



Julong Money Counter Integration Document

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¹ While Cathexis 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 will detail the integration of the Julong Money Counter, with CathexisVision's software. Functionally this integration will entail the triggering of standard CathexisVision Events, based on the triggers from the device.

Requirements

- CathexisVision 2016.2 and later.

Notes:

1. If you need information regarding the regular operation of a Julong device, please consult the relevant Julong documentation.
2. When using a serial port connection CathexisVision is unable to detect the Julong device if the Controller or Communications channel has lost connection.

a. License requirements

The Cathexis Julong integration license requirements are as follows:

License Name	License Description
CJUL-2000	Device license.
CJUL-1001	Single money counter license.
CJUL-3000	Bundle with device license and unlimited money counter.

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 objects

Julong Integration Features

This driver allows the Julong device to connect to CathexisVision via UDP. It receives a message every time money is counted and removed, and provides the transaction details on the database and camera feed overlays.

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.

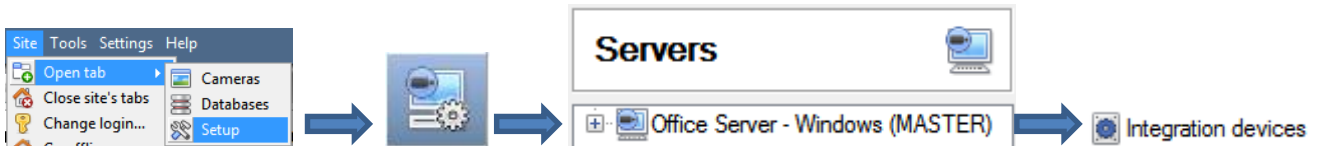
b. CathexisVision Specific Julong Setup (Set up the Julong device)

There is no specific setup for the Julong device, but make sure to note the UPD channel which your counters are broadcasting on, as this will have to be entered in when adding them to CathexisVision.

c. Devices Section (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



Name	Driver
DSC	DSC IT100 alarm panel
Moduteq Demo	Moduteq C perimeter m...
Stinger Demo	Stinger
WBX Demo	WBX Weighbridge


Type	ID	Name
Communication channel	__default__	Default

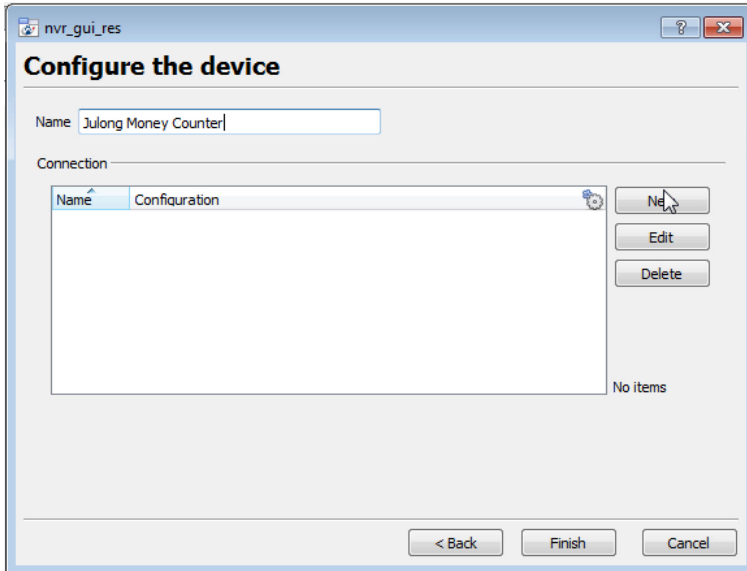
You will notice two sections in the Integration Panel:

The **Devices** list will list the integration devices that are attached to your server.

The **Configuration** section enables you to edit/review, the device which you have selected in the **Devices** section.

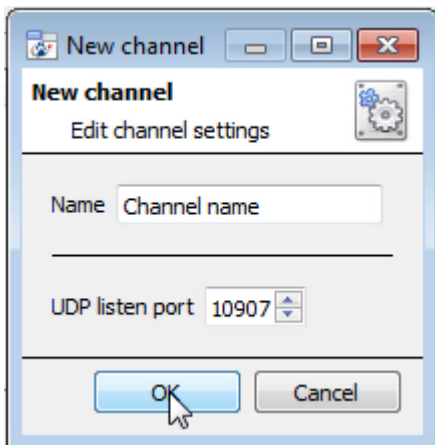
- **Device Addition**

1. Once in the Integration Panel, click on  in the Devices section. This will open the addition dialogue.
2. Select **Julong Money Counter** driver from the list.



