INTEGRITI AXXON NEXT CCTV PLUGIN

INNER RANGE recommends that all Inner Range systems be installed & maintained by FACTORY CERTIFIED TECHNICIANS.

For a list of Accredited Dealers in your area refer to the Inner Range Website.
http://www.innerrange.com

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Integriti Axxon Next CCTV Integration Manual

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CCTV Capabilities

Core CCTV Capabilities

Feature	Feature Description	Ver	Y/N
Stream Live CCTV Footage	Live CCTV footage can be streamed from online cameras in the CCTV system to an Integriti client.	17	✓
Select Custom Aspect Ratio	Select the aspect ratio to use when streaming CCTV footage on a per-camera or per-recorder basis.	17	✓
Stream Archived CCTV Footage	Archived CCTV footage can be streamed from online cameras in the CCTV system to an Integriti client.	17	✓
Control Archived CCTV Playback Speed	Playback speed of archived CCTV footage can be controlled from the Integriti client.	17	✓
Auto-Play CCTV Footage from Events	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.	17	✓
Create Child Devices from Camera Configuration	Child CCTV Cameras will be created based on the Camera configuration on Refreshing Child Devices	17	✓
Associate Cameras With Entities	Cameras loaded from the CCTV system can be associated with Integriti Entities to allow direct control of one from the other.	17	✓
Show Associated CCTV From Event	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)	17	✓
Control PTZ Cameras	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.	17	✓
Send Cameras to PTZ Preset	Send supported PTZ cameras on the CCTV system to preconfigured PTZ presets directly from the video stream.	17	✓
Digital PTZ Control	Digitally zoom the CCTV stream's image for non-PTZ cameras and archived footage.	17	✓

CCTV Layouts	Store a collection of Cameras with an specific viewer layout to be brought up at a later point in time	20	✓
CCTV Surrounding Cameras View	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	✓
Trigger Actions in the CCTV System	Trigger actions or commands in the CCTV system directly from Integriti.	17	✓
View and Control Cameras on Schematics	Cameras can be added to Schematics Maps in Integriti and directly viewed and controlled directly from the Schematic. Each camera's state is immediately visible on the Schematic where available.	17	✓
Sync Time (via NTP)	Sync the time of the CCTV system and Integriti to match via an NTP.	17	✓
Display Connection Status to CCTV System	Display whether or not Integriti is currently connected to the CCTV system.	17	✓
Receive Events/Alarms from the CCTV System	Log events/alarms occurring on the CCTV system to Integriti's Review.	17	✓
Trigger Integriti Actions on CCTV Events/Alarms	Trigger actions to automatically occur in Integriti whenever specific events/alarms are received from the CCTV system.	17	✓
Generate Alerts from CCTV Events/Alarms	Automatically generate and restore Alerts tied to a specific Camera in Integriti whenever specific events/alarms are received from the CCTV system.	19	✓

Advanced CCTV Capabilities

Feature	Feature Description	Ver	Y/N
Automatically Load Camera Configuration	Refreshing Child Devices will automatically populate all cameras configured in the CCTV System into Integriti when run. If not supported, camera configuration will need to be manually entered into Integriti.	17	✓
64-bit Integration Server Support	The integration supports being run on the 64-bit integration server.	18	✓
Show Camera Status	The current online/offline status of configured cameras will be visible directly through Integriti.	17	✓
Categorised Review Records	Review generated by the integration will have a different category for different event types, allowing for easy filtering of specific CCTV events	19	✓
License Plate Recognition	License plates recognised by supported cameras in the CCTV system can be used to automatically allow access to configured Doors.	18	✓
Trigger Inputs on CCTV Event	Inputs in Integriti can be automatically triggered and restored when specified types of events are received from the CCTV system.	19	✓
Control Iris and Focus	Control the iris and focus of supported cameras on the CCTV system directly from the video stream	17	✓
Control PTZ Tours	PTZ Tours can be started and stopped directly from the video stream.	17	✗
Display Video Frame Times	When viewing archived CCTV footage, the time of the current frame will be displayed on the viewer control.	17	✓
Show On-Screen Display	Enable additional information (such as camera name and current playback time) to be displayed as an overlay on video streams.	17	✗
Reverse Playback	When viewing archived CCTV footage, the footage can be played in reverse.	17	✓
Step Forward/Backward	When viewing archived CCTV footage, the footage can be stepped through one frame at a time.	17	✗
Export CCTV Clips	Export video clip of archived CCTV footage to the Evidence Vault or to a file directly from Integriti.	19	✗

