Unisolutions Weighbridge Integration Document for Illovo

Contents[1]

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1 Introduction

This document will detail the integration of the Unisolutions weighbridge, with CathexisVision's software. Functionally this integration will entail the triggering of standard CathexisVision Events, based on the triggers from the Unisolutions device.

Note:
1. If you need information regarding the regular operation of a Unisolutions device, please consult the relevant Unisolutions documentation.
2. There is a General Integration section in the main CathexisVision manual. It has vital information about creating an integration database, as well as a general introduction to the Integration Panel. **Read over this section**.

a. Requirements

Licenses

The Unisolutions integration requires one (bundle) or 2 (device and weighbridge) of the following licenses:

License Name	License Description
CWBG-1001	Single weighbridge license.
CWBG-1010	Pack of 10 weighbridge licenses.
CWBG-2000	Weighbridge device license.
CWBG-3000	Weighbridge bundle with device license and unlimited weighbridges.

System and Software

- CathexisVision 2015 Service Pack 1 and later.
- Win 7¬ 64bit and later, Win Server 2008 R2 and later.
- Minimum of 4 GB of RAM required.

b. 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 you add an integration to the CathexisVision system, you add a device. The messages received from the device are called Device Events.
Objects	Objects are the individual pieces of hardware that comprise the integration. You may have 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 object.

2 Device Addition and Configuration

a. Introduction

This section will detail the procedure for setting up the two systems to effectively communicate with each other.

b. CathexisVision Specific Unisolutions Setup

There is no specific setup needed to get the integration working. But it is important to be aware of the serial setting of the Unisolutions unit. (Baud rate etc.), as you will need to enter this into the integration settings when you add the device.

c. Add a New Device in CathexisVision

Integrations are added on a server-by-server basis. They are managed in the Integration Devices panel, under the Setup Tab of the servers to which they are added. To get to the Integration Panel follow this path:

The Integrations Panel
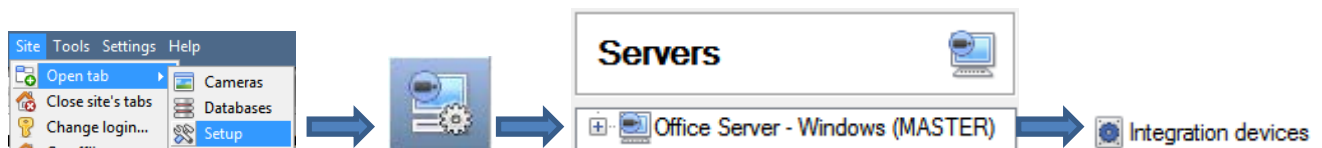
You will notice two sections in the Integration Panel:
1. The **devices** list will list the integration devices that are attached to your integration database.
2. The **Configuration** section enables you to edit/review, the device which you have selected in the **devices** section.

- *Device Addition*

1. Once in the Integration Panel, in the devices section, click on New device . This will open the addition window.
2. Select **Illovo Weighbridge (Unisolutions)** from the list.
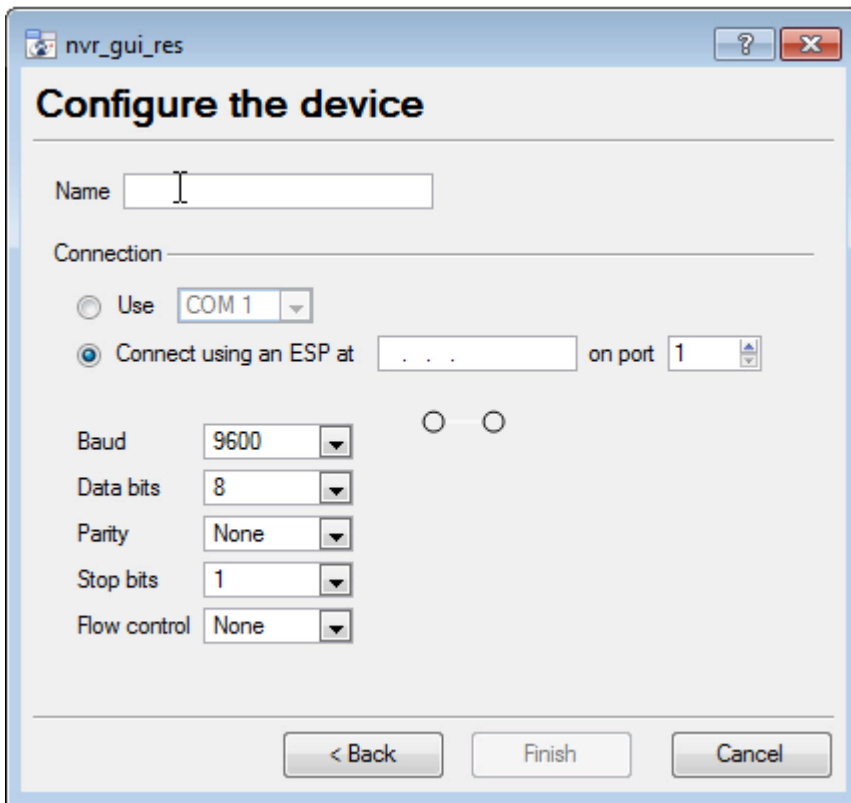
Give your device a descriptive **name**.

