



Configuration Instruction

Integration of IPS Video Analytics on Cameras with a Milestone XProtect Video Management System

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1 Overview

IPS Video Analytics on Axis or Hikvision cameras support MAD (**Milestone Alert Data**) packets that they send to Milestone XProtect system. These packets contain information on the event (alarm) and metadata (data for overlay of graphical elements and text into video images). If no additional modules are installed, only rectangles around alarm objects can be displayed.

By means of the **IPS Milestone Overlay Plugin** the display can be extended to **IPS Multi-Frame Overlays (+/- 3 sec)**. These overlays contain object rectangles, zones, vectors, traces, and text.

If the **IPS Analytics Streaming Service** is installed, additionally **IPS Live Metadata** are supported.

A Milestone XProtect Recording server is able to record these metadata.

2 Metadata transmission

Important note: To ensure that the metadata correctly match with the video, time and date on the servers as well as on the cameras must be synchronized with an accuracy of +/- 100 msec.

The appropriate settings can be found at the following locations:

- on Axis cameras under **System Options > Date & Time**
- on Hikvision cameras under **Configuration > System Settings > Time Settings**

On the servers Windows manages the time synchronization.

2.1 Overview of metadata in MAD

In case of an alarm, information on the alarm (**event**) is sent **from AnalyticsManager** to the Milestone Server.

If more than one alarm is triggered at the same time, for each alarm type a MAD block is sent separately.

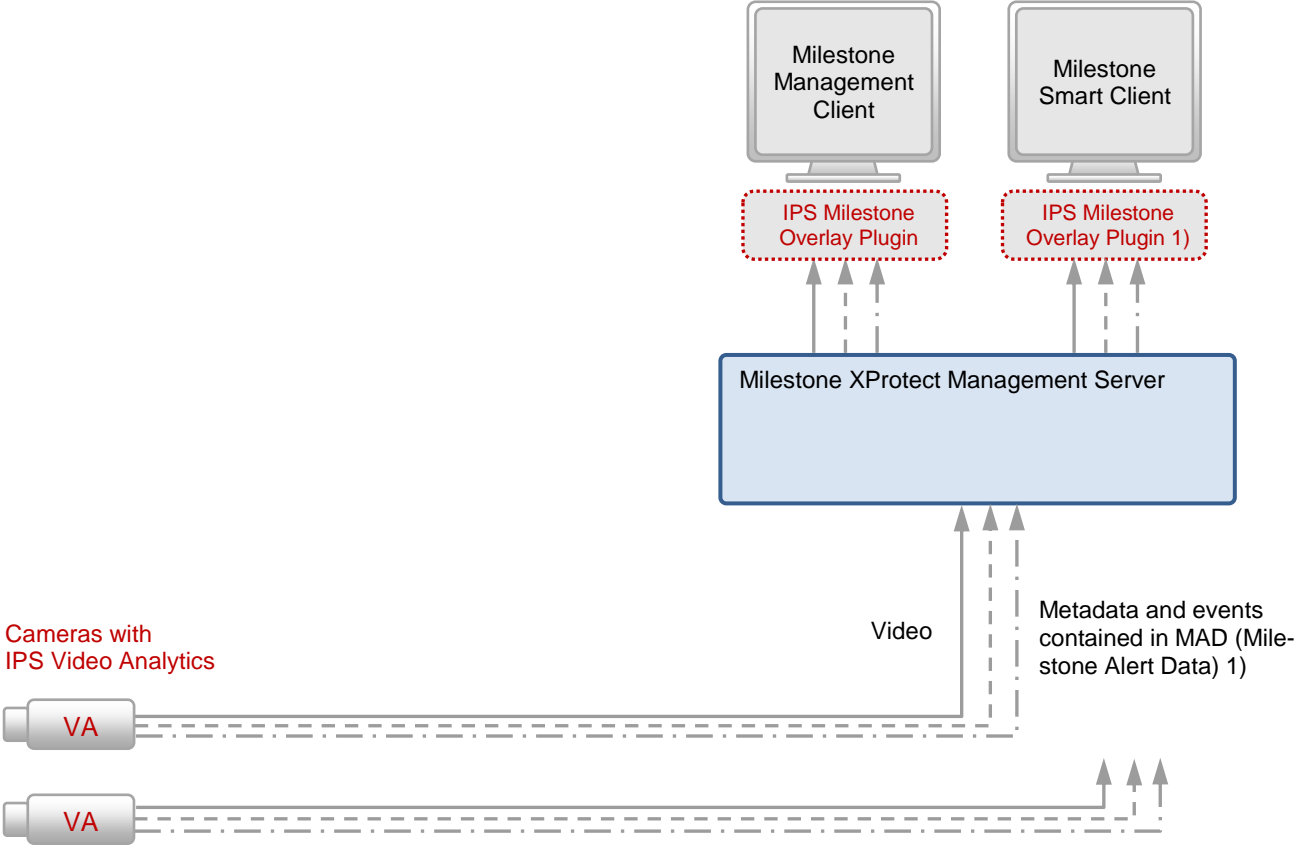
If post-alarm images are configured, the MAD block is sent after the post-alarm images are completely stored. This causes an appropriate delay.

Type and contents of the metadata are configured in the camera's video analytics under **Global Parameters | VMS type**.

Configuration	Contents	Display
Milestone XProtect, Milestone overlay	Object rectangle (single frame)	Milestone XProtect Smart Client
Milestone XProtect, IPS overlay	Multi-frame overlay (+/- 3 sec): object rectangles, zones, vectors, traces, text	Milestone XProtect Smart Client + IPS Milestone Overlay Plugin
Milestone XProtect, Milestone + IPS overlay 1)		

- 1) The option **Milestone + IPS overlay** should be selected only when **Milestone Clients** are working partly with and partly without **IPS Milestone Overlay Plugin**.
To avoid text info being doubly displayed, in the settings of the Smart Client under IPS overlay options one of the two overlays can be switched off.

Display of alarm objects in several images (Multi-frame overlay)



1) The IPS Milestone Overlay Plugin is required for displaying binary metadata

- ▶ Video
- - -▶ Metadata
- · -▶ Events

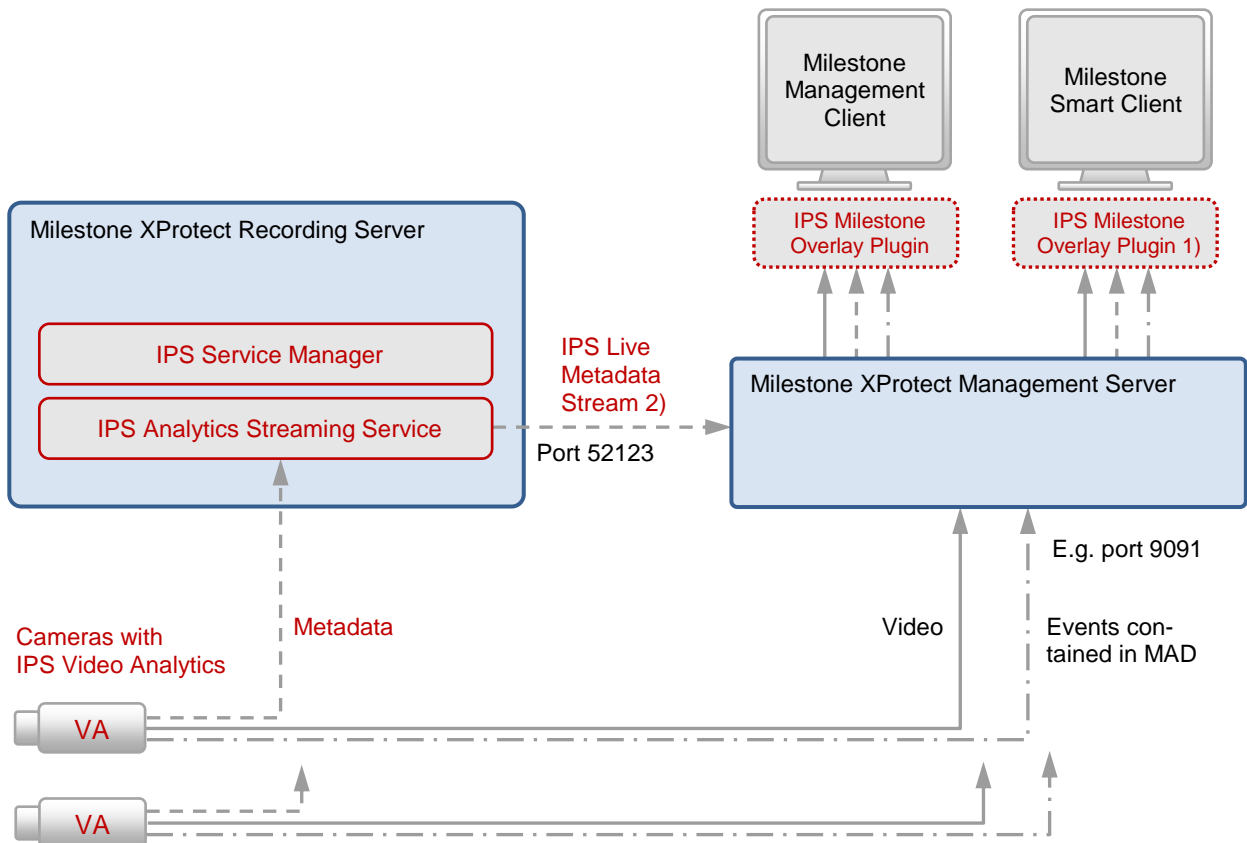
2.2 Overview of live metadata

The metadata type is configured in the **IPS Analytics Streaming Service** settings under **04. Milestone metadata | Milestone Metadata Type**.

