



ISS LPR and Container Recognition Integration White Paper



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1. Introduction

This document indicates the features/abilities of the ISS License Plate Recognition and Container solution when integrated with CathesisVision. Functionally, this integration will include the triggering of standard CathesisVision system events, based on information received from the device.

For instructions on installation or configuration of the integration, please consult the **ISS LPR and Container Recognition Integration App-note**, available on the Cathesis website, and/or the **CathesisVision Setup Manual**.

1.1 Integration Purpose

The ISS SecurOS LPR/Container Recognition is the video analytics module which provides License Plate Recognition and recognises ISO codes from cargo containers at port entrances or exits. The information captured by the ISS SecurOS LPR/CR is then sent to the CathesisVision system.

1.2 Requirements

1.2.1 General Requirements

- CathesisVision 2019 Service Pack 3 and later.
- Linux and Windows are supported.

Note:

For information regarding the regular operation of an ISS LPR and Container device, please consult the relevant manufacturer’s documentation.

This integration was tested on:

Hardware name	N/A
Hardware model number	N/A
Firmware as tested	N/A
Third-party software name	SecurOS
Third-party software version	2020
Third-party software license/s required	Yes



1.2.2 CathesisVision License Requirements

License	Name	Description
CISS-2000	ISS Device	This license is the “base” license to integrate with an LPR/container recognition system. It is applied to the server to which the LPR/container recognition device is connected. It will allow for the connection of a single ISS LPR/container recognition controller.
CISS-1001	ISS Lane	These licenses apply to the lanes in an LPR/container recognition system. The CISS-1001 will license a single lane and may be added on a lane-by-lane basis.
CISS-3000	ISS Bundle	This license includes the CISS-2000 ISS LPR/container recognition device license, and also provides support for unlimited CISS-1001 reader licenses.

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

1.3 Integration Components

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.

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.



2. Features and Abilities

This section indicates the features/abilities of the ISS LPR SecurOS ANPR/Container Recognition software when integrated with CathesisVision.

2.1 General Device Features

- CathesisVision receives event messages from the ISS LPR device.
- System and device event messages can be used to trigger a CathesisVision system event.

2.2 Device Objects

Objects are populated automatically as soon as communication between the ISS LPR device and CathesisVision is established.

Object Type		Abilities
General		<ul style="list-style-type: none"> • This integration has Container Detection, Lane, and Communication Channel objects. • Objects are automatically created as soon as communication between the CathesisVision unit and device is established. • Device objects can be commanded as an action of a CathesisVision system event. • Container Detection, Lane, and Communication events on the device can be used to trigger CathesisVision system events. • Lane and Container Detection objects support overlays. • Objects may be linked to cameras to associate device events with video footage.
Container Detection	Object Properties	<ul style="list-style-type: none"> • IDs. • Name.
Lane	Object Properties	<ul style="list-style-type: none"> • IDs. • Name. • Licensed.
Communication Channel	Object Properties	<ul style="list-style-type: none"> • IDs. • Name. • Channel status. • Details. • Creation type. • Creation time. • Idle time.



2.3 Device Events

The CathesisVision ISS integration generates Detection 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. • Device event types are ...
Device Event Types	Detection	<ul style="list-style-type: none"> • ID. • Start time. • End time. • Lane. • License plate. • Container 1. • Container 2. • Container 3. • Container valid 1. • Container valid 2. • Container valid 3.
CathesisVision Event Actions		<ul style="list-style-type: none"> • Events generated by the device are reflected in CathesisVision, and can be used to create CathesisVision system events. • The device and device objects <i>cannot</i> be controlled as part of the system events.

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"> • Detection.
Sort Options	<ul style="list-style-type: none"> • Time.
Easy Search	<ul style="list-style-type: none"> • License plate



Filter	<ul style="list-style-type: none">• Container• Lane• Start time.• End time.• License plate.• Container.• Lane
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 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>

