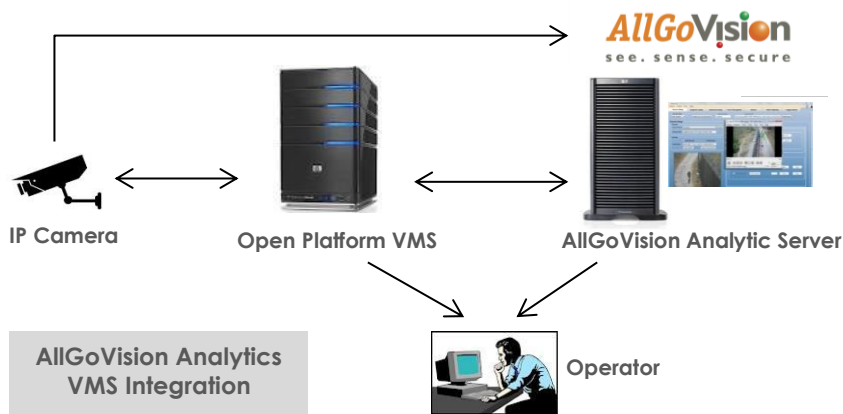
Example: A PTZ Camera in patrolling mode typically used for city or traffic surveillance will have multiple pre-sets and analytics can be run automatically from one pre-set to another in a cyclic manner.



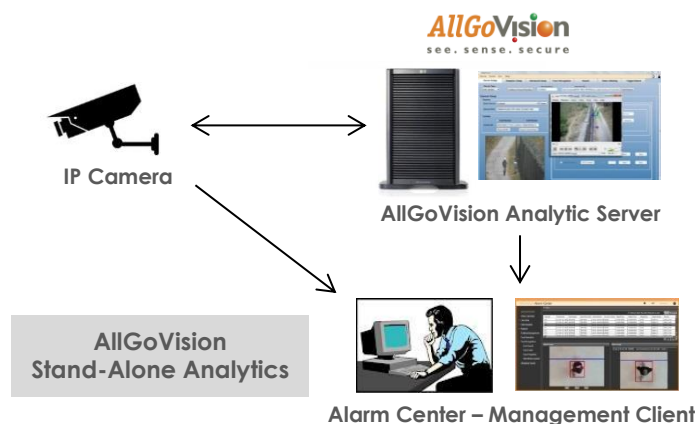
## INTEGRATION FLEXIBILITY

The AllGoVision Video Analytics is flexibility in terms of supporting both Server-based and Edge-based analytics. In server based analytics it is available in 2 flavours:

**With VMS:** AllGoVision application is based on Open Platform Standards. It is integrated with many VMS Softwares. It takes video feed either from Camera or VMS, sends alarms to the VMS viewer.



**Without VMS:** AllGoVision can also work independent of VMS as a stand-alone application, it takes the video feed directly from camera and sends alarms to Alarm Center (AllGoVision's own Alarm Management Client software) and works for view / search / reporting & analysis of alarms.



## 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.

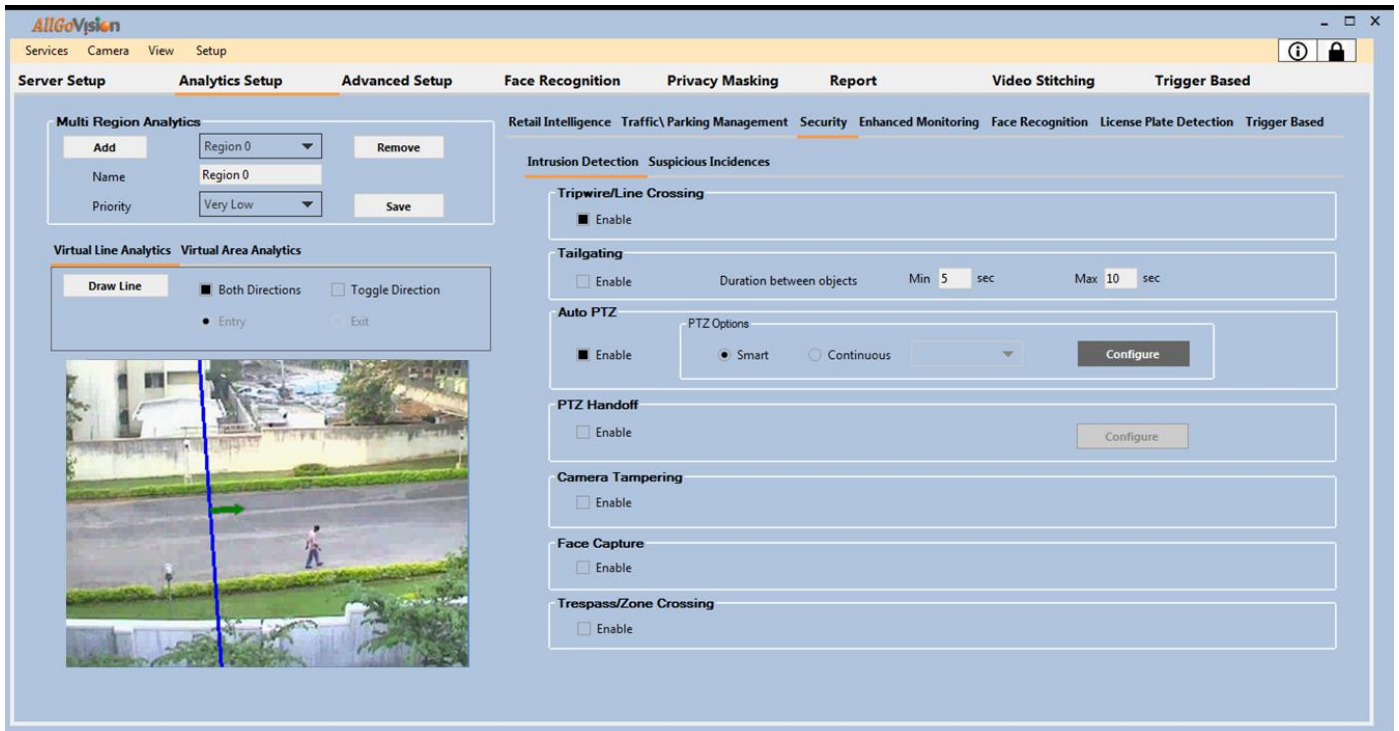
**Video Stitching Tab** - This allows stitching of Videos from 2-8 cameras. The output is displayed in the same tab. The objects detected are also shown with Red rectangles.