If you are going to use a direct serial connection, select **Use COM x**. After selecting the COM port, enter in the relevant serial information (Baud rate etc.)

If you are connecting via a CathexisVision ESP device, select that. Enter in the IP address of the ESP, and select the corresponding port on the ESP that you have connected the Unisolutions device to.

d. Configuration Section (Tabs)

The configuration section is divided up into a number of tabs. These tabs are: **Object configuration, Object properties, Device events, Groups,** and **General.**

Object Configuration Tab
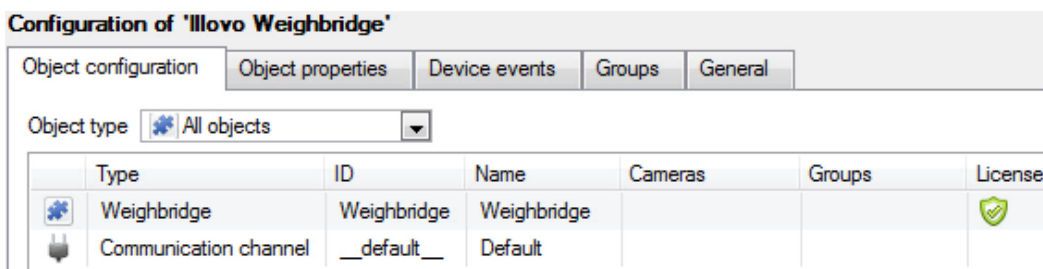
The object configuration tab is the tab where you may view all the individual objects that comprise the integration.
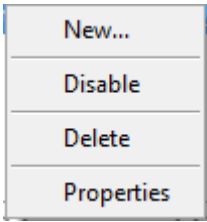
- *Object Configuration Buttons*

 You may add a new object by clicking on New.

 Will open up an existing object for edition.

 Is used to delete an existing object from the CathexisVision configuration.

- ***Object Configuration Right-click Options***

New will open up the dialogue to add a new object.

Disable/Enable allows you to manually enable/disable individual nodes.

Delete will permanently remove this object from the list.

Properties will open up the object properties. You may edit the object from here. (Specifically you will be able to assign cameras to this object, as well as define user access levels for it.)

Properties: Cameras
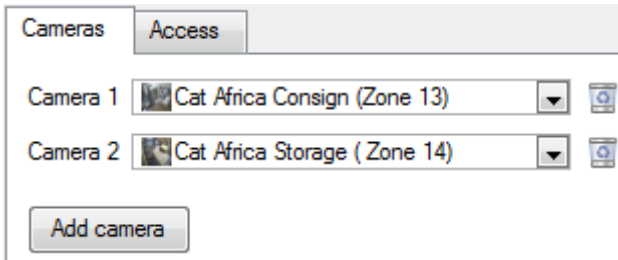
Adding a camera to an object will mean that, whenever there is an event on that object, the recording from that camera will be related to the time and date of the object event, in the Integration database.

To add a camera click on [Add camera], and select the relevant camera from the drop-down menu.

To delete a camera click on [icon].

Note: If you do not have ***continuous recording*** setup, on associated cameras, you will run the risk of zones (object) triggering while the cameras are not recording. To only record cameras, when an object triggers, you will need to setup **Events** that trigger a recording, when one of these objects is activated.

