AIert Trigger Guide

Version: 5.1.0

1. Introduction

Vaidio provides several types of trigger action:

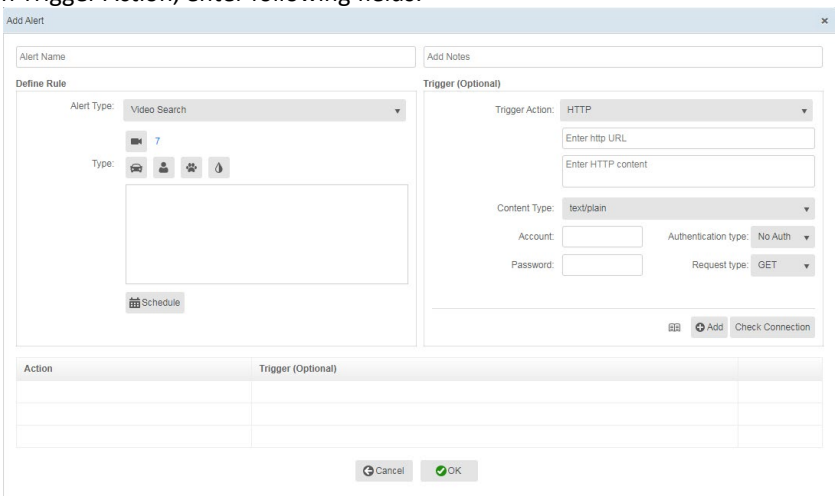
- Email Notification
- HTTP
- BTX Bridge to Milestone XProtect
- APP Notification
- Genetec
- Network Optix
- Digital Watchdog

In this document, we will focus on **HTTP** and **NVR** related.

2. Trigger action parameters

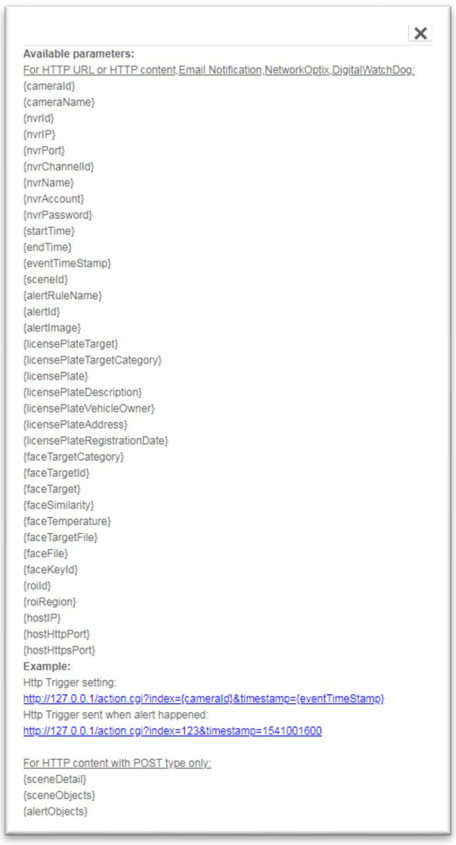
How to add trigger action in Vaidio?

1. In Vaidio, go to **Alert** menu.
2. In Alert page, click **Add Alert** to open Add Alert page.
3. In Trigger Action, enter following fields:



HTTP Trigger Action

User can click 📖 to view parameters:



By using specified parameters in the http URL, trigger action will convert the event to the target server or NVR. Below table explain the parameter using:

HTTP URL/content/Email/Nx/Dw...				HTTP content with **POST** type	
Alert types	Parameters	Alert types	Parameters	Alert types	parameters
ALL	{cameraId} {cameraName} {nvrId} {nvrIP} {nvrPort} {nvrChannelId} {nvrName} {nvrAccount} {nvrPassword} {startTime} {endTime} {eventTimeStamp} {sceneId} {alertRuleName} {alertId} {alertImage} {alertImageUrl} {alertMetadataUrl} {sceneImageUrl} {hostIP} {hostHttpPort} {hostHttpsPort}	**LPR** **FR** **ID, OLB...**	{licensePlateTargetCategory} {licensePlateTarget} {licensePlate} {licensePlateDescription} {licensePlateVehicleOwner} {licensePlateAddress} {licensePlateRegistrationDate} {faceTargetCategory} {faceTargetId} {faceTarget} {faceSimilarity} {faceTemperature} {faceFile} {faceKeyId} {roiId} {roiRegion}	**ALL** **FR**	{alertImageBase64} {alertImageJpg} {alertImageMetadata} {alertImageMetadataBase64} {alertImageMetadataJpg} {alertObjects} {sceneDetail} {sceneImageBase64} {sceneImageJpg} {sceneObjects} {faceFileBase64} {faceFileJpg} {faceTargetFileBase64} {faceTargetFileJpg}

3. Trigger action - HTTP

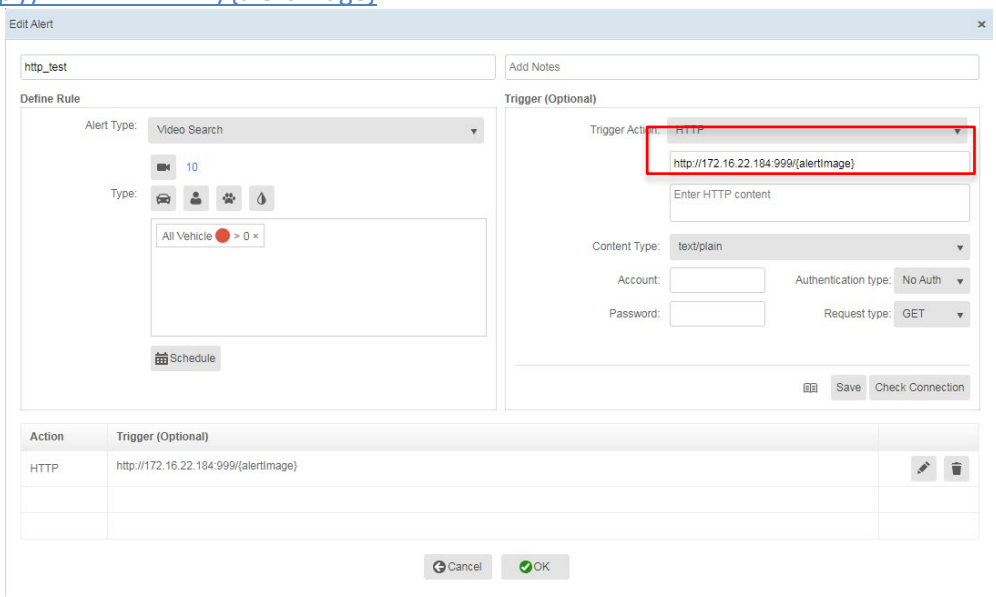
Scenario 1:

User wants to trigger an alert image of **Video Search** using **GET**.

