Milestone XProtect Enterprise – ioimage

Analytics Events Integration Manual

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Preface

This integration allows notifications originating from ioimage devices to be represented as Ioimage Analytics Events within Milestone's XProtect Enterprise system. The user can then create Alarm Definitions to be triggered upon these events.

The integration does not depend on the existence of a video integration between ioimage devices and the XProtect Enterprise system. If such video integration does not exist, ioimage devices can still be added to the XProtect Enterprise system as Universal or ONVIF drivers, as described in this manual.

The integration was tested with XProtect Enterprise version 8.6d
The integration runs as an add-on (plugin) to the XProtect Event Server.
This manual will guide you through the steps of installing and configuring the analytics events integration.
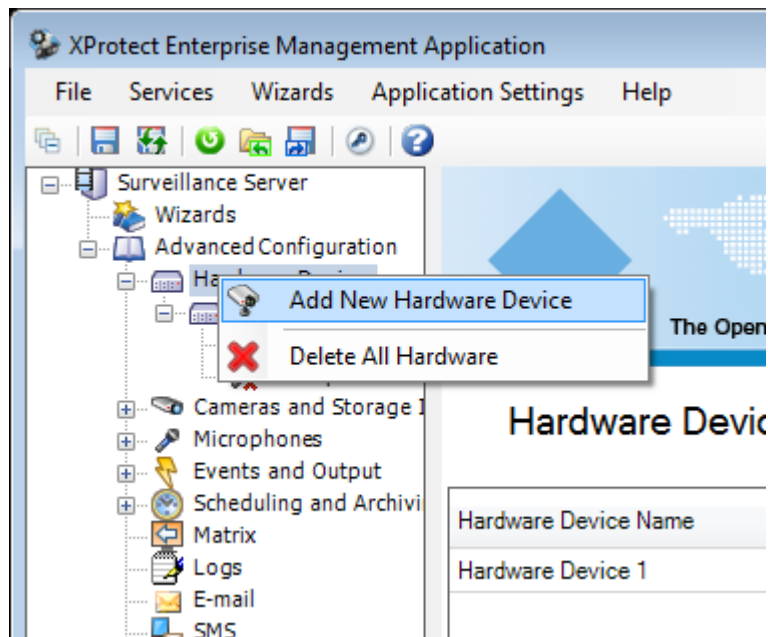
Adding ioimage units as Universal Drivers

Before starting integration of the units into the Milestone environment, install all site units and configure them using the ioimage web interface
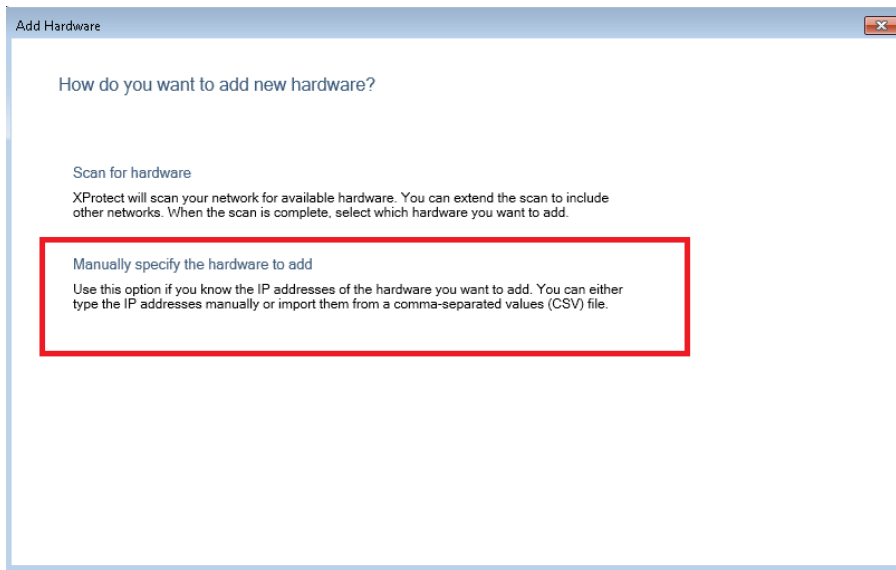
- Network
- Depth
- Rules
- Streaming options

