Axis Vaxtor Container Recognition White Paper

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1. Introduction

This document indicates the features/abilities of the Axis Vaxtor Container Recognition software when integrated with the CathexisVision LPR interface. The Axis Vaxtor Container Recognition is the camera-based video analytics module which provides container identification information. The information captured by the Vaxtor app is then sent to the CathexisVision system through the CathexisVision LPR interface.

For a detailed guide on the installation and configuration of the Axis Vaxtor device with CathexisVision please refer to the ***CathexisVision Axis Vaxtor App-note,*** available on the Cathexis website.

Note:

1. For information regarding the regular operation of Vaxtor Container Recognition services, please consult the relevant documentation.
2. The Vaxtor system posts Container identification data to the configured port on the CathexisVision NVR.
3. Cameras are configured in CathexisVision as standard and are recognised as an LPR camera.
4. The Axis Vaxtor camera and the NVR should be synced to the same NTP server for events to line up correctly.
5. As this is using the CathexisVision LPR interface all references in the GUI are for Vehicle Number/license plates but equally applicable for Container Identification numbers (licenses). Please read Container for any LPR reference.
6. The best position for the camera is at 90 degrees to negate as far as possible the corrugations on the container. Lighting is important because containers enter and leave 24hrs a day. If the vehicle is moving faster the shutter speed will have to be increased. The flow of the trucks can be reduced by using boom gates etc.

1.1 Requirements

1.1.1 General Requirements

- CathexisVision 2020.3 and 2020.4.
- Windows 10–64bit and later; Windows Server 2016 and later.
- Minimum of 4 GB of RAM required.

Note: If the user intends to install this integration on a Linux unit, contact support@cat.co.za.

1.1.2 CathexisVision License Requirements

License No.	License Name	
CLPR-2000	Integration Base License	This license is the "base" license to integrate with a container recognition system. It is applied to the server to which the container recognition device is connected. It will allow for the connection of a single Axis device.
CLPR-1001	Per Detector License	These licenses apply to the detectors in a container recognition system. The CLPR-1001 will license a single detector, and may be added on a detector-by-detector basis.

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

1.2 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 Axis Vaxtor Container recognition software when integrated with CathexisVision.

2.1 General Device Features

- All device messages are databased as Access events, security events and information event messages.
- Device objects can be used to trigger events.
- There is a specific setup on the Axis Vaxtor side. Select the Axis Vaxtor Setup and enter the VaxOCR Containers Application: make sure the container is version 2.1–24.

2.2 Device Objects

Objects may be linked to cameras to associate device events with video footage.

Object Type	Features/Abilities
LPR Detector	**Object Properties** • Name • Enabled • Online • Plate Position • Lane Position • Licensed
LPR Server	**Object Properties** • Name • Online
Rule	**Object Properties** • Name • Enabled

2.3 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	• 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	• License plates with groups
Sort Options	• Device event time.
Easy Search	• License plate, License Plate (Partial Match), Group, LPR Detector.
Filter	• Time • Type • Site • Name • Source Type • Event Type • Event Description • Card Holder
Export	Database entries may be exported in CSV and PDF format.

3. Conclusion

Remember that this document was designed to deal specifically with 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*