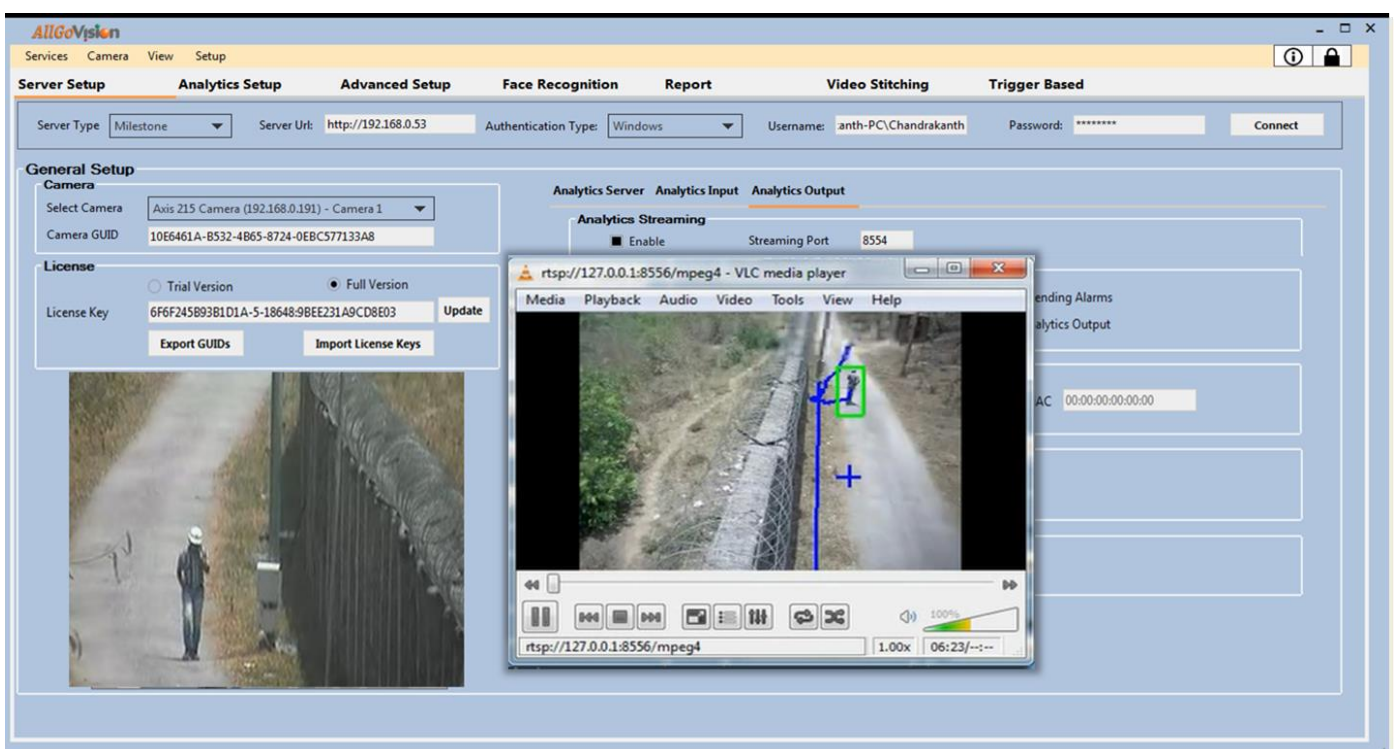
**Trigger Based** - This allows running analytics from trigger like that from RFID.

**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 – Analytics Setup Tab



AllGoVision PTZ Handoff Operation