

Displaying and clearing video on AXIS T8705 decoder using AXIS Camera Station



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Contents

Introduction	3
Step 1 – Configure a Viewer user on the cameras	4
Step 2 – Configure the trigger - Motion Detection	5
Step 3 – Configure the actions – Record Alarm and Raise Alarm	6
Step 4 - Configure the actions - Display the video on the decoder	7
Step 5 - Configure the actions – Clear video via an action button	8
Step 6 - Configure the actions – Automatically clear video	10
Considerations and limitations	12

Introduction

The following document highlights how to send video to the AXIS T8705 Decoder when there is a video motion detection (VMD) event using AXIS Camera Station. It also documents how to clear video from being displayed on the AXIS T8705 using an action button and how it can be achieved automatically when there is no video motion detection detected.

The document assumes the reader has installed the AXIS T8705 Decoder and associated camera. The guide also assumes the reader is competent to configure the motion detection on the camera.

The document highlights the commands used and how to create the Action rules within AXIS Camera Station. The example given uses video motion detection as the trigger but other triggers such a contact closure input could also be used.

Please note that the user and password is sent in plain text in the Json command. This will only be appropriate in applications where the customer is comfortable with risk and the correct assessment has been made. It is recommended to user a Viewer user for the command.

This following configuration has been tested with the following products and firmware: AXIS Video Motion Detection 4 AXIS Camera Station 5.15 AXIS T8705 5.1.4.0

Please note that AXIS does not take any responsibility for how this configuration may affect your system. If the modification fails or if you get other unexpected results, you may have to restore the settings to default.

Step 1 – Configure a Viewer user on the cameras

1. Within the "Configuration" workspace go to Devices > Management and select the cameras you wish to display on the decoder.

	Name	MAC address	Status	*	Address		Н	ost name	Ma
	AXIS T8705	ACCC8E911F79	ОК		172.25.19	9.8			Ax
Ģ	Back door	ACCC8E02324A	Assian	ID /	170 05 10	2 50			Ax
ę	Entrance	ACCC8E183A73	Config	ure	Devices		•		Ax
ę	Overview store	ACCC8E3BABCF	User N	1ana	gement)	۲	Set Password	×
ę	Server room	ACCC8E622611	Upgra	de F	irmware		(Add User)×
ę	Storage	ACCC8E0C65A3	Set Da	te a	nd Time			Remove User	>
			Restar	t			Ļ	List Users	
			Restor	e to	Factory Set	tings			
			Install	Carr	nera Applica	tion			
			Collect	: De	vice Data				
			Reload						
			Advan	ced			•		
			Tag De	evice	25				

2. Right-click and select User Management > Add user...

3. Add a new user and fill in the fields. Give the user a Viewer role and click OK when done.

2	Add User ×
Name:	decoder
Password:	•••••
Confirm password:	•••••
Role:	Viewer 🗸
Enable PTZ control:	
	Help OK Cancel

Step 2 – Configure the trigger - Motion Detection

1. Within the "Configuration" workspace select "Recording and events" and then select "Action rules".

Recording and events	^
Recording method	
I/O ports	
Action rules	
Schedules	

2. Select "New" and then "Add" to add a trigger. Select "Motion Detection" as the trigger. Note a different trigger can be selected if required.

	New Rule	<u>^</u>	Add Trigger	
<u>Steps</u> Triggers Actions Schedule Details	Triggers Triggers describe when a rule should become active. The rule will be active as long as any of the triggers specified here are act Help Cancel Ket	ve. Add Edit Remove	Description Active Tampering Alarm AXIS Cross Line Detection System Event and Error Input/Output Device Event Action Button Action Button Action Button Event Action Button Action HTTPS	d area. he server.

 Select the camera that whose motion detection event will be displayed on the monitor. Install Video Motion Detection (VMD) if required and configure. This guide assumes the reader can perform this task.