Export CCTV Snapshots	Export still snapshot of archived CCTV footage to the Evidence Vault or to a file directly from Integriti.	19	✖
Export Current Frame	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	✖
Stream Audio With Video	Receive audio from the microphone on a supported CCTV camera through an Integriti client workstation	17	✖
Send Audio to CCTV Camera	Send audio from an Integriti client workstation out of the speakers on a supported CCTV camera.	17	✖

Integriti Axxon Next CCTV Plugin Compatibility

Required Integriti Version License

Integriti Pro/Infiniti v20 license

Minimum Installed Integriti Version

Integriti Pro/Infiniti v19.0 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 Axxon Next CCTV plugin was built and tested against the following versions of software:

- Axxon Next v4.5.0.535

Installation/Updating

NOTE: *When installing multiple Integriti Integration Plugins, the plugin with the highest build number should be installed last. The build number can be found in brackets in the file name of the installer for the plugin.*

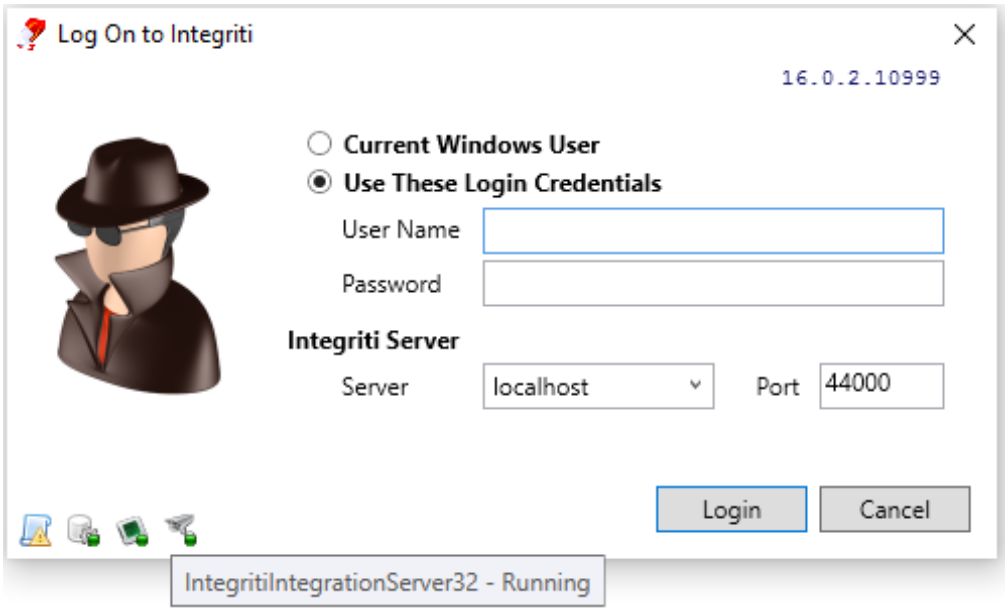
Close all instances of the Integriti software suite and stop the Integriti Integration Server service.

Download and run the plugin installer on the server and client workstations.

Integriti_CCTV_AxxonNext_Plugin_*X.X*_(*XXXXX*).exe

After the installation has completed, you will need to restart the Integration Server service.

On the Integriti server, start the Integriti System Designer as an administrator. Click Integration service icon on the bottom left of the login dialog to stop and start the service.



Enrolment

Axxon Next Configuration

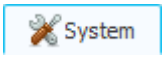
Prior to running the Integriti Axxon Next Plugin, it is necessary to ensure that the Axxon Next Web Server is correctly configured in the Axxon Next software for the server to connect to. This can be configured under the properties for the selected server under the devices tab, and must be enabled.

Web-server properties		
1	Enable	Yes
2	Port	80
	RTSP port	554
	RTSP/HTTP port	8554
3	URL path	/

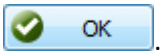
See the Axxon Next documentation for more details on configuring the Axxon Next Web Server.