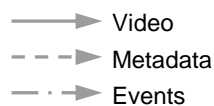
Configuration	Contents	Contained in	Required for the display
ONVIFMetadata	Object rectangles, text	IPS Live Metadata Stream	Milestone XProtect Smart Client
BinaryMetadata	Object rectangles, zones, vectors, traces, text	IPS Live Metadata Stream	Milestone XProtect Smart Client + IPS Smart Client Plug-in
ONVIF_And_Binary_Metadata 1)			

- 1) The option **ONVIF_And_Binary_Metadata** should be selected only when **Milestone Clients** are working partly with and partly without **IPS Milestone Overlay Plugin**.
 To avoid text info being doubly displayed, in the settings of the Smart Client under IPS overlay options one of the two overlays can be switched off.

Live alarm object display



- 1) The IPS Milestone Overlay Plugin is required for displaying live metadata
 2) Depending on the configuration: ONVIF metadata, binary metadata or ONVIF and binary metadata





3 Compatibility

The following table shows the compatibility of **IPS Video Analytics** with **Milestone XProtect** systems:

IPS Video Analytics	Milestone XProtect	Supported Overlays	IPS Installation File
V7.0	Professional 2013 R2 Enterprise 2013 R2 Expert 2013 R2 Corporate 2013 R2 Corporate 2014	Multi-frame overlay (+/- 3 sec) 1)	Setup_mssc2013_plugin.exe
V8.0	Corporate 2016 R3 Corporate 2017 R1	Multi-frame overlay (+/- 3 sec)	Setup_mssc2016R2_plugin.exe
V9.0	Corporate 2017 R3 Corporate 2018 R1	Live metadata streaming, 2) Multi-frame overlay (+/- 3 sec)	Setup_mssc2017R3_plugin.exe
V10.0	2019 R1	Live metadata streaming, 2) Multi-frame overlay (+/- 3 sec)	Setup_MilestoneOverlayPlugin.exe
V11.0	2020 R1	Live metadata streaming, 2) Multi-frame overlay (+/- 3 sec)	Setup_MilestoneOverlayPlugin.exe

- 1) Overlay images in the period +/-3 seconds before or after the event.
- 2) If Live Metadata Streaming is disabled (option **Use Milestone Metadata Server** in the IPS Analytics Streaming Service settings is set to No), then the Multi-frame overlay (+/- 3 sec) can be used. The Multi-frame overlay (+/- 3 sec) consists of overlay data, which are contained in the MAD block.



4 Installation

Install all required components according to the following sections.

4.1 Milestone XProtect

Install the Milestone XProtect system. For details, refer to the Milestone documentation.

4.2 IPS Analytics Module

On the camera, install the **IPS Analytics module**. For the proceeding, refer to the document **Installation Instruction ACAP Analytics** or **Installation Instruction HEOP Analytics**.

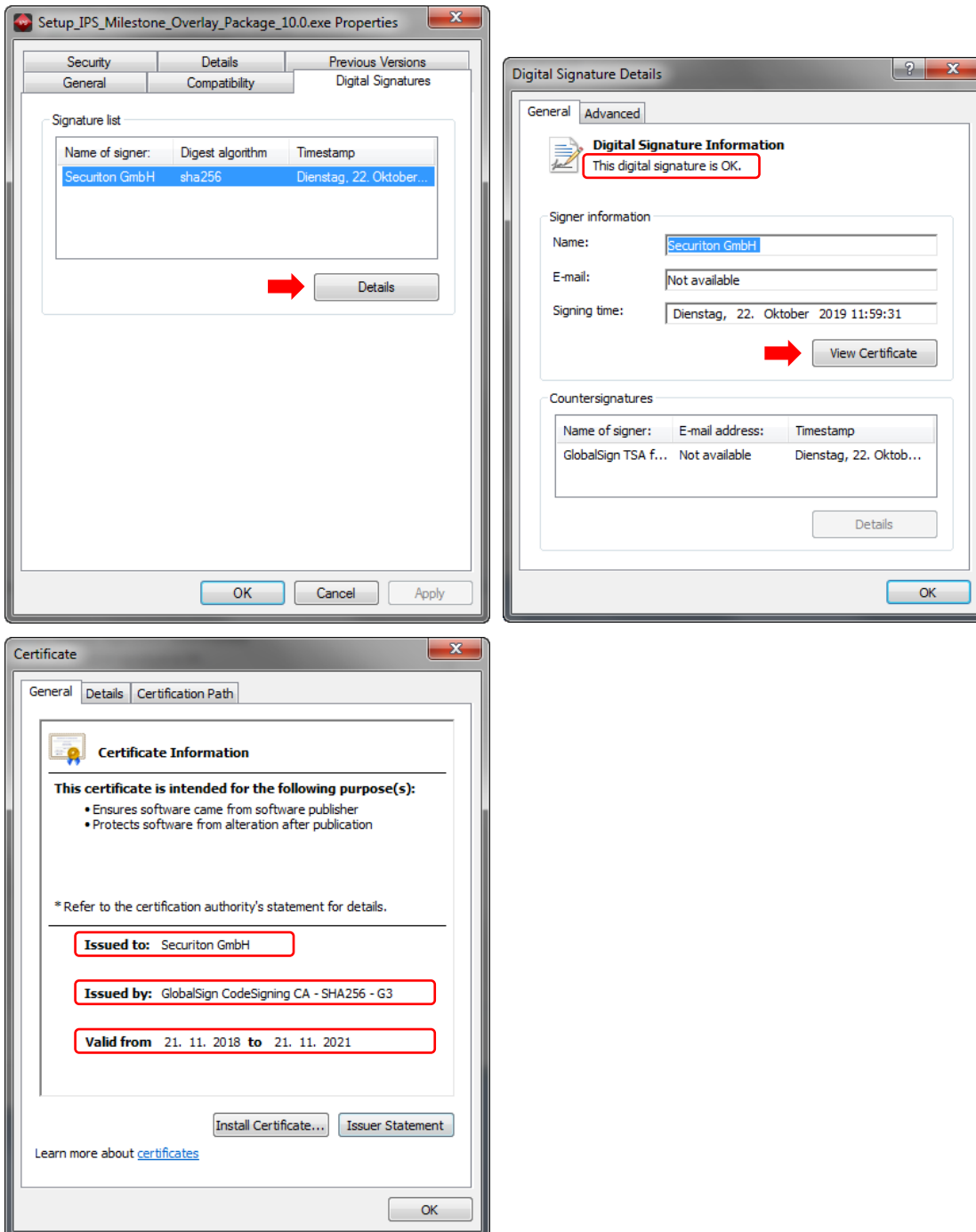
4.3 Components for the IPS Milestone Live Overlay

Download the **IPS Milestone Overlay Package** from the IPS web site.

The installation package is contained in the self-extracting file **Setup_IPS_Milestone_Overlay_Package_10.0.exe**. A signature secures this file against changes.

Check the signature **before** extracting the installation files. Perform the following steps:

1. Select the context command **Properties**.
2. Select the **Digital Signatures** tab.
3. Select the **Securiton GmbH** signature in the list.
4. Click on **Details**.
5. Check if the text **This digital signature is OK** is displayed.
6. Click on **View Certificate**.
7. Check the **Issued to** information: must be **Securiton GmbH**
8. Check the **Issued by** information: must be **GlobalSign CodeSigning CA**
9. Check the **validity period**.
10. If one or more of the checks fail, please contact the Securiton support.



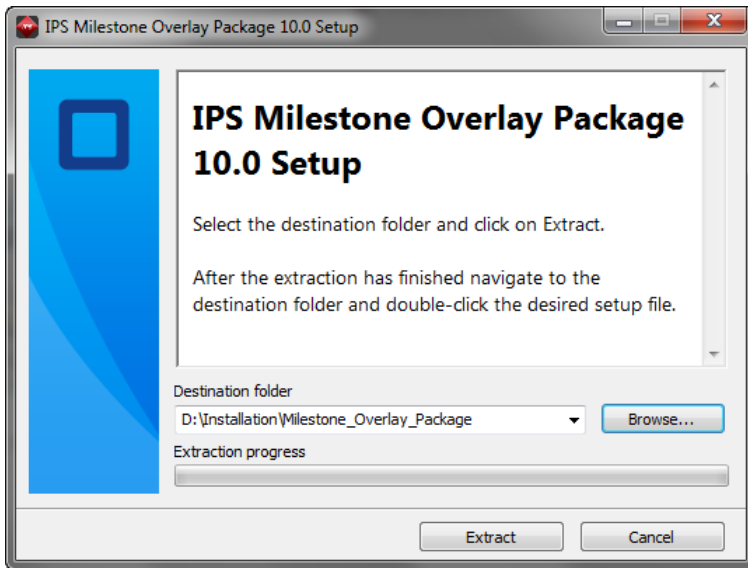
In order to unpack the installation files double-click **Setup_IPS_Milestone_Overlay_Package_10.0.exe**.

When being asked “Do you want to allow the following program to make changes to this computer?” click **Yes**.

The dialog shown below opens.

Select the **Destination folder** (**Browse** button).

Click **Extract**.