Detecting the units

- Open the XProtect Enterprise Management Application
- Right-click the Hardware Devices tree item
- Select "Add new Hardware Device"

- Select the "Manual" option and press "Next"

- Fill in all ioimage cameras/units IPs and usernames and passwords
  Note: (Default ioimage user is "admin", default ioimage password is "admin")
- In "Hardware Driver" dropdown select "Universal 1 channel driver" from the list.
  Note: ioImage HD cameras support ONVIF and can be added as "ONVIF Conformant Device".
- After finishing adding all units press "Next" and then press "Ok".
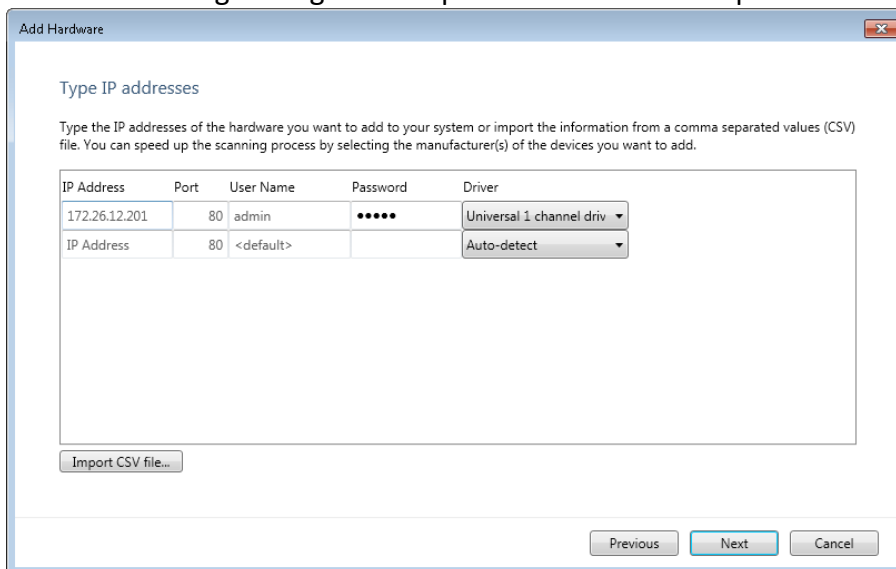
Video Configuration

If ioimage units are added as universal driver, the following additional settings are required:

- Select a newly added ioimage camera
- Right-click a camera in the tree
- Select "Properties"
- The Camera Properties window will pop up
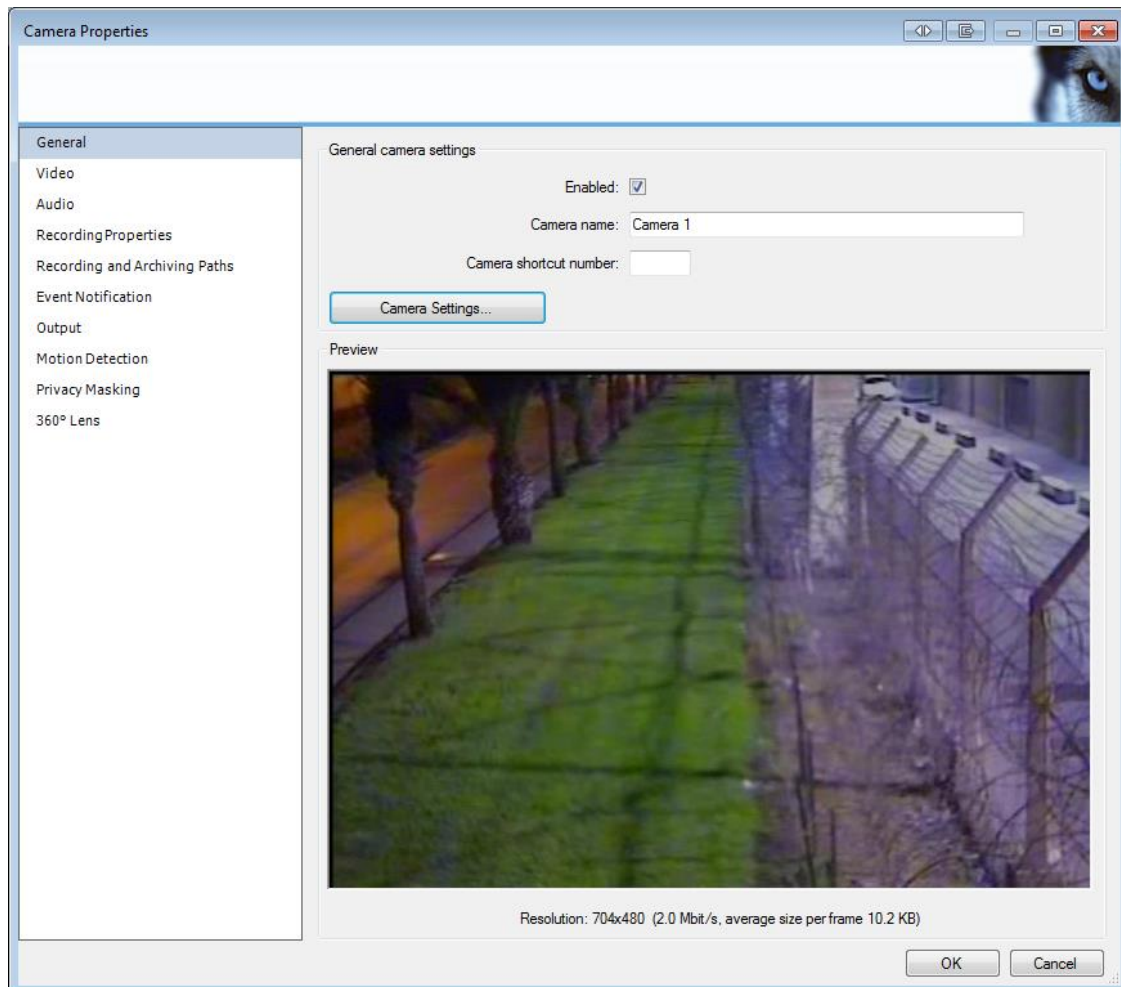
- Click "Camera Settings"
- Video Properties window will pop up
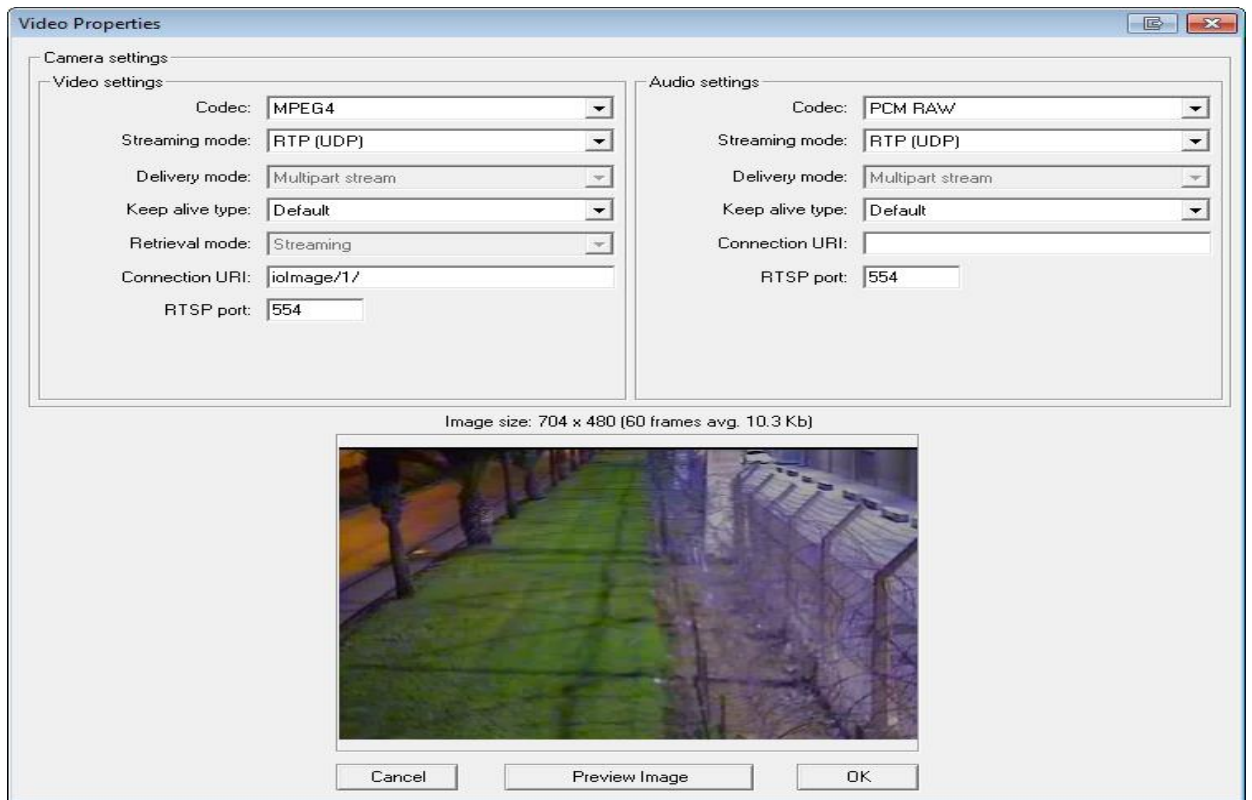
- For ioimage-HD camera, select codec "H264" and fill "h264" in the Connection URI property (and if codec "MJPEG" is selected, fill "jpeg" in the Connection URI property)
- For non HD ioimage camera, select a codec that is supported by your camera (e.g. MPEG4) and fill "ioImage/1/" in the Connection URI property.
- Verify video exists by clicking "Preview Image" button.
- Click OK button.

