



# SPAR dStore POS 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 CathesisVision 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

While Cathesis 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.

# 1. Introduction

This document indicates the features/abilities of SPAR dStore POS 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 *CathesisVision SPAR dStore POS Integration App-note*, available on the Cathesis website, and/or the *CathesisVision Setup Manual*.

## 1.1 Integration Purpose

The Sigma dStore POS system, combined with the **dStore MonitorGateway service**, provides till data to CathesisVision. The tills send POS transaction data to the dStore MonitorGateway service, which packages and sends the POS data to the **CathesisVision SPAR dStore POS** integration.

The CathesisVision SPAR dStore POS integration is capable of logging all received till transactions in a custom metadatabase. From the custom metadatabase, till transactions can be used to search for specific POS transactions. The metadatabase also displays video footage associated with POS transactions. The CathesisVision SPAR dStore integration can generate events on received POS transactions.

## 1.2 Requirements

### 1.2.1 General Requirements

- Windows 10 and later, Windows Server 2012 and later
- CathesisVision 2023.1 and later
- SPAR Sigma dStore setup:
  - Sigma version 54.021
  - dStore version 16.4

**Note:** For information regarding the regular operation of a SPAR dStore device, please consult the manufacturer’s documentation.

### 1.2.2 CathesisVision License Requirements

License	Name	Description
CPDT-1001	SPAR dStore POS Till	These licenses apply to the till in a point-of-sale system. The <b>CPDT-1001</b> will license a single till and may be added on a till-by-till basis.
CPDT-2000	SPAR dStore POS device	This license is the “base” license to integrate with the point-of-sale system. It is applied to the server to which the point-of-sale device is connected. This licence will allow for the connection of a single integration device.
CPDT-3000	SPAR dStore POS bundle	This license includes one <b>CPDT-2000</b> point-of-sale device license, and also provides support for unlimited CPDT-1001 till 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 communication channel and till of POS 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 SPAR dStore software when integrated with CathexisVision.

### 2.1 General Device Features

- CathexisVision receives till slip data from a monitoring gateway which is managed by SPAR. Events are generated from this data.
- POS State (online/offline) and POS data such as voids, cash transactions, specific amounts, etc, can be used to trigger Cathexis Events.
- Till objects support camera overlays.

### 2.2 Device Objects

Object Type		Features/Abilities
General		<ul style="list-style-type: none"> <li>• This integration has Till and Communication channel objects.</li> <li>• Objects may be linked to cameras to associate device events with video footage.</li> </ul>
	Till	<ul style="list-style-type: none"> <li>• Relevant Till objects will populate when CathexisVision receives data from the tills.</li> <li>• Displays information about the associated Till.</li> <li>• Till events on the device can be used to trigger CathexisVision system events.</li> <li>• Supports camera overlays.</li> </ul>
Till	General Object Features	<ul style="list-style-type: none"> <li>• Name of Till/Till ID</li> <li>• Cashier ID</li> <li>• Cashier Name</li> <li>• Transaction state</li> <li>• License (yes/no)</li> </ul>
	Object Properties	
Communication Channel	General Object Features	<ul style="list-style-type: none"> <li>• Represents the UDP channel used by the integration device.</li> <li>• Channel will not go down when communication with SPAR dStore system is lost.                             <ul style="list-style-type: none"> <li>○ If a system event triggered on a connection state is required, use system object.</li> </ul> </li> </ul>
	Object Properties	<ul style="list-style-type: none"> <li>• Till ID</li> <li>• Name of Till</li> <li>• Cameras</li> <li>• Object Groups</li> </ul>

## 2.3 Device Events

Event Element	Features/Abilities
<b>General</b>	<ul style="list-style-type: none"> <li>• Till data is sent to CathesisVision, which then generates events based on this data.</li> <li>• The following device event messages are received from the Till data and displayed in the CathesisVision device events tab and integration metadatabase:</li> </ul>
<b>Device Event Types</b>	<b>Change</b> <ul style="list-style-type: none"> <li>• Time</li> <li>• Till ID</li> <li>• Type</li> <li>• Value</li> </ul>
	<b>End Transaction</b> <ul style="list-style-type: none"> <li>• Time</li> <li>• Till ID</li> <li>• Slip</li> <li>• Type</li> <li>• Cashier number</li> <li>• Cashier name</li> <li>• Date time</li> <li>• Account name</li> <li>• Account number</li> </ul>
	<b>Info</b> <ul style="list-style-type: none"> <li>• Time</li> <li>• Type</li> <li>• Till ID</li> <li>• Description</li> <li>• Cashier number</li> <li>• Cashier name</li> </ul>
	<b>Item</b> <ul style="list-style-type: none"> <li>• Time</li> <li>• Till ID</li> <li>• Item code</li> <li>• Description</li> <li>• Quantity</li> <li>• Value</li> <li>• Total value</li> </ul>
	<b>Log</b> <ul style="list-style-type: none"> <li>• Time</li> <li>• Till ID</li> <li>• Log no</li> <li>• Slip number</li> <li>• Cashier number</li> <li>• Cashier name</li> <li>• Type</li> </ul>
	<b>Rounding total</b> <ul style="list-style-type: none"> <li>• Time</li> <li>• Till ID</li> </ul>