For the functions of the individual components, refer to following table:

Component	Function
IPS Milestone Overlay Plugin	Displays IPS Overlays
IPS Analytics Streaming Server	Generates the Live Metadata Stream
IPS Service Manager	Used for configuration of the IPS Analytics Streaming Service

To install the individual components proceed as follows:

On each server on which a Milestone XProtect **Management Client** or a Milestone **Smart Client** is installed:

1. Exit the Milestone XProtect Client.
2. Install the **IPS Milestone Overlay Plugin** by running **Setup_MilestoneOverlayPlugin.exe**.

Note: By means of the **IPS Milestone Overlay Plugin**, you can display the **IPS Multi-frame overlay (+/- 3 sec)** (see also the section **Compatibility**). If you want to display the **Live Overlay**, you must additionally perform the following steps.

On each Milestone XProtect Recording server:

1. To install the **IPS Analytics Streaming Service** run **Setup_AnalyticsStreamingServer.msi** and follow the steps on the screen.
Default directories are:
Installation directory: C:\Programme (x86)\Securiton\VideoManager\AnalyticsStreamingServer
Data directory: C:\Securiton\VideoManager\AnalyticsStreamingServer\
2. To install the **IPS Service Manager** run **Setup_ServiceManager.msi** and follow the steps on the screen.
The default directory is C:\Programme (x86)\Securiton\VideoManager\ServiceManager\.
3. Restart the server.



5 Configure the IPS components

5.1 Configure the IPS Analytics modules

Configure the IPS Analytics modules according to the document **Configuration Instruction IPS Analytics Applications**.

In the **Global Parameters** configuration of the IPS Analytics module in the **Connection to video management system** section the following parameters must be specified:

- Activate feature set to yes
- IP address (Milestone Management server)
- Port (port of the Milestone Management server, for events and metadata, e.g. 9091)
- Signal alarms
- Signal activity
- VMS type (Milestone XProtect, ...)

5.2 Configure the IPS Analytics Streaming Service


Note: The steps described in this section are only required if you want to display the **live overlay**.

5.2.1 Required configuration steps

To configure the **IPS Analytics Streaming Service** use the **IPS Service Manager**.

Note: As the **IPS Analytics Streaming Service** is used in different applications, the configuration also contains parameters that are not required for the live metadata streaming to a Milestone system.

At least, adapt the following parameters on each Milestone XProtect Recording Server (further adaptations as required):


1. Open the **IPS Service Manager** by double-clicking the  icon in the Windows info area (in the lower-right corner of your screen).
2. Select the **Analytics Streaming Service**.
3. Click **Edit settings....**
4. Under **01. Analytics Streaming Server settings | Remote Address** enter the IP address of the Milestone XProtect Management Server.
5. Adapt the **Remote Port**. **Note:** The same port must be specified in the Milestone XProtect system (see section **Activate Analytic Events**).
6. Set **Enable Trigger On Activity Or Alarm** to **Yes**, set **Trigger Remote Alarm** to **Yes** if required, and set **Trigger Remote Activity** to **Yes** if required.
7. Disable the SVG server by setting **Disable SVG Server** to **Yes**.
8. Enable the standalone mode by setting **Standalone Mode** to **Yes**.
In standalone mode live metadata are sent from **IPS camera-based Analytics** to a Milestone XProtect System.
9. Under **05. Camera metadata receiver | Camera List** enter data on each camera that belongs to the respective Recording Server. For notes on the parameters and for an example, refer to the end of the list in the next section.
10. Click **OK**. The **IPS Analytics Streaming Service** restarts automatically.
11. Exit the **IPS Service Manager**.

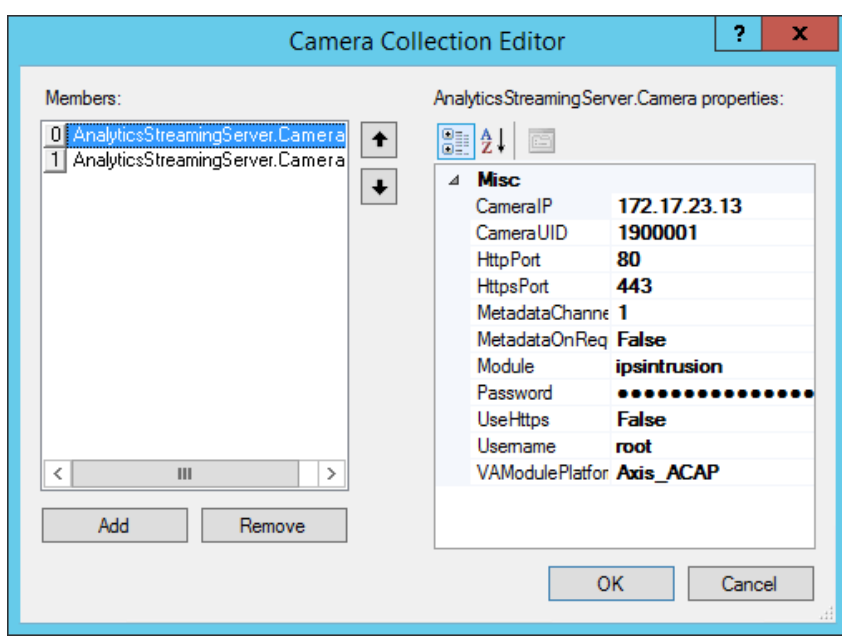
5.2.2 Overview of the parameters

The following table contains a brief description on each parameter. Values that deviate from the default are shown in bold.

Parameter	Default	Description
01. Analytics Streaming Server settings		
File Version	10.0.0.0	Version of this XML file
Last Change	xx.xx.xxxx	Date of last change of this file
Management Server IP	127.0.0.1	IP address of the management server
Management Server Port	15008	Port for the communication with the IPS VideoManager Management
User Name	analytics1	User name for log-on to the Management
Password	*****	Password for log-on to the Management
Http User Name	admin	User name for the authentication at the HTTP-Server (for CGI commands or SVG)
Http User Password	*****	Password for the authentication at the HTTP-Server (for CGI commands or SVG)
Streaming Base Port	13000	For each video stream requested from the Device Server 4 port numbers are required. The port numbers start with the value defined in Streaming Base Port. If more than 1 stream is required, the Analytics Streaming Server allocates further ports.
Http Server Port	8088	HTTP Server Port of the Analytics Streaming Service; CGI receiving port
Http Bind Address	127.0.0.1	IP address to which the connection from the Management is bound; the Analytics Streaming Service activates the receiving port at the specified IP address; if the IP address is 0.0.0.0, the Analytics Streaming Service receives on all network adapters.
Http Streaming Base Port	12000	Base Port used for streams requested from the VMS; SVG; 1 port per camera required.
Base Log File Max Size	10	The Log Base File is written once at the beginning of the logging process and remains unchanged as soon as it has reached the maximum size. Unit = megabytes.
Rolling Log File Max Size	5	If Rolling File 1 and Rolling File 2 are full, Rolling File 1 is deleted and Rolling File 2 is renamed as Rolling File 1. Rolling File 2 then is created anew and written. The latest entries always can be found in Rolling File 2. Unit = megabytes.
Remote Address	172.17.241.49	IP address of the Video Management System (VMS) which receives the TCP notifications
Remote Port	9091	Port number on which the Video Management System (VMS) listens to TCP notifications
Enable Trigger On Activity Or Alarm	No	If set to true TCP notifications are sent to the VMS
Trigger Remote Alarm	No	If set to true an alarm notification is sent to the VMS
Trigger Remote Activity	No	If set to true an activity notification is sent to the VMS
Remote VMS Type	Milestone Analytics Events notifi-	TCP notification MAD notification, Milestone/IPS overlay MAD notification, Milestone overlay

	cation, Milestone/IPS overlay	MAD notification, IPS overlay Milestone Analytics Events notification, Milestone/IPS overlay Milestone Analytics Events notification, Milestone overlay Milestone Analytics Events notification, IPS overlay
Remote Metadata Frame Period	0	If this parameter is set to 0, each available metadata packet is sent; other values specify the time between 2 metadata packets; used only for connection to a Milestone system.
Remote Record Before Event	3	Recording period before an event; used only for connection to a Milestone system.
Remote Record After Event	3	Recording period after an event; used only for connection to a Milestone system.
Metadata Frame Rate	0	Frame rate when using SVG metadata reduction; 0 means "no reduction"
Disable SVG Server	Yes	If you set this parameter to Yes, the SVG server is disabled.
Standalone Mode	Yes	Set this parameter to Yes, in order that the IPS Analytics Streaming Service can send live metadata from IPS camera-based Analytics to a Milestone XProtect system.
Set System Time	No	If you set this parameter to Yes, the time of the server on which the Analytics Streaming Service is installed, is set when a time command is received from the Management server. In standalone mode, this parameter has no meaning.
02. Video overlay		
Pre Alarm Objects	Yes	Include pre-alarm objects in the metadata stream.
Objects Without Updates	Yes	Include non-updated objects in the metadata stream.
Object Traces	Yes	Include object traces in the metadata stream.
Detection Zones	Yes	Include detection zones in the metadata stream.
Show Diagnostic Info	Yes	Include diagnostic info (analytics metadata like type of the analytics module, status, ...) in the metadata stream.
03. Milestone Analytics Event		
Username	admin	User name for Milestone Analytics Event
Password	*****	Password for Milestone Analytics Event
04. Milestone metadata		
Use Milestone Metadata Server	Yes	Set this parameter to Yes, in order to activate live Metadata streaming to a Milestone system. If it is set to No, the Multi-frame overlay (+/- 3 sec) can be used.
Milestone Metadata Server Port	52123	IPS Analytics Streaming Service port for metadata streaming to a Milestone system
Milestone Metadata Server Password	*****	Password used for requesting live metadata streams from the IPS Analytics Streaming Service
Milestone Metadata Type	BinaryMetadata	Type of the metadata sent from the IPS Analytics Streaming Service to the Milestone system: OnvifMetadata : object rectangles and text BinaryMetadata : object rectangles, text, zones, vectors, and traces; IPS Milestone Overlay Plugin required for