You may add multiple money counters to the same device, depending on your licenses (see the licensing section, above).

Select **New**, **Edit**, or **Delete**, depending on your needs.



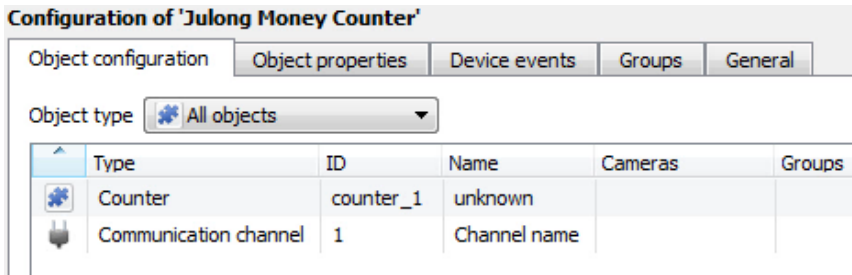
Give your device a descriptive **name**.

Add the UDP port of this channel.

d. Configuration Section (Tabs)


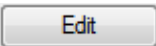

The configuration section is divided up into a number of tabs. These tabs are: **Object configuration**, **Object properties**, **Device events**, **Groups**, and **General**.

Object Configuration Tab

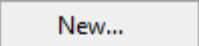
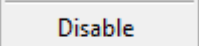
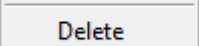
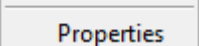


The object configuration tab is the tab where you may view all the individual objects that comprise the integration. The Julong device has only the **Counter** Object type.

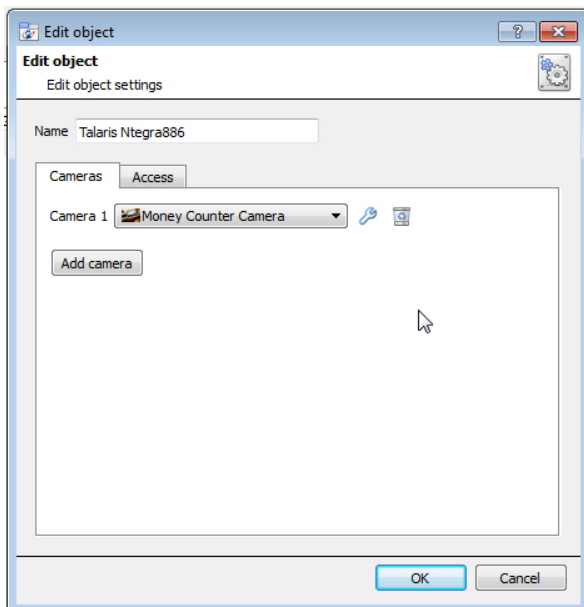
• Object Configuration Buttons

-  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 objects.
-  **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 .

To change the Julong overlay settings click on . (This is explained further, below.)

Note: While you can add multiple cameras here, only the first camera added with the object will be linked in the integration database.

Note: If you do not have **continuous recording** set up, on associated cameras, you will run the risk of Julong objects triggering while the cameras are not recording. To only record cameras, when an object triggers, you will need to set up **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 user levels access to them.

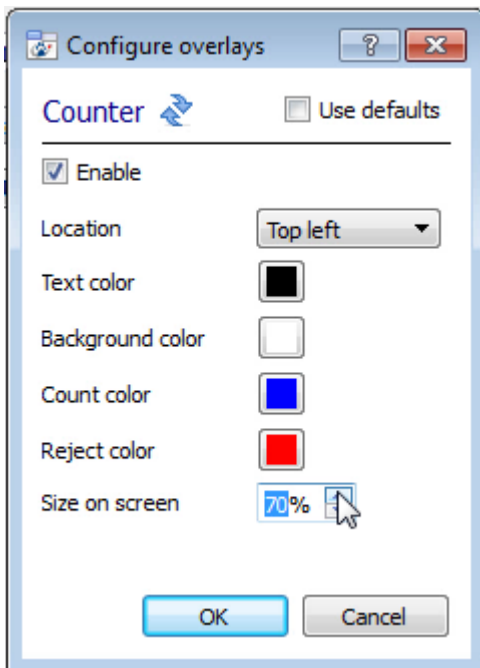
Under **View** you will be able to set the access levels.