Create M	otion Detection Trigger	×
Trigger on:	AXIS P1405-LE MK II	Ŧ
Trigger period:	15 — seco	onds
	Motion Setting	JS
Help	OK Canc	el

Adjust the Trigger period

This is an interval time between two successive triggers. This setting is used to reduce the number of successive recordings or triggers. The recording will continue if an additional trigger occurs within this interval. If an additional trigger occurs, the trigger period starts over from that point in time.

In this example every time a trigger is generated the image will be resent to the AXIS T8705 Decoder, so it is a good idea to trim this setting as if the image is already displayed upon the monitor it will result in a quick reconnect.

Step 3 – Configure the actions – Record Alarm and Raise Alarm

1. The next step is to add the actions. Press "Next" to start configuring the actions and press "Add..." to add your actions.

	New Rule	×		Add Action ×
<u>Steps</u> Triggers Actions Schedule Details	Actions Define the actions that should be carried out when this rule is active. All the actions you specify here will be carried out every time.	Add Edit Remove	Action Record Raise Alarm Send E-mail Live view Set Output Send HTTP Notificati Access Control	Description Start recording to disk with a defined recording profile. Recordings can be searched at any time in the recording database and viewed in playback.
	Help Cancel < Back Next >	[[[]]]		Help OK Cancel

2. Typically, you would add a recording and an alarm notification. Select "Record" as the action and then select the camera to record. Change the Pre and Post buffers to suit.

Add Action	8	Create Recording Action
Action Record Raise Alarm Send E-mail Live view Set Output Send HTTP Notification Access Control	Description Start recording to disk with a defined recording profile. Recordings can be searched at any time in the recording database and viewed in playback.	Camera Camera: AXIS Q3505 Video setting Profile: Medium (H.264, 1280x720, 15 fps) • Prebuffer: 3 • seconds Postbuffer: 5 • seconds
	Help OK Cancel	Help OK Cancel

3. Add a "Raise Alarm" action to inform the operator of the video motion activation.

Add Action S3	Create Alarm Action
Action Description Record Raise an alarm on the Server that is sent to all connected Clients. Instructions can be given to operators to initiate appropriate actions. Send E-mail Live view Set Output Send HTTP Notification Access Control Access Control	Alarm message Title: AXIS Q3505 VI Description: Motion Detection Alarm Alarm procedure
Help OK Cancel	On alarm show alarm procedure: File name:
	Preview Upload Help OK Cancel

Once these two typical actions are added it is time to configure to AXIS T8705 interactions.

Step 4 - Configure the actions - Display the video on the decoder

1. To display the alarm event on the AXIS T8705 we choose the "Send HTTP Notification". This enables us to post a json command to the decoder.

We will use the decoder cgi command: http://<decoderIP>/axis-cgi/decoder.cgi Note: Replace <decoderIP> with the IP address of the decoder and enter the user name and password of the decoder. Next press Advanced.

Add Action	×
Action Description Record Raise Alarm Send E-mail Live view Set Output Send HTTP Notification Access Control	door er. URL: http://192.168.0.249/axis-cgi/decoder.cgi ✓ Authentication required User name: root Password: ●●●●
Help OK Ca	ancel Advanced >> Test Help OK Cancel

2. Next select "<< Advanced".

Select "POST" as the method and "application/json" as the content type:

Create Send HTTP Notification Action	:
URL: http://192.168.0.249/axis-cgi/decoder.cgi]
User name root	
Password:	
Method: PO V	١
Content type: application/json	Π
Body: ["apiVersion":"1.0","context":"123","method":"setViewCon figuration","params":("panes": [["paneld":0."inff":0.0"inor":0.0"inff":1.0."bottom":1.0\]"	J
treams":[["streamId":0,"url":"rtsp://192.168.0.3/axis- media/media.amp?	
<< Advanced Test Help OK Cancel]

The body of the message is:

{"apiVersion":"1.0","context":"123","method":"setViewConfiguration","params":{"panes":[{"paneld":0,"le
ft":0.0,"top":0.0,"right":1.0,"bottom":1.0}],"streams":[{"streamId":0,"url":"rtsp://<Camera IP>/axismedia/media.amp?resolution=1920x1080","videoCodec":"H264","audioCodec":"","username":"decoder",
"password":"Yju8FpEq"}],"views":[{"viewId":0,"duration":0,"segments":[{"stream":0,"pane":0}]}]}}

Note: Replace <Camera IP> with the IP address of the camera to be displayed and enter the user name and password of the camera.