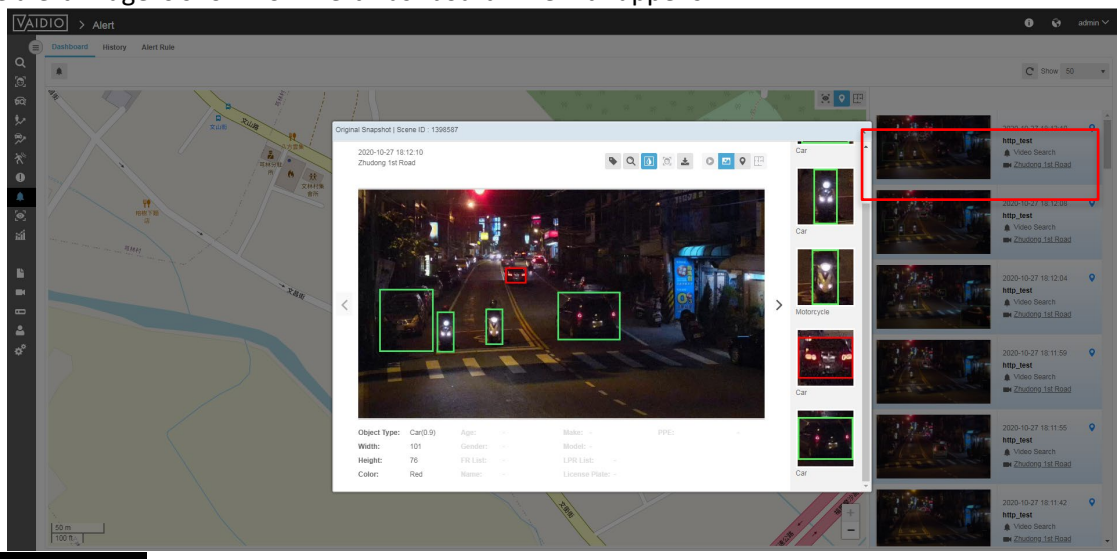
[Vaidio Server]

In Alert http trigger, enter the target IP ends with {alertImage}.

http://xxx.xxx.xxx.xxx/{alertImage}



The alert image is shown on Alert Dashboard when it happens.



[Target Server]

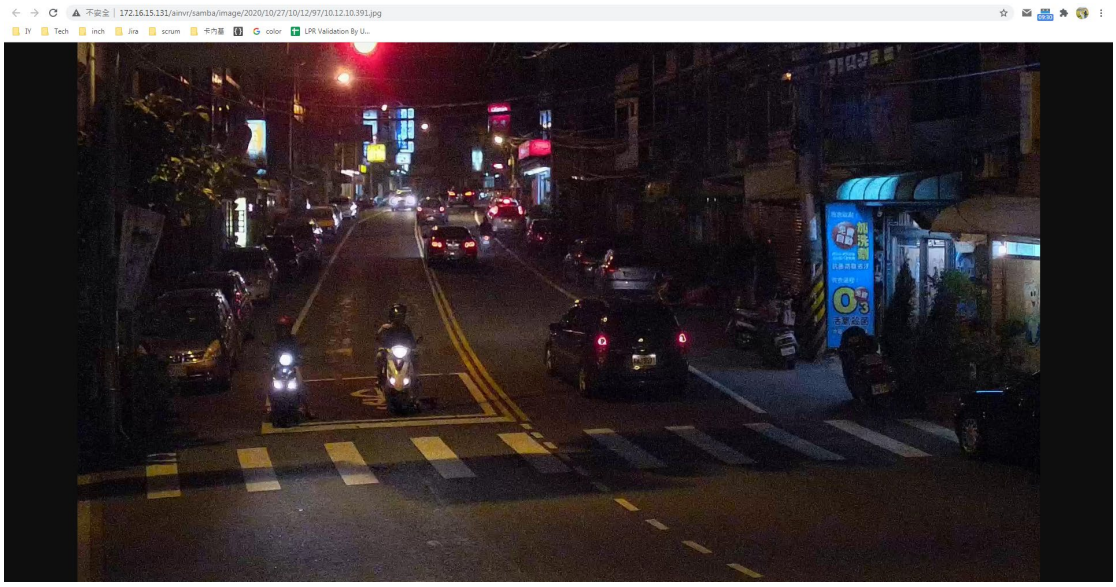
Trigger server received example.

Using **GET** to trigger alert image.

```
('do_GET:', '')
172.16.15.131 - - [27/Oct/2020 18:12:10] "GET /samba/image/2020/10/27/10/12/97/959fae03-68a3-4494-986f-42d81da5839b.jpg HTTP/1.1" 200 -
```

Use result to get original Image

http://172.16.15.131/ainvr**/samba/image/2020/10/27/10/12/97/10.12.10.391.jpg**

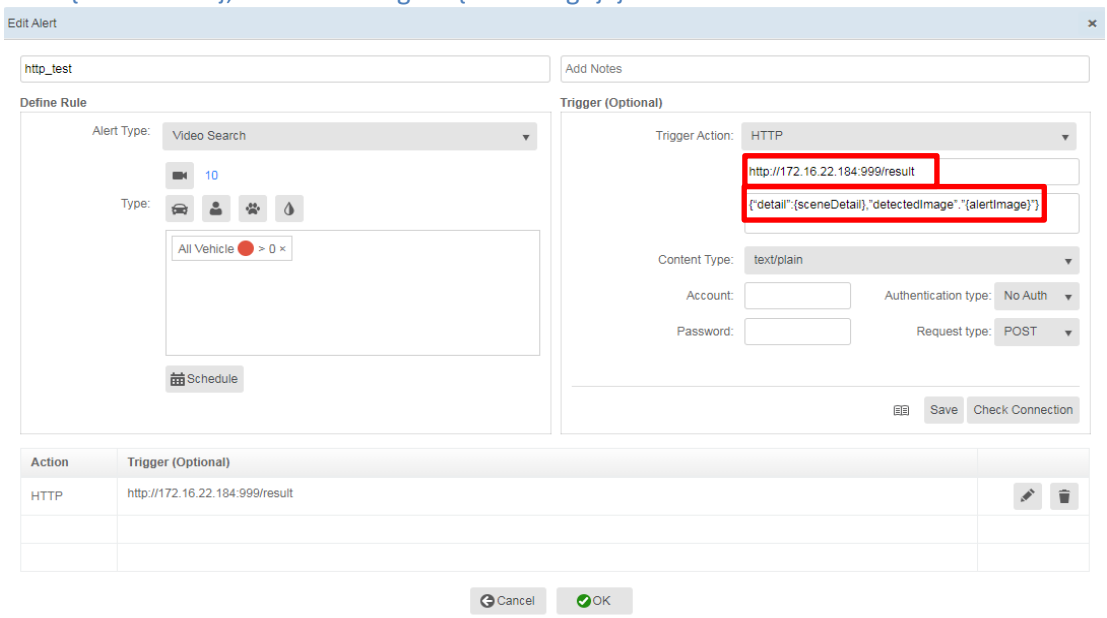


Scenario 2:

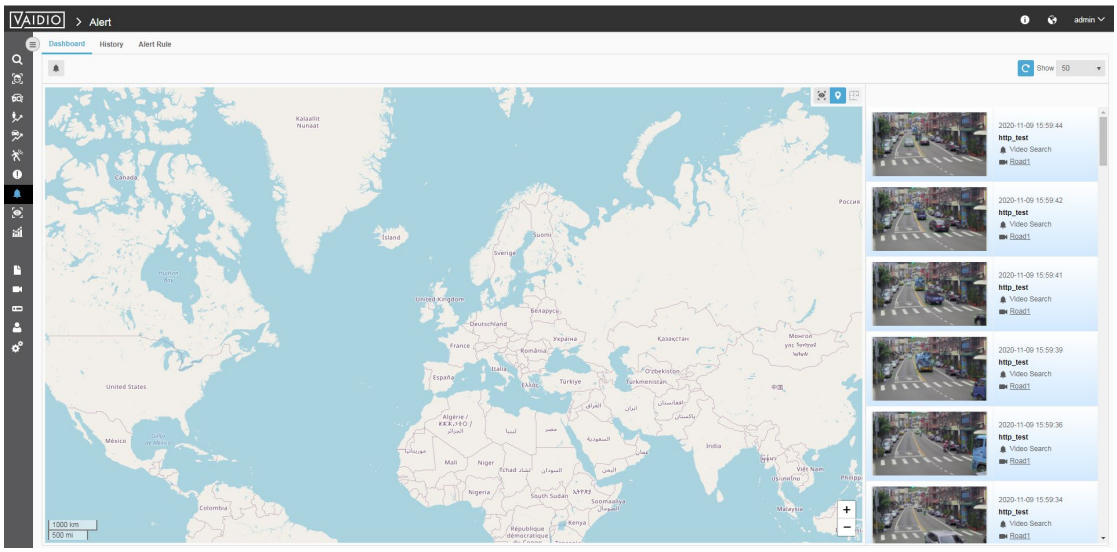
User wants to trigger an alert image of **Video Search** using **POST**.

