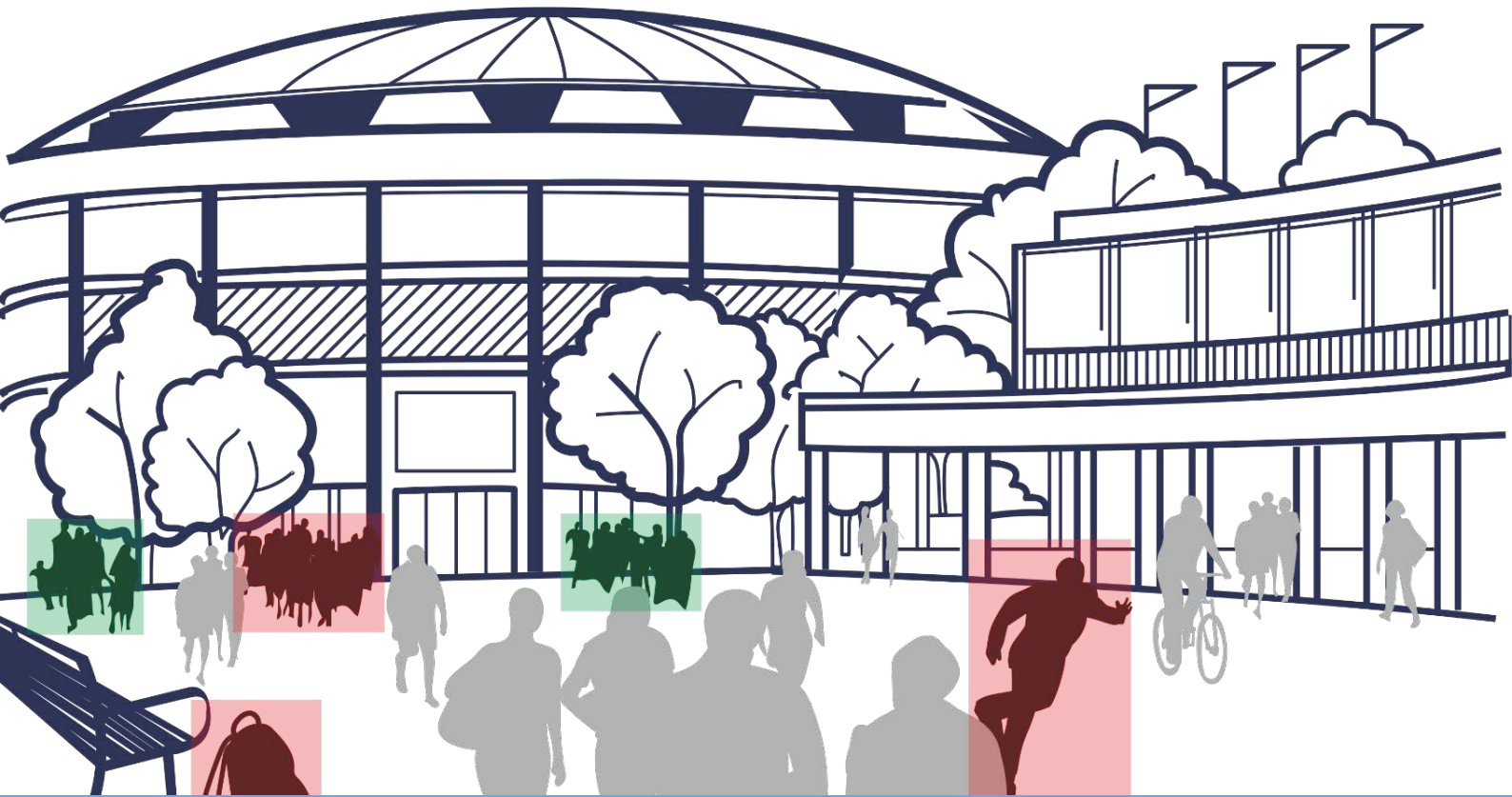


SECUROS SITUATIONAL VIDEO AWARENESS ANALYTICS

SecurOS Tracking Kit III (Computer Vision subsystem) | Overview



Mission

AUTOMATIC DETECTION OF POTENTIAL THREATS

DATA COMPILATION

Key Advantages: INCREASING OF SITUATION AWARENESS

- streamline operator efficiencies
- no need for 24x7 monitoring of control areas
- improved operator event processing
- monitor / control several locations, without impact to security staff

