CathexisVision®
Video Surveillance Management Solutions

JVA/Stafix Perimeter Patrol Integration White Paper

Contents

1   Introduction

This document indicates the features/abilities of the JVA/Stafix Perimeter Patrol software when integrated with CathexisVision.[1] 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: For information regarding the regular operation of a JVA/Stafix device, please consult the relevant documentation.

1.2 Requirements

1.2.1 *General Requirements*

- 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).

1.2.2 *CathexisVision Requirements*

1.2.2.1 *Software*

CathexisVision 2018.3 and later.
Note: Sector objects only supported in CathexisVision 2018.4 and later.

1.2.2.2 *License*

License Name	License Description
CJVA-1001	JVA Object license.
CJVA-2000	JVA Device license.
CJVA-3000	JVA Bundle license (includes device and unlimited zone/object licenses).

1.2.3 *JVA Requirements*

The following JVA software and hardware is required in order to add this integration to CathexisVision.[2]

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[1] While Cathexis has made every effort to ensure the accuracy of this document, there is no guarantee of accuracy, neither explicit, nor implied. Specifications are subject to change without notice.

[2] Cathexis makes a best attempt to ensure that the equipment and license requirements of the 3rd party equipment are adequately specified. However, it is possible that the requirements of the 3rd 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 3rd party equipment supplier

1.2.3.1   Software and Manuals

- JVA Perimeter Patrol software, version 5.2.7,
- JVA Perimeter Patrol User Manual,
- JVA Perimeter Patrol Configuration Manual.

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.

2   Integration Components and Features

2.1 Integration Components

All CathexisVision integrations have two component levels: **Device** and **Object**.

Device	The device is CathexisVision software's interface, which handles all the interaction between CathexisVision and the integrated hardware. When an integration is added to the CathexisVision 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 object.

2.2 JVA Perimeter Patrol Integration Features

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

2.2.1 *General Device Features*

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

2.2.2 *Device Objects*

- Device objects populate automatically as soon as communication between the CathexisVision 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

Perimeter Patrol	**Object Properties**	Following Perimeter Patrol object properties are indicated in CathexisVision:
		
		● Name of Perimeter Patrol object,
		● HLI Connection (connection status between CathexisVision and JVA Perimeter Patrol Software):
		  ○ Error,
		  ○ Connected,
		  ○ Authenticated,
		  ○ 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).

	Command	● Alarm all – high power, ● Alarm all – low power, ● Disarm all. **Note**: Commanding Perimeter patrol object issues commands to all associated zone objects.

Zone	**General Object Features**	● Zone (demarcated by physical energizer) can be sub-divided into total of 50 sectors.
		● Zone object supports overlays:
		  ○ Zone name,
		  ○ State,
		  ○ Alarm state.

	States	● Alarmed (only 1 sector per zone can be alarmed), ● Armed, ● Disarmed, ● Unlicensed, ● Unknown (NVR loses communication with JVA).
	Object Properties	● 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, - Fault, - AC Fail.
	Commands	- Alarm – high power, - Alarm – low power, - Disarm**.** **Note**: Commanding zone object issues commands to only the selected zone object (and associated sectors, see below*).
Sector*	**General Object Features**	- Zone objects can be sub-divided into a total of 50 sectors. - Sector objects inherit state and command from parent zone object. - Sector object supports: - Overlays (including parent zone name, state and alarm state inherited from parent zone object), - Sector messages received from JVA software to CathexisVision, - Metadatabase entries, - Map notifications and states.
	States	- Alarmed (only 1 sector per zone can be alarmed), - Armed, - Disarmed, - Unlicensed, - Unknown (NVR loses communication with JVA).
	Object Properties	- Name/internal ID of sector object, - Parent zone, - Number out of total zone sectors, - Sector state (tied to zone state).
	Commands	N/A

* Sector information only available in CathexisVision 2018.4 and later.

2.2.3 Device Events

Event Element	Features/Abilities
General	• Every message generated in the JVA Perimeter Patrol software will generate a device event in CathexisVision. • Open messages are shown again in CathexisVision when they are updated in JVA Perimeter Patrol software.
Device Event Types	The following device event messages are received from the JVA Perimeter Patrol software and displayed in the CathexisVision device events tab and integration meta-database: • Zone log, • Non-Zone log, • HLI Communication, • Sector • Client notification. **Note**: Each event type has a long list of possible event descriptions. For example, Zone Log events may be further described as **Fence Alarm**, **Disarm**, **Under Voltage**, **Arm Low Power**, etc.
CathexisVision Event Actions	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: **Control Perimeter Patrol object:** • Alarm all – high power, • Alarm all – low power, • Disarm all. **Note**: Commanding Perimeter patrol object issues commands to all associated zone objects (and associated sectors). **Control Zone Object:** • Alarm all – high power, • Alarm all – low power, • Disarm all. **Note**: Commanding Zone object issues command to just the selected zone object and its associated sectors.

2.2.4 Meta Database

A unique meta-database 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.

Note: Sector object metadatabase information only available in JVA integration metadatabase driver version 2.2.2, which is supported in CathexisVision 2018.4 and later.

Database Element	Features/Abilities

General	• All device events are sent to the integration meta-database. • Database entries include the footage from cameras linked to device objects. • Multiple cameras may be linked to multiple objects. • Device event meta-data 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	The meta-database may be viewed by the following options: • Log Entries, • Sector, • Client Notifications, • HLI Communication, • All.
Sort Options	The meta-database may be sorted by: • Device event time.
Easy Search	The meta-database may be searched specifically for: • ID, • Description, • User, • Zone, • Zone name, • Resolved (status), • Close required, • Closed (status), • Muted (status).
Filter	The meta-database may be filtered according to: • Time, • Event type, • Event ID, • Description, • User name, • Zone, • Zone name, • Occurrences, • Resolved (status), • Close required, • Closed(status), • Close user, • Muted (status), • Mute user.
Export	Database entries may be exported in CSV and PDF format.

3 Conclusion

Please remember that this document was designed to deal specifically with this integration. For further information about the CathexisVision software please consult the main manual (http://cathexisvideo.com/).

For support please contact support@cat.co.za