



INTEGRITI MILESTONE CCTV INTEGRATION MANUAL



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Integrati Milestone CCTV Integration

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CCTV Capabilities

Core CCTV Capabilities

Feature	Feature Description	Ver	Y/N
<i>Stream Live CCTV Footage</i>	Live CCTV footage can be streamed from online cameras in the CCTV system to an Integriti client.	18	✓
<i>Select Custom Aspect Ratio</i>	Select the aspect ratio to use when streaming CCTV footage on a per-camera or per-recorder basis.	18	✓
<i>Stream Archived CCTV Footage</i>	Archived CCTV footage can be streamed from online cameras in the CCTV system to an Integriti client.	18	✓
<i>Control Archived CCTV Playback Speed</i>	Playback speed of archived CCTV footage can be controlled from the Integriti client.	18	✓
<i>Auto-Play CCTV Footage from Events</i>	Live or archived CCTV footage can be configured to be automatically displayed when an event occurs in the Integriti System on a specific client workstation.	18	✓
<i>Create Child Devices from Camera Configuration</i>	Child CCTV Cameras will be created based on the Camera configuration on Refreshing Child Devices	18	✓
<i>Associate Cameras With Entities</i>	Cameras loaded from the CCTV system can be associated with Integriti Entities to allow direct control of one from the other.	18	✓
<i>Show Associated CCTV From Event</i>	Associated CCTV Footage can be directly accessed and viewed from any event occurring in Integriti that has an associated Camera (either a direct association or through the Entity that triggered the event)	18	✓
<i>Control PTZ Cameras</i>	Send PTZ commands to support cameras on the CCTV system to control the Pan, Tilt and Zoom of the camera directly from the video stream.	18	✓
<i>Send Cameras to PTZ Preset</i>	Send supported PTZ cameras on the CCTV system to preconfigured PTZ presets directly from the video stream.	18	✓
<i>Digital PTZ Control</i>	Digitally zoom the CCTV stream's image for non-PTZ cameras and archived footage.	18	✓

Feature	Feature Description	Ver	Y/N
<i>CCTV Layouts</i>	Store a collection of Cameras with an specific viewer layout to be brought up at a later point in time	20	✓
<i>CCTV Surrounding Cameras View</i>	Show a selected camera, as well as the cameras configured to be N, NE, E, SE, S, SW, W and NW of the selected camera, quickly jumping between surrounding streams directly from the view.	20	✓
<i>Trigger Actions in the CCTV System</i>	Trigger actions or commands in the CCTV system directly from Integrati.	18	✓
<i>View and Control Cameras on Schematics</i>	Cameras can be added to Schematics Maps in Integrati and directly viewed and controlled directly from the Schematic. Each camera's state is immediately visible on the Schematic where available.	18	✓
<i>Sync Time (via NTP)</i>	Sync the time of the CCTV system and Integrati to match via an NTP.	18	✓
<i>Display Connection Status to CCTV System</i>	Display whether or not Integrati is currently connected to the CCTV system.	18	✓
<i>Receive Events/Alarms from the CCTV System</i>	Log events/alarms occurring on the CCTV system to Integrati's Review.	18	✓
<i>Trigger Integrati Actions on CCTV Events/Alarms</i>	Trigger actions to automatically occur in Integrati whenever specific events/alarms are received from the CCTV system.	18	✓
<i>Generate Alerts from CCTV Events/Alarms</i>	Automatically generate and restore Alerts tied to a specific Camera in Integrati whenever specific events/alarms are received from the CCTV system.	19	✓

Advanced CCTV Capabilities

Feature	Feature Description	Ver	Y/N
<i>Automatically Load Camera Configuration</i>	Refreshing Child Devices will automatically populate all cameras configured in the CCTV System into Integrati when run. If not supported, camera configuration will need to be manually entered into Integrati.	18	✓
<i>64-bit Integration Server Support</i>	The integration supports being run on the 64-bit integration server.	18	✓
<i>Show Camera Status</i>	The current online/offline status of configured cameras will be visible directly through Integrati.	18	✓
<i>Categorised Review Records</i>	Review generated by the integration will have a different category for different event types, allowing for easy filtering of specific CCTV events	19	✓
<i>License Plate Recognition</i>	License plates recognised by supported cameras in the CCTV system can be used to automatically allow access to configured Doors.	18	✓
<i>Trigger Inputs on CCTV Event</i>	Inputs in Integrati can be automatically triggered and restored when specified types of events are received from the CCTV system.	19	✓
<i>Control Iris and Focus</i>	Control the iris and focus of supported cameras on the CCTV system directly from the video stream	18	✓
<i>Control PTZ Tours</i>	PTZ Tours can be started and stopped directly from the video stream.	18	✗
<i>Display Video Frame Times</i>	When viewing archived CCTV footage, the time of the current frame will be displayed on the viewer control.	18	✓
<i>Show On-Screen Display</i>	Enable additional information (such as camera name and current playback time) to be displayed as an overlay on video streams.	18	✓
<i>Reverse Playback</i>	When viewing archived CCTV footage, the footage can be played in reverse.	18	✓
<i>Step Forward/Backward</i>	When viewing archived CCTV footage, the footage can be stepped through one frame at a time.	18	✓
<i>Export CCTV Clips</i>	Export video clip of archived CCTV footage to the Evidence Vault or to a file directly from Integrati.	19	✓