		display. Onvif_And_Binary_Metadata: both types
05. Camera metadata receiver		
Netterm User Name	admin	User name for communication with NetTerm (in stand-alone mode)
Netterm Password	*****	Password for communication with NetTerm (in stand-alone mode)
Accept Self Signed Certificate	Yes	If this parameter is set to Yes, the IPS Analytics Streaming Service accepts self-signed certificates for encrypted communication with the cameras. If it set to No the certificates must be CA signed.
Tls Protocols	Tls Tls11 Tls12	Select which protocols are to be used for encrypted communication connections.
Camera List	(Collection)	<p>Add all cameras from which the IPS Analytics Streaming Service is to receive metadata.</p> <p>Click the  button.</p> <p>Click Add.</p> <p>Adapt the entries for the camera as follows:</p> <p>CameraIP: enter the camera's IP address.</p> <p>CameraUID: assign a UID (unique identifier) for the camera. Start with 1900001 for the first camera; continue with 1900002 for the second camera, etc.</p> <p>HttpPort: enter the number of the port on which the camera can be accessed (e.g. 80).</p> <p>HttpsPort: enter the number of the port on which the camera can be accessed via encrypted communication (e.g. 443).</p> <p>MetadataChannel: enter the number of the channel that you will configure in the Milestone system as metadata channel.</p> <p>Important note: the number must not be 0.</p> <p>MetadataOnRequest: set this parameter to False, if the metadata are to be delivered continuously. Set it to True, if the metadata are to be delivered from the camera only on request.</p> <p>Module: select the IPS Analytics Module, which is installed in the camera.</p> <p>Password: password for authentication at the camera.</p> <p>UseHttps: set this parameter to True, if the communication between the camera and the IPS Analytics Streaming Service is to be encrypted.</p> <p>Username: user name for authentication at the camera.</p> <p>VAModulePlatform: select the appropriate camera platform: Axis_ACAP or Hik_HEOP.</p>



Example: Entries for a camera

Log Files

Log Base File

The Log Base File is written once at the beginning of the logging process (and remains unchanged as soon as it has reached the maximum size).

Rolling File 1

If Rolling File 1 and Rolling File 2 are full, Rolling File 1 is deleted and Rolling File 2 is renamed as Rolling File 1. Rolling File 2 then is created anew and written.

Rolling File 2

The latest entries always can be found in Rolling File 2.



6 Configure the Milestone System

6.1 Configure the XProtect Management Client

6.1.1 Add cameras

Note: Configure a camera group before you start adding cameras (**Add Device Group...** context command under **Devices | Cameras**).

Add the Cameras as described in the following. The proceeding described is an example; Milestone offers different possibilities for this.

Prerequisite: a recording server is already configured.

1. Select the **recording server**.
2. Select **Add Hardware....**
3. Select the **Manual** option for hardware detection.
4. Click **Next**.
5. Click the **Add** button.
6. Enter **User Name** and **Password**.
7. Click **Next**.
8. Select the appropriate **driver** for the new camera.
9. Click **Next**.
10. Enter the camera's **IP address**.
11. Enter the **port**.
12. Under **Hardware model** leave **auto-detect**.
13. Click **Next**.
14. Activate the **Add** option.
15. Click **Next**.
16. Wait until the search for device-specific information has finished and click **Next**.
17. Click **Next**.
18. Select the **Camera group** to which the new camera is to belong.
19. Click **Finish**.



6.1.2 Configure IPS Video Analytics as metadata source

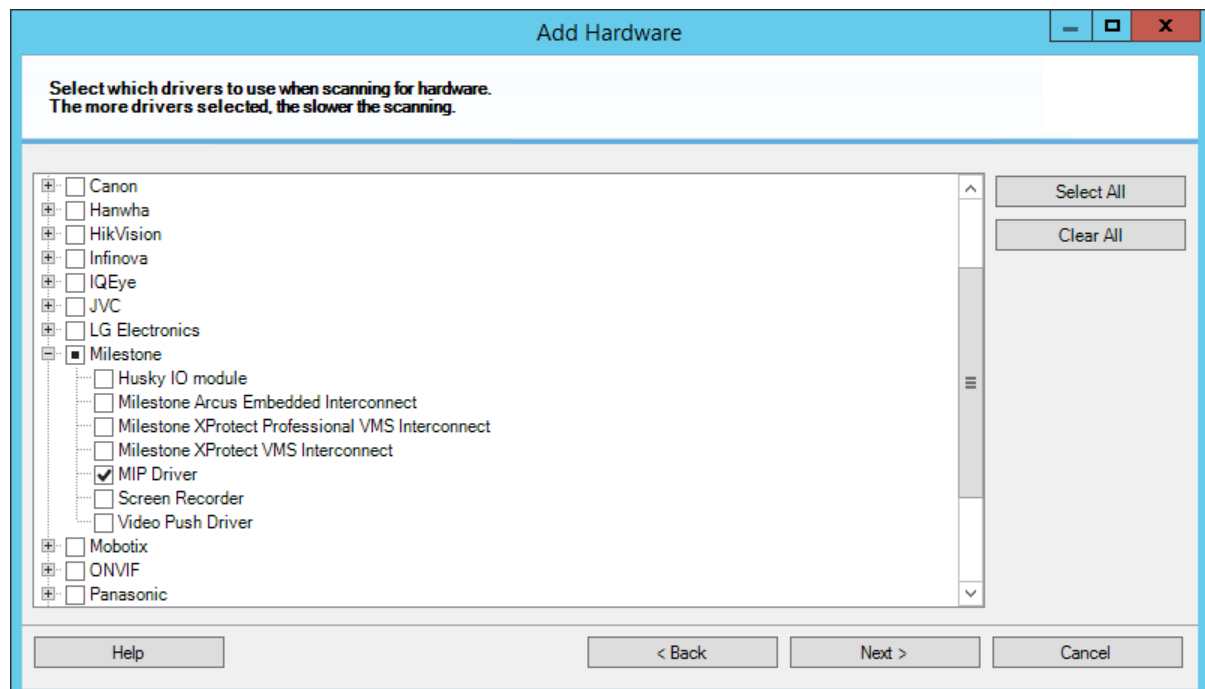
Note: The steps described in this section are required only if you want to display the live overlay.

In the Milestone XProtect system, a metadata channel number must be assigned to each camera with IPS Video Analytics.

Note: In order to assign the metadata source to a metadata group, a metadata group must be created before performing the following steps (context command **Add Device Group** under **Devices | Metadata**).

To configure a camera as a metadata source

1. Select the **recording server** (under **Servers | Recording Servers**).
2. Select the **Add Hardware...** context command.
3. Select the **Manual** option for hardware detection.
4. Click **Next**.
5. Click the **Add** button.
6. In the **User Name** field, enter the **MAC address of the PC** on which the **IPS Analytics Streaming Service** is installed (= PC on which the XProtect Recording Server runs) without colons or other separating characters and enter the **Password**.
The MAC address (physical PC address) can be found under the **Network connection | Properties | Physical address**. The password must correspond to the **IPS Analytics Streaming Service** setting **04. Milestone metadata | Milestone Metadata Server Password**.
7. Click **Next**.
8. Under **Milestone**, select the **MIP Driver**.
9. Click **Next**.





10. Enter the **IP address** of the PC on which the **IPS Analytics Streaming Service** is installed, and the **Port** for the metadata (default is **52123**) and under **Hardware model** select the **MIP Driver**.

Note: If you want to use a different port, it must also be adapted in the **IPS Analytics Streaming Service** settings under **04. Milestone metadata | Milestone Metadata Server Port**.

11. Click **Next**.
12. Make sure the **Add** option is activated and click **Next**.
13. Wait until the search for device-specific information has finished and click **Next**.
14. Click **Next**.
15. Select the **Camera group** to which the new camera is to belong.
16. Click **Finish**.
17. **Save** the changes.