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.

- **Julong Overlay Settings**

The Julong integration allows for the information received from the counter to be displayed as an overlay on the camera you assigned to the **counter** object, above.

After clicking on the  icon, you will see the **Configure overlays** dialogue. To edit a custom overlay, uncheck the **Use defaults** option, which will expose the overlay options.

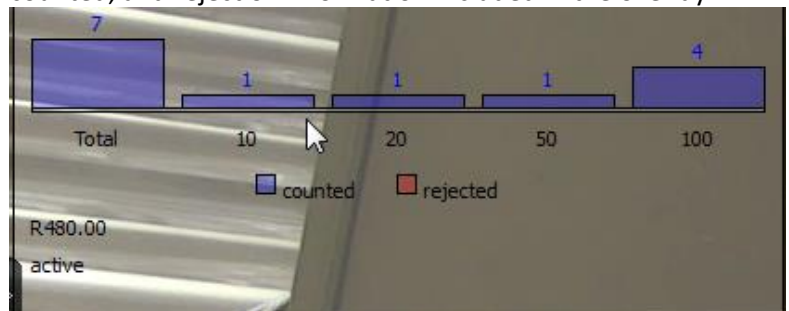


Location will define where on the camera feed's image the overlay is positioned.

You may define the **Text** and **Background color**.

Size on the screen will define how much space the overlay will take up on the feed.


The settings to the left will look like so. With denomination, counted, and rejection information included in the overlay:



Objects Properties Tab

Configuration of 'Julong Money Counter'

Object configuration | **Object properties** | Device events | Groups | General

Object type:  Counter

Name	State	Operator ID	Currency	Total Value
JL0DGDA0142	Active	0	R	360.00

The Object properties tab allows you to view the objects, sorted by type. In the case of the Julong device you will have the options of viewing by **Counter**.

Device Events Tab

Configuration of 'Julong Money Counter'

Object configuration | Object properties | **Device events** | Groups | General

Transaction ▾





Name	Time	Operator Id	Currency	Total Value
JL0DGDA0142	2015-12-09 09:04:37.702	0	R	480.00
JL0DGDA0142	2015-12-09 09:03:12.137	0	R	360.00

This will list all events sent from this device. It is an excellent way for installers to see that the integration is functioning, and to monitor the events happening on site.

Groups Tab

Configuration of 'Stinger Demo'

Object configuration | Object properties | Device events | **Groups** | General

Group  Stinger Demo Group   

Available objects

Name ^

Objects in 'Stinger Demo Group' group

Name ^

⇌

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 devices in that group is triggered.)


- **Create a Group**

Create a new object gr...



