



Dynamass Weighbridge Integration White Paper



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1. Introduction

This White Paper indicates the features/abilities of the Dynamass Weighbridge when integrated with CathesisVision.

The Dynamass Weighbridge driver sends and receives messages through the Event directory.

For a detailed guide on the installation and configuration of the Dynamass Weighbridge with **CathesisVision**, please refer to the **CathesisVision Dynamass Weighbridge Integration App-note**, available on the Cathesis website.

For information regarding the regular operation of a Dynamass device, please consult the relevant Dynamass manufacturer documentation.

Note: The files Dynamass generates need to be directed to the Event directory set/created.

1.1 Requirements

1.1.1 Software

- Windows 7, 64-bit and later, Windows Server 2008 R2 and later.
- Ubuntu 12 and Ubuntu 16.
- Linux supported.
- CathesisVision 2019.3 and later.

1.1.2 License

The Dynamass Weighbridge integration license requirements are as follows:

License	Name	Description
CDYN-2000	Dynamass Weighbridge Device	This license is the “base” license to integrate with a weighbridge system. It is applied to the server to which the weighbridge is connected
CDYN-1001	Dynamass Weighbridge Device	These licenses apply to the weighbridges. The CDYN-1001 will license a weighbridge, and may be added on a weighbridge-by-weighbridge basis.
CDYN-3000	Dynamass Weighbridge Bundle	This license includes the CDYN-2000 Dynamass weighbridge device license, and also provides support for unlimited CDYN-1001 weighbridge licenses.

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



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.

1.2 Integration Components and Features

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.



2. Features and Abilities

This section indicates the features/abilities of the Dynamass Weighbridge when integrated with CathesisVision.

2.1 General Device Features

- Messages are communicated from the files generated on the user’s weighbridge and placed into the event directory of the integration.
- The Event, or Position, device event messages are used to trigger Cathesis system events.
- Position objects support camera overlays.

2.2 Device Objects

Object Type	Feature	
General		<ul style="list-style-type: none"> • Relevant Position properties populate when CathesisVision receives device event messages. • Displays information about the associated Position. • Position events on the device can be used to trigger CathesisVision system events. • Supports camera overlays.
Position	States	N/A. No state information for Position objects.
	Object Properties	<ul style="list-style-type: none"> • ID and Name of Position. • Cameras. • Object Groups.
	Commands	N/A. Position cannot be commanded.
Weighbridge	General Object Features	<ul style="list-style-type: none"> • Displays information about the associated Weighbridge. • Position events on the device can be used to trigger CathesisVision system events. • Supports camera overlays.
	States	N/A. No state information for Weighbridge.
	Object Properties	<ul style="list-style-type: none"> • ID and Name. • Cameras. • Object Groups. • License.
	Commands	N/A. Communication channel cannot be commanded.



2.3 Device Events

Event Element	Features/Abilities
General	<ul style="list-style-type: none"> • Event messages generated by the device will generate device event messages in CathesisVision. • These device event messages can be used to trigger system events.
Event	<p>The following device event messages are received from the Dynamass device and displayed in the CathesisVision device events tab and integration metadatabase:</p> <ul style="list-style-type: none"> • Time. • Weighbridge. • Direction. • Total loco mass. • Total Wagon mass. • Total train mass. • Load cell 1 status. • Load cell 2 status. • Load cell 3 status. • Load cell 4 status. • Tag reader 1 status. • Tag reader 2 status.
Position	<ul style="list-style-type: none"> • Time. • Weighbridge. • Position. • Smartpass 1. • Smartpass 2. • Speed. • Mass-Vehicle. • Mass-Leading Bogie. • Mass-Trailing Bogie • Mass-Left Side. • Mass-Right Side.

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 sent to the integration metadatabase. • 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"> • Event. • Position.
Sort Options	<ul style="list-style-type: none"> • Time.
Easy Search	<ul style="list-style-type: none"> • Weighbridge • Position
Filter	<ul style="list-style-type: none"> • Start Time. • End Time. • Line Item
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 *CathexisVision Setup Manual* (<https://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>