Important note: If you want to add new (additional) metadata channels or if you change the metadata port number, you must perform the following steps:

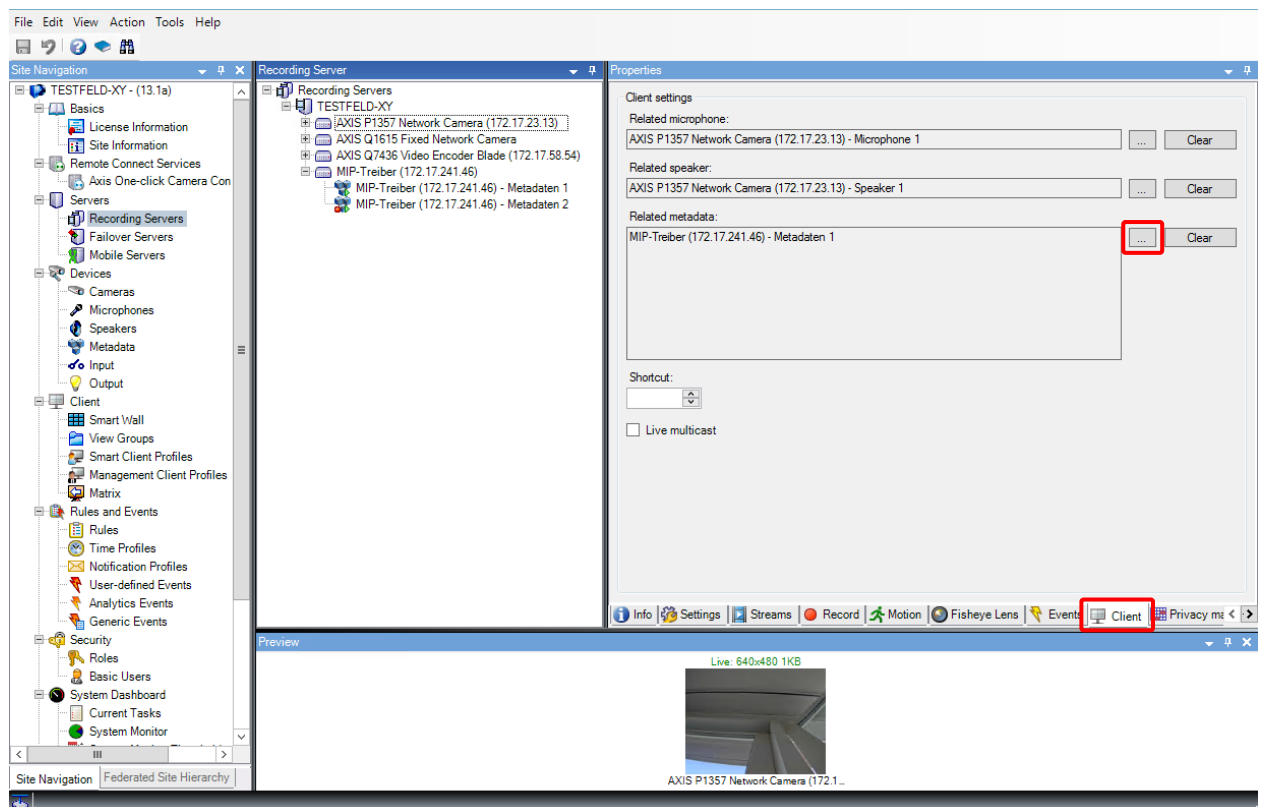
1. Delete the current metadata device (MIP Driver).
2. Add a new metadata device.
3. Assign the new metadata channels to the cameras.

6.1.3 Assign the metadata channels to the cameras

Note: The steps described in this section are required only if you want to display the live overlay.

To assign a metadata channel to a camera proceed as follows:

1. Select the **recording server**.
2. Select a **video device**.
3. Open the desired **camera**.
4. In the **Properties** section, select the **Client** tab.
5. Under **Related metadata**, click the  button.

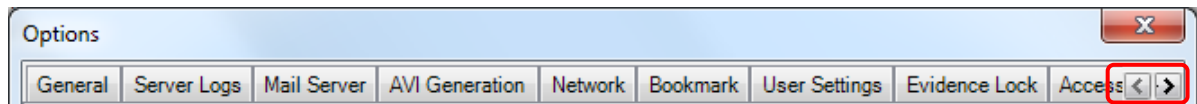


6. In the **Select devices** dialog, open the desired **metadata group**.
7. Select the desired **metadata channel**.
8. Click the **Add** button.
9. Click **OK**.
10. **Save** the changes.

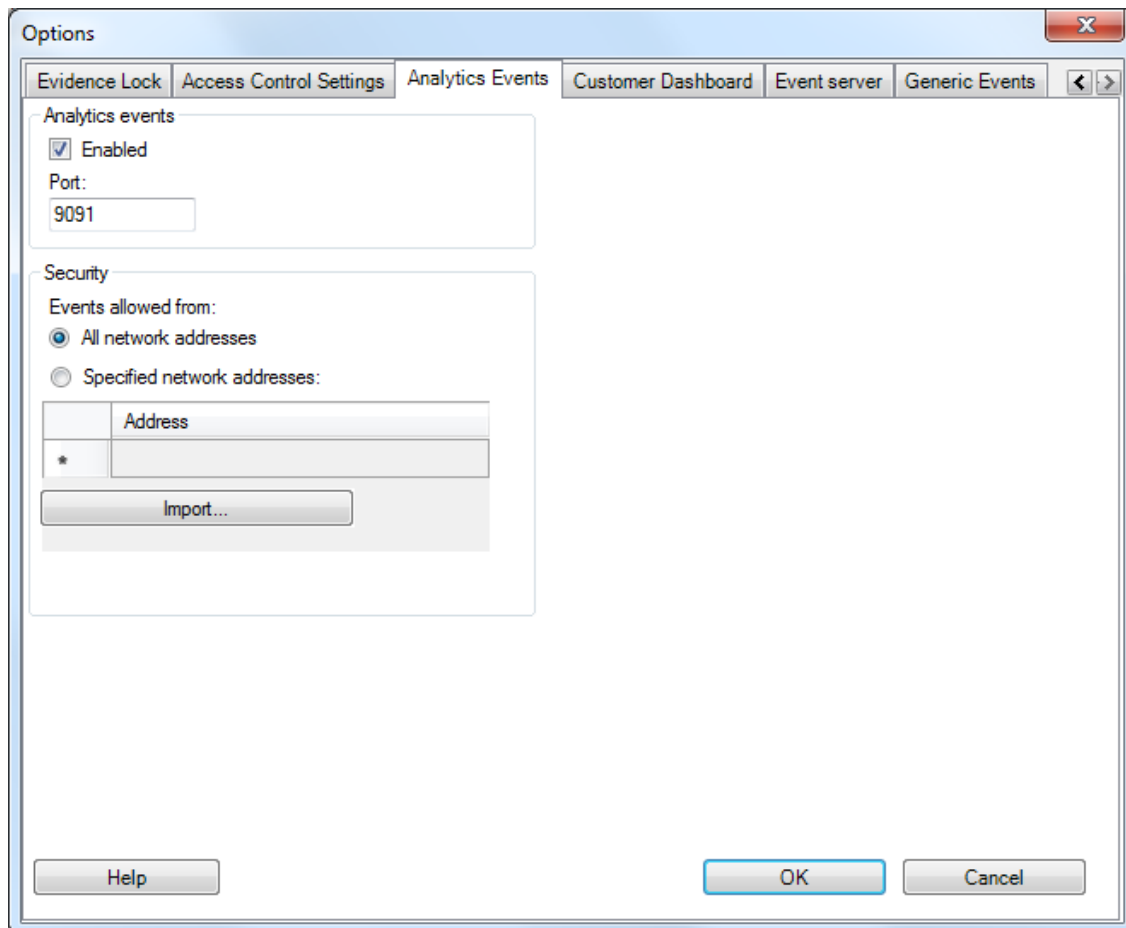


6.1.4 Enable Analytics Events

1. In the **Milestone XProtect Management Client** select the **Tools | Options** menu item.
2. Select the **Analytics Events** tab.



3. Under **Analytics Events** set the **Enabled** option.
4. Enter the **Port** number where the events are accepted.
5. Under **Security** specify **Events allowed from:**
 - select the **All network addresses** option (if you are unsure which IP addresses to be used) **or**
 - Select **Specified network addresses** and **Import** the network addresses.
7. Click on **OK**.





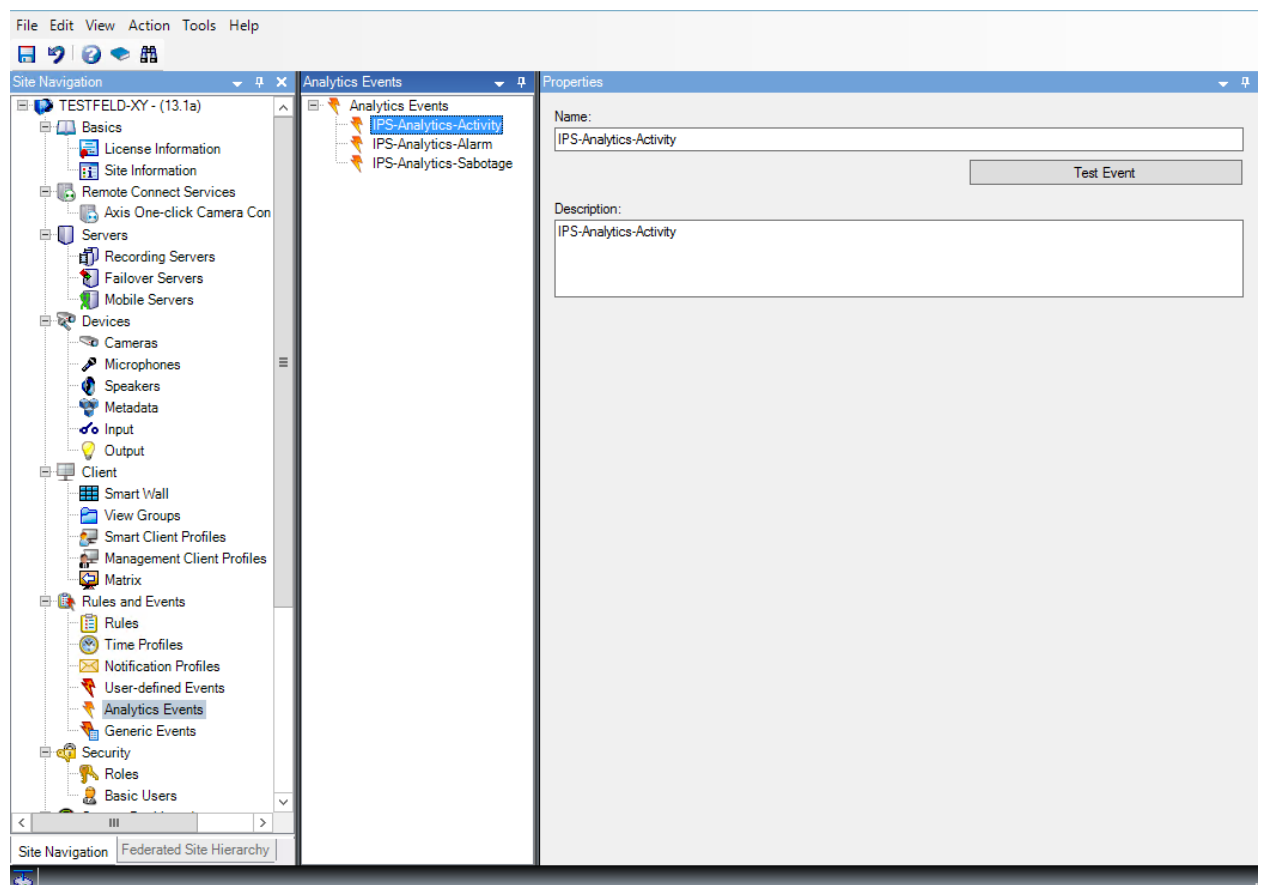
6.1.5 Add Analytics Events

IPS AnalyticsManager supports 3 different Analytics Events:

- Activity (**IPS-Analytics-Activity**)
- Alarm (**IPS-Analytics-Alarm**)
- Sabotage (**IPS-Analytics-Sabotage**)

To configure the Milestone System to react to them, proceed as follows:

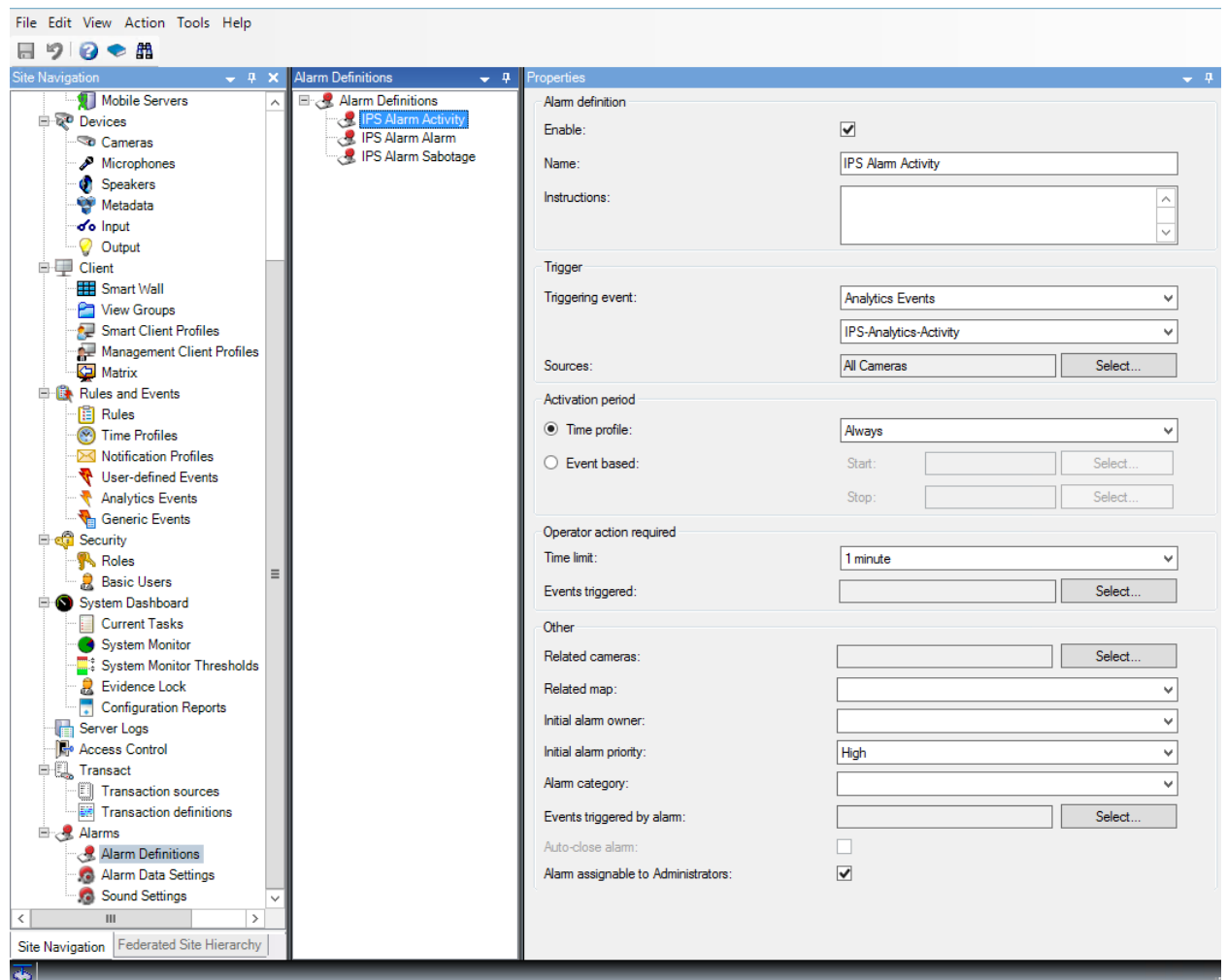
1. In the site navigation select **Rules and Events | Analytics Events**.
2. Select the context command **Add New....**
3. In the **Name** field enter **IPS-Analytics-Activity** (be sure to write it **exactly** in the **given spelling**).
4. Click on **Save**.
5. Create the **IPS-Analytics-Alarm** and **IPS-Analytics-Sabotage** analytic events in the same way.



6.1.6 Add and configure Alarm Definitions

An Analytics Event must be assigned to an Alarm Definition. To add and configure Alarm Definitions proceed as follows:

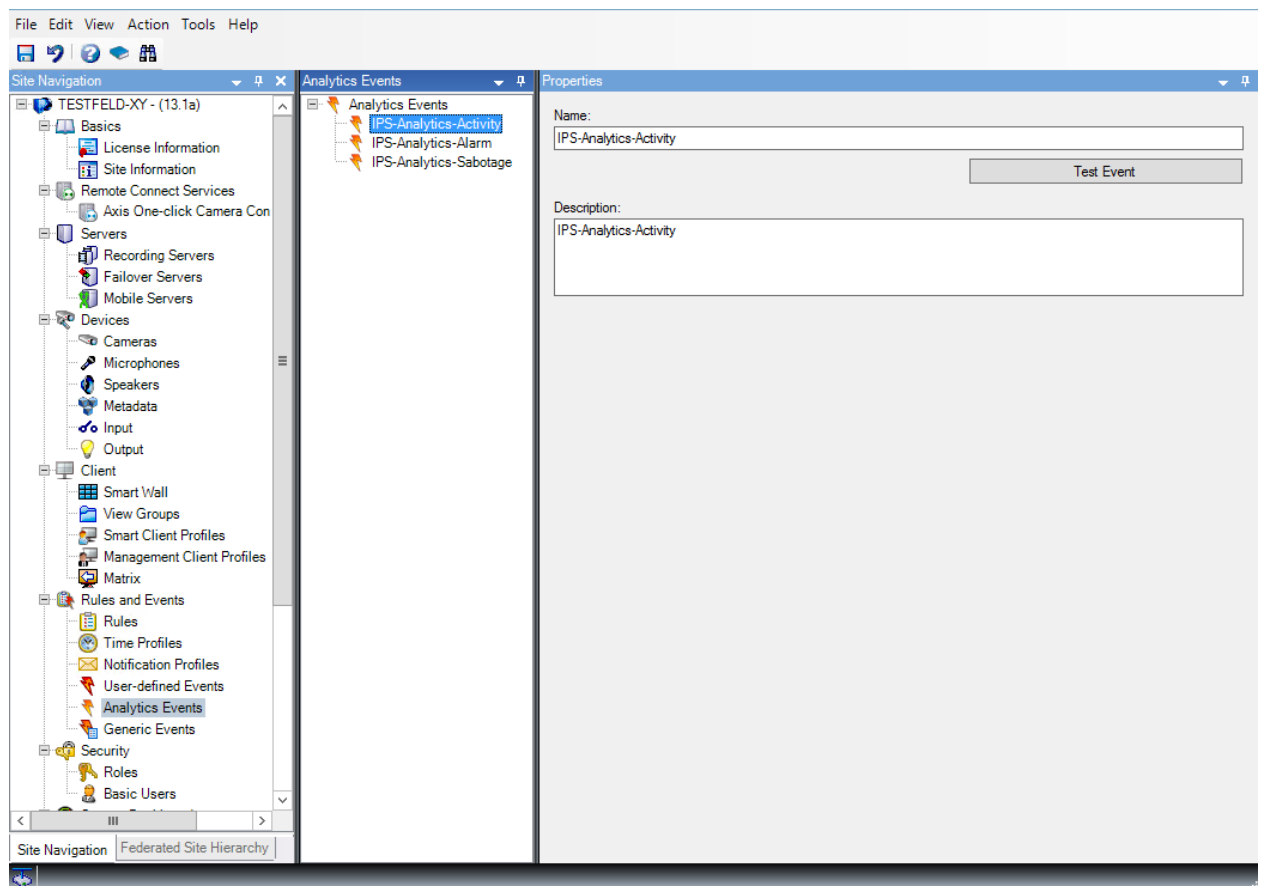
1. Under **Alarms** select **Alarm Definitions**.
2. Select the context command **Add New....**
 - Make sure the Alarm Definition is **enabled**.
 - Enter a **Name**, e.g. IPS Alarm Activity (Alarm when an activity event occurs).
 - Under **Triggering event** select **Analytics Events** and select **IPS-Analytics-Activity**.
 - Select **All Cameras** as the **Source** of the trigger.
 - Make further changes as required.
 - Click **Save**.
3. In the same way, create further Alarm Definitions for **IPS-Analytics-Alarm** and **IPS-Analytics-Sabotage**.