SecurOS Basic Situational Awareness Analytics Detectors

Crowd Detector

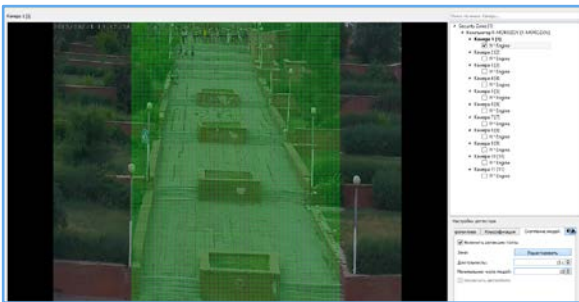
Designed to detect potentially dangerous groups of people.



Application example

Crowd detection in open areas and premises provide early warning of public unrest and disorder.

A crowd is interpreted as the simultaneous presence in an area of a certain number of people during a fixed time interval. Area, duration, minimum count of people are all adjustable parameters.



Configuration Window



Detecting the event

Object Counter

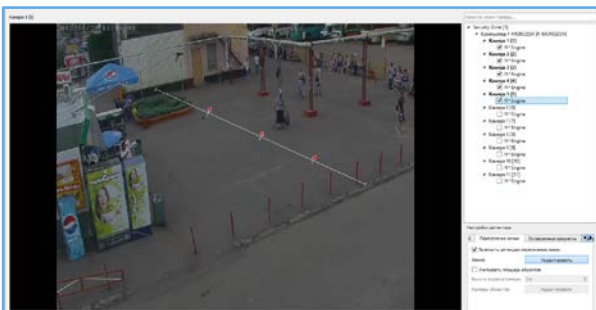
Designed to count objects (people, vehicles) crossing a line in each direction.



Use-cases

- control the perimeter line location
- detects/monitors injuries or accidents
- people counting at entrances / exits to control occupancy
- obtaining statistical data on people / objects

Object Counter detector counts the number of objects crossing a specified line. The direction of crossing is an adjustable parameter. **Important:** set a boundary object size to avoid false alarms on animals, vehicles or other objects.



Configuration Window



Detecting the event

Object Left Behind Detector

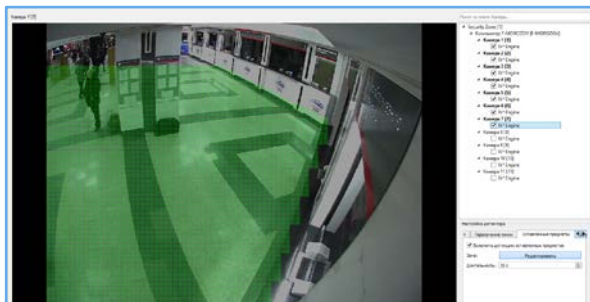
Designed to detect abandoned objects.



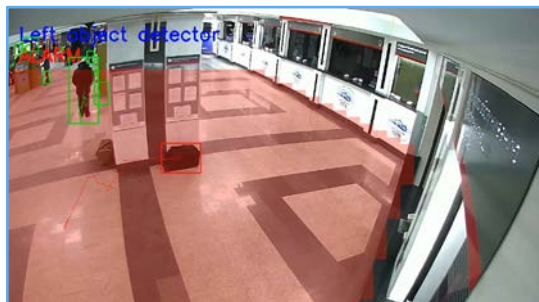
Use-cases

Detection of abandoned packages in public areas i.e. metros, airports.

Objects Left Behind are things (belongings) left in a controlled area for an indeterminate amount of time. The controlled area and the time interval are adjustable parameters.



