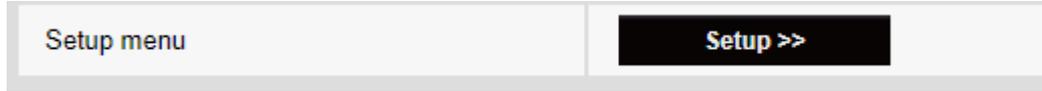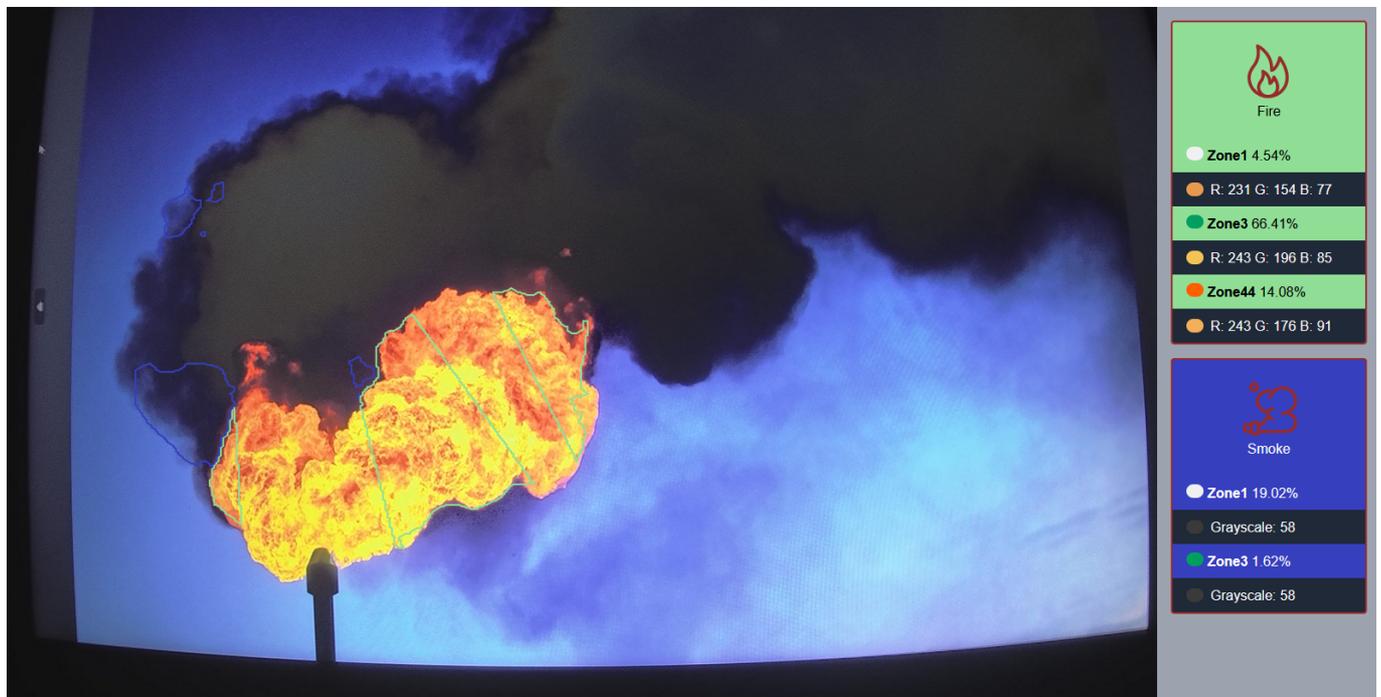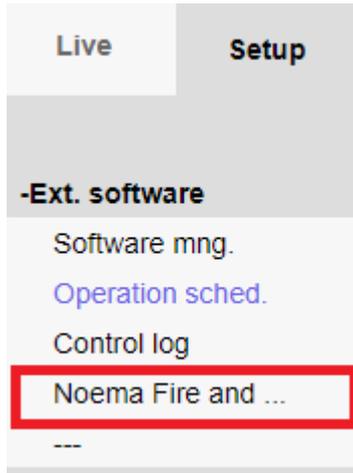# Fire Smoke Detection Application for i-PRO

LiveView

LiveView page is accessible from "Setup menu" >> "Setup"

or from Ext software menu

Preferences

Application preferences can be set on "Configuration" and "Detection areas" page of application WebUI

Configuration

Settings	Unit	Min	Default	Max	Description
Capture quality	Enum	0	0	max<=255	List of capture modes (resolution and FPS) provided by camera. Used for thumbnail generation. Frames will be resized for AI model inference. Actual FPS can be lower.
LiveView framerate	FPS	1	3	15	LiveView page MJPEG stream FPS, does not affect inference speed.
Object detection on firmware	bool	False	True	True	Object detection using CV engine is always operating inside of the camera. By setting False (disabling function), more resources from CV engine will be available to be used by the extension software. *Notice:* When object detection is disabled, functions that use the object detection installed in the camera (such as some image quality automatic control functions and APIrivacy Guard) will be also disabled.

Detection areas

Zone color	Enabled	Zone name	Fire alarm threshold, % ⓘ	Smoke alarm threshold, % ⓘ	Fire alarm warm up timer, ms ⓘ	Smoke alarm warm up timer, ms ⓘ	Fire alarm cooldown timer, ms ⓘ	Smoke alarm cooldown timer, ms ⓘ	Fire alarm ID ⓘ	Send fire test alarm ⓘ	Smoke alarm ID ⓘ	Send smoke test alarm ⓘ
	☐		100.00	20.00	3600000	5000	30000	30000	172 ⌄	Test	173 ⌄	Test
	☑	Zone1	0.50	0.50	5000	5000	30000	30000	171 ⌄	Test	172 ⌄	Test
	☐	Zone2	0.50	0.50	50000	5000	30000	30000	171 ⌄	Test	174 ⌄	Test
	☑	Zone3	0.50	0.50	5000	5000	30000	30000	171 ⌄	Test	172 ⌄	Test
	☑	Zone44	50.00	0.50	50000	5000	20000	30000	174 ⌄	Test	174 ⌄	Test
	☐	Zone5	0.50	0.50	5000	5000	30000	30000	171 ⌄	Test	172 ⌄	Test
	☐	Zone6	0.50	0.50	5000	5000	30000	30000	171 ⌄	Test	172 ⌄	Test
	☐	Zone7	0.50	0.50	5000	5000	30000	30000	171 ⌄	Test	172 ⌄	Test
	☐	ZoneLast	70.00	20.00	5000	5000	30000	30000	174 ⌄	Test	173 ⌄	Test

Save

Manipulating zone contours:

Button	Description
	Add new contour by clicking and adding vertexes to the configuration frame, to complete the contour click on the first point. Zones to be added consecutively. 8 zones total, not more then 16 vertexes.
	Select an existing contour by clicking on it, the line style becomes a dash.
Clear	Delete selected contour.
All clear	Delete all contours.

