



JFA/Stafix Perimeter Patrol Integration White Paper



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Cathexis makes a best attempt to ensure that the equipment and license requirements of the third-party equipment are adequately specified. However, it is possible that the requirements of the third-party equipment may change over time, including the interface hardware/firmware and licensing. The reader is urged to clarify the latest requirements directly with the third-party equipment supplier



1. Introduction

This document indicates the features/abilities of the JVA/Stafix Perimeter Patrol software when integrated with CathexisVision. Functionally this integration will entail the triggering of standard CathexisVision Events, based on information received from the device.

For instructions on setting up the integration, please consult the JVA/Stafix Integration Guide, and the CathexisVision Setup Manual.

1.1 Integration Purpose

This integration receives messages from the JVA Perimeter Patrol software which controls electric fence energizers, represented by zone objects. Zones may be sub-divided into up to a total of 50 sectors which inherit states and commands from the parent zone. Device objects may be linked to cameras, allowing associated footage to be databased according to the configuration of CathexisVision events and alarms which trigger on information received from the Perimeter Patrol software. Device event messages received from the Perimeter Patrol software are databased.

Note:

1. For information regarding the regular operation of a JVA/Stafix device, please consult the relevant company documentation.
2. Please consult the software/hardware manufacturers for information on physical hardware requirements.
3. The ***JVA Perimeter Patrol Integration App-note*** is available on the CathexisVision website.
4. There is a General Integration section in the main ***CathexisVision Setup Manual***. It contains information on creating an integration database, as well as a general introduction to the Integration Panel. **Read over this section.**

1.2 Requirements

1.2.1 General Requirements

- CathexisVision 2018.3 and later.
- JVA Perimeter Patrol software, Version 5.2.7.
- Windows operating system. Not supported on Linux.
- WinPCap software, Version 4.1.2.
- Microsoft SSCERuntime software (32/64-bit depending on OS).
- Net Framework version 4.5 or later (must be installed/upgraded before creating the integration).

Note: Sector objects are only supported in CathexisVision 2018.4 and later.



1.2.2 License Requirements

License	Name	Description
CJVA-1001	JVA Object license.	This license is the “base” license to integrate with a perimeter system. It is applied to the server to which the perimeter device is connected. It will allow for the connection of a single JVA/Stafix device.
CJVA-2000	JVA Device license.	These licenses apply to zones, in a perimeter system. The CJVA-2000 will license a single zone, and may be added on a zone-by-zone basis.
CJVA-3000	JVA Bundle license (includes device and unlimited zone/object licenses).	This license includes the CJVA-2000 JVA/Stafix device license, and also provides support for unlimited CJVA-1001 object licenses.

Note: In this integration, individual devices will require a license for each device.

A NOTE ON CAMERA CHANNELS

The CathesisVision software packages have **limits on camera channels**. A multi-sensor camera is physically a single device (camera) but it **requires a camera channel for each one of the internal cameras**. The same applies to an encoder: a 16-channel encoder will account for 16 camera channels on the CathesisVision software, even though it is a single device. Even when a camera or device only uses a single IP license, the camera channel limit will still apply.

1.3 Integration Components and Features

All CathesisVision integrations have two component levels: Device and Object.

Device The device is CathesisVision software’s interface, which handles all the interaction between CathesisVision and the integrated hardware. When an integration is added to the CathesisVision system, a device is added. The messages received from the device are called Device Events.

Objects Objects are the individual pieces of hardware that comprise the integration. There may be multiple "object types" under the objects group. For example, the main controller and door nodes of an access control system are both objects. They are different types of objects.



2. Features and Abilities

This section indicates the features/abilities of the JVA Perimeter Patrol device when integrated with CathesisVision.