Properties: Access
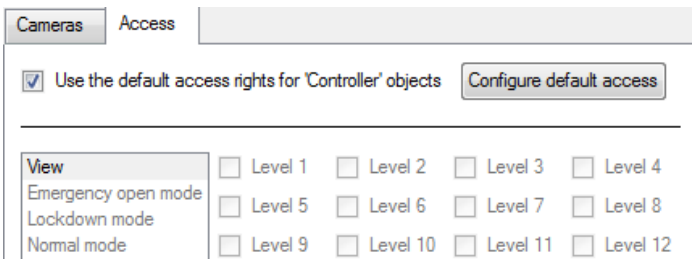
Access allows you to protect sensitive objects, by only allowing certain levels users access to them.

You will see a list of objects, whose access level you may set.

Note: If you have *Use default access rights* checked, you must make sure that those default rights have been correctly defined. Click on **Configure default access** to do this.

Objects Properties Tab

The Object properties tab allows you to view the objects, sorted by type. In the case of the Unisolutions device you will have the options of viewing by **Door,** and **Fence Zone.**

Device Events Tab

This will list real time events happening on this device. It is an excellent way for installers to see that the integration is functioning, and to monitor the live events happening on site.
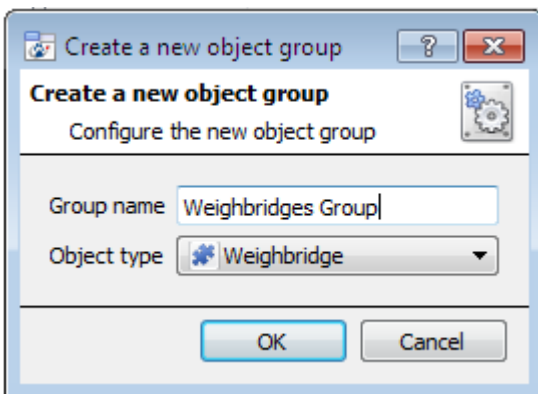
Groups Tab
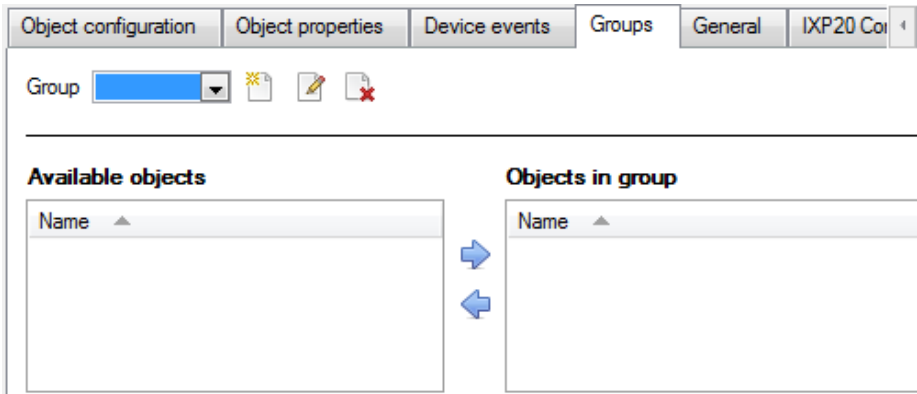
You can create groups of the same type of object.

Tip: This is very useful when setting up Events, because events can be triggered by an object group. (E.G. a group will trigger, if any of the zones/partitions in that group is triggered.)

- ## *Create a Group*

To create/edit a group click on 📄/ 📝. (**Note**: Once a group has been created, you may not edit the object type of the group.)

When creating a group you will select what object type to include in the group. Once the group is created the available objects panel will fill up with all available objects of that type. From this list you will choose which objects you want to use in your Group.

Give the group a descriptive **Group name.**

Click on the drop-down menu to select the **object type** that you would like to group.
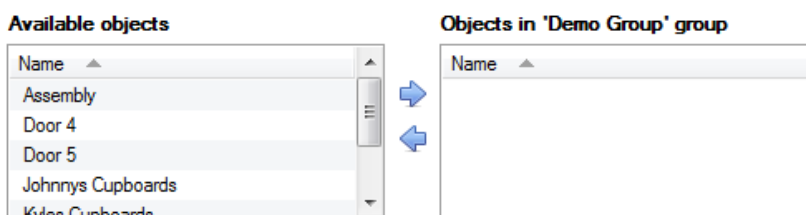
You will then see a list of Available Objects. To add/remove these objects to the group select them (you may select multiple at a time), and click on 👉/ 👈.