Settings per zone:

Settings	Unit	Min	Default	Max	Description
Zone color	color				Zone colors are constant
Enabled	bool	False	Full:True ZoneN:False	True	Only enabled zones will be processed
Zone name	text	1 char	Full Zone N	20 chars	Used in alarms data and live view cards. Must contain only latin letters, digits, underscores, and spaces.
Fire alarm threshold	%	0.01	0.5	100.0	Threshold for fire detection, expressed as a percentage of a zone size.
Smoke alarm threshold	%	0.01	0.5	100.0	Threshold for smoke detection, expressed as a percentage of a zone size.

Settings	Unit	Min	Default	Max	Description
Fire alarm warm-up timer	ms	0	5000	3600000	Time interval before a fire alarm event is triggered after the first detection.
Smoke alarm warm-up timer	ms	0	5000	3600000	Time interval before a smoke alarm event is triggered after the first detection.
Fire alarm cooldown timer	ms	0	30000	3600000	Time to wait before initiating a new fire alarm.
Smoke alarm cooldown timer	ms	0	30000	3600000	Time to wait before initiating a new smoke alarm.
Fire alarm ID	Enum	171	171	174	Camera internal Alarm ID assigned for fire detection events.
Send fire test alarm					Used for alarm checks and demonstration purposes.
Smoke alarm ID	Enum	171	172	174	Camera internal Alarm ID assigned for smoke detection events.
Send smoke test alarm					Used for alarm checks and demonstration purposes.

Additional notes

- Please note that in the event of simultaneous fire and smoke detection, the application will prioritize fire event, and send both event, but due to the camera's cooldown limitation only fire alarm will be triggered.
- The application will be reloaded if the rotation setting is set in the camera configuration. Therefore, the LiveView page should also be reloaded.
- Enabled zones without contours to be considered full-frame zones.
- The default zone serves as a fallback option when no zones have been enabled in the internal configuration.

License

License can be set on "License" WebUI page

Live	Configuration	Detection areas	License

Device blob	/54fhdcg4nGOsHdaz5HaVCz9YD31bQS8CHitQcCy6xU=
Status	Valid Expiry date: 31.10.2024
License	New license key Apply

System linkage for VMS

Genetec Security Center with i-PRO Active Guard

i-PRO Active Guard server configuration

1. Edit "C:\MultiAI\Backup\3rdpartyApp.config" in the PC that Active Guard server is installed.
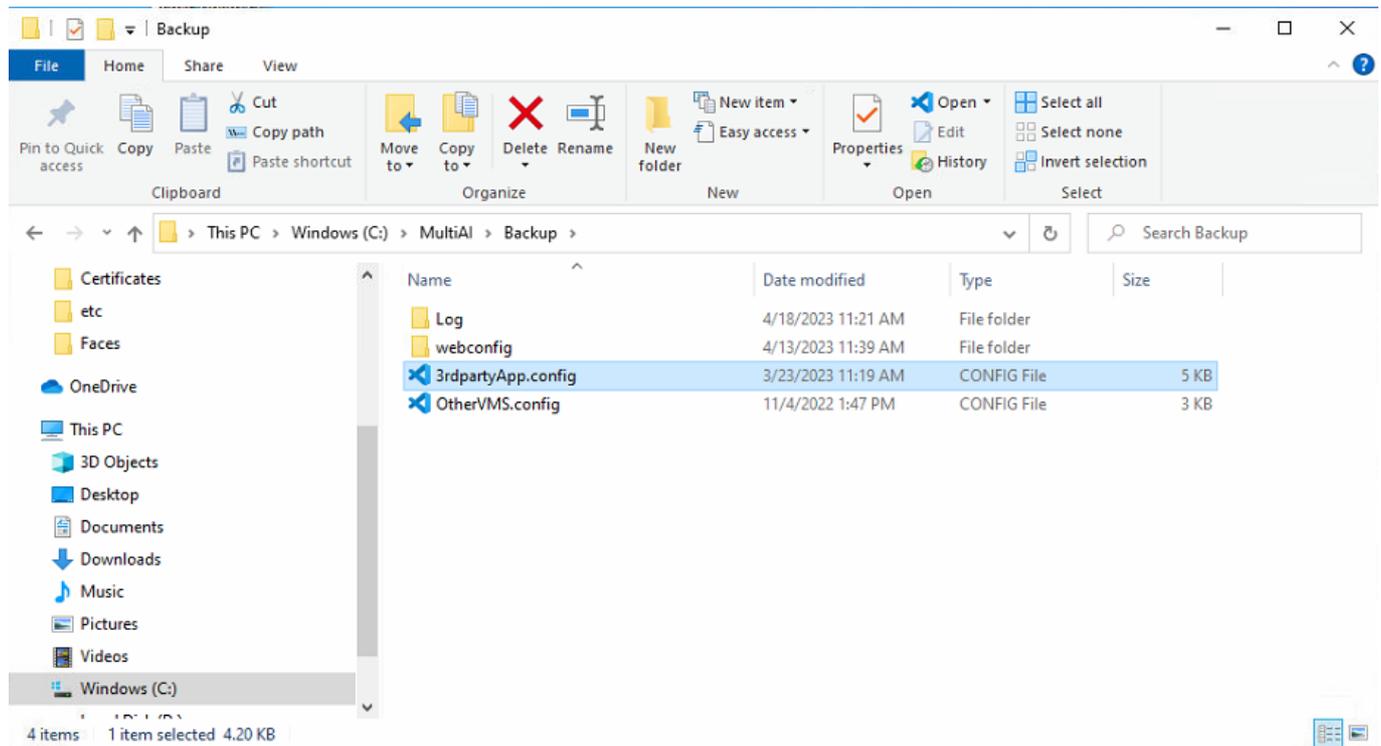
application_name_1 = "Noema Fire and Smoke Detection iPRO App" event_name_1 = "Fire detection" event_name_2 = "Smoke detection"