Create a new object group

Configure the new object group 

Group name

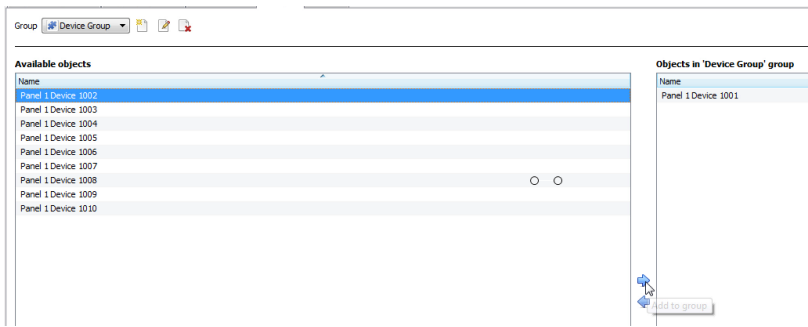
Object type  Counter ▾

OK Cancel

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

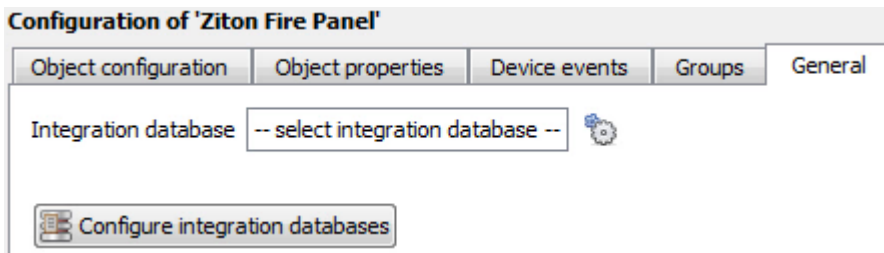
Give the group a descriptive **Group name**.

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 ➡ / ⬅.

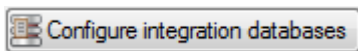
General tab



Currently the general tab deals with the **Integration database**. Here you will be able to select an existing database, or you will be able to configure a new database for your integration.

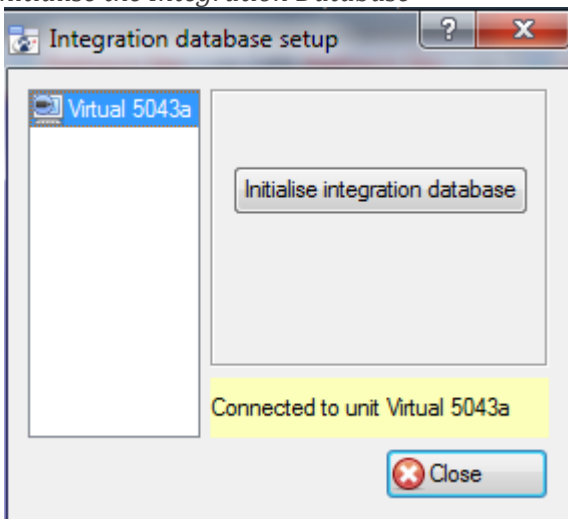
Important Note: Each integrated device needs to be attached to an Integration database. Without setting up/adding a database here your integration will not function properly within the CathexisVision system.

- **Configure a new database**



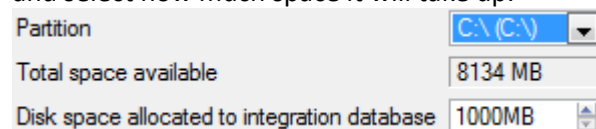
If there is no database created yet, clicking on this button will take you to the integration database setup.

Initialise the Integration Database



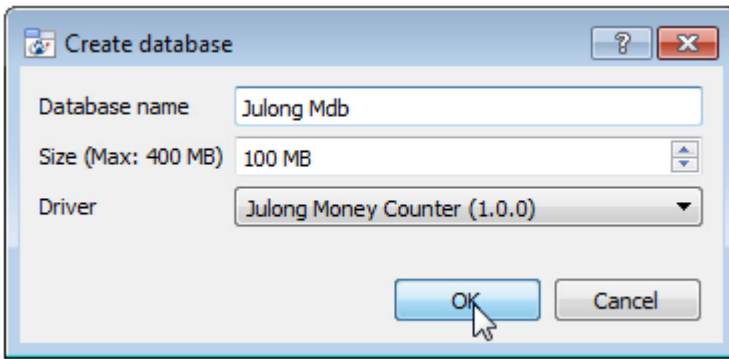
The first time you add an integration database you will have to initialise this feature on the unit. This will add a broad database, within which you will be adding all of your integrated device's databases.

Select the unit you wish to add the database to, from the list on the left, and click **Initialise integration database**. You will have to choose which partition the database will be formed on, and select how much space it will take up.



Add a New Devices Database

After initialisation, you will be able to add the database for the integration that you are working with. Click on the **New** button, at the bottom of the Create database window.