INTEGRITI MILESTONE CCTV PLUGIN

Feature	Feature Description	Ver	Y/N
<i>Export CCTV Snapshots</i>	Export still snapshot of archived CCTV footage to the Evidence Vault or to a file directly from Integrity.	19	✓
<i>Export Current Frame</i>	Export still snapshot of the current frame in the CCTV Viewer to the Evidence Vault or to a file directly from the CCTV Viewer.	20	✓
<i>Stream Audio With Video</i>	Receive audio from the microphone on a supported CCTV camera through an Integrity client workstation	18	✓
<i>Send Audio to CCTV Camera</i>	Send audio from an Integrity client workstation out of the speakers on a supported CCTV camera.	18	✓

Integriti Milestone CCTV Integration Compatibility

Required Integriti Version License

The Integriti Milestone CCTV Integration requires an Integriti Pro/Infiniti v21 license or higher to be present on the product key running the integration.

Minimum Installed Integriti Version

The Integriti Milestone CCTV integration is only compatible with an installation of Integriti Pro or Infiniti that is v20.0 or higher.

Licensing Requirements

Integriti CCTV Integrations require Integriti Business or Integriti Corporate Software Edition.

For Integriti Business, one CCTV License is required per camera to be used in the system. Integriti Business supports 32 Cameras initially, and additional cameras can be added in lots of 8 using the 996921 CCTV - Extra 8 Cameras license. Any unlicensed Cameras will still show up in Integriti; however, they will not be useable.

For Integriti Corporate, unlimited cameras are supported with no additional licenses required.

Tested Against

The Integriti Milestone CCTV plugin was built and tested against the following versions of software:

- Milestone Corporate 2022 R1
- Milestone Corporate 2021 R2
- Milestone Corporate 2021 R1
- Milestone Corporate 2020 R3
- Milestone Corporate 2020 R2
- Milestone Professional 2020 (20.2a)

Configuration

Ports Used

The following ports are used for communication between the Integriti Milestone integration and the Milestone server/cameras. These ports should be configured in the Integriti Integration Server and any Integriti Client Machine's firewalls to allow the integration to be used.

- HTTP - 80
- HTTPS - 443
- Recording Server - TCP 7563
- Event Server - TCP 22331
- Event Server – TCP 22333

Connection Configuration

Connection Configuration	
Connection Configuration	admin@127.0.0.1
Connection	
Address	127.0.0.1
Login Name	admin
Password	*****
Authentication Type	Basic
Domain (Optional)	
Logging	
Log Verbosity	Debug
Evidence	
Auto-Save Event Snapshots To Evidence Vault	
Export	
File Name Extension	avi
Audio Sample Rate	8000Hz
Overlays	
Camera Name Overlay	☐
Live Indicator	☐
Time Stamp Overlay	☐
PTZ	
Pan Speed	1
Tilt Speed	1
Zoom Speed	1

Connection

Address – The IP Address of the Server to connect to.

Login Name – The Username of the Milestone User to connect to the Server with. This User should have sufficient permissions configured in Milestone to allow all of the features of the plugin to be used.

Password - The Password of the Milestone User to connect to the Server with.

Authentication Type - The type of authentication to use when connecting to the Server. Select 'Basic' to connect using the Username and Password of a Basic User that has been configured in the Milestone Management software, select 'Windows User' to connect using the Username and Password of a Windows User that has been configured in the Milestone Management software and select 'Current Windows User' to connect using the username and password of

the Windows User currently logged into the Integriti Integration Server for Persisted Connections and Refreshing the device, and the Windows User currently logged into the Client machine when viewing video from Integriti Clients.