6.1.7 Test the Analytics Events

1. In the Site Navigation select **Rules and Events | Analytics Events** and select the Analytics Event **IPS-Analytics-Activity**.
2. Click **Test Event**.
3. On the recording server select a **camera** and click **OK**.
4. Check the results in the **Test Analytics Event** dialog. Click **OK**.
5. Open the Milestone **XProtect Smart Client**.
6. Select the **Alarm Manager** tab.
7. Check if an appropriate event is available in the alarm list.
8. Double-click the event in order to check the event details.
9. Also, conduct the test for the analytics events **IPS-Analytics-Alarm** and **IPS-Analytics-Sabotage**.





6.1.8 IPS overlay settings permission

The IPS Video Analytics overlay consists of several components like alarm objects, detection zones, traces, vectors, or text. Each component can individually be switched on or off.

In order to specify which user is allowed to change the appropriate settings, follow the steps below.

1. Create a new user

If not yet available, create a new user who shall have the permission to specify the overlay components. For instance, this can be a basic user.

1. For example, under **Security | Basic Users** select the **Create Basic User...** context command.
2. Enter a **User name**.
3. Enter the **Password** and confirm it.
4. Click **OK**.

2. Add a role

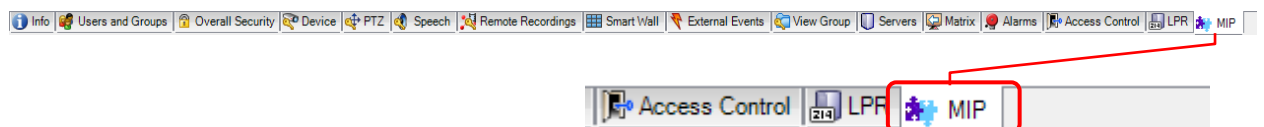
1. Under **Security | Roles** select the **Add role...** context command.
2. Enter a **Name** for the role, e.g. **UserManagers**.
3. Click **OK**.

3. Configure the role

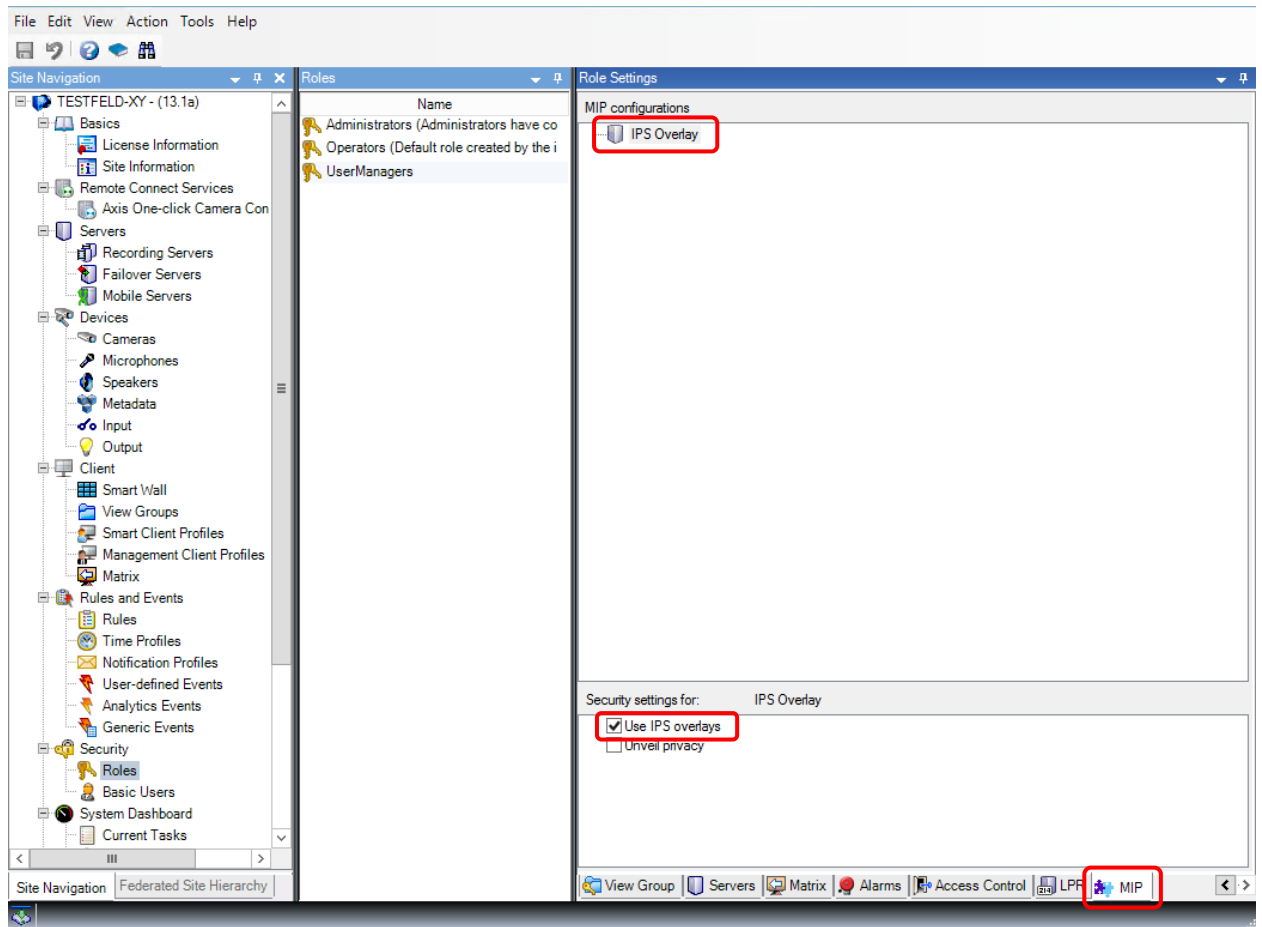
Note: The settings described in the following can only be made, if the IPS Milestone Overlay Plugin is already installed.

To enable the permission to specify the overlay components, proceed as follows:

1. In the Site Navigation select **Security | Roles**.
2. Select the **Role**, e.g. **UserManagers** role.
3. Select the **MIP** tab.



4. Select **IPS Overlay**.
5. Adapt the **Security settings** for the IPS Overlay as desired:
 - **Use IPS overlays:** permission to enable IPS overlays and to select its components.
 - **Unveil privacy:** Permission to unveil privacy. **Note:** This setting is of no relevance for camera-based Analytics.



4. Assign the role

1. Select the **Users and groups** tab.
2. Click the **Add...** button.
3. Select **Basic user**.
4. Activate the **Select** option for the appropriate **user**.
5. Click **OK**.



6.1.9 Specify rules for streaming on demand

If you want to achieve that video images and the assigned metadata are transmitted or recorded only on demand, you must specify appropriate rules.

As examples, the following use cases are described:

1. Display and record video images
2. Display and record video images automatically in case of alarm

The respective rules are specified under **Rules and Events | Rules**. Select the **Add Rule** context command to open the **Manage Rule** wizard.

6.1.9.1 Display video image and record it at the same time

Note: For the camera, in the **IPS Analytics Streaming Service** under **05. Camera metadata receiver** the parameter **MetadataOnRequest** must be set to **True**.

In order to request the video image only for the case it is displayed on at least one Milestone XProtect Smart Client, configure a rule as follows:

Step 1: Type of rule

1. Leave the **rule type** on **Perform an action on <event>**.
2. Edit the **rule description**:
 - Click the **event** link.
 - Under **Events | Devices | Predefined Events** select the **Live Client Feed Requested** events and click **OK**.
 - Click the link **devices/recording server/management server**.
 - Select the desired **camera** and click **Add**.
 - Click **OK**.
3. Click **Next**.

Step 2: Conditions

Click **Next**.

Step 3: Actions

1. Select the options **Start recording on <devices>** and **Start feed on <devices>**.
2. Click the link **the device on which event occurred**.
3. Activate the **Select devices** option and click **OK**.
4. Select the **camera** and click **Add**.
5. Select the **metadata channel** and click **Add**.
6. Click **OK**.
7. Click **Next**.

Step 4: Stop criteria

1. Leave the **stop criterion** on **Perform stop action on <event>** and leave the event **Live Client Feed Terminated**.
2. Click **Next**.



Step 5: Stop actions

1. Leave the stop action on **stop recording immediately and stop feed immediately**.
2. Click **Finish**.

Rule Information ▼ ⓘ

Name:

Description:

Active

Definition:

Perform an action on **Live Client Feed Requested**
 from **AXIS P1357 Network Camera (172.17.23.13) - Camera 1**
 start recording **immediately** on **AXIS P1357 Network Camera (172.17.23.13) - Camera 1, MIP Driver (172.17.241.46) - Metadata 1**
 and start feed on **the device on which event occurred**

Perform stop action on **Live Client Feed Terminated**
 from **AXIS P1357 Network Camera (172.17.23.13) - Camera 1**
 stop recording **immediately**
 and stop feed **immediately**

6.1.9.2 Display and record video image automatically in case of alarm

Note: For the camera, in the **IPS Analytics Streaming Service** under **05. Camera metadata receiver** the parameter **MetadataOnRequest** must be set to **True**.

