Milestone XProtect Integration

Most Recent Update：06/10/2020

Objective: This article demonstrates a few of the capabilities that may be achieved by GJD IP devices within Milestone Xprotect.

Note: This article assumes that you have already gone through process of adding your GJD IP product to Milestone Management Client. If you have yet to do so, please visit our knowledge base to learn how, or visit our YouTube page for a step-by-step tutorial.

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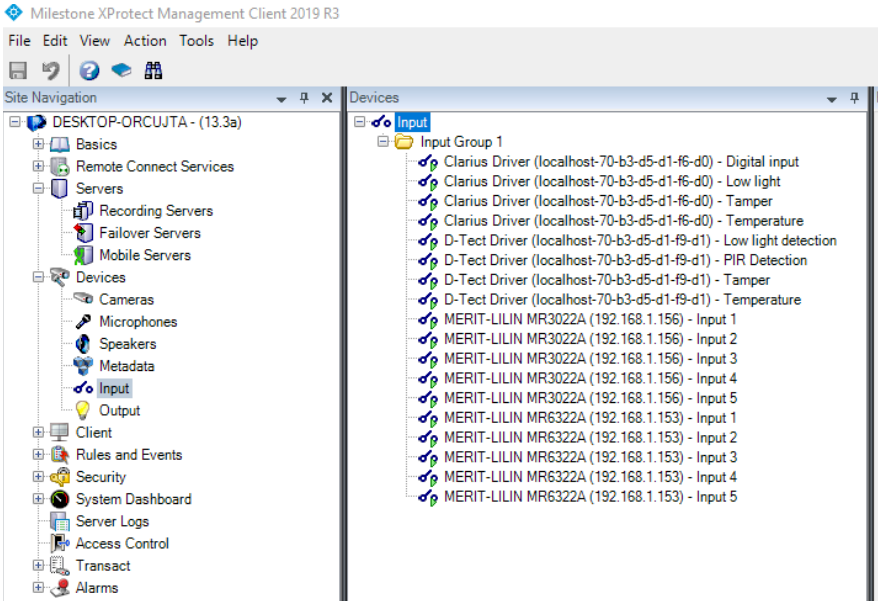
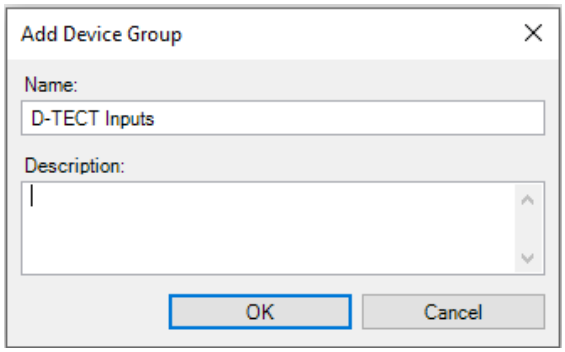
IP Motion Sensors – Reliable Human Detection Deployments

Note: if you plan on using a GJD IP motion sensor with a camera for recording purposes, be sure to modify the **Default Record on Motion Rule** to reflect the appropriate expectations. This setup process will enable cameras to record based on alarm inputs from a D-TECT IP motion sensor.