If Genetec system, genetec_custom_event_id_1 = 12000 genetec_custom_event_id_2 = 12001 for example. Remove the ";" at the beginning of the line, respectively

```
#------------------------------------------------------------------
# Application name (mandatory)
#------------------------------------------------------------------
# It is neccessary to match "EXTAPP1"or"EXTAPP2"or ... in the response of "/cgi-bin/getinfo?FILE=1" from c
# Up to 256 characters using alpha-numeral, hyphen, under score and period as camera's SDK specification.

application_name_1 = "Noema Fire and Smoke Detection iPRO App"
;application_name_2 =
;application_name_3 =
;application_name_4 =
;application_name_5 =
;application_name_6 =
;application_name_7 =
;application_name_8 =
;application_name_9 =
;application_name_10 =


# If you would like to register as an LPR app, please enter below.
# When registering as an LPR app, "Event name" and "Custom event ID" are not required.
lpr_application_name = "Vaxtor CONTAINER"


#------------------------------------------------------------------
# Event name (mandatory)
#------------------------------------------------------------------
# It is neccessary to match the event name included in the notification from camera.

event_name_1 = "Fire detection"
event_name_2 = "Smoke detection"
;event_name_3 =
;event_name_4 =
;event_name_5 =
;event_name_6 =
;event_name_7 =
;event_name_8 =
;event_name_9 =
;event_name_10 =


#------------------------------------------------------------------
# Custom event ID. (Mandatory for Genetec system)
#------------------------------------------------------------------
# This will be used for the notification from i-PRO Active Guard server to Genetec.

genetec_custom_event_id_1 = 12000
genetec_custom_event_id_2 = 12001
;genetec_custom_event_id_3 =
```

2. Register Camera on i-PRO Active Guard configuration web

Register camera to i-PRO Active Guard server (Refer to 4.3.2.3).
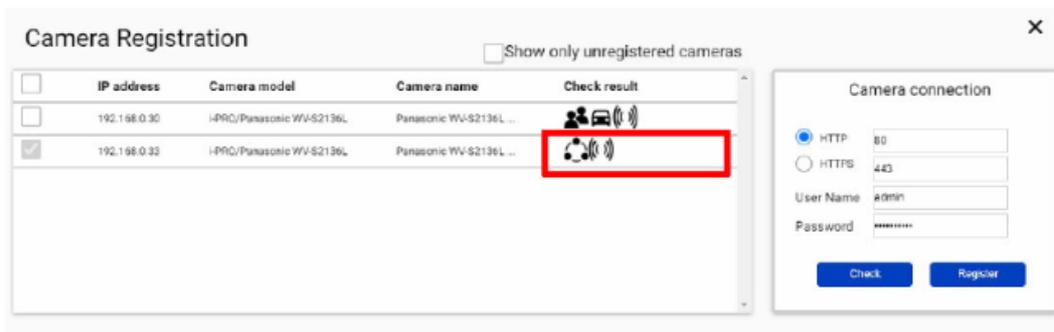
When the 3rd party extension software is installed in the selected camera, icon will be shown in the [Check result]. If not shown, please check if configuration file is edited correctly.
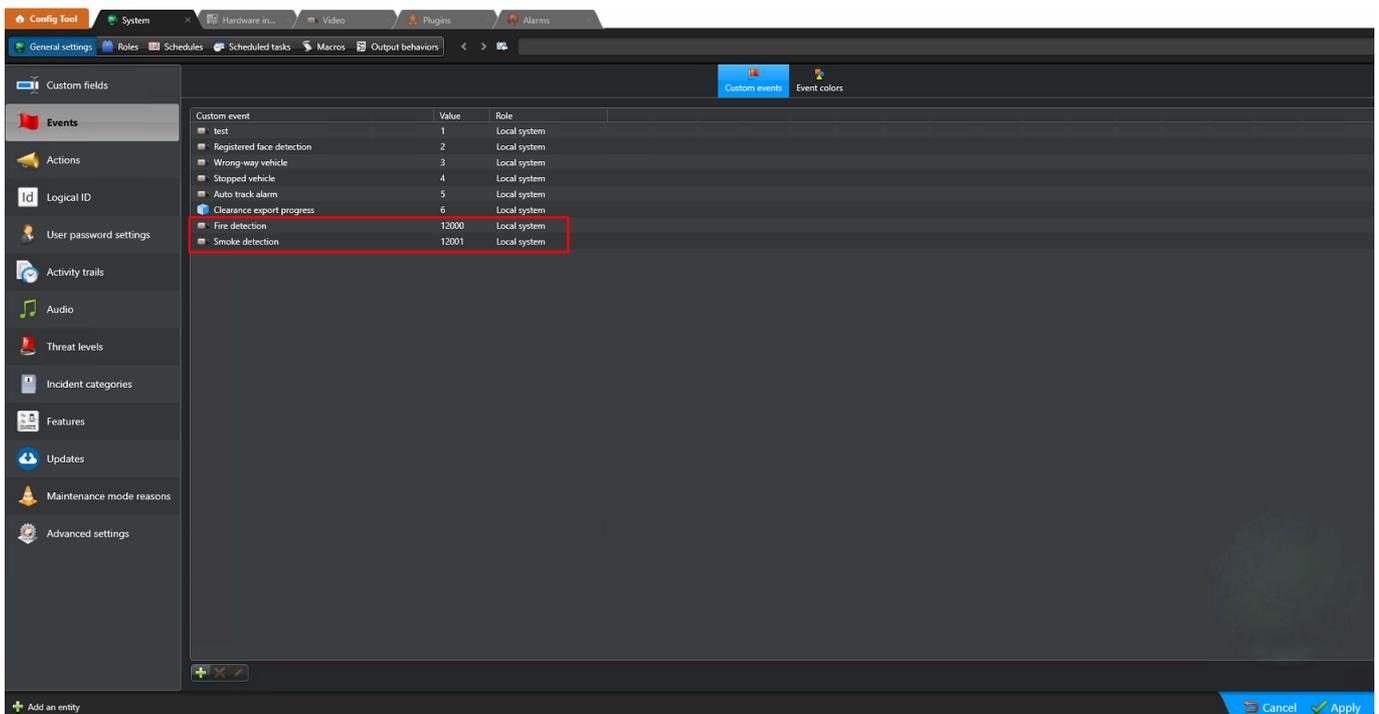
3. Restart i-PRO Active Guard Service