Configuration Window



Detecting the event

Intrusion Detector

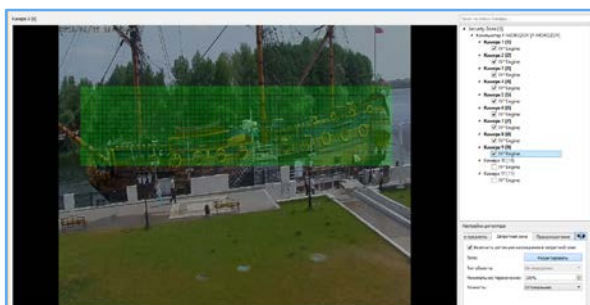
Designed to detect objects entering a forbidden area (crossing forbidden zone border).



Use-cases

- protecting various points of interest
- detecting unlawful entry to secure areas of buildings or infrastructure

Intrusion Detector monitors areas where authorized entry is required. The area and the object of restriction (person, vehicle) are adjustable parameters.



Configuration Window



Detecting the event

Loitering detector

Designed to detect people loitering and moving in the same area for some time.



Use-cases

- identifying cases of illegal activities within a determined area
- vandalism detection (offender's detection) at areas of interest

A person that stays in the zone longer than a specified time is considered to be loitering. Zone, Intersection of object and zone, and time are adjustable parameters.



Configuration Window



Detecting the event

Running detector

Designed to detect people who move faster than what is considered normal.



Use-cases

Detection of illegal actions and public disorder

Running refers to the movement of a person (in the controlled zone) at a speed exceeding the specified threshold. Speed is measured using a person's size at a given point (using perspective). Zone and speed (person-widths per second) are adjustable parameters.



Configuration Window



Detecting the event

Dwell Time Detector

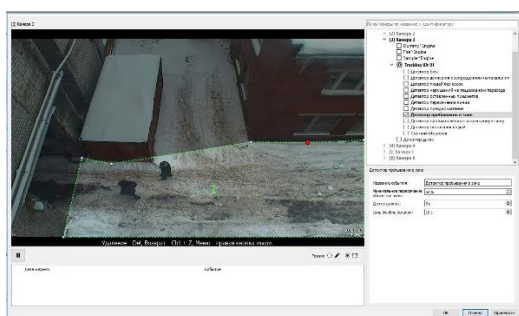
Designed to count objects (people, vehicles) remaining in the area for the certain time.



Use-cases

- Counting of people stopping around advertising constructions, shop windows, etc.
- Estimation of congestion of access areas to the gas station, carwashes
- Detection of the heavy traffic

To stay in the zone means the presence of an object inside the controlled area over a specified time interval. Controlled area, the percentage of occurrences of the object in the zone and threshold time value are the main adjustable parameters of the detector. The detector also allows to make a separate count of objects staying in the controlled area for short or long periods of time.



Configuration Window



Detecting the event

Line Crossing Detector

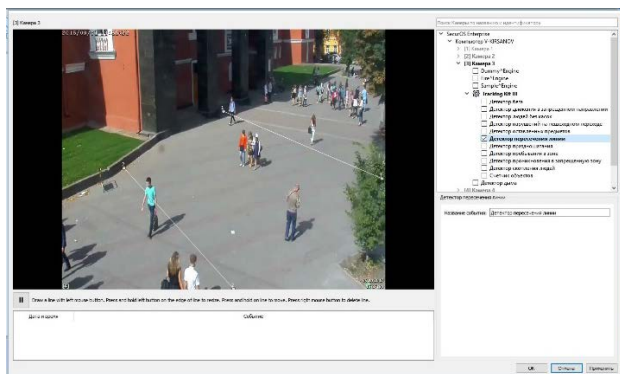
Designed to detect objects (people, vehicles) crossing a line in any direction.



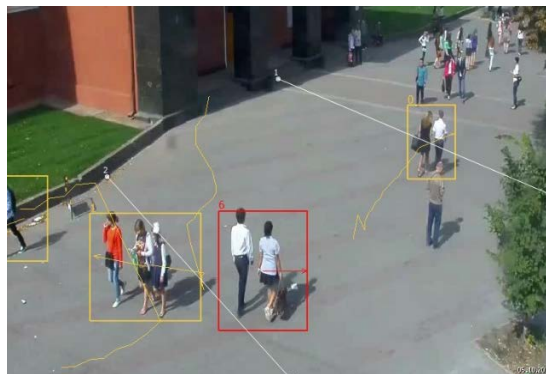
Use-cases

- Passenger falls onto train tracks detection
- Protection of exhibits
- Protection of covetable items / luxury goods (vehicles, jewelry, watches, etc.) in Car Shows, fashion stores, etc.