Next press Test and the camera should be displayed on the monitor.

3. Press "Next" and add a schedule if the event is only active at certain times. Press "Next" again and name the rule.

Step 5 - Configure the actions – Clear video via an action button

 To clear the alarm event on the AXIS T8705 we will create an action button that when pressed will remove any video that is being displayed upon it. Within the "Configuration" workspace select "Recording and events" and then select "Action rules".



2. Select "New" and then "Add" to add a trigger. Select "Action Button" as the trigger.

	New Rule	×			Add Trigger	×
<u>Steps</u> Triggers Actions Schedule Details	Triggers Triggers describe when a rule should become active. The rule will be active as long as any of the triggers specified here are active. Add Edit Remov		~	Trigger Motion Detection Active Tampering Alarm AXIS Cross Line Detection System Event and Error Input/Output Device Event Action Button Access Control Event External HTTPS	Description This type occurs when a l camera video area or maj clicked. You can define m buttons for the live view s execute different rules.	button in the p area is ultiple camera stream to
					HelpOK	Cancel

3. Create a "new button" select "Command Button". Name the Button and select the associated camera. You could also put the button on an over view map.



4. The next step is to add the actions. Press "Next" to start configuring the actions and press "Add..." to add your actions.

	New Rule	×
<u>Steps</u> Triggers Actions	Actions Define the actions that should be carried out when this rule is active. All the actions you specify here will be carried out every time.	
Schedule Details	Ad Ed Rem	d it 10ve
	Help Cancel < Back Next >	

5. To clear the alarm event on the AXIS T8705 we choose the "Send HTTP Notification". This enable us to post a json command to the decoder.

We will use the decoder cgi command: http://<decoderIP>/axis-cgi/decoder.cgi Note: Replace <decoderIP> with the IP address of the decoder and enter the user name and password of the decoder. Next press Advanced.

Add Action X	
Add Action × Action Description Record Send a notification to a camera. a door controller or an external web server. Send E-mail Live view Send HTTP Notification Access Control	Create Send HTTP Notification Action × URL: http://192.168.0.249/axis-cgi/decoder.cgi ✓ Authentication required User name: root Password: ••••

6. Next select "<< Advanced". Select "POST" as the method and "application /json" as the content type:

	Create Send HTTP Notification Action	
URL: http://192	.168.0.249/axis-cgi/decoder.cgi	
✓ Authentication required		
User name: ro	pot	
Password:	•••	
Method:	·O •	
Content type	pplication/json	
Body:	apiVersion":"1.0","context":"123","method":"setViewCon guration","params":{"panes": "paneld":0,"left":0.0,"top":0.0,"right":1.0,"bottom":1.0}],"s eams":{["streamId":0,"url":"rtsp://192.168.0.3/axis- ledia/media.amp?	
<< Advanced	Test Help OK Cancel	

The body of the message is:

{"apiVersion":"1.0","context":"123","method":"setViewConfiguration","params":{"panes":[{"paneld":0,"le
ft":0.0,"top":0.0,"right":1.0,"bottom":1.0}],"streams":[],"views":[{"viewId":0,"duration":0,"segments":[{"st
ream":0,"pane":0}]}]}

Next press Test and this should clear any camera displayed on the monitor.

7. Press "Next" and add a schedule if the event is only active at certain times. Press "Next" again and name the rule.

Step 6 - Configure the actions – Automatically clear video

1. It is possible to automatically clear the video displayed on the decoder when there is no motion. Within the "Configuration" workspace select "Recording and events" and then select "Action rules".

Recording and events	^	
Recording method		
I/O ports		
Action rules		
Schedules		

2. Note: You can add this to the action button rule you created earlier or create a new rule. Select "New" and then "Add" to add a trigger. Select "Device Event" as the trigger.