Genetec configuration

1. Create "Custom Event" on Genetec config tool. Value should be matched with Active Guard server side configuration.

2. (Optional) Create "Alarm" and configure "Event-to-action"

Event-to-action

When: 🔶 Fire detection ▾ occurs
Specify a condition

From: Any entity

Action: 🔴 Trigger alarm ▾

Alarm: 🔴 Fire detection ▾

Effective: Always

Enabled: ON

Cancel   Save

Milestone XProtect with i-PRO Active Guard

With i-PRO Active Guard server, alarm name, snapshot, and event detail information are shown on XProtect Alarm manager.

i-PRO Active Guard server configuration

i-PRO Active Guard server configuration

XProtect configuration

1. Create "Analytics Event" on XProtect Management client Name must be matched with configured event name.
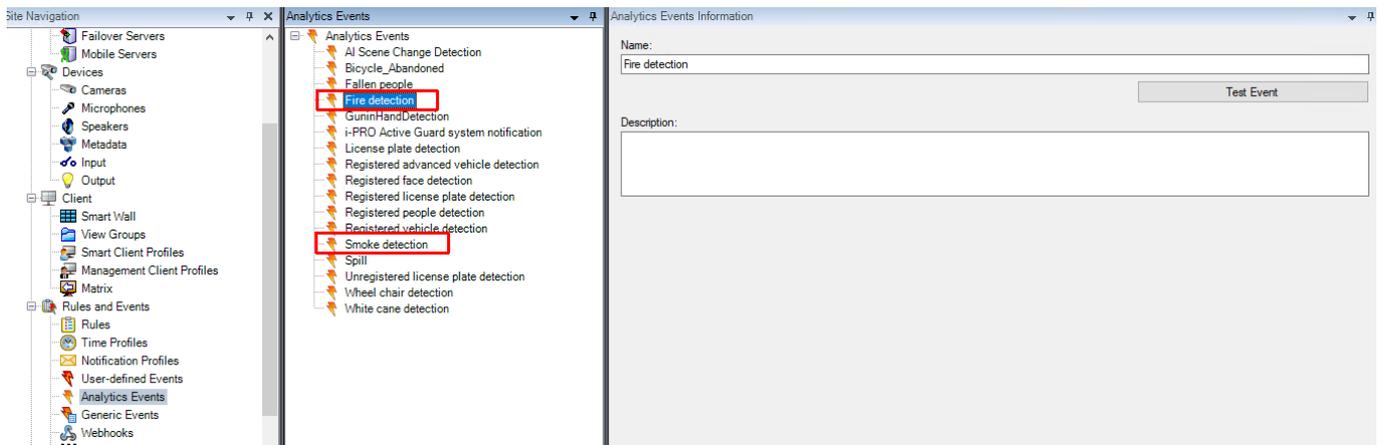
2. Create "Alarm definition" on XProtect Management client
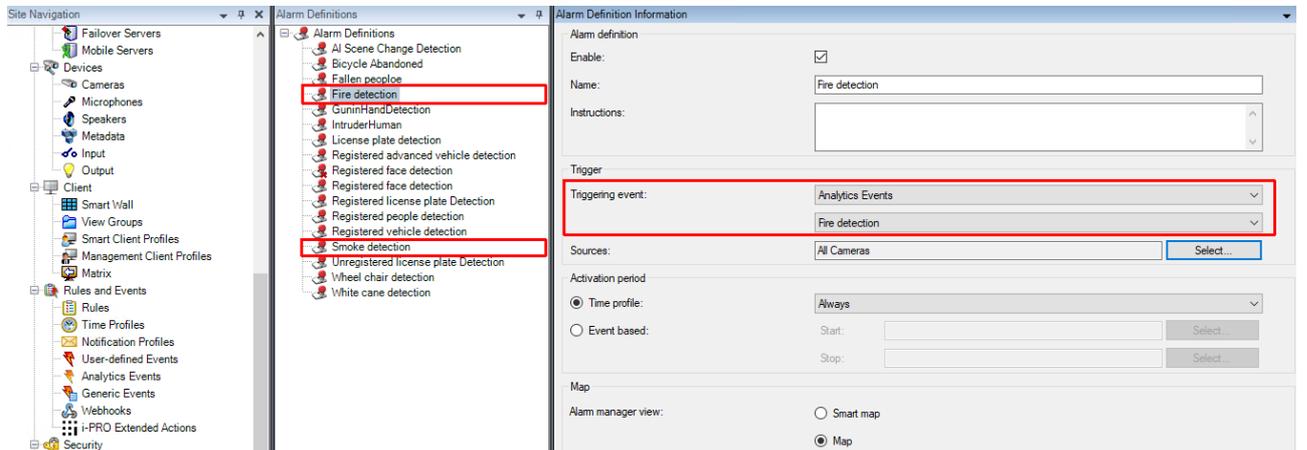
Milestone XProtect without i-PRO Active Guard (with i-PRO Maximizer plug-in)

With i-PRO Maximizer plug-in, simple integration can be used without additional PC for Active Guard server. In this case, only alarm name will be shown on XProtect Alarm manager.