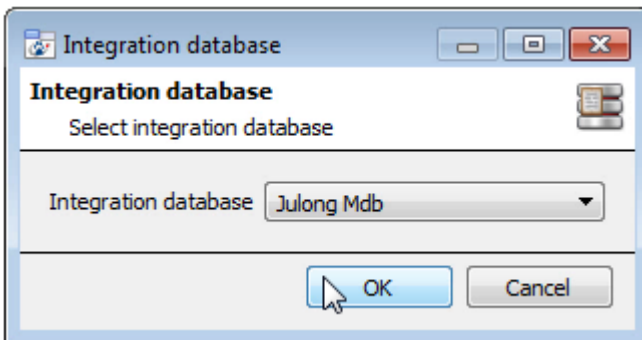



Give your Integration database a descriptive **Database Name**. e.g. Julong.


Allocate a **Size** to your new device database.

Choose the device **Driver** that your device will be using, And click on OK to create the database.

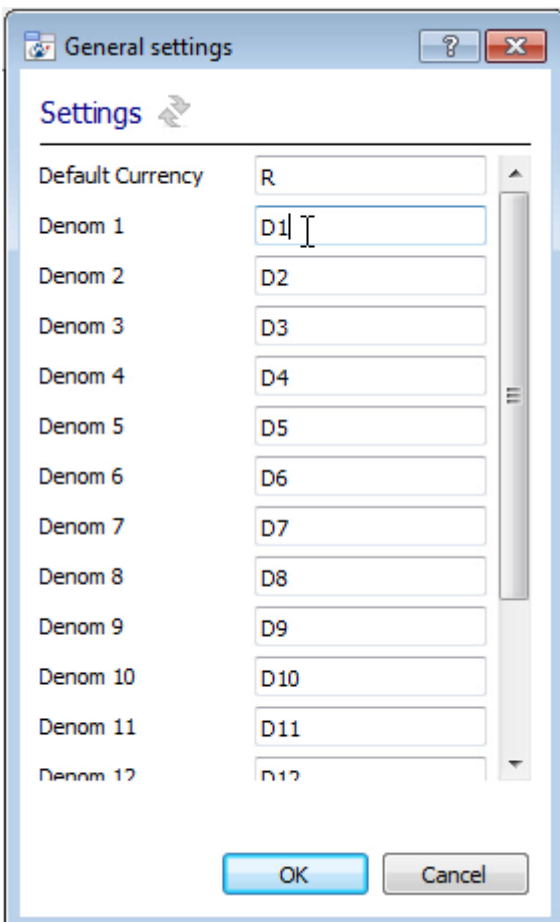
- **Select the Julong Integration database**



Integration database -- select integration database -- 

Once a database has been created the user may select it by clicking on the  icon, and selecting it in the dialogue that appears. Only databases which relate to the device you are adding should appear.

- **General Settings**



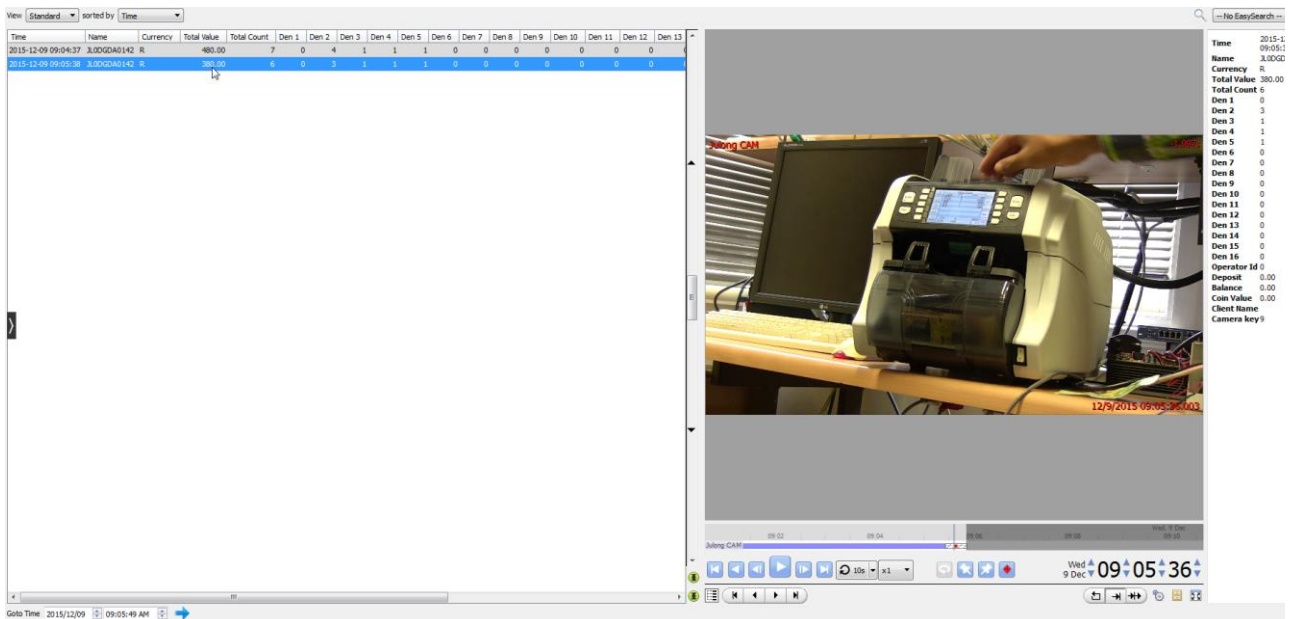
The general settings option, in the General Tab, will allow the user to define the **Currency**, and **Denomination** option.