	New Rule X	Add Trigger 🗙
Steps Triggers Actions Schedule Details	Actions Define the actions that should be carried out when this rule is active. All the actions you specify here will be carried out every time. Add Edit Remove Help Cancel < Back Next >	TriggerMotion DetectionActive Tampering AlarmAXIS Cross Line DetectionSystem Event and ErrorInput/OutputDevice EventAction ButtonAccess Control EventExternal HTTPS
		Help OK Cancel

3. Select the camera and select the VMD Profile. Then select "NO" as the Filter. This will create a trigger when there is no motion which can then be used to clear the decoder.

	Create Device Event Trigger 🗖 🗙		
Configure d	evice event trigger		
Device:	AXIS P1435-LE		
Event:	VMD 4: ACS Profile 1		•
Trigger period: 0 seconds			
Filters			_
active:	No		-]
Activity:			
	HelpOK	Canc	el

4. The next step is to add the actions. Press "Next" to start configuring the actions and press "Add..." to add your actions.

5. As before, to clear the alarm event on the AXIS T8705 we choose the "Send HTTP Notification". This enables us to post a json command to the decoder.

We will use the decoder cgi command: http://<decoderIP>/axis-cgi/decoder.cgi Note: Replace <decoderIP> with the IP address of the decoder and enter the user name and password of the decoder. Next press Advanced.

Add Action ×	×
Action Description Record Raise Alarm Send E-mail Live view Set Output Send HTTP Notification Access Control	URL: http://192.168.0.249/axis-cgi/decoder.cgi URL: http://192.168.0.249/axis-cgi/decoder.cgi User name: root Password: ••••
Help OK Cancel	Advanced >> Test Help OK Cancel

6. Next select "<< Advanced".

Select "POST" as the method and "application /json" as the content type:

Create Send HTTP Notification Action
URL: http://192.168.0.249/axis-cgi/decoder.cgi
✓ Authentication required
User name: root
Password: ••••
Method: PO
Content type: application/json 🔹
Body: ["apiVersion":"1.0", "context":"123", "method":"setViewCon figuration", "params": ["panes": [["paneld":0,"left":0.0,"top":0.0,"right":1.0,"bottom":1.0]],"s treams": [["streamId":0,"url":"rtsp://192.168.0.3/axis- media/media.amp?
<< Advanced Test Help OK Cancel

The body of the message is:

{"apiVersion":"1.0","context":"123","method":"setViewConfiguration","params":{"panes":[{"paneld":0,"le ft":0.0,"top":0.0,"right":1.0,"bottom":1.0}],"streams":[],"views":[{"viewId":0,"duration":0,"segments":[{"st ream":0,"pane":0}]}]}

Next press Test and this should clear any camera displayed on the monitor.

7. Press "Next" and add a schedule if the event is only active at certain times. Press "Next" again and name the rule.

Considerations and limitations

The solution described in this document can be used to achieve blank screen monitoring. This is where nothing is displayed until there is an event. This is an effective way to drawing an operator's attention to the screen as in normal conditions no images are displayed.

It can also be used to display video to individuals as to inform them that an active surveillance system is in operation.

It could be useful in displaying cameras that are not normally viewed and that have seldom movement such as a fire exit or back of house areas.

There are some considerations to be taken into account. There is an associated amount of time for the Video Motion Detection event to trigger the connection to the decoder and then for the decoder to synchronize and display the video. This will be problematic in scenes where there is not sufficient enough time of the subject in the scene. It will work better where the subject is in the scene for a longer period of time.

Multiple cameras can be associated with the AXIS T8705 decoder however care has to be taken in the design and implementation. There is no way of prioritizing the display so a motion detection events will over rule each other.

One other thing to note is that you cannot delay or extend the time if you are using "No VMD" to remove the video from the decoder – As soon as there is no motion detected the screen will be cleared.

Number of video streams that can be displayed by the AXIS T8705 is limited to 16.