Milestone XProtect Corporate – ioimage Analytics Events Integration Manual



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Preface

This integration allows notifications originating from ioimage devices to be represented as loimage Analytics Events within Milestone's XProtect Corporate 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 Corporate system. If such video integration does not exist, ioimage devices can still be added to the XProtect Corporate system as Universal or ONVIF drivers, as described in this manual.

The integration was tested with XProtect Corporate version 7.0d

The integration runs as an add-on (plugin) to these XProtect components:

- XProtect Event Server
- XProtect Management Client

This manual will guide you through the steps of installing and configuring the analytics events integration.

About Milestone XProtect Ma	nagement Client 2014	×
	Milestone XProtect Management Client 2014 Version: 7.0d Build: 871 Copyright © Milestone Systems A/S. All rights reserved.	
	Plug-in(s) and version information	
	Milestone XProtect Access Control Module v2.0c - Milestone Systems A/S Analytics Events v3.3c - Milestone Systems A/S Alarms, Alarm Definition v3.3.543.3 - Milestone Systems A/S Generic Events v3.3c - Milestone Systems A/S ioimage v1.0.1.0 - ioimage	
milestone		
The Open Platform Company		ок

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 Corporate Management Client
- Make sure you have an authorized Recording Server (not covered in this manual, please refer to Milestone's documentation)
- Right-click the desired Recording Server.
- Select "Add Hardware..."



Add Hardware	
	Add Hardware
	This wizard helps you detect and set up hardware.
	Hardware detection method: C Express (recommended) Automatically discovers hardware models on the recording server's local network
	 Address range scanning Scans defined network address ranges and detects hardware models
	Manual Detects hardware models for manually entered IP addresses and host names
milestone	 Remote connect hardware Add hardware connected via a remote connect server
The Open Platform Company	
Help	< Back Next > Cancel

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

- Fill in usernames and passwords to be used with your ioimage cameras (default ioimage user is "admin", default ioimage password is "admin")
- Check the check-box
- Press "Next"

Add	Add Hardware				
ę	Specify	vuser name and password if devices are not	using the default ones.		10
	L L -	UserNews	Deserved		A 44
		(Eactory Default)	Password		<u></u>
		admin			<u>R</u> emove
E		Genner			
L					
		Help	< <u>B</u> ack	<u>N</u> ext>	Cancel
-		<u> </u>			

- Select "Universal 1 channel driver" from the list.
 Note: ioImage HD cameras support ONVIF and can be added as "ONVIF Conformant Device".
- Press "Next"

Add Hardware		- • ×
Select which drivers to use when scanning for hardware. The more drivers selected, the slower the scanning.		10
		Select All
ONVIF Conformant Device		
ONVIF Conformant Device (2-16 channels)		Clear All
E Optelecom		
🕀 🔲 Optex		
😟 🔄 Panasonic		
🕀 🔲 Pelco		
🕀 📄 Pixord		
😟 🥅 ProVideo		
🖭 🥅 PSIA		
🗈 🔚 Samsung		
😥 🔄 Sanyo		
E Sentry		1
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😟 🥅 StarDot		
🗈 📄 Toshiba	-	
🕸 🔚 UDP	-	
😑 🔲 Universal		
🔍 Universal 1 channel driver		
👘 Universal Driver 16 channels		
Universal Driver 64 channels		
🕀 🔲 Verint		7
Help	(Back Nevt)	Cancel
riop	(Duok	Calica

- Fill in all ioimage cameras/units IPs.
- In "Hardware Driver" dropdown select "Universal 1 channel driver" (or "ONVIF Conformant Device" if chosen in previous screen)

Add Hardware			
Enter information for har Optionally, select driver	dware you want to add. type to speed up detection.		C
Address	Port	Hardware Driver	Add
172.19.7.229	80	Universal 1 channel driver	Bemove
Help		K Back Next	Cancel

• After finishing adding all units press "Next" and then follow the screen instruction until reaching the "Finish" button.