Domain - If an 'Authentication Type' of 'Windows User' is selected, this property should be set to the domain of the Windows User to use to log in. This property should be left blank for any other 'Authentication Type'.

Allow Secure Connection Only – If checked, requires a secure connection to the server. This is not supported for VMS versions older than 2021 R1.

Logging

Log Verbosity - Only logs of the specified level or higher will be logged. If Warning is selected, only Warning, Error and Fatal logs will be written to the log.

Evidence

Auto-Save Event Snapshots To Evidence Vault - Select the types of events to automatically save associated Snapshots to the Evidence Vault for (where Snapshots are available). If none are selected, no Snapshots will be automatically saved to the Evidence Vault.

Export

File Name Extension - Select the file name extension.

Audio Sample Rate - If Audio can be exported with the corresponding video the chosen sample rate will be applied.

Overlays

Camera Name Overlay - Set to true to add an overlay containing the Camera's Name to any video streams opened for child Cameras of this Recorder.

Live Indicator - Set to true to add an overlay containing an indication of whether the current stream is live to any video streams opened for child Cameras of this Recorder.

Time Stamp Overlay - Set to true to add an overlay containing the current Timestamp of the stream to any video streams opened for child Cameras of this Recorder. Timestamp will only show when playing recorded footage, and will not show on live streams.

PTZ

Pan Speed - Select the speed of Pan PTZ Operations.

Tilt Speed - Select the speed of Tilt PTZ Operations.

Zoom Speed - Select the speed of Zoom PTZ Operations.

Commands

CCTV Recorder Commands

The following commands can be performed on a CCTV Recorder:

Trigger Event	Trigger a pre-configured event in the Milestone Server. Events to be triggered must be configured in the Milestone Server first then retrieved by Integrati. This is done by executing the 'Refresh Device' function in the Milestone Recorder Configuration Editor.
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CCTV Camera Commands

The following commands can be performed on a CCTV Camera:

Send Camera To PTZ Preset	Send the selected Camera to the PTZ Preset with the Id or name specified by 'Ptz Id'.
Add Alarm	Add an alarm to the Milestone Server. The alarm will show in the 'Alarms' list under the 'Alarm Manager' tab.
Update Alarm	Update an existing Alarm instance in the Milestone Server.

Manually Add Alarm To Milestone XProtect

Invoke Integrated Device Command

Select Command:
Add Alarm

Settings

Command Details

(Optional) Alarm ID	
Assigned To...	
Message	
Start Time	
Priority	0

Command Details

OK Cancel

Alarm ID: Optional GUID of this alarm. Leave blank to generate a new GUID. Otherwise this is in the form of a string e.g. 59BC6076-7FD7-489D-BDD3-8F637C398062. Note: This ID is for internal use and will not show in the Milestone XProtect.

Assigned To: The name of the User this alarm is assigned to.

Message: Alarm message to show in Milestone.

Start Time: The time the alarm was first raised. Provide a time represented in string format YYYY-MM-DD HH:MM:SS e.g. 2020-07-13 14:57:32. If this field is left blank then current time will be used.

Priority: Priority of the alarm. 1: High, 2: Medium, 3: Low.

Manually Update Alarm In Milestone XProtect

Invoke Integrated Device Command

Select Command:
Update Alarm

Settings

Command Details

Alarm ID	
Text	
State	0
Priority	0
Assigned To...	

Command Details

OK Cancel

Alarm ID: GUID of the alarm to be updated in the string form e.g. 59BC6076-7FD7-489D-BDD3-8F637C398062. Must be the same as the one provided in 'Add Alarm' command if updating an alarm generated by the 'Add Alarm' command.

Text: Text to add to this Alarm's History.

State: The state the alarm will be updated with. 0: Any, 1: New, 4: In Progress, 9: On Hold, 11: Closed.

Priority: The new priority given to this alarm. 1: High, 2: Medium, 3: Low.

Assigned To: The name of the User this alarm is assigned to.

Generating Alarms In Milestone From Integriti Alerts

It is possible for 'Add Alarm' and 'Update Alarm' commands to be used in Integriti's Alert feature. Here the 'Add Alarm' command should be used as an action in response to an event that creates the Alert. The Update Alarm command should be used as an action in the Claimed, Finalized and/or Retriggered sections. The below snapshots show setup steps for the alert definition using these commands.

