ANALYTICS

An Intelligent Solution

The emphasis on security in the world today is greater than ever. Critical infrastructure facilities are enhancing their security systems worldwide to guard against all types of threats to personnel, equipment, passengers, cargo, aircraft, trains and vessels. The appeal of automated real-time surveillance to meet these threats is obvious as it can maximize the efficiency and effectiveness of security personnel and resources while increasing the probability of preventing a serious security breach. Weibridge has partnered with ObjectVideo to deliver the best intelligent video solution delivering on the full potential of video surveillance systems. As the leading provider of intelligent video software for physical security, business intelligence and related applications, ObjectVideo provides solutions to a broad customer base across a variety of areas including government, critical infrastructure, retail, gaming, banking, building automation, residential and video-intelligent network infrastructures.

The Weibridge solution with ObjectVideo OnBoard (OV) monitors surveillance cameras in real-time to automatically detect security incidents or potentially threatening events taking place within the view of the cameras. Using applied computer vision technology – a highly sophisticated branch of artificial intelligence – OV detects objects (people, vehicles, aircraft, watercraft) in real-time, identifies the objects, and automatically generates alerts notifying all appropriate security personnel in real time when a security threat occurs. OV's sophisticated threat recognition capabilities enable the automatic detection of a wide range of events and activities including perimeter breaches, theft, left bags, loitering, and counter-surveillance activities, allowing customers to provide high levels of protection and security to facilities and personnel.

Innovative Applications

Event elements can be used alone or in combination. ObjectVideo OnBoard provides a broad range of intelligent video surveillance capabilities that include classification, detection, and filtering capabilities:

· **Object Classification:** Differentiation in all events between a person, vehicle or other object.
· **Tripwire Event Detection:** Detects when the specified object moving in a specified direction crosses over a line (tripwire) drawn within the camera's Field of View. For example, if the object is a person, the person's feet must cross over the line in the specified direction to trigger an alert. Tripwires can be uni-directional or bi-directional.
· **Multi-line Tripwire Event Detection:** Enables building rules with association between two virtual tripwires with respect to crossing one before the other and relative time between crossing both. For example, the Double Tripwire can detect illegal turns or traffic flow (vehicles or people) and can detect speeding.
· **"Enters" Event Detection:** Detects when the specified object type enters an Area of Interest from any direction within the camera's Field of View.
· **"Exits" Event Detection:** Detects when the specified object type exits an Area of Interest from any direction within the camera's Field of View.

· **“Appears” Event Detection:** Detects when the specified object appears in the full camera view, or appears within a defined Area of Interest without first appearing within the camera's Field of View previously (for example, a person walking through a doorway that exists inside the Area of Interest).
· **“Disappears” Event Detection:** Detects when the specified object disappears from the camera’s Field of View without actually exiting the Area of Interest.
· **“Inside of” Event Detection:** Detects when the specified object moves inside of a designated Area of Interest within the camera’s Field of View.
· **Loitering Event Detection:** Detects when a person or vehicle remains (loiters) in the full view of a camera or designated Area of Interest for a configurable length of time.
· **Left Behind Event Detection:** Detects when an object has been left behind or inserted in the full view of a camera, or a designated Area of Interest. For example, a Left Behind rule will trigger an alert when a suspicious object is left on the ground.

Video Analytics You Can Depend On

The ObjectVideo system has been designed with a strong focus on usability, making it easy to install, easy to configure and easy to use. Setup procedures for the system are straightforward, and it requires minimal maintenance throughout the lifecycle. While ObjectVideo offers training for both users and administrators, use of the product does not require technical knowledge or extensive technical experience.

ObjectVideo technology is robust and works out-of-the-box, requiring minimal “tweaking”. ObjectVideo capabilities have been validated in rigorous testing by independent organizations such as Sandia Laboratories and SPAWAR. The ObjectVideo solution provides operational alerts when attempts are made to disable camera inputs. Alerts are provided for malicious acts such as camera masking, blinding, signal loss and other interruptions.

ObjectVideo software is capable of supporting any number of cameras, from a single unit to hundreds of cameras, with a demonstrable path to thousands of cameras. As the surveillance system grows, it will become necessary to add additional cameras. This is easily performed without incurring disruption of the existing system operation. Once additional cameras are added to the system, they become usable immediately, again without disruption to existing system operation.