Integriti Configuration

To enrol a Axxon Next CCTV Server

1. Click on the 

tab followed by 

.
2. Select Axxon Next CCTV from the list that appears and click 

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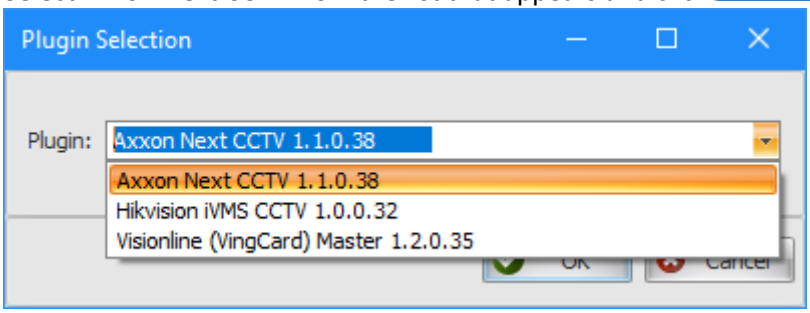
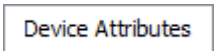
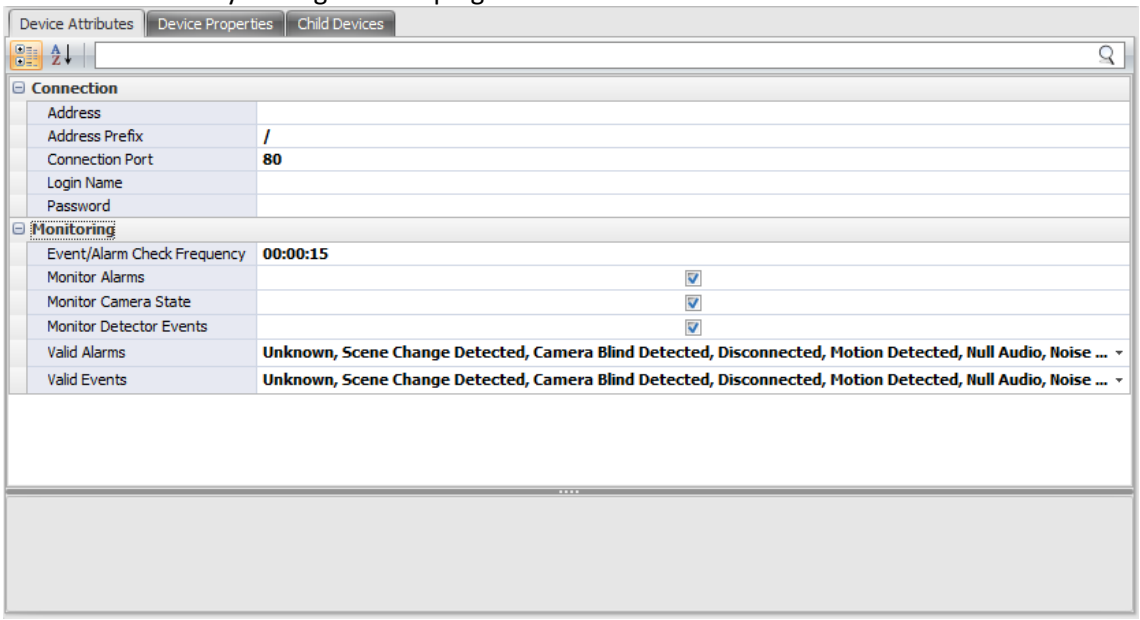


3. In the editor window that appears, give the new CCTV Recorder a name.
4. Tick 

above the 

tab if events are to be received the Axxon Next server.
5. Select the Integriti Integration server that will be used for the integration.
6. Enter the necessary settings for the plugin.



Device Attributes

Connection

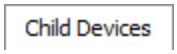
- *Address* – The IP Address of the Server to connect to.
- *Address Prefix* – Select the URL prefix configured for the Axxon Next Web Server. This is configured in the 'URL Path' property of the Web Server configuration in the Axxon Next software.
- *Connection Port* – The Port used to connect to the Server. This is 80 by default. This port should be configured in the Integriti Integration Server's firewall to allow it to be used.
- *Login Name* – The Username of the Axxon Next User to connect to the Server with. This User should have sufficient permissions configured in Axxon Next to allow all of the features of the plugin to be used.
- *Password* – The Password of the Axxon Next User to connect to the Server with.

Monitoring

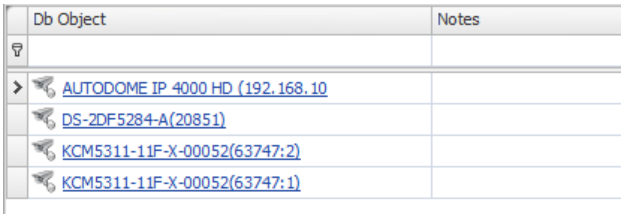
- *Event/Alarm Check Frequency* – Select the frequency at which to check for new Alarms and Events from the Axxon Next System.
- *Monitor Alarms* – Set to true to enable monitoring of Alarms from the connected Server. Only Alarms of types selected in the 'Valid Alarms' property will be monitored. Alarms will only be received when 'Maintain Persisted Connection' is selected.
- *Monitor Camera State* – Set to true to enable monitoring of Camera State changes from the connected Server. The state of configured CCTV Cameras in Integriti will be updated as the associated Camera's state changes in the server. Camera State changes will only be received when 'Maintain Persisted Connection' is selected.
- *Monitor Detector Events* – Set to true to enable monitoring of Detector Events from the connected Server. Only Detector Events of types selected in the 'Valid Events' property will be monitored. Events will only be received when 'Maintain Persisted Connection' is selected.
- *Valid Alarms* – Allows the types of Alarms received from the Server to be filtered based on event type. Select the event types to be monitored from the dropdown list.
- *Valid Events* – Allows the types of Detector Events received from the Server to be filtered based on event type. Select the event types to be monitored from the dropdown list.

