

Intelligent Video Analytics for: The Corrections Market



Honeywell's new intelligent video analytics software enables enhanced security and surveillance solutions by automatically monitoring video of people, vehicles and objects, and their associated behaviours, within a camera's view. Honeywell's intelligent video analytics software monitors up to 20 objects with more than 35 specific behaviours and events. Intelligent video analytics continues to automate monitoring tasks for high risk sites will ensure a higher level of security and efficiency by working 24/7, providing accurate and reliable continuous monitoring, scaling to a large number of cameras, and catching events that human operators may overlook.

Intelligent video analytics can provide correctional facilities and prisons with expedited inmate and visitor processing, elimination of confrontations, and increases in manpower productivity. It can enhance perimeter control and provide early warning of unusual or undesired individual or group behaviors that are often precursors to serious incidents. It can also reduce the requirement for continuous human monitoring of video monitors.

Applications: Prison and Correctional Facility Security Enhancement

- Detect people loitering or meeting based on duration, time, and other factors.
- Restricted zone detection – Detect entry or exit of people or vehicles from 'protected zones.'
- Detect unusual or excessive numbers of persons entering a pre-defined area such as a cafeteria or exercise yard.
- Enables early warning of incidents by tracking abnormal movements and crowd densities that often precede events.
- Detecting alarming on undesired direction of motion of people or vehicles:
 - People exiting via an entrance door.
 - Vehicles traveling the wrong direction.

Perimeter Protection

- Detect people or vehicles crossing invisible 'trip wires' or 'virtual fences.'
- Fence climbing – Detect attempts at climbing perimeter fences.
- Detect entry or exit of people from restricted or dangerous areas.

Operational Enhancement, Productivity Improvement, and Facility Optimisation

- People Management:
 - Measures people flow to determine high traffic/high risk and low traffic areas by facility, by floor and by area with real-time or periodic reporting for expedited processing of inmates and visitors in the facility.

Hypothetical Success Story

The Problem

Many correctional facilities have key problems in common:

1. Blind spots, with insufficient staff to watch
2. Large perimeters
3. Areas restricted by time of day

The Solution

Active Alert[®] would be deployed at the scene providing analytics to automatically detect threats and incidents.

The Results

By using this product, management of a correctional facility would have the capability to improve monitoring without increasing the number of staff required to do so. Given the fact that inmate populations are growing at a much faster rate than expected and the guard population cannot grow in the same proportion, this provides a much for efficient alternative for monitoring.

1. Blind spots can be eliminated by adding more cameras and using analytics technology to automatically alert guards of activities or incidents.
2. Large perimeters are ideal for video analytics because the software continually scans the video for moving objects to determine if there are activities along the perimeter which might indicate a potential breach.
3. Analytics provides an excellent solution for areas that are expected to be active at some times of day and restricted at other times. The software can be set to detect activities during the expected quiet hours and automatically alert guards if people are loitering in restricted areas at disallowed times of day.

Overview of Advantages

- Increased levels of security, improved staff productivity and efficiency, with reduced manpower costs for monitoring.
- Multiple applications: security enhancement, visitor management, visitor processing, productivity enhancement, facility optimisation, safety enhancement.
- Detecting, tracking, and recording of event meta-data for every entry and exit from a scene, for later forensic analysis of newly-defined events or behaviors not originally believed to be of interest.
- Powerful search tools that permit user-definable, event-specific behavior retrieval in seconds, even in very large systems.
 - Play back and analyse archived video and apply a variety of rules to discover events and relationships formerly of no interest.
 - Compare and evaluate traffic flow patterns between different facility locations/layouts over the same time period.
 - Review personnel and visitor movements related to undesired events or behaviors to identify meetings with accomplices.
- Discrimination between objects of interest and environmental backgrounds.
 - Ability to ignore tree motion, rain, snow, birds, or animals.
 - Accommodates widely ranging lighting conditions, including strong shadows and high contrast scenes.
- High performance analytics algorithms enable real-time tracking of up to 20 objects and more than 35 events.
- Easy deployment and intuitive setup of object and event rules for each video channel.

- Different analytics rules for different periods of the day as needs change.
- Deployable for both analogue and digital video systems.

Not only is video analytics an outstanding advancement in perimeter protection and loss prevention for correctional facilities and prisons, it is also increasing in its importance and demand for use in other markets as well. Instead of having operators monitor multiple cameras, video analytics identifies behaviors of interest and immediately alerts the security officer to suspicious activity. Ultimately, this allows security officers to focus their attention on the most important activities and monitor the highest potential for risk, and enables security professionals to make better decisions and react faster to events.

For more information: www.honeywell.com/security/uk

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