Video Configuration

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

- Select a newly added ioimage camera
- Select the Streams tab
- Select a stream that is supported by your camera

Milestone XProtect Management O File Edit View Action Tools Help	Client 2014 p		
Site Navigation Site Navigation Site Navigation Site Navigation	Recording Server P Recording Server P Recording Server D ALC-WINYZDEV2 C OVVIF Conforment Device (172:187.229) OVVIF Conforment Device (172:26:12.201) P Universal 1 channel driver (172:26:12.201) P Universal 1 channel driver (172:26:12.201) P Universal 1 channel driver (172:26:12.201) P U Universal 1 channel driver (172:26:12.201) P U U U U U U U U U U U U U U U U U U U	Properties Stream Name Live Mode Default H254 - streamed Always IVEG4 - streamed Always	scording
		Add Delete Image: The second image: The sec	-

- Switch to the Settings tab
- For ioimage-HD camera, if selected stream type is "H264 -streamed" than fill "h264" in the Connection URI property (and if selected stream type is "JPEG streamed" than fill "jpeg" in the Connection URI property)
- For non HD ioimage camera fill "ioImage/1/" in the Connection URI property.

Recording Server Ø	Pro	perties		9
🖃 👘 Recording Servers	4	General		
🖻 🗐 AIC-LAT6-3CLINT		Connection URI	h264	
🖨 🔚 Universal 1 channel driver (172.19.7.229)		Delivery Mode	Multipart Stream	
		Keep Alive type	Default	
🖳 August 1 Channel driver (172.19.7.229) - Microphone 1		Retrieval Mode	Streaming	
🗄 🧰 Universal 1 channel driver (172.26.12.201)		RTSP Port	554	
		Streaming Mode	RTP (UDP)	Ξ
	٥	H264 - streamed		
		Frames per second	30	
	٥	JPEG - streamed		
		Frames per second	30	
	٥	MPEG-4 - streamed		
		Frames per second	30	
	i) Info <u>🍻 Settings </u> 🔛 Streams 🥚 Record 🔕 360° Lens	🖳 Client 🔛 Privacy Mask 🖍 Motion	

- !! 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 non HD 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 "iolmage/1/" (and not "iolmage/2/").

Plugin Installation

Installation

The integration should be installed on each machine that is running the XProtect Management Client or the XProtect Event Server. Inside the integration zip file you will find two installers: one for XProtect 64bit processes and one for XProtect 32bit processes. On 32bit machines you will only need to run the 32bit installer. **On 64bit machines you will need to run both**.

- Unzip the installation zip file to a temporary folder
- Run the ioimageAlarmsPlugin64bit.msi and / or the ioimageAlarmsPlugin32bit.msi files as described above.
- Click "Next"
- Destination folder is automatically set to be under Program Files (64 or 32 bit)\Milestone\MIPPlugins\IOImage.Analytics.Events
- Click "Next" until the installation is complete
- Click "Close"



Uninstall

- Open Windows Control Panel
- Choose "Uninstall a program"
- Browse to "loimage Alarms Plugin for XProtect 64bit (or 32bit) processes"
- Right-click and choose "Uninstall"
- Select "Yes"

😋 🔵 🗢 📷 🕨 Control Panel 🕨	Programs Programs and Features			
Control Panel Home	Uninstall or change a program			
View installed updates	To uninstall a program, select it from the list and then	lick Uninstall, Change, or Repair.		
🛞 Turn Windows features on or				
off	Organize 🕶 Uninstall Change Repair			
network	Name	Publisher	Installed On	Size
	Q Dotfuscator Software Services - Community Edition	PreEmptive Solutions	20/02/2011	6.44 MB
	DVTEL COE PTZ Plugin	DVTel Inc.	14/05/2013	16.0 KB
	S DVTel Elfar	DVTel Inc.	06/08/2012	812 KB
	DVTel Redflex	DVTel Engineering Services	19/12/2012	1.80 MB
	DVTel-Paxton Service	DVTel Engineering Services	13/03/2013	4.96 MB
	FileZilla Client 3.5.2	FileZilla Project	29/11/2011	16.5 MB
	FinalBuilder 6 Vista Compatibility		19/07/2011	
	FinalBuilder 6.3.0.2172		19/07/2011	
	💿 Google Chrome	Google Inc.	26/07/2011	
	Soogle Earth	Google	25/03/2013	173 MB
	Google Talk (remove only)		19/07/2011	
	O Google Toolbar for Internet Explorer	Google Inc.	18/12/2012	
	GoToMeeting 5.5.0.1133	CitrixOnline	23/04/2013	
	Integral Client SDK v7.0.70.4	Integral Technologies	10/09/2012	62.5 MB
	BIntel(R) Network Connections Drivers	Intel	12/07/2011	916 KB
	Stress Intel® Management Engine Components	Intel Corporation	12/07/2011	20.4 MB
	Ioimage Alarms Plugin for XProtect 64bit processes	ioimage	16/02/2015	2.19 MB
	IP Setup Progr Uninstall		06/09/2011	
	SiTunes Change	Apple Inc.	07/09/2012	184 MB
	Java 2 Runtime Repair	Sun Microsystems, Inc.	19/07/2011	78.4 MB
	🛓 Java 7 Update 🗤	Oracle	01/02/2013	129 MB
	Java(TM) 6 Update 27	Oracle	21/09/2011	94.9 MB