Child Devices

7. Click on 

.
After a short wait, a list of all of the cameras configured in the selected CCTV Server will be added to the 

tab.



8. You can optionally add notes next the child devices.
9. Save and close the editor window for the new integrated CCTV device.

Events

Receiving Detector Events

On the Axxon Next server to receive detector events ensure that the corresponding detectors are correctly configured for each camera to receive events from. See the Axxon Next documentation for details on configuring detectors on a camera.

In the Integriti System Designer software:

1. Create and configure an Axxon Next CCTV Recorder as described in Enrolment.
2. Ensure that 'Monitor Detector Events' is set to true and 

is ticked.
3. Select the types of events to be received in 'Valid Events'.
4. Upon saving the Axxon Next CCTV Recorder, Review Messages will be automatically generated for any event that occurs in the Axxon Next Server of any event types selected in 'Valid Events'.

Event types that can be received include:

- Scene Change Detected
- Camera Blind Detected
- Disconnected
- Motion Detected
- Null Audio
- Noise Audio
- Signal Audio
- Relay
- One Line
- Come In Zone
- Lost Object
- Out Of Zone
- Long In Zone
- Move In Zone
- Stop In Zone
- Face Appeared
- Plate Recognised

CCTV events will appear as an 'Integration' type with the source being the Integriti integration server and the text prepended by '[Axxon Next]'.

e.g. "CCTVServer32: IntegritiIntegrationServer32@YOURINTEGRITISERVER"

Examples of event text received…

```
[Axxon Next] Face Appeared Event on '3.Camera 3' at 01/01/2017 11:00:00 AM - Alert State: 'happened', Origin: 'hosts/AXXON-NEXT-SERVER/AVDetector.3/EventSupplier'

[Axxon Next] Come In Zone Event on '1.Camera 1' at 01/01/2017 11:30:00 AM - Alert State: 'ended', Origin: 'hosts/AXXON-NEXT-SERVER/AppDataDetector.1/EventSupplier'

[Axxon Next] Stop In Zone Event on '2.Camera 2' at 01/01/2017 11:45:00 AM - Alert State: 'began', Origin: 'hosts/AXXON-NEXT-SERVER/AppDataDetector.2/EventSupplier'
```

Receiving Alarms

In the Integriti System Designer software:

1. Create and configure a Axxon Next CCTV Recorder as described in Enrolment.
2. Ensure that 'Monitor Alarms' is set to true and 

is ticked.
3. Select the types of events to be received in 'Valid Alarms'.
4. Upon saving the Axxon Next CCTV Recorder, Review Messages will be automatically generated for any alarm that occurs in the Axxon Next Server of any alarm types selected in 'Valid Alarms'.

CCTV alarms will appear as an 'Integration' type with the source being the Integriti integration server and the text prepended by '[Axxon Next]'.
e.g. "CCTVServer32: IntegritiIntegrationServer32@YOURINTEGRITISERVER"

Examples of alarm text received…

```
[Axxon Next] Come In Zone Alarm on 'Axxon Next' at 01/01/2017 10:00:00 AM - Reasons: [Rule Alert,Video Detector]

[Axxon Next] Stop In Zone Alarm on 'Axxon Next' at 01/01/2017 10:15:00 AM - Reasons: [Rule Alert,Video Detector]

[Axxon Next] Face Appeared Alarm on 'Axxon Next' at 01/01/2017 10:30:00 AM - Reasons: [Rule Alert,Video Detector]
```

Monitoring CCTV Device State

1. Create and configure the Axxon Next CCTV Recorder as described in Enrolment.
2. Retrieve child Cameras from the selected server by selecting 

in the CCTV Recorder.
3. In the selected CCTV Recorder set 'Monitor Camera State' to true and ensure 

is ticked.
4. Upon saving the CCTV Recorder, the state of all cameras retrieved from the server in step 2. will be updated to their current state, and any future state changes will begin to be monitored through both Review messages and the 'Status' and 'Summary' properties of the CCTV Cameras in Integriti.