[Vaidio Server]

In Alert http trigger, enter http://xxx.xxx.xxx.xxx/result in http URL and {"detail":{sceneDetail},"detectedImage":"{alertImage}"} in content text field.



The alert image is shown on Alert Dashboard when it happens.



[Target Server]

Trigger server received example.

Using **POST** to trigger alert image.

1 For {sceneDetail}

2 For {alertImage}

Scenario 3:

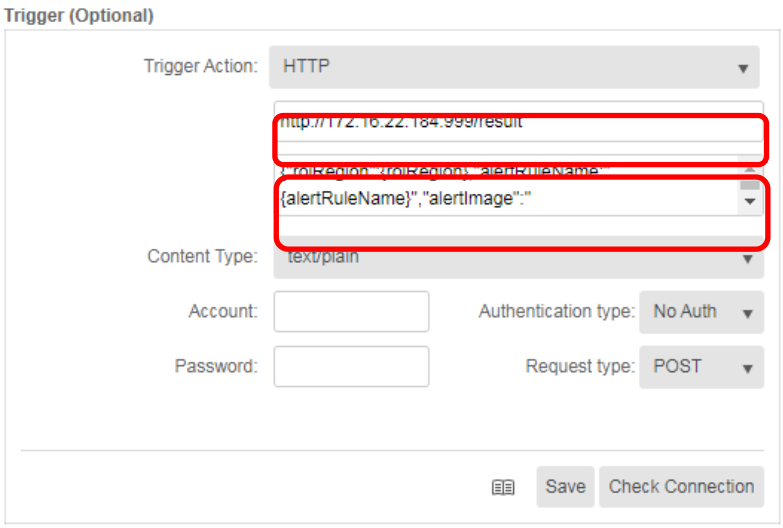
User wants to trigger an alert image of **Intrusion** using **POST**.

[Vaidio Server]

In Alert http trigger, enter http://xxx.xxx.xxx.xxx/result in http URL and

{"roiRegion":{roiRegion},"alertRuleName":"{alertRuleName}","alertImage":"{alertImage}","alertObjects":{alertObjects}}

In content text field.



The alert image is shown on Alert Dashboard when it happens.

[Target Server]

Trigger server received example.

Using **POST** to trigger alert image.

```
{
  "roiRegion": [
    {
      "contour": [
        {
          "x": 265,
          "y": 1054
        },
        {
          "x": 937,
          "y": 1045
        },
        {
          "x": 736,
          "y": 315
        },
        {
          "x": 532,
          "y": 289
        }
      ]
    }
  ],
  "alertRuleName": "http_id",
  "alertImage": "samba/image/2020/11/16/5/58/9/04b71ca2-04a2-44a3-a9dd-cdd413fa9779.jpg",
  "alertObjects": [
    {
      "confidence": 0.9544048,
      "type": "person",
      "region": {
        "x": 563,
        "y": 663,
        "w": 148,
        "h": 256
      },
      "properties": [
        "red",
        "black"
      ],
      "size": 37888
    }
  ]
}
```


2 "roiRegion":{roiRegion} The region of Intrusion ROI

3 "alertObjects":{alertObjects} The intrusion detected object in the ROI region

Scenario 4:

User wants to trigger an alert image of **Face Recognition** in a List using **POST**.

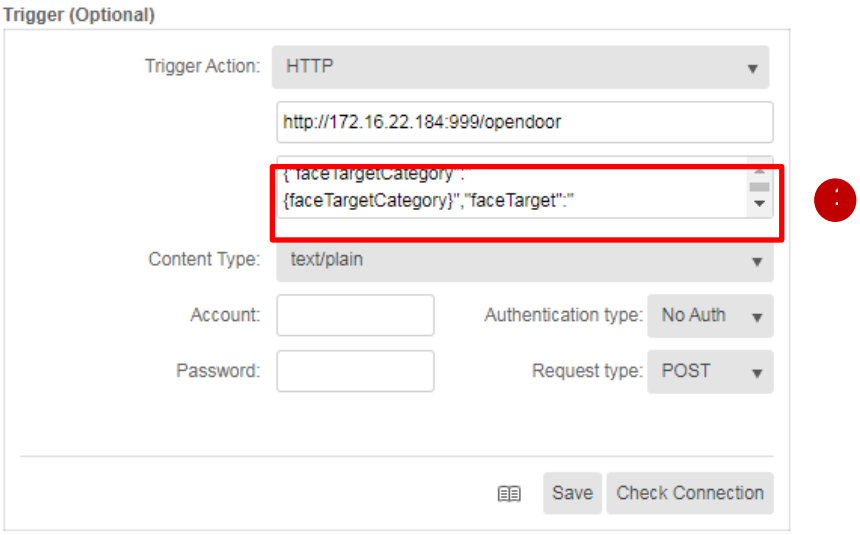
[Vaidio Server]

In Alert http trigger, enter http://xxx.xxx.xxx.xxx/opendoor in http URL and

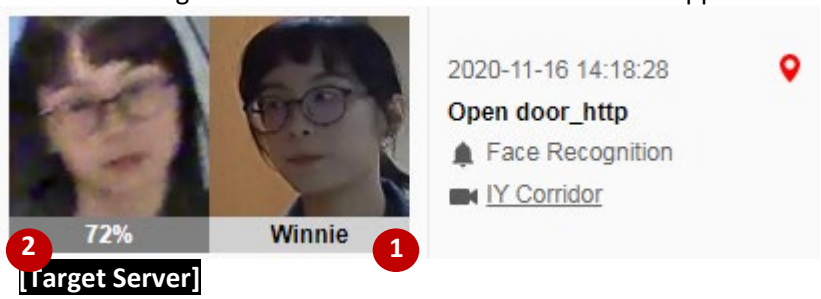
{"faceTargetCategory":"{faceTargetCategory}","faceTarget":"{faceTarget}","faceTargetId":"{faceTargetId}","faceTargetFile":"{faceTargetFile}","faceSimilarity":"{faceSimilarity}","faceFile":"{faceFile}","AlertImage":"{alertImage}"}

In content text field.

1



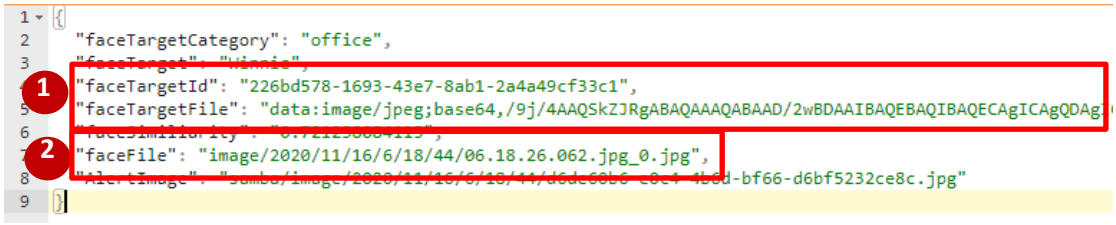
The alert image is shown on Alert Dashboard when it happens.



[Target Server]

Trigger server received example.

Using **POST** to trigger alert image.



