



Copyright

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Limitation of Liability

This product is designed to prevent fire and theft is not the main means. We shall not be liable for accidents or damage by using this product can result in liability for accidents or damage.

In order to improve the performance of the product a firmware upgrade may be released without prior notice, though require manual installation by way of the FW upgrade function.

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1. Overview

1. Safety Instruction

The Company shall not have any responsibility for any accident or damage that may incur during the use of the product. For your safety, we provide a few instructions about installation, manipulation, cleaning, assembly/disassembly of the product as below. So please read carefully and comply with the instructions.

2. Before installation

Comply with the following instructions to prevent a fire, explosion, system failure or electric shock

- Remove the power supply module before proceeding
- Check the input voltage (AC100V–AC240V) to the power supply module before connecting it
- Keep the product away from excessive humidity (refer to optimal operating temperature indicated in product specification sheet)
- Ensure that all devices connected to the product should be properly earth-grounded

3. In operation mode

Comply with the following instructions to prevent a fire, explosion, system failure or electric shock

- If in need of disassemble the product for service, please consult with our trained technician before proceeding
- Do not connect multiple devices to a single adapter, Exceeding the capacity may cause abnormal heat generation or fire
- Keep products away from excessive dust or flammable substances (e.g.: propane gas)
- Do not touch it with wet hand while powered on
- Do not insert a conductor the ventilation system
- Do not apply excessive force to unplug the power cord

4. Disassembly & Cleaning

- When cleaning on the surface, use a dry cloth
- Do not wipe the product using water, paint thinner or organic solvents
- Do never dismantle, repair, or modify the product. Without a consulting t rained technician

5. During installation

To prevent an accident or physical injury and to operate Product properly, please comply with the followings:

- Secure at least 18 centimeters of distance between cooling fan and wall for a proper ventilation
- Install the product on a flat surface
- Keep it away from direct sunlight or excessive heat
- Be sure to use only the standard adapter that is specified in the specification sheet. Using any other adapter could cause fire, electrical shock, or damage to the product
- Incorrectly connecting the power supply or replacing battery may cause explosion, fire, electric shock, or damage to the product

6. While in use

- Do not apply excessive force to or shake it while in use
- Only use attachments/ accessories specified by the manufacturer

7. WARNING

To reduce the risk of fire or electric shock, do not expose this product to rain or moisture.

To avoid injury, this product must be mounted securely to the floor / wall in accordance with the installation instructions.

- Use only the standard power source specified in the specification. Using a different power source can cause fire, electric shock, or damage to the product.
- Install the product firmly and reliably. Otherwise, the product may fall, and personal injury may result.
- Do not block any ventilation openings, Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug.
- A polarized plug has two blades with one wider than the other.
- A grounding type plug has two blades and a third grounding prong.
- The wide blade or the third prong are provided for your safety.
- If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

- Do not place conductive objects (e.g., screwdrivers, coins, metal parts, etc.) or containers filled with water on top of the camera. Doing so may cause personal injury due to fire, electric shock, or falling objects
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus
- Do not install the product where the air conditioner is exposed to direct air. Otherwise, moisture may condense inside the product due to temperature differences inside and outside the product
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped

8. Key features

This device is based on the latest deep learning technology of intelligent video analysis which has up to 16 channels network camera video inputs. The features include object identification, object counts and object tracking by AI technology. Also, it allows to configure various trigger rules to ring alarms and can be utilized for various purposes by interworking with external network devices or systems.

For example, this product can be interlocked with existing surveillance system and build an intelligent surveillance system such as business intelligence access control. It also can be used as an edge computing-based video analysis device that combined with cloud web service.

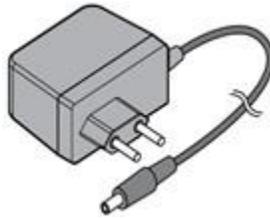
- The latest deep learning technology of object recognition engine (Human, car and etc)
- Equipped rule engine to detect various situations and actions such as 'Intrusion', 'Occupancy', 'Loitering', 'Enter/Exit', 'Line Crossing'
- Counts the number of objects that exist in a specific zone or counts the number of objects that pass through a specific zone
- OSD is displayed on the input image and provided as standard RTSP so that it can be easily linked without major compatibility with existing interlocking systems
- Standard ONVIF protocol support enables easy integration with ONVIF based network cameras and VMS (Video Management System)
- Various I/O supports including Alarm-in, Relay, RS485, USB
- Receive up to 16 channels of network video
- Receive Full HD video up to 480 fps, 4K video up to 120fps

2. Components

1. Components



Cable clamp

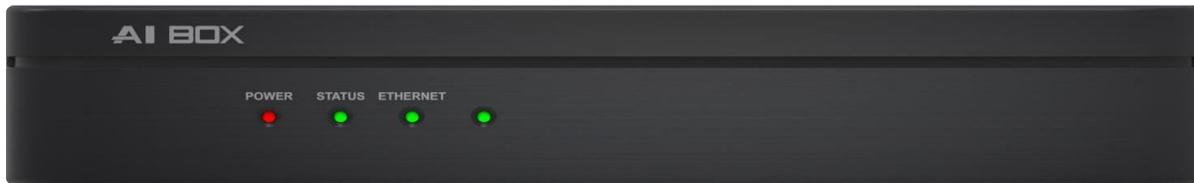


Adapter



Screw

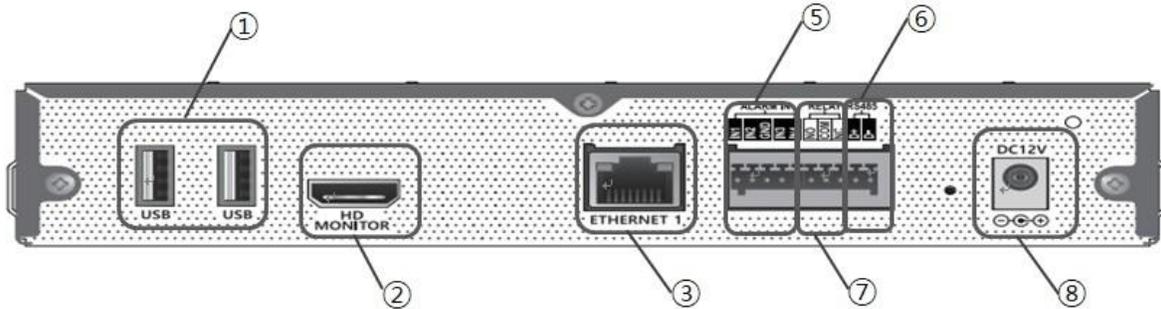
2. Front panel Names and functions



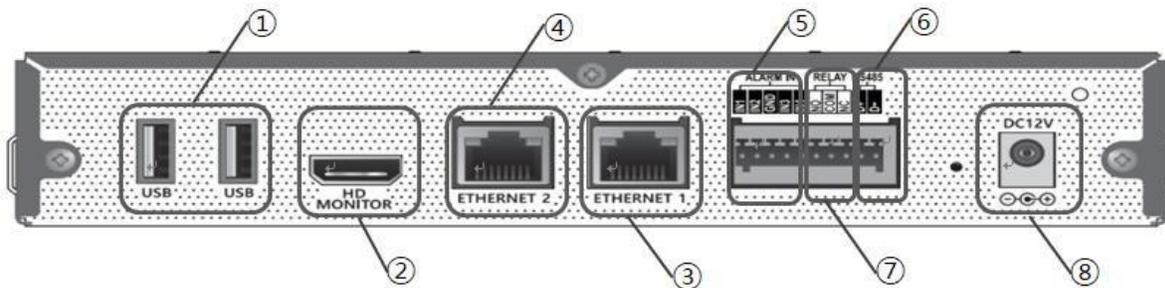
List	Status sign LED	Description
POWER		Red light blinks during the boot phase and green light during operation.
STATUS		Status light blinks when an event occurs after passing the set condition.
ETH1		ETH1 light blinks when communication is taking place via the ETH1 port or turns off when communication is not taking place.
ETH2		Headlight turns on when communication is taking place via the ETH2 port or turns off when communication is not taking place.

3. Rear panel Name and functions

- 4CH



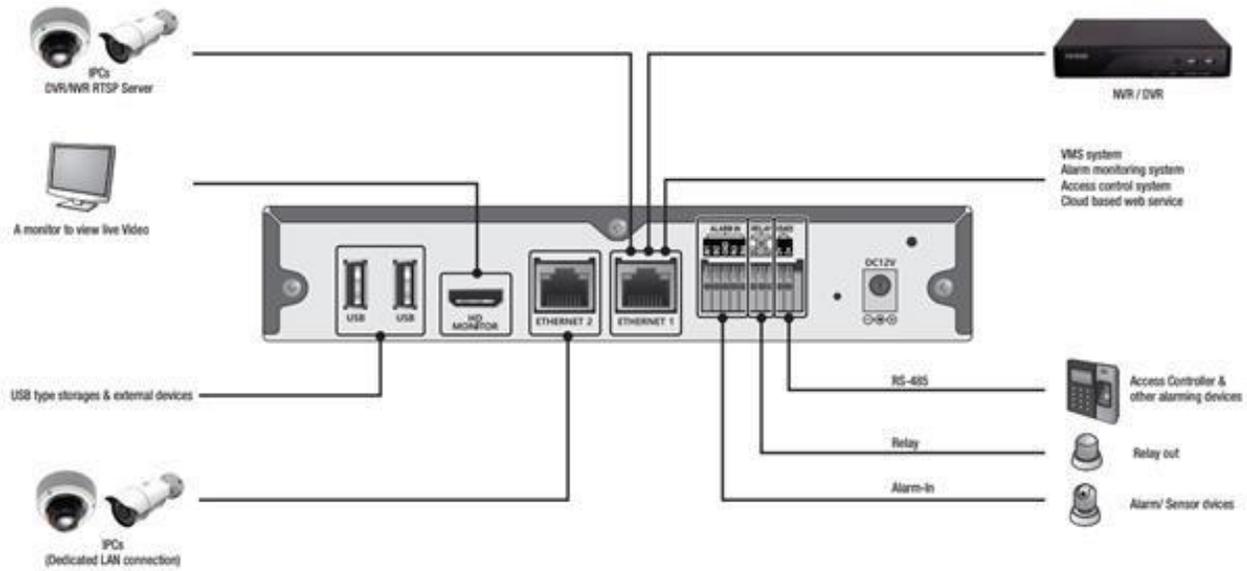
- 8CH / 16CH



No.	Names	Description
①	USB	Universal Serial Bus (USB) ports for additional devices such as USB Mouse.
②	HD MONITOR	For connecting a monitor to view connected cameras. Note, AI Box cannot be configured locally.
③	ETHERNET 1	RJ-45 port for connecting internet and other platforms such as interoperable VMS, recorders, and IP cameras.
④	ETHERNET 2	Network port for connecting camera and other through a separate network disconnected from the outside.
⑤	ALARM IN	Alarm input signal line terminal.
⑥	REPLAY	Relay connection terminal.
⑦	RS485	RS485 communication device connection terminal.
⑧	DC12V	12V adapter plug

3. Installation

1. Basic connection configuration



2. Network setting

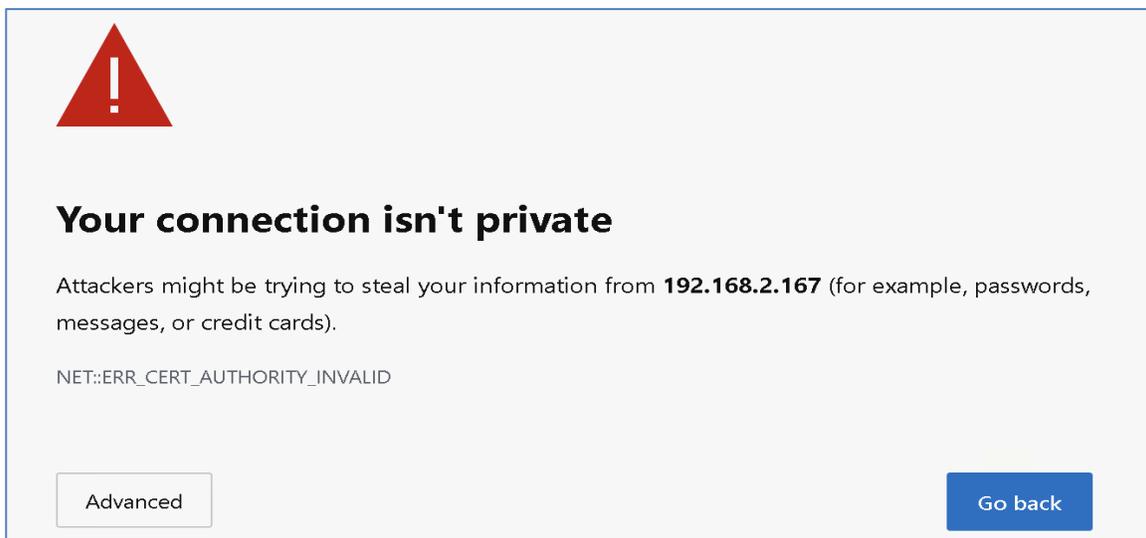
Basic requirements of Web

Name	Description
Recommended Browser	Google Chrome, FireFox, MS Edge
OS	Window / Mac / Linux
RAM	≥1GB

3. Web access setting page

The factory default network setting is DHCP. Therefore, it is possible to access the IP assigned through the router supported by DHCP (IP can be checked by accessing the Web of the router).

- IP address: <https://<AI Box IP>:8443> (e.g.: <https://10.10.10.10:8443>)
- Note: Default Network security settings are HTTP, which will invoke browser security warnings
- With Chrome as the example, select 'Advanced' to continue past the security warning



- A new security warning, regarding trust of the security certificate will appear
- Below the warning, the message 'Continue to 'AI BOX IP address (unsafe)' will appear
- Click on the warning message to continue onto the AI Box login screen
 - This is a completely safe procedure as the browser is only connecting to the AI Box



- Primary username: ADMIN (Default)
- Password: 1234 (Default)

Note: *It is recommended to change the default password for safety purposes*

A strong password will consist of a combination of upper- and lower-case letters, numbers, and punctuation symbols.



A login form with two input fields and a button. The first field is labeled 'User ID' and the second is labeled 'Password'. Below the fields is a blue button with the text 'LOGIN' in white capital letters.

4. Discovery tool

The 'Admin_Tool.exe' allows for the discovery and configuration of the GANZ AI BOX in a network.

The '[Ganz MDload](#)' tool is used for discovery and configuration of Ganz PixelPro IP cameras, the Ganz PixelMaster eNVR, the Ganz Digimaster DVR, and the Ganz AI Box.

- Clicking the 'Search' button will initialize a search and discovery inquiry of the local network
- Devices are discovered by way of their Mac address, not by their IP address
- Search results are displayed on the screen
- The current MDload tool does not list the AI Box model, a revision is in works
 - The AI Box can be recognized by its default HTTP Port of 8443

The screenshot shows the 'MULTI Upgrade Tool V4.60' interface. At the top is a table with the following columns: STEP, MAC Address, Type, IP Address, HTTP Port, Model, SW Ver., DNN Sensitivity, IR LED, and Status. The table lists several devices, including ZN-DT2MTP-IR, ZN-C6DHE, ZN-MDI243M-IR, ZN-D6DTMP55LHE, and ZN-M2AF. Below the table are several control panels: 'NIC Select' (set to Any IPv4), '<IP Information>' (with fields for IP Address, Subnet Mask, Gateway, DNS1, DNS2, Network Type, and HTTP Port), '<SEARCH>' (with fields for ID, Password, Search interval, System Info Log, TCP Search, and IP/Port), '<UPGRADE>' (with buttons for File Open, Upgrade All, STOP, and various upgrade options like Prohibit S/W Downgrade, Backup Camera Configs, Scheduled Upgrade, and Unit(s) simultaneously), and '<IMAGE>' (showing a camera feed and device details like Model: ASO-8M5C-1MQAR6, Resolution: 640 X 360, and FW: 89100.1.0176.100). The status bar at the bottom indicates '0 Done (0 Errors), 0 Remain, 0 Uploading, Time Elapsed: 0000 seconds'.

1. Set the Network Type

To set the network type, select the device from the list, highlighting it.

- Network Type: Select either 'DHCP' or 'STATIC'
 - Selecting 'DHCP' sets the device to query the local DHCP server for IP configuration
 - Selecting 'STATIC' will allow for manual assignment of the device IP configuration
 - Please input the IP Address, Subnet Mask, Gateway, and DNS information
- Change IP address: Click the 'Change IP address' button to commit the changes to the device
 - After a short period, the list will update, and the new network configuration will be listed
 - Please confirm that the new network configuration is correct
- Double click the device information in the list above to open the device setting page

The screenshot displays the management interface for the AI Box. It is divided into several sections:

- NIC Select:** A dropdown menu set to 'Any IPv4'.
- Sort by:** A dropdown menu set to 'Platform' with an 'Exec' button next to it.
- <IP information>**: Fields for IP Address (192.168.2.167), Subnet Mask (255.255.255.0), Gateway (192.168.2.112), DNS1 (8.8.8.8), and DNS2 (8.8.4.4). A 'Network Type' dropdown is set to 'STATIC' and 'HTTP Port' is 8443. A 'Change IP address' button is located below these fields.
- <SEARCH >**: Fields for ID (ADMIN) and Password (****). Checkboxes for 'Search every 60 seconds', 'System Info Log', and 'TCP Search'. A search input field contains '192.168.10.1' and a 'Port' field contains '80,8080'. A 'Search' button is at the bottom.
- <UPGRADE>**: Buttons for 'File Open', 'Upgrade All', and 'STOP'. 'F/W version: Unknown' is displayed. Checkboxes for 'Prohibit S/W Downgrade', 'Scheduled Upgrade', and 'Backup Camera Configs' (checked). A dropdown for 'Unit(s) simultaneously' is set to '5'. A status indicator shows '61 Searched'.
- <IMAGE>**: A live video feed showing a person in a room. Below the feed, device details are listed: Model (ASO-8MSC-1MQAR6), Resolution (640 X 360), and FW (89100.1.0176.100).

At the bottom of the interface, a status bar reads: '0 Done (0 Errors), 0 Remain, 0 Uploading, Time Elapsed: 0000 seconds'. The system tray shows 'Ready'.

4. System Settings

System settings for the AI Box consist of the Network, User management, Language, Date and Time, and System Management.

1. Language setting

Set the language which will be displayed on the system.

The AI Box language can be changed at any point within the AI Box setup menu.

Select the 'Global' icon in the top right corner and select the language of choice.

- Languages: English, Korean, Japanese, Czech, German, Italian, Polish, and Russian

The screenshot shows the AI Box web interface. The top navigation bar includes 'AI Box', 'LIVE', and 'SETUP'. The right side of the top bar shows 'English', 'ADMIN', and 'Logout'. A left sidebar lists menu items: AI SOURCES, AI SECURITY, AI MARKETING, SEARCH, DISPLAY, NETWORK, USER (highlighted), User Management, and SYSTEM. The main content area is titled 'User Management' and shows a 'User List' table with columns for User ID, Group, and Operation. The table contains one entry: ADMIN, Administrator, and a checkmark icon. An 'Add' button is located below the table. On the right side of the main content area, there is a language selection dropdown menu with options: English, 한국어, 日本語, Český, Deutsch, Italiano, Polski, and Русский.

User ID	Group	Operation
ADMIN	Administrator	<input checked="" type="checkbox"/>

5. AI Sources

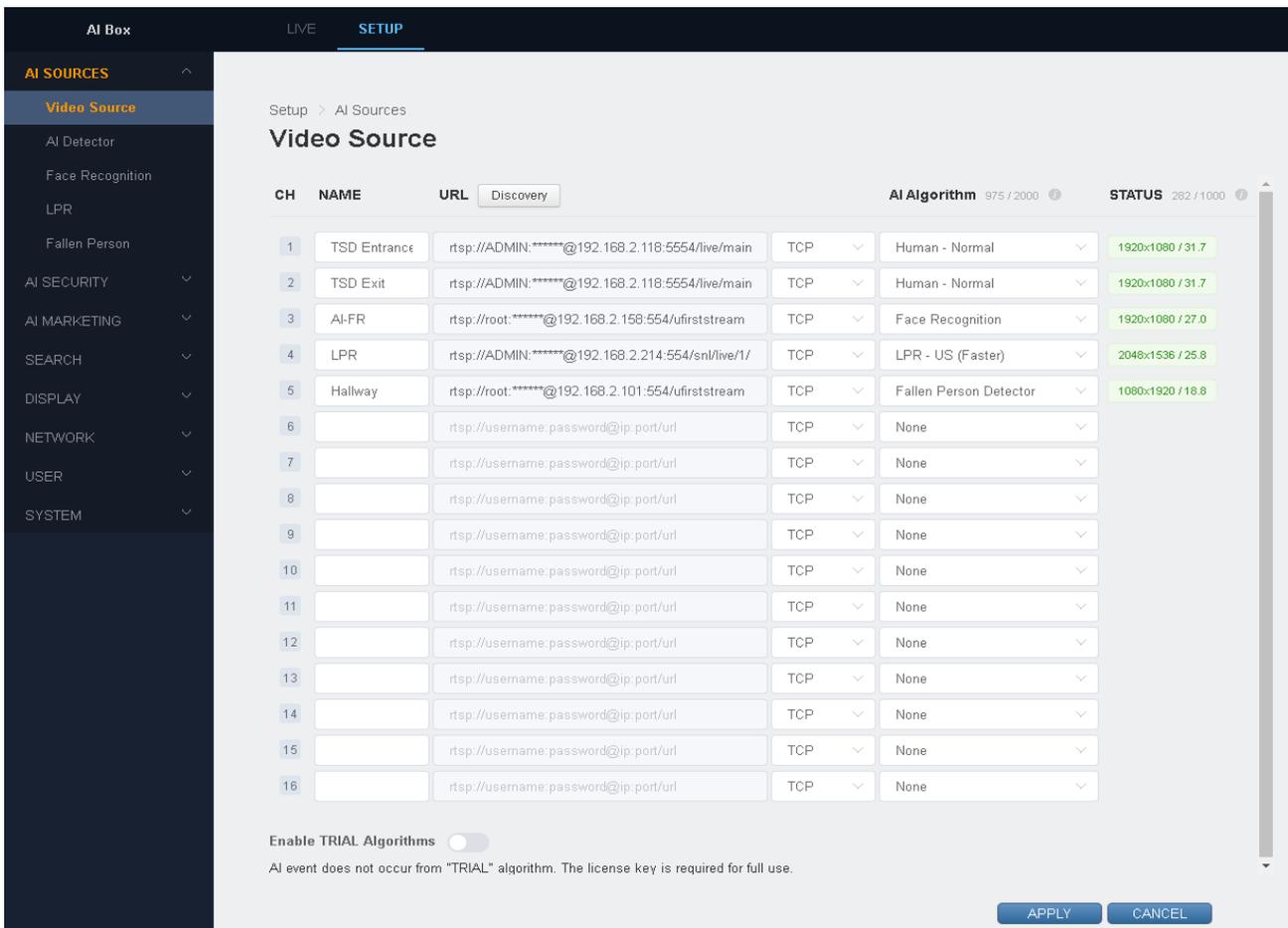
1. Video Source

The AI Box may support up to 16 channels of video from a server or device that supports IP cameras or RTSP streaming. Once configured, a select AI algorithm by be assigned to each video channel. Select 'Setup/AI Sources/Video Source' to modify or add video sources to the AI Box.

The AI Box offers three options for adding video sources.

- Option one; ONVIF discovery tool
- Option two; Manually applied device RTSP syntax
- Option three; Dedicated DVR / NVR with support for AI Box Plug & Play

[Caution] Video resolution can be connected to a maximum channel resolution of 2 Meg pixels, and 30fps. When connecting a 4K camera, you should connect the channel at a lower 7fps or less to connect all channels.



Setup > AI Sources

Video Source

CH	NAME	URL	Discovery	AI Algorithm	975 / 2000	STATUS	282 / 1000
1	TSD Entrance	rtsp://ADMIN:*****@192.168.2.118:5554/live/main	TCP	Human - Normal		1920x1080 / 31.7	
2	TSD Exit	rtsp://ADMIN:*****@192.168.2.118:5554/live/main	TCP	Human - Normal		1920x1080 / 31.7	
3	AI-FR	rtsp://root:*****@192.168.2.158:554/ufirststream	TCP	Face Recognition		1920x1080 / 27.0	
4	LPR	rtsp://ADMIN:*****@192.168.2.214:554/sn/live/1/	TCP	LPR - US (Faster)		2048x1536 / 25.8	
5	Hallway	rtsp://root:*****@192.168.2.101:554/ufirststream	TCP	Fallen Person Detector		1080x1920 / 18.8	
6		rtsp://username:password@ip:port/url	TCP	None			
7		rtsp://username:password@ip:port/url	TCP	None			
8		rtsp://username:password@ip:port/url	TCP	None			
9		rtsp://username:password@ip:port/url	TCP	None			
10		rtsp://username:password@ip:port/url	TCP	None			
11		rtsp://username:password@ip:port/url	TCP	None			
12		rtsp://username:password@ip:port/url	TCP	None			
13		rtsp://username:password@ip:port/url	TCP	None			
14		rtsp://username:password@ip:port/url	TCP	None			
15		rtsp://username:password@ip:port/url	TCP	None			
16		rtsp://username:password@ip:port/url	TCP	None			

Enable TRIAL Algorithms

AI event does not occur from "TRIAL" algorithm. The license key is required for full use.

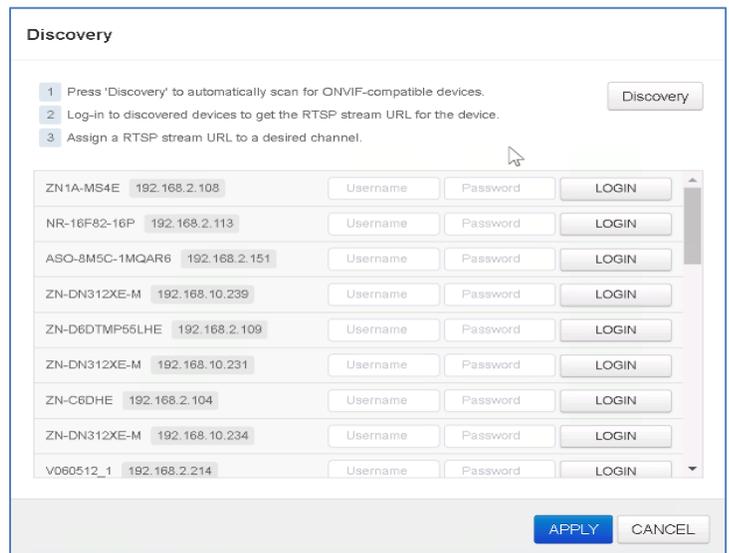
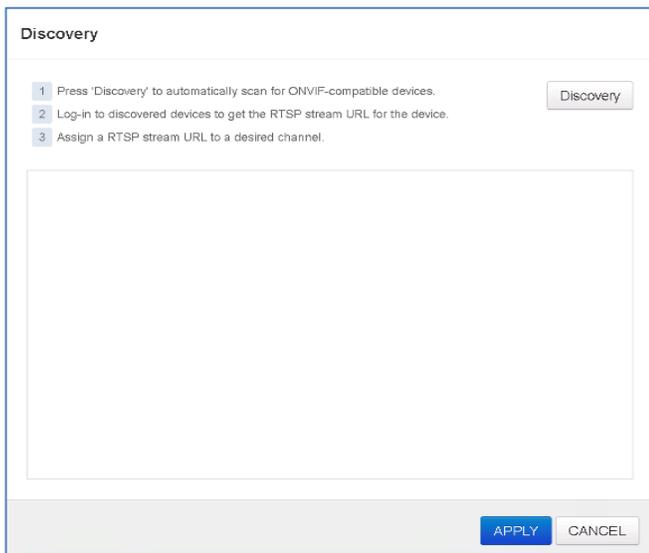
APPLY CANCEL

2. ONVIF discovery tool

The ONVIF discovery tool allows discovery of IP cameras, DVRs, and NVR connections using the ONVIF discovery protocol. The video stream address can be configured by searching for the ONVIF devices connected to the local network.

- Press the 'Discovery' button and the ONVIF Discovery popup will appear.
- Press the 'Discovery' button to search ONVIF devices connected to the local network.
- Input the account information of the device found, username and password.
- Press the <Login> button to view the video stream address.
- Select 'Apply' to confirm and save the added stream.
- Assign the video stream address of the ONVIF device to a specific channel.

The video stream address is inputted in the URL field of the assigned channel when you press the 'APPLY' button.



3. Connection via manual entry of RTSP address

Connection can be made by directly entering the RTSP address of a device or server that supports standard TCP based RTSP.

- Confirm with manufacture of device, the RTSP syntax to use
- URL: enter the RTSP syntax of the device target
 - example: `rtsp://root:pass@192.168.2.101:554/ufirststream`
- Select protocol TCP, UDP, or Multicast
- Select the AI Algorithm, example; Human – Normal
- Select 'Apply' to confirm, and save

The screenshot shows the 'Video Source' configuration page in the AI Box web interface. The page has a dark sidebar on the left with navigation options like 'AI SOURCES', 'AI SECURITY', 'AI MARKETING', 'SEARCH', 'DISPLAY', 'NETWORK', 'USER', and 'SYSTEM'. The main content area is titled 'Video Source' and contains a table with columns for 'CH', 'NAME', 'URL', 'AI Algorithm', and 'STATUS'. A red box highlights the URL field for the 'Hallway' source, which contains the example RTSP address: `rtsp://root:pass@192.168.2.101:554/ufirststream`. Other sources listed include 'TSD Entrance', 'TSD Exit', 'AI-FR', 'LPR', and several empty rows with a generic URL template: `rtsp://username.password@ip.port/url`.