2.1 General Device Features

- The CathesisVision JVA integration communicates via TCP with the JVA Perimeter Patrol software which controls and monitors electric fence energizers, allowing for the generation of CathesisVision system events based on information received from the JVA device.
- All events on the JVA Perimeter Patrol software generate a device event in CathesisVision.
- The JVA Perimeter Patrol software maintains a log of all events taking place on the system. The full log is sent to CathesisVision every time a new event is added to the JVA software log.
- The device can be controlled as a result of a CathesisVision system event.
- Zone and sector object events can be used to trigger a CathesisVision system event.
- Zone and sector objects support overlays indicating zone name, sector name (if applicable), state and alarm state.

2.2 Device Objects

- Device objects populate automatically as soon as communication between the CathesisVision unit and the JVA Perimeter Patrol software is established.
- Objects may be linked to cameras to associate device events with video footage.

Object type	Feature		
General	<ul style="list-style-type: none"> • This integration has Perimeter patrol, Zone, and Sector objects. • Events on the device can be used to trigger CathesisVision system events. • Perimeter patrol and Zone objects can be commanded as an action of a CathesisVision system event. • Zone and Sector objects support camera overlays. 		
Perimeter patrol	<table border="1" style="width: 100%;"> <tr> <td style="vertical-align: top;">Object properties</td> <td> Following Perimeter Patrol object properties are indicated in CathesisVision: <ul style="list-style-type: none"> • Name of Perimeter Patrol object. • HLI Connection (connection status between CathesisVision and JVA Perimeter Patrol Software): <ul style="list-style-type: none"> • Error. • Connected. • Authenticated. </td> </tr> </table>	Object properties	Following Perimeter Patrol object properties are indicated in CathesisVision: <ul style="list-style-type: none"> • Name of Perimeter Patrol object. • HLI Connection (connection status between CathesisVision and JVA Perimeter Patrol Software): <ul style="list-style-type: none"> • Error. • Connected. • Authenticated.
Object properties	Following Perimeter Patrol object properties are indicated in CathesisVision: <ul style="list-style-type: none"> • Name of Perimeter Patrol object. • HLI Connection (connection status between CathesisVision and JVA Perimeter Patrol Software): <ul style="list-style-type: none"> • Error. • Connected. • Authenticated. 		



		<ul style="list-style-type: none"> • Connected. • Unauthenticated. • Number of Zones. • Database Status (indicates status of JVA Perimeter Patrol software). • Comms ok (indicates communication status between JVA Perimeter Patrol software and JVA hardware). • Database ok (status of JVA Perimeter Patrol software). • Unmuted alarms (indicates if there are any unmuted alarms in JVA Perimeter Patrol software).
Zone	Command	<ul style="list-style-type: none"> • Alarm all – high power. • Alarm all – low power. • Disarm all. <p>Note: Commanding Perimeter patrol object issues commands to all associated zone objects.</p>
	General object features	<ul style="list-style-type: none"> • Zone (demarcated by physical energizer) can be subdivided into total of 50 sectors.
	Overlays	<ul style="list-style-type: none"> • Zone object supports overlays: <ul style="list-style-type: none"> ○ Zone name. ○ State. ○ Alarm state.
	States	<ul style="list-style-type: none"> • Alarmed (only 1 sector per zone can be alarmed), • Armed. • Disarmed. • Unlicensed. • Unknown (NVR loses communication with JVA).
	Object properties	<ul style="list-style-type: none"> • Name of zone object. • Host energizer type (the type of hardware which this object represents). • IP address. • Inputs (number of inputs on the device). • Outputs (number of outputs on the device). • Alarmed position. • Alarmed sector. • State (states are a combination of the properties below, 'arm' state is displayed here if none of the other properties are true). • Arm state (displays whether the zone is armed). • Fence alarm. • Tamper. • Ground alarm. • Low battery. • Bad battery.