Scenario 5:

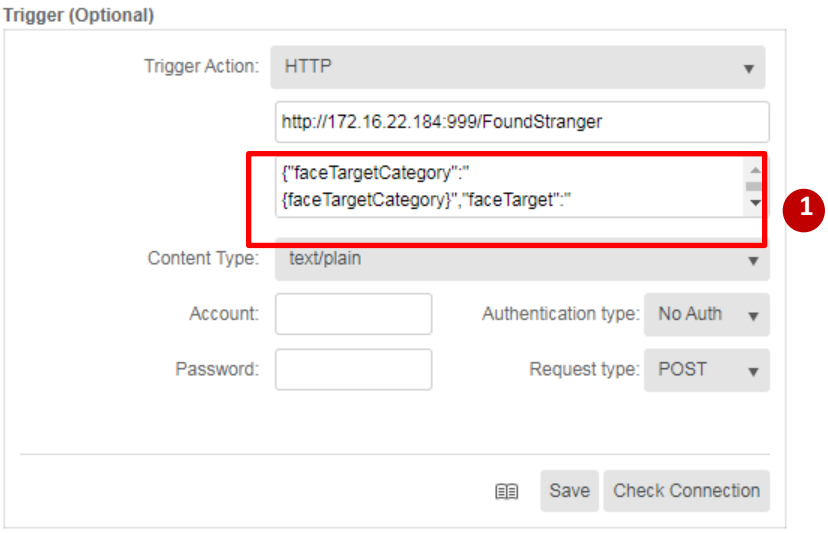
User wants to trigger an alert image of **Face Recognition Not in List** using **POST**.

[Vaidio Server]

In Alert http trigger, enter http://xxx.xxx.xxx.xxx/FoundStranger in http URL and

{"faceTargetCategory":"{faceTargetCategory}","faceTarget":"{faceTarget}","faceTargetId":"{faceTargetId}","faceTargetFile":"{faceTargetFile}","faceSimilarity":"{faceSimilarity}","faceFile":"{faceFile}","AlertImage":"{alertImage}"}

In content text field.



The alert image is shown on Alert Dashboard when it happens.

[Target Server]

Trigger server received example.

Using **POST** to trigger alert image.

```
{
  "faceTargetCategory": "not_in_list",
  "faceTarget": "",
  "faceTargetId": "",
  "faceTargetFile": "",
  "faceSimilarity": "-1.0",
  "faceFile": "image/2020/11/16/6/49/44/06.49.26.335.jpg_0.jpg",
  "AlertImage": "samba/image/2020/11/16/6/49/44/e1b589cb-0f42-457a-90a5-4ffc73c6b4e1.jpg"
}
```

Note:

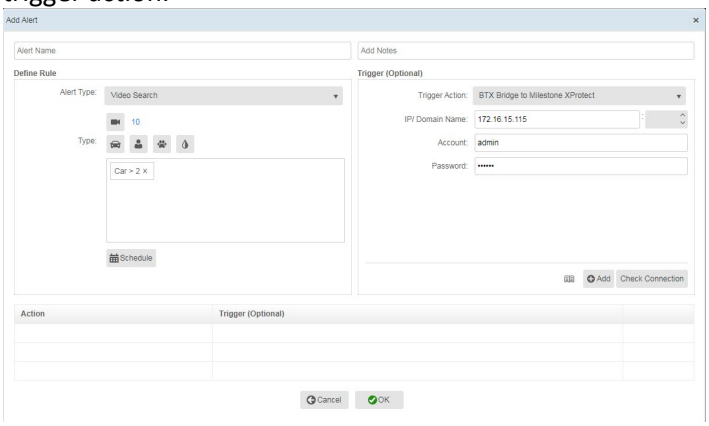
{timestamp} can be converted to any format, please reference iso8601 for more detail.

https://en.wikipedia.org/wiki/ISO_8601

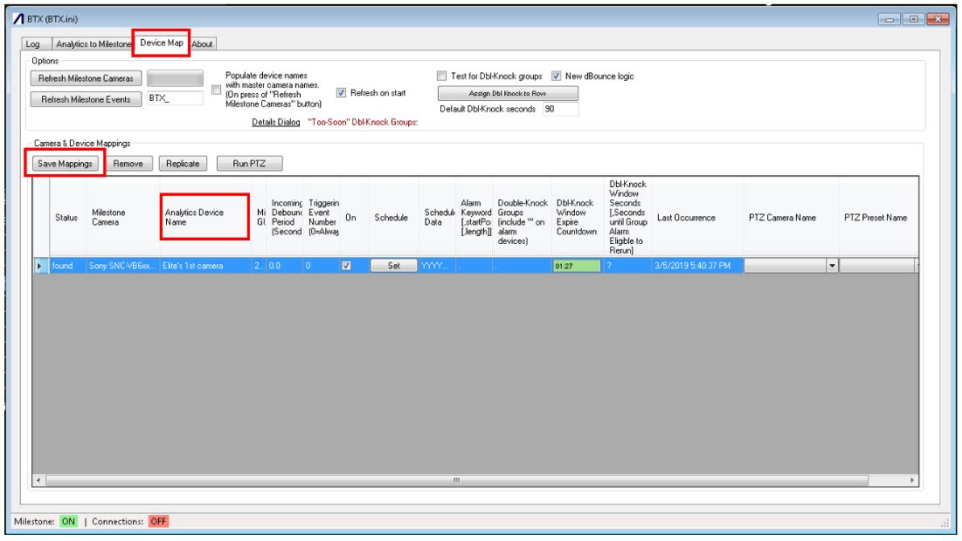
4. Trigger action – BTX Bridge to Milestone XProtect

Scenario 1:
User wants to add a white car alert in Vaidio and send to Milestone via Milestone BTX Bridge.

[Vaidio Server]
To add a *Video Search for white car* alert and trigger an event in Vaidio to **Milestone XProtect** using its special protocol **BTX Bridge.**
In **Trigger** section**,** select **BTX Bridge to Milestone XProtect** in Trigger Action pulldown list. Enter the **IP Address/ Domain Name (Port)**, **Account** and **Password** of the BTX Bridge.
Click **Check Connection** to make sure the connection works.
Click **Add** to add this trigger action.
Click **OK** to apply the Alert trigger action.



[BTX Bridge to Milestone XProtect]
To integrates **Vaidio** event into **Milestone XProtect**.



How to display scene images received from Vaidio.

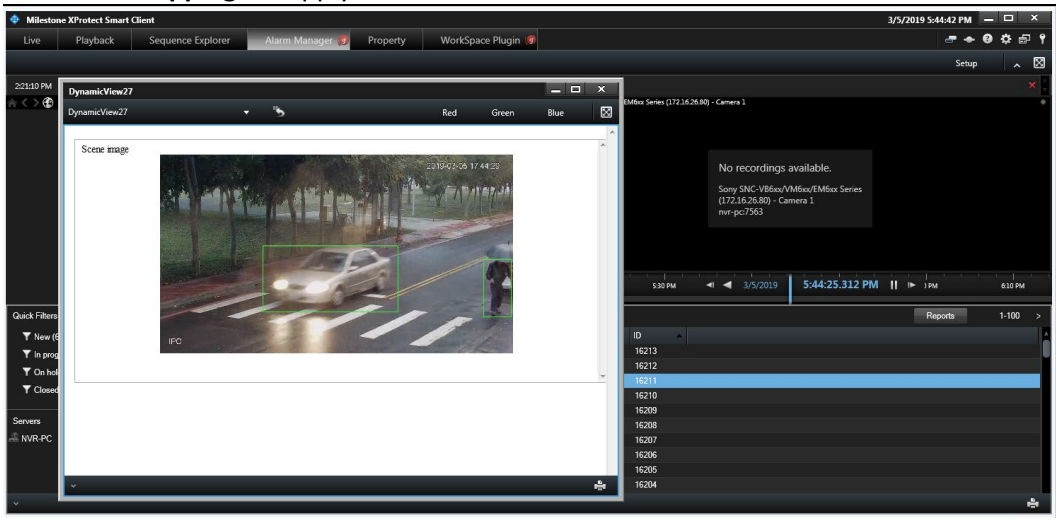
1. Copy IYalarm directory to C:\Program Files\Milestone\XProtect Smart Client\MIPPlugins folder. IYalarm is a custom plugin written by IronYun whose purpose is to display images from Vaidio.
2. Create an HTML window in your view and assign the URL with /ainvr (or any string that includes /ainvr). An HTML window is a standard Milestone window type. When the IYalarm plugin sees the /ainvr string, it knows that it should

manage the window for Vaidio images.