1. Run "Update alarm sending on all cameras" on [Rules and Events] – [i-PRO Extended Actions]
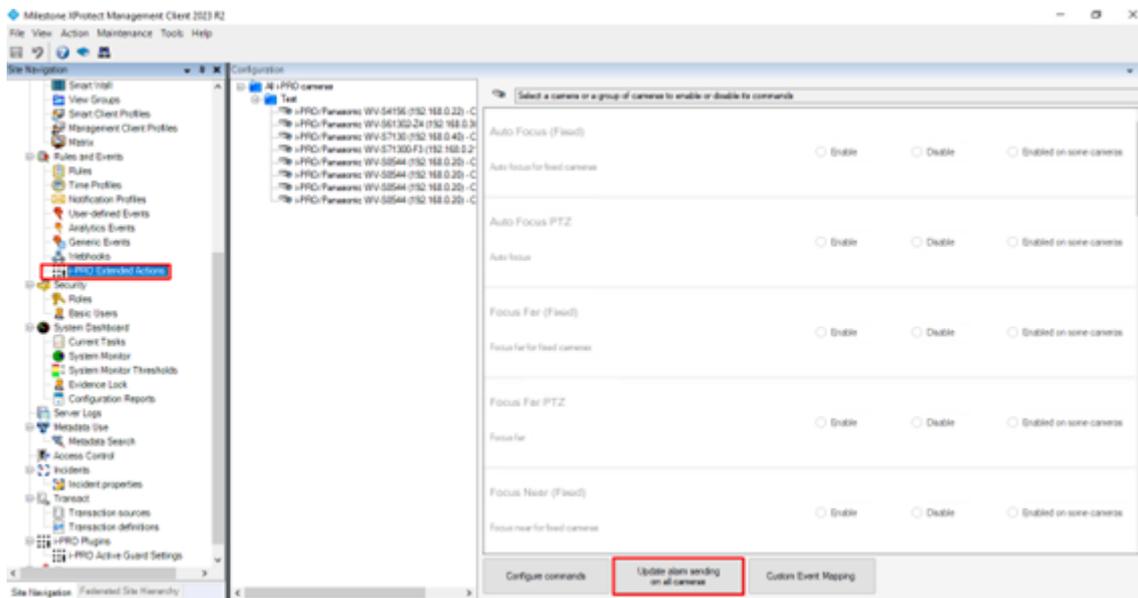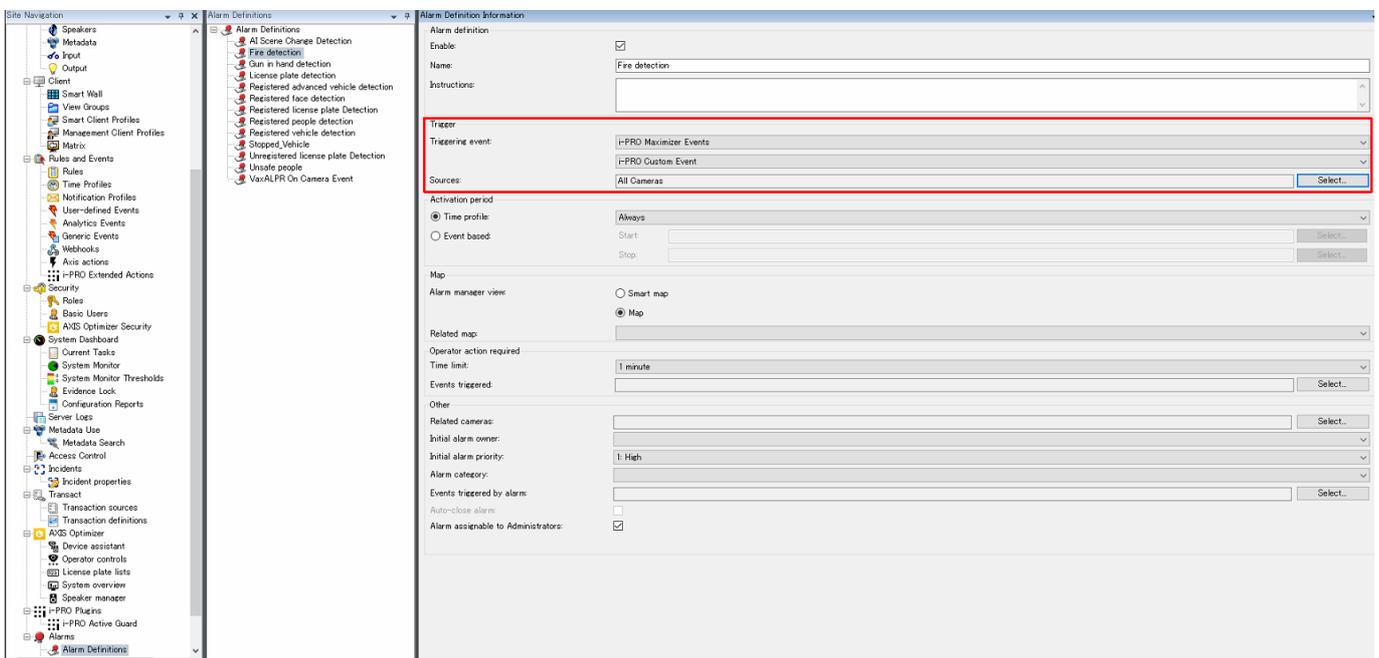

