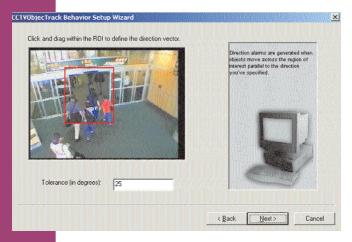# BehaviorTrack

AN INTELLIGENT VIDEO APPLICATION

BehaviorTrack , a Video Intelligence Module from Verint Video Solutions, detects user-defined objects and their movements within a particular camera view (referred to as a region of interest). A Verint Video Solutions actionable intelligence application, BehaviorTrack improves the effectiveness of video surveillance and the operational performance of businesses such as retail chains, airports, casinos and highly secure government facilities.

By providing real-time alarms based on events of interest, BehaviorTrack allows security personnel to take appropriate proactive action including addressing a security breach or a customer service need. The screen capture shown below depicts the software configured by with a "region of interest", as illustrated by the red box. The software analyzes the video within this region of interest to determine if any exception behaviors are taking place.

Example of the Setup Wizard screen for defining directional movement in a region of interest

In this particular view, we see someone moving in the wrong direction, as illustrated by the blue arrow. In this scenario, BehaviorTrack would send a pre-defined audible or visual alarm to security personnel. The alarm message, sent in real-time, allows the security personnel to prevent further breach, apprehend an individual for further investigation or determine another course of action.

BehaviorTrack can also significantly reduce system storage requirements by only recording events and video of interest. The software can also be applied to recorded video during the investigative process to improve the speed and effectiveness of security monitoring and review.

Alarms On Detection of User-Defined Activities

BehaviorTrack analyzes live and recorded video and generates alarms based on a number of specific user-defined activities and behaviors.   The behaviors listed below can be tracked within a user-specified region of interest:

Entering: a person or vehicle moves into the region   of interest.

Stopping (Loitering): a person or vehicle in the region of interest stops moving for a user-defined time period.

Moving Again: a person or vehicle stops and begins to move again.

Direction: a person or vehicle moves in the wrong direction, as defined by the user.

Used in conjunction with the Loronix Video Manager, BehaviorTrack can allow users to instantly view live alarm events, retrieve stored alarm video, and review system-generated reports all from a single screen. The Video Manager records each alarm event in the database and orchestrates the appropriate response, as defined by the system administrator. This allows the user to be more proactive, taking immediate action to gain greater control over preventing serious damages and losses.

Loronix Video Manager responses include the following:

Alarm Scheduling: Schedule alarms to be active o   r inactive at specific times of day.

Automatic Video Call Up, On Alarm: Displays alarm video including user-defined pre- and post-video.
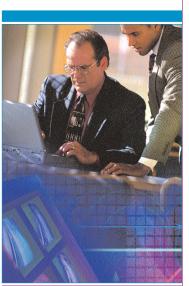
Alarm History: Surveys all past alarm events stored in the database.

Priority Alarm Configuration: Users preset the priority of alarm events by assigning color, sound, or user-defined messages.

PTZ Salvo: Moves PTZ cameras to preset locations upon an alarm event.

Groups of Cameras on Alarm: Displays user-defined cameras or groups of cameras automatically upon BehaviorTrack alarm.

Multiple Alarm Review: View live and recorded

BehaviorTrack

video from multiple alarms and/or sites simultaneously.

Voice Alerts: Configures alarms to deliver voice alerts as well as visual alerts upon an alarm.

Security Applications

Behavior analytics provide strong value for airports, casinos, government facilities and corporate environments.

BehaviorTrack is designed to enable the identification of movement direction of an object, allowing security professionals to more effectively protect personnel and assets. For example, a security professional may be interested in monitoring an entrance only doorway and wants to be immediately alerted of anyone exiting the doorway. Using BehaviorTrack, the user defines the region of interest around the doorway and specifies that the system alert only when people are detected exiting the doorway.

BehaviorTrack is often deployed to monitor vehicles that have been left unattended or parked in unauthorized areas and can generate alarms on vehicles that have been stopped/parked for a user specified length of time. Security officials can configure these alarms to their requirements, for example alarming on any vehicle that stops for more than 20 seconds. The security personnel are then prompted with real events of concern and can act appropriately.

Business Intelligence Applications

The sheer volume of surveillance video generated in today s security environments very often means that monitoring personnel become quickly overwhelmed. Manually analyzing so much video can easily compromise the ability to effectively assess and mitigate potential security threats. As a result, many organizations are implementing intelligence tools to bolster their proactive efforts in asset protection and customer service. Using digital video to gain actionable intelligence can significantly decrease operational costs, increase return on investment and boost the bottom line.

BehaviorTrack helps reduce consumer and employee theft, liability and legal fees, while creating actionable intelligence to improve business operations. Input from digital video can be analyzed to streamline staffing needs and improve customer service. In a retail environment, video data can be used to determine how long it takes to assist a customer at a service desk, and BehaviorTrack can be applied to alert management to these types of customer service needs. Behavioral analysis can applied to recorded video as well as live feeds.

Value-added intelligence and content management are key components of the Verint Video Solution. Our intelligence solutions can help business and security managers optimize their operations and reduce liability and security risks while improv-

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