Name	DeviceType	Status	Summary
Type here to search…	Type here to	Type here to se.	Type here to search..
Warehouse C7	Camera	Online	Online
Reception C6	Camera	Online	Online
DS-2DF5284-A(20851)	Camera	Offline	Disconnected
Camera 1 (192.168.104.4)	Camera	Offline	Disconnected

License Plate Recognition

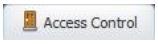
NOTE: License Plate Recognition requires Integriti v18 or higher and the License Plate Recognition license.

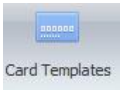
Axxon Next Server Configuration

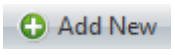
1. Ensure License Plate Recognition is correctly configured and enabled on any cameras to receive LPR events from. See Axxon Next documentation for more details on configuring LPR.

Integriti System Designer Configuration

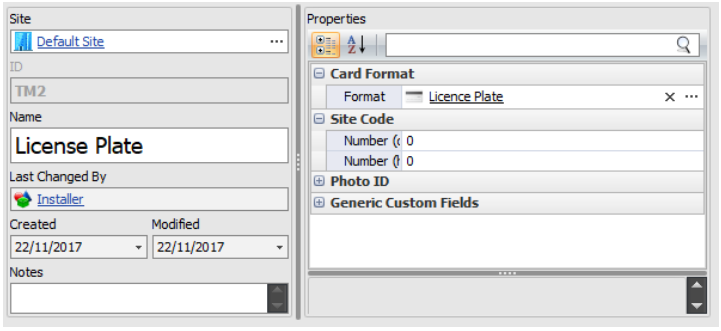
Configuring License Plates

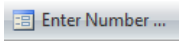
1. Select the 

tab and open 

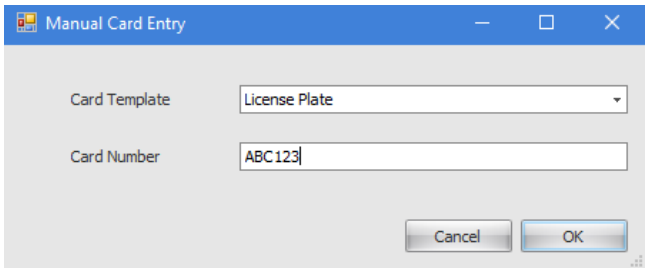
2. Press the 

button to create a new Card Axxon Next, and name the newly created Card Axxon Next 'License Plate'.
3. Set the Format property of the Card Axxon Next to the Card Format called 'License Plate' and Save and Close the Card Axxon Next.



4. For each License Plate to be added to the system:
   a. Open the editor for the User to add the license plate to.
   b. Ensure the User has the necessary permissions for the Door to use license plates on.
   c. Select 

to add the license plate to the selected User.
   d. In the Manual Card Entry Dialog select 'License Plate' for the Card Axxon Next and set the Card Number to the License Plate to add.



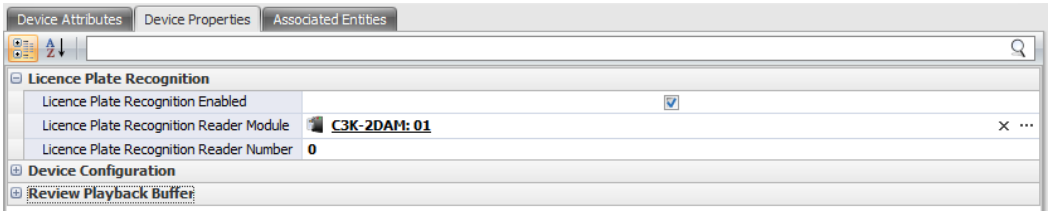
   e. Press Ok and Save and close the User editor.

Enabling License Plate Recognition

1. Create and configure the Axxon Next CCTV Recorder as described in Enrolment.
2. Ensure 'LPR Monitoring' is set to 'Smart'.

3. Retrieve child Cameras from the selected server by selecting 

in the CCTV Recorder.
4. For each Camera to enable License Plate Recognition on:
    a. Open the editor for the Camera and open the 'Device Properties' tab.
    b. Ensure 'License Plate Recognition Enabled' is checked and set 'License Plate Recognition Reader Module' and 'License Plate Recognition Reader Number' to the module and number of the reader to access with LPR through the selected camera.