!! Assuming that intrusions will be detected by ioimage algorithms, make sure to **disable the Motion Detection** option for the camera.

!! Also be sure to **disable audio** for ioimage cameras. Attempts of XProtect to use a non-existing audio channel might disturb video display.

!! Please notice – when adding ioimage units as universal drivers, only video channel number 1 is supported even if the model supports multiple video channels (as in trk200, trk4000 and trk8000). Therefore analytics configuration using the web page of the camera must be done on channel number 1, and the URI used by XProtect must be "ioImage/1/" (and not "ioImage/2/").

Plugin Installation

Installation

- Unzip the installation zip file in a temporary directory on the machine where XProtect Enterprise Event server is installed.
- Run the ioimageAlarmsPlugin32bit.msi file
- Click "Next" until installation is complete
- Destination folder is automatically set to be under the XProtect Enterprise Event Server Plugins folder
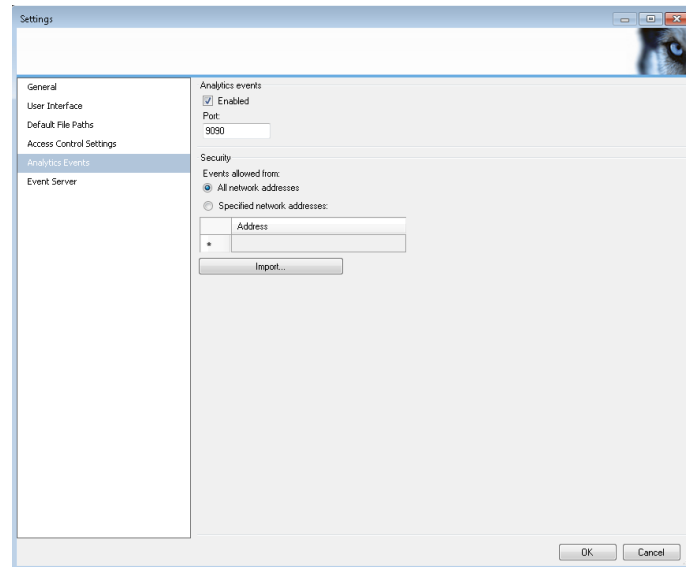- Click "Next" until the installation is complete
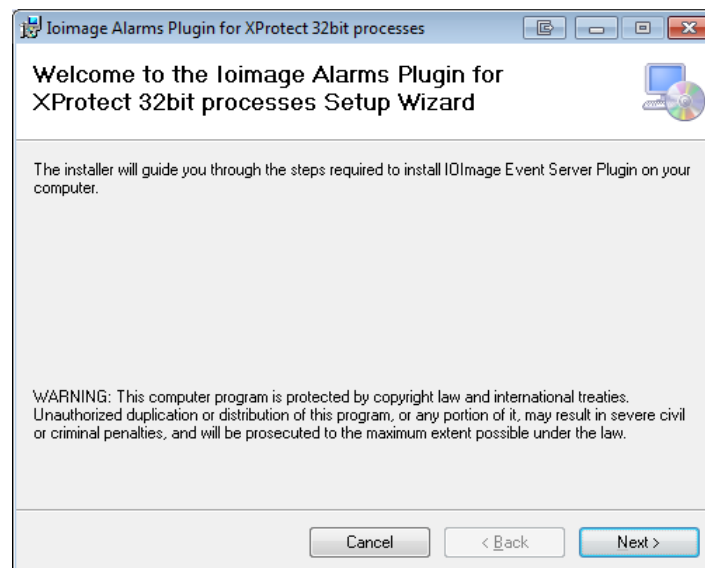
Uninstall