3 Database

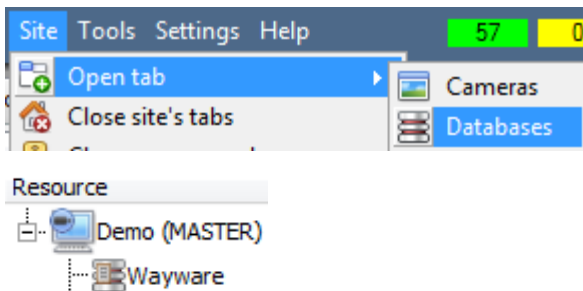
a. Introduction

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. The Julong database is information rich, and has an embedded video player (which uses the latest CathexisVision timeline controls). This is an example of some of the information that is included:



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.

c. Database Interface



<p>① View</p>	<p>You may change the way that your database is presented. Some integration databases have multiple view options. The database has only a Standard option.</p>
<p>② Sorted By</p>	<p>You may sort the Events based on the following parameters: Time, Device name, Currency, Total Value, Total Count.</p>
<p>③ Easy Search</p>	<p>The easy search option allows you to quickly search the database within one of the following options: Device name, Currency, Total Value, Total Count.</p>
<p>④ Filter </p>	<p>Filter offers a more advanced manner of sorting information in the Integration Database table.</p> <p>Once you have the filters dialogue open you will have the following options:</p> <ol style="list-style-type: none"> 1. To enable filters check this box: <input checked="" type="checkbox"/> Enable filters 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 . <p>The options in this integration are Time, Name, Currency, Total Value, Total Count, Operator Id, Deposit, Balance, Coin Value, Client Name, and the various Denominations.</p> <p>Note:</p> <ol style="list-style-type: none"> 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.)
<p>⑤ Go to Time</p>	<p>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 then click on the  icon.</p>