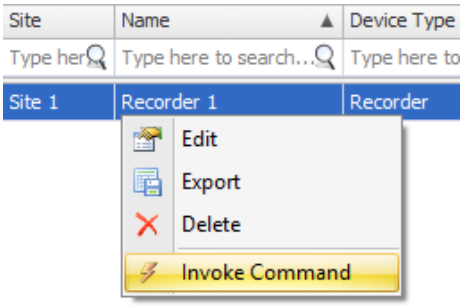


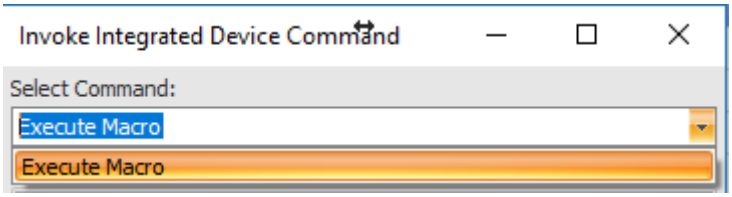
    c. Save and close the Camera editor.
5. Once Persisted Connection is enabled for the CCTV Recorder, any license plates that are detected on enabled cameras will trigger a card read at the selected card reader of the detected license plate. If this license plate is associated with a User, this will have the same behaviour as if the User had physically badged a card at the reader.

Invoking Commands

Invoking Commands on Axxon Next Recorders

To perform a command on the Axxon Next System through the Integriti software select 'Invoke Command' from the context menu of the CCTV Recorder for the selected server.



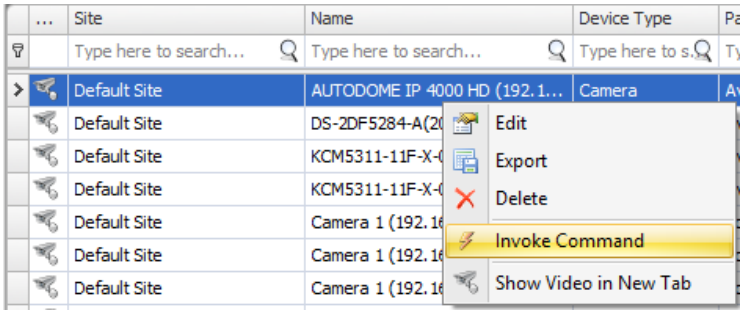


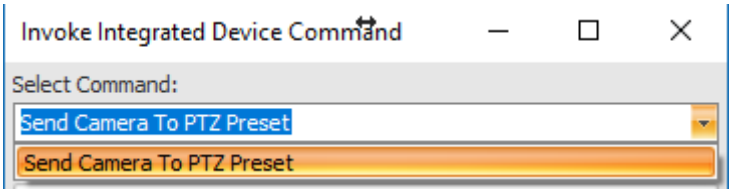
From the Invoke Integrated Device Command window that appears, select the required command from the dropdown box:

Execute Macro	Executes the selected Macro on the selected Axxon Next server. The 'Refresh Device' button must in the Integriti Recorder configuration must have been pressed in order to load the list of Macros from the server.

Invoking Commands on Axxon Next Cameras

To perform a command on a camera in the Axxon Next System through the Integriti software select 'Invoke Command' from the context menu on a CCTV Camera for the selected server.





From the Device Command window that appears, select the required command from the dropdown box:

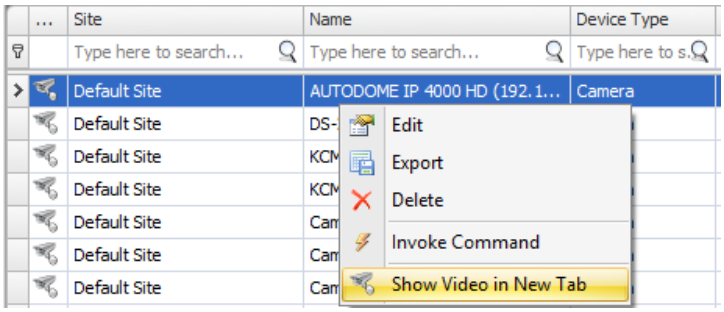
Send Camera To PTZ Preset	Sends the selected Camera to the PTZ Preset with the 'PTZ Id' given. The selected Camera must be online at the time the command is sent and have a PTZ Preset configured with the given Id for this command to work.

Viewing Video from CCTV Camera

Viewing Live Video on a Connected CCTV Camera

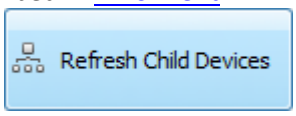
1. Create and configure the Axxon Next CCTV Recorder as described in Enrolment.
2. Retrieve child Cameras from the selected server by selecting 

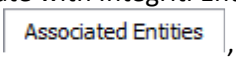
in the CCTV Recorder. The Camera to view video from must be configured correctly for streaming video on the Axxon Next server.
3. Select 'Show Video in New Tab' from the context menu on the CCTV camera to view video from.