Alternatively, the Milestone\XProtect Smart Client\MIPPlugins folder could be located in the C:\Program Files (x86) directory.

Go to **Device** map in BTX Bridge to see Camera & Device Mappings data table, change the **Analytics Device Name** to the camera name of Trigger Action assigned to.

Click **Save Mappings** to apply action and check result in **Milestone XProtect Smart Client**.



Additional Info:
To get Milestone BTX Bridge, go to this link for more information.
https://www.milestonesys.com/marketplace/app-techs-corp/bridge-to-xprotect/

5. Trigger action – Network Optix

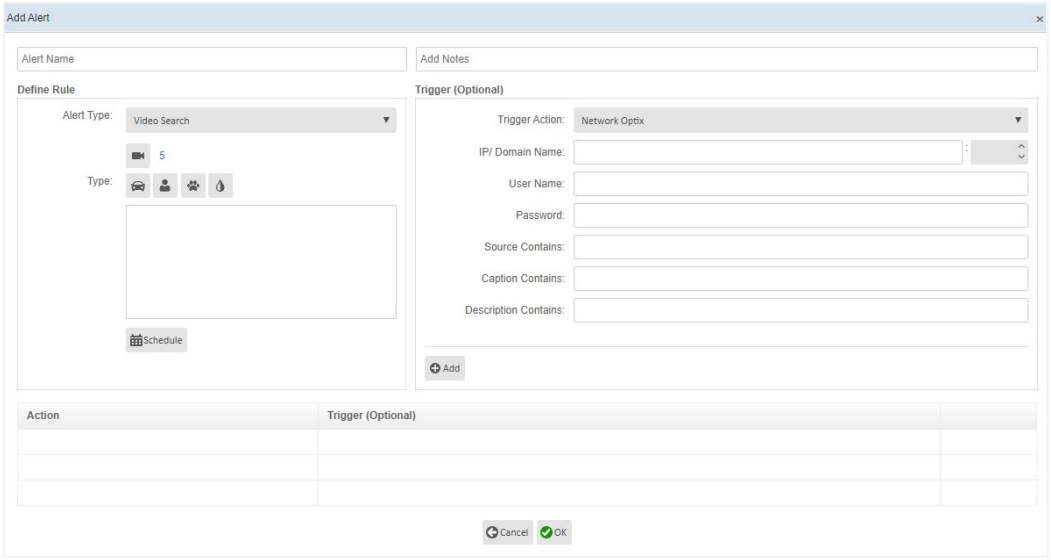
Scenario 1:
User wants to add a FR alert in Vaidio and trigger to NX Witness.
To trigger an FR alert when target face is detected by the camera. In this case, the trigger http written in a createEvent API to talk to NX server when a FR alert happens.

[Vaidio Server]
Click **Add Alert** button in **Alert Rule** under **Alert** menu. **Add Alert** panel pops up.
In Add Alert panel, add a **FR** Alert by selecting camera and FR list in **Define Rule** section.
Add an http trigger at **Trigger Action** section.
Select **Network Optix** in **Trigger Action** pulldown list.

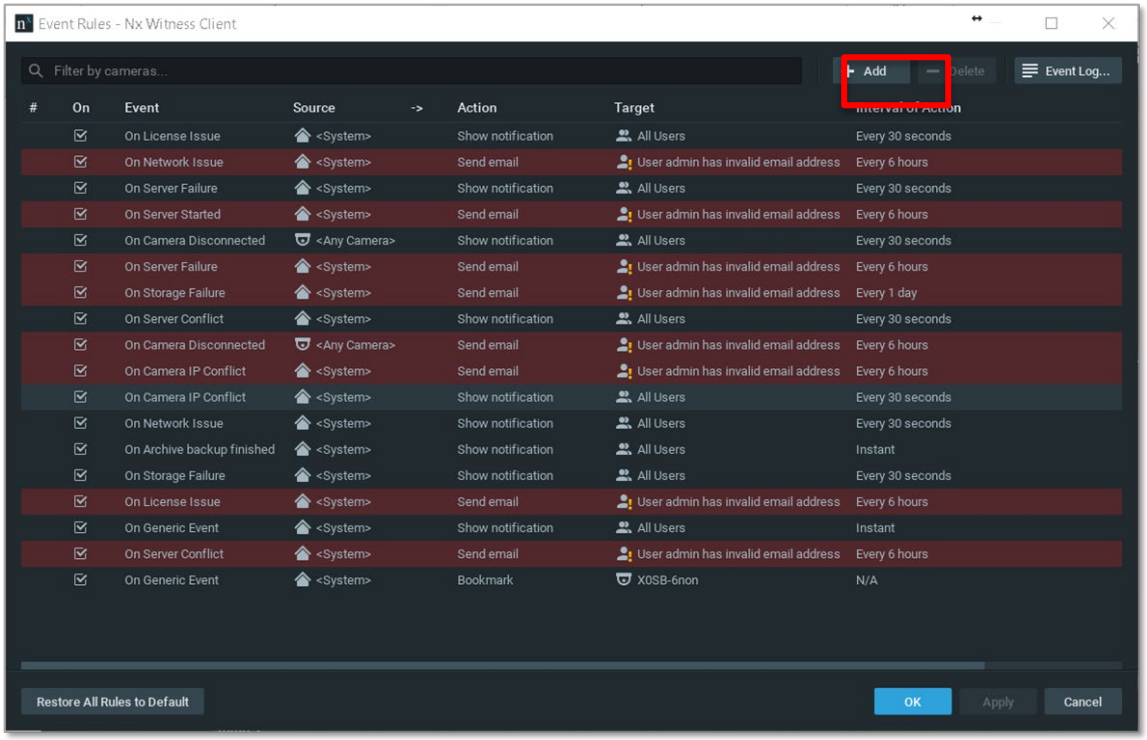
Enter Account and Password if NX require login access. The User Name and Password should be provided by the NX system administrator.

- IP/ Domain Name: IP address of Nx
- User Name: login account of Nx
- Password: login password of Nx
- PORT: port of Nx, default value is 7001.
- Source Contains: Free Text
- Caption Contains: Free Text
- Description Contains Free Text

Click **OK** to apply http in this alert rule.

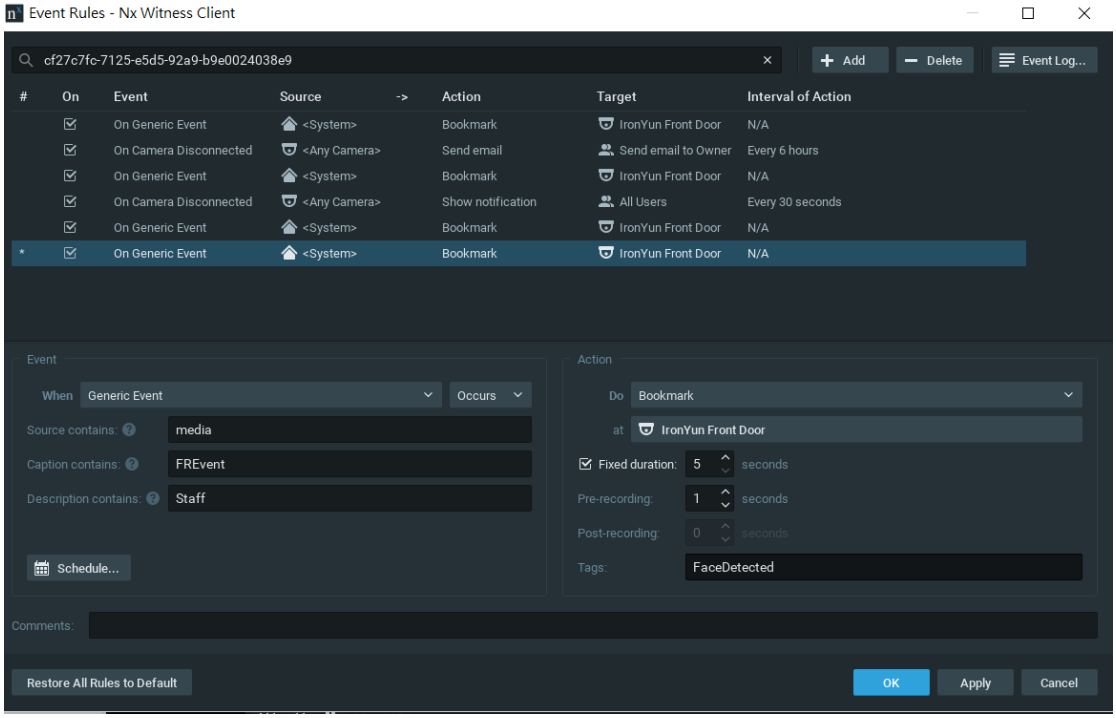


[Nx Witness Client]
To sync the event from Valid.
Right click a **camera** from the camera tree at the left and see context menu. In the context menu, select **Camera Rule** to add a camera event. In **Event Rule** panel, click **Add** to add a new event.