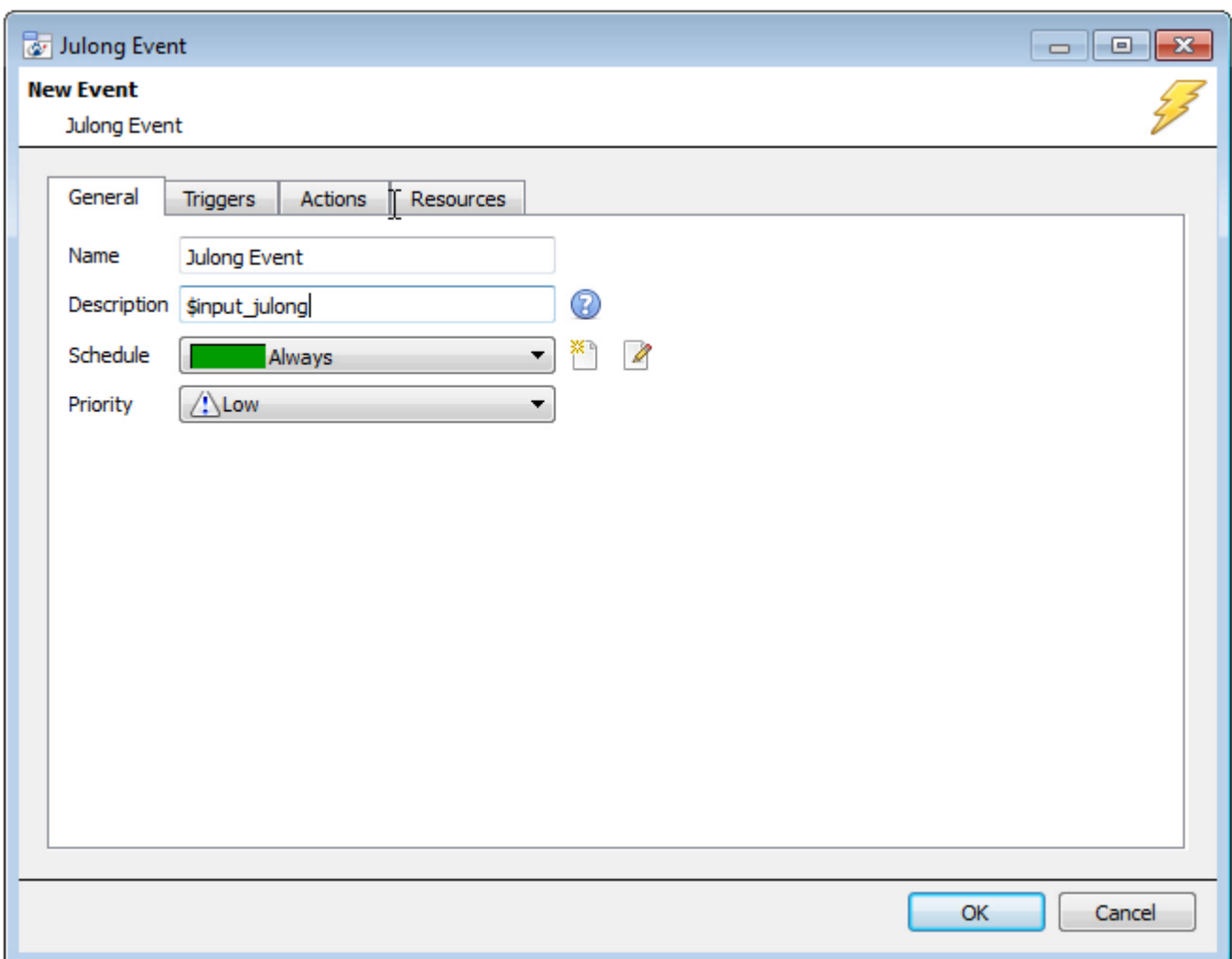
4 Events

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 Julong specific aspects of Events. There is a comprehensive guide to CathexisVision Events in the main setup manual.

Event Window


Events in CathexisVision are setup via the Event Window. This has 4 tabs. In the **General Tab** an event is given a name, description, schedule and priority. In the **Triggers Tab** the trigger/s for the event is defined. In the **Actions Tab** the action/s which the event takes is defined. In the **Resources Tab** the various site resources which can be used as part of an event are defined.



b. Creating an Event

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



Once in Events management click on . This will open up the New Event window.

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

When triggering on an object 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 start an event.

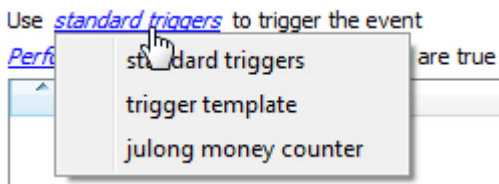
Use [julong money counter](#) to trigger the event
 Trigger using [any counter](#)
 Start actions when [any of the following device events occur](#)

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

c. Triggers

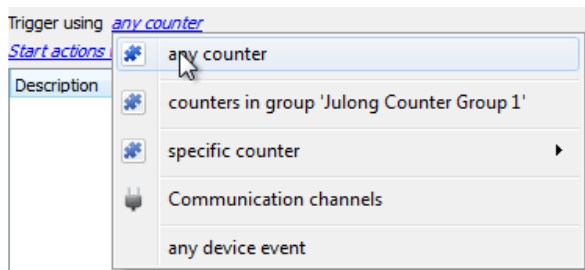
A trigger is the user defined input that tells the event to start. The trigger causes the subsequent action (which the user will also define).