4. The live video stream for the selected camera will then be shown in a new tab.

Associating Entities With a CCTV Camera

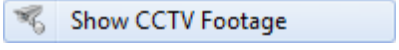
1. Create and configure the Axxon Next CCTV Recorder as described in Enrolment.
2. Retrieve child Cameras from the selected server by selecting 

in the CCTV Recorder. The Camera to view video from must be configured correctly on the Axxon Next server.
3. Close the editor for the CCTV Recorder and open the editor for the CCTV Camera to associate with Integriti Entities.
4. Under 

, click on the 

button.
5. From the window that appears, select the Entities to associate with the CCTV Camera.
6. Save and close the window.

Viewing Archived Video From a Review Event

If any of a Review Message's Entities have associated cameras, it is possible to view archived video from the time of the Review Message by right clicking the selected Review message and selecting 

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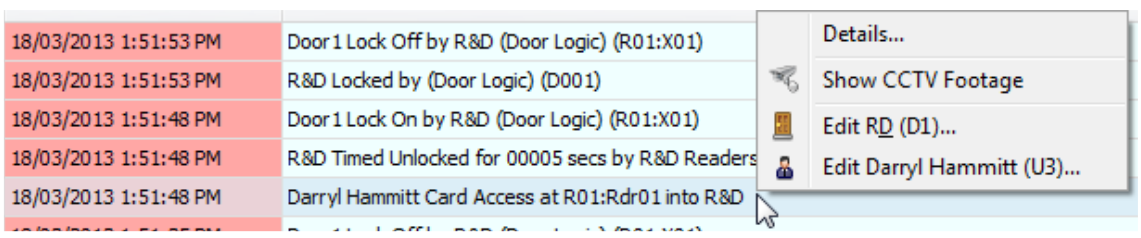
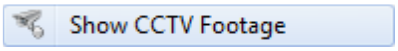
It is also possible to view CCTV footage for Review Messages from the CCTV Plugin, if the event comes from a Camera in the CCTV System, by following the steps above.



Upon selecting 

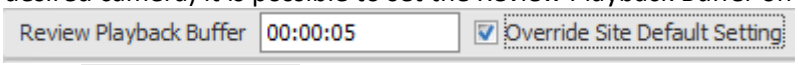
on a valid Review Message, the archived video stream of all Cameras associated with any of the Entities in the Review Message will start playing in a new tab at the time that the Review Message occurred minus the Review Playback Buffer for the selected Camera.

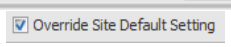
Configuration

Review Playback Buffer

The Review Playback Buffer allows the amount of time prior to an event occurring to start playing archived video footage for a camera when viewing CCTV footage for a Review Message. This allows the lead-up to the event to be shown, as well as the event itself. The Review Playback Buffer can be set in the following places, with each having different scopes:

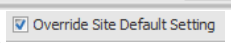
- CCTV Camera – From the editor for a CCTV Camera (accessed by double clicking on the desired camera) it is possible to set the Review Playback Buffer on a per camera basis.



Check 

to use the value entered instead of the default value for the Site.

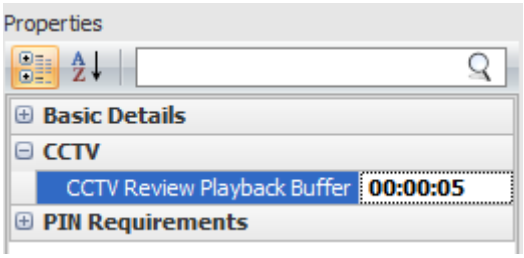
- CCTV Recorder – From the editor for a CCTV Recorder (accessed by double clicking on the desired recorder) it is possible to set the Review Playback Buffer for all child cameras of the selected Recorder.

Check 

to use the value entered instead of the default value for the Site.
The selected Review Playback Buffer will be used for all child Cameras of the selected Recorder that do not have 

checked.

- Site Properties – From the editor for the Site Properties of a Site (accessed by double clicking on the desired Site) it is possible to set the Review Playback Buffer for all Cameras in the selected Site.



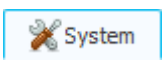
The selected Review Playback Buffer will be used for all Cameras in the selected Site that do not have a 

checked in its parent Recorder or in the Camera itself.
A Review Playback Buffer set from Site Properties will apply to any sub-sites of the selected Site, unless said Site has a Review Playback Buffer explicitly set.
To set the same Review Playback Buffer for all Cameras in an Integriti system with 

unchecked, the Review Playback Buffer of the top-level site can be set.