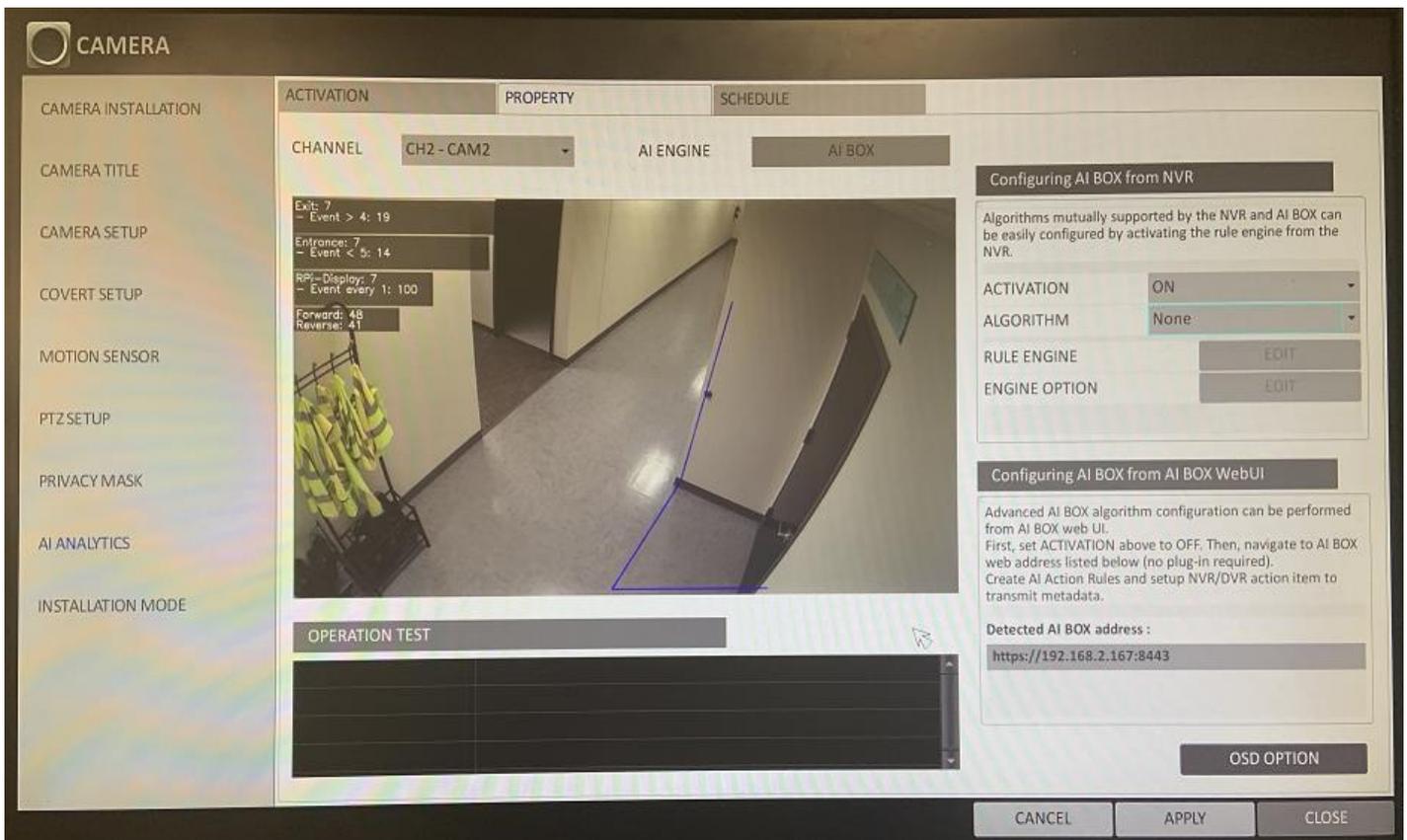
CH	NAME	URL	AI Algorithm	STATUS
1	TSD Entrance	rtsp://ADMIN:*****@192.168.2.118:5554/live/main	TCP	Human - Normal
2	TSD Exit	rtsp://ADMIN:*****@192.168.2.118:5554/live/main	TCP	Human - Normal
3	AI-FR	rtsp://root:*****@192.168.2.156:554/ufirststream	TCP	Face Recognition
4	LPR	rtsp://ADMIN:*****@192.168.2.214:554/sn/live/1/1	TCP	LPR - US (Faster)
5	Hallway	rtsp://root:pass@192.168.2.101:554/ufirststream	TCP	Fallen Person Detector
6		rtsp://username.password@ip.port/url	TCP	None
7		rtsp://username.password@ip.port/url	TCP	None
8		rtsp://username.password@ip.port/url	TCP	None

4. DVR / NVR auto connection

The Ganz AI Box supports auto connection to a dedicated DVR (Ganz Digimaster), or dedicated NVR (Ganz PixelMaster) that offer support for the AI Box Plug & Play functionality.

The AI Box can automatically connect through the menu of the DVR (Ganz Digimaster), or NVR (Ganz PixelMaster) without setting the device through the AI Box's Web UI.

Please refer to the DVR (Ganz Digimaster) or NVR (Ganz PixelMaster) user guide for details.



5. AI Algorithm

After configuring a select video source, select either a basic AI algorithm, licensed based AI algorithms, or custom AI algorithms to apply to the channel for analyses by.

Basic AI Algorithm

Basic AI algorithms are algorithms that are standard on the AI Box.

- **Human / Vehicle - Far**
 - This algorithm is optimized to distinguish people and vehicles in the far distance
- **Human / Vehicle - Normal**
 - This algorithm detects medium distance of people and vehicles
- **Human / Vehicle - Normal (Faster Objects)**
 - This algorithm is optimized to track fast moving people and vehicles
 - Higher accuracy can be obtained when using rules such as 'Line Crossing' or 'Enter / Exit'

The minimum object recognition size compared to the input screen for each algorithm is as follows:

- Minimum detectable object size of Intrusion and Occupancy
 - Human far: Width – 1.00% / Height – 3.00%
 - Vehicle far: Width – 2.00% / Height – 1.50%
 - Human normal: Width – 1.25% / Height – 4.50%
 - Vehicle normal: Width – 3.00% / Height – 2.25%
- Minimum detectable object size of Loitering, Enter / Exit and Line Crossing
 - Human far: Width – 1.25% / Height – 5.00%
 - Vehicle far: Width – 3.00% / Height – 2.50%
 - Human normal: Width – 2.00% / Height – 6.00%
 - Vehicle normal: Width – 7.00% / Height – 6.00%

Licensed AI Algorithm

Licensed AI algorithms are algorithms that require the purchase of a license to register of the algorithm.

- Some licensed AI Algorithms: Privacy Masking, Face Recognition, LPR, and Fisheye

Custom AI Algorithm

Custom AI algorithms are algorithms trained and tailored toward a specific requirement such as helmet or mask detection.

Note: Choosing a particular AI algorithm will reduce the number of AI algorithm assignable channels, as each AI algorithm has a different resource overhead requirement.

Each AI Box offers a finite number of AI algorithmic units, or resources, usable by a selected AI Algorithm.

- The 4Ch AI Box offers a total capacity of up to 1000 Alu's (250 Alu's per channel)
- The 8Ch AI Box offers a total capacity of up to 2000 Alu's (250 Alu's per channel)
- The 16Ch AI Box offer a total capacity of up to 2000 Alu's (125 Alu's per channel)

* If the required AI unit resource cost is 500Alu's

- 4Ch AI Box: maximum allocation is 2 channels (= 250 Alu's x 2 Ch's = 500 Alu's)
- 8Ch AI Box: maximum allocation is 2 channels (= 250 Alu's x 2 Ch's = 500 Alu's)
- 16Ch AI Box: maximum allocation is 4 channels (= 125 Alu's x 4 Ch's = 500 Alu's)

AI Engine resources

- Within the Video Source menu, reference the AI Algorithm indicator
- This is a reference of the current resources used by the applied Analytics

Video Decoding resources

- From the Video Source menu, reference the STATUS indicator
- This is a reference of the current resources used for Video Decoding

Setup > AI Sources

Video Source

CH	NAME	URL	Discovery	AI Algorithm	STATUS
1	TSD Entrance	rtsp://ADMIN:*****@192.168.2.118:5554/we/main	TCP	Human - Normal	1920x1080 / 31.7
2	TSD Exit	rtsp://ADMIN:*****@192.168.2.118:5554/we/main	TCP	Human - Normal	1920x1080 / 31.7

2. AI Detector

The AI Detector is where the AI Tracking configuration may be found SETUP/AI SOURCES/AI Detector

- Channel selector: Select target channel to configure AI Detector for
- Track Reference Point: select either Centroid, Bottom, Top, Left, or Right
- Criteria for determining object in area: Track Reference Point, or All points of bounding box
- Number of consecutive frames for classification: 1 ~ 50
 - The more frames for detection, the more carefully judged, but objects may be detected later
- Object Size Filter: Min Object Size, and or Max Object Size
 - If an object is smaller or bigger than the set size, it is not detected.
 - If you want to set for each zone, set it in the "AI Trigger" menu.
- Minimum Confidence Threshold: 15% ~ 90%
 - It may vary depending on lighting conditions, shooting angle, distance, and AI algorithm update, etc. If you are not sure, use the default value of 15%
- AI Detector / Tracker Settings: Copy to...
 - Copy settings to selected target channel, or channels

The screenshot shows the 'AI Detector / Tracker Settings' page in a web application. The interface includes a top navigation bar with 'AI Box', 'LIVE', and 'SETUP' tabs, along with language and user options. A left sidebar lists various system categories like 'AI SOURCES', 'AI SECURITY', and 'SYSTEM'. The main content area is titled 'AI Detector / Tracker Settings' and features a dropdown menu for channel selection (currently 'CH 1 - TSD Entrance') and a 'Human - Normal' mode indicator. The settings are organized into a 'Detector/Tracker' section with the following controls:

- Track Reference Point:** A dropdown menu set to 'Centroid'.
- Criteria for determining object in area:** A dropdown menu set to 'Track Reference Point'.
- Number of consecutive frames for classification:** A numeric input field set to '3', with a tooltip explaining that more frames lead to more careful judgment but may delay detection.
- Object Size Filter:** Two checkboxes for 'Min Object Size' and 'Max Object Size', with a tooltip stating that objects outside these sizes will not be detected.
- Minimum Confidence Threshold:** A numeric input field set to '90%', with a tooltip advising that this value varies with lighting and distance, and suggesting a default of 15% if unsure.

At the bottom of the settings area, there is a 'Copy to...' button.

Object Exclusion

The 'Object Exclusion' found at 'Setup/AI Sources/AI Detector, offers configuration of the exclusion mechanism. This allows for the creation of a zone of exclusion, where AI detection is turned off. No objects will be detected or classified.

- Object Exclusion Area: select 'Add'
 - A zone will appear, each time 'Add' is selected
 - Pull zone points to stretch, shrink, and expand the exclusion zone
 - Many zones may be created, and overlap
- Select 'Apply' to confirm and save all AI Detector settings.

Object Exclusion

Object Exclusion Area

Draw any desired exclusion areas that contain the centre coordinates of any objects to be ignored.

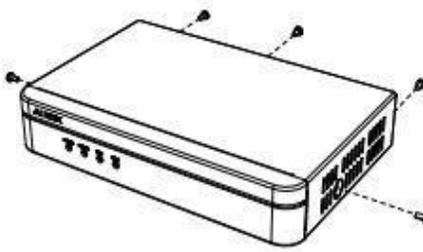
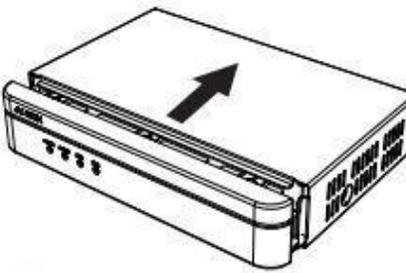
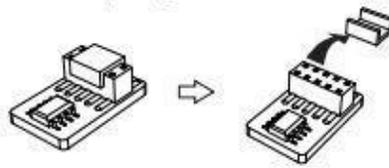
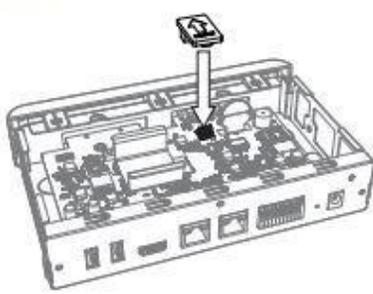


rtsp://192.168.2.167:5554/live/ch1

3. Face Recognition

To use the face recognition function, the AI Box requires the installation of the FR chip.

The AI Box with the FR chip already installed maybe an option at time of purchase. If the AI Box did not come with the FR chip, the chip can be purchased separately and installed.

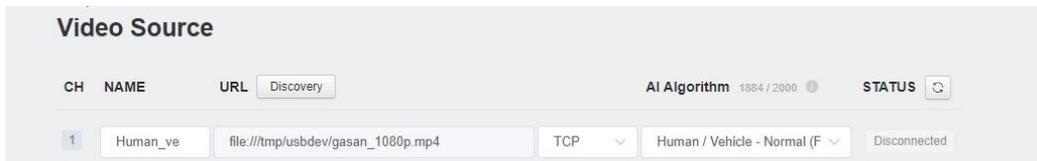
<p>STEP 1 Separate five screws on the side and back of the AI BOX.</p>  <p>CAUTION Gloves should be worn before disassembling the top cover. Otherwise you may hurt your hand.</p> <p>1</p>	<p>STEP 2 Slide the top cover back to remove it.</p>  <p>STEP 3 Remove the cover of the part shown in the picture of the package FACE RECOGNITION chip.</p>  <p>2</p>	<p>STEP 4 Plug the FACE RECOGNITION into the 10 pins of the motherboard.</p>  <p>CAUTION The direction of FACE RECOGNITION CHIP should be inserted with the arrow facing the front.</p>  <p>STEP 4 Assemble the top cover and tighten the screws in the reverse of the step 1 and 2 division.</p> <p>3</p>
--	---	--

1. FR Algorithm

Set the AI algorithm to Face Recognition in the Video Source menu under AI Source.

Video Source menu is located at SETUP/AI SOURCES/Video Sources -> Set the target channel AI Algorithm to Face Recognition.

- Select 'Apply' to confirm and save all AI Algorithm settings.

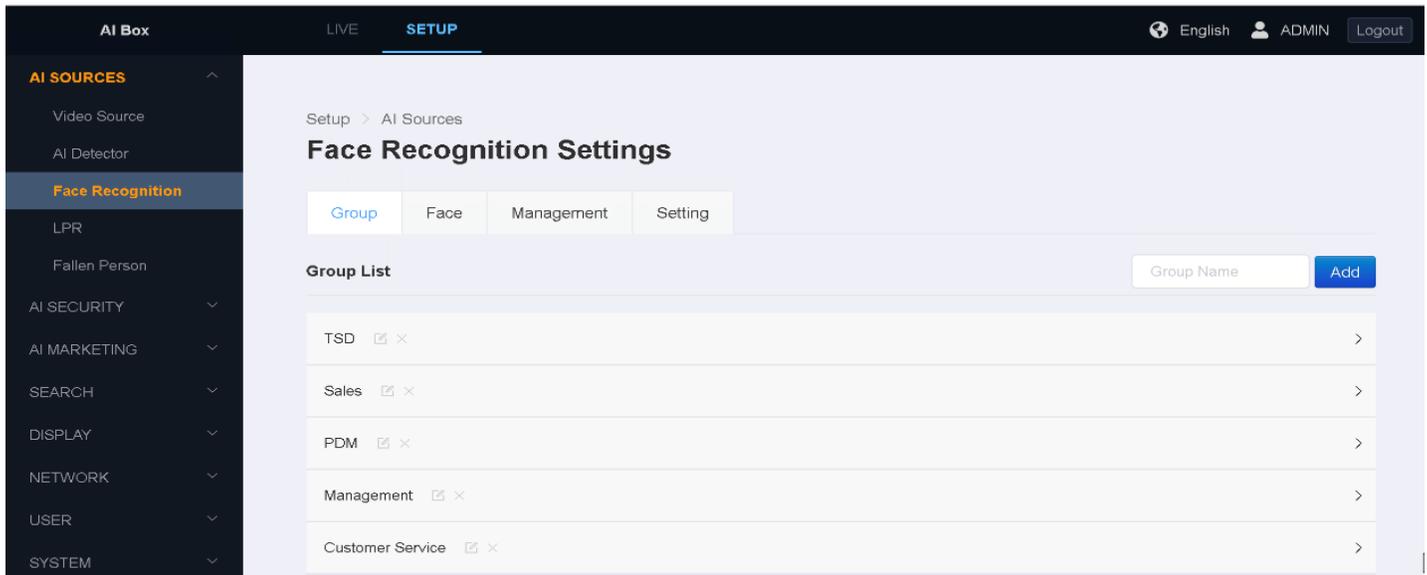


2. FR Group List

You can create a group of face recognition databases in the 'Groups' tab of the 'Face Detection' menu under SETUP/AI SOURCES/Face recognition – Note: A Face Recognition AI License is required for the function.

SETUP/AI SOURCES/Face recognition It is possible to create a group of face recognition databases from the Group menu.

- Group Name: Enter a group name according to intent
- Select 'Add' to create a face recognition group database



Face recognition data can be added individually in the SETUP/AI SOURCES/Face recognition -> 'Face tab' of the 'Face Detection' menu.

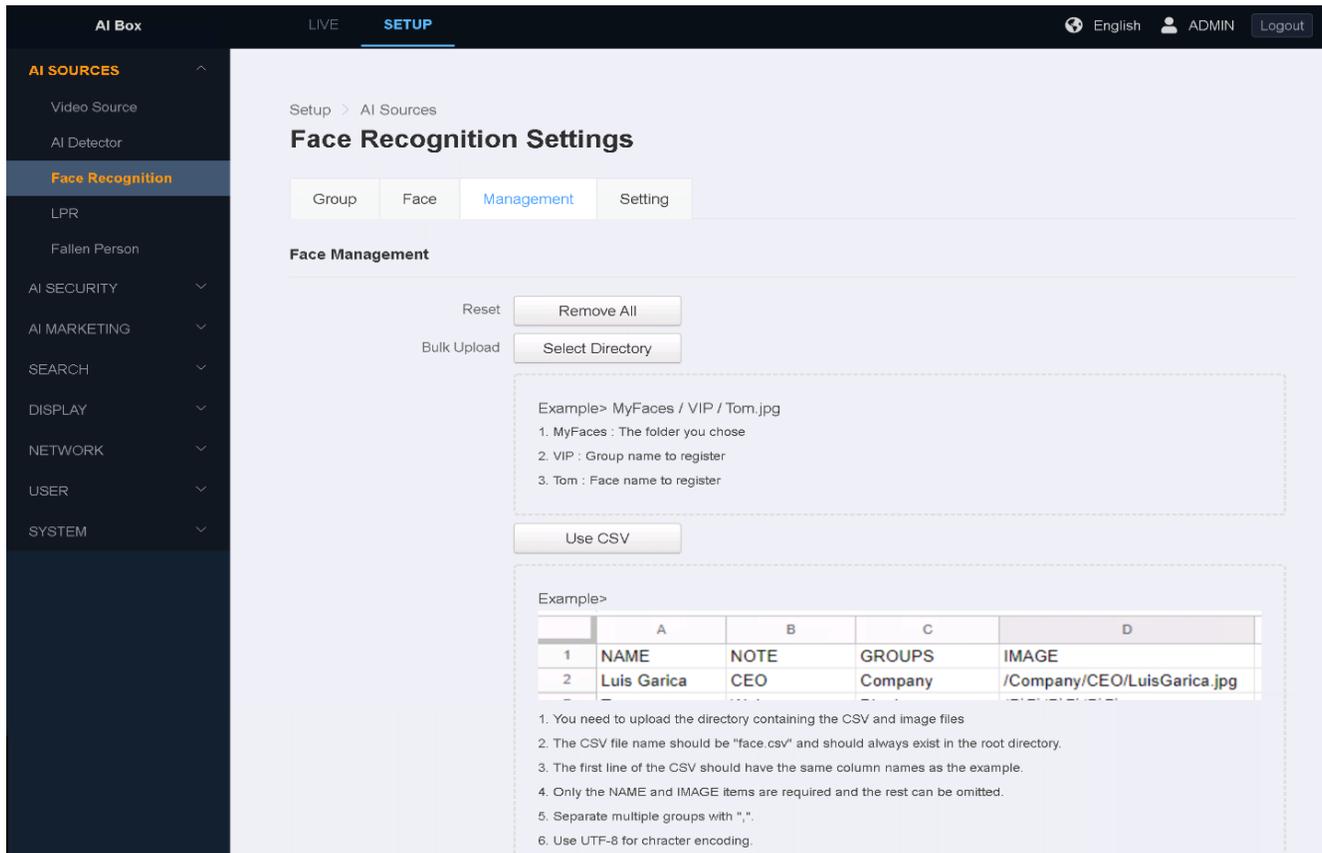
- Photo: Click the photo button to upload a picture.
 - In the case of a photo, it can be resized, if the size is large
 - Photos with only faces taken from the front are more accurate
- Webcam: Click the Webcam button to use a photo taken with a PC connected Webcam
- Name: Enter the name of the person whose photo was submitted to the database
- Note: Enter any note related to the person whose photo was submitted to the database
- Group: Select the face recognition group data base to assign the person's photo to
- Select 'UPLOAD', to upload the person's photo and information to the assigned face recognition data base

The screenshot shows the 'AI Box' web interface. The top navigation bar includes 'LIVE' and 'SETUP' tabs, along with language and user settings. The left sidebar lists various system modules, with 'Face Recognition' highlighted. The main panel is titled 'Face Recognition Settings' and features a 'Face' tab. It shows a list of two entries: 'Brian D.' with group 'PDM' and 'Jack' with group 'TSD'. To the right, the 'Face Upload' section provides options to upload a photo or use a webcam, with fields for name, note, and group selection, and an 'UPLOAD' button.

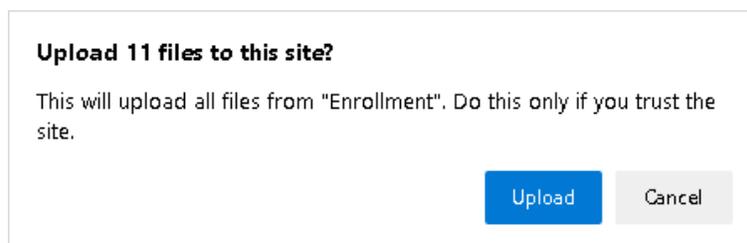
Face Recognition Management

Face Recognition Subjects may be managed in bulk from the 'Management' tab under the SETUP/AI SOURCES/Face recognition -> 'Face Recognition Settings'.

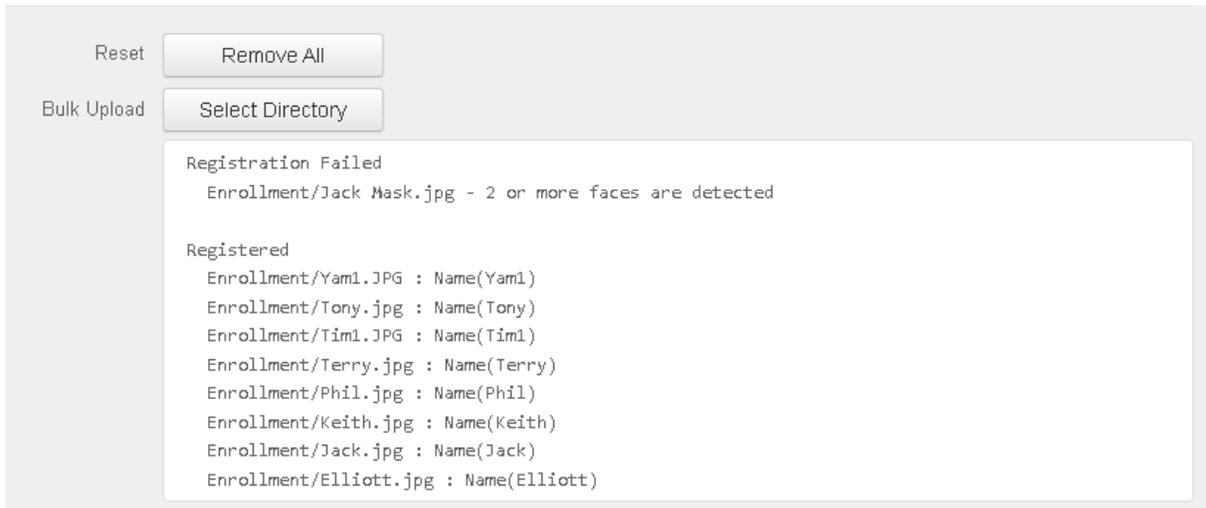
- Reset: Will 'Remove All' face recognition data from the AI BOX
- Bulk Upload: 'Select Directory' – navigate to the directory folder location of FR images
 - This function will select and upload all the images contained within the target folder



- Bulk Upload: A popup message will alert as to how many images will be updated for 'Enrollment'
 - Select 'Upload' to begin uploading the discovered images



- Bulk Upload: After 'Upload' completes, a registered status message will appear
 - Registration Failed: Listing any failed registrations
 - Registered: Listing all successfully enrolled registrations

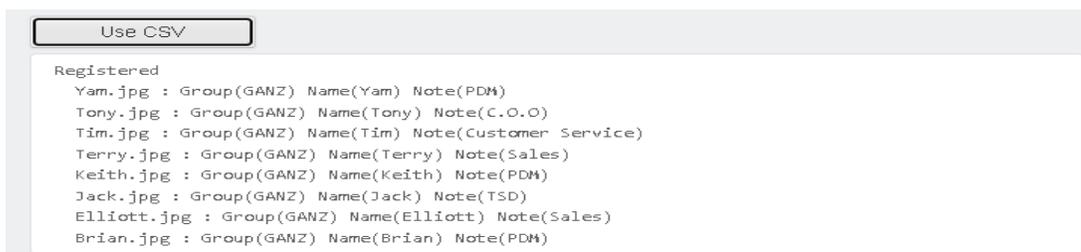


- Use CSV: Select 'Use CSV' to upload a CSV file containing Face Recognition enrollment information
 - CSV file management is support for instances of large FR databases
 - upload the CSV file containing the following information
 - CSV format: Column headers – Name / Note / Groups / Image

Example>

	A	B	C	D
1	NAME	NOTE	GROUPS	IMAGE
2	Luis Garica	CEO	Company	/Company/CEO/LuisGarica.jpg

- Use CSV: After 'Upload' completes, a registered status message will appear
 - Registration Failed: Listing any failed registrations
 - Registered: Listing all successfully enrolled registrations



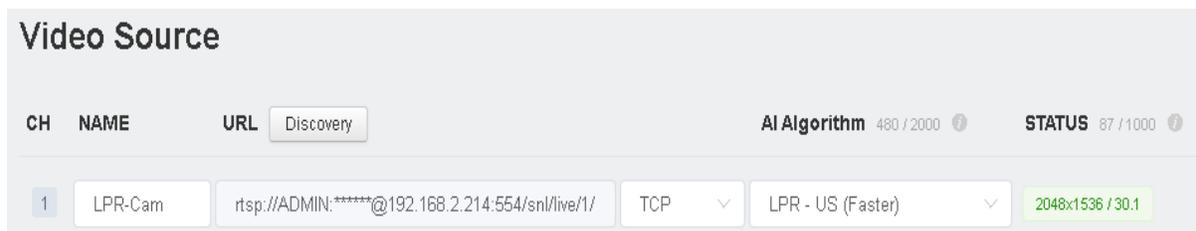
4. LPR: License Plate Recognition

1. LPR AI Algorithm

Set the AI algorithm to LPR in the Video Source menu under AI Source.

Video Source menu is located at SETUP/AI SOURCES/Video Sources -> Set the target channel AI Algorithm to LPR.

- Select 'Apply' to confirm and save all AI Algorithm settings.

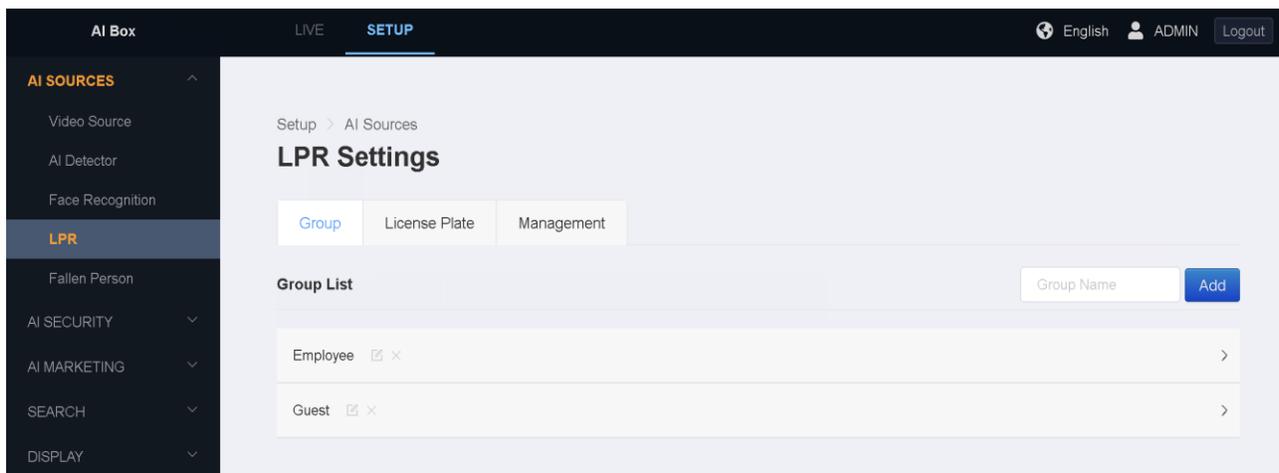


2. LPR Group List

You can create a group of LPR databases in the 'Groups' tab of the 'LPR' menu under SETUP/AI SOURCES/LPR. Note: an LPR AI License is required for the function.

SETUP/AI SOURCES/LPR - It is possible to create a group of LPR databases from the Group menu.

- Group Name: Enter a group name according to intent
- Select 'Add' to create an LPR group database



License plate recognition data can be added individually in the SETUP/AI SOURCES/LPR -> 'License Plate tab' of the 'LPR Settings' menu.

- Add License Plate: Add an individual license plate
 - Plate Number:
 - Owner Name: Enter the name of the person whose photo was submitted to the database
 - Phone Number:
 - Note: Enter any note related to the person whose photo was submitted to the database
 - Groups: Select the LPR group to assign the license plate information to
 - Select 'ADD', to add the license plate information to the LPR database

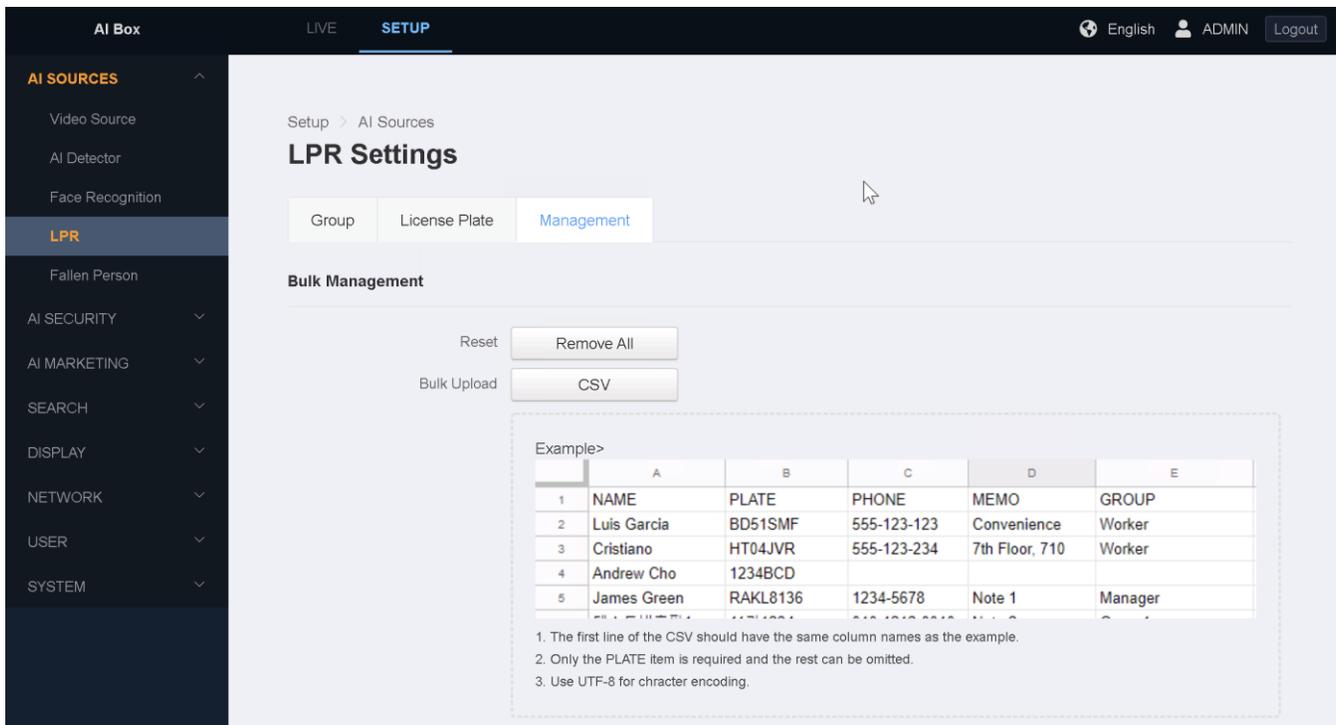
- Order by: Select either 'Registration', 'Name', or 'LPR'

The screenshot shows the 'LPR Settings' page in the AI Box application. The left sidebar contains a navigation menu with categories like AI SOURCES, LPR, and AI SECURITY. The main content area is titled 'LPR Settings' and has three tabs: 'Group', 'License Plate', and 'Management'. The 'License Plate' tab is active. Below the tabs, there is a summary 'Total 1' and an 'Add License Plate' button. A list of license plates is shown, with one entry for 'EMF6400' belonging to 'Brian' (321-334-3211, Employee). The 'Add License Plate' form on the right includes fields for 'Plate Number*', 'Owner Name', 'Phone Number', 'Note', and 'Groups', along with an 'ADD' button.