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 Julong 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 counter will trigger when any of these objects sends the selected trigger.



Specific counter will allow you to choose specific counters to trigger an event.

Object in group... If you have set up a group it will appear here in this list.

Communication channels will trigger only on the Communication channels.

Any device event will trigger on any event that occurs on the device. Within the “any device event” setup you may set “device event rules” which will constrain which device events will trigger the event.

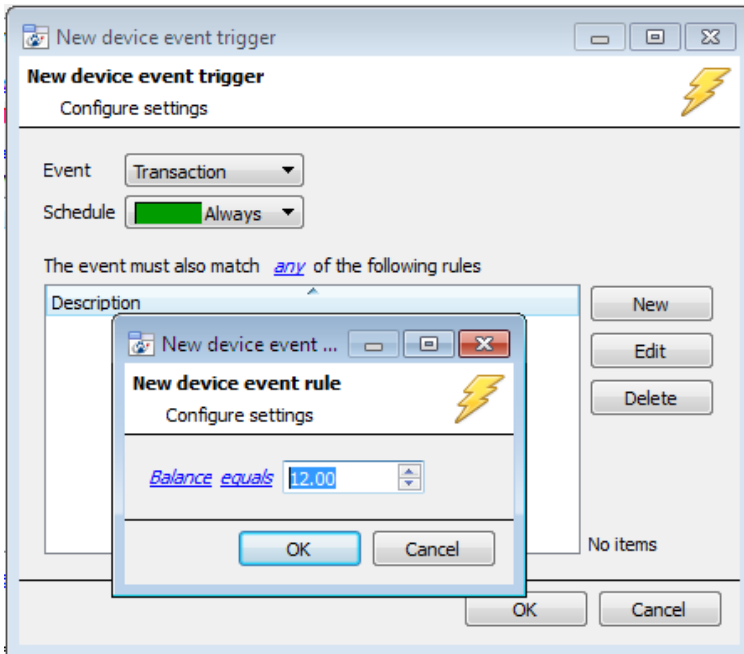
Note for group triggers: If you want this event to be databased under the name of a specific object, and not the name of the triggering group, you will need to modify the Description field in the **General tab** of the Event setup.

Click on the  to see a list of available descriptions. Here is a Julong example which will send the triggering object's name to the database, for the event: Description 

Define Your Trigger

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, for the various trigger types:

- **Any Device Event**

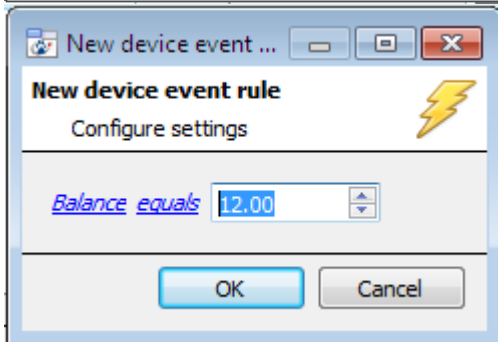


For example within the [any device event](#) option you may choose what type of device Event will be your trigger. Choose from the drop-down menu.

Note: You may set multiple constraints (**Device Event Triggers**). If you do not define a constraint, every single device event will trigger this event.

To add/edit/delete a **Device Event Trigger** (a constraint) use the **New**, **Edit**, and **Delete** buttons on the right hand side.

Choose if [any](#), or [all](#) constraints need to be fulfilled to set off a trigger.

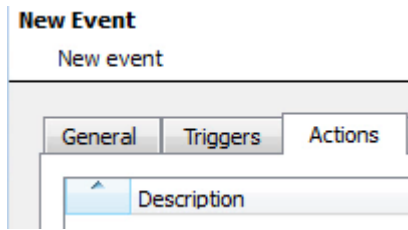


To change the constraint click on the first hyperlink, this will bring up the full list of available rules.

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 Julong device, see the Julong settings for the strings needed here.

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.

The Julong device does not allow for such actions, due to the nature of the integration, all other default CathexisVision Actions will work.

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