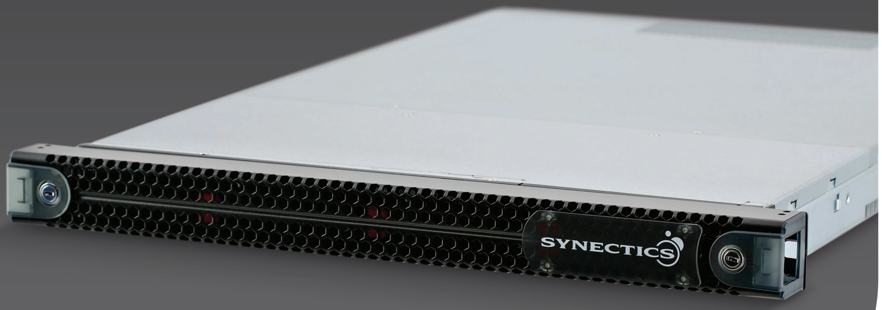
iSynx VCA Server

Centralized Video Content Analysis (VCA)

iSynx IP video analytics solution combines highly flexible threat detection with business intelligence capabilities.



Centralized Video Analytics

Synectics' iSynx IP-based VCA server analyzes live video from any Synectics compatible video source ranging from analog encoded cameras to IP HD and megapixel streams, and Synectics encoding platforms including e1600. In addition, iSynx can retrospectively analyze recorded footage from Synectics' PSN 3 storage appliances. Any Synectics verified stream including ONVIF is fully compatible with the iSynx centralized analytics platform.

Using patented algorithms, iSynx software intelligently detects objects of interest, distinguishing between people, vehicles and other objects, continuously tracks moving and stationary targets within the video scene and automatically generates alerts.

Flexible & Integrated Control

Video analysis is managed centrally through an intuitive user interface within Synectics' Synergy 3 and Synergy Pro platforms. Through the integrated Synergy GUI, operators simply select the analytic rule(s) to be applied, specify the designated video streams to monitor (which can include any cameras on the network), and define specific areas of interest to include or exclude to minimize false alarms.

Features

- Up to 16 channels of network-based video content analytics*
- Camera tamper, gross scene change, object classification and single tripwire come standard
- Upgrade license packs available for additional functionality
- Fully redundant power supply unit
- Intuitive user interface for easy, flexible rule-based configuration, monitoring, and management

*2.0 mbps per channel, secondary stream from HD cameras

Proactive Monitoring and Sophisticated Threat Recognition

iSynx enhances physical security effectiveness by helping security personnel be proactive and react efficiently to threats. By systematically monitoring surveillance activity with predefined software rules (such as tripwire or motion), iSynx automatically detects and alarms on potential security breaches, and brings the incident, location and corresponding camera feeds to the attention of live operators. Security personnel monitoring large or distributed facilities can identify, verify and respond quickly and appropriately.

Each iSynx Server comes with standard analytics capabilities for camera tampering, gross scene change, object classification and single tripwire. Optional add-on software licenses are available for more sophisticated threat recognition and detection, including perimeter breaches, object removal, objects left behind, loitering and people counting. Channel and/or functional upgrade software licenses can be specified with original iSynx purchase or added later upon request.

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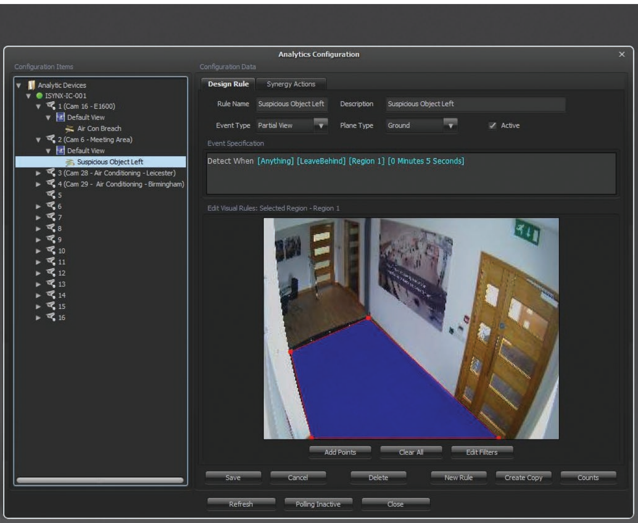


Analytics Configuration

Configuration Items

- Analytic Devices
  - ISYNX-IC-001
    - 1 (Cam 16 - E1600)
      - Default View
        - Air Con Breach
    - 2 (Cam 6 - Meeting Area)
      - Default View
        - Suspicious Object Left
    - 3 (Cam 28 - Air Conditioning - Leicester)
    - 4 (Cam 29 - Air Conditioning - Birmingham)
    - 5
    - 6
    - 7
    - 8
    - 9
    - 10
    - 11
    - 12
    - 13
    - 14
    - 15
    - 16