License Plate Management

License plates may be managed in bulk from the 'Management' tab under the SETUP/AI SOURCES/LPR -> 'LPR Settings'.

- Reset: Will 'Remove All' license plate recognition data from the AI BOX
- Bulk Upload: Select 'CSV' to upload a CSV file containing license plate enrollment information
 - CSV file management is support for instances of large LPR databases
 - upload the CSV file containing the following information
 - CSV format: Column headers – Name / PLATE/ PHONE / MEMO / Group
- CSV: After 'Upload' completes, a registered status message will appear
 - Registration Failed: Listing any failed registrations
 - Registered: Listing all successfully enrolled registrations



The screenshot shows the 'LPR Settings' page in the AI Box interface. The left sidebar contains navigation options: AI SOURCES, LPR (selected), and SYSTEM. The main content area is titled 'LPR Settings' and has three tabs: 'Group', 'License Plate', and 'Management' (selected). Under 'Management', there are 'Reset' and 'Bulk Upload' sections. The 'Reset' section has a 'Remove All' button. The 'Bulk Upload' section has a 'CSV' button. Below these is an 'Example' table showing the required CSV format:

	A	B	C	D	E
1	NAME	PLATE	PHONE	MEMO	GROUP
2	Luis Garcia	BD51SMF	555-123-123	Convenience	Worker
3	Cristiano	HT04JVR	555-123-234	7th Floor, 710	Worker
4	Andrew Cho	1234BCD			
5	James Green	RAKL8136	1234-5678	Note 1	Manager

Below the table, three instructions are provided:

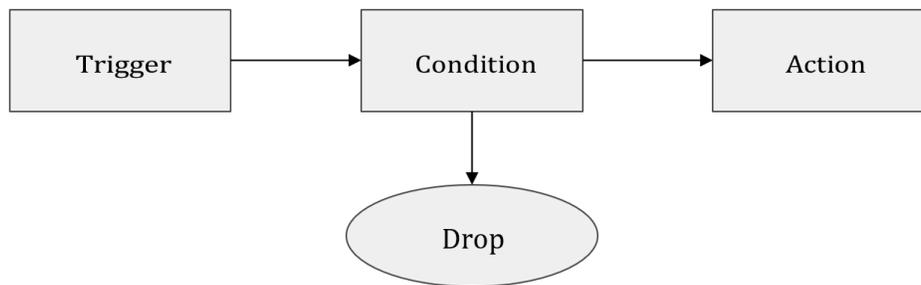
1. The first line of the CSV should have the same column names as the example.
2. Only the PLATE item is required and the rest can be omitted.
3. Use UTF-8 for character encoding.

6. AI Security

1. Action Rule Overview

An Action Rule is composed of a Trigger, a Condition, and an Action. After an Action Rule is set, it operates by checking the Condition when a Trigger occurs and performing an Action if satisfied.

Action Rule composition



There are 2 types of triggers, an AI Trigger, and a System Trigger. Both kinds can trigger an Action Rule.

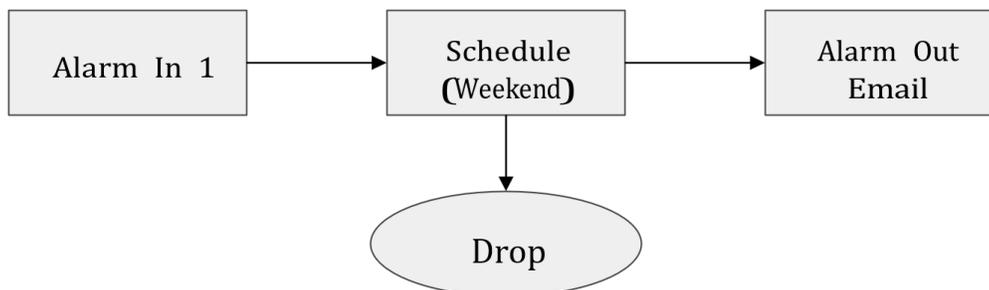
- AI Trigger: is an event discovered by the AI
- System Tigger: Events detected by system sensors, example sensor state changes

The 'Condition' is a filter component for a trigger. Typically, a 'Schedule' condition is set to filter a condition by a time component.

The Action defines the action to be performed when a trigger event occurs, and a condition is met.

- An Action can define and perform various types of actions, including exporting alarm outputs or sending their events to the ONVIF Metadata Stream.

Action Rule example

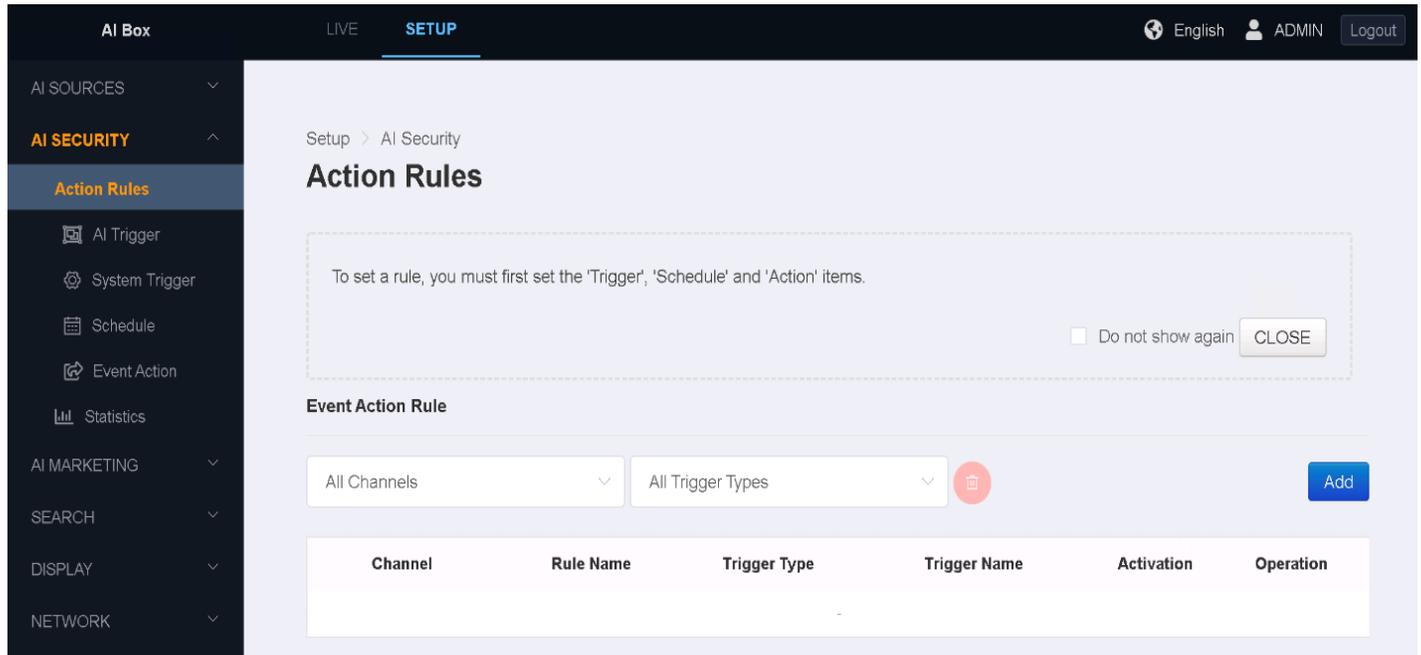


2. Action Rules

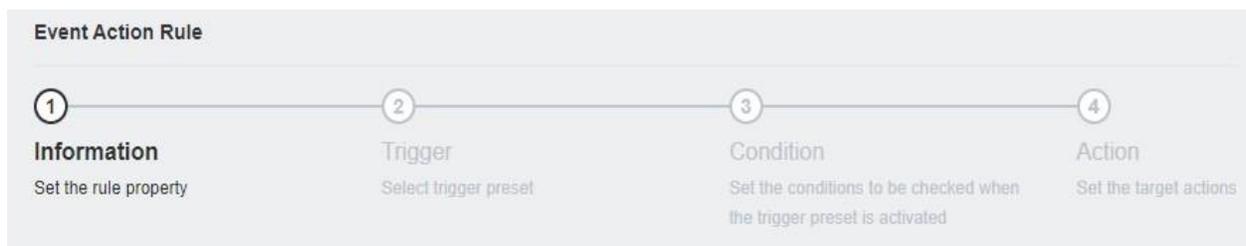
Action Rules are a formula by which an 'AI Trigger', or 'System Trigger' a combined with an 'Event Action' to create a rule. When a trigger is acknowledged, initiate a predefined action(s)

To configure an 'Action Rule', go to SETUP/AI Security/Action Rules

- Note: To set a rule, you must first set the 'Trigger', 'Schedule' and 'Action' items
 - Select 'CLOSE' if you do not wish to show this message again.
- Select 'Add' to create an action rule



- Event Action Rule: A step indicator is used to track the current rule creation progress



- Rule Name: Title the rule name according to intent
- Select 'NEXT' to continue

Information

Rule Name

NEXT

- Trigger: Select an available trigger type from the trigger list menu
 - Select a related trigger preset from the preset list menu
- Select 'NEXT' to continue

Trigger Setup

Trigger 

PREV **NEXT**

Create a condition or multiple conditions: A condition is 'True' if any of the selected items are met when multiple schedules are selected. A condition is 'False' if any of the selected items are not met when multiple schedules are selected.

- Schedule: Select the desired schedule from the schedule list menu
 - It is set to 'Always' by default

- Deactivate when 'Disarm' state: Check to enable deactivating the rule upon a disarm
- Condition: Select the '+' icon to add a condition to the schedule
 - Select Type: Select a trigger type from the list menu
 - List: Intrusion, Alarm in, Virtual Trigger, Counter, Face Recognition, LPR
 - Select a related condition preset from the preset list menu
 - Set the Condition Trigger valid time between 1 to 20 seconds
 - Based on the Rule Trigger occurrence time set in the Trigger Set up step
 - + t seconds: true if condition occurs within t seconds of trigger
 - - t seconds: true if condition occurred t seconds before trigger
 - +/- t seconds: true if condition occurs t seconds before/after trigger
- Click 'Add' to add the condition to the schedule
- Repeat steps to add additional conditions to the schedule
- Select 'NEXT' to continue

Condition Setup

Schedule

Deactivate when 'Disarm' state ⓘ

Add Condition

- Action: ONVIF
- Action: Event Log
- Add Actions: Select an action type from the list menu
 - List includes actions from the 'Event Action' menu
 - Select a related action preset from the preset list menu
- Click 'Add' to add the action to the action setup
- Repeat steps to add additional actions to the action setup
- Select 'NEXT' to continue

Action Setup

Action

Action

Add Actions

- Check the settings in Summary.
- Click the 'APPLY' button to create the rule.

Rule Summary

Information

Rule Name

Trigger

Trigger

Conditions

Schedule

Deactivate when 'Disarm' state

Condition

Within 5 second(s) before and after the trigger occurrence

Actions

Action

Action

3. AI Trigger

1. General: Intrusion Preset

Intrusion is a function that is triggered when a new target appears in the ROI (regent of interest) set in the prior AI Detector/Tracker menu.

To create an intrusion-based AI trigger, go to SETUP/AI Security/AI Trigger->Intrusion

- Select 'General' if not already selected
- Select 'Intrusion' if not already selected
- Click the 'Add' button at the bottom

[Caution] The determination of whether an object is inside an intrusion zone is based on the track reference point having been set to 'Centroid' for the AI detector in use.

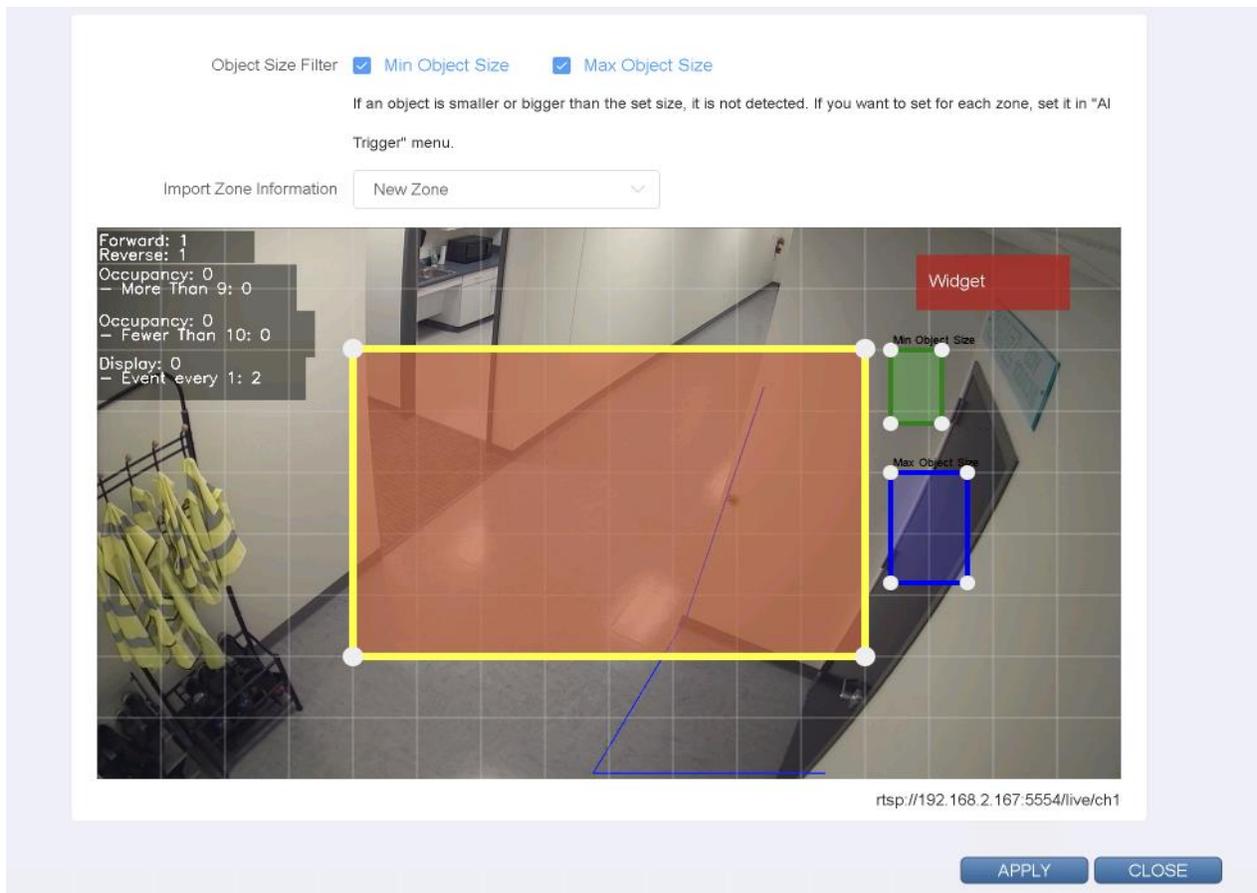
The screenshot shows the 'AI Trigger' configuration page in the 'AI Box' web interface. The page is titled 'AI Trigger' and has two tabs: 'General' (selected) and 'Advanced'. Under the 'General' tab, there are six sub-tabs: 'Intrusion' (selected), 'Occupancy', 'Loitering', 'Stopping', 'Enter/Exit', and 'Line Crossing'. The 'Intrusion' sub-tab is selected, showing an 'Intrusion preset' table with columns for Channel, Video Name, No, Name, Target Object, and Operation. An 'Add' button is located at the bottom right of the table.

- Video Source: Select the AI Detector (Target 'Video Source')
- Name: Title the Intrusion preset according to intent
- Target Object: Based on the channel assigned analytic. Example: Person, Vehicle...
 - Objects may vary depending on the algorithm of the selected 'Video Source'.
 - It is possible to select multiple objects for detection.
- Ignore Duplicate Event: Selected a 1-, 5-, 15-, 30-, or 60-minute time threshold.
 - When enabled, only the first object that breaks into the zone will raise an event.
 - Before a new event occurs, the current event must clear
- Reminder Duration: Only available when Ignore Duplicate Event is activated
 - The event frequency setting reminds the user if the intrusion continues.
- Advanced Setup: Offers additional configuration options when selected
 - Intrusion Label: Label the Intrusion widget counter according to intent
 - Event Count Reset: Select the hour of time to reset the widget's counter
 - You can also reset manually by pressing the Reset button.
 - Ignore Static Object: Select 'On' or 'Off' based on stationary, or static object
 - Ignore objects that are not moving when enabled.
 - An event may occur if there is no movement and then movement again.

The screenshot displays a configuration window for an AI Box. It features several input fields and checkboxes. The 'Video Source' field is a dropdown menu currently showing 'Select'. The 'Name' field contains the text 'Trigger preset name'. The 'Target Object' field is another dropdown menu showing 'Select'. Below these is an 'Ignore Duplicate Event' checkbox, which is currently unchecked, with the text 'Sends events for each objects.' underneath it. The 'Advanced Setup' checkbox is checked. Under 'Advanced Setup', there is an 'Intrusion Label' field with 'Rename Label' entered. The 'Event Count Reset' field is a dropdown menu set to 'OFF', with an orange 'RESET' button next to it. The 'Ignore Static Object' field is a dropdown menu set to 'OFF'. At the bottom right of the window are two blue buttons: 'APPLY' and 'CLOSE'.

Set ROI (regent of interest) zone

- Object Size Filter: Set the 'Min Object Size', and or 'Max Object Size'
 - Drag object size zone to required dimensions
 - If an object is smaller or bigger than the set size, it is not detected.
 - If you want to set for each zone, set it in the "AI Trigger" menu.
- Move the entire ROI by dragging its zone.
- Move the edge by dragging the edge of the ROI.
- Click on the line of the ROI to create a new edge.
- Right click the edge of ROI to delete the edge.
- Drag the Widget rectangle in the upper right corner to set where the widget will appear.
- Click the 'APPLY' button at the bottom to save.
- After confirming the settings, click the 'CLOSE' button at the bottom to check the list.



2. General: Occupancy Preset

Occupancy is an item that is triggered when you set an area on the screen and the number of detection targets in the area is out of the specified range. For example, an alarm can be triggered if a car that must be parked in a designated area has disappeared, or if more than two people are entering an area that can only accommodate two people.

To create an occupancy-based AI trigger, go to SETUP/AI Security/AI Trigger->Occupancy

- Select 'General' if not already selected
- Select 'Occupancy' if not already selected
- Click the 'Add' button at the bottom

[Caution] The determination of whether an object is inside a section is based on the center coordinates of the object.

The screenshot shows the 'AI Trigger' configuration page in the 'SETUP' section of the AI Box interface. The page is titled 'AI Trigger' and has two tabs: 'General' (selected) and 'Advanced'. Below the tabs, there are several trigger types: 'Intrusion', 'Occupancy' (selected), 'Loitering', 'Stopping', 'Enter/Exit', and 'Line Crossing'. Under the 'Occupancy' tab, there is a section titled 'Occupancy preset' which contains a table with the following columns: Channel, Video Name, No, Name, Target Object, Count, and Operation. The table is currently empty. An 'Add' button is located at the bottom right of the table area. The interface also shows a sidebar with navigation options like 'AI SOURCES', 'AI SECURITY', 'Action Rules', 'AI Trigger', 'System Trigger', 'Schedule', 'Event Action', 'Statistics', 'AI MARKETING', 'SEARCH', 'DISPLAY', 'NETWORK', 'USER', and 'SYSTEM'. The top right corner of the interface shows 'English', 'ADMIN', and 'Logout'.

- Video Source: Select the AI Detector (Target 'Video Source')
- Name: Title the Intrusion preset according to intent
- Target Object: Based on the channel assigned analytic. Example: Person, Vehicle...
 - Objects may vary depending on the algorithm of the selected 'Video Source'.
 - It is possible to select multiple objects for detection.
- Dwell Time: Select 0 ~ 30 second(s) Triggered when target stays longer than set time.
- Trigger Method: Limits, Every N objects, Report Num Objects
- Fewer than: 0 ~ 99 Triggers if detected number of targets is less than the set number.
- More than: 0 ~ 99 Triggers if detected number of targets is more than the set number.
- Advanced Setup: Offers additional configuration options when selected
 - Num Objects Label: Label the Occupancy widget counter according to intent
 - Few Than Label: Label the Occupancy widget counter according to intent
 - More Than Label: Label the Occupancy widget counter according to intent
 - Event Count Reset: Select the hour of time to reset the widget's counter
 - You can also reset manually by pressing the Reset button.
 - Ignore Static Object: Select 'On' or 'Off' based on stationary, or static object
 - Ignore objects that are not moving when enabled.
 - An event may occur if there is no movement and then movement again.

Occupancy preset

Video Source

Human - Normal

Name

Target Object

Dwell Time

Trigger Method

Fewer than

More than

Trigger an event when the number of objects over or under the limits.

Advanced Setup

Num Objects Label

Fewer Than Label

More Than Label

Event Count Reset

Ignore Static Object

Set ROI (regent of interest) zone

- Object Size Filter: Set the 'Min Object Size', and or 'Max Object Size'
 - Drag object size zone to required dimensions
 - If an object is smaller or bigger than the set size, it is not detected.
 - If you want to set for each zone, set it in the "AI Trigger" menu.
- Move the entire ROI by dragging its zone.
- Move the edge by dragging the edge of the ROI.
- Click on the line of the ROI to create a new edge.
- Right click the edge of ROI to delete the edge.
- Drag the Widget rectangle in the upper right corner to set where the widget will appear.
- Click the 'APPLY' button at the bottom to save.
- After confirming the settings, click the 'CLOSE' button at the bottom to check the list.

The screenshot displays the configuration interface for the AI Box. At the top, there are two checked checkboxes for 'Min Object Size' and 'Max Object Size'. Below them is a text instruction: 'If an object is smaller or bigger than the set size, it is not detected. If you want to set for each zone, set it in "AI Trigger" menu.' There is also an 'Import Zone Information' section with a dropdown menu currently set to 'New Zone'. The main part of the interface is a live camera feed of a hallway. A large orange rectangle represents the ROI. A yellow rectangle is overlaid on the left side of the ROI. A green rectangle is labeled 'Min Object Size' and a blue rectangle is labeled 'Max Object Size'. A red rectangle in the top right corner is labeled 'Widget'. On the left side of the camera feed, there is a list of settings: 'Forward: 1', 'Reverse: 1', 'Occupancy: 0 - More Than 9: 0', 'Occupancy: 0 - Fewer Than 10: 0', 'Display: 0', and 'Event every 1: 2'. At the bottom right of the camera feed, the URL 'rtsp://192.168.2.167:5554/live/ch1' is visible. At the bottom of the interface, there are two buttons: 'APPLY' and 'CLOSE'.

3. General: Loitering Preset

Loitering is a function that is triggered when the detection target stays in the area for a certain period of time from the ROI set zone on the screen. For example, triggers an event when a person has been hanging around in a certain area for the preset period of time.

To create a loitering-based AI trigger, go to SETUP/AI Security/AI Trigger->Loitering

- Select 'General' if not already selected
- Select 'Loitering' if not already selected
- Click the 'Add' button at the bottom

[Caution] The determination of whether an object is inside a section is based on the center coordinates of the object.

The screenshot shows the 'AI Trigger' configuration page in the 'SETUP' section of the AI Box interface. The page is titled 'AI Trigger' and has two tabs: 'General' (selected) and 'Advanced'. Under the 'General' tab, there are several trigger types: 'Intrusion', 'Occupancy', 'Loitering' (selected), 'Stopping', 'Enter/Exit', and 'Line Crossing'. Below this, there is a section for 'Loitering preset' which contains a table with the following columns: Channel, Video Name, No, Name, Target Object, Time Threshold, and Operation. The table is currently empty. An 'Add' button is located at the bottom right of the page.

Channel	Video Name	No	Name	Target Object	Time Threshold	Operation
---------	------------	----	------	---------------	----------------	-----------

- Video Source: Select the AI Detector (Target 'Video Source')
- Name: Title the Intrusion preset according to intent
- Target Object: Based on the channel assigned analytic. Example: Person, Vehicle...
 - Objects may vary depending on the algorithm of the selected 'Video Source'.
 - It is possible to select multiple objects for detection.
- Dwell Time: Select 0 ~ 30 second(s) Triggered when target stays longer than set time.
- Ignore Duplicate Event: Selected a 1-, 5-, 15-, 30-, or 60-minute time threshold.
 - When enabled, only the first object that breaks into the zone will raise an event.
 - Before a new event occurs, the current event must clear
- Reminder Duration: Only available when Ignore Duplicate Event is activated
 - The event frequency setting reminds the user if the intrusion continues.
- Advanced Setup: Offers additional configuration options when selected
 - Loitering Label: Label the loitering widget counter according to intent
 - Event Count Reset: Select the hour of time to reset the widget's counter
 - You can also reset manually by pressing the Reset button.
 - Ignore Static Object: Select 'On' or 'Off' based on stationary, or static object
 - Ignore objects that are not moving when enabled.
 - An event may occur if there is no movement and then movement again.

Loitering preset

Video Source: CH 1 - TSD Entrance

Human - Normal

Name: [CH 1]Loitering-01

Target Object: Person

Dwell Time: 10 second(s)

Maximum time threshold to judge

Ignore Duplicate Event:

Does not send events on the following objects.

Reminder Duration: 5 minute(s)

Advanced Setup:

Loitering Label: Rename Label

Event Count Reset: OFF

Ignore Static Object: OFF

Set ROI (regent of interest) zone

- Object Size Filter: Set the 'Min Object Size', and or 'Max Object Size'
 - Drag object size zone to required dimensions
 - If an object is smaller or bigger than the set size, it is not detected.
 - If you want to set for each zone, set it in the "AI Trigger" menu.
- Move the entire ROI by dragging its zone.
- Move the edge by dragging the edge of the ROI.
- Click on the line of the ROI to create a new edge.
- Right click the edge of ROI to delete the edge.
- Drag the Widget rectangle in the upper right corner to set where the widget will appear.
- Click the 'APPLY' button at the bottom to save.
- After confirming the settings, click the 'CLOSE' button at the bottom to check the list.

The screenshot displays the configuration interface for the AI Box. At the top, there are two checked checkboxes for 'Min Object Size' and 'Max Object Size' under the 'Object Size Filter' section. Below this, a text box explains: 'If an object is smaller or bigger than the set size, it is not detected. If you want to set for each zone, set it in "AI Trigger" menu.' There is an 'Import Zone Information' dropdown menu currently set to 'New Zone'. The main area shows a live video feed of a hallway with a large orange ROI zone overlaid. To the right of the ROI, there are two smaller colored boxes: a green one labeled 'Min Object Size' and a blue one labeled 'Max Object Size'. A red box labeled 'Widget' is positioned in the upper right corner of the video feed. On the left side of the video feed, there is a list of settings: 'Forward: 1', 'Reverse: 1', 'Occupancy: 0 - More Than 9: 0', 'Occupancy: 0 - Fewer Than 10: 0', and 'Display: 0 - Event every 1: 2'. At the bottom right of the video feed, the URL 'rtsp://192.168.2.167:5554/live/ch1' is visible. At the bottom of the interface, there are two buttons: 'APPLY' and 'CLOSE'.

4. General: Stopping Preset

Stopping is a function that is triggered when the object stays in the area without movement on the ROI set zone on the screen. For example, it can be used to trigger an event when a car has been parked for a certain time in a certain area.

To create a stopping-based AI trigger, go to SETUP/AI Security/AI Trigger->Stopping

- Select 'General' if not already selected
- Select 'Stopping' if not already selected
- Click the 'Add' button at the bottom

[Caution] The determination of whether an object is inside a section is based on the center coordinates of the object.

The screenshot shows the 'AI Trigger' configuration page in the 'SETUP' section. The breadcrumb is 'Setup > AI Security'. The page has two tabs: 'General' (selected) and 'Advanced'. Below the tabs are six trigger categories: 'Intrusion', 'Occupancy', 'Loitering', 'Stopping' (selected), 'Enter/Exit', and 'Line Crossing'. Under the 'Stopping preset' section, there is a table with the following columns: Channel, Video Name, No, Name, Target Object, Time Threshold, and Operation. The table is currently empty. An 'Add' button is located at the bottom right of the table area.

Channel	Video Name	No	Name	Target Object	Time Threshold	Operation
---------	------------	----	------	---------------	----------------	-----------

- Video Source: Select the AI Detector (Target 'Video Source')
- Name: Title the Intrusion preset according to intent
- Target Object: Based on the channel assigned analytic. Example: Person, Vehicle...
 - Objects may vary depending on the algorithm of the selected 'Video Source'.
 - It is possible to select multiple objects for detection.
- Dwell Time: Select 0 ~ 30 second(s) Triggered when target stays longer than set time.
- Advanced Setup: Offers additional configuration options when selected
 - Stop Label: Label the Stop widget counter according to intent
 - Event Count Reset: Select the hour of time to reset the widget's counter
 - You can also reset manually by pressing the Reset button.
 - Ignore Static Object: Select 'On' or 'Off' based on stationary, or static object
 - Ignore objects that are not moving when enabled.
 - An event may occur if there is no movement and then movement again

Stopping preset

Video Source

Human - Normal

Name

Target Object

Dwell Time second(s)

Maximum time threshold to judge

Advanced Setup

Stop Label

Event Count Reset

Ignore Static Object

! If the option is enabled, an event may not occur for an object without a certain level of movement.

Set ROI (regent of interest) zone

- Object Size Filter: Set the 'Min Object Size', and or 'Max Object Size'
 - Drag object size zone to required dimensions
 - If an object is smaller or bigger than the set size, it is not detected.
 - If you want to set for each zone, set it in the "AI Trigger" menu.
- Move the entire ROI by dragging its zone.
- Move the edge by dragging the edge of the ROI.
- Click on the line of the ROI to create a new edge.
- Right click the edge of ROI to delete the edge.
- Drag the Widget rectangle in the upper right corner to set where the widget will appear.
- Click the 'APPLY' button at the bottom to save.
- After confirming the settings, click the 'CLOSE' button at the bottom to check the list.

The screenshot displays the configuration interface for the AI Box. At the top, there are checkboxes for 'Object Size Filter' with 'Min Object Size' and 'Max Object Size' both checked. Below this, a text instruction reads: 'If an object is smaller or bigger than the set size, it is not detected. If you want to set for each zone, set it in "AI Trigger" menu.' A dropdown menu for 'Import Zone Information' is set to 'New Zone'. The main area features a live camera feed of a hallway with a large orange ROI box overlaid. To the right of the feed are two size filter widgets: a green 'Min Object Size' widget and a blue 'Max Object Size' widget. A red 'Widget' box is also visible in the top right of the feed area. On the left side of the feed, there is a list of parameters: Forward: 1, Reverse: 1, Occupancy: 0 (More Than 9: 0), Occupancy: 0 (Fewer Than 10: 0), Display: 0 (Event every 1: 2). At the bottom right of the feed, the URL 'rtsp://192.168.2.167:5554/live/ch1' is shown. At the bottom of the interface are 'APPLY' and 'CLOSE' buttons.

5. General: Enter/Exit Preset

Enter/Exit is a function that is triggered when the detection target enters or exits based on the boundary of the area on the ROI set zone on the screen.

To create an enter/exit-based AI trigger, go to SETUP/AI Security/AI Trigger->Enter/Exit

- Select 'General' if not already selected
- Select 'Enter/Exit' if not already selected
- Click the 'Add' button at the bottom

[Caution] Judging whether an object has entered the zone is based on when the object's center coordinates span the boundary line. The center coordinates can be seen by activating the Object Trajectory option in the DISPLAY-> OSD item.