Check if HTTP alarm notification was configured on camera side. [Alarm] – [Notification] – [Notification] – [HTTP alarm notification] - [Address 1]
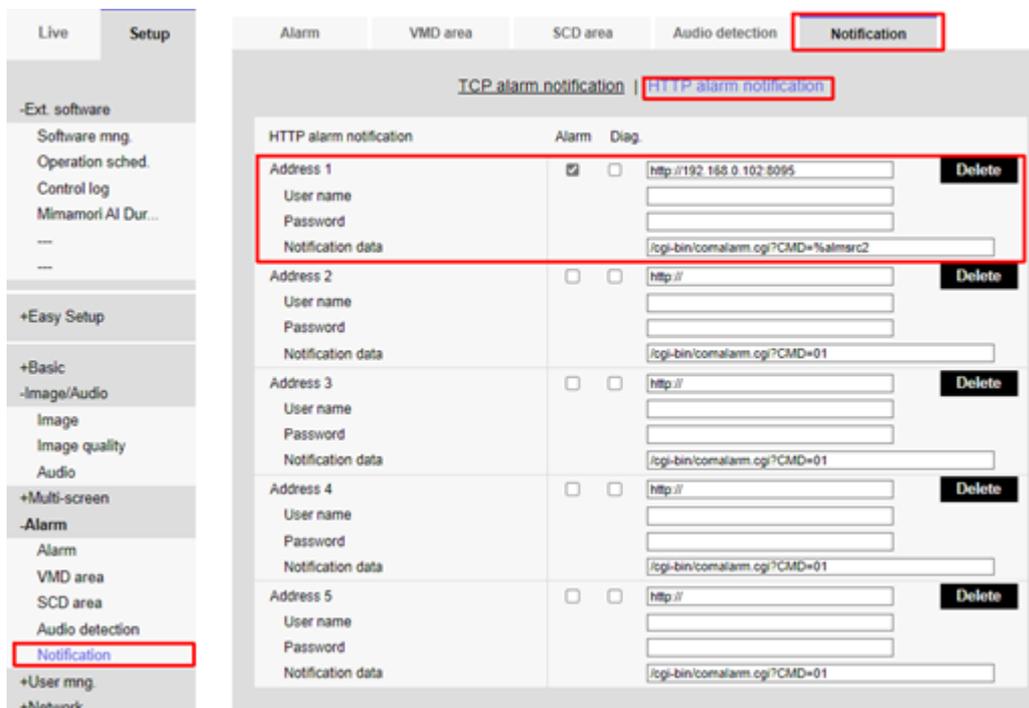
2. Create "Custom Event Mapping" Set Hexadecimal number of alarm ID and tag name.
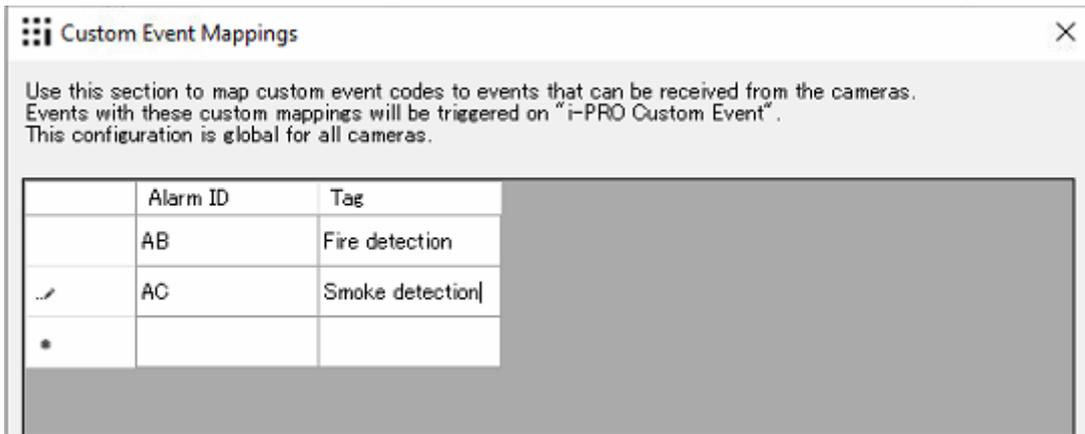
3. Create "Alarm definitions" Select i-PRO Maximizer Events and i-PRO Custom Event for Triggering event.
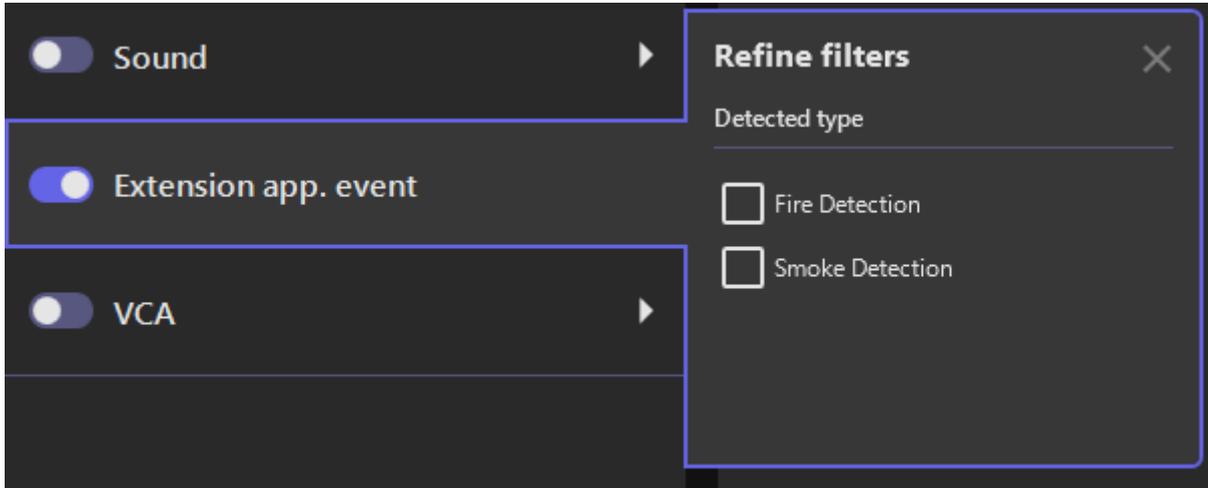
Video Insight with i-PRO Active Guard
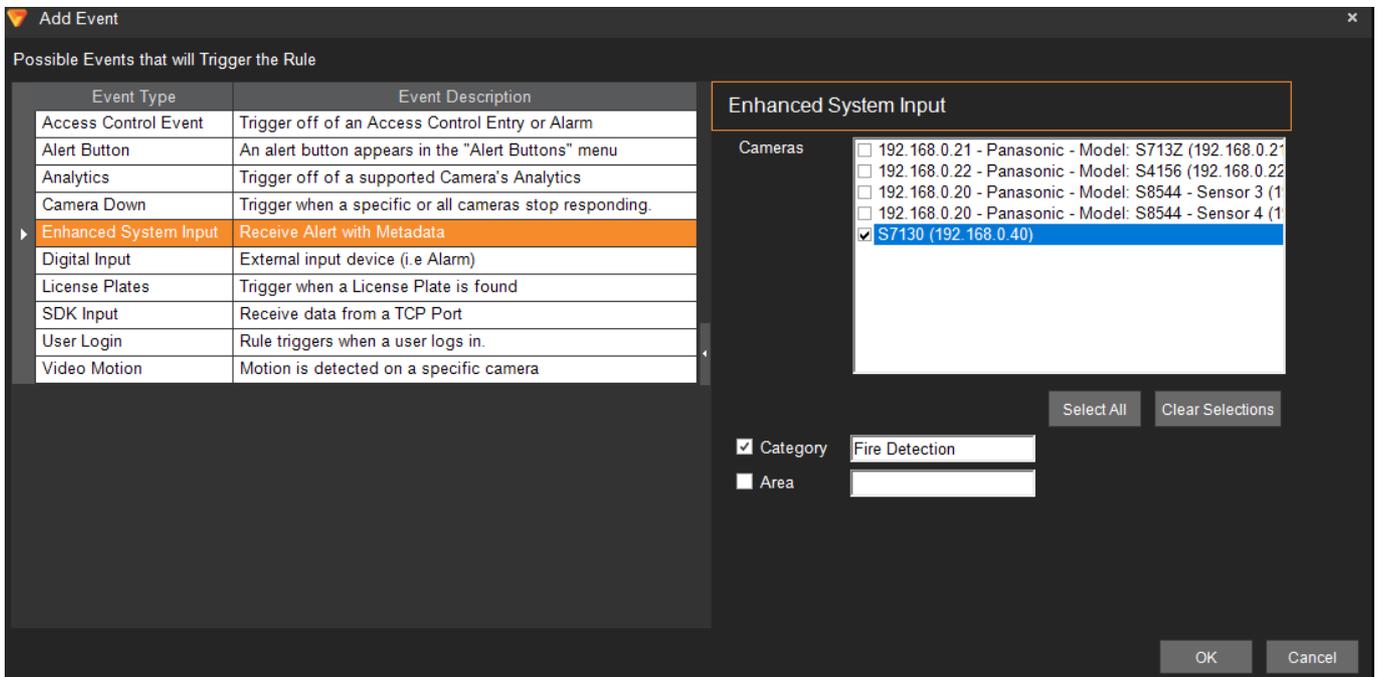
i-PRO Active Guard server configuration