In order to request the video image only for the case it is displayed on at least one Milestone XProtect Smart Client, configure a rule as follows:

Step 1: Type of rule

1. Leave the **rule type** on **Perform an action on <event>**.
2. Edit the **rule description**:
 - Click the **event** link.
 - Under **Events | Analytics Events | Analytics Events** select the **IPS-Analytics-Alarm (Analytics Events)** and click **OK**.
 - Click the link **devices/recording server/management server**.
 - Select the desired **camera** and click **Add**.
 - Click **OK**.
3. Click **Next**.

Step 2: Conditions

Click **Next**.



Step 3: Actions

1. Select the options **Start recording on <devices>** and **Start feed on <devices>**.
2. Click the **recording device** link.
3. In the **Select devices and groups** dialog activate the **Select devices** option and click **OK**.
4. Select the **camera** and click **Add**.
5. Select the **metadata channel** and click **Add**.
6. Click the second **recording device** link.
7. In the **Select triggering devices** dialog select the **Select devices** option and click **OK**.
8. Select the **camera** and click **Add**.
9. Select the **metadata channel** and click **Add**.
10. Click **OK**.
11. Click **Next**.

Step 4: Stop criteria

1. Under **Select stop criteria**, select **Perform stop action on <event>**.
2. Click the **time** link.
3. In the **Relative Time** dialog enter the time after which display and recording shall be stopped and click **OK**.
4. Click **Next**.

Step 5: Stop actions

1. Leave the stop action on **stop recording immediately and stop feed immediately**.
2. Click **Finish**.

Rule Information
▼ ⚙

Name:

Display and record video image from camera 1 in case of alarm

Description:

Display and record video image from camera 1 in case of alarm for a specified time period

Active

Definition:

Perform an action on IPS-Analytics-Alarm (Analytics Events)
 from AXIS P1357 Network Camera (172.17.23.13) - Camera 1
 start recording **immediately** on AXIS P1357 Network Camera (172.17.23.13) - Camera 1, MIP Driver (172.17.241.46) - Metadata 1
 and start feed on AXIS P1357 Network Camera (172.17.23.13) - Camera 1, MIP Driver (172.17.241.46) - Metadata 1

 Perform action **15 seconds after**
 stop recording **immediately**
 and stop feed **immediately**



6.1.10 Configure rule for continuous recording of all cameras

Step 1: Type of rule

1. Select the **rule type** on **Perform an action in a time interval**.
2. Click **Next**.

Step 2: Conditions

Under **Select conditions to apply** select the **Always** option and click **Next**.

Step 3: Actions

1. Select the option **Start recording on <devices>**.
2. Click the **recording device** link.
3. In the **Select devices and groups** dialog activate the **Select devices** option and click **OK**.
4. Select **All cameras** and click **Add**.
5. Click **OK**.
6. Click **Next**.

Step 4: Stop criteria

1. Under **Select stop criteria**, select **Perform stop action when time interval ends**.
2. Click **Next**.

Step 5: Stop actions

Click **Finish**.

Rule Information

Name:
Continuous recording of all cameras

Description:

Active

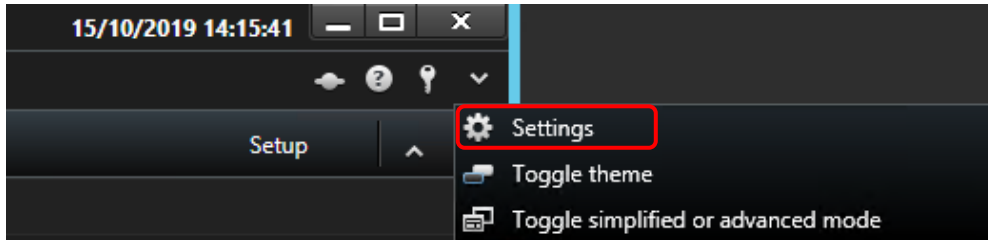
Definition:
Perform an action in a time interval
always
start recording **immediately** on **All cameras**
Perform an action when time interval ends
stop recording **immediately**



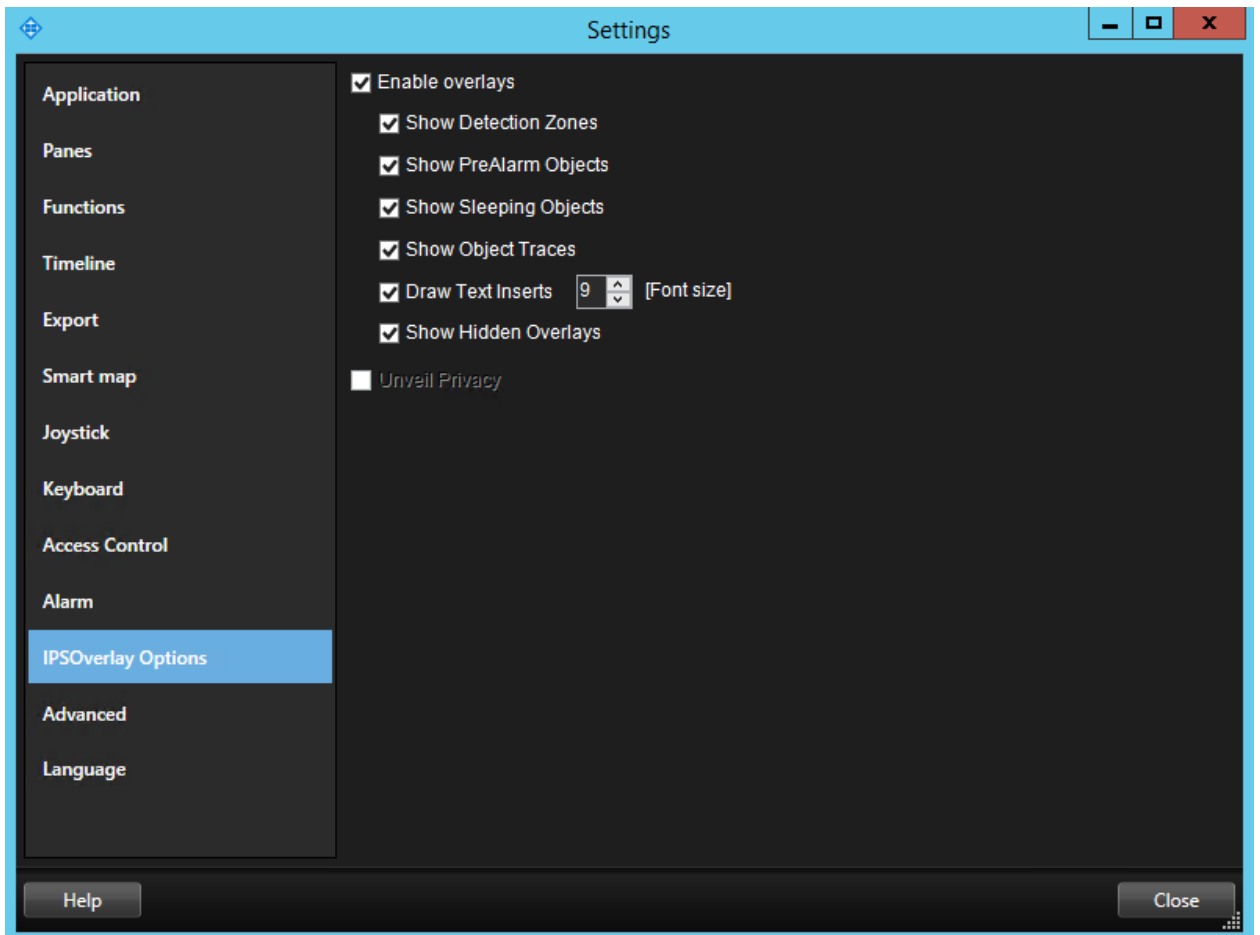
6.2 Configure IPS overlays in the Milestone XProtect Smart Client

To adapt the **IPS Overlay Options** in the **Milestone XProtect Smart Client** proceed as follows:

1. Launch the **Milestone XProtect Smart Client**.
2. Click  and select  **Settings**.



3. Select **IPSOOverlay Options**.
4. Enable or disable the display of the overlays and configure which objects you want to see.





6.3 Time synchronization

To ensure that the metadata correctly match with the video, time and date on the servers as well as on the cameras must be synchronized with an accuracy of +/- 100 msec.

The appropriate settings can be found at the following locations:

- on Axis cameras under **System Options > Date & Time**
- on Hikvision cameras under **Configuration > System Settings > Time Settings**

On the servers Windows manages the time synchronization.

7 Test

Besides the installation and configuration described above the following prerequisites must be fulfilled for testing the live metadata overlays:

1. In the camera the appropriate IPS Analytics module must be installed, licensed, and launched (see the instructions [Installation-Instruction_ACAP-Analytics_Vx.x_R0x_en](#) or [Installation-Instruction_HEOP-Analytics_Vx.x_R0x_en](#)).
2. The Analytics module must be configured (see [Configuration-Instruction_CB-Analytics_Vx.x_R0x_en](#)).
3. In the Milestone XProtect system, the cameras and metadata channels must be configured.

In order to test the live metadata, switch a camera image to a Smart Client view.

Check if every type of overlay you selected (like detection zones, pre-alarm objects, traces, ...), is displayed.

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