

MVC-IVA-BLD IVA Pro Buildings Pack

IVA Pro



Based on deep learning, the Intelligent Video Analytics (IVA) Pro Buildings Pack is ideal for intrusion detection and operational efficiency in and around buildings. Without the need for any calibration, it can reliably detect, count, and classify persons and vehicles in crowded scenes. It can alert operators immediately as queues begin to form. The IVA Pro Buildings Pack also covers pre-determined video analytics alarm rules such as line crossing, loitering, and object in a designated field, allowing for greater flexibility in deployment.

Functions

Robust building surveillance

The IVA Pro Buildings Pack is equipped with the latest deep neural network-based video analytics that automatically detects and separates upright persons and vehicles. It ignores other, unwanted sources of motion in the environment, such as rain, snow, clouds, blowing leaves, lighting changes, or a shaking camera.

High-performance people counting

The IVA Pro Buildings Pack offers high-performance indoor and outdoor people counting for typical surveillance scenarios by using the built-in person detector.

Parking lot occupancy

The IVA Pro Buildings Pack detects moving or standing persons and parked or moving vehicles. This capability allows for applications like parking lot occupancy.

Tamper detection

The built-in tamper detection generates alarms on camera hooding/masking, blinding, defocusing, and repositioning.

- ▶ Accurate detection and classification of persons and vehicles in busy scenes
- ▶ No calibration
- ▶ High resilience to known false triggers such as vehicle headlights and challenging weather conditions
- ▶ Easy evidence retrieval with forensic search

Object classes

The IVA Pro Buildings Pack provides the following object classes:

- Persons
- Vehicles

Alarm and statistic tasks

The following alarm and statistic tasks are available:

- Detect persons and vehicles within, entering, or leaving a single or multiple (up to three) defined detection zones in specified sequence or timing
- Detect multiple line crossings from a single line up to three lines combined in specified sequence or timing
- Detect persons and vehicles traversing a route
- Detect loitering in an area related to radius and time
- Detect persons and vehicles that have started or stopped moving
- Detect persons and vehicles with properties, such as size, direction, and aspect ratio, that change within a configured time according to specification
- Count persons and vehicles crossing a virtual line
- Count persons and vehicles within an area and alarm if a predefined threshold is reached
- Combine tasks using scripts

Filters

The IVA Pro Buildings Pack can be configured to ignore specified image areas to enhance robustness. Furthermore, object size, two-way direction, aspect ratio, and color filters can be used in any combination to create specific detection rules for people and/or vehicles. Statistics on object properties are stored

and can be displayed for fine-tuning the object filters. Object properties can also be defined by selecting an appropriately similar object in the video.

Intelligence-at-the-edge concept

The intelligence-at-the-edge technology allows users to reduce bandwidth and storage in the absence of action and switch back to full image quality in case of video analytics alarms. Alarm conditions can be signaled by a relay output on the unit or an alarm connection to stream video to a decoder, or a video management system. Alarms can also be transmitted to a video management system to start extended alarm scenarios. As well as creating alarms, the IVA Pro Buildings Pack produces metadata describing the content of the analyzed scene. This metadata is sent over the network and may also be recorded with the video stream or used independently of the video stream.

Forensic search

The recorded metadata can be used for a full forensic search in which the rules can be changed within Bosch Video Management System (BoschVMS), even after the fact. New tasks can be defined and adapted for each search, and the recorded metadata is then scanned and evaluated accordingly. Forensic search is very time efficient and can scan a huge recording database for events within seconds.

Intuitive graphical user interface

The setup is available via the Configuration Manager. A wizard-based graphical user interface guides the user through the configuration. It provides all the necessary tools to set up the IVA Pro Buildings Packs and specify detection or counting tasks. All configuration options are visualized as feedback overlays and can be edited directly for intuitive configuration.

When movement is detected, the object is outlined in yellow on the display and its motion is displayed as a green trajectory. If an object and its motion match the rule conditions defined for one of the detector tasks, an alarm is created and the object outlines change to red. Additionally, an idle object is marked with [I] and a removed object is marked with [X].

Configuration

With minimal configuration and without calibration, the IVA Pro Buildings Pack detects upright persons and vehicles and alarms on any object in the scene while suppressing any other objects or motion. Select a task and mark the area of interest in the image. Up to 64 objects can be tracked in real time. Scenario defaults provide example configurations for the most common tasks. More complex setups are also

supported: Up to 16 independent tasks can be set up in the GUI, and the alarm objects for each task can be restricted according to their properties. A task script editor is available for fine-tuning and combining predefined tasks.

Parts included

Quantity	Component
1	License

Technical specifications

Compatibility

Compatible cameras	Included in: <ul style="list-style-type: none"> FLEXIDOME 5100i FLEXIDOME 5100i IR
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Configuration

Configure the IVA Pro Buildings Pack with Configuration Manager, a free software available for download from the Bosch website: <https://downloadstore.boschsecurity.com/>

Ordering information

MVC-IVA-BLD IVA Pro Buildings Pack

Free of charge video analytics software based on deep neural network technology for intrusion detection and operational efficiency in and around buildings.

Order number **MVC-IVA-BLD | F.01U.409.536**

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