Sector		<ul style="list-style-type: none"> • Fault. • AC Fail.
	Commands	<ul style="list-style-type: none"> • Alarm – high power. • Alarm – low power. • Disarm. <p>Note: Commanding zone object issues commands only to the selected zone object (and associated sectors, see below*).</p>
	General object features	<ul style="list-style-type: none"> • Zone objects can be sub-divided into a total of 50 sectors. • Sector objects inherit state and command from parent zone object. <ul style="list-style-type: none"> ○ Sector messages received from JVA software to CathesisVision. ○ Metadatabase entries. ○ Map notifications and states.
	Overlays	<ul style="list-style-type: none"> • Sector object support overlays, including: <ul style="list-style-type: none"> ○ Parent zone name ○ State and alarm state inherited from parent zone object
	States	<ul style="list-style-type: none"> • Alarmed (only 1 sector per zone can be alarmed) • Armed. • Disarmed. • Unlicensed. • Unknown (NVR loses communication with JVA).
	Object properties	<ul style="list-style-type: none"> • Name/internal ID of sector object. • Parent zone. • Number out of total zone sectors. • Sector state (tied to zone state).
	Commands	N/A

2.3 Device Events

Event Element	Features/Abilities
General	<ul style="list-style-type: none"> • Every message generated in the JVA Perimeter Patrol software will generate a device event in CathesisVision. • Open messages are shown again in CathesisVision when they are updated in JVA Perimeter Patrol software.
Device Event Types	<p>The following device event messages are received from the JVA Perimeter Patrol software and displayed in the CathesisVision device events tab and integration meta-database:</p> <ul style="list-style-type: none"> • Zone log. • Non-Zone log.



	<ul style="list-style-type: none"> • HLI Communication. • Sector. • Client notification. <p>Note: Each event type has a list of possible event descriptions. For example, Zone Log events may be further described as Fence Alarm, Disarm, Under Voltage, Arm Low Power, etc.</p>
<p>CathexisVision Event Actions</p>	<p>Events triggered on the JVA Perimeter Patrol system are reflected in CathexisVision, and can be used to create CathexisVision system events which may control one of the device objects as an action of the system event. Both Zone and Perimeter Patrol objects may be controlled as a result of a CathexisVision system event:</p> <p>Control Perimeter Patrol object:</p> <ul style="list-style-type: none"> • Alarm all – high power. • Alarm all – low power. • Disarm all. <p>Note: Commanding Perimeter patrol object issues commands to all associated zone objects (and associated sectors).</p> <p>Control Zone object:</p> <ul style="list-style-type: none"> • Alarm all – high power. • Alarm all – low power. • Disarm all. <p>Note: Commanding Zone object issues command to just the selected zone object and its associated sectors.</p>

2.4 Metadatabase

A unique metadatabase is created on the CathexisVision server for this integration. It is fully searchable with configurable filters based on device event information (as above) and time stamping. The filtered event/s and the associated video will then be available for review in a new window from which an archive can be created and exported.

Database Element	Features/Abilities
<p>General</p>	<ul style="list-style-type: none"> • All device events are sent to the integration metadatabase. • Database entries include the footage from cameras linked to device objects. • Multiple cameras may be linked to multiple objects. • Device event metadata is displayed where applicable. • Databased device events may be viewed in the embedded video player, which includes the usual CathexisVision video review tools.



View Options	<ul style="list-style-type: none">• Event.
Sort Options	<ul style="list-style-type: none">• Time.
Easy Search	<ul style="list-style-type: none">• Weighbridge.
Filter	<ul style="list-style-type: none">• Start Time.• End Time.• Line Item
Export	Database entries may be exported in CSV and PDF format.



4. Conclusion

This document was designed to deal specifically with this integration.

For further information about the CathexisVision software, consult the **CathexisVision Setup Manual** (<https://cathexisvideo.com/>).

For support, email support@cat.co.za.

USEFUL LINKS

To view **tutorial videos** on CathexisVision setup, visit <https://cathexisvideo.com/resources/videos>

Find answers to Cathexis **Frequently Asked Questions**: <https://cathexis.crisp.help/en/?1557129162258>