Configuration

Enabling Analytics

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

Options									×
Server Logs	Mail Server	AVI Generation	Network	Bookmark	User Settings	Analytics Event	s Settings	Event S	• •
Analytics ev	ents								
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Port:									
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Security				_					
Events allow	ved from:								
 All netw 	ork addresses								
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Help						ОК	Car	ncel	
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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"

N7-DEV2	
🖽 🛄 Basics	Select the joimage devices from which you would like to receive analytics notifications. Event Server would have to be restarted for the elements to take effect.
🖶 🌄 Remote Connect Services	to be restalted for the changes to take effect.
🖶 🕕 Servers	Company
🗄 ኛ Devices	
😟 💷 Client	Universal 1 channel driver (172.26.12.201) - Camera 1
🗉 🚯 Rules and Events	V ONVIF Conformant Device (172.19.7.229) - Camera 1
🗄 🧔 Security	
🗄 🙆 System Dashboard	
🕀 🕞 Server Logs	
Access Control	
Alarms	
🖨 🚰 MIP Plug-ins	
ioimage	
ioimage Analytics	
	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 "Add New"

Milestone XProtect Management Client 2014		
File Edit View Action Tools Help		
⊟ ୭ 0 < #		
Site Navigation 🔗	Alarm Definitions	Alarm Definition Information
E- 📢 AIC-WIN7-DEV2	🖃 🛃 Alarm Definitions	Alarm definition
🕀 🛄 Basics	🖳 🧏 🗛 🕹 Collapse	
🖶 🐻 Remote Connect Services	O d d Nous	Child
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🖽 🛄 Client		Jons.
🕀 📑 Rules and Events		
🕀 🐗 Security		
🖽 🕥 System Dashboard		Trigger
🕀 📺 Server Logs		Triggering event:
Access Control		
Alarms		
Alarm Definitions		Sources
Alarm Data Settings		Jources.
Sound Settings	1	Activation period

• An Alarm Definition window will open

Milestone XProtect Management Client 2014			
le Edit View Action Tools Help			
9 3 🗢 🛱			
Navigation	Alarm Definition Information		
DAIC-WIN7-DEV2	nitions Alarm definition		
🖲 🛄 Basics 🛛 🛃 🛃	Definition Enable:		
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Servers Devices	Name:	Alam Derinkion	
	Instructions:		A
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🖶 🚭 Security			
System Dashboard	Trigger		
Server Logs	Triggering event:	loimage Analytic Events	•
E Alams		Object Removed	•
- 👧 Alam Data Settings	Sources:	Universal I channel driver (172.26.12.201) - Camera I	Select
5 Sound Settings	Activation period		
ar wir riugins	Time profile:	Always	•
	Event based:	Start	Select
		Stop:	Select
	Operator action required		
	Time limit:	1 minute	•
	Events triggered:		Select
	Other		
	Related cameras:	Universal 1 channel driver (172.26.12.201) - Camera 1	Select

- 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)

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.

🕏 Milestone XProtect Smart Client 29/04/2015 14:22:22 📒 💷						x							
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Alarms										1-6			Filter ∨
Quick Filters	🖾 Time	*	Priority Level	State Level	State Name	Message	Source	Owner					
View (6)	14:13:14	29/04/2015			New	Intrusion Detection	Camera 1		11737				
T Incw (0)	12:09:24	28/04/2015			New	No Parking	Camera 1		11733				
T in progress (U)	11:43:57	28/04/2015			New	Object Removal	Camera 1		11728				
Y On hold (0)	11:14:44	28/04/2015	1	1	New	Loitering Detection	Camera 1		11725				
T Closed (11)	10:53:36	28/04/2015			New	Fence Detection	Camera 1		11721				
	10:43:37	28/04/2015			New	Tripwire Detection	Camera 1		11714				
Servers													
Server													

Troubleshooting

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