This Specification Sheet gives the details of system requirements, features and other salient points of AllGoVision Face Recognition application.

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INTRODUCTION

This Specification sheet gives the details of system requirements, features of AllGoVision Face Recognition application.

The product analyses rapidly the video for specific data, captures people face, tracks it and stores it and sends real time alarm when face is detected.

SYSTEM REQUIREMENT

AllGoVision analytics has the following system hardware and software requirements.

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>REQUIREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware configuration</td>
<td>GPU: NVidia GTX 780 + i7 3930 6 core, 32 GB RAM, 1 TB HDD, Windows 7/8 can support up to 8 channels For Client: i7 3930 6-core, 8 GB RAM, 1 TB HDD machine Database: 2 TB HDD (Minimum)</td>
</tr>
</tbody>
</table>
INSTALLATION

The software is easy to install and simple to use with intuitive GUI. The AllGoVision Face recognition supports face recognition of people moving towards camera.

Camera Installation

i) The camera installation should be Angular at a height of about 1.7 m facing the region where people can walk towards camera.

ii) The camera installation should be generic IP cameras with good quality at Angular direction.

iii) The illumination should be above 200 lux. Good constant illumination should be maintained throughout the day.

iv) The height of installation depends on resolution. The pixel distance between eyes should be above 60 pixels for detection. The pixels between eyes for Face registration is above 100 pixels.

Integration

AllGoVision Face Recognition application is available in 2 flavours:

With VMS:
- AllGoVision application is based on Open Platform Standards.
- It is integrated with VMS like Milestone, Genetec

Without VMS:
- It is a standalone application.
- It works independent of VMS.
- Directly takes the video feed from camera.
ARCHITECTURE

A simple architecture without VMS is shown below. The video from CCTV camera is sent to central server. The face detected from video is matched against face database and recognition/non recognition alarm is sent to be viewed in either VMS or Alarm Center.

FEATURES

- People face should be visible in front of the camera. The people who are walking towards camera are recognized.
- Upon Face recognition it is alarmed whether it is accepted or rejected.
- The recognized person details are displayed in real time.
- The environment is indoor
- The detection accuracy is greater than 80%
- The camera is able to track the detected face when it is moving and should not generate multiple alarms
- The detection time is 1-3 sec.
- The face registered per person is 1-10.
- The face detection should allow ±20 degree tilt in both x and y direction
- The face recognition should work at various resolutions above 640x480 and frame rate above 10 fps.
- Works simultaneously with video analytics for other cameras
Registration

Software allows faces to be registered with multiple faces per person. It is better to have faces with Front, left, right, up and down poses.

The faces can be automatically captured in live view which can be used for registration

Applications

- Black Listed People Recognition
- VIP Identification or White list people identification
- Forensic analysis
- Access control
- Business Intelligence (customer tracking and statistics)

Software Features

- Application to run as service
- The settings for Direct Camera connection
- The settings to send alarms to supported VMS clients and Alarm Center

Face Recognition Snapshot
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 tabs:

Server Setup Tab
The server setup tab consists of setup for VMS connection or camera connection.

Analytics Setup Tab
The Analytics setup tab gives options to set the analytics fields for different features. The faces recognition settings are completed here.

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.

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

Face Recognition Tab
This tab is used for Face registration.
ALLGOVISION ALARM CENTER

AllGoVision Alarm Center is a Client to view all the alarms generated by AllGoVision analytics running on different systems across a LAN.

Features

- Alarm popup
- Alarm Video Playback
- Display alarms with date and time stamp
- Search: Filters to search alarms based on it types and properties
- Face counting, Face presence
- Distribution map for recognized people (Frequency)
- Database is MySQL