General tab

Currently the general tab deals with the integration database. Here you will be able to select a pre-created database, or you will be able to configure a new database.

- ## *Select an Integration database*

To select a database click on ⚙, and select the relevant database. Only databases which relate to the device you are adding should appear.

- *Configure a new database*
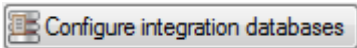
 If there is no database created yet, clicking on this button will take you to the integration database setup.

Note: The information on setting up an integration database may be found in the **Integration Devices General Settings** section of the CathexisVision Setup Manual.
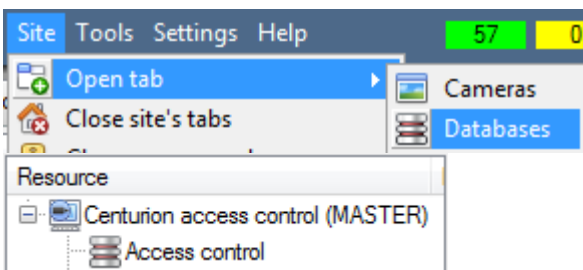
3 Database

a. Introduction

The database tab will allow you to navigate the databased entries, for each individual database. In the database tab each database is presented as a table. It has built in filters, and the ability to navigate by timestamp. If a database entry has an associated recording you will also be able to launch this recording, from within the database tab.

Most integrations will have a different database presentation, and unique filters, due to the different parameters sent to CathexisVision by the integrated device.
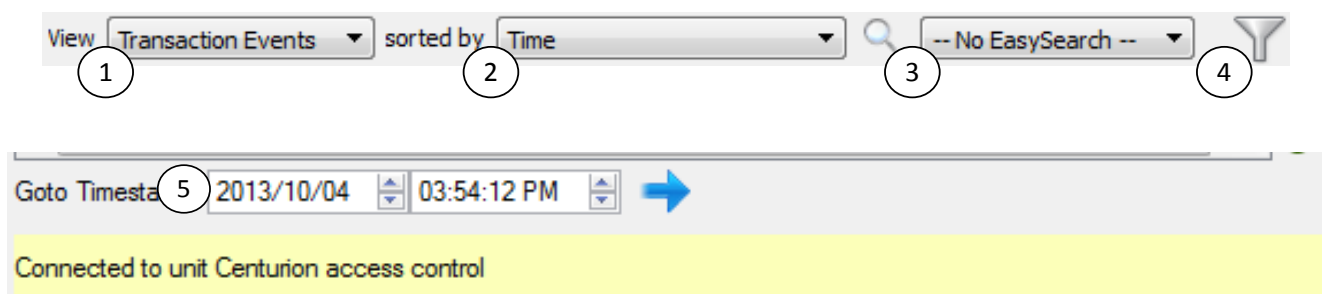
b. Navigate to the Database

You may view the information stored in the Integration database, by following the path you see to the left. This will take you to the Database Tab.
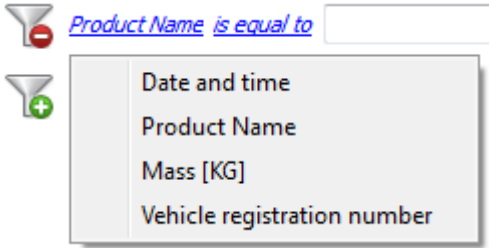
Once in the databases tab you will have to select the relevant integration database. The databases are ordered under the NVRs that they are attached to. A Unisolutions database will look like so:

c. Database Interface

① **View**	You may change the way that your database is presented. Some integration databases have multiple view options. The Unisolutions database only one option: **Transaction Events**.
② **Sorted By**	You may sort the Events based on the following parameters: **Time, Product Name** and **Gross Mass,** and **Vehicle registration number**.
③ **Easy Search**	The easy search option allows you to quickly search the database within one of the following options: **User.**
④ **Filter**	Filter offers a more advanced manner of sorting information in the Integration Database table. You are able to filter based on the following parameters: **time, ID,** and **description**. Once you have the filters dialogue open you will have the following options: 1. To **enable** filters check this box: 2. To **add** a new filter click on . The filter icon will change to when filters are active. 3. To **delete** an added filter click on . The Unisolutions device offers the following filter options: **Note**: 1. You may run multiple filters simultaneously. And you may even filter using the same parameter more than once. 2. To change a filter click on the blue hyperlinked text. (For example, click on *Timestamp* to change the filter from Timestamp, to any of the other available options.)
⑤ Go to Time	This will allow you to go to a specific point in time, down to the second. To navigate to a timestamp set the time using the time and date boxes, and the click on the icon.

Viewing an Entry's Associated Recording

If you have attached cameras to device objects in the Integration setup, and have set these cameras up to record continuously, each Integration database entry will have a corresponding recording. To view a databased event's recording double click it. A floating replay window will appear, from which you may review and archive video content.

 will give you the view as shown here on the left.

will break down the image into 4 sequential frame viewers.

4 Events

a. Introduction

A CathexisVision event has a trigger, which causes an action. You may set integrated devices to act at triggers, or as actions. This document will detail the Unisolutions specific aspects of Events. There is a comprehensive guide to CathexisVision Events in the main setup manual.

Most of the data that CathexisVision receives from a device is presented in the Events interface. This is done in order to give the user a full range of options. As a result some of the options presented in the interface may be *impractical* for being used as an event trigger, or action.

b. Creating and Event

To create an event using the Unisolutions device, enter the Events management area:

1. Once in Events management click on ___New___. This will open up the New Event window.
2. Once in this window, select the Triggers tab and click on the hyper link titled, _standard triggers_.
   a. From the menu that drops down, left-click the Unisolutions device that you want to trigger the event with.

- ***While/When and Any/All***

When triggering on a door you will have the option to trigger **while/when** a trigger is active. You will also be able to select multiple triggers, and define whether **all/any** of the triggers need to be active to set-off an event.
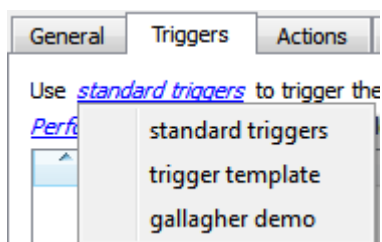

As usual, to change these settings click on the related, blue, hyperlinks.

c. Triggers

A trigger is the user defined input that tells the event to start. The trigger causes the subsequent action (which the user will also define).

Set your device as the trigger

If you are creating a new event, the trigger type will default to: Use _standard triggers_ . To define which device you want to trigger the event, click on the hyperlink after "use". To set it as the Unisolutions device, click on the hyperlink, and select the relevant device name from the dropdown menu.

Trigger Types (Trigger Using)

It is useful to think of this as a **master trigger type**.
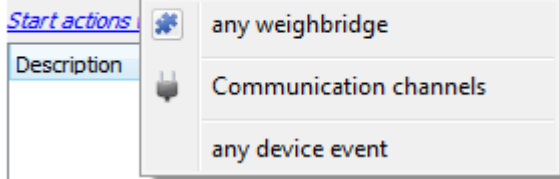
Any weighbridge will trigger on any weighbridge.

**Group** options, will trigger based on the groups that you setup in the Integration addition stage.

Any device event will trigger, initially, when any event occurs on the device. Within the "any device event" setup you may set "device event rules" which will constrain which events will trigger the event.

Note for group triggers: If you want this event to be databased under the name of a specific object, and not the name of the triggering group, you will need to modify the Description field in the **General tab** of the Event setup. Click on the to see a list of available descriptions. Here is an example which will database the text "Door Name" along with the name of the *door object* that triggered the event:

After selecting a master trigger type, you will need to add a trigger to the event. Click on in the Triggers tab. This will bring up the dialogue box you see below:

- *Any Device Event*
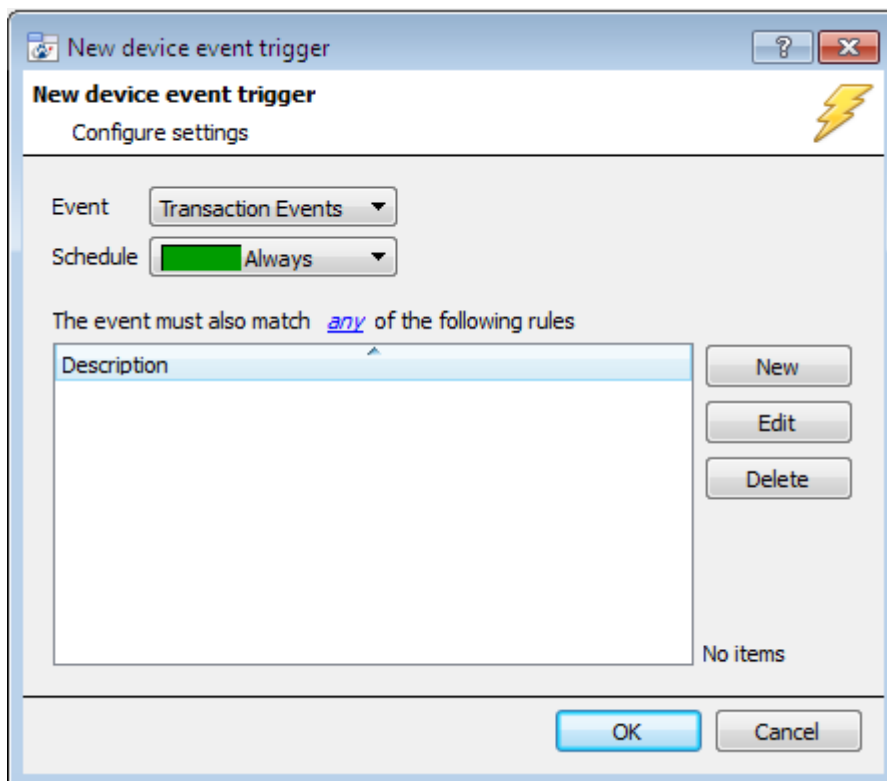
For example within the *any device event* option you may choose what type of device Event will be your trigger. Choose from the drop-down menu. The Unisolutions device offers **Transaction Events**.

Note: You may set multiple constraints. Choosing if *any*, or *all* constraints need to be fulfilled to set off a trigger. If you do not define a constraint literally every single device event will trigger this event.

To add/edit/delete a rule (a constraint) use the New, Edit, and Delete buttons on the right hand side.
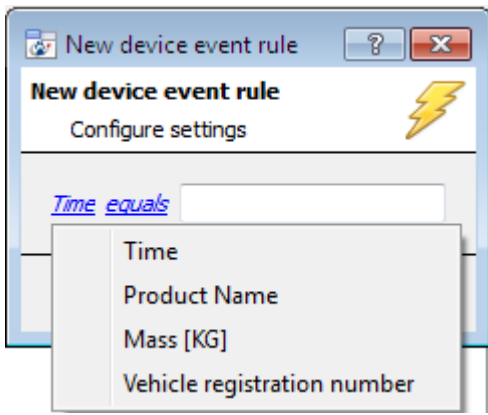
To change the constraint click on the first hyperlink, this will bring up the full list of available rules.

To modify the way this rule will be treated click on the second hyperlink (*equals* in the example) this will show you the rules options.

Note: When all available options are known to CathexisVision you will see a drop-down menu. When these variables are not pre-defined you will need to fill them in yourself. The information pulled through to the events is information sent to CathexisVision from the Unisolutions device. See either the Unisolutions settings, or the **Integration devices —> Device Events**, for the strings needed here.