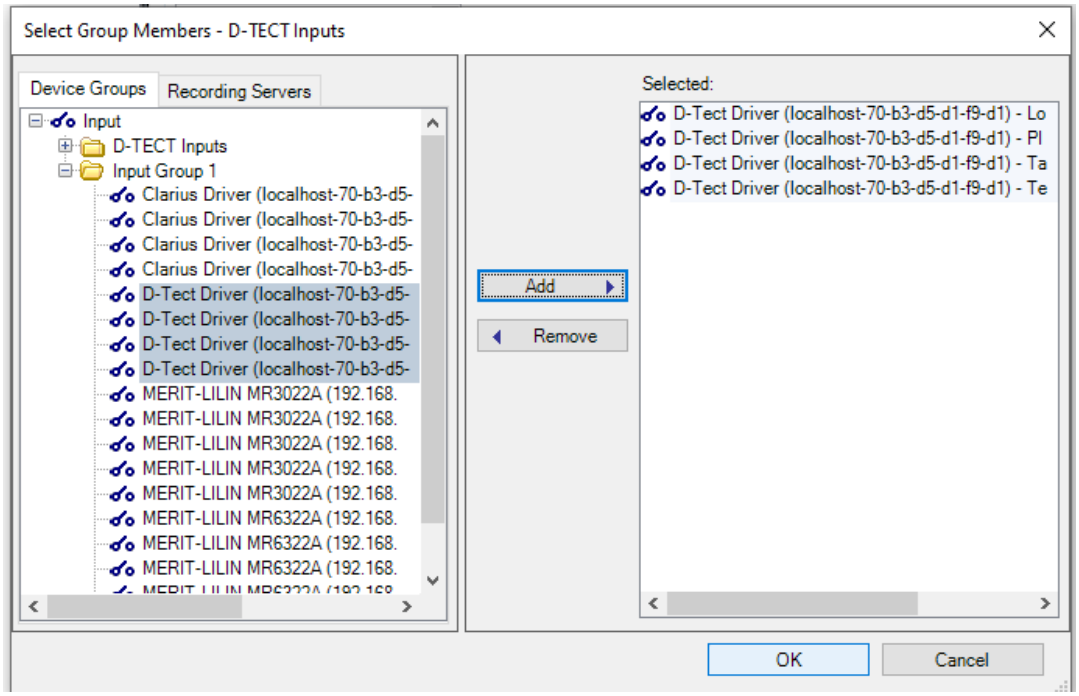
1. On the left pane, select **Inputs** and open the folder containing your GJD D-TECT Inputs. Currently, we have all inputs of our devices in one folder. If you haven't already separated them for ease of use, we will do so now.



2. Right click on the **Input** icon and select **Add Device Group.** We will name it D-TECT Inputs. Click **OK**.

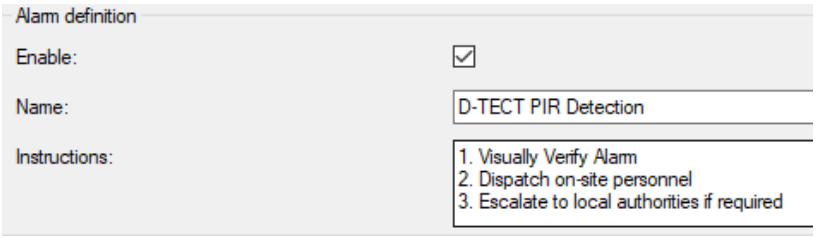


3. Right click on your new folder and select **Edit Device Group Members**. Select all your **D-TECT Driver** inputs and add them over to the new folder, then click **OK**. Replicate this process for D-TECT Outputs.

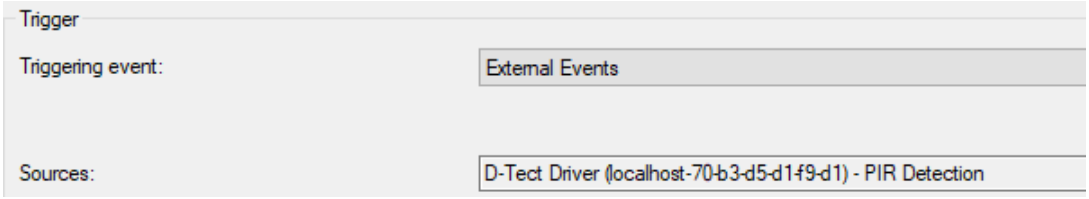


Tip: If using only PIR Detection with multiple motion sensors, create a folder called 'PIR Detection' and put all your PIR Detection inputs in there for ease of use.