1.
2.

Event and **Action** option boxes would expend.



3.

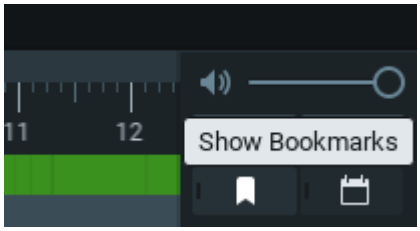
In **Event**, select **Generic Event** in the **Event** box for synchronizing Vaidio alert to NX server.
Make sure the **Source contains, Caption contains and Descriptions** are with the correct entries according to the content defined in the http trigger in Vaidio Alert.
http://xxxx:xxxx@xxx.xxx.xxx.xxx:xxxx/api/createEvent?caption=FREvent&source=media&description=Staff

Enter media for **Source contains**
Enter FREvent for **Caption contains**
Enter Staff for **Description contains**

In **Action,** select an Action from Action dropdown menu to do when the event happens. In this example, select **Bookmark** from **Do** action pulldown list **and** select a camera **at** camera pulldown list to trigger when the event happens.

Click **OK** to confirm the Event and Action in Event Rule setting.
Back to the main page.

Event Bookmark for timeline playback
Vaidio alert would be shown as event when there is the event happen. Turn on the bookmark switch



at the right end of the timeline, user can see blue bookmark segment on timeline, click on it to see detail event and click ▶ to playback the event.

Scenario 2:
User wants to add a FR alert in Vaidio and trigger to NX Witness.
To trigger an **FR** alert when target face is detected by the camera. In this case, the trigger http written in a createEvent API to talk to NX server when a FR alert happens.

[Vaidio Server]
Click **Add Alert** button in **Alert Rule** under **Alert** menu. **Add Alert** panel pops up. In Add Alert panel, add a **FR** Alert by selecting camera and FR list in **Define Rule** section. Add a http trigger at **Trigger Action** section. Select **Network Optix** in **Trigger Action** pulldown list.

Enter Account and Password if NX require login access. The User Name and Password should be provided by the NX system administrator.

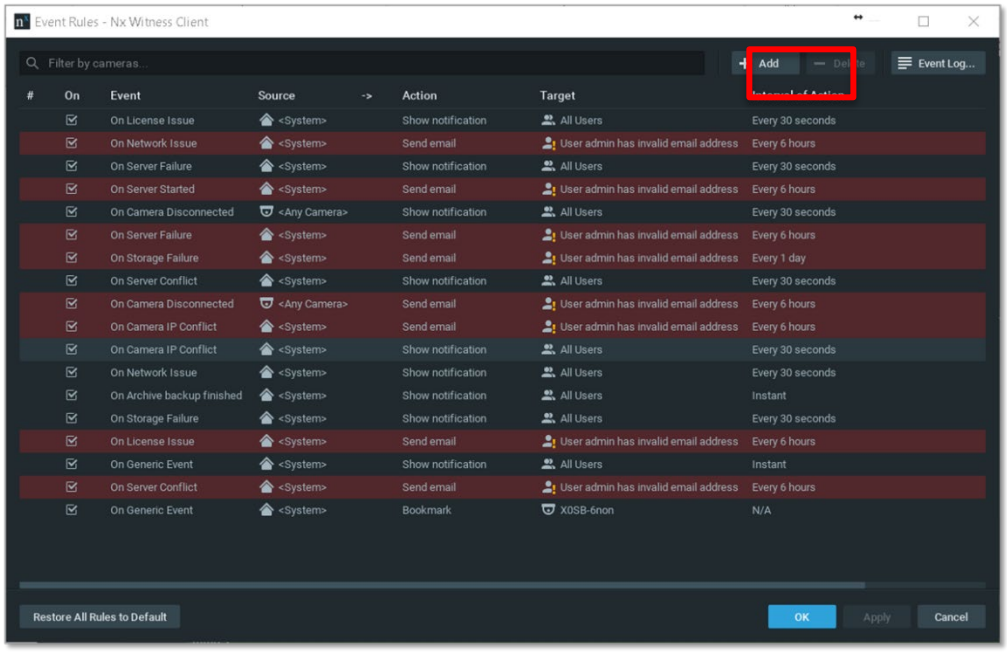
- IP/ Domain Name: IP address of Nx
- User Name: login account of Nx
- Password: login password of Nx
- PORT: port of Nx, default value is 7001.
- Source Contains: Free Text
- Caption Contains: Free Text

- Description Contains Free Text

Click **OK** to apply http in this alert rule.

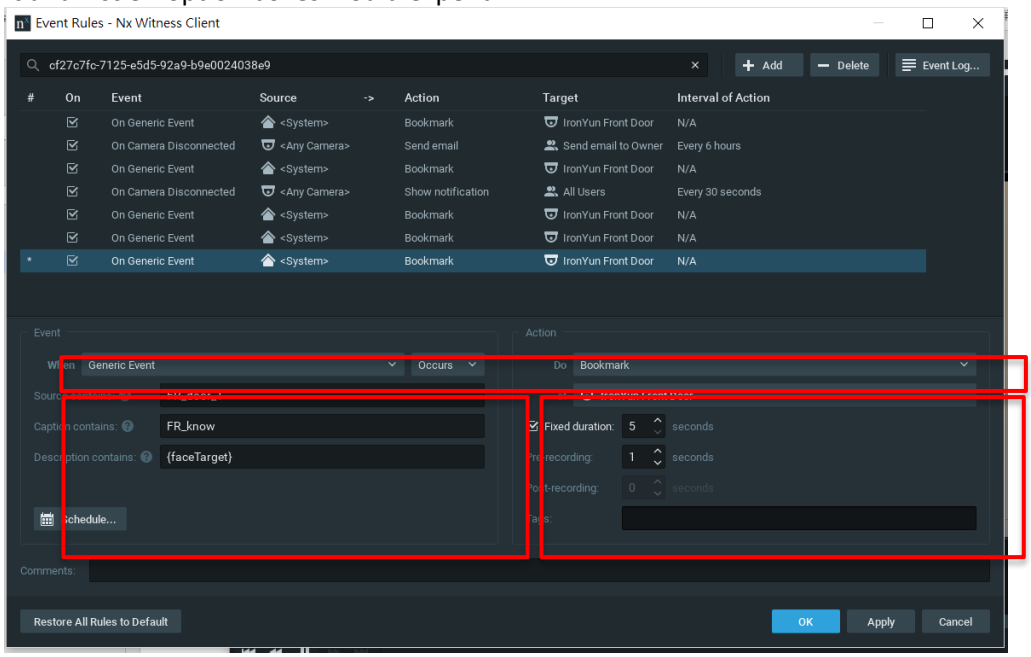
Nx Witness Client]

To sync the event from Vaidio. Right click a **camera** from the camera tree at the left and see context menu. In the context menu, select **Camera Rule** to add a camera event. In **Event Rule** panel, click **Add** to add a new event.