- *Any Weighbridge*

The non-**Any Device Event** triggers have a slightly different setup window. In these instances you do not need to set constraints, since you are essentially adding them one at a time. This option is better if you have a select few triggers that you want to use.
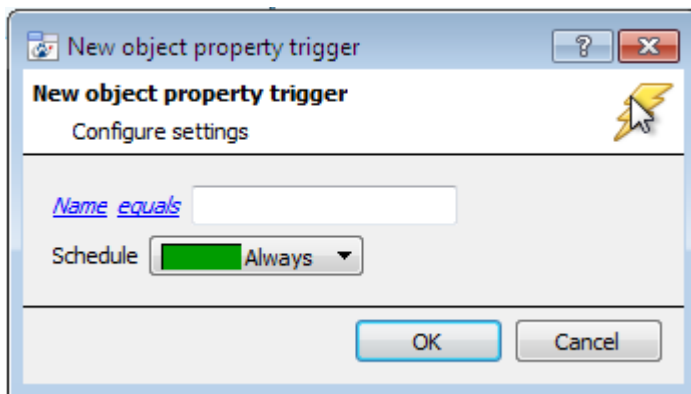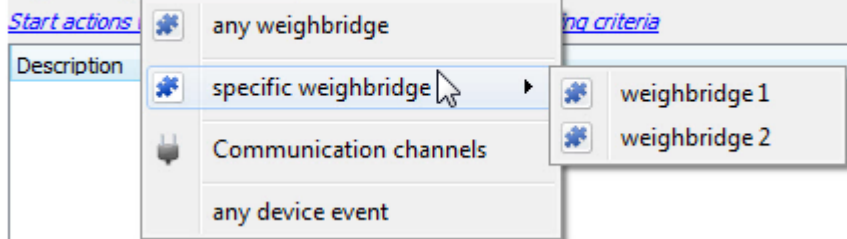

Since you are only using one type of object to trigger the event in this instance, the dialogue will appear as the **New Device Event Rule** window did previously.

Note: this is true for groups too, since a group may only be made up of one object type.
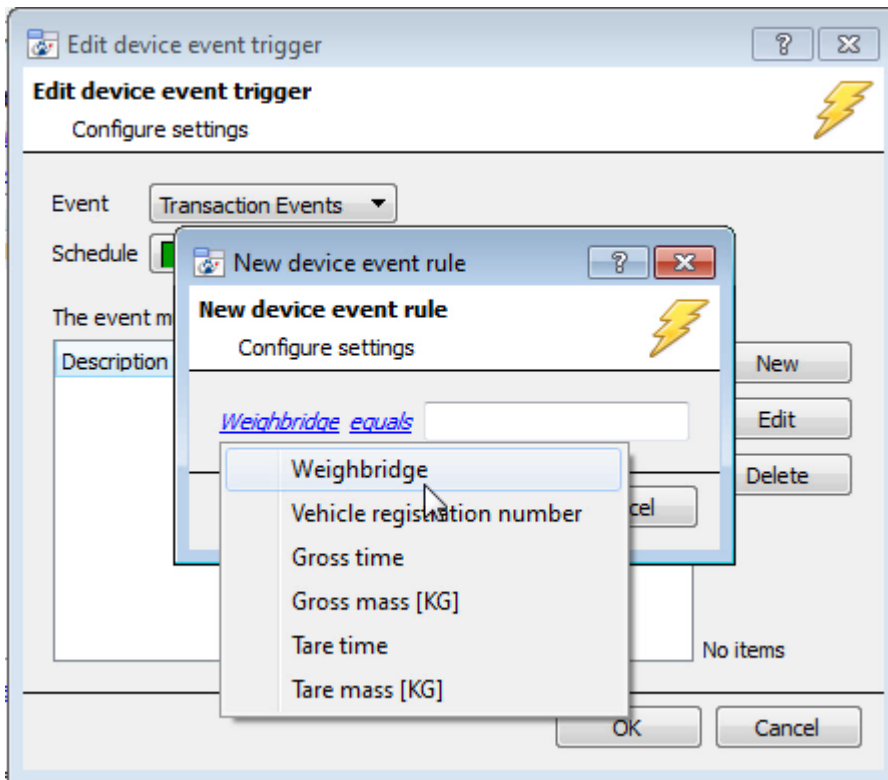
- *Specific Weighbridge*

This will allow you to trigger an event based on a specific weighbridge's information.

You will be able to further edit the event, by adding constraints onto what information is needed from this specific weighbridge, in order to trigger the event.

This is the same format of event constraint setup that is seen in the **Any Device Event** setup, above.

d. Actions

Once you have defined the triggers that are going to initiate your event, you will need to define some Actions. With many integrations there will be the option to control the integrated device, as one of the actions. Because of the nature of this integration this option is not available with the Unisolutions device. You still have all the other CathesixVision Action options, which are detailed extensively in the Main Setup Manual.

5 Conclusion

Please remember that this appnote was designed to deal specifically with this integration. For further information about the CathexisVision software please consult the main manual (http://cathexisvideo.com/).

For support please contact support@cat.co.za