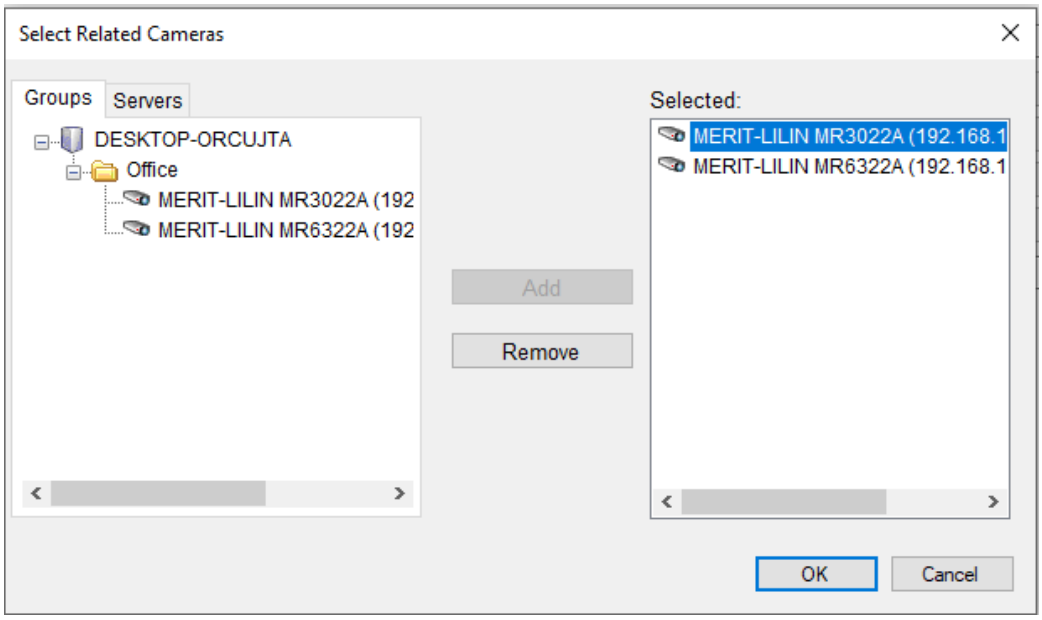
4. Navigate to **Alarm Definitions**, right click and select **Add New**. Give a new name and a list of instructions if desired.



5. Under **Trigger Event**, use the drop-down menu to select **External Events**. Under Source, navigate to your inputs folder and select **PIR Detection** on the motion sensor(s) that will be triggering this event.

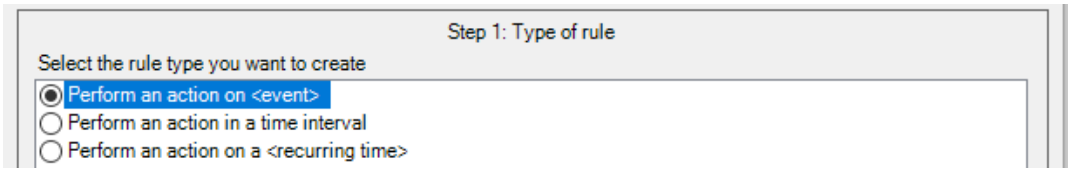


6. Under **Other**, click **select** for **Related Cameras** and choose the desired cameras you would like to add. Click **OK** when done. Click **Save** in the upper left corner of Milestone Management Client when finished.

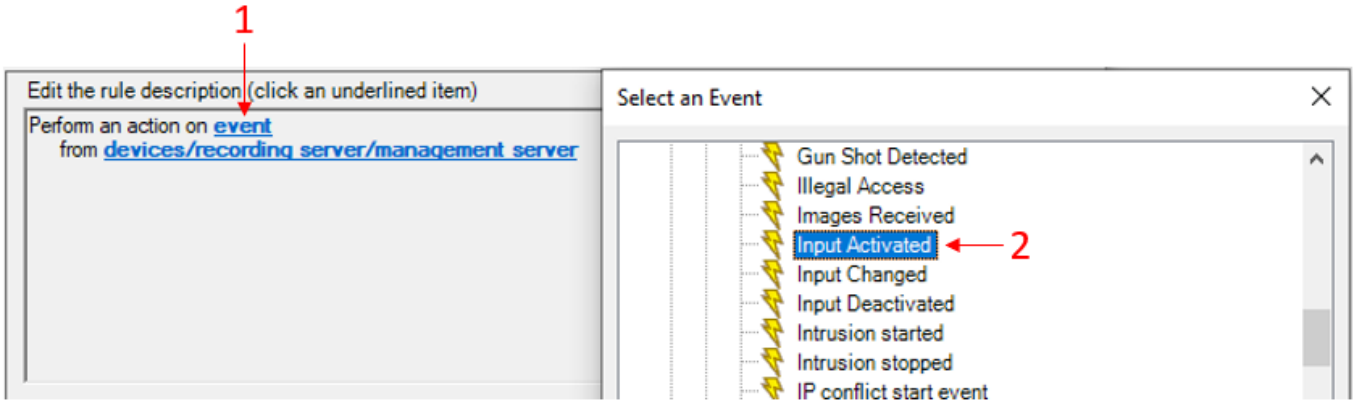


7. Navigate to **Rules and Events** on the left pane. Select **Rules**, right click and select **Add Rule.** We will name this rule PIR Bookmark.