The screenshot shows the 'AI Trigger' configuration page in the 'SETUP' section. The left sidebar contains a navigation menu with categories like AI SOURCES, AI SECURITY (expanded), AI MARKETING, SEARCH, DISPLAY, NETWORK, USER, and SYSTEM. The 'AI SECURITY' section is further divided into Action Rules, AI Trigger (selected), System Trigger, Schedule, Event Action, and Statistics. The main content area shows the 'AI Trigger' configuration for 'Enter/Exit'. It has tabs for 'General' (selected) and 'Advanced'. Below the tabs are options for 'Intrusion', 'Occupancy', 'Loitering', 'Stopping', 'Enter/Exit' (selected), and 'Line Crossing'. Underneath, there is an 'Enter/Exit preset' section with a table header: Channel, Video Name, No, Name, Target Object, Trigger Mode, and Operation. The table is currently empty. An 'Add' button is located at the bottom right of the table area.

- Video Source: Select the AI Detector (Target 'Video Source')
- Name: Title the Intrusion preset according to intent
- Target Object: Based on the channel assigned analytic. Example: Person, Vehicle...
 - Objects may vary depending on the algorithm of the selected 'Video Source'.
 - It is possible to select multiple objects for detection.
- Trigger Mode: Enter, Exit, Enter or Exit, Stay & Go
 - Detect the target enters the zone.
 - Detect the target exits the zone.
 - Detects the target entering or leaving the zone.
- Advanced Setup: Offers additional configuration options when selected
 - Crossing count: Sets how many times an event will occur when an object crossing the area boundary is detected.
 - Enter Direction Label: Label the Enter widget counter according to intent
 - Exit Direction Label: Label the Exit widget counter according to intent
 - Event Count Reset: Select the hour of time to reset the widget's counter
 - You can also reset manually by pressing the Reset button.

Enter/Exit preset

Video Source: CH 1 - TSD Entrance

Human - Normal

Name: [CH 1]Enter/Exit-01

Target Object: Person

Trigger Mode: Enter

Advanced Setup:

Crossing count: 1

Triggerred at every 1 time(s) of line crossing detected.

Enter Direction Label: Enter

Exit Direction Label: Exit

Event Count Reset: OFF

RESET

Set ROI (regent of interest) zone

- Object Size Filter: Set the 'Min Object Size', and or 'Max Object Size'
 - Drag object size zone to required dimensions
 - If an object is smaller or bigger than the set size, it is not detected.
 - If you want to set for each zone, set it in the "AI Trigger" menu.
- Move the entire ROI by dragging its zone.
- Move the edge by dragging the edge of the ROI.
- Click on the line of the ROI to create a new edge.
- Right click the edge of ROI to delete the edge.
- Drag the Widget rectangle in the upper right corner to set where the widget will appear.
- Click the 'APPLY' button at the bottom to save.
- After confirming the settings, click the 'CLOSE' button at the bottom to check the list.

Object Size Filter Min Object Size Max Object Size

If an object is smaller or bigger than the set size, it is not detected. If you want to set for each zone, set it in "AI Trigger" menu.

Import Zone Information

Forward: 1
Reverse: 1
Occupancy: 0
- More Than 9: 0
Occupancy: 0
- Fewer Than 10: 0
Display: 0
- Event every 1: 2

Widget

Min Object Size

Max Object Size

rtsp://192.168.2.167:5554/live/ch1

APPLY CLOSE

6. General: Line Crossing Preset

Line Crossing is a function set polyline on the screen, and it triggered when the detected object crosses the line.

To create a line crossing-based AI trigger, go to SETUP/AI Security/AI Trigger->Line Crossing

- Select 'General' if not already selected
- Select 'Line Crossing' if not already selected
- Click the 'Add' button at the bottom

[Caution] Judging whether an object has entered the zone is based on when the object's center coordinates span the boundary line. The center coordinates can be seen by activating the Object Trajectory option in the SETUP/DISPLAY-> OSD item.

The screenshot shows the AI Box web interface. The top navigation bar includes 'AI Box', 'LIVE', 'SETUP', 'English', 'ADMIN', and 'Logout'. The left sidebar lists various menu items: AI SOURCES, AI SECURITY (expanded), Action Rules, AI Trigger (selected), System Trigger, Schedule, Event Action, Statistics, AI MARKETING, SEARCH, DISPLAY, NETWORK, USER, and SYSTEM. The main content area is titled 'Setup > AI Security' and 'AI Trigger'. It has two tabs: 'General' (selected) and 'Advanced'. Below the tabs are several trigger categories: Intrusion, Occupancy, Loitering, Stopping, Enter/Exit, and Line Crossing (selected). Under 'Line Crossing preset', there is a table with the following columns: Channel, Video Name, No, Name, Target Object, Direction, and Operation. The table is currently empty. An 'Add' button is located at the bottom right of the table area.

- Video Source: Select the AI Detector (Target 'Video Source')
- Name: Title the Intrusion preset according to intent
- Target Object: Based on the channel assigned analytic. Example: Person, Vehicle...
 - Objects may vary depending on the algorithm of the selected 'Video Source'
 - It is possible to select multiple objects for detection
- Direction: Forward, Reverse, or Both
 - Forward: Determined by the direction of the green arrow
 - Reverse: Determined by the direction of the purple arrow
 - Both: Determined by the direction of both arrows
- Advanced Setup: Offers additional configuration options when selected
 - Crossing count: Sets how many times an event will occur when an object crossing the area boundary is detected
 - Forward Direction Label: Label the Forward widget counter according to intent
 - Reverse Direction Label: Label the Reverse widget counter according to intent
 - Event Count Reset: Select the hour of time to reset the widget's counter
 - You can also reset manually by pressing the Reset button

Line Crossing preset

Video Source: CH 1 - TSD Entrance

Human - Normal (Faster Objects)

Name: [CH 1]Line Crossing-01

Target Object: Person

Direction: forward



Advanced Setup

Crossing count: - 1 +

Triggerred at every 1 time(s) of line crossing detected.

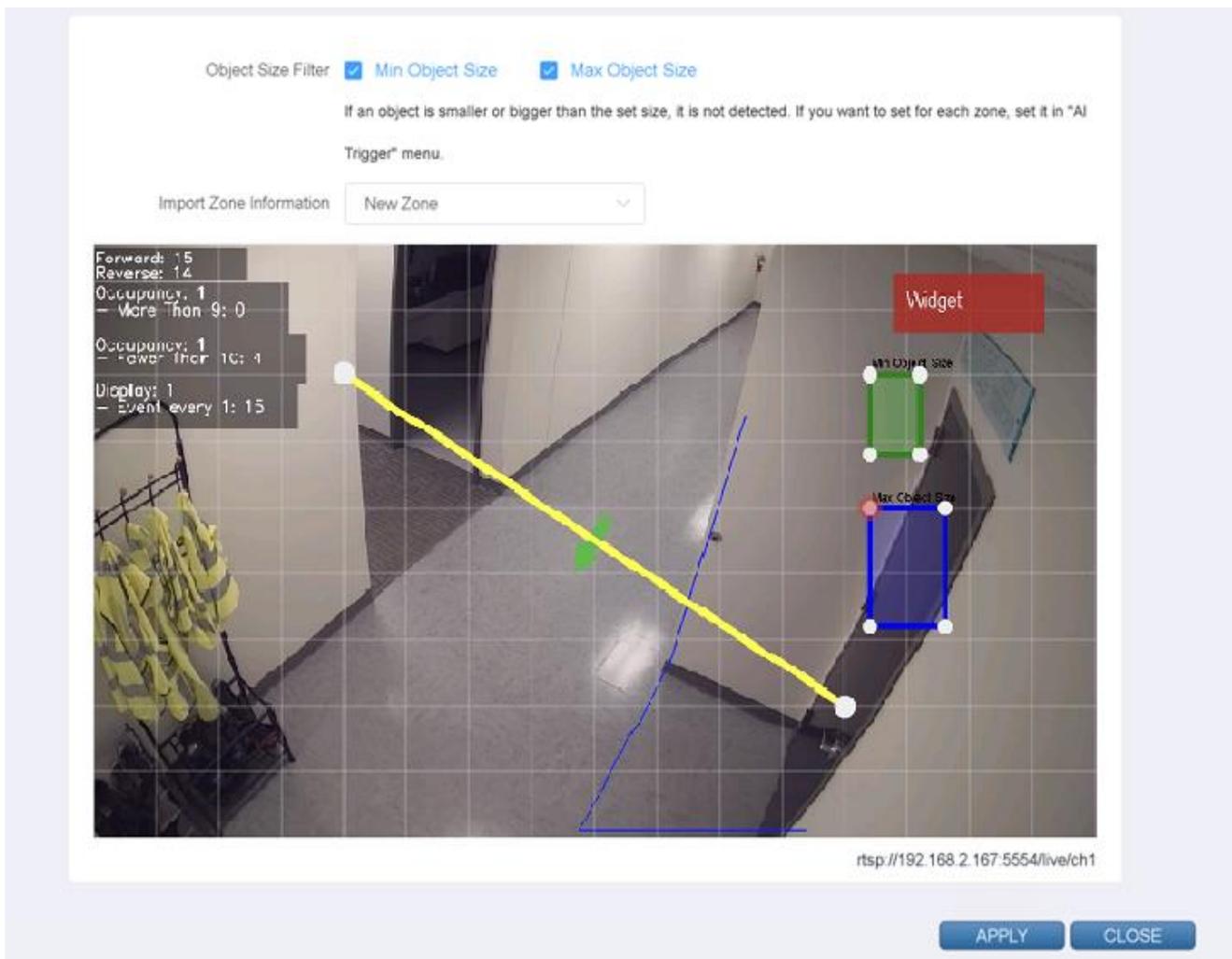
Forward Direction Label: Forward

Reverse Direction Label: Reverse

Event Count Reset: OFF

Set the 'Polyline'

- Object Size Filter: Set the 'Min Object Size', and or 'Max Object Size'
 - Drag object size zone to required dimensions
 - If an object is smaller or bigger than the set size, it is not detected.
 - If you want to set for each zone, set it in the "AI Trigger" menu.
- Move the edge by dragging the edge of the 'Polyline'.
- Click on the line of the 'Polyline' to create a new edge.
- Right click the edge of 'Polyline' to delete the edge.
- Drag the Widget rectangle in the upper right corner to set where the widget will appear.
- Click the 'APPLY' button at the bottom to save.
- After confirming the settings, click the 'CLOSE' button at the bottom to check the list.



7. Advanced: Face Recognition

Face Recognition is an AI source function set under SETUP/AI SOURCES/Face Recognition and is triggered when a face is detected within a target video source.

- Click the 'Add' button at the bottom to create a face recognition trigger

The screenshot shows the 'AI Trigger' configuration page in the 'SETUP' section. The page is titled 'AI Trigger' and has two tabs: 'General' and 'Advanced'. The 'Advanced' tab is selected. Below the tabs, there are five sub-sections: 'Counter', 'Social Distance', 'Face Recognition' (which is highlighted), 'Mask/Sunglass', and 'LPR'. Under the 'Face Recognition' section, there is a 'Face Recognition preset' table with the following columns: Channel, Video Name, No, Name, Recognition Mode, Group/Filter, and Operation. The table is currently empty. At the bottom right of the page, there is a blue 'Add' button.

- Video Source: Select the Video source from the available listed video channels
- Name: Title the trigger name according to intent
- Recognition mode: Select 'Unregistered', 'Comparison', or 'Facial Attribute Filtering'
 - Unregistered: triggers people who do not belong to any group
 - Liveliness Detection: Determines if live or image, set to 'Off' or 'On'
 - If 'On': set 'Liveliness Threshold' 1 ~ 99
 - Comparison: Compare people registered in the selected group
 - Min Similarity: Set minimum similarity between person and image, 1 ~ 99
 - Liveliness Detection: Determines if live or image, set to 'Off' or 'On'
 - If 'On': set 'Liveliness Threshold' 1 ~ 99

- Face Attribute Filtering: Filter by age and gender
 - Age: 0 ~ 100
 - Gender: All, Male, or Female
- Click the 'Apply' button at the bottom to save and continue

The screenshot shows a configuration window with the following fields:

- Video Source: Select (dropdown)
- Name: Trigger preset name (text input)
- Recognition Mode: Unregistered (dropdown)
- Unregistered in any group (dropdown)
- Liveliness Detection: OFF (dropdown)

At the bottom right, there are two buttons: **APPLY** and **CLOSE**.

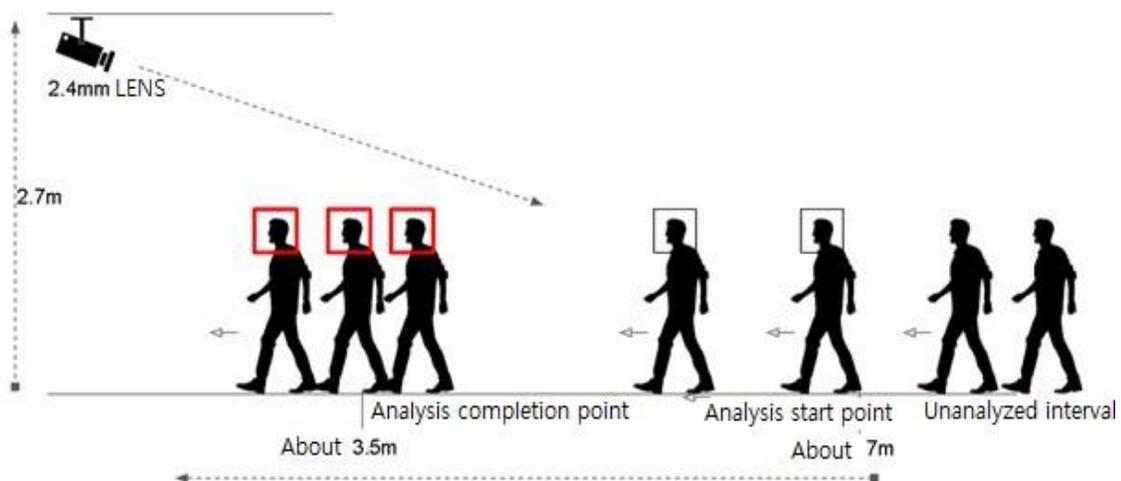
Face Recognition: Installing a camera

- Install: Install to a location in front of the person's travelling direction
- Angles - Left and Right: The angles at which a camera faces are around 30 degrees
- Horizontal: Install the camera at an angle of 15 degrees to the human face

Example: Camera installation to increase accuracy

Increase the accuracy by adding, or confirming about 4 seconds from the start, and end of the analysis

The lower the camera height, being closer to the height of the person, the higher the accuracy



8. Advanced: LPR

License plate recognition is an AI source function set under SETUP/AI SOURCES/LPR and is triggered when a license plate is detected within a target video source.

- Click the 'Add' button at the bottom to create a license plate recognition trigger

The screenshot shows the 'AI Trigger' configuration page in the 'AI Security' section. The 'Advanced' tab is selected, and the 'LPR' (License Plate Recognition) option is active. Below the navigation tabs, there is a table titled 'License Plate Recognition preset' with columns for Channel, Video Name, No, Name, Recognition Mode, Group/Filter, and Operation. An 'Add' button is located at the bottom right of the table area.

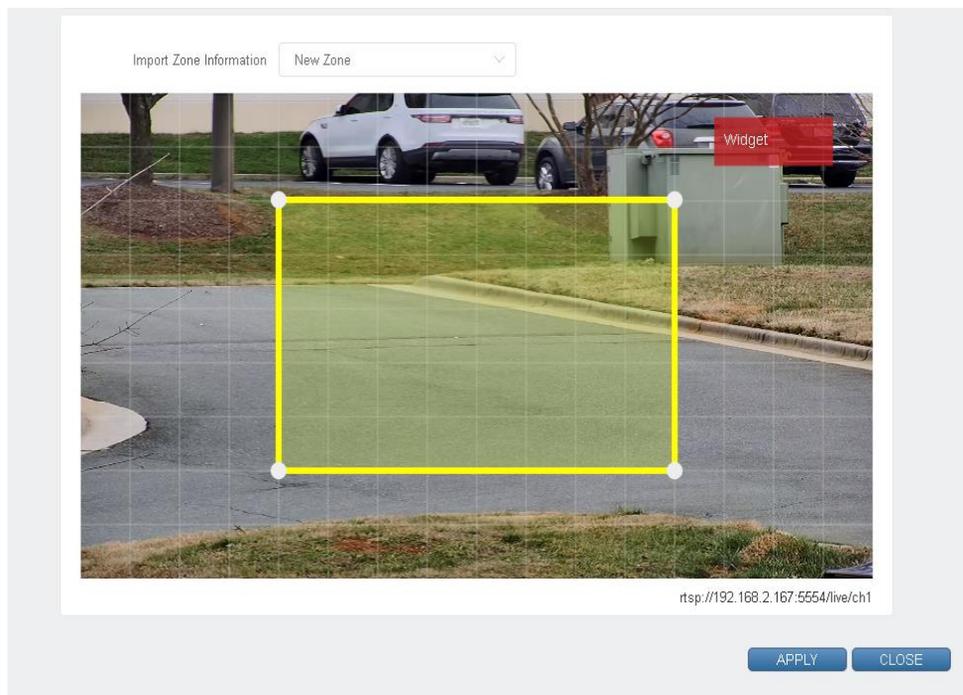
Channel	Video Name	No	Name	Recognition Mode	Group/Filter	Operation

- Video Source: Select the Video source from the available listed video channels
- Name: Title the trigger name according to intent
- Recognition mode: Select 'All Recognized LPs', 'LPs in Groups', or 'Unregistered LP'
 - All Recognized LPs: Triggers on recognized LPs only
 - LPs in Groups: Triggers on recognized LPs in LP groups only
 - Group: Select from available 'Group', or 'Groups'
 - Matching Policy: Select from 'Very High', 'High', or 'Normal'
 - LP characters match threshold setting
 - Unregistered LP: Triggers on unregistered LPs, not found in any LP group
 - Group: Select from available 'Group', or 'Groups'

The screenshot shows a configuration form with three main sections:

- Video Source:** A dropdown menu with the text "Select" and a downward arrow.
- Name:** A text input field containing the placeholder text "Trigger preset name".
- Recognition Mode:** A dropdown menu with the text "All Recognized LPs" and a downward arrow.

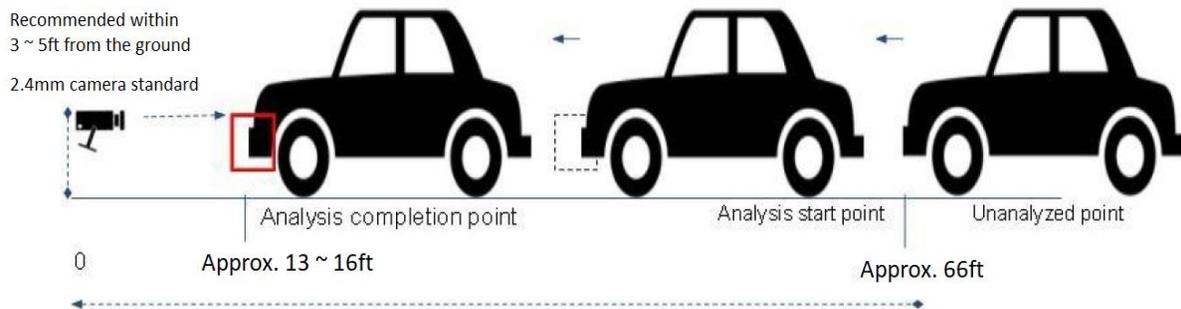
- Area Box: Drag the points of the box to where the license plate is the largest
- Click the 'Apply' button at the bottom to save and continue



LPR: Installing a camera

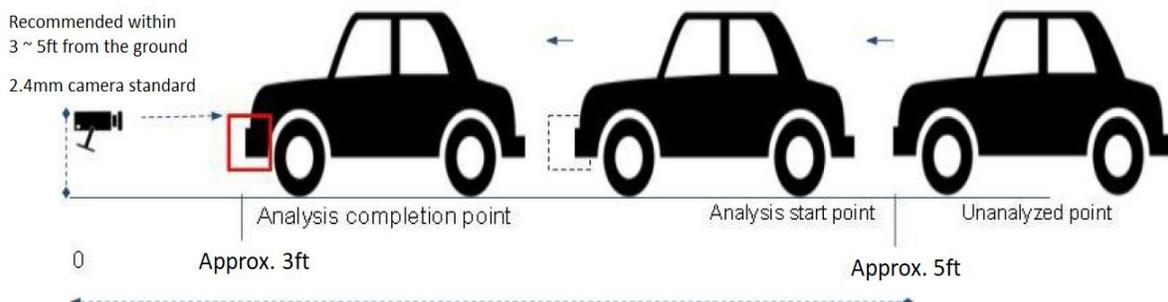
Example: Improving accuracy when installing a license plate recognition camera

- Install: Accuracy high if installed at location in front of vehicle, roughly level with license plate, based on a 10.3mm lens
- Fast Vehicle Speed: Camera and lens selected according to expected vehicle speeds, less than 37mph
- Analysis of LPR process
 - Analysis completions point: About 13~16ft
 - Analysis start point: About 13~16ft ~ about 66ft
 - Unanalyzed interval: Beyond 66ft



Example: Improving accuracy when installing a license plate recognition camera

- Install: Accuracy high if install at location in front of the vehicle, roughly level with license plate, based on a 2.4mm lens
- Slow Vehicle Speed: Camera and lens selected according to expected vehicle speeds, less than 6mph
- Analysis of LPR process
 - Analysis completions point: About 3~16ft
 - Analysis start point: About 3~16ft ~ about 16ft
 - Unanalyzed interval: Beyond 16ft



4. System Trigger

1. Alarm in

Alarm In does not require a separate preset setting. Alarm In can be added directly in Action Rule setting.

To create the Alarm in based System trigger, go to SETUP/AI Security/System Trigger->Alarm in

- Select 'Alarm in' if not already selected
- Select 'Alarm in 1' to toggle between 'N/O' normally open, and 'N/C' normally closed
- Select 'Alarm in 2' to toggle between 'N/O' normally open, and 'N/C' normally closed
- Select 'Alarm in 3' to toggle between 'N/O' normally open, and 'N/C' normally closed
- Select 'Alarm in 4' to toggle between 'N/O' normally open, and 'N/C' normally closed

The screenshot shows the 'System Trigger' configuration page in the AI Security setup. The left sidebar contains navigation options: AI SOURCES, AI SECURITY (expanded), Action Rules, AI Trigger, System Trigger (selected), Schedule, Event Action, Statistics, AI MARKETING, SEARCH, and DISPLAY. The main content area shows the breadcrumb 'Setup > AI Security' and the title 'System Trigger'. Below the title are four tabs: Alarm In (selected), Tamper Detection, Recurrence, and Virtual Trigger. Under the 'Alarm In' tab, there are four rows, each representing an alarm input. Each row has a label (Alarm In 1-4), a blue 'N/O' label, a green toggle switch that is turned on, and a blue 'N/C' label.

2. Camera Tamper Detection

Camera tamper detection does not require a separate preset setting. Camera tamper detection can be added directly in Action Rule setting.

To enable the Camera Tamper Detection based System trigger, go to SETUP/AI Security/System Trigger->Tamper Detection

- Select 'Tamper Detection' if not already selected
- Set the 'Ignoring interval':
 - The ignoring interval may be set for 1 second, up to 300 seconds
 - Additional temper detection event will be ignored based on the interval setting
- Click the 'APPLY' button at the bottom to save.

The screenshot shows the 'AI Box' web interface. The top navigation bar includes 'AI Box', 'LIVE', and 'SETUP'. The user is logged in as 'ADMIN' in 'English'. The left sidebar shows a menu with 'SECURITY' expanded, containing 'Action Rules', 'AI Trigger', 'System Trigger' (selected), 'Schedule', 'Event Action', and 'Statistics'. The main content area is titled 'System Trigger' and has a breadcrumb 'Setup > AI Security'. Below the title are four tabs: 'Alarm In', 'Tamper Detection' (active), 'Recurrence', and 'Virtual Trigger'. Under the 'Camera Tamper Detection' section, there is an 'Ignoring Interval' field set to '5' with up/down arrows and the unit 'second(s)'. At the bottom right, there are 'APPLY' and 'CANCEL' buttons.

3. Recurrence Preset

Recurrent does not require a separate preset setting. Recurrence can be added directly in Action Rule setting.

To set the recurrence preset based System trigger, go to SETUP/AI Security/System Trigger->Recurrence

- Select 'Recurrence preset' if not already selected
- Click the 'Add' button at the bottom

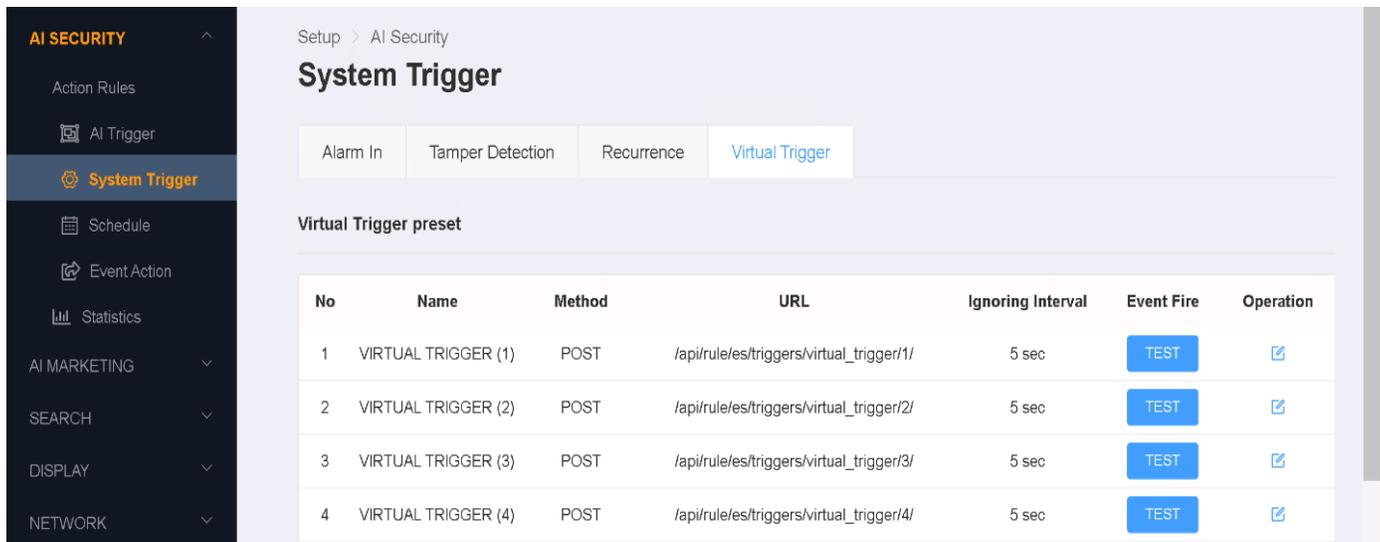
- Name: Title the recurrence preset according to intent
- Repeat every: 1 to 100 Seconds, Minutes, Hours, or Days
- Start Time: Set year, month, day, hour, minute, second
- Click the 'APPLY' button at the bottom to save.

4. Virtual Trigger Preset

Virtual trigger preset does not require a separate preset setting. Virtual trigger preset can be added directly in Action Rule setting.

To test the virtual trigger-based System trigger, go to SETUP/AI Security/System Trigger->Virtual Trigger

- Select 'Virtual Trigger' if not already selected
- To edit a 'Virtual Trigger', select the 'edit' icon  in the 'Operation' column



Setup > AI Security

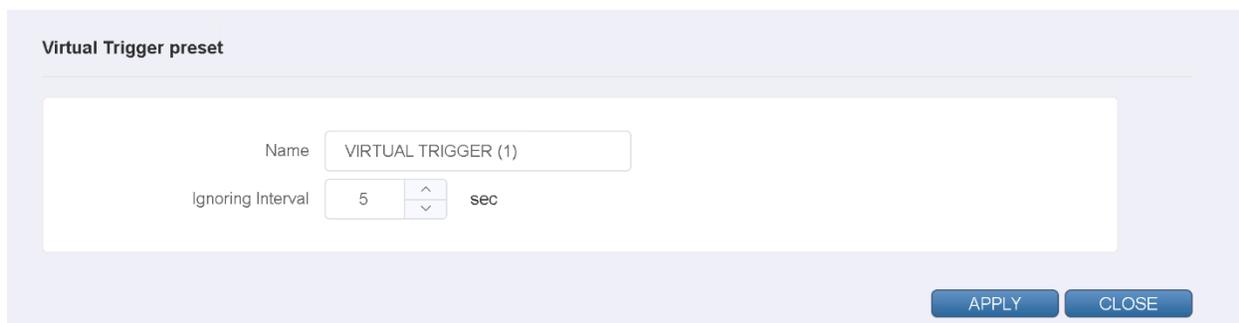
System Trigger

Alarm In | Tamper Detection | Recurrence | **Virtual Trigger**

Virtual Trigger preset

No	Name	Method	URL	Ignoring Interval	Event Fire	Operation
1	VIRTUAL TRIGGER (1)	POST	/api/rule/es/triggers/virtual_trigger/1/	5 sec	TEST	
2	VIRTUAL TRIGGER (2)	POST	/api/rule/es/triggers/virtual_trigger/2/	5 sec	TEST	
3	VIRTUAL TRIGGER (3)	POST	/api/rule/es/triggers/virtual_trigger/3/	5 sec	TEST	
4	VIRTUAL TRIGGER (4)	POST	/api/rule/es/triggers/virtual_trigger/4/	5 sec	TEST	

- Name: Modify the VIRTUAL TRIGGER title if need, to match intent of trigger
- Set the 'Ignoring interval':
 - The ignoring interval may be set for 1 second, up to 300 seconds
- Click the 'APPLY' button at the bottom to save.



Virtual Trigger preset

Name:

Ignoring Interval:   sec

5. Schedule

The schedule preset does not require a separate preset setting. Schedule preset can be added directly in Action Rule setting.

To create the schedule preset based System trigger, go to SETUP/AI Security/Schedule->Schedule preset

- Select 'Add' to create a schedule preset

The screenshot shows the GANZ AI Box Setup interface. The top navigation bar includes 'AI Box', 'LIVE', and 'SETUP' (highlighted). On the right, there are options for 'English', 'ADMIN', and 'Logout'. The left sidebar lists various settings: 'AI SOURCES', 'AI SECURITY' (expanded), 'Action Rules', 'AI Trigger', 'System Trigger', 'Schedule' (highlighted), 'Event Action', 'Statistics', and 'AI MARKETING'. The main content area is titled 'Setup > AI Security' and 'Schedule'. Below this, there is a section for 'Schedule preset' which contains a table with the following columns: 'No', 'Name', 'Cycle', 'Schedule Designation', 'Exclusion', and 'Operation'. The table is currently empty. A blue 'Add' button is located at the bottom right of the table area.