Disabling CCTV Cameras

Once a CCTV Recorder has been enrolled, and Child Cameras retrieved from the server, not all of the Cameras may be required. As enabled Cameras take up Camera licenses it is possible to disable cameras through the following steps:

1. Click on the 

tab followed by 

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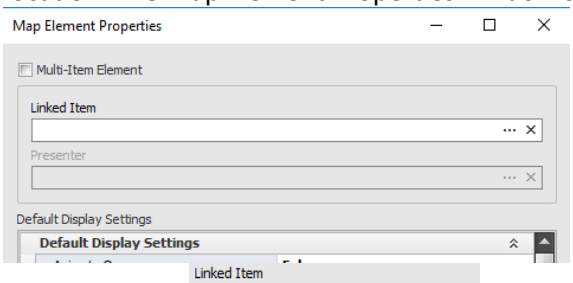
2. Double click the CCTV Camera to be disabled. The editor window for the CCTV Camera should appear.
3. Click on Disable Device to check the checkbox and disable the selected CCTV Camera.
4. Save and close the editor window and the CCTV Camera will be disabled.

NOTE: Disabled CCTV Cameras cannot be used, and must be re-enabled (by unchecking Disable Device in the CCTV Camera) before they can be used again.

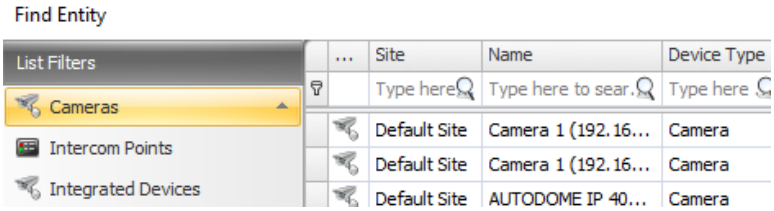
Adding CCTV Cameras to Schematics

1. In Integriti System Designer double click on the Schematic Map to add the desired CCTV Camera/s to. The editor window for the Schematic should appear.
2. Select Icon from the bar at the top of the screen and click on the map at the desired location of the CCTV Camera to add a new icon to the Schematic at the selected location. The Map Element Properties window should appear.



3. Select ··· in the 

property to select the Camera to add to the Schematic. The Find Entity window should appear.
4. From the left hand side of the Find Entity window select Cameras to filter the list down to show only Cameras.

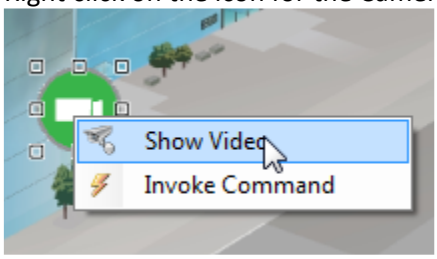


5. From the list of CCTV cameras available in the system, select the Camera to add to the Schematic and select OK to close the Find Entity window.
6. Select OK again in the Map Element Properties window to finish adding the selected Camera to the map.
7. Move and resize the newly added icon ( ) for the selected CCTV Camera to the desired location and size.
8. Save and close the editor for the Schematic.

Upon being added to a Schematic, the icon for the CCTV camera will allow for the following in the Schematics Map:

- If CCTV Device State monitoring is enabled, the live state of the camera will be shown on the map through different coloured icons, as well as a text description when the icon is clicked on.
- Live video for the CCTV camera can be shown through one of the following two approaches:

- Right click on the icon for the Camera and select Show Video.



- Click on the icon for the Camera then click on Show Video in the Commands toolbox.

- Invoking one of the available commands for the selected Camera.

Troubleshooting

Plugin doesn't appear in 'New Integrated Device' List	Restart the Integriti Integration Server and restart any instances of Integriti System Designer or Integriti Gatekeeper open on the computer experiencing the problem
Live video not streaming from camera	• Is the camera is correctly configured in the Axxon Next server? • Can live video be viewed from the Axxon Next software? • Does the logged in Axxon Next User have sufficient permissions for viewing live video?
Archived video not streaming from camera	• Is the camera is correctly configured in the Axxon Next server? • Can archived footage be viewed on the Axxon Next server for the selected time (and does archived footage exist at the selected time)? • Does the logged in Axxon Next User have sufficient permissions for viewing archived video?
Archived video going to the wrong time	• Does archived footage exist at the selected time? • Is the time the same on both the Axxon Next server and the client computer viewing archived video from?