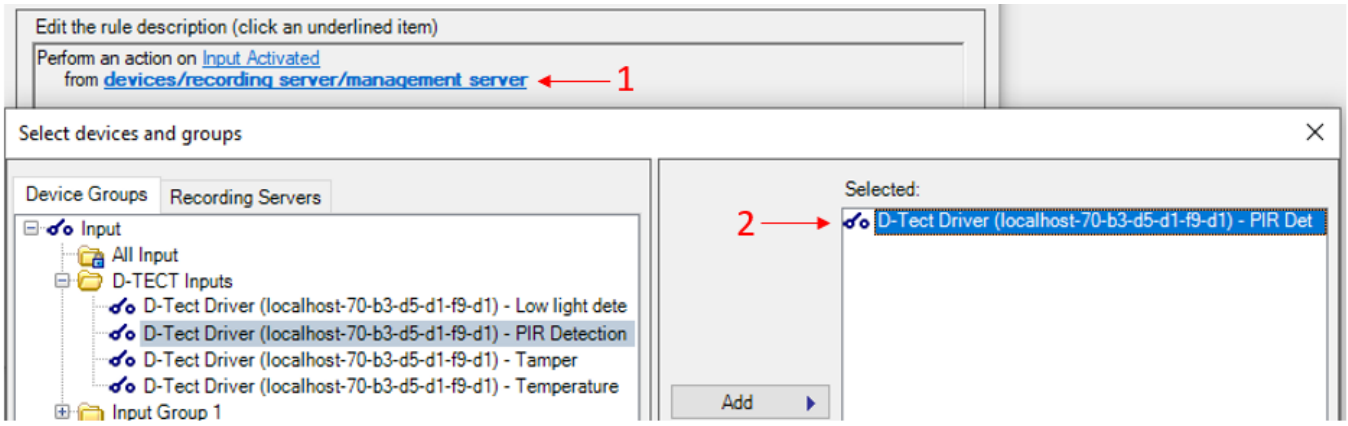
8. Make sure **Perform an action on <event>** is selected.



9. Now we must assign an event & where that event is coming from. Select **Event>Devices>Configurable Events>Input Activated.**

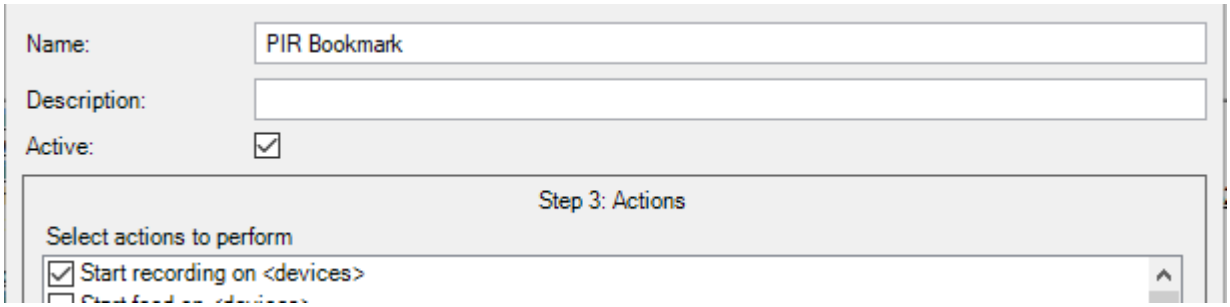


10. Click **devices/recording_server/management_server** and select your D-Tect Driver PIR Detection. Add the input over and click **Next** when finished.

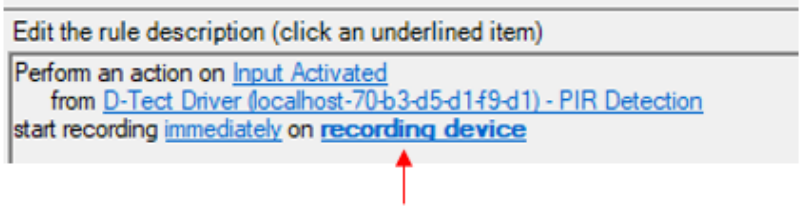


11. You will now be given the option to use and **Conditions** you would like to add, however for this example the PIR Detection Event will be operating 24/7. Once you made your conditions, click **Next**.

