Maxxess Access Control Integration White Paper

Contents

1. Introduction

This document indicates the features/abilities of the Maxxess Access Control software when integrated with CathexisVision.

Functionally, this integration will include the triggering of standard CathexisVision system events, based on information received from the device.

For instructions on installation or configuration of the integration, please consult the ***Maxxess Access Control Integration App-note***, available on the Cathexis website, and/or the ***CathexisVision Setup Manual***.

1.1 Integration Purpose

The CathexisVision integration of the Maxxess Access Control software allows local and remote monitoring and operation from within the CathexisVision interface. All 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 device. All messages from the device (even those not configured to trigger a CathexisVision alarm or event) are also databased. Operators with sufficient access rights are able to issue certain commands to the device, such as allowing access and initiating lockdown of a door.

1.2 Requirements

1.2.1 General Requirements

- CathexisVision 2018 Service Pack 2, or later.
- This integration only runs on Windows.

Note:

For information regarding the regular operation of Maxxess Access Control device, please consult the relevant Maxxess documentation.

1.2.2 CathexisVision License Requirements

License	Name	Description
CMXX-2000	Access control device license	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 controller.

CMXX-1001	Access control single door license	These licenses apply to readers in an access control system. The **CMXX-1001** will license a single door/reader, and may be added on a reader-by-reader basis.
CMXX-3000	Access control device bundle license (unlimited doors)	This license includes the **CMXX-2000** access control device license, and also provides support for unlimited **CMXX-1001** reader licenses.

Note:

1. Either purchase the bundle license, or **both the device and reader license**.
2. Individual devices (readers) will require a license for each device.

1.3 Specifications

The Maxxess eFusion software needs to be installed and configured to send event information to the CathexisVision server. Please consult the Maxxess Access Control Integration App-note for more detailed information.

The following were used in this integration:

- eFusion Software version 6.0.x (including associated eAXxess database).
- MultiPort Module of eFusion Software.
- Workstation Software (included in eFusion).

1.4 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 Maxxess Access Control software when integrated with CathexisVision.

2.1 General Device Features

- The CathexisVision Maxxess integration communicates via TCP socket (port 1705) with the MultiPort Module of the Maxxess eFusion software to monitor events and control the system.
- CathexisVision Maxxess integration driver connects to the corresponding eAXxess database to retrieve default objects and their states.
- All device messages are databased as Access events, security events and information event messages.
- Reader objects support overlays indicating door status, access granted/denied, cardholder photo, and request to exit messages, among others.
- Device objects can be used to trigger events, and reader objects can be controlled as event actions.

2.2 Device Objects

Objects are populated automatically as soon as communication between the CathexisVision unit and the eFusion software is established.

Object Type		Abilities
General		• This integration has **Door**, **Reader**, and **Panel** objects. • **Door objects** can be **commanded** as an action of a CathexisVision system event. • Events on the device can be used to trigger CathexisVision system and map events. • **Door objects** support **overlays**. • Objects may be linked to cameras to associate device events with video footage.
Door	**Object Properties**	• Name of door. • Precise state. • State.
	States	• Unknown. • Valid access. • Closed. • Forced. • Fault (open). • Held open. • Closed (force).

		• Fault (shot). • Lock down. • Locked. • Unlocked. • Allow access. • Command Discarded. • Online. • Offline.
	Command	• Allow access. • Clear lockdown. • Lock door. • Lockdown. • Unlock door.
Reader	**Object Properties**	• Name of object. • Precise State. • State. • Enabled. • Licensed.
Panel	**Object Properties**	• Name. • Precise State. • State.

2.3 Device Events

The CathexisVision Maxxess integration generates Access Control Events, which are triggered on the device and reflected in CathexisVision.

Event Element		**Features/Abilities**
General		• Events triggered on the device are sent to CathexisVision. • Device event types are Door, Panel and Reader.
Device Event Types	**Door**	• Denied Access (Voided card). • Valid Access. • Lockdown. • Lockdown clear. • Allow Access. • Unlocked. • Locked. • Denied access (reader disabled). • Door forced. • Sensor open. • Door closed (forced). • Sensor closed.

		• Request to exit. • Door held open. • Door closed (held open).
	Panel	• Revision. • Communication lost. • Communication back.
	Reader	No reader events received from Maxxess.

CathexisVision Event Actions		Events generated by the device are reflected in CathexisVision, and can be used to create CathexisVision system events.
		A door object may be controlled via a CathexisVision event action to perform one of the following commands:
		• Control Door object:
		  ○ Allow access.
		  ○ Clear lockdown.

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
General	• 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 CathexisVision video review tools.
View Options	• Events. • Panel Events. • Door Events. • Reader Events.
Sort Options	• Device event time.
Easy Search	• Type. • Name. • Detail. • Priority. • Badge. • Department.

	• Address. • Event Type.
Filter	• Timestamp. • Type. • Object name. • Detail. • Priority. • Badge. • Department. • Address.
Export	Database entries may be exported in CSV and PDF format.

3. Conclusion

This document was designed to deal specifically with this integration. For further information about the CathexisVision software, consult the main manual (http://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*