4.

Event and **Action** option boxes would expend.



5.

In **Event**, select **Generic Event** in the **Event** box for synchronizing Vaidio alert to NX server.

Make sure the **Source contains, Caption contains and Descriptions** are with the correct entries according to the content defined in the http trigger in Vaidio Alert.

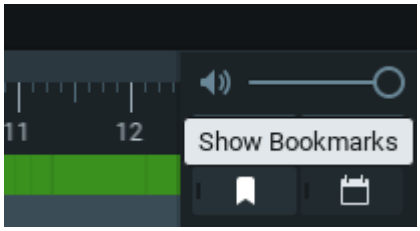
xxxx:xxxx@xxx.xxx.xxx.xxx:xxxx/api/createEvent?source=FR_door_1&caption=FR_know&description={faceTarget}

Enter FR_door_1 for **Source contains**

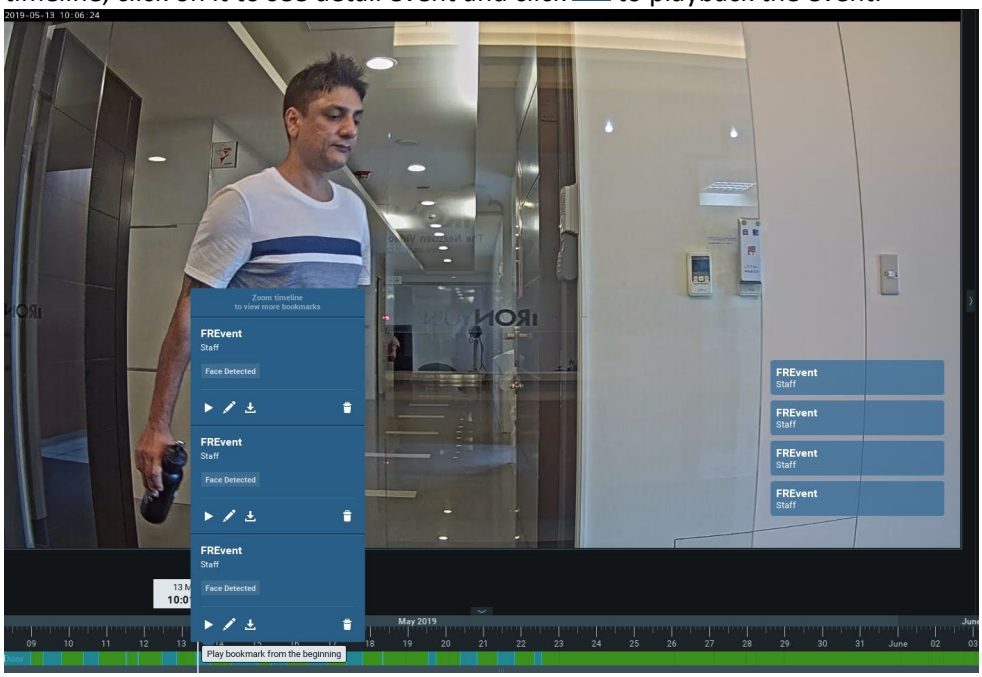
Enter FR_know for **Caption contains**
Enter {faceTarget} for **Description contains**
In **Action,** select an Action from Action dropdown menu to do when the event happens.
In this example, select **Bookmark** from **Do** action pulldown list **and** select a camera **at** camera pulldown list to trigger when the event happens.

Click **OK** to confirm the Event and Action in Event Rule setting.
Back to the main page.

Event Bookmark for timeline playback
Vaidio alert would be shown as event when there is the event happen. Turn on the bookmark switch



at the right end of the timeline, user can see blue bookmark segment on timeline, click on it to see detail event and click ▶ to playback the event.



6. Trigger action – Exacq (HTTP)

Scenario 1:
User wants to add a **FR** alert in Vaidio and have event playback in Exacq client software.
To trigger an **FR** alert when a person (face) is detected from camera in a specific ROI. In this case, the trigger http written in an Event to talk to Exacq client software when a person (face) is detected alert happens and output to Exacq.

[Vaidio Server]
Click **Add Alert** button in **Alert Rule** under **Alert** menu. **Add Alert** panel pops up.
In Add Alert panel, add a **FR** Alert by selecting camera and FR list in **Define Rule** section.
Add an http trigger at **Trigger Action** section.
Select **HTTP** in **Trigger Action** pulldown list.

Enter below URL in **Enter http URL field.**
http://xxx.xxx.xxx.xxx:xxxx/action.cgi?Event={alertRuleName}&Camera={cameraName}
Click **OK** to apply http in this alert rule.

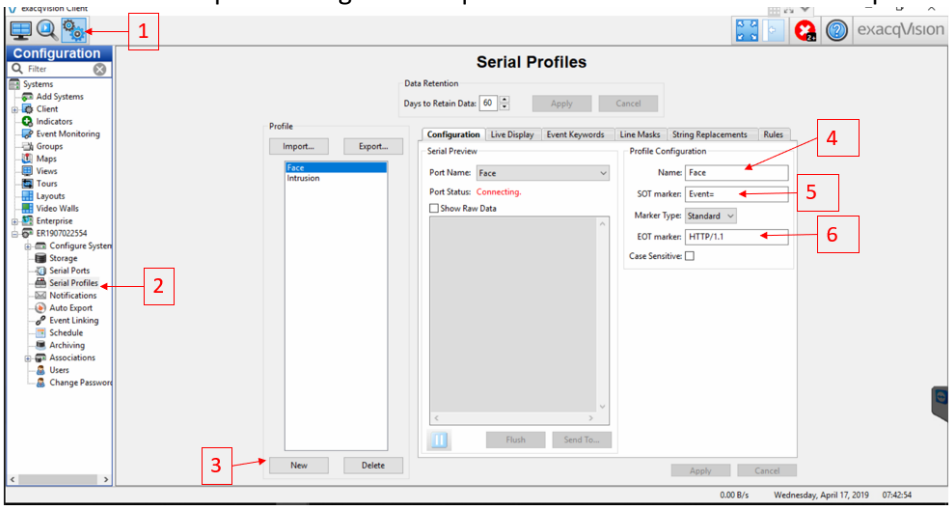
Scenario 2:
User wants to add an Intrusion alert in Vaidio and have event playback in Exacq client software.
To trigger an Intrusion alert when a person is detected from camera in a specific ROI. In this case, the trigger http written in an Event to talk to Exacq client software when there's Intrusion event happen in the selected camera.

[Vaidio Server]
To add an http trigger at **Trigger Action** section in **Add Alert** page. Select **Intrusion** as Alert Type.

Enter below URL in **Enter http URL field.**
http://xxx.xxx.xxx.xxx:xxxx/action.cgi?Event={alertRuleName}&Camera={cameraName}&Target={faceTarget}
Click **OK** to apply http in this alert rule.

[ExacqVision Client]
Please note the two (FR and Intrusion) trigger HTTP set in Vaidio could be configured in Exacq client software at once by creating "Face" and "Intrusion" port.