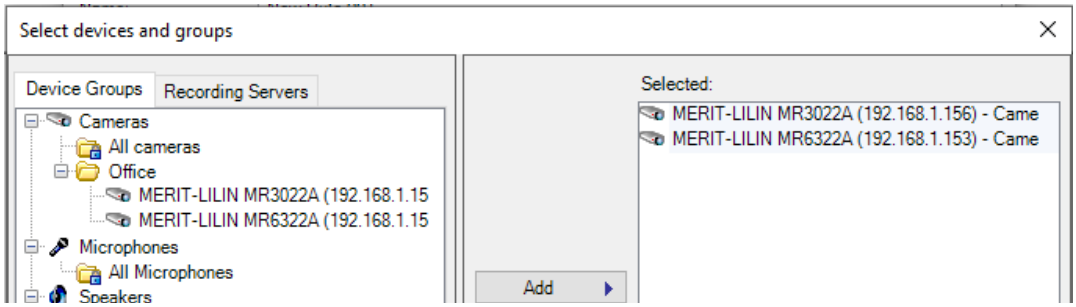
12. Select the first available option under **Actions**, **Start recording on <devices>**.



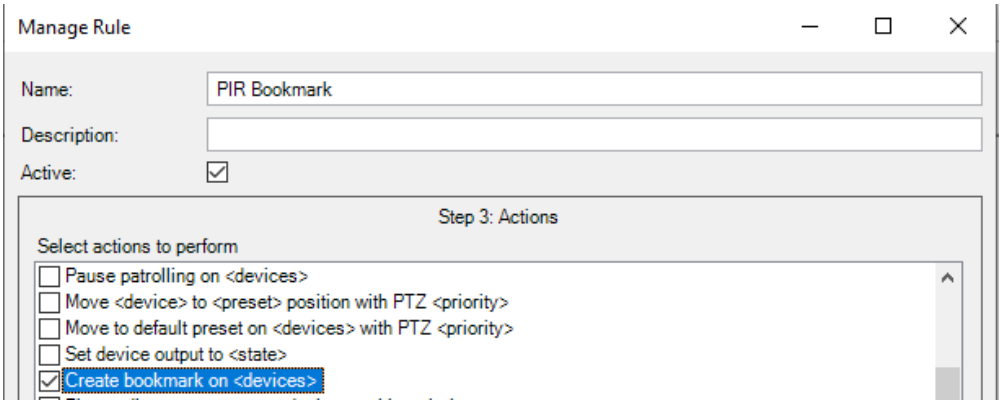
13. Select **recording device.**



14. Choose your devices you would like to record from. In this case, we will **Add** two cameras, then click **OK**.

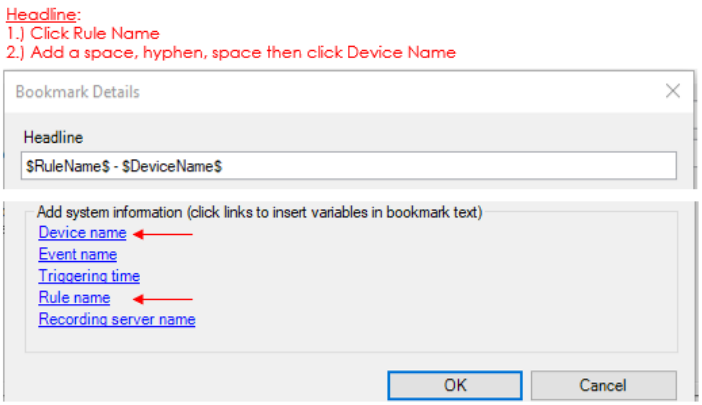


15. Scroll down the list of available actions until you see **Create Bookmark on <devices>.**

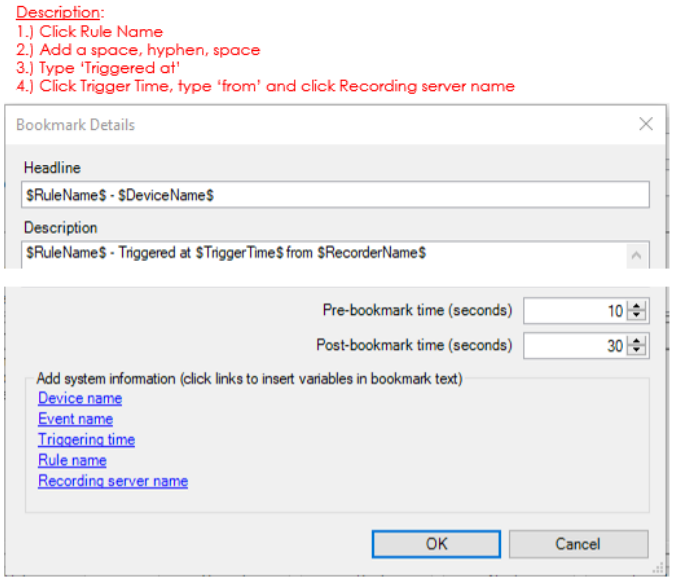


16. We now need to designate what information is generated to what devices.

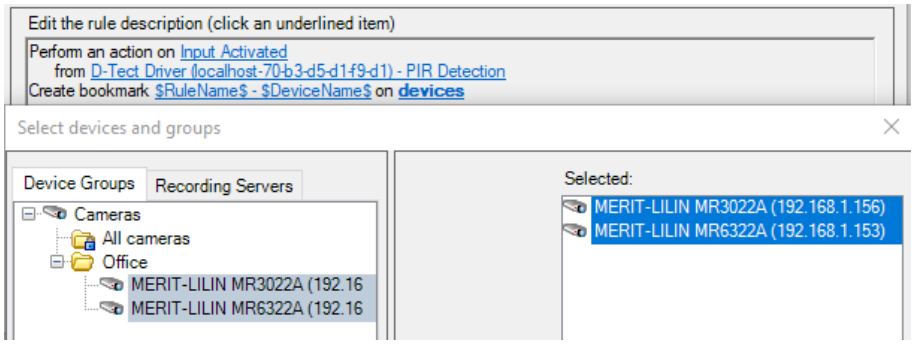