- Name: Title the schedule preset according to intent
- Schedule Cycle: Set for Weekly, Monthly, or Yearly
- Schedule Designation: Set for one of the following.
 - Day-based: Offers selection of a specific day or days, Week number, and Month
 - Date-based: Offers selection of a specific day number or range, and Month
- Time Range: Set a specific time range from 00:00 to 00:00
- Exclusion Schedule: Set this if schedule is meant as exclusion to normal schedule
- Click the 'APPLY' button at the bottom to save

Name

Schedule Cycle

Schedule Designation

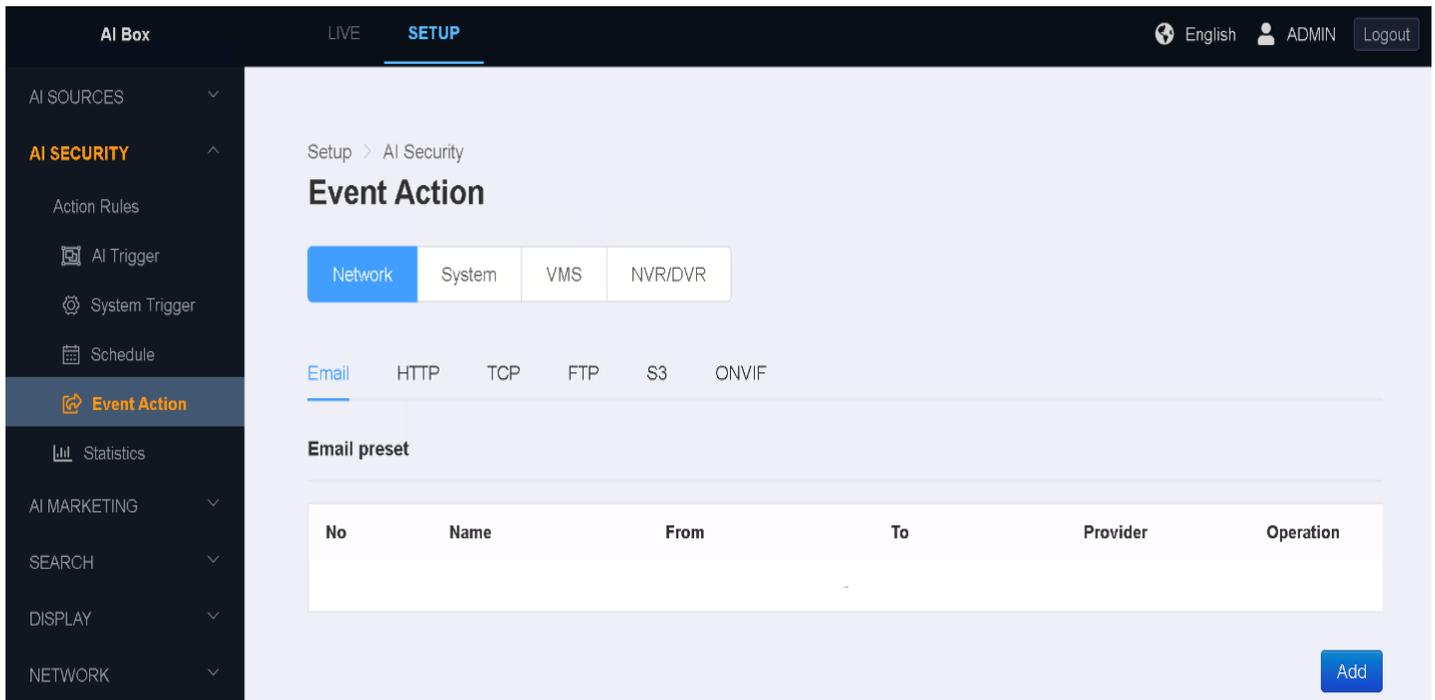
Schedule

Time Range ~

Exclusion Schedule Set this as exclusion schedule ?

6. Event Action

Event actions define how an event will respond to a trigger.

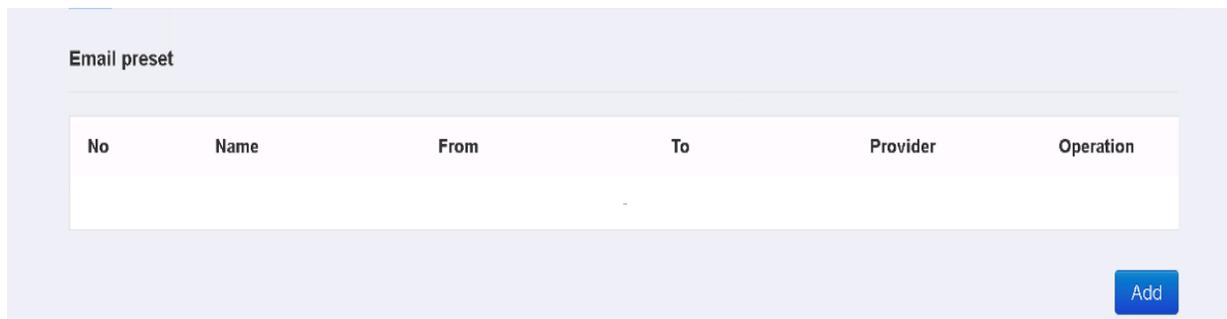


1. Network: Email Preset

Email preset does not require a separate setting. The email preset can be added directly in Action Rules.

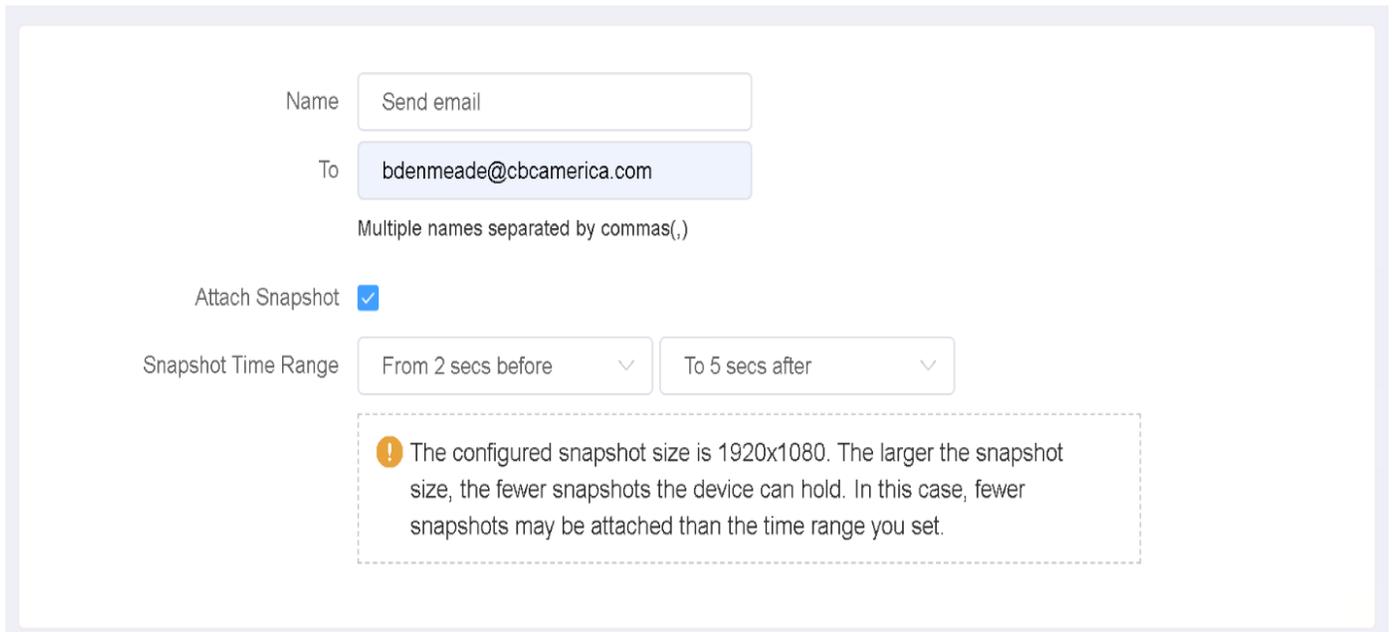
To create the Email preset-based event action, go to SETUP/AI Security/Event Action/Network->Email

- Select 'Add' to create an email preset



In the Email preset, set the necessary value for sending email such as SMTP server information. You can also send a test email to confirm that your settings are correct.

- Name: Title the email preset according to intent
- To: Enter an email recipient (Separate by comma if multiple recipients)
- Attach Snapshot: Check if snapshot is required
 - Snapshot Time Range: The time a snapshot is taken prior to and after trigger
 - From 0 to 10 seconds before
 - To 0 to 10 seconds after
- Note: The larger the snapshot size, the fewer snapshots the AI Box can hold.
 - Fewer snapshots may be attached then the time range that is set.
 - The snapshot size can be adjusted at SETUP/DISPLAY/Snapshot->Snapshot Size
 - Options: 640x360, 1280x720, 1920x1080



Name

To
Multiple names separated by commas(,)

Attach Snapshot

Snapshot Time Range

! The configured snapshot size is 1920x1080. The larger the snapshot size, the fewer snapshots the device can hold. In this case, fewer snapshots may be attached than the time range you set.

- Provider: Select the email service provider
 - Options include 'Gmail', 'Hotmail', 'Yahoo', 'Sureview', 'Sentinel'
 - Select 'Custom' if the service provider you want to use is not listed
- SMTP Server: Input the SMTP server address, and communication port
 - Example: smtp.gmail.com
 - SMTP port (Default): 25
 - SMTP port (TLS): 587
 - SMTP port (SSL): 465
- Encryption: The encryption is predetermined by the SMTP port requirement
 - The sending email may be encrypted as 'None', 'TLS', or 'SSL'
- Validate Server Certificate: select 'On' or 'Off'
 - Performs a validation on 'TLS', and 'SSL' SMTP server certificates
- From email: email address used to indicate who is sending the email
 - Does not have to be the SMTP email address
 - Email sender should denote person of authority behind AI Box administration
- SMTP Authentication: Check box if SMTP email account user credentials are required
 - When box is checked; SMTP account Username, and Password are required

The screenshot shows a configuration form for email settings. The fields are as follows:

- Provider: A dropdown menu with 'Gmail' selected.
- SMTP Server: A text input field containing 'smtp.gmail.com'.
- Port: A numeric input field containing '587' with up and down arrow buttons.
- Encryption: A dropdown menu with 'TLS' selected.
- Validate Server Certificate: A dropdown menu with 'On' selected.
- From email: An empty text input field.
- SMTP Authentication: A checked checkbox.
- Username: An empty text input field.
- Password: An empty text input field.

- Event Action Message: Edit the event action message
 - Use template: Configure the message by using a template
 - IMMIX, Sentinel, Sureview, JSON, Simple & Basic msg, Object list
 - Select 'Use' to add template to 'Editable Box'
 - Add attribute token: See Email Attribute Tokens list at end of section
 - Select 'Add' to add attribute token to 'Editable Box'
- Editable Box: Editable preview of the message to be sent

Event Action Message

Editable Box

```

<Alarm>
<Input1>{{CH}}</Input1>
<EventType>{{TRIGGER TYPE}}</EventType>
<ExtraText>NAME={{TRIGGER NAME}}; CH={{CH}}; MAC={{MAC}};
OBJ_LISTS={{LIST OBJECTS[PARAM=COMMA]}}{::OBJ[CLASS]}}{LIST
OBJECTS[PARAM=COMMA]}}</ExtraText>
<DateTime>{{SYSTEM TIME ISO8601}}</DateTime>
</Alarm>

{{TRIGGER NO}}
          
```

Message Example

```

<Alarm>
<Input1>3</Input1>
<EventType>Enter/Exit</EventType>
<ExtraText>NAME=My AI Trigger; CH=3; MAC=00116F0003B7;
OBJ_LISTS=person,person</ExtraText>
<DateTime>2019-07-01T09:10:20.012345+00:00</DateTime>
</Alarm>

1
          
```

- Send example message: Click 'TEST' to confirm the Email's settings are correct
- Click the 'APPLY' button at the bottom to save.

Send example message

2. Network: HTTP Preset

The HTTP preset does not require a separate setting. HTTP preset can be added directly in Action Rule setting.

To create the HTTP preset-based event action, go to SETUP/AI Security/Event Action/Network->HTTP

- Select 'Add' to create an HTTP preset

The screenshot shows the 'Event Action' configuration page in the AI Box web interface. The page is titled 'Event Action' and has tabs for 'Network', 'System', 'VMS', and 'NVR/DVR'. Under the 'Network' tab, there are sub-tabs for 'Email', 'HTTP', 'TCP', 'FTP', 'S3', and 'ONVIF'. The 'HTTP' sub-tab is selected, showing a table with columns: No, Name, Method, Protocol, URL, and Operation. The table is currently empty. An 'Add' button is located at the bottom right of the table area.

- Name: Title the HTTP preset according to intent
- Protocol: Select either 'HTTP' or 'HTTPS'
- Method: Select either 'GET', 'POST' or 'PUT'
- URL: Enter the target IP address, or URL of the HTTP receiving device
- Authentication: Select 'None', 'Basic', or 'Digest'
 - Note: Basic and Digest require user credentials for HTTP receiving device account
- Customer Header: Allows for the creation and use of a customer HTTP(s) header
 - Note: Alphanumeric characters and hyphen (-) can be used
 - Other characters are removed
 - Space characters are replaced by hyphen (-)

- Content-Type: Default – multipart/form-data (Currently not modifiable)
- Attach Snapshot: Check if snapshot is required
 - Snapshot Time Range: The time a snapshot is taken prior to and after trigger
 - From 0 to 10 seconds before
 - To 0 to 10 seconds after
- Note: The larger the snapshot size, the fewer snapshots the AI Box can hold.
 - Fewer snapshots may be attached then the time range that is set.
 - The snapshot size can be adjusted at SETUP/DISPLAY/Snapshot->Snapshot Size
 - Options: 640x360, 1280x720, 1920x1080
- Action Delay: Adds a delay time from 0 to 10 seconds
 - Note: 'Attach Snapshot' disabled when 'Action Delay' is enabled

The screenshot shows the configuration page for an HTTP action. The fields are as follows:

- Name: Send HTTP
- Protocol: HTTP
- Method: POST
- URL: http:// your-domain-name.com/path
- Authentication: None
- Custom Header: Add
- Content-Type: multipart/form-data
- Attach Snapshot:
- Snapshot Time Range: From 2 secs before, To 5 secs after
- Action Delay: 0 second(s)

A warning message is displayed in a dashed box:

! The configured snapshot size is 1920x1080. The larger the snapshot size, the fewer snapshots the device can hold. In this case, fewer snapshots may be attached than the time range you set.

- Event Action Message: Edit the event action message
 - Use template: Configure the message by using a template
 - IMMIX, Sentinel, Sureview, JSON, Simple & Basic msg, Object list
 - Select 'Use' to add template to 'Editable Box'
 - Add attribute token: See Attribute Tokens list at end of section
 - Select 'Add' to add attribute token to 'Editable Box'
- Editable Box: Editable preview of the message to be sent

The screenshot shows a configuration interface for an AI Box. It is divided into three main sections:

- Event Action Message:** A dropdown menu is set to "IMMIX Monitoring Template". To its right is a blue "Use" button.
- Editable Box:** A dropdown menu is set to "TRIGGER NO". To its right is a blue "Add" button. Below this is a text area containing XML-like code:

```
<Alarm>
<Input1>{{CH}}</Input1>
<EventType>{{TRIGGER TYPE}}</EventType>
<ExtraText>NAME={{TRIGGER NAME}}; CH={{CH}}; MAC={{MAC}};
OBJ_LISTS={{LIST OBJECTS[PARAM=COMMA]}}{:.:OBJ[CLASS]}}{LIST
OBJECTS[PARAM=COMMA]}}</ExtraText>
<DateTime>{{SYSTEM TIME ISO8601}}</DateTime>
</Alarm>

{{TRIGGER NO}}
```
- Message Example:** A text area showing a rendered example of the message:

```
<Alarm>
<Input1>3</Input1>
<EventType>Enter/Exit</EventType>
<ExtraText>NAME=My AI Trigger; CH=3; MAC=00116F0003B7;
OBJ_LISTS=person,person</ExtraText>
<DateTime>2019-07-01T09:10:20.012345+00:00</DateTime>
</Alarm>

1
```

- Send example message: Click 'TEST' to confirm the Email's settings are correct
- Click the 'APPLY' button at the bottom to save.

The bottom part of the interface features a "Send example message" label next to a light blue "TEST" button. At the very bottom, there are two dark blue buttons: "APPLY" and "CLOSE".

3. Network: TCP Preset

The TCP preset does not require a separate setting. TCP preset can be added directly in Action Rule setting.

To create the TCP preset-based event action, go to SETUP/AI Security/Event Action/Network->TCP

- Select 'Add' to create an TCP preset

AI Box LIVE SETUP English ADMIN Logout

Setup > AI Security

Event Action

Network System VMS NVR/DVR

Email HTTP TCP FTP S3 ONVIF

TCP preset

No	Name	Host	Port	Operation

Add

- Name: Title the TCP preset according to intent
- Host: Enter the target TCP receiving device or server IP address
- Port: Enter the target communications port receiving device or server require

Name: Send TCP

Host: 192.168.2.12

Port: 31

- Event Action Message: Edit the event action message
 - Use template: Configure the message by using a template
 - IMMIX, Sentinel, Sureview, JSON, Simple & Basic msg, Object list
 - Select 'Use' to add template to 'Editable Box'
 - Add attribute token: See Attribute Tokens list at end of section
 - Select 'Add' to add attribute token to 'Editable Box'
- Editable Box: Editable preview of the message to be sent

The screenshot shows a configuration interface with three main sections:

- Event Action Message:** A dropdown menu is set to "IMMIX Monitoring Template" with a "Use" button to its right.
- Editable Box:** A dropdown menu is set to "TRIGGER NO" with an "Add" button to its right. Below this is a text area containing XML-like code:


```
<Alarm>
<Input1>{{CH}}</Input1>
<EventType>{{TRIGGER TYPE}}</EventType>
<ExtraText>NAME={{TRIGGER NAME}}; CH={{CH}}; MAC={{MAC}};
OBJ_LISTS={{LIST OBJECTS[PARAM=COMMA]}}{::OBJ[CLASS]}}{LIST
OBJECTS[PARAM=COMMA]}}</ExtraText>
<DateTime>{{SYSTEM TIME ISO8601}}</DateTime>
</Alarm>

{{TRIGGER NO}}
```
- Message Example:** A text area showing the rendered XML message:


```
<Alarm>
<Input1>3</Input1>
<EventType>Enter/Exit</EventType>
<ExtraText>NAME=My AI Trigger; CH=3; MAC=00116F0003B7;
OBJ_LISTS=person,person</ExtraText>
<DateTime>2019-07-01T09:10:20.012345+00:00</DateTime>
</Alarm>

1
```

- Send example message: Click 'TEST' to confirm the TCP settings are correct
- Click the 'APPLY' button at the bottom to save.

The screenshot shows the bottom part of the configuration interface. It features a "Send example message" button with a "TEST" sub-button. At the bottom right, there are two buttons: "APPLY" and "CLOSE".

4. Network: FTP Preset

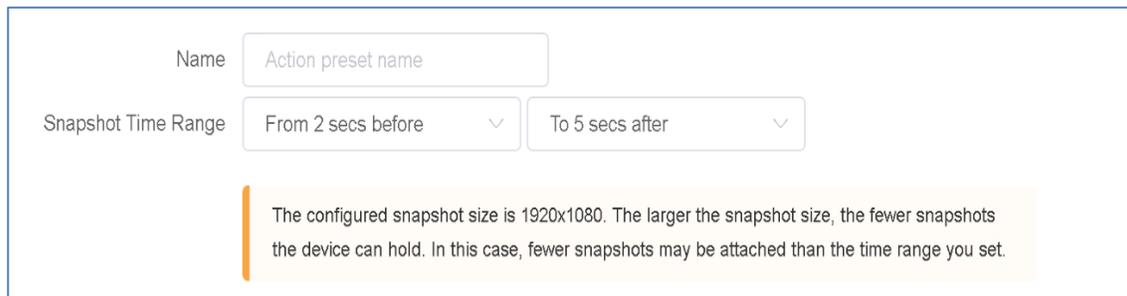
The FTP preset does not require a separate setting. FTP preset can be added directly in Action Rule setting.

To create the FTP preset-based event action, go to SETUP/AI Security/Event Action/Network->FTP

- Select 'Add' to create an FTP preset

The screenshot shows the AI Box web interface. The top navigation bar includes 'AI Box', 'LIVE', 'SETUP', 'English', 'ADMIN', and 'Logout'. The left sidebar menu is expanded to 'Event Action'. The main content area shows the breadcrumb 'Setup > AI Security' and the title 'Event Action'. Below the title are tabs for 'Network', 'System', 'VMS', and 'NVR/DVR'. Under the 'Network' tab, there are sub-tabs for 'Email', 'HTTP', 'TCP', 'FTP', 'S3', and 'ONVIF'. The 'FTP' sub-tab is selected. Below the sub-tabs is a section titled 'FTP preset' containing an empty table with columns: 'No', 'Name', 'Host', 'Port', and 'Operation'. An 'Add' button is located at the bottom right of the table area.

- Name: Title the FTP preset according to intent
- Snapshot Time Range: The time a snapshot is taken prior to and after trigger
 - From 0 to 10 seconds before
 - To 0 to 10 seconds after
- Note: The larger the snapshot size, the fewer snapshots the AI Box can hold.
 - Fewer snapshots may be attached then the time range that is set.
 - The snapshot size can be adjusted at SETUP/DISPLAY/Snapshot->Snapshot Size
 - Options: 640x360, 1280x720, 1920x1080

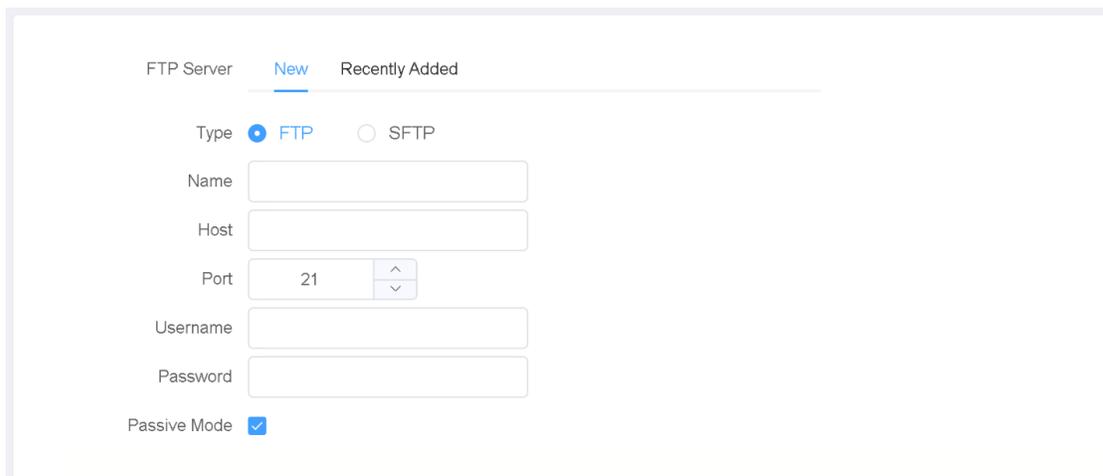


Name

Snapshot Time Range

The configured snapshot size is 1920x1080. The larger the snapshot size, the fewer snapshots the device can hold. In this case, fewer snapshots may be attached than the time range you set.

- Type: Select 'FTP' or 'SFTP'
- Name: Title of FTP connection
- Host: IP address of target FTP server
- Port: Communications port of target FTP server
- Username: User credentials with account access right to FTP server
- Password: User credentials with account access right to FTP server
- Passive Mode: Check box if passive mode is preferred for FTP connection



FTP Server [New](#) Recently Added

Type FTP SFTP

Name

Host

Port

Username

Password

Passive Mode

- File Path Format: Enter the FTP file path format, or use a template
 - Use template: Configure the FTP file path by using a template
 - Template: Currently only 'Basic file path template' is available
 - Select 'Use' to add
 - Add attribute token: See Attribute Tokens list at end of section
 - Select 'Add' to add attribute token to 'Editable Box'
- Editable preview of the file path format to be sent

File Path Format:

```
{{TRIGGER NO}}{{SYSTEM TIME %YYYY}}/{{SYSTEM TIME %mm}}/{{SYSTEM TIME %dd}}/{{SYSTEM TIME %HH}}/{{MAC}}_{{CH}}_{{TRIGGER NAME}}_{{SYSTEM TIME %YYYY}}_{{SYSTEM TIME %mm}}_{{SYSTEM TIME %dd}}_{{SYSTEM TIME %HH}}_{{SYSTEM TIME %MM}}_{{SYSTEM TIME %SS}}.{{SYSTEM TIME %MS}}_{{VIDEO TIMESTAMP}}.jpg
```

12019/07/01/18/00115F2A0024_3_My AI
Trigger_20190701181020.216_1561961100.012345.jpg

- Send example file: Click 'TEST' to confirm the FTP settings are correct
- Click the 'APPLY' button at the bottom to save.

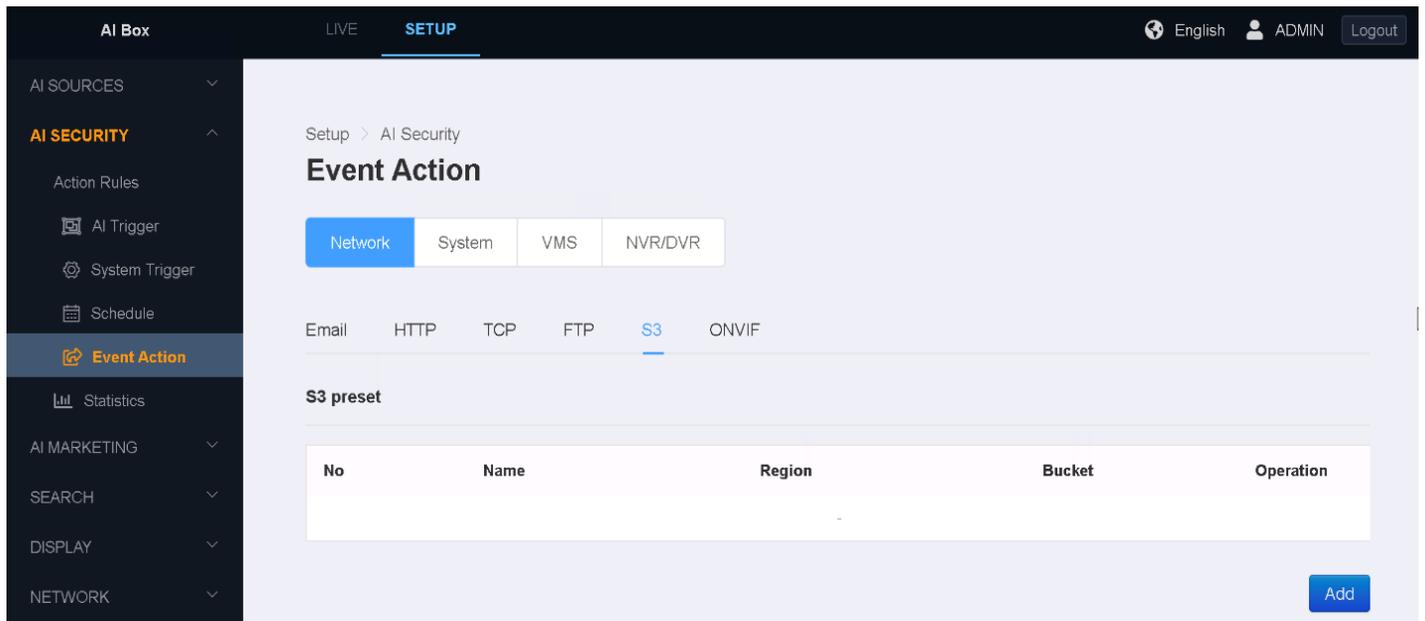
Send example file

5. Network: S3 Preset

The S3 preset does not require a separate setting. The S3 preset can be added directly to Action Rules.

To create the ONVIF preset-based event action, go to SETUP/AI Security/Event Action/Network->S3

- Select 'Add' to create an S3 preset



- Name: Title the FTP preset according to intent
- Snapshot Time Range: The time a snapshot is taken prior to and after trigger
 - From 0 to 10 seconds before / To 0 to 10 seconds after
- Note: The larger the snapshot size, the fewer snapshots the AI Box can hold.
 - Fewer snapshots may be attached then the time range that is set.
 - The snapshot size can be adjusted at SETUP/DISPLAY/Snapshot->Snapshot Size
 - Options: 640x360, 1280x720, 1920x1080

Name

Snapshot Time Range

The configured snapshot size is 1920x1080. The larger the snapshot size, the fewer snapshots the device can hold. In this case, fewer snapshots may be attached than the time range you set.

- Name: Title of S3 connection
- Key File (*.csv): Select 'Choose file' and navigate to the S3 key file
- Access Key: Enter the S3 access key
- Secret Key: Enter the S3 secret key
- Region: Select the S3 server regional location
- Bucket: Enter the bucket information

S3 Server New Recently Added

Name

Key File (*.csv) Choose File No file chosen

Access Key

Secret Key

Region US East (Ohio) ▼

Bucket

- File Path Format: Enter the S3 file path format, or use a template
 - Use template: Configure the S3 file path by using a template
 - Template: Currently only 'Basic file path template' is available
 - Select 'Use' to add
 - Add attribute token: See Attribute Tokens list at end of section
 - Select 'Add' to add attribute token to 'Editable Box'
- Editable preview of the file path format to be sent

File Path Format Basic file path template ▼ Use

TRIGGER NO ⊙ ▼ Add

```

{{TRIGGER NO}}>{{SYSTEM TIME %YYYY}}/{{SYSTEM TIME %mm}}/{{SYSTEM TIME %dd}}/{{SYSTEM TIME %HH}}/{{MAC}}_{{CH}}_{{TRIGGER NAME}}_{{SYSTEM TIME %YYYY}}>{{SYSTEM TIME %mm}}>{{SYSTEM TIME %dd}}>{{SYSTEM TIME %HH}}>{{SYSTEM TIME %MM}}>{{SYSTEM TIME %SS}}.{{SYSTEM TIME %MS}}_{{VIDEO TIMESTAMP}}.jpg
  
```

12019/07/01/18/00115F2A0024_3_My AI
Trigger_20190701181020.216_1561961100.012345.jpg

- Send example file: Click 'TEST' to confirm the S3 settings are correct
- Click the 'APPLY' button at the bottom to save.

Send example file

TEST

6. Network: ONVIF Preset

The ONVIF preset does not require a separate setting. ONVIF preset can be added directly to Action Rules.

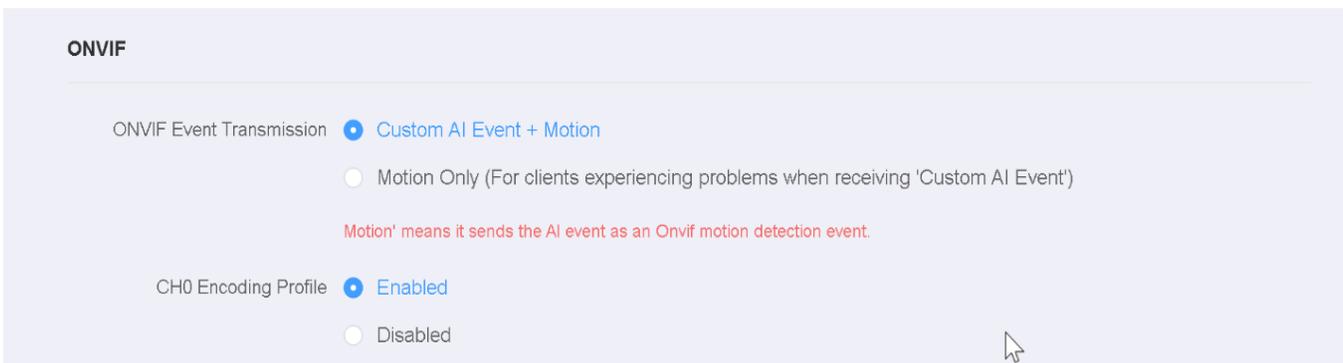
To create the ONVIF preset-based event action, go to SETUP/AI Security/Event Action/Network->ONVIF

The screenshot shows the configuration interface for the ONVIF preset. On the left is a dark sidebar menu with options: AI Trigger, System Trigger, Schedule, Event Action (highlighted), Statistics, AI MARKETING, SEARCH, DISPLAY, NETWORK, USER, and SYSTEM. The main panel has tabs for Network, System, VMS, and NVR/DVR. Under the Network tab, there are sub-tabs for Email, HTTP, TCP, FTP, S3, and ONVIF (selected). The ONVIF section includes:

- ONVIF Event Transmission:** Radio buttons for 'Custom AI Event + Motion' (selected) and 'Motion Only (For clients experiencing problems when receiving 'Custom AI Event')'. A red note below states: "Motion' means it sends the AI event as an Onvif motion detection event."
- CH0 Encoding Profile:** Radio buttons for 'Enabled' (selected) and 'Disabled'.
- ONVIF Event Topics:** A list of topics with corresponding text input fields:
 - Intrusion Topic: tns1:RuleEngine/FieldDetector/ObjectsInside
 - Occupancy Topic: tns1:RuleEngine/FieldDetector/ObjectsInside
 - Loitering Topic: tns1:RuleEngine/LoiteringDetector/ObjectsLoitering
 - Stopping Topic: tns1:RuleEngine/LoiteringDetector/ObjectsLoitering
 - Enter/Exit Topic: tns1:RuleEngine/FieldDetector/ObjectsInside
 - Line Crossing Topic: tns1:RuleEngine/LineDetector/Crossed

At the bottom right of the main panel are 'APPLY' and 'CANCEL' buttons.

