



Nedap AEOS Access Control Integration White Paper

Contents

1. Introduction.....	3
1.1 Integration Purpose.....	3
1.2 Requirements	3
1.2.1 General Requirements.....	3
1.2.2 CathexisVision License Requirements	3
1.3 Integration Components	4
2. Features and Abilities	5
2.1 General Device Features.....	5
2.2 Device Objects	5
2.3 Device Events.....	6
2.4 Metadatabase.....	7
2.5 Maps	8
3. Conclusion	9

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1. Introduction

This document indicates the features/abilities of Nedap’s AEOS access control solution when integrated with CathesisVision. Functionally, this integration includes the triggering of standard CathesisVision system events, based on information received from the device.

For instructions on installation or configuration of the integration, please see the ***Nedap AEOS Access Control Integration App-note***, available on the Cathesis website, and/or the ***CathesisVision Setup Manual***.

1.1 Integration Purpose

Nedap AEOS is an access control system that connects physical door locks, readers and additional devices to enhance the flow of people through locations and resources. The CathesisVision integration of the Nedap AEOS Access Control system is capable of logging who accessed where and when, and through this integration provides valuable data to CathesisVision to help track how buildings and sites are being used with the associated video footage.

1.2 Requirements

1.2.1 General Requirements

- CathesisVision 2022.1 and later.
- Windows 10-Pro; Windows Server 2008 R2 and later.
- Minimum 4GB of RAM required.
- Cathesis NVR 64-bit version supported.
- This integration only runs on Windows units.

Note: For information regarding the regular operation of an AEOS device, please consult the manufacturer’s documentation.

1.2.2 CathesisVision License Requirements

License	Name	Description
CNDP – 2000	Nedap Access Control Device	This license is the “base” license to integrate with an access control system. It is applied to the server to which the access control device is connected. It will allow for the connection of a single Nedap access control system.
CNDP – 1001	Nedap Access Control Door	These licenses apply to the doors, or readers, in an access control system. The CNDP-1001 will license a single door/reader, and may be added on a door-by-door basis.
CNDP – 3000	Nedap Access Control Bundle	This license includes the CNDP-2000 Nedap device license, and also provides support for unlimited CNDP-1001 door licenses.

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

1.3 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 objects.

A NOTE ON CAMERA CHANNELS

The CathexisVision 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 CathexisVision 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.

2. Features and Abilities

This section indicates the features/abilities of the Nedap software when integrated with CathesisVision.

2.1 General Device Features

- CathesisVision receives event messages from the AEOS device.
- System and door event messages can be used to trigger a CathesisVision system event.
- CathesisVision communicates with the Nedap AEOS device via TCP using an IP address. This connects to the server which in turn connects to the device.

2.2 Device Objects

Device objects populate automatically once communication is established. As the panel supports many expansion modules, the objects displayed in CathesisVision will vary depending on the objects that are configured on the panel.

Object Type		Abilities
General		<ul style="list-style-type: none"> • This integration has Door, System, and Communication Channel objects. • Objects are automatically created as soon as communication between the CathesisVision unit and device is established. • Door objects can be commanded as an action of a CathesisVision system event. • Door objects support overlays. • Objects may be linked to cameras to associate device events with video footage.
Door	Object properties	<ul style="list-style-type: none"> • IDs. • Name. • Controller name. • Type. • Input state. • Lock. • Unlock. • Emergency unlock. • Door open. • Alarm. • Open too long. • Licensed.
	Command	<ul style="list-style-type: none"> • Lock. • Unlock. • Normalise. • Provide Access.
	Overlays	<ul style="list-style-type: none"> • The Door object supports overlays in the camera feed.

		<ul style="list-style-type: none"> • Overlays display time. • Overlay location, text size, text colour, and background colour are configurable. • Overlays displays the Device name and the Device event.
System	Object Properties	<ul style="list-style-type: none"> • IDs • Name. • Service version. • Login status.
Communication Channel	Object properties	<ul style="list-style-type: none"> • Name. • Channel Status. • Details. • Creation Type. • Creation Time. • Idle time (min).

2.3 Device Events

The CathesisVision Nedap integration generates Door events, which are triggered on the device and reflected in CathesisVision.

Event Element		Features/Abilities
General		<ul style="list-style-type: none"> • Events triggered on the device are sent to CathesisVision. • These device event messages can be used to trigger system events.
Device Event Types	Door Events	<ul style="list-style-type: none"> • ID. • Time. • Door. • Controller. • Type. • Description. • Carrier info. • Badge.
CathesisVision System Events		<ul style="list-style-type: none"> • Events generated by the device are reflected in CathesisVision and can be used to create CathesisVision system events. • Door objects may be controlled as a result of a CathesisVision system event: <ul style="list-style-type: none"> ○ Lock ○ Unlock ○ Normalise ○ Provide Access.

2.4 Metadatabase

A unique metadatabase is created on the CathesisVision 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
General	<ul style="list-style-type: none"> • All device events are databased. • 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 CathesisVision video review tools.
View Options	<ul style="list-style-type: none"> • Standard.
Sort Options	<ul style="list-style-type: none"> • Device event time.
Easy Search	<ul style="list-style-type: none"> • Time. • Controller. • Door. • Carrier info. • Event description.
Filter	<ul style="list-style-type: none"> • Time. • Controller. • Door. • Carrier info. • Event description.
Export	Database entries may be exported in CSV and PDF format.

2.5 Maps

The CathesisVision GUI provides for configurable site maps that feature multi-layered, hierarchical, interactive interfaces providing representation and control of a site and its resources.

Map Element	Features/Abilities
General	Device objects can be embedded in a site map, which offers multiple action options when messages are received from the device, the device triggers an event, and/or the user manually initiates a map action.
Map Action Triggers	<ul style="list-style-type: none"> • All device objects may be set to trigger a map action if the user left-clicks on map. • Some device objects may be set to trigger a map action if a state change message is received from the device. • All device objects may be set to perform a map action if <i>any</i> event occurs on the device. • Device objects, which can be configured to trigger CathesisVision events, may also be set to perform a map action when specific CathesisVision events are triggered.
Map Actions Options	When triggered (see above), objects may perform the following map actions (where applicable): <ul style="list-style-type: none"> • Connect to a site. • Perform an animation. • Go to a camera preset. • Load a map. • Set a PTZ relay output. • Show a popup menu. • Set a relay output. • Show an HTML block. • Show a block of text. • Show a device popup menu.

3. Conclusion

This document was designed to deal specifically with this integration. For further information about the CathesisVision software, consult the main manual (<http://cathesisvideo.com/>).

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

USEFUL LINKS

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

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