1. Create an alert according to the Integriti 'System Configuration Handbook'.

Configure Task Action

Action Type: Invoke Integrated Device Command

Reference Device: AUTODOME IP 4000 HD (19... x ... Use From Context ☒

Command: Add Alarm

Log Review ☐

Command Details

(Optional) Alarm ID	{Alert.ID}	...
Assigned To...	{Alert.Actor.Name}	...
Message	{Alert.Message}	...
Start Time	{Alert.DateTimeCreated}	...
Priority	2	

Command Details

OK Cancel

2. In the 'Created' section click 'Add' to Configure a Task Action for the alert.
3. Select 'Invoke Integrated Device Command' in the 'Action Type' field.
4. Select a camera in 'Target Device' field and tick 'Use From Context'.
5. Select 'Add Alarm' from the dropdown in the 'Command' field.
6. To configure the Alarm Command details click on the '...' button to the right in each field and select the appropriate string as shown. Manually enter the desired priority for the alarm (1: High, 2: Medium, 3: Low).

Configure Task Action

Action Type: Invoke Integrated Device Command

Reference Device: AUTODOME IP 4000 HD (192.168.1.100) Use From Context ☒

Command: Update Alarm

Log Review ☐

Command Details

Alarm ID	{Alert.ID}
Text	{Alert.Message}
State	0
Priority	0
Assigned To...	{Alert.Actor.Name}

Alarm ID
GUID of the alarm to be updated. Must be the same as the one provided in 'Add Alarm' command if updating an alarm generated by the 'Add Alarm' command

OK Cancel

7. In the 'Retriggered' section click 'Add' to Configure a Task Action for the alert.
8. Select 'Invoke Integrated Device Command' in the 'Action Type' field.
9. Select a camera in 'Target Device' field and tick 'Use From Context'.
10. Select 'Update Alarm' from the dropdown in the 'Command' field.
11. To configure the Alarm Command details click on the '...' button to the right in each field and select the appropriate string as shown. Manually enter the desired State and Priority).

Configure Task Action

Action Type: Invoke Integrated Device Command

Reference Device: AUTODOME IP 4000 HD (192.168.1.100) Use From Context ☒

Command: Update Alarm

Log Review ☐

Command Details

Alarm ID	{Alert.ID}
Text	{Alert.Message}
State	4
Priority	0
Assigned To...	{Alert.Actor.Name}

Alarm ID
GUID of the alarm to be updated. Must be the same as the one provided in 'Add Alarm' command if updating an alarm generated by the 'Add Alarm' command

OK Cancel

12. In the 'Claimed' section click 'Add' to Configure a Task Action for the alert.
13. Select 'Invoke Integrated Device Command' in the 'Action Type' field.

14. Select a camera in 'Target Device' field and tick 'Use From Context'.
15. Select 'Update Alarm' from the dropdown in the 'Command' field.
16. To configure the Alarm Command details click on the '...' button to the right in each field and select the appropriate string as shown. Manually enter the desired State and Priority).

Configure Task Action

Action Type: Invoke Integrated Device Command

Reference Device: AUTODOME IP 4000 HD (19...) Use From Context ☒

Command: Update Alarm

Log Review ☐

Command Details

Alarm ID	{Alert.ID}	...
Text	{Alert.Message}	...
State	11	
Priority	0	
Assigned To...		...

Command Details

OK Cancel

1. In the 'Finalized' section click 'Add' to Configure a Task Action for the alert.
2. Select 'Invoke Integrated Device Command' in the 'Action Type' field.
3. Select a camera in 'Target Device' field and tick 'Use From Context'.
4. Select 'Update Alarm' from the dropdown in the 'Command' field.
5. To configure the Alarm Command details click on the '...' button to the right in each field and select the appropriate string as shown. Manually enter State 11 to 'Close' the alarm in Milestone XProtect).

Troubleshooting

Add Alarm/Update Alarm commands do not work

Does the Milestone Event Server address registered in the VMS registered services include hostname? If it does, edit the URL to include the IP address instead. This can be done in the Milestone Management Client under Tools -> Registered services.

Persisted Connection fails to connect

Does the persisted connection establish a connection after the Milestone Xprotect Event Server has been restarted? If Allow Secure Connection Only is selected, is a secure connection possible?

No Video is Received from the Server

Is the server running XProtect version 2019 R1 or later and has the recording server got 'encrypt connection from clients and services' enabled? This may lead to no video and affects Integrati as well as the XProtect Client. Checking the setting can be found in the Recording server's tray icon's settings. This can be either disabled in the settings or if required, fixed with the following methods: https://supportcommunity.milestonesys.com/s/article/no-video-from-the-Recording-Server-using-encrypted-connections?language=en_US