- ONVIF Event Transmission:
 - Customer AI Event + Motion
 - Motion Only (clients experiencing problems when receiving a 'Custom AI Event')
 - Note: 'Motion' - sends the AI event as an Onvif motion detection event
- CH0 Encoding Profile: 'Enabled' or 'Disabled'
 - CH0 displays multi layout video stream



The screenshot shows the ONVIF configuration section of a web interface. It features two main settings:

- ONVIF Event Transmission:** A radio button menu with 'Custom AI Event + Motion' selected (indicated by a blue dot). Below it, 'Motion Only (For clients experiencing problems when receiving 'Custom AI Event')' is unselected. A red note states: "Motion' means it sends the AI event as an Onvif motion detection event."
- CH0 Encoding Profile:** A radio button menu with 'Enabled' selected (indicated by a blue dot). 'Disabled' is unselected.

At the bottom right of the configuration area, there is a mouse cursor icon.

- ONVIF Event Topics:
 - Intrusion Topic tns1:RuleEngine/FieldDetector/Objectsinside
 - Occupancy Topic tns1:RuleEngine/FieldDetector/Objectsinside
 - Loitering Topic tns1:RuleEngine/LoiteringDetector/ObjectisLoitering
 - Stopping Topic tns1:RuleEngine/ LoiteringDetector/ObjectisLoitering
 - Enter/Exit Topic tns1:RuleEngine/FieldDetector/Objectsinside
 - Line Crossing Topic: tns1:RuleEngine/ LineDetector/Crossed



The screenshot shows the 'ONVIF Event Topics' configuration section. It contains a list of topics, each with a corresponding text input field containing a specific URI:

Topic Name	URI
Intrusion Topic	tns1:RuleEngine/FieldDetector/ObjectsInside
Occupancy Topic	tns1:RuleEngine/FieldDetector/ObjectsInside
Loitering Topic	tns1:RuleEngine/LoiteringDetector/ObjectisLoitering
Stopping Topic	tns1:RuleEngine/LoiteringDetector/ObjectisLoitering
Enter/Exit Topic	tns1:RuleEngine/FieldDetector/ObjectsInside
Line Crossing Topic	tns1:RuleEngine/LineDetector/Crossed

At the bottom right of the configuration area, there are two buttons: 'APPLY' and 'CANCEL'.

7. System: Disarm

AI BOX is an ARM state that can generate an alarm action event at any time. However, the connected controller can be changed to DISARM state to prevent alarm action event.

For example, alarm events are not important during system checks, so you can create and work with the DISARM state as shown above.

To configure the 'Disarm setup' event action, go to SETUP/AI Security/Event Action/System->Disarm setup

- Status: Will display 'Arm' or 'Disarm' based on status
- Connected Control: Options include the following
 - Manual / HTTP API
 - Alarm in 1
 - Alarm in 2
 - Alarm in 3
 - Alarm in 4
- Click the 'APPLY' button at the bottom to save

The screenshot shows the AI Box web interface. The top navigation bar includes 'AI Box', 'LIVE', 'SETUP', and user information (English, ADMIN, Logout). The left sidebar lists various menu items, with 'Event Action' highlighted. The main content area is titled 'Event Action' and shows tabs for 'Network', 'System', 'VMS', and 'NVR/DVR'. Under the 'System' tab, there are sub-tabs for 'Disarm', 'Alarm Out', 'Audio Back Channel', 'Video Popup', 'RS485', and 'Counter Reset'. The 'Disarm setup' section shows the 'Status' as 'Arm' and the 'Connected Control' as 'Manual / HTTP API'. At the bottom right, there are 'APPLY' and 'CANCEL' buttons.

8. System: Alarm Out

It is possible to set how long it will activate from the Alarm Out Duration when the Alarm Out action is activated.

To configure the 'Alarm out' event action, go to SETUP/AI Security/Event Action/System->Alarm Out preset

- Select 'Add' to create an Alarm out preset

The screenshot shows the 'AI Box' web interface. The top navigation bar includes 'AI Box', 'LIVE', 'SETUP', 'English', 'ADMIN', and 'Logout'. The left sidebar lists various menu items: AI SOURCES, AI SECURITY (expanded), Action Rules, AI Trigger, System Trigger, Schedule, Event Action (highlighted), Statistics, AI MARKETING, SEARCH, DISPLAY, NETWORK, USER, and SYSTEM. The main content area is titled 'Event Action' and shows a breadcrumb 'Setup > AI Security'. Below this, there are tabs for 'Network', 'System' (selected), 'VMS', and 'NVR/DVR'. Under the 'System' tab, there are sub-tabs for 'Disarm', 'Alarm Out' (selected), 'Audio Back Channel', 'Video Popup', 'RS485', and 'Counter Reset'. The 'Alarm Out preset' section contains a table with the following data:

No	Name	Type	Duration	Priority	Operation
1	ON for 5 secs	On for Duration	5 second(s)	High	
2	ON	ON		Normal	
3	OFF	OFF		Normal	

An 'Add' button is located at the bottom right of the table area.

- Name: Title the alarm out preset according to intent
- Output Type: Options include the following
 - On for Duration – High Priority (0 to 300 seconds duration)
 - Off for Duration – High Priority (0 to 300 seconds duration)
 - On – Normal Priority
 - Off – Normal Priority
- Click the 'APPLY' button at the bottom to save

The screenshot shows a configuration window with a light blue border. Inside, there is a white rectangular area containing two input fields. The first field is labeled 'Name' and contains the placeholder text 'Action preset name'. The second field is labeled 'Output Type' and contains the placeholder text 'Select Output Type' with a downward-pointing arrow on the right side. Below the white area, there are two blue buttons: 'APPLY' on the left and 'CLOSE' on the right.

9. System: Audio Back Channel

It is possible to set an audio file to play through a video sources audio channel out channel.

To configure the 'Audio Back Channel' event action, go to SETUP/AI Security/Event Action/System->Audio Back Channel

- Select 'Add' to create an audio back channel

The screenshot shows the 'AI Box' web interface. The top navigation bar includes 'AI Box', 'LIVE', 'SETUP', 'English', 'ADMIN', and 'Logout'. The left sidebar menu is expanded to 'AI SECURITY', with 'Event Action' selected. The main content area shows the 'Event Action' configuration page for 'System'. The 'Audio Back Channel' option is selected under the 'System' tab. Below the navigation tabs, there are options for 'Disarm', 'Alarm Out', 'Audio Back Channel', 'Video Popup', 'RS485', and 'Counter Reset'. The 'Audio Back Channel' section contains a table with the following headers: 'No', 'Name', 'Target Channel', 'Audio File', and 'Operation'. The table is currently empty. An 'Add' button is located at the bottom right of the table area.

- Target Channel: Select the video source from the drop-down list
 - Video source should support audio back channel
 - Video source device should have a speaker attached
- Name: Title the audio back channel according to intent
- Audio File(mp3/wav): Select 'Upload' and navigate to the target audio file
 - Both mp3 and wav audio formats supported
- Click the 'APPLY' button at the bottom to save

The screenshot displays a configuration form for the AI Box. It includes three input fields: 'Target Channel' with a dropdown menu showing 'CH 5 - Hallway', 'Name' with a text box containing '[CH 5]Audio Back Channel-01', and 'Audio File(mp3/wav)' with a dropdown menu showing 'Select'. To the right of the 'Audio File' field is a blue 'UPLOAD' button. Below these fields is a 'Send audio data' label with a light blue 'TEST' button. At the bottom right of the form are two dark blue buttons: 'APPLY' and 'CLOSE'.

10. System: Video Popup

Set action rule. If you add the video popup in the action setting, the channel where the event occurred on the live screen pops up for the set time.

To configure the 'Video Popup' event action, go to SETUP/AI Security/Event Action/System->Video Popup

- Video Popup Duration: This is the duration of time the popup will be presented
 - Duration time is between 0 and 300 seconds
- Click the 'APPLY' button at the bottom to save

The screenshot shows the 'AI Box' web interface. The top navigation bar includes 'AI Box', 'LIVE', and 'SETUP'. The user is logged in as 'ADMIN' in 'English'. The left sidebar lists various menu items, with 'Event Action' highlighted. The main content area shows the 'Event Action' configuration page for 'System'. Under 'Event Action', there are tabs for 'Network', 'System', 'VMS', and 'NVR/DVR'. Below these are tabs for 'Disarm', 'Alarm Out', 'Audio Back Channel', 'Video Popup', 'RS485', and 'Counter Reset'. The 'Video Popup' tab is active, showing a 'Video Popup Duration' input field set to '5' seconds. At the bottom right, there are 'APPLY' and 'CANCEL' buttons.

11. System: RS485

RS485 exports action messages sequentially without using a separate protocol. This can be used by setting the default baud rate and editing the action message.

To configure the 'RS485' event action, go to SETUP/AI Security/Event Action/System->RS485

The screenshot shows the 'AI Box' web interface. The top navigation bar includes 'AI Box', 'LIVE', 'SETUP', 'English', 'ADMIN', and 'Logout'. The left sidebar lists various menu items: AI SOURCES, AI SECURITY (expanded), Action Rules, AI Trigger, System Trigger, Schedule, Event Action (highlighted), Statistics, AI MARKETING, SEARCH, DISPLAY, NETWORK, USER, and SYSTEM. The main content area is titled 'Setup > AI Security' and 'Event Action'. It features tabs for 'Network', 'System', 'VMS', and 'NVR/DVR'. Under the 'System' tab, there are sub-tabs for 'Disarm', 'Alarm Out', 'Audio Back Channel', 'Video Popup', 'RS485' (selected), and 'Counter Reset'. The 'RS485' configuration section includes a 'Baud Rate' dropdown menu set to '115200 bps', an 'Event Action Message' dropdown menu set to 'Use template' with a 'Use' button, and a 'Select to add tokens' dropdown menu with an 'Add' button. Below these is an 'Editable Box' for entering a custom message and a 'Message Example' field. A 'Send example message' button with a 'TEST' label is located at the bottom right of the configuration area. At the very bottom of the page, there are 'APPLY' and 'CANCEL' buttons.

AI Box - 4Ch / 8Ch / 16Ch

User Manual v1.0.0

- Baud Rate: This is the rate of communications to take place on the RS485 port
 - Baud rates range between 2400 bps, and 115200 bps
- Event Action Message: Enter a custom, or use a template
 - Use template: Configure the message by using a template
 - IMMIX, Sentinel, Sureview, JSON, Simple & Basic msg, Object list
 - Select 'Use' to add template to 'Editable Box'
 - Add attribute token: See Attribute Tokens list at end of section
 - Select 'Add' to add attribute token to 'Editable Box'
- Editable Box: Editable preview of the message to be sent
- Send example message: Click 'TEST'
- Click the 'APPLY' button at the bottom to save.

The screenshot displays the configuration interface for the AI Box. It includes the following elements:

- Baud Rate:** A dropdown menu set to "115200 bps".
- Event Action Message:** A dropdown menu set to "IMMIX Monitoring Template" with a "Use" button to the right.
- Attribute Token:** A dropdown menu set to "TRIGGER NO" with an "Add" button to the right.
- Editable Box:** A text area containing XML template code:

```
<Alarm>
<Input1>{{CH}}</Input1>
<EventType>{{TRIGGER TYPE}}</EventType>
<ExtraText>NAME={{TRIGGER NAME}}; CH={{CH}}; MAC={{MAC}}; OBJ_LISTS={{LIST
OBJECTS[PARAM=COMMA]}}{:.:OBJ[CLASS]}}{LIST OBJECTS[PARAM=COMMA]}}
</ExtraText>
<DateTime>{{SYSTEM TIME ISO8601}}</DateTime>
</Alarm>

{{TRIGGER NO}}
```
- Message Example:** A text area showing the rendered XML message:

```
<Alarm>
<Input1>3</Input1>
<EventType>Enter/Exit</EventType>
<ExtraText>NAME=My AI Trigger; CH=3; MAC=00116F0003B7;
OBJ_LISTS=person,person</ExtraText>
<DateTime>2019-07-01T09:10:20.012345+00:00</DateTime>
</Alarm>

1
```
- Buttons:** "Send example message" with a "TEST" button, and "APPLY" and "CANCEL" buttons at the bottom right.

12. System: Counter Reset

The 'Counter Reset' action defines a event action to reset an existing counter action.

To configure the 'Counter Reset' event action, go to SETUP/AI Security/Event Action/System->Counter Reset

- Select 'Add' to create a Counter Reset action

The screenshot shows the AI Box web interface. The top navigation bar includes 'AI Box', 'LIVE', 'SETUP', 'English', 'ADMIN', and 'Logout'. The left sidebar lists various menu items, with 'Event Action' highlighted. The main content area shows the 'Event Action' configuration page for 'System'. It includes tabs for 'Network', 'System', 'VMS', and 'NVR/DVR'. Below these are tabs for 'Disarm', 'Alarm Out', 'Audio Back Channel', 'Video Popup', 'RS485', and 'Counter Reset'. The 'Counter Reset' section contains a table with columns: 'No', 'Name', 'Counter Name', 'Reset Count', and 'Operation'. An 'Add' button is located at the bottom right of the table.

- Name: Title the Counter reset according to intent
- Target Counter: Select the count trigger from the drop-down list of available
- Reset Count: select from 0 up to 9999999
- Click the 'APPLY' button at the bottom to save.

The screenshot shows the configuration form for the Counter Reset action. It includes the following fields:

- Name: Action preset name
- Target Counter: Entering
- Reset Count: 0

At the bottom right, there are two buttons: 'APPLY' and 'CLOSE'.

13. VMS: CORTROL

The 'CORTROL' action defines an event action to handshake with CORTROL.

To configure the 'CORTROL' event action, go to SETUP/AI Security/Event Action/VMS->CORTROL

- Select 'Add' to create a CORTROL event action

The screenshot shows the AI Box web interface. The top navigation bar includes 'AI Box', 'LIVE', and 'SETUP' (highlighted). On the right, there are links for 'English', 'ADMIN', and 'Logout'. The left sidebar contains a menu with 'AI SOURCES', 'AI SECURITY' (expanded), 'Action Rules', 'AI Trigger', 'System Trigger', 'Schedule', 'Event Action' (highlighted), and 'Statistics'. Below the sidebar are sections for 'AI MARKETING', 'SEARCH', 'DISPLAY', and 'NETWORK'. The main content area is titled 'Setup > AI Security' and 'Event Action'. It features four tabs: 'Network', 'System', 'VMS' (selected), and 'NVR/DVR'. Under the 'VMS' tab, there are sub-tabs: 'Control' (selected), 'Control External Service', 'Genetec™', 'Nx Plugin', and 'Nx(Legacy)'. Below these is a table with the following columns: 'No', 'Name', 'Event Channel', 'Title', 'Description', and 'Operation'. The table is currently empty. An 'Add' button is located at the bottom right of the table area.

- Name: Title the CORTROL event action according to intent
- Host: Enter the IP address of the target CORTROL server
- Port: Enter the communications port of the target CORTROL server
- Username: Enter the user credentials with CORTROL authentication
- Password: Enter the user credentials with CORTROL authentication
- Event Chanel: Select 'Update List'
 - Event channel will update to present a list of available CORTROL channels
- Title: Select from the drop-down list, example Rule Name, CH, Face Name...
- Description: Select from the drop-down list, example Rule Name, CH, Face Name...
- Click 'TEST' to confirm CORTROL/AI Box communications
- Click the 'APPLY' button at the bottom to save.

The screenshot displays a configuration form for a CORTROL event action. The fields are as follows:

- Name: CORTROL
- Host: 192.168.2.141
- Port: 8080 (with up/down arrows)
- Username: admin
- Password: [masked]
- Event Channel: ZN-MD1243M-IR (with a dropdown arrow and an 'Update List' button)
- Title: Face Name (with a dropdown arrow)
- Description: Face Group Name (with a dropdown arrow)

At the bottom right of the form area, there is a 'Send example message' label and a 'TEST' button. Below the form area, there are two buttons: 'APPLY' and 'CLOSE'.

14. VMS: CORTROL External Service

The 'CORTROL External Service' action defines an event action to handshake with CORTROL.

To configure the 'CORTROL External Service' event action, go to SETUP/AI Security/Event Action/VMS->CORTROL External Service

- Select 'Add' to create a CORTROL External Service event action

The screenshot displays the AI Box web interface. The top navigation bar includes 'AI Box', 'LIVE', 'SETUP', 'English', 'ADMIN', and 'Logout'. The left sidebar menu is expanded to 'AI SECURITY', with 'Event Action' selected. The main content area shows the 'Event Action' configuration page for 'VMS'. The breadcrumb is 'Setup > AI Security'. The 'Event Action' title is followed by tabs for 'Network', 'System', 'VMS' (selected), and 'NVR/DVR'. Below this are tabs for 'Control', 'Control External Service' (selected), 'Genetec™', 'Nx Plugin', and 'Nx(Legacy)'. The 'Control External Service' section contains the following fields and options:

- External Service Title: AIBOX-192.168.2.167
- Host: 192.168.2.141
- Port: 8080
- Username: AIBox
- Password: [Redacted]
- Connection: CHECK
- Service Type: AI Detector, License Plate Recognition
- Channel Mapping: Mapping

A note at the bottom states: "If you do not set the mapping, it does not work properly."

- External Service Title: Title the CORTROL External Service according to intent
- Host: Enter the IP address of the target CORTROL server
- Port: Enter the communications port of the target CORTROL server
- Username: Enter the user credentials with CORTROL authentication
- Password: Enter the user credentials with CORTROL authentication
- Connection: Select 'CHECK'
 - 'CHECK' will confirm communications between CORTROL and AI Box
- Service Type: Select either AI Detector, or License Plate Recognition
 - Currently only one service type per instance is supported
 - Only one instance is currently support for CORTROL External Service
- Channel Mapping: Select 'Mapping' for a listing of available video sources
- Click 'TEST' to confirm CORTROL/AI Box communications
- Click the 'APPLY' button at the bottom to save.

The screenshot displays a configuration form for the AI Box. The fields are as follows:

- External Service Title: AIBOX-192.168.2.167
- Host: 192.168.2.141
- Port: 8080 (with up/down arrows)
- Username: AIBox
- Password: Masked with dots and an eye icon for visibility toggle.
- Connection: CHECK (button)
- Service Type: AI Detector (selected with a radio button), License Plate Recognition (unselected)
- Channel Mapping: Mapping (button)

Below the Channel Mapping field, there is a note: "If you do not set the mapping, it does not work properly."

At the bottom right, there are three buttons: "Send example message" (text), "TEST" (button), "APPLY" (button), and "CANCEL" (button).

15. VMS: Genetec

The 'Genetec' action defines an event action to handshake with Genetec.

To configure the 'Genetec' event action, go to SETUP/AI Security/Event Action/VMS->Genetec

- Select 'Add' to create an Genetec event action

The screenshot shows the AI Box web interface. The top navigation bar includes 'AI Box', 'LIVE', and 'SETUP'. The user is logged in as 'ADMIN' in 'English'. The left sidebar shows a menu with 'AI SECURITY' expanded, containing 'Action Rules', 'AI Trigger', 'System Trigger', 'Schedule', 'Event Action' (highlighted), and 'Statistics'. The main content area is titled 'Event Action' and shows a breadcrumb 'Setup > AI Security'. Below this, there are tabs for 'Network', 'System', 'VMS' (selected), and 'NVR/DVR'. Under the 'VMS' tab, there are sub-tabs for 'Control', 'Control External Service', 'Genetec™' (selected), 'Nx Plugin', and 'Nx(Legacy)'. The 'Genetec' section contains a table with the following headers: 'No', 'Name', 'Event Channel', 'Base URI', 'Event Value', and 'Operation'. The table is currently empty. An 'Add' button is located at the bottom right of the table area.

- Name: Title the Genetec event action according to intent
- Host: Enter the IP address of the target Genetec server
- Port: Enter the communications port of the target Genetec server
- Base URI: Input the Genetec base URI
- Use SSL connection: Select if the target Genetec server is using SSL
- First Logical ID: Input the first logical ID for Genetec server
- Last Logical ID: Input the last logical ID for Genetec server
- Username: Enter the user credentials with Genetec authentication
- Password: Enter the user credentials with Genetec authentication
- Click 'TEST' to confirm Genetec/AI Box communications
- Click the 'APPLY' button at the bottom to save.

The screenshot displays a configuration form for an AI Box. The form includes the following fields and controls:

- Name:** A text input field with the placeholder text "Action preset name".
- Host:** A text input field with the placeholder text "IP Address or Domain name".
- Port:** A numeric input field with the value "4590" and up/down arrow buttons.
- Base URI:** A text input field with the placeholder text "Input the base URI".
- Use SSL connection:** A toggle switch that is currently turned on (blue).
- First Logical ID:** A numeric input field with the value "1" and up/down arrow buttons.
- Last Logical ID:** A numeric input field with the value "16" and up/down arrow buttons.
- Range Setup:** A checkbox that is checked, with the text "Range Setup" next to it.
- Username:** A text input field.
- Password:** A text input field.
- TEST:** A button labeled "Send example message" with a "TEST" button next to it.
- APPLY:** A button at the bottom right of the form.
- CLOSE:** A button at the bottom right of the form.

16. VMS: Nx Plugin

The 'Nx Plugin' action defines an event action to handshake via the Nx Plugin.

To configure the 'Nx Plugin' event action, go to SETUP/AI Security/Event Action/VMS->Nx Plugin

The screenshot displays the AI Box web interface. The top navigation bar includes 'AI Box', 'LIVE', and 'SETUP'. The user is logged in as 'ADMIN' in 'English'. The left sidebar shows a menu with 'AI SECURITY' expanded, and 'Event Action' selected. The main content area is titled 'Event Action' and has tabs for 'Network', 'System', 'VMS', and 'NVR/DVR'. Under the 'VMS' tab, there are sub-tabs for 'Control', 'Control External Service', 'Genetec™', 'Nx Plugin', and 'Nx(Legacy)'. The 'Nx Plugin' sub-tab is active, showing configuration fields: 'Host' (text input), 'Web Service Port' (7001), 'Plugin Service Port' (9011), 'Username' (text input), 'Password' (text input), 'Connection' (CHECK button), 'Channel Mapping' (Mapping button), 'ROI' (SYNC button), and 'Metadata Enabled' (toggle switch). A 'Send example message' button (TEST) and 'APPLY'/'CANCEL' buttons are at the bottom.

- Host: Enter the IP address or domain name of the target Nx server
- Web Service Port: Enter the web communications port of the target Nx server
- Plugin Service Port: Enter the plugin communications port of the target Nx server
- Username: Enter the user credentials with Nx authentication
- Password: Enter the user credentials with Nx authentication
- Connection: Select 'CHECK' to confirm communications with the Nx server
- Channel Mapping: Select 'Mapping' for a listing of available video sources
- ROI: Select 'SYNC' to set synchronize the region of interest
- Metadata Enabled: Toggle either 'On' or 'Off' to allow metadata transmission

The screenshot shows a configuration form with the following elements:

- Host: Text input field with placeholder "IP Address or Domain name"
- Web Service Port: Spin box with value "7001" and up/down arrows
- Plugin Service Port: Spin box with value "9011" and up/down arrows
- Username: Text input field
- Password: Text input field
- Connection: Button labeled "CHECK"
- Channel Mapping: Button labeled "Mapping"
- Below Channel Mapping: Text note "If you do not set the mapping, it does not work properly."
- ROI: Button labeled "SYNC"
- Metadata Enabled: Toggle switch currently in the "Off" position

- Click 'TEST' to confirm Nx plugin/AI Box communications
- Click the 'APPLY' button at the bottom to save

The screenshot shows the bottom section of the configuration interface with the following elements:

- Send example message: Text label next to a button labeled "TEST"
- APPLY: Button
- CANCEL: Button

17. VMS: Nx (Legacy)

The 'Nx Legacy' action defines an event action to handshake by way of the Nx Legacy option.

To configure the 'Nx Legacy' event action, go to SETUP/AI Security/Event Action/VMS->Nx Legacy

- Select 'Add' to create an Nx Legacy event action

The screenshot shows the AI Box web interface. The top navigation bar includes 'AI Box', 'LIVE', 'SETUP', 'English', 'ADMIN', and 'Logout'. The left sidebar lists various menu items: AI SOURCES, AI SECURITY (expanded), Action Rules, AI Trigger, System Trigger, Schedule, Event Action (highlighted), Statistics, AI MARKETING, SEARCH, DISPLAY, and NETWORK. The main content area is titled 'Setup > AI Security' and 'Event Action'. It features a breadcrumb trail: Setup > AI Security > Event Action. Below this, there are tabs for 'Network', 'System', 'VMS' (selected), and 'NVR/DVR'. Under the 'VMS' tab, there are sub-tabs for 'Control', 'Control External Service', 'Genetec™', 'Nx Plugin', and 'Nx(Legacy)' (selected). Below the sub-tabs is a section titled 'Network Optics Witness' which contains a table with the following columns: No, Name, Host, Source, Description, and Operation. The table is currently empty. An 'Add' button is located at the bottom right of the page.

- Name: Title the Nx Legacy event action according to intent
- Host: Enter the IP address or domain name of the target Nx server
- Port: Enter the communications port of the target Nx server
- Source: Enter the Nx event source
- Caption: Currently only lists Trigger Type
- Description: Select from the drop-down list, example Rule Name, CH, Face Name...
- Username: Enter the user credentials with Nx authentication
- Password: Enter the user credentials with Nx authentication
- Click 'TEST' to confirm Nx Legacy/AI Box communications
- Click the 'APPLY' button at the bottom to save

The screenshot displays a configuration form for an AI Box event action. The form includes the following fields and controls:

- Name:** Text input field containing "Action preset name".
- Host:** Text input field containing "IP Address or Domain name".
- Port:** Spin box control with "7001" entered and up/down arrow buttons.
- Source:** Text input field containing "Input Event Source".
- Caption:** Text input field containing "Trigger Type".
- Description:** Drop-down menu with "Select" and a downward arrow.
- Username:** Text input field containing "admin".
- Password:** Empty text input field.

At the bottom right of the form area, there is a "Send example message" label and a blue "TEST" button. Below the form area, there are two blue buttons: "APPLY" and "CLOSE".

18. NVR/DVR: Sequirinet

The 'Sequirinet' action defines an event action to handshake by way of the Ganz NVR/DVR Sequirinet option.

To configure the 'Sequirinet' event action, go to SETUP/AI Security/Event Action/NVR/DVR->Sequirinet

- Select 'Add' to create an Sequirinet event action

The screenshot shows the 'AI Box' web interface. The top navigation bar includes 'AI Box', 'LIVE', 'SETUP', 'English', 'ADMIN', and 'Logout'. The left sidebar lists various menu items: AI SOURCES, AI SECURITY (expanded), Action Rules, AI Trigger, System Trigger, Schedule, Event Action (selected), Statistics, AI MARKETING, SEARCH, DISPLAY, and NETWORK. The main content area is titled 'Event Action' and shows a breadcrumb 'Setup > AI Security'. Below this, there are four tabs: 'Network', 'System', 'VMS', and 'NVR/DVR' (selected). Under the 'NVR/DVR' tab, there is a sub-section for 'Sequirinet' with a table. The table has columns for 'No', 'Name', 'Host', 'Type', and 'Operation'. The table is currently empty. An 'Add' button is located at the bottom right of the table area.

- Name: Title the Securinet event action according to intent
- Host: Enter the IP address or domain name of the target NVR/DVR
- Port: Enter the communications port of the target NVR/DVR
- Protocol: Enter the communications protocol, HTTP, HTTPS
- Username: Enter the user credentials with NVR/DVR authentication
- Password: Enter the user credentials with NVR/DVR authentication
- Click 'CHECK' to confirm NVR/DVR/AI Box communications
- Event Data: Select to enable 'Event Data' transmission
- Panic Recording: Select to enable 'Panic Recording' event data transmission
- Click the 'APPLY' button at the bottom to save

Name

Host

Port

Protocol

Username

Password

Connection

Event data

Panic Recording

19. Network: Attribute Tokens

Attribute tokens and description

TRIGGER NO	Trigger Index
TRIGGER NAME	Trigger name
TRIGGER TYPE	Trigger type
CH	Channel
CH NAME	Channel Name
MAC	MAC Address
SYSTEM TIMESTAMP	System timestamp (UTC)
SYSTEM TIME ISO8601	System time (UTC)
SYSTEM TIME	System time
SYSTEM TIME %YYYY	4-digit year of the system time
SYSTEM TIME %YY	2-digit year of the system time
SYSTEM TIME %mm	Month of system time
SYSTEM TIME %dd	Date of system time
SYSTEM TIME %HH	Hour of system time
SYSTEM TIME %MM	Minute of system time
SYSTEM TIME %SS	Second of system time
SYSTEM TIME %MS	Millisecond of system time
VIDEO TIMESTAMP	Camera timestamp (UTC)
VIDEO TIME ISO8601	Camera time (UTC)
VIDEO TIME STRING	Camera time
VIDEO TIME %YYYY	4-digit year of the system time
VIDEO TIME %YY	2-digit year of the system time
VIDEO TIME %mm	Month of system time
VIDEO TIME %dd	Date of system time
VIDEO TIME %HH	Hour of system time
VIDEO TIME %MM	Minute of system time
VIDEO TIME %SS	Second of system time
VIDEO TIME %MS	Millisecond of system time
RULE NO	Rule index
RULE NAME	Rule name
OCCUPANCY COUNT	Detected occupancy object counts
MORE THAN	More than setting value
FEWER THAN	Fewer than setting value
COUNT N	Count N setting value
LOITERING DURATION	Detected loitering direction secs
COMBINED COUNT	Combined count of AI Counter
RECOGNITION MODE	Recognition Mode
FORWARD COUNT	Forward count
REVERSE COUNT	Reverse count

# OF OBJECTS	Objects count
LIST OBJECTS	Objects enumeration
LIST OBJECTS [PARAM=COMMA]	Comma separated objects enumeration
::OBJ[INDEX]	Object iteration index
::OBJ[TRACK ID]	Object track id
::OBJ[CLASS]	Object class name
::OBJ[SCORE]	Object confidence score
::OBJ[DIRECTION]	Object direction
::OBJ[DIR_LB]	Object direction label
::OBJ[BBOX_X1]	Object bbox top-left x position
::OBJ[BBOX_Y1]	Object bbox top-left y position
::OBJ[BBOX_X2]	Object bbox top-right x position
::OBJ[BBOX_Y2]	Object bbox top-right y position
::OBJ[FACE_ID]	Face id
::OBJ[FACE_NAME]	Face name
::OBJ[FACE_NOTE]	Face note
::OBJ[FACE_GROUP_NAME]	Face group name
::OBJ[FACE_AGE]	Age guessed by face
::OBJ[FACE_GENDER]	Gender guessed by face
::OBJ[FACE_MASK]	Mask
::OBJ[FACE_GLASSES]	Glasses
::OBJ[LICENSE_PLATE_TEXT]	LP number
::OBJ[LP_NUMBER_ONLY]	LP number only
::OBJ[LP_COUNTRY_CODE]	LP country code
::OBJ[LP_GROUP_NAME]	LP group name
::OBJ[LP_ID]	LP id
::OBJ[LP_DB_NUMBER]	Matching LP number
::OBJ[LP_NAME]	LP owner name
::OBJ[LP_PHONE]	LP phone number
::OBJ[LP_NOTE]	LP note
MORE THAN OF Do not Enter	More than setting value
FEWER THAN OF Do not Enter	Fewer than setting value
MORE THAN OF Please Enter	More than setting value
FEWER THAN OF Please Enter	Fewer than setting value
MORE THAN OF Display	More than setting value
FEWER THEAN OF Display	Fewer than setting value

7. Statistics

This item can be viewed by processing the number of triggers of AI security items.