i-PRO Active Guard server configuration

No configuration is required for Active Guard plug-in. Configured event name will be shown in "Extension app. event filter.

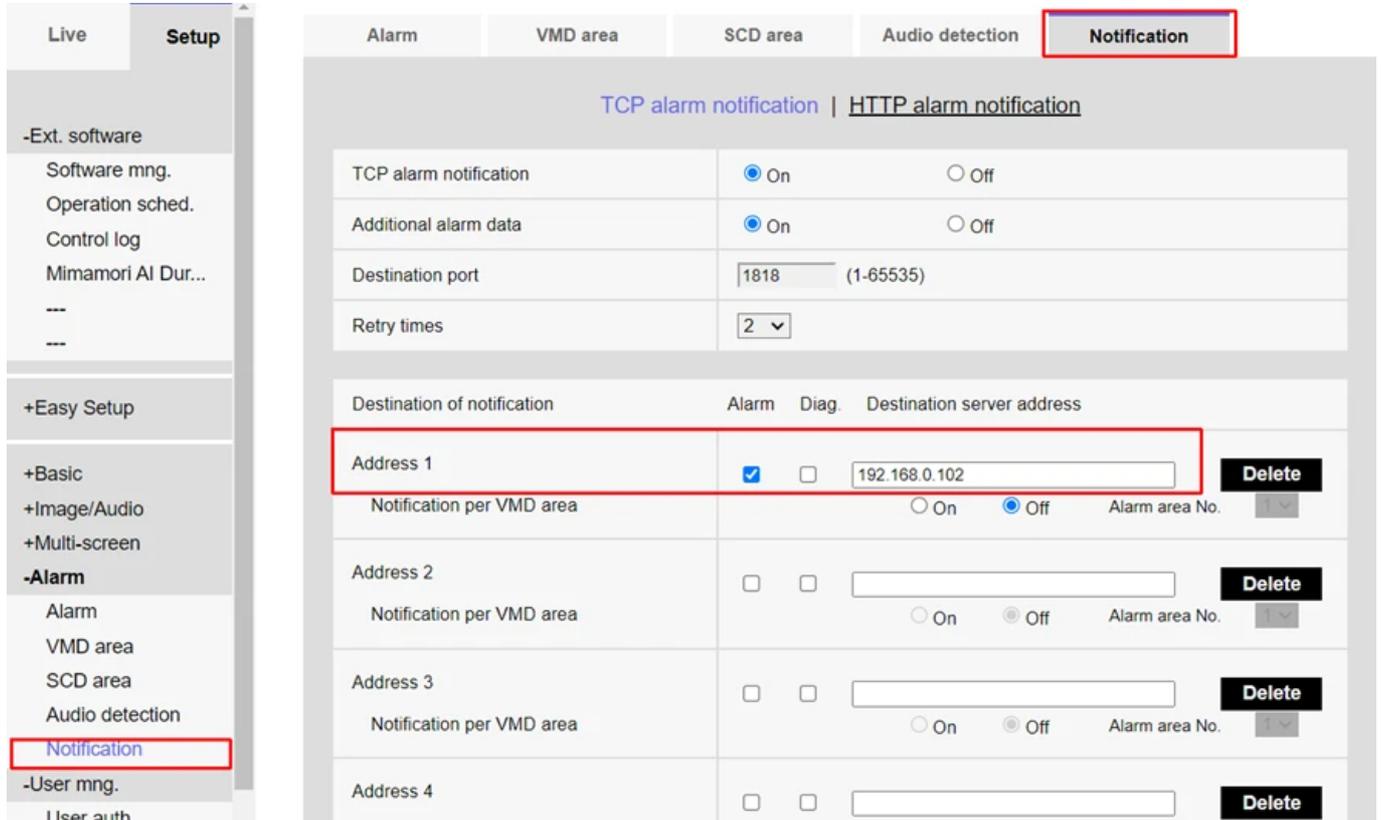## (Optional) Rule configuration on Video Insight:

By configuring the event name as "Category" in "Enhanced System Input", any Actions can be used.
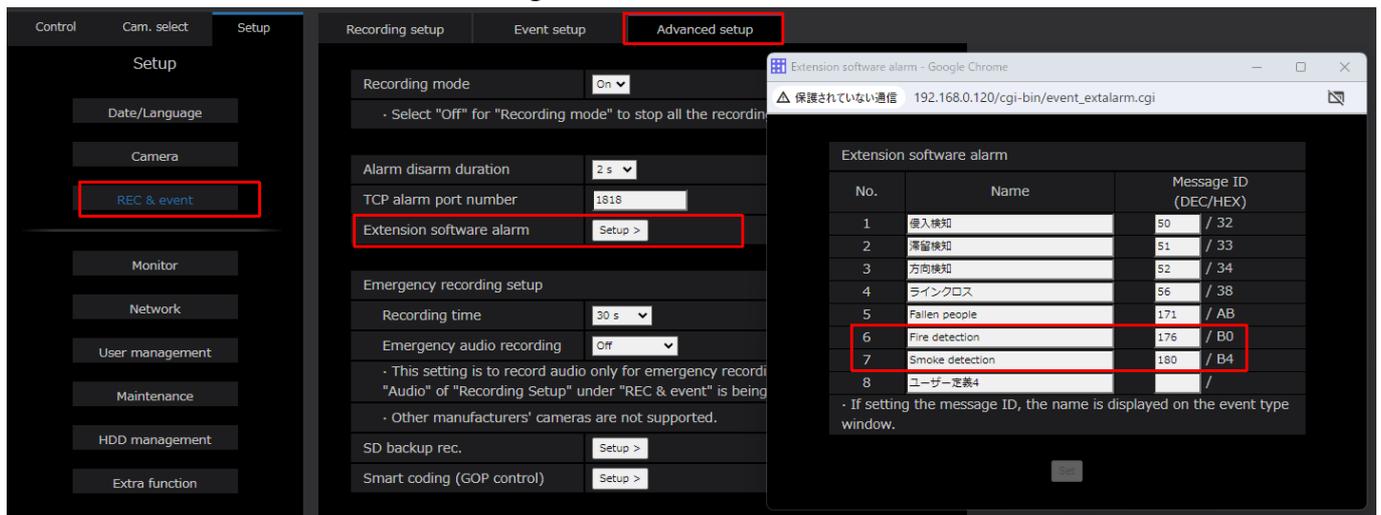
NVR/WV-ASM300

camera configuration

[Alarm] – [Notification] – [Notification] – [TCP alarm notification] - [Destination of notifications] Configure NVR's IP address for destination.
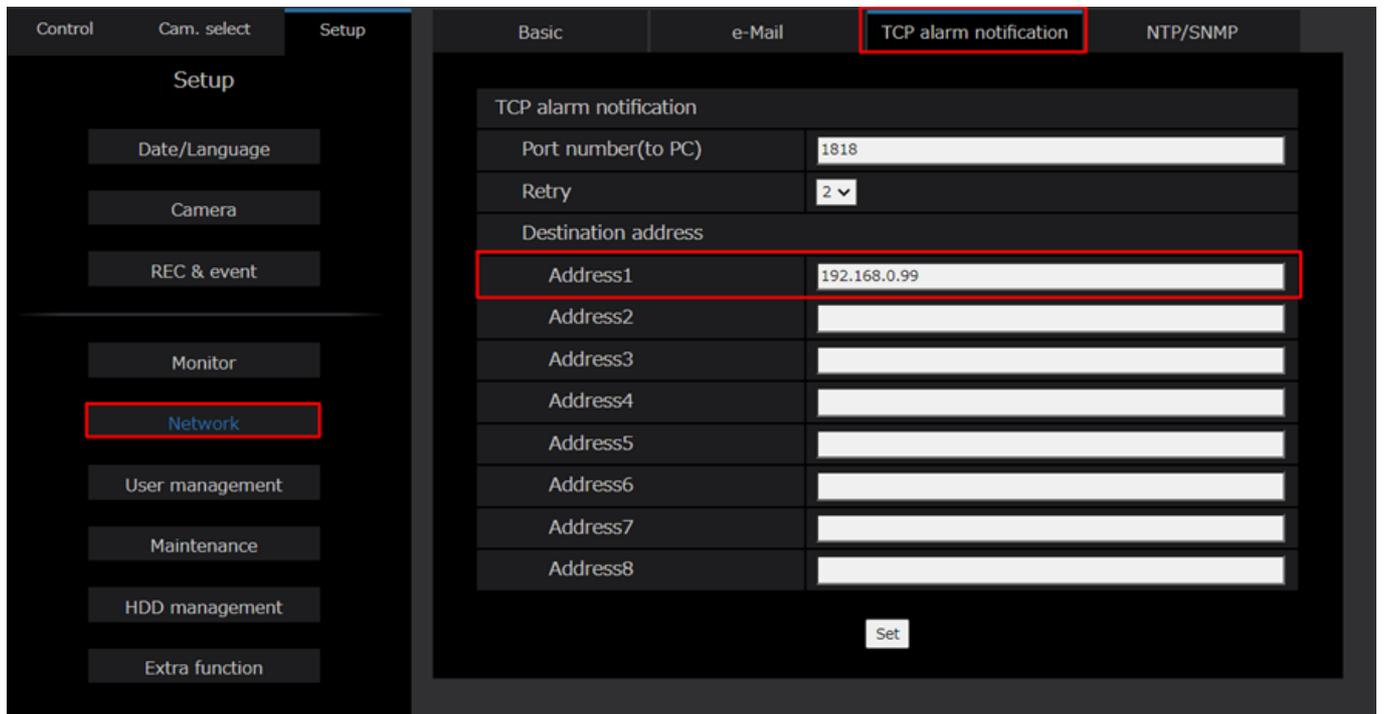

NVR configuration

Extension software alarm should be configured on NVR.

To notify WV-ASM300, configure WV-ASM300's IP address from [Network] – [TCP alarm notifiacton].

WV-ASM300 configuration

[Setting] – [AI camera] – [Alarm name setting]

Set Name and Message ID. Message ID must be matched with the number configured.