<b>Start Transaction</b>	<ul style="list-style-type: none"> <li>• Time</li> <li>• Till ID</li> <li>• Cashier</li> <li>• Document</li> </ul>
<b>Tender</b>	<ul style="list-style-type: none"> <li>• Time</li> <li>• Till ID</li> <li>• Type</li> <li>• Tender Value</li> </ul>
<b>Total</b>	<ul style="list-style-type: none"> <li>• Time</li> <li>• Till ID</li> <li>• Number of items</li> <li>• Value</li> </ul>
<b>CathesisVision Event Actions</b>	<ul style="list-style-type: none"> <li>• Events generated by the Till data are reflected in CathesisVision, and can be used to create CathesisVision system events.</li> <li>• The device and device objects cannot be controlled as part of the system events.</li> </ul>

## 2.4 Metadatabase

A unique metadatabase is created on the CathesisVision server for this integration. It is fully searchable, with configurable filters based on events generated from the till slip data received (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
<b>General</b>	<ul style="list-style-type: none"> <li>• All device events are databased.</li> <li>• Database entries include the footage from cameras linked to device objects.</li> <li>• Multiple cameras may be linked to multiple objects.</li> <li>• Device event metadata is displayed where applicable.</li> <li>• Databased device events may be viewed in the embedded video player, which includes the usual CathesisVision video review tools.</li> </ul>
<b>View Options</b>	<ul style="list-style-type: none"> <li>• Transaction</li> <li>• Item</li> </ul>
<b>Sort Options</b>	<ul style="list-style-type: none"> <li>• Time</li> <li>• Till</li> <li>• Cashier</li> </ul>
<b>Easy Search</b>	<ul style="list-style-type: none"> <li>• Start time</li> <li>• End time</li> <li>• Type</li> <li>• Till ID</li> <li>• Slip number</li> <li>• Cashier number</li> <li>• Cashier name</li> <li>• Account number</li> </ul>

	<ul style="list-style-type: none"> <li>• Account name</li> <li>• Tender type</li> <li>• Tender value</li> <li>• Tender change</li> <li>• Total</li> <li>• End type</li> <li>• Number of items</li> </ul>
<b>Filter</b>	<ul style="list-style-type: none"> <li>• Start Time</li> <li>• End Time.</li> <li>• Cashier.</li> <li>• Document Number.</li> <li>• Till.</li> </ul>
<b>Export</b>	Database entries may be exported in <b>CSV</b> and <b>PDF</b> 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. The table below highlights some features.

Map Element	Features/Abilities
<b>General</b>	Device objects can be embedded in a site map, which offers multiple action options when till data are received from the device. The data is used to create and trigger an event, and/or the user manually initiates a map action.
<b>Map Action Triggers</b>	<ul style="list-style-type: none"> <li>• Till objects may be set to trigger a map action if a state change message is received from the device.</li> <li>• 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.</li> </ul>
<b>Map Actions Options</b>	When triggered (see above), objects may perform the following map actions (where applicable): <ul style="list-style-type: none"> <li>• Connect to a site.</li> <li>• Perform an animation.</li> <li>• Go to a camera preset.</li> <li>• Load a map.</li> <li>• Set a PTZ relay output.</li> <li>• Show a popup menu.</li> <li>• Set a relay output.</li> <li>• Show an HTML block.</li> <li>• Show a block of text.</li> <li>• Show a device popup menu.</li> <li>• Show a device event notification.</li> </ul>



## 3. Conclusion

This white paper deals with the SPAR dStore POS integration specifically. For further information about the CathesisVision software, consult the **CathesisVision Setup Manual** (<http://cathesisvideo.com/>).

For support, email [support@cathesisvideo.com](mailto:support@cathesisvideo.com).

### 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>