1. Statistics: Counting

To configure a 'Statistical Counting', go to SETUP/AI Security/Statistics->Counting

- Channel: Select the desired channel from the list of available channels
- Trigger Type: Select the desired trigger type from the list of available triggers
- Counting Type: Select to process statistics 'Hourly' or 'Daily'
- Time Range: Set the time interval for processing
 - From: Select and set either by hour or by date for the start time
 - To: Select and set either by hour or by date for the end time
 - Counting: Press to display the searched content at the bottom
- Export: Select 'CSV'
 - Download the searched contents in CSV file format.

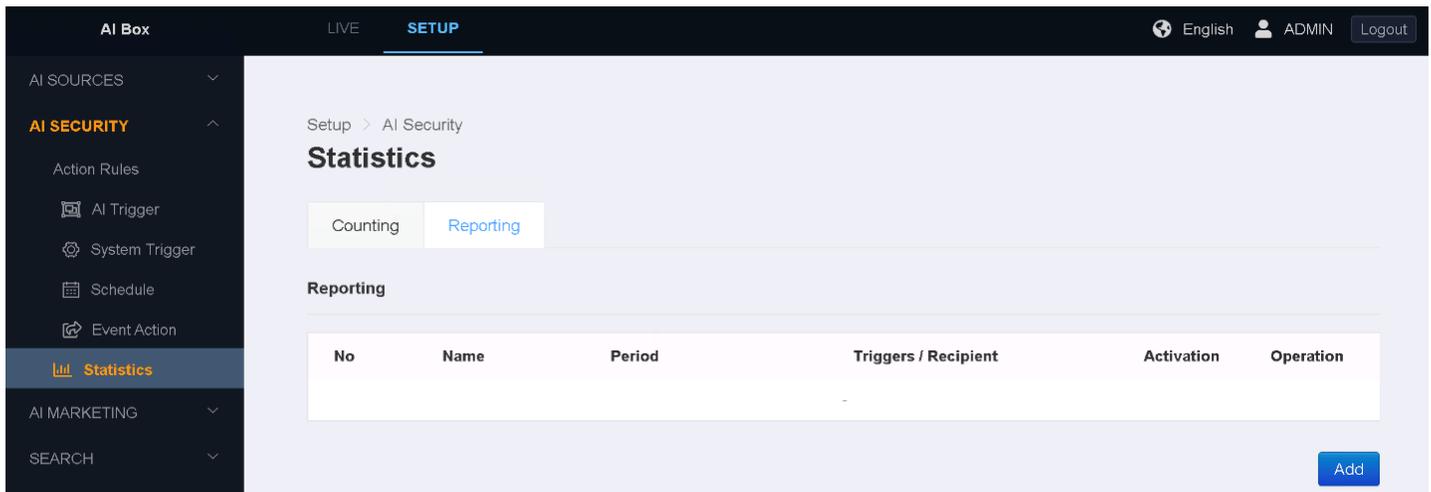
The screenshot shows the 'AI Box' web interface. The top navigation bar includes 'AI Box', 'LIVE', and 'SETUP' (highlighted). On the right, there are options for 'English', 'ADMIN', and 'Logout'. The left sidebar lists various categories: AI SOURCES, AI SECURITY (expanded), Action Rules, AI Trigger, System Trigger, Schedule, Event Action, Statistics (highlighted), AI MARKETING, SEARCH, DISPLAY, and NETWORK. The main content area is titled 'Setup > AI Security' and 'Statistics'. It features two tabs: 'Counting' (active) and 'Reporting'. Under 'Trigger Counting', there are several configuration fields: 'Channel' (set to 'All Channels'), 'Trigger Type' (set to 'Select'), 'Counting Type' (set to 'Hourly'), and 'Time Range' (with 'From' and 'To' fields). A blue 'Counting' button is located to the right of the 'To' field. Below these fields is an 'Export' section with a blue 'CSV' button.

2. Statistics: Reporting

A function to periodically send statistics data to a specified recipient or automatically upload the data to FTP.

To configure a 'Statistical Reporting', go to SETUP/AI Security/Statistics->Reporting

- Select 'Add' to create a statistical report



- Report Summary: This section will be populated upon completion of the report setup

Report Summary

Information

Name

Period

Triggers

Recipient

- Name: Title the report name according to intent
- Period: Set to Hourly, Daily, Weekly, Monthly
 - Time: Set the time per the hourly, daily, weekly, or monthly selection
 - This is the time at which the report will be emailed to a recipient
- Add Target Trigger: Select from the list of available triggers
 - Note: some triggers may involve selecting an associated preset
 - Select 'Add' to add the selected trigger to the report
 - Repeat the above sets if additional triggers are to be included
- Add Recipient: Select from Email, FTP, or S3
 - Note: a selected recipient may involve selecting an associated preset
 - Example: Selecting email will require selecting an email recipient
 - Select 'Add' to add the recipient to the report
- Select 'Apply' to complete the report setup

Report Setup

Information

Name

Period

Triggers

Add Target Trigger

Recipient

Add Recipient

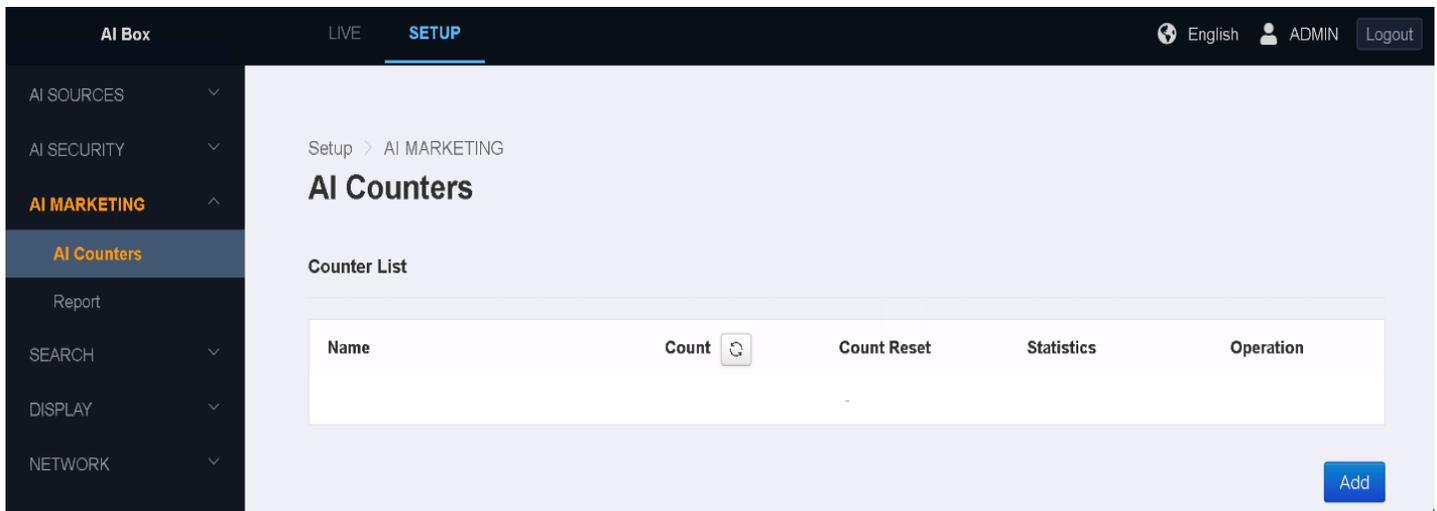
7. AI Marketing

1. AI Marketing: AI Counters

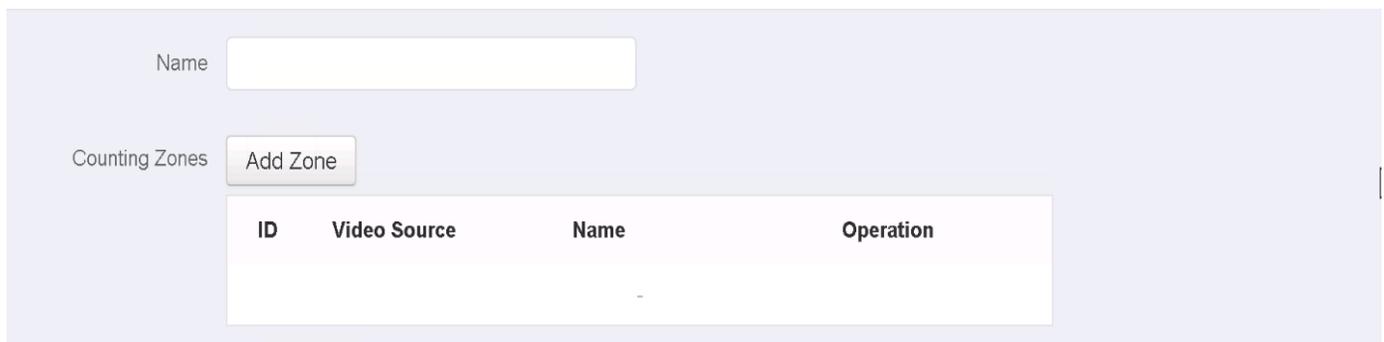
This item can be viewed by processing the number of triggers from AI security items.

To configure 'AI Counters', go to SETUP/AI Marketing/AI Counters

- Select 'Add' to create an AI Counter

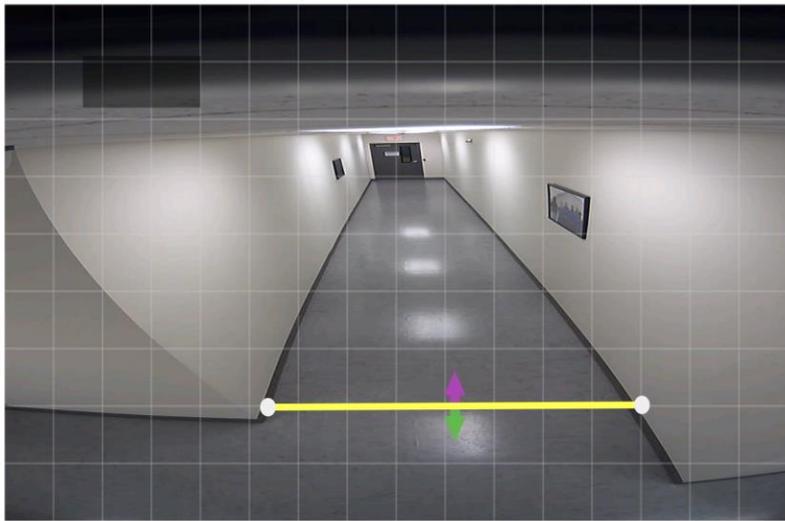


- Name: Title the AI Counter name according to intent
- Counting Zone: Click on 'Add Zone'
 - A secondary screen with video source selection will popup



- Video Source: Select from the list of available video sources
- Zone Name: Title the zone name according to intent
- Target Object: Select from the list of available target analytics
 - Note: available analytics are associated with the selected video source
- Zone Type: Select either 'Line' or 'Area' according to intent
 - Note: if 'Line' is selected, the directional arrows are 'Green' and 'Purple'
 - 'Green' for forward and 'Purple' for reverse
- Count Increase: Based on selected direction, /None', 'Both', 'Forward', 'Reverse'
- Label Forward: Label the count name according to intent
- Count Decrease: Based on selected direction, /None', 'Both', 'Forward', 'Reverse'
- Label Reverse: Label the count name according to intent
- Select 'Apply' to save the AI counter and return to the prior AI Counter window

Zone Setup



Video Source: CH 5 - Hallway

Zone Name:

Target Object: Person

Zone Type: Line

Count Increase: Forward

Label: Forward

Count Decrease: Reverse

Label: Reverse

CANCEL APPLY

- When it is needed, an option of implementing a 'Count Reset' is possible
- Count Reset: Click on 'Add Schedule'
 - A secondary screen for creating a Count Reset Schedule will popup

Frequency	Day	Time	Operation

- Frequency: Select 'Daily', 'Weekly', or 'Monthly'
 - Daily selected: Enter a target 'Time' in hour, and or minutes
 - Weekly selected: Enter a target 'Day(s) of the week' + 'Time'
 - Monthly selected: Enter a target 'Day' of the week + 'Time'
- Select 'Apply' to save the Count Reset Schedule

Count Reset Schedule

Frequency: Daily

Time: 09:00

- Note: Multiple Zones, and Schedules may be created, be mindful of intent
 - Selecting 'Edit' will allow editing of listed zones, and or schedules
- Select 'Apply' to save the AI Count

Name

Counting Zones

ID	Video Source	Name	Operation
	CH 5 - Hallway		Edit Delete
	CH 3 - AI-FR		Edit Delete

Count Reset

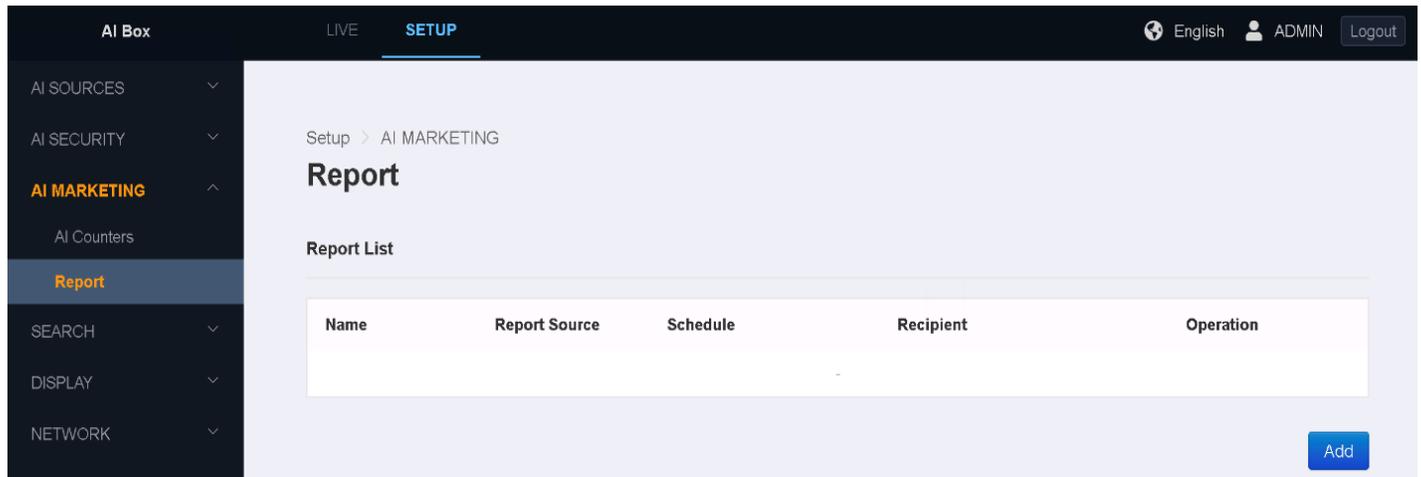
Frequency	Day	Time	Operation
Monthly	1	09:00	Edit Delete
Daily	-	09:00	Edit Delete

8. AI Marketing: Report

This item can be viewed by processing the number of triggers from AI security items.

To configure a 'Report', go to SETUP/AI Marketing/Report

- Select 'Add' to create a Report



- Name: Name the 'Report' according to intent
- Report Source: Default is AI Counters
 - Optionally select 'All' or from available list of AI Counters

The form for creating a new report consists of three input fields. The first is a text box labeled 'Name'. The second is a dropdown menu labeled 'Report Source' with 'AI Counters' selected. The third is another dropdown menu with 'ALL' selected.

- Schedule: Select 'Add Schedule'
 - A secondary screen for creating a Report Schedule will popup



- Frequency: Select 'Every 5 minutes', 'Hourly', 'Daily', 'Weekly', or 'Monthly'
- Time: Will default per selection of 'frequency'
 - Every 5 minutes selected: No modification currently possible
 - Hourly selected: Select from ':05' through ':55' minutes in 5-minute intervals
 - Daily selected: Select within a 24-hour format '00:00'
 - Weekly selected: Select the 'Day of the week'
 - Monthly selected: Select from 1 through 31 for the 'Day' of the month
- Period: Will default per selection of 'Frequency'
 - Previous 5 Minute
 - Previous Hour
 - Previous Day
 - Previous Week
 - Previous Month
- Resolution: Will default per selection of 'Frequency'
 - 5 Minute
 - 15 Minute
 - 30 Minute
 - 1 Hour
 - 1 Day
- Select 'Apply' to save the Report Schedule

 **Report Schedule**

Frequency

Time

 **Statistics**

Period

Resolution

- Recipient: Select 'Add Recipient'
 - A secondary screen for creating a recipient(s) will popup

Recipient

Recipient	Operation
-	-

Data Format CSV JSON

There are three possible recipients for a 'Report' to be sent to. Recipients include 'E-Mail', 'FTP', and 'S3'. Each recipient has its own required configuration needs.

1. Recipient: E-Mail

- To: Enter an email recipient (Separate by comma if multiple recipients)
- Title: Title the E-Mail according to intent

E-Mail FTP S3

To

Multiple names separated by commas(,)

Title

- Name: Title the SMTP server according to intent
- Provider: Select the email service provider
 - Options include 'Gmail', 'Hotmail', 'Yahoo', 'Sureview', 'Sentinel'
 - Select 'Custom' if the service provider you want to use is not listed
- Host: Input the SMTP server address
 - Example: smtp.gmail.com
- Port: Input the communication port for the SMTP server
 - SMTP port (Default): 25
 - SMTP port (TLS): 587
 - SMTP port (SSL): 465
- Encryption: The encryption is predetermined by the SMTP port requirement
 - The sending email may be encrypted as 'None', 'TLS', or 'SSL'
- From email: email address used to indicate who is sending the email
 - Does not have to be the SMTP email address
 - Email sender should denote person of authority behind AI Box administration
- Authentication: Check box if SMTP email account user credentials are required
 - When box is checked; SMTP account Username, and Password are required

The screenshot displays the 'SMTP Server' configuration page. At the top, there are two tabs: 'New' (selected) and 'Recently Added'. Below the tabs, the form includes the following fields and controls:

- Name:** A text input field.
- Provider:** A dropdown menu currently set to 'Custom'.
- Host:** A text input field.
- Port:** A numeric input field with a value of '25' and up/down arrow buttons.
- Encryption:** A dropdown menu currently set to 'None'.
- From email:** A text input field.
- Authentication:** A checkbox that is checked.
- Username:** A text input field.
- Password:** A text input field.

- File Name: Edit the emailable file name format
 - Use template: Configure the message by using a template
 - 'Custom' and 'Basic file name template' available
 - Select 'Use' to add the template to the editable preview message box
 - Add an attribute token; Tokens list at end of 'Events Actions' section
 - Select 'Add' to add an attribute token to the email message
- Confirm email message contents within the editable preview option
- Click the 'APPLY' button at the bottom to save.

File Name Format

Basic file name template

SYSTEM TIME %HH

```
{{MAC}}_{{SYSTEM TIME %YYYY}}_{{SYSTEM TIME %mm}}_{{SYSTEM TIME %dd}}_{{SYSTEM TIME %HH}}_{{SYSTEM TIME %MM}}_{{SYSTEM TIME %SS}}.csv{{SYSTEM TIME %HH}}
```

00115F2A0024_20190701181020.csv18

2. Recipient: FTP

- Type: Select 'FTP' or 'SFTP' based on nature of server connection
- Name: Title the FTP server according to intent
- Host: Input the SMTP server address
 - Example: smtp.gmail.com
- Port: Input the communication port for the FTP server
 - FTP port (Default): 25
- Username: Enter the FTP username credentials
- Password: Enter the FTP account password
- Passive Mode: Check the box to enable, Uncheck the box to disable

The screenshot shows a configuration window for adding a new FTP server. At the top, there are three radio buttons: 'E-Mail', 'FTP' (which is selected), and 'S3'. Below this, there are two tabs: 'New' (selected) and 'Recently Added'. Under the 'New' tab, there are two radio buttons for 'Type': 'FTP' (selected) and 'SFTP'. The form includes several input fields: 'Name', 'Host', 'Port' (with a spinner control currently set to 21), 'Username', and 'Password'. At the bottom, there is a 'Passive Mode' checkbox which is currently unchecked.

- File Path Format: Enter a file path format
 - Use template: Configure the file path format by using a template
 - 'Custom' and 'Basic file path template' available
 - Select 'Use' to add the template to the editable preview message box
 - Add an attribute token; Tokens list at end of 'Events Actions' section
 - Select 'Add' to add an attribute token to the file path format
- Confirm FTP message contents within the editable preview option
- Click the 'APPLY' button at the bottom to save.

File Path Format

Basic file path template

SYSTEM TIME %HH

```
{{SYSTEM TIME %YYYY}}/{{SYSTEM TIME %mm}}/{{SYSTEM TIME %dd}}/{{SYSTEM TIME %HH}}/{{MAC}}_{{SYSTEM TIME %YYYY}}{{SYSTEM TIME %mm}}{{SYSTEM TIME %dd}}{{SYSTEM TIME %HH}}{{SYSTEM TIME %MM}}{{SYSTEM TIME %SS}}.csv{{SYSTEM TIME %HH}}
```

2019/07/01/18/00115F2A0024_20190701181020.csv18

3. Recipient: S3

- Name: Title of S3 connection
- Key File (*.csv): Select 'Choose file' and navigate to the S3 key file
- Access Key: Enter the S3 access key
- Secret Key: Enter the S3 secret key
- Region: Select the S3 server regional location
- Bucket: Enter the bucket information

E-Mail FTP S3

S3 Server [New](#) Recently Added

Name

Key File (*.csv) No file chosen

Access Key

Secret Key

Region ▾

Bucket

- File Path Format: Enter a file path format
 - Use template: Configure the file path format by using a template
 - 'Custom' and 'Basic file path template' available
 - Select 'Use' to add the template to the editable preview message box
 - Add an attribute token; Tokens list at end of 'Events Actions' section
 - Select 'Add' to add an attribute token to the file path format
- Confirm S3 message contents within the editable preview option
- Click the 'APPLY' button at the bottom to save

File Path Format

Basic file path template

SYSTEM TIME %HH

```
{{SYSTEM TIME %YYYY}}/{{SYSTEM TIME %mm}}/{{SYSTEM TIME %dd}}/{{SYSTEM TIME %HH}}/{{MAC}}_{{SYSTEM TIME %YYYY}}{{SYSTEM TIME %mm}}{{SYSTEM TIME %dd}}{{SYSTEM TIME %HH}}{{SYSTEM TIME %MM}}{{SYSTEM TIME %SS}}.csv{{SYSTEM TIME %HH}}
```

2019/07/01/18/00115F2A0024_20190701181020.csv18

8. Search

1. Search: Event Log

Search and or download to CSV file an 'Event Log' based on action events that occurred in the 'Action Rules' under the 'AI Security' menu.

To run an 'Event Log' query, go to SETUP/Search/Event Log

- Trigger Type: Select the desired trigger type from the list of available triggers
- Channel: Select the desired channel from the list of available channels
 - Options include 'All Channels', and 'System'
- Time Range: Set a specific time range from 00:00 to 00:00
 - Select 'Search' to see results in the below review area
- Export: Select 'CSV' to export the search results to a csv formatted file

Setup > Search

Event Log

Event Log Search & Export

Trigger Type: All Types

Channel: All Channels

Time Range: 2021-09-01 00:00:00 To 2022-01-07 00:00:00 [Search]

Export: CSV

Total 10000

Channel	Trigger Type	Trigger Name	Rule Name	Actions	Attributes	Video Timestamp	System Time
3	FR	FR Known	FR Known	Control External Service	{"face_age":33,"face_gender":"MALE","face_groups":"TSD","face_id":3,"face_name":"Jack"}	1107547412	01/05/2022 13:14:16
3	FR	FR Known	FR Known	Control External Service	{"face_age":41,"face_gender":"MALE","face_groups":"PDM","face_id":4,"face_name":"Keith"}	1107383751	01/03/2022 15:46:33

Page navigation: 1 2 3 4 5 6 ... 1000 >

2. Search: System Log

You can search and download the necessary system logs such as user login or system startup etc. in CSV format.

Search and or download to CSV file a 'System Log' based on system events, user login, user actions, system startup, and other system type events.

To run a 'System Log' query, go to SETUP/Search/System Log

- Time Range: Set a specific time range from 00:00 to 00:00
 - Select 'Search' to see results in the below review area
- Export: Select 'CSV' to export the search results to a csv formatted file

Setup > Search

System Log

System Log Search & Export

Time Range To

Export

Total 3

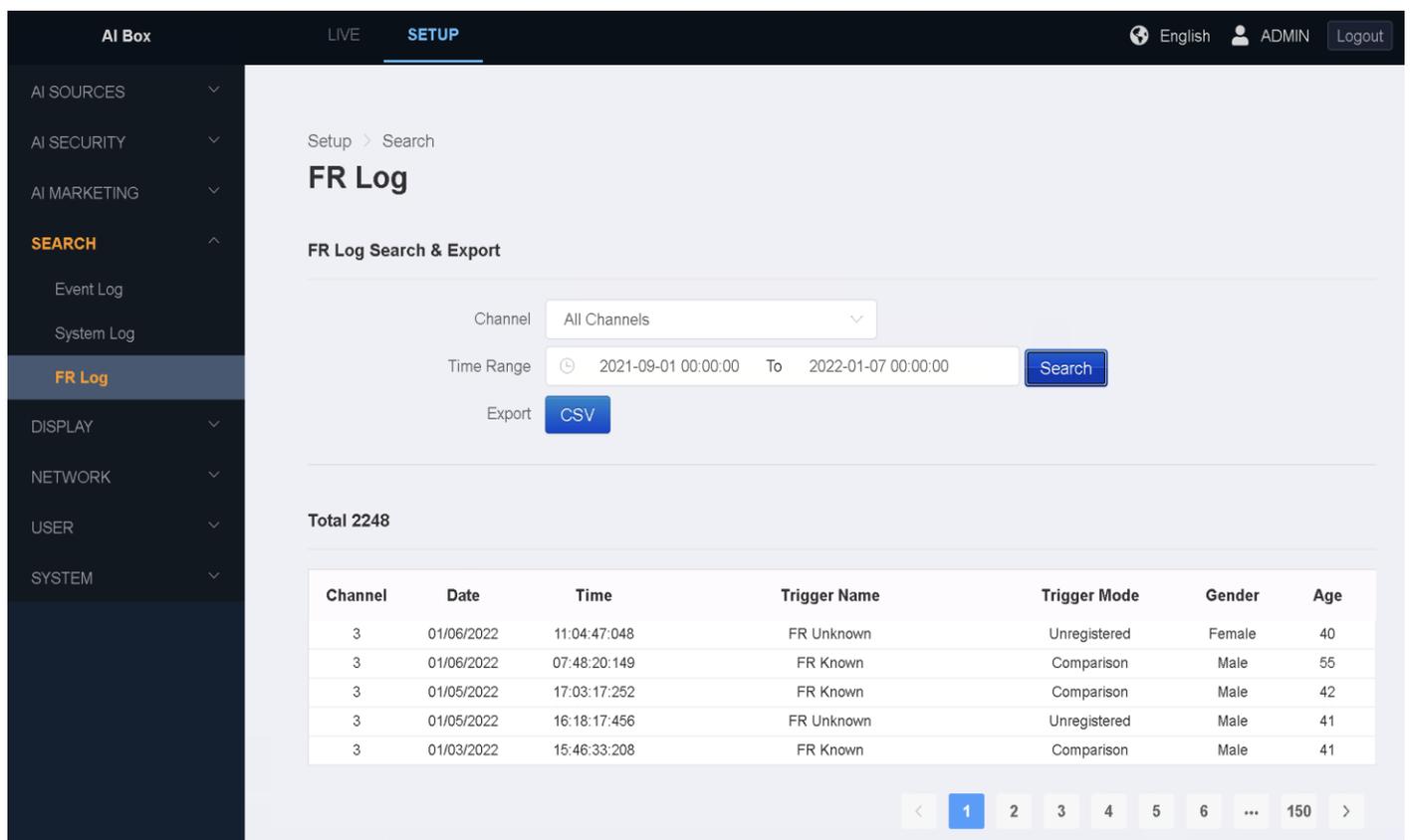
Event Type	Description	Username	IP	System Time
User Information	User Login	ADMIN	192.168.2.219	01/07/2022 11:46:51
User Information	User Login	ADMIN	192.168.2.219	01/07/2022 10:48:16
AI Marketing settings	AI Counter preset deleted	ADMIN	192.168.2.219	01/07/2022 09:08:47

3. Search: FR Log (Face Recognition)

Search and or download to CSV file a 'FR Log' based on Face Recognition events that occurred in the 'Action Rules' under the 'AI Security' menu.

To run a 'FR Log' query, go to SETUP/Search/FR Log

- Channel: Select the desired channel from the list of available channels
 - Options include 'All Channels', and 'System'
- Time Range: Set a specific time range from 00:00 to 00:00
 - Select 'Search' to see results in the below review area
- Export: Select 'CSV' to export the search results to a csv formatted file



The screenshot shows the 'AI Box' web interface. The top navigation bar includes 'AI Box', 'LIVE', and 'SETUP'. The user is logged in as 'ADMIN' with a 'Logout' button. The left sidebar shows a menu with 'SEARCH' highlighted, and 'FR Log' selected. The main content area shows the 'FR Log' search and export interface. It includes a 'Channel' dropdown set to 'All Channels', a 'Time Range' input field with a date range from '2021-09-01 00:00:00' to '2022-01-07 00:00:00', and a 'Search' button. Below the search fields is an 'Export' dropdown set to 'CSV'. The results section shows a 'Total 2248' and a table of search results.

Channel	Date	Time	Trigger Name	Trigger Mode	Gender	Age
3	01/06/2022	11:04:47:048	FR Unknown	Unregistered	Female	40
3	01/06/2022	07:48:20:149	FR Known	Comparison	Male	55
3	01/05/2022	17:03:17:252	FR Known	Comparison	Male	42
3	01/05/2022	16:18:17:456	FR Unknown	Unregistered	Male	41
3	01/03/2022	15:46:33:208	FR Known	Comparison	Male	41

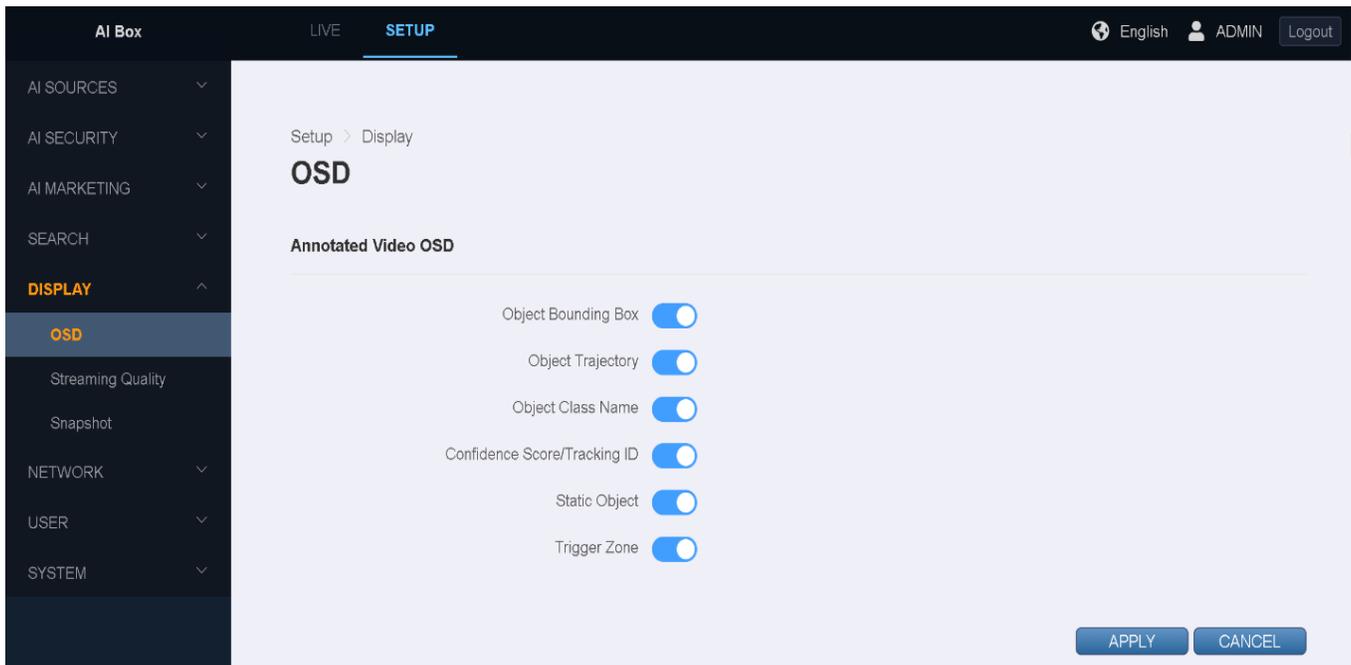
9. Display

1. Display: OSD

This is the setup for OSD information displayed in Annotated Video's video of AI BOX.

