

Make your environment be smarter and tighter for the security

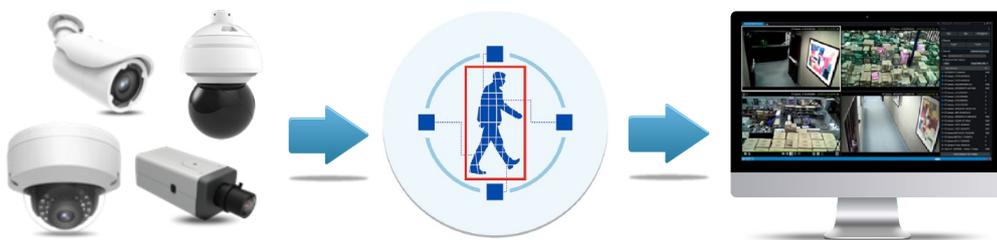
Toppano's AI system levels your security up and extends the efficiency of your security personnel by providing effective monitoring and enabling proactive real-time response.

Toppano Intelligent Video Analytics

Toppano IVA(Intelligent Video Analytics) offers an object pattern based intelligent analysis capability to provide alerts, tagging and tracking features in real time and produces a rich set of metadata describing what happened in the scene. With the metadata, we can coordinate with VMS (Video Management system) for forensic search, object trace log.

Pattern base object recognition and tracking technology [Patent pending]

Toppano Pattern based object detection/recognition is able to accurately recognize the moving object and trace the object cross the cameras, the system is able to continuously learning after installation. It will help for false alarm reduction and improves the efficiency for operating.



3D Central Integration Management station

Immersive 3D interactive map goes much beyond standard 2D map. Project the video streams on the scene of 3D map in live and help security people get situational awareness and able to manage the complex incidents in time.



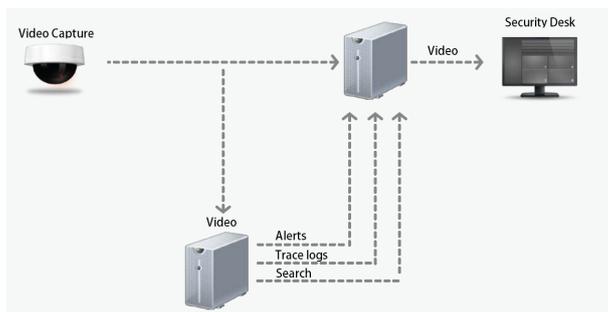
Visualization for IA Engine



3D Central management station

Solution Architecture

Shared video streams from IP camera to AI engine for analysis. Metadata and alerts will be generated by Toppano IA engine and forward to VMS help security folk for easier to manage and follow up for specific object tracking.



Supported AI Features

- Pattern base object recognition and tracking technology
- Cross camera tracking technology
- Continuously self-learning analytic
- Digital tracking and room in
- PTZ object auto tracking
- Alert handover to PTZ for auto tracking
- Efficient installation and setup
- Real-time analysis and alarm notification
- Provide API to co-work with VMS for forensic search
- Tracks up to 20 target at same time for real time analytic

Make your environment be smarter and tighter for the security

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Toppano People-finder Solution

Toppano People-finder solution that makes it easy and possible to localize, identify and search for a specific people, using GAIT recognition. By working on GPGPU servers, it can process at very high speed for real-time application.

People-finder is ideal for people search in one or various camera streaming in real time to localize a specific people in space and also available for forensic search or various recoded videos to restore the truth by footprints recovery

Specifications

- Simultaneous recognition in multiple camera
- Offers extensive range of search parameter filters
- Presents versatile visualization displays that minimize video viewing time
- Increase the efficiency by GPGPU architecture that enables for real-time application
- Supports changes of appearance by hat, glasses, coat taking-off/on by GAIT recognition

Applications

- Find specific people in real time
- Forensic analysis from recoded videos
- Automatic classification of people to database
- Searches for suspects in large video database

Real-time analysis of People-finder

Type of identification	People, on the move, at a distance, body size, height, cloth color
Performance	200 frames per second, analysis of up to 20 videos or cameras simultaneously
Video Capture resolution	Up to 4K videos, 250ppm is preference, 125ppm is minimal requirement
Resolution at detection	Body size larger then 20x60 pixels, 25ppm
Resolution at recognition	Body size larger then 80x216 pixels, 125ppm
Resolution at enrollment	Body size larger then 120x400 pixels, 250ppm
Search Parameters	Search by specific people image or picture, Search by size, Search by height, Search within defined time frames, Search on selected cameras or group of cameras, Search for similar targets
Search Results	Thumbnails—Search results presented in video playback thumbnails Summary—Search results presented as on condensed videos Target Path—Search results shown as graphical presentation of all motions paths in a scene for identification in map

Combined the strength of computer vision and deep learning, Toppano provides IVA (Intelligent Video Analytics) ability for offers a pattern based object recognition and tracking to provide alerts, tagging and localization information for surveillance application in real time, such as people search in camera network or object finding in space. We develop the cutting-edge people recognition solutions, we offers accurate, robust and real-time analysis with customer oriented solutions for surveillance application. We believe the way to success is doing the technology with the mind of client end-users.