Configuration Data

Design Rule | Synergy Actions

Rule Name: Suspicious Object Left

Description: Suspicious Object Left

Event Type: Partial View

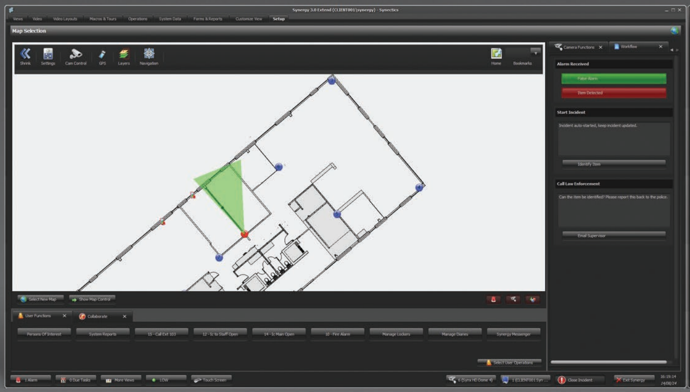
Plane Type: Ground

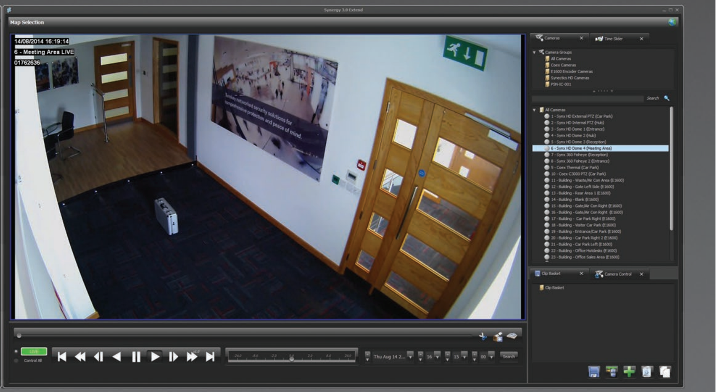
☑ Active

Event Specification

Detect When [Anything] [LeaveBehind] [Region 1] [0 Minutes 5 Seconds]

Edit Visual Rules: Selected Region - Region 1





Analytics provides automated real-time identification, detection, tracking and analysis of potential events and threats.

Centralized Video Analytics

Camera Tamper / Gross Scene Change

Detects any event that significantly changes the field of view of the camera, such as the camera being panned away from a known view, a camera lens being painted, a camera being cloaked, turned off or unplugged, or the lights being turned on or off.

Object Classification

Differentiation between a person, vehicle or other object.

Tripwire Event Detection

Detects when the specified object moving in a specified direction crosses over a virtual 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 unidirectional or bi-directional.

Multi-line Tripwire Event Detection

Enables the building of rules between two virtual tripwires, with respect to crossing one before the other, and the relative time elapsed between crossing both. For example, the Double Tripwire can detect illegal turns or traffic flow (vehicles or people).

Enters Event Detection

Detects when a specified object type enters a defined area of interest.

Exits Event Detection

Detects when a specified object type exits a defined area of interest.

Appears Event Detection

Detects when the specified object appears in 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 a camera's field of view without actually exiting the area of interest.

Take Away Event Detection

Detects when an object has been removed from the full view of a camera, or from a designated area of interest. For example, a Take Away rule will trigger an alert when a painting is removed from a wall.

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 Leave Behind rule will trigger an alert when a suspicious object is left.

Object Size Filters

Filter out objects that are too large or too small to be objects of interest that can trigger real alerts. For example, size filters can be used to distinguish between a car and a commercial vehicle.

Loitering

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.

Inside Of Event Detection

Detects when the specified object moves inside of a designated area of interest within a camera's field of view.

Object Person / Counting

Detects and tracks the number of people or objects present within a designated area of interest.

Occupancy Data

Tracks, and provides data on, the number of occupants in a designated area of interest.

Occupancy Threshold Alert

Alerts when the pre specified occupancy threshold is reached within a designated area of interest.

Object Dwell Time

Detects when an object has exceeded a predefined time period within a designated area.

NOTE: Video content/analysis performance and accuracy will vary widley depending on picture quality, ceiling height, lighting, camera angle, number of simultaneous subjects per frame, etc. Please consult with your integrator or Synectics sales engineer for details and likely compliance with your requirements.

Technical Specifications

IT ARCHITECTURE	
O/S	Microsoft Wes7

PORTS	
USB	2
Ethernet	2 x 1000BT NIC's Teamed
Display	1 X VGA
PS2	1 X Keyboard 1 x Mouse

APPLIANCE FUNCTIONALITY	
Lockable Front Panel	Yes
Synectics Advanced Health Monitor	Yes
Quick Lock Rack Kit	Yes
Advanced Out-Of-Band Remote Management Service including IP-KVM	Yes
SNMP Alarms	Yes

POWER	
Hot Swap PSU	Yes
Power Consumption	Max 250w, Normal 110w
Power Requirements	110 – 240VAC
BTU's	Max 854 / Hr

NETWORK OPTIONS	1 Link	2 Links (Data Connections)	2 Links (Dedicated Management Port)	3 Links
1 x 10/100/1000BT	Y	N	Y	N
2 x 10/100/1000BT	N	Y	N	Y
Out of Band Management Connection	Y	Y	Y	Y
Dedicated Management Connection	N	N	Y	Y
Adapter Fault Tolerant	N	Y	N	Y
Switch Fault Tolerant	N	Y	N	Y
Adaptive Load Balancing	N	Y	N	Y
Static Link Aggregation	N	Y	N	Y
Dynamic Link Aggregation	N	Y	N	Y

GENERAL	
Size	1U H 45mm x W 430mm x D 700mm 1U H 1.7" x W 17" x D 27.5"
Weight	1U 6Kgs / 13lbs
Operating Temperature	18-21 °C Recommended, Max 26 °C
Storage Temperature	-20 C – +80 °C
Humidity	5% to 90% Non-Condensing, 40% Recommended
Certifications and Approvals	RoHS Compliant EMI/EMC Certification

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Specifications subject to change. E & OE.

Literature Reference: iSYNX/0415/USL Iss 5