- Open Windows Control Panel
- Choose "Uninstall a program"
- Browse to "ioimageEventServerPluginInstaller"
- Right-click and choose "Uninstall"
- Select "Yes"
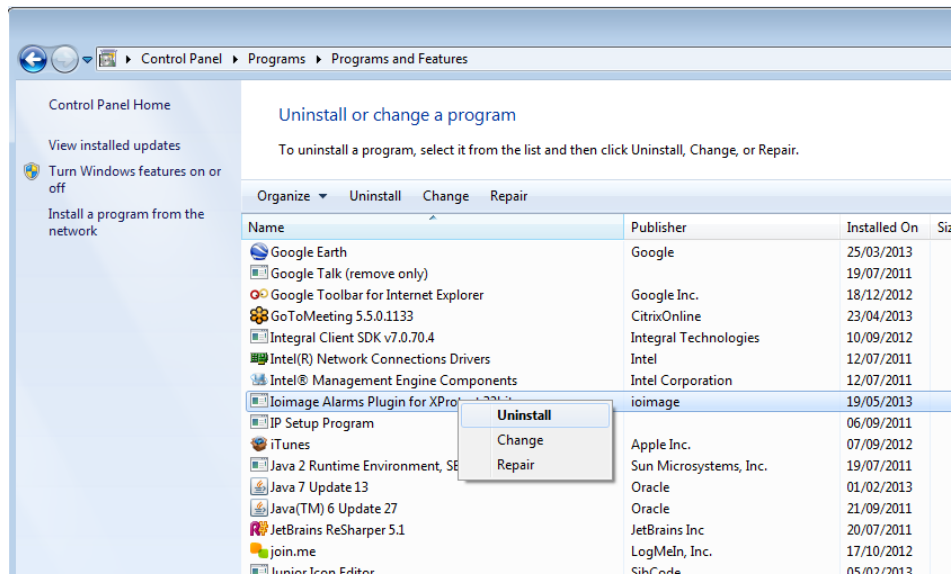
Configuration

Enabling Analytics

- In the Management Client go to Options --> Settings
- Locate the "Analytics Events" tab
- Check the "Enabled" check-box
- Click "OK"

Selecting Cameras

The integration will handle analytics events coming from selected ioimage devices only. It is up to the user to decide which ioimage devices should be able to trigger XProtect alarms and which should not. By default there will be no device checked so be sure to follow these instructions:

- In the Management Client's Site Navigation Tree, select **ioimage Analytics** node under MIP Plugins → ioimage
- The window should contain a list of all cameras in the system
- Check the boxes of those cameras which you would like to receive analytics events from.
- Click "Save"
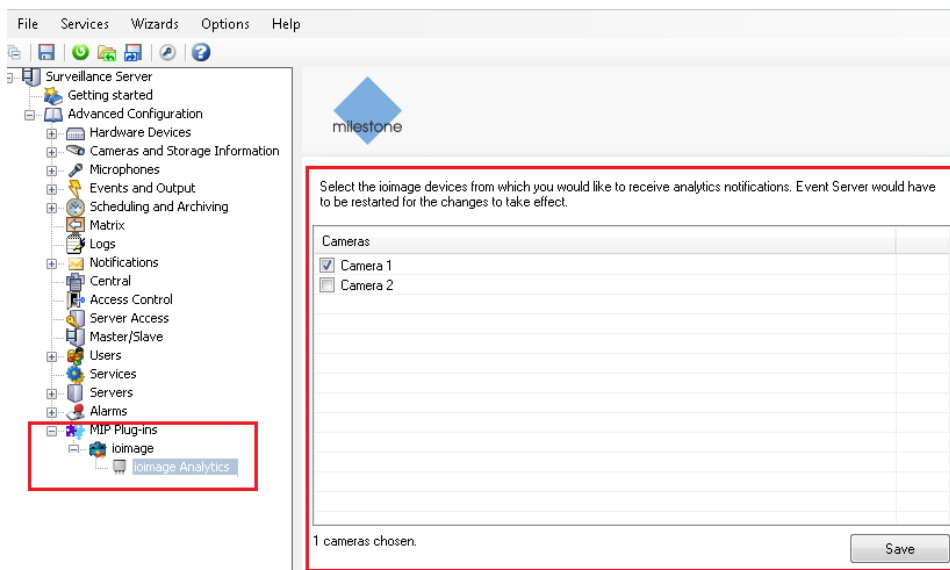
!! After saving, the XProtect Event Server service must be restarted. Any future change to this list also requires restarting the Event Server service.

!! Please notice that all ioimage cameras you would like to receive notifications from must have a static IP. DHCP cannot be used since the integration does not follow changes in IP addresses.
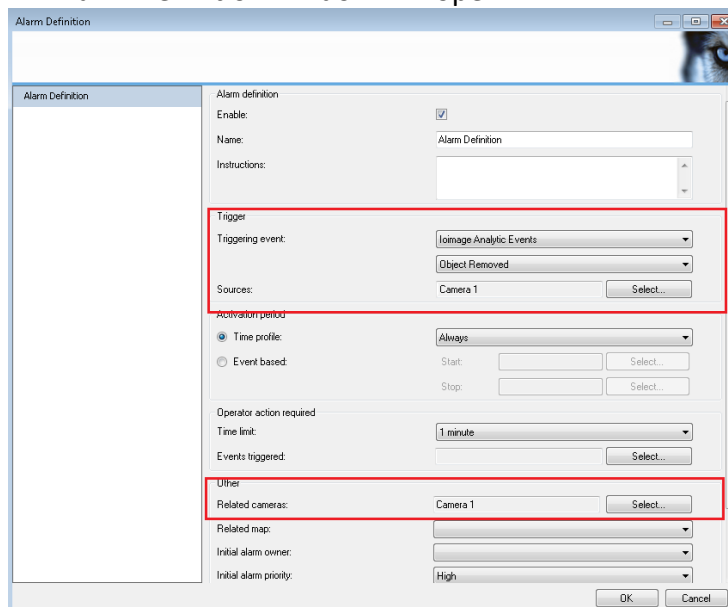
Defining Alarms

An alarm can be triggered upon a specific analytics event type coming from a specific camera. In order to define an alarm, follow these steps:

- Right Click the "Alarm Definitions" node
- Choose "Create New"
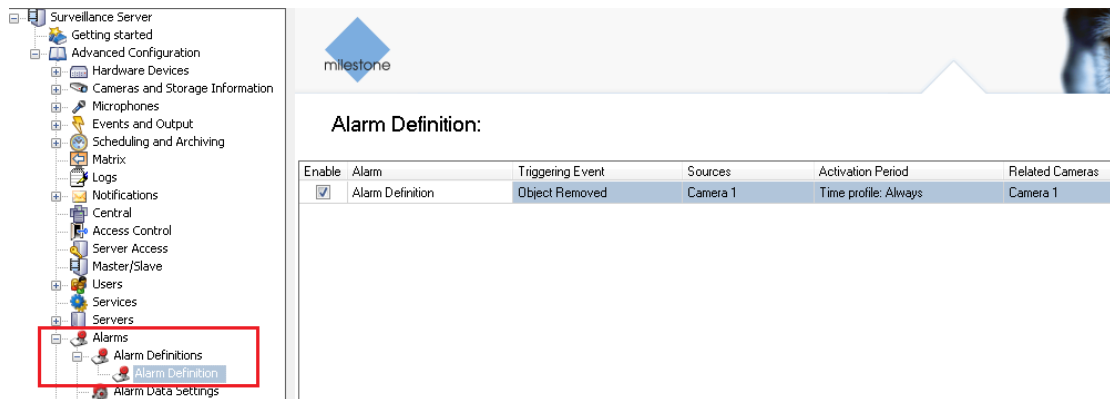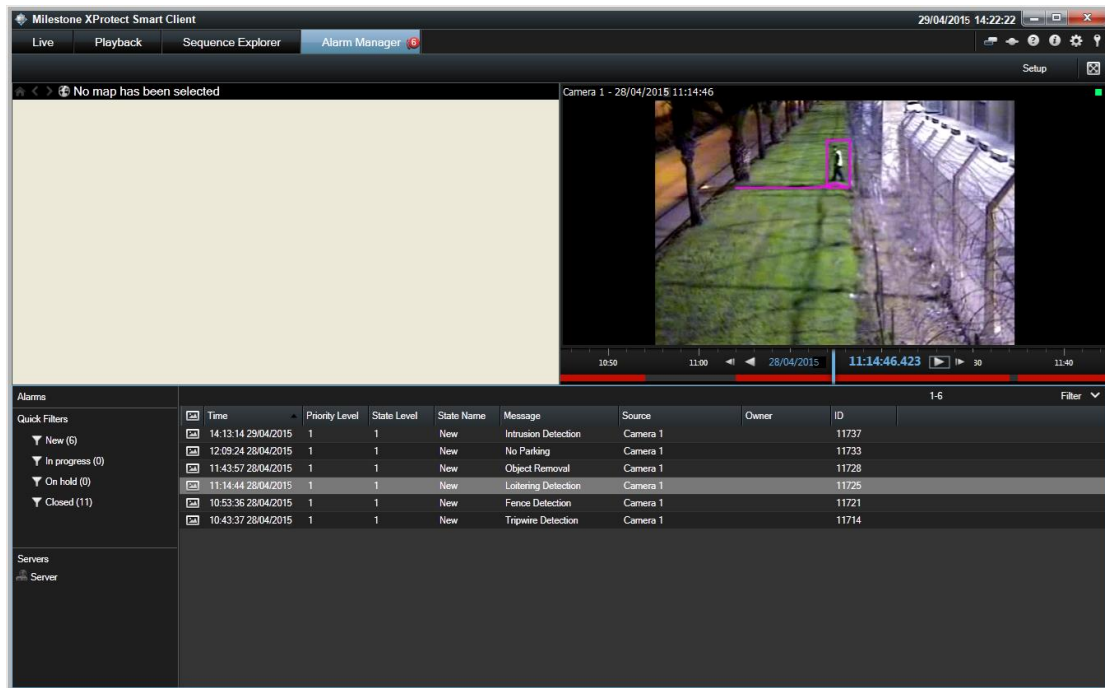

- An Alarm Definition window will open

- Give the alarm a name
- Choose the Triggering event to be "Ioimage Analytics Event"
- Choose the specific analytics event type that the alarm should be triggered upon
- Select a triggering source (camera)
- Select a Related Cameras (camera)
- Click "OK"

Smart Client

In the Smart Client you can view the alarms triggered by ioimage devices.

In the Alarm Manager tab, a list of triggered alarms appears in the bottom of the screen. Clicking an alarm in the list will start playing the recorded video from the moment the event that caused the alarm occurred. The video will contain all OSD information provided by the ioimage device during the event.

Troubleshooting

Problem	Possible solution
Smart client does not display video from ioimage device that was detected as a Universal Driver, while the Management Application does display the video.	Verify that audio is disabled for this device.
Alarms are not triggered upon ioimage notifications	1. Make sure that alarms are defined exactly as in the Defining Alarms chapter 2. Restart the Event Server