To make changes to the OSD, go to SETUP/Display/OSD

- Object bounding Box: Determining if the Box is displayed on the object border
- Object Trajectory: Determines if the screen is displayed on the moving object
- Object Class Name: Determining if the screen is displayed on people or cars
- Confidence Score/Tracking ID: used for AI debugging
- Static Object: Determining if the screen is displayed on a static object
- Trigger Zone: Determining if a trigger rule display line or figure is displayed on screen
- Click the 'APPLY' button at the bottom to save



2. Display: Streaming Quality

AI BOX supports not only video streaming for each RTSP channel but also multi-view streaming showing all channels as one channel.

To make changes to the 'Streaming Quality' of the AI Box, go to SETUP/Display/Stream Quality

- Multiview: Selectable options include.
 - Highest – Up to 8000Kbps
 - High – Up to 6500Kbps
 - Standard – Up to 5000Kbps
 - Low – Up to 3500Kbps
 - Lowest – Up to 2000Kbps

- Singleview: Selectable options include.
 - Highest – Up to 8000Kbps
 - High – Up to 6400Kbps
 - Standard – Up to 4800Kbps
 - Low – Up to 3200Kbps
 - Lowest – Up to 1600Kbps

- Click the 'APPLY' button at the bottom to save

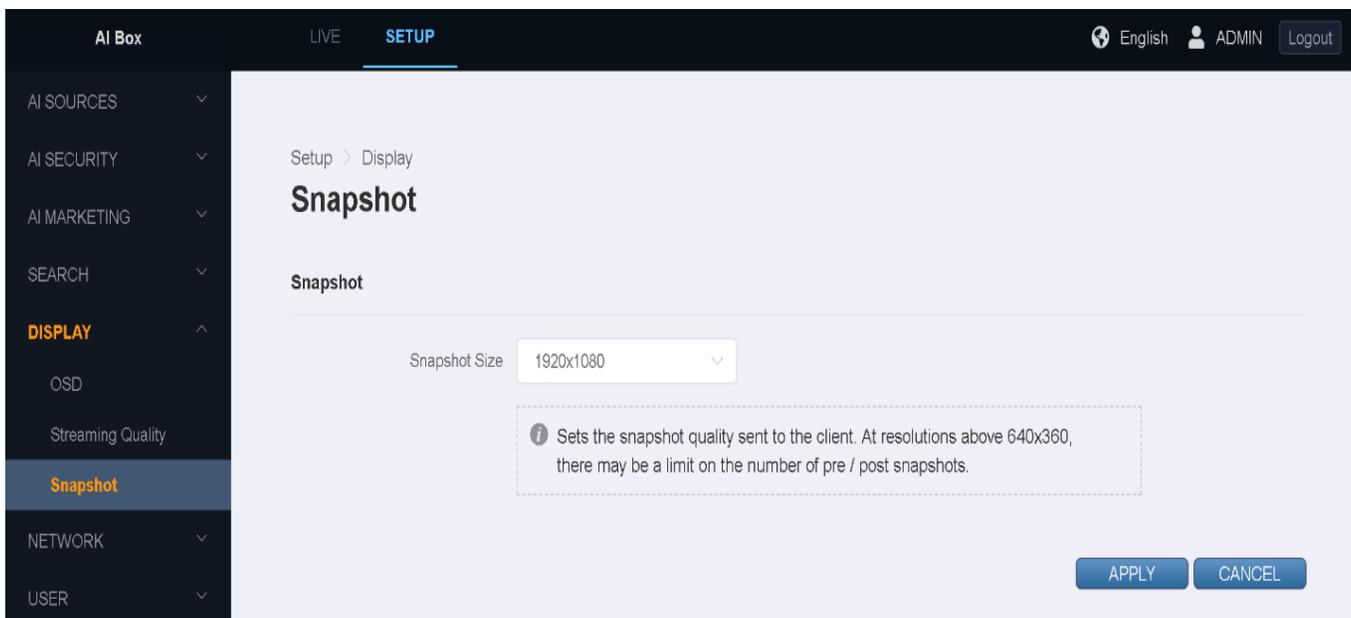
View	Quality	Channel	Bitrate
Multiview	Standard	CH 0	5000 kbps
		CH 1	3360 kbps
		CH 2	2640 kbps
		CH 3	3120 kbps
		CH 4	3360 kbps
		CH 5	2640 kbps
		CH 6	2640 kbps
		CH 7	4800 kbps
		CH 8	4800 kbps
		CH 9	4800 kbps
		CH 10	4800 kbps
		CH 11	4800 kbps
		CH 12	4800 kbps
		CH 13	4800 kbps
		CH 14	4800 kbps
		CH 15	4800 kbps
CH 16	4800 kbps		
Singleview	Standard		

3. Display: Snapshot

AI BOX supports 'Snapshot' actions, as related to 'Event Actions'.

To make changes to the 'Snapshot' resolution size, go to SETUP/Display/Snapshot

- The snapshot size can be adjusted to 640x360, 1280x720, 1920x1080
- Note: The larger the snapshot size, the fewer snapshots the AI Box can hold



10. Network

1. Network: IP Setup

To change the network-related settings of the AI Box, go to go to SETUP/NETWORK/IP Setup
Select 'Setup/Network/IP Setup' to modify the network type for Ethernet1 and Ethernet2

- Select 'DHCP' to enable or disable the autoconfiguration networking service
- Disabling 'DHCP' allows for manually configuring the device's network settings.
- If DHCP is set to Off, these settings must be manually changed
 - IP address: Input your device's IP address.
 - Subnet mask: Input the subnet mask value of the device.
 - Gateway: Input the gateway value for the network
 - 1st DNS: Input the 1st DNS value of the device.
 - 2nd DNS: Input the 2nd DNS value of the device.
- Note: DHCP enabled requires a local network DHCP server, or service
- Ethernet1/2 reference ports on back of device to which a network cable is connected
- Select 'Apply' to commit any changes

Note: A Link Local Address is a network address that is valid only for communications within the network segment or the broadcast domain that the AI Box is connected to.

The screenshot shows the AI Box web interface. The top navigation bar includes 'AI Box', 'LIVE', 'SETUP', 'English', 'ADMIN', and 'Logout'. The left sidebar menu has categories: AI SOURCES, AI SECURITY, AI MARKETING, SEARCH, DISPLAY, NETWORK (highlighted), IP Setup (highlighted), IP Filter, Service Port, USER, and SYSTEM. The main content area is titled 'Setup > Network' and 'IP Setup'. There are two tabs: 'Ethernet1' (selected) and 'Ethernet2'. A 'DHCP' toggle switch is currently turned off. Below it are input fields for: IP Address (192.168.2.167), Subnet Mask (255.255.255.0), Gateway (192.168.2.112), 1st DNS (8.8.8.8), 2nd DNS (8.8.4.4), Link-local Address (169.254.3.183), and IPv6 Link-local Address (fe80::211:6fff:fe00:3b7). At the bottom right are 'APPLY' and 'CANCEL' buttons.

2. Network: IP Filter

AI BOX supports not only video streaming for each RTSP channel but also multi-view streaming showing all channels as one channel.

To make configure the 'IP Filter' network option, go to SETUP/NETWORK/IP Filter

- Select 'Add' to enter an IP address into the IP List

The screenshot shows the AI Box web interface. The top navigation bar includes 'AI Box', 'LIVE', 'SETUP', 'English', 'ADMIN', and 'Logout'. The left sidebar lists menu items: AI SOURCES, AI SECURITY, AI MARKETING, SEARCH, DISPLAY, NETWORK (highlighted), IP Setup, and IP Filter (highlighted). The main content area shows the 'IP Filter' configuration page. It includes a breadcrumb 'Setup > Network', a title 'IP Filter', and a table for the 'IP List'. The table has columns for 'No', 'Type', 'IP Address', and 'Operation'. Below the table is a section for 'Filtering settings'. An 'Add' button is visible in the top right of the IP List section.

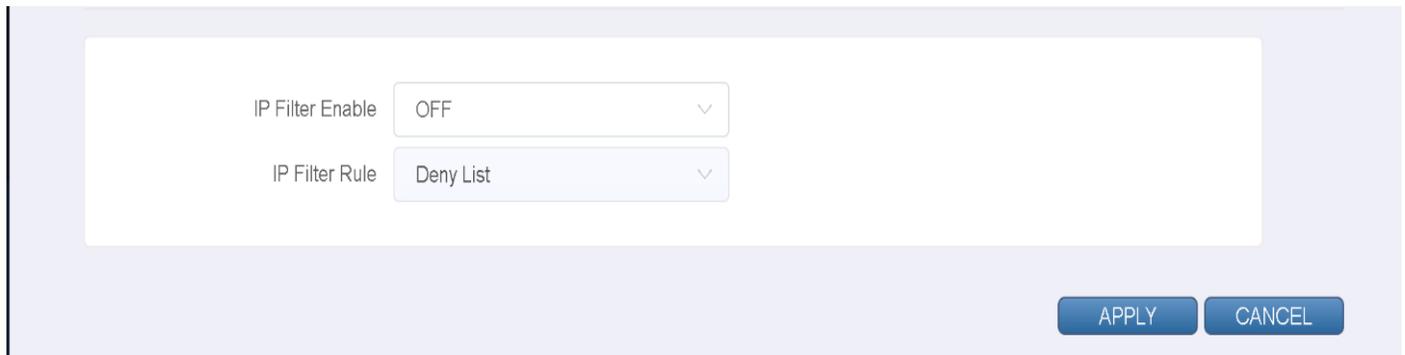
- Type: Default IP Address – currently no modifiable
- IP Address: Enter the IP address that will be filtered
- Select 'Apply' to commit the IP address to the IP list

Edit IP Address

Type:

IP Address:

- IP Filter Enabled: Default OFF – Select ‘Off’ or ‘On’
- IP Filter Rule: Default Deny List – Select ‘Allow List’ or ‘Deny List’
- Select ‘Apply’ to commit any changes

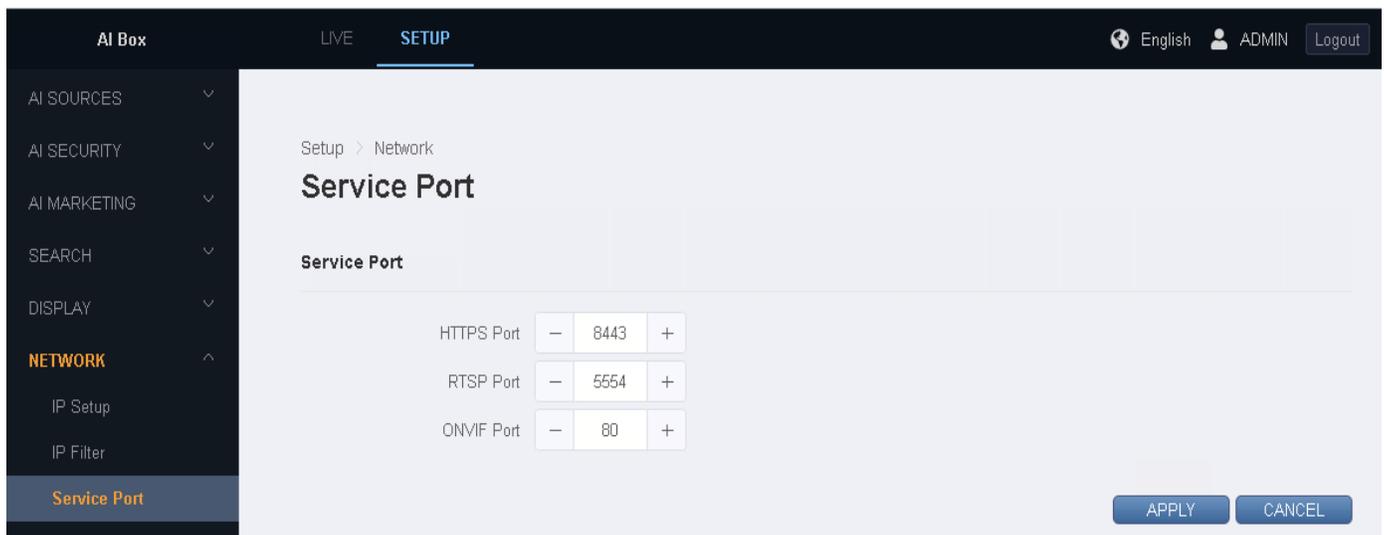


The screenshot shows a configuration window for IP filtering. It contains two dropdown menus: 'IP Filter Enable' set to 'OFF' and 'IP Filter Rule' set to 'Deny List'. At the bottom right, there are two buttons: 'APPLY' and 'CANCEL'.

3. Network: Service Port

Select ‘Setup/Network/Service Port’ to modify the network service ports of the AI Box.

- HTTPS: Default 8443 – Select plus or minus to modify
- RTSP: Default 5554 – Select plus or minus to modify
- ONVIF: Default 80 – Select plus or minus to modify
- Select ‘Apply’ to commit any changes



The screenshot shows the 'Service Port' configuration page in the AI Box web interface. The breadcrumb path is 'Setup > Network'. The page title is 'Service Port'. Under the 'Service Port' heading, there are three rows of controls:

HTTPS Port	-	8443	+
RTSP Port	-	5554	+
ONVIF Port	-	80	+

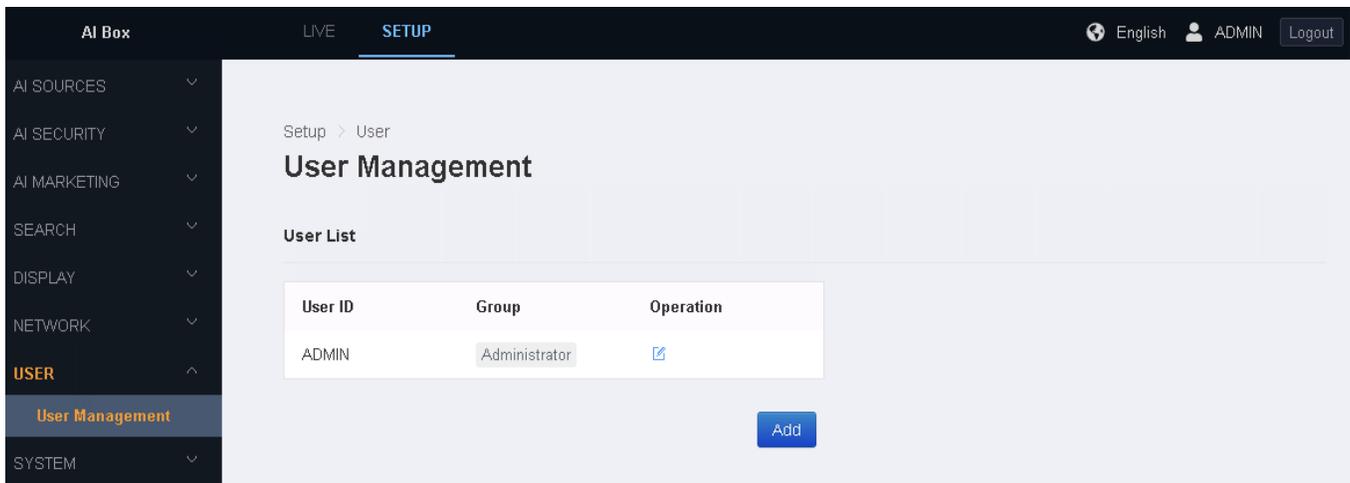
At the bottom right, there are two buttons: 'APPLY' and 'CANCEL'. The left sidebar shows a navigation menu with 'Service Port' highlighted.

11. User

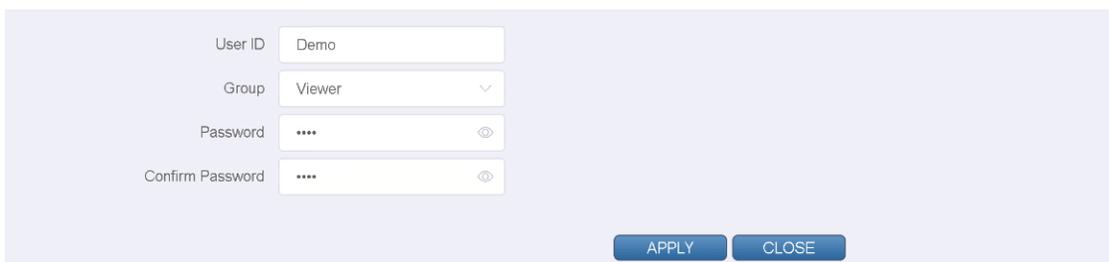
User accounts are created to limit the permissions of individuals who are logged onto the AI Box. Permissions include two predefined access levels Administrators, and Viewer's.

Select 'Setup/USER/User Management' to modify the user accounts of the AI Box.

- Select the operation modify icon , to change or modify an existing user.
- Select 'Add' to create a new user



- Select 'Add' to create a new user
- User ID: Enter the username
- Group: Select 'Administrator' or 'Viewer'
- Password: Enter a password
 - Select from 8~16 uppercase, lowercase, number, and special characters
- Confirm Password: Re-enter password to confirm matched characters
- Select 'Apply' to commit any changes



User ID:

Group:

Password:

Confirm Password:

12. System

1. System: Date/Time

Date/Time maintains the AI Box system wide date and time format, and time sync.

To change the Date/Time setting of the AI Box, go to SETUP/SYSTEM/Date/Time select 'Date/Time' to modify the following time related functions of the AI Box

- Select 'Date Time' to manually enter the year, month, day, and time
- Select 'Date Format' to select YYYY/MM/DD, MM/DD/YYYY, or DD/MM/YYYY
- Select 'Time Format' to select 24 hour or AM/PM formatting
- Select 'Time Server' to manually enter the address of an NTP server
 - Press the 'SYNC' button to automatically synchronize the system date and time.
- Select 'Auto Sync' to synchronize the time periodically through the NTP server.
- Select 'Time zone' to set the local time zone of the AI Box
- Select 'DST' to enable or disable the Daylight Savings Time

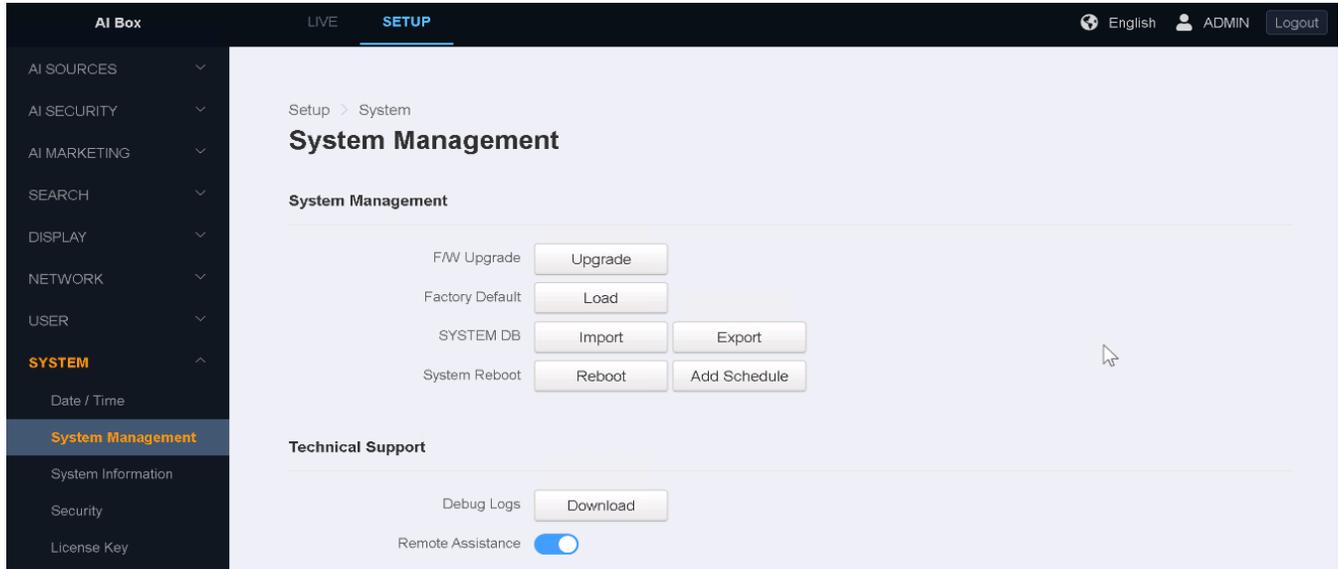
※ The DNS address of the device must be set correctly if the address of NPT server is a domain.

The screenshot displays the 'Date / Time' configuration page within the AI Box Setup interface. The page is divided into three main sections: 'Date Time Setup', 'Network Time Server Setup', and 'Timezone / DST'. The 'Date Time Setup' section includes fields for 'Date Time' (01/07/2022 15:59:39), 'Date Format' (MM/DD/YYYY), and 'Time Format' (24 HOUR). The 'Network Time Server Setup' section features a 'Time Server' field (pool.ntp.org) with a 'SYNC' button, and an 'Auto Time Sync' dropdown set to 'ON'. The 'Timezone / DST' section includes a 'Timezone' dropdown (GMT-05:00 America/EST) and a 'DST' dropdown (ON). At the bottom right, there are 'APPLY' and 'CANCEL' buttons. The interface also shows a sidebar menu on the left with 'SYSTEM' expanded to 'Date / Time', and a top navigation bar with 'LIVE' and 'SETUP' tabs, along with user information (English, ADMIN) and a 'Logout' button.

2. System: System Management

System Management is designed for the maintenance, performance, and trouble shoot of the AI Box.

To modify the system settings of the AI Box, go to go to SETUP/SYSTEM/System Management

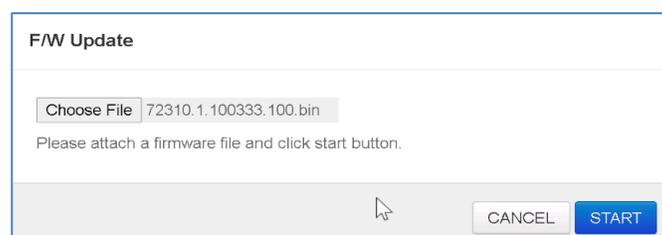


Firmware: The firmware upgrade process is intended for adding new features, and or bug fixes. All functions shut down during the firmware upgrade. Never disconnect power or LAN during firmware upgrade process. Power cannot be lost when upgrading as it will cause a failure and require maintenance.

It takes approximately 3-10 minutes for the unit to reboot after the firmware upgrade process.

- Select 'F/W Upgrade' to initialize the upgrade process
- Select 'Choose File' to navigate to the storage location of the new firmware.
- Select 'Start' once the firmware file has been selected.
- The AI Box will reboot when the firmware upgrade is complete

⊗ Please do not operate the device during the firmware upgrade.

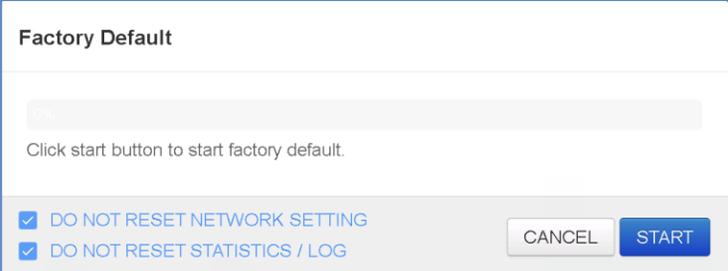


Factory Default: When the AI Box is not responding per standard expectations, or system functions are not clearing per need, a factory defaulting of the AI Box may be recommended.

Reset the AI Box device to factory default settings.

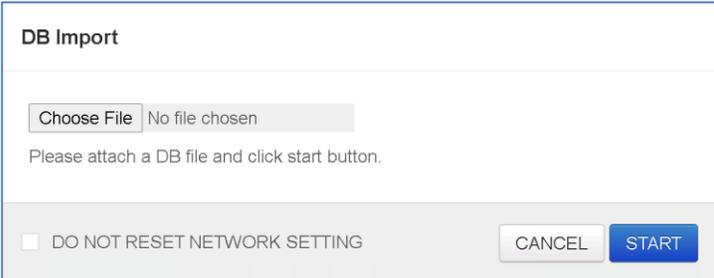
- Press the 'Load' button to bring up the factory reset popup
- Network-related settings will not reset if 'Network settings remain current' option is selected
- Click 'OK' button to start factory default
- The device will reboot when the factory default is complete

[Caution] If the AI BOX is not connected to a Dynamic Host Configuration Protocol (DHCP) network, the IP address settings for the AI BOX will be lost and the server will not recognize the camera. DHCP On is the default setting for the AI BOX IP address



The screenshot shows a dialog box titled "Factory Default". It contains a text input field with the value "10.10.10.10". Below the input field is the instruction "Click start button to start factory default." At the bottom, there are two checked checkboxes: "DO NOT RESET NETWORK SETTING" and "DO NOT RESET STATISTICS / LOG". To the right of these checkboxes are two buttons: "CANCEL" and "START".

System DB: The AI Box supports importing an existing configuration of settings, and functions.



The screenshot shows a dialog box titled "DB Import". It features a "Choose File" button next to a text field containing "No file chosen". Below this is the instruction "Please attach a DB file and click start button." At the bottom, there is an unchecked checkbox labeled "DO NOT RESET NETWORK SETTING" and two buttons: "CANCEL" and "START".

The AI Box supports exporting of the existing settings, and functions via the web browsers download function.



The screenshot shows a "Downloads" section in a web browser. It includes icons for a folder, search, and a star. Below the icons, there is a file entry: a document icon followed by the filename "db_72310.1.100333.100_1641590739.ndb" and a blue link labeled "Open file".

The AI Box supports both a manual, and schedule-based system reboot.

Schedule requires the selection of 'Daily', 'Weekly' or 'Month', with associated time, 'Hour', 'Weekday', or 'Day of Month'



3. System: System information

You can find the model, firmware version, and MAC address.

The screenshot shows the web interface for the AI Box. The top navigation bar includes 'AI Box', 'LIVE', and 'SETUP' (which is active). On the right, there are options for 'English', 'ADMIN', and a 'Logout' button. A left sidebar menu lists various categories: AI SOURCES, AI SECURITY, AI MARKETING, SEARCH, DISPLAY, NETWORK, USER, and SYSTEM (which is highlighted in orange). The main content area shows a breadcrumb 'Setup > System' and a heading 'System Information'. Below this, a table displays system details:

System Information	
Model	AIBOX-16
F/W Version	72310.1.100333.100
MAC Address	00:11:6F:00:03:B7

4. System: Security

- Enhanced User ID: Select 'On' or 'Off'
 - Enhanced ID enables
- Enhanced Password: Select 'On' or 'Off'
 - Enhanced Password enables
- Auto Logout: Select 'On' or 'Off'
- Wait Time: Select 1-minute, 2-minute, 3-minute, 5-minute, or 10-minute before auto logout is initiated
- Select 'Apply' to save changes

The screenshot shows the 'AI Box' web interface. The top navigation bar includes 'AI Box', 'LIVE', and 'SETUP'. The user is logged in as 'ADMIN' with a 'Logout' button. The left sidebar lists various system categories, with 'SYSTEM' highlighted. The main content area is titled 'Setup > System Security'. Under 'Account Security', there are four settings, each with a dropdown menu: 'Enhanced User ID' (ON), 'Enhanced Password' (ON), 'Auto Logout' (ON), and 'Wait Time' (10 Minute). At the bottom right, there are 'APPLY' and 'CANCEL' buttons.

5. License key

Enter a license key to activate additional features that require a license.

If the license is successfully registered, the corresponding item is displayed on the right.

To add a license key to the AI Box, go to SETUP/SYSTEM/License Key

- Select 'Edit' to enter the license key

The screenshot shows the AI Box web interface. The top navigation bar includes 'AI Box', 'LIVE', and 'SETUP'. The user is logged in as 'ADMIN' in 'English'. The left sidebar shows a menu with 'SYSTEM' expanded to 'License Key'. The main content area is titled 'License Key' and shows a table with 6 rows. The first row contains the key 'T4MDA-TOM2V-E6FKQ-ZA05K-TNKRVM2NKQ' and an 'Edit' button. To the right of the table, the text 'LPR-KR 16CH' is displayed. At the bottom right, there are 'APPLY' and 'CANCEL' buttons.

No	Key	Edit
1	T4MDA-TOM2V-E6FKQ-ZA05K-TNKRVM2NKQ	Edit
2		Edit
3		Edit
4		Edit
5		Edit
6		Edit

- Key: Copy or paste the license key into the 'Key' area
- Select 'APPLY' to save and continue
- After confirming the new key is listed, select 'APPLY' to save and continue

The close-up shows a form titled 'License Key'. It has a single input field labeled 'Key'. Below the input field are two buttons: 'CANCEL' and 'APPLY'.

6. API documentation

API document is embedded to work with AI BOX.

Q Search...

Authentication

Capability >

Video Source >

LPR >

FR >

Event Action >

AI Counter >

Alarm >

System >

Documentation Powered by ReDoc

HTTP API Document (1.0.0)

Download OpenAPI specification: [Download](#)

Authentication

1. User-Agent in HTTP header SHOULD be 'Client Application'.
2. One of the following HTTP API authentications is required:
 - Digest Authentication (Recommended)
 - Basic Authentication

Most HTTP clients or libraries support these authentication methods. (E.g. curl, wget, Postman)

13. False detection filter setting

Static Object Exclusion Zone

It is possible to specify the area to force exclusion by randomly processing static objects that are erroneous. For example, if a mannequin or a container box is known as a person or a car to be detected, this function can be forcibly excluded.

[Caution] The judgment of whether the object to be detected is within the static object exclusion area is based on the object's center coordinate. Therefore, specifying only the smallest size of the excluded area (as much as it covers the center of the object you want to exclude) can reduce the error that excludes even the actual object to be detected.

(In order to exclude the detected box as follows, only the center of the object should be minimized, not covering the entire Box.)



14. Annotated Live Video

Live screen composition

- Go to the live or setting page.
- Select multi-view or a specific channel
 - Multi-view is the same as the HDMI output screen
- Annotated video stream of the selected channel is played.
- The Annotated video stream address (RTSP URL) of the selected channel is displayed. You can view videos with information drawn directly in standard RTSP viewers such as VLC players.

※ What is Annotated video stream?

Video stream with tracked object detection Box, set zone and AI trigger widget on OSD.

Show object bounding Box

- Grey: Objects in a static state.
- White: Objects in dynamic state.
- Purple: The object where the event occurred.
 - (Appears for a few seconds after the event)

THE END -