Line crossing means a violation of any border by the object (person, vehicle), including borders without any enclosures (barrier): lawn, safety strip at the edge of the platform, restrictive tape or barrier.



Configuration Window



Detecting the event

Wrong Direction Detector

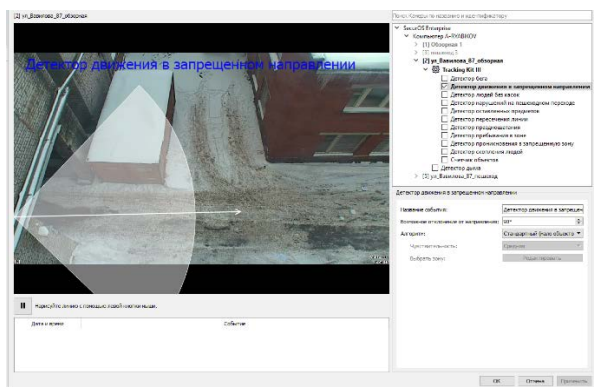
Designed to detect objects (people, vehicles) moving in the opposite direction of what is expected.



Use-cases

- Operating environment control of restricted access facilities (preventing the passing into inputs/entries, and opposite direction)
- Detection of visitors trying to leave the site (store, gas station, self-service cafeteria, etc.) bypassing the checkout lane (through the entrance) without payment

The movement in the wrong direction is a deviation of the moving person or a vehicle trajectory from the permitted direction. The main setup parameter is the angular range around the vector of the prohibited areas.



Configuration Window



Detecting the event

Smoke Detector

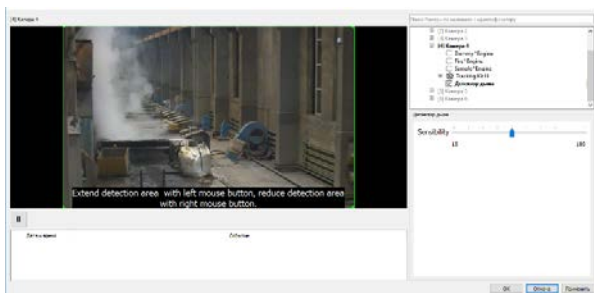
Designed to detect smoke of any kind.



Use-case

Smoke detection in the areas of solid waste disposal, in warehouses, etc.

The smoke is a set of specific changes in the scene of the controlled area: the presence and nature of movement in time and space, its texture features. The algorithms of the detector take into account the possible interference in the overview area and minimize the number of false positives.



Configuration Window



Detecting the event

Typical applications in Verticals (Industries)

Crowd Detector	City (pedestrian zones); adjacent territory to administrative / government buildings
Object Counter	Retail; sporting venue
Object Left Behind Detector	Checkpoints; Retail, service entities, office buildings; traffic infrastructure
Intrusion Detector	Cultural items (memorial monument, etc.), traffic infrastructure (bridge footing, technical zones)
Loitering Detector	Parking, ATM; City (pedestrian zones)
Running Detector	City (pedestrian zones); Retail
Dwell Time Detector	Retail; Traffic infrastructure
Line Crossing Detector	Subway, Railroad passenger terminals; art galleries, Cultural items (memorial monument, etc.)
Wrong Direction Detector	Airport passenger terminals, Railroad passenger terminals, Checkpoints (including border entry point)
Smoke Detector	Courtyard territories (including recycling bins zones); Retail, warehouse

Key Advantages of SecurOS Video Analytics Situational Awareness

1. Implements "complex" solutions
2. Programmable logic event processing
3. High quality video analysis algorithms
4. Minimized false positives or missed events
Maintained by setting tasks for each control zone and operating conditions
5. Limitless number of synchronous operating detectors in the same video camera
6. System modernization does not require replacement of equipment (video cameras)
7. Multi-vendor equipment support

While implementing the project, cameras from different vendors may be used. Recommendations for choosing the best IP-camera for various video awareness analytics tasks, you can obtain by contacting the ISS specialists.