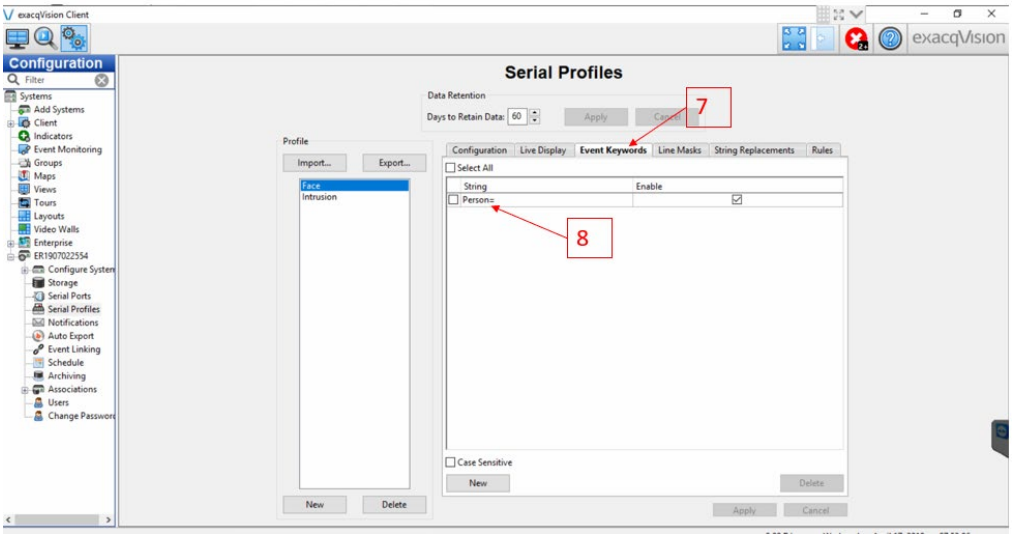
Please refer to the steps to configure Exacq to have Face and Intrusion event port to get Vaidio alert trigger.



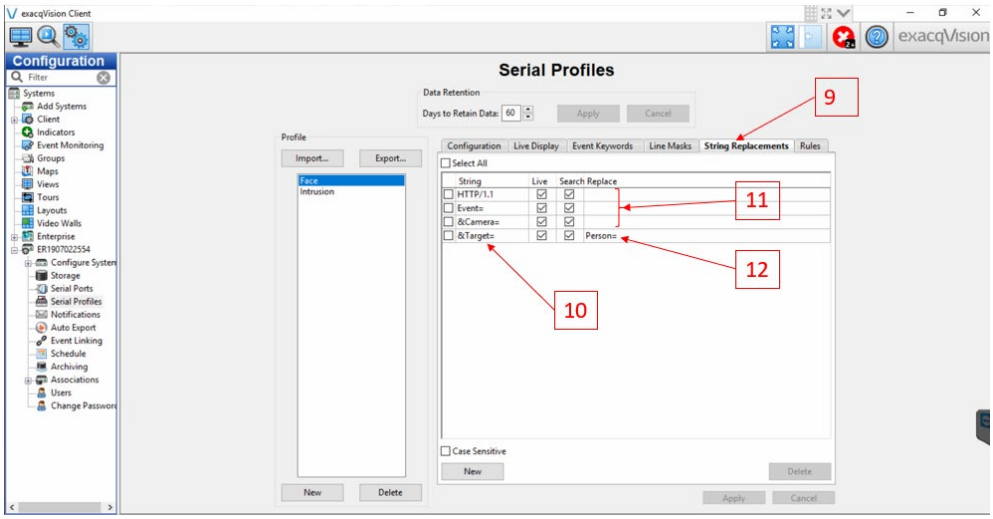
1. Go to Configuration Page

2. Select **Serial Profiles** at the Configuration Filter at left side
3. Click **New** to add a new Profile for the event

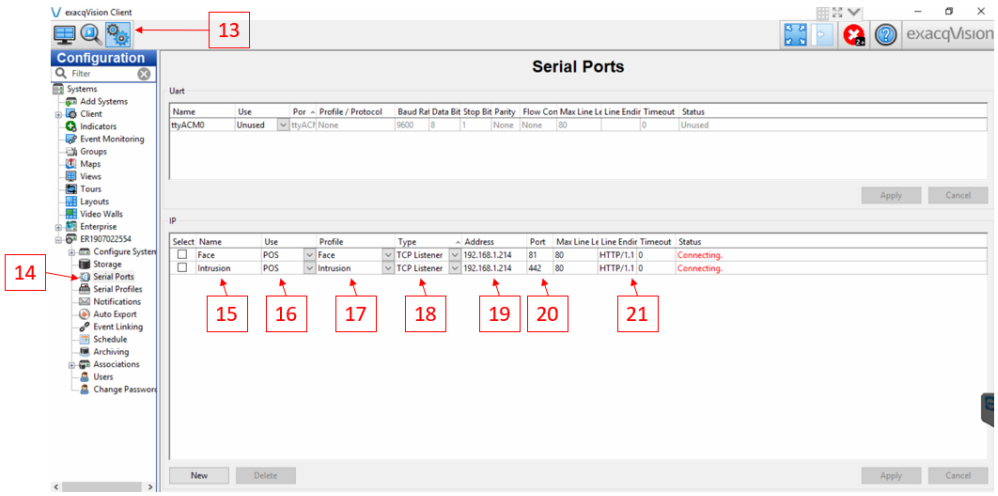
4. Enter "Name" in **Name** text field
5. Enter "Events=" in SOT marker
6. Enter "HTTP/1.1" in EOT marker



7. Enter Vaidio IP address in **Event Keywords**
8. Enter a Keyword that can be displayed in Exacq Events (this is a playback marker)

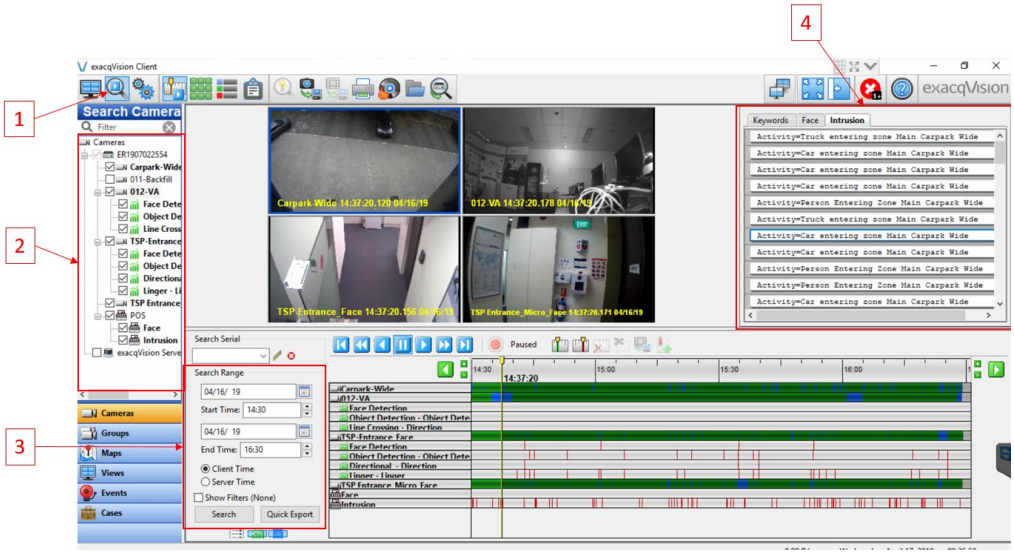


9. Under **String Replacement** Section
10. Enter the keywords that Vaidio will output to Exacq which will be replaced
11. In **Replace** column, replace with 3 "spaces" (The number of spacing and what to be replace is determine by users)
12. Enter "Person=" to replace "&Target="



13. Go to Configuration Page
14. In Serial Profiles section,
15. Click **New** to add a new Profile for the event
16. Select **POS** in **Use** column.
17. Enter new Profile for the types of events in **Profile** column.
18. Select **TCP** Listener in **Type** column.
19. Enter Vaidio IP address Under **Address** enter the Vaidio IP address
20. In **Port** column, enter the ports that Vaidio is configured with. Please use ports other than 80 and 443 because these ports are already occupied by Exacq
21. In **Line Endir..** column, enter "HTTP/1.1" as the end of line text.

After all set, Exacq should able to get Vaidio alert from a FR alert trigger. Here is how Vaidio alert displaying event playback in Exacq. User can see Face and Intrusion event at the right side event section.



1. Go to **Search Camera** Page in Exacq Client software to watch event playback
2. Check to select the Camera and POS Events that will be playing back
3. Select the date and time range to playback
4. Click on the events from the received Face and Intrusion events to playback.