SecurOS Situational Video Analytics and Event-Processing Subsystem

SecurOS situational video analytics detectors and event-processing subsystem provides an opportunity to automate a large variety of routine operations, performed consistently in high quality - 24x7.

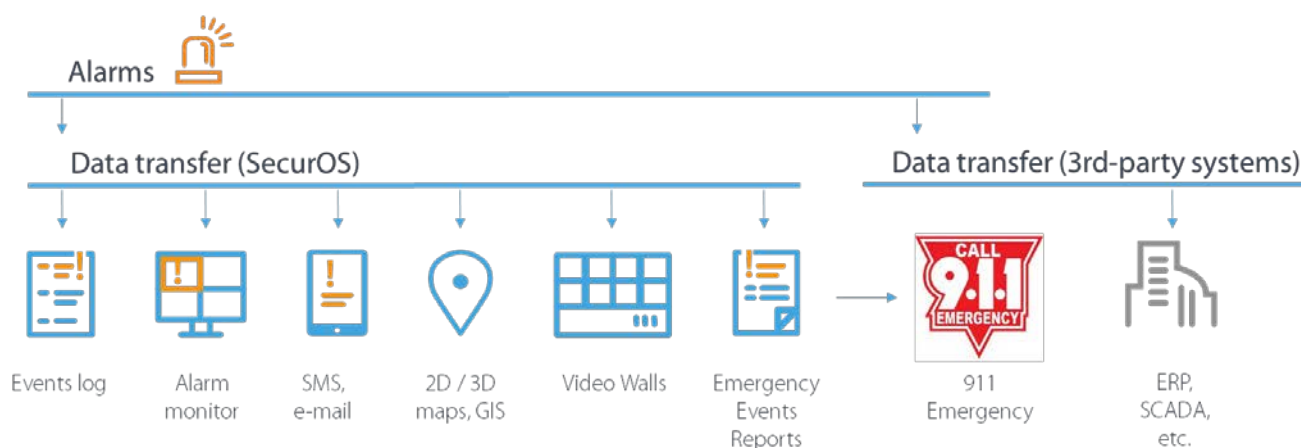
The functionality of the solution allows collecting, recording, arranging, storing and utilizing data on registered alarm events (potential risks) automatically.

The operator receives notifications about a given event. The type of alert configured according to specific task requirements. Any alert can be sent in various ways: SMS, email, or dialog interface with a choice of actions (notifying emergency services, cancellation of alarm status, etc.).

All registered events recorded within the database along with the event results processed by the operator. For convenience, the operator can search by specified parameters.

System Supports:

- statistical data collection and generation of a full range of reports on system operation and events;
- audit of system operators actions in accordance with the scenarios;
- data export to specific external systems



Optional features:

- Support 2D and 3D maps (interactive site plans)
- GIS integration

Intelligent Security Systems («ISS») Corporate Profile

Intelligent Security Systems («ISS») is a leading developer of video management and video intelligence solutions, as well as video based industrial automation systems. The ISS video management platform, SecurOS, is the nucleus of a complete security eco-system, a visualization platform that integrates native, as well as third party analytics, access control systems, fire and life safety, building management, SCADA, and can be made compatible with virtually any third party system or device. Its “Security on Demand” infrastructure is the solution to rapidly migrating security and surveillance needs and threats.

SecurOS focuses on large mission critical applications security systems: industrial and manufacturing sites, transportation systems, banks, sports arenas, retail locations, campuses & office complexes. ISS has patented object-oriented event-driven core firmware, advanced video compression technologies, intelligent video motion detection and digital video recognition capabilities.

ISS works with partners to develop complete solutions. Commitment to support: from design to deployment to post-installation. Scripting, integration with systems and customization of the user experience allow us to continue to fine-tune the solution to meet user needs.

Recognized Leader in Video Management and Analytics Solutions

- Ranked #1 in Latin America
- Ranked top 5 in EMEA
- Ranked top 10 worldwide (IHS Markit (IMS Research))
- Operates in CCTV since 1996 (over 20 years in the industry)

Global Footprint

- Over 100,000 successful deployments in 6 continents and over 54 countries
- More than 130,000 servers & over 2.0 million cameras under SecurOS™ VMS command
- Private labeled by IBM in EMEA