17. First, click on **Bookmark**. There are many different combinations and ways to create your headline and description, however this example gives an informative approach. Starting with our **Headline**, we will do the following:



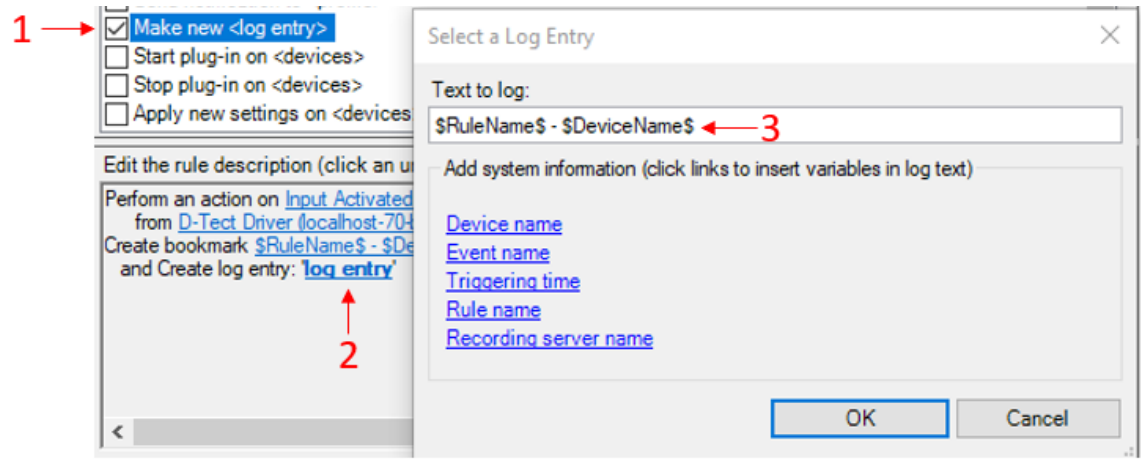
18. For the **Description**, we will add a few metadata strings that accurately describe the rule, time it was triggered and from what recording server it came from. Adjust the Pre-bookmark & Post-bookmark parameters to your requirements and click **OK** when finished.



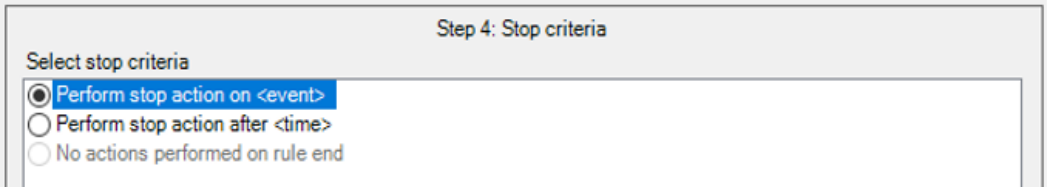
19. Click **Devices** and select the cameras you would like to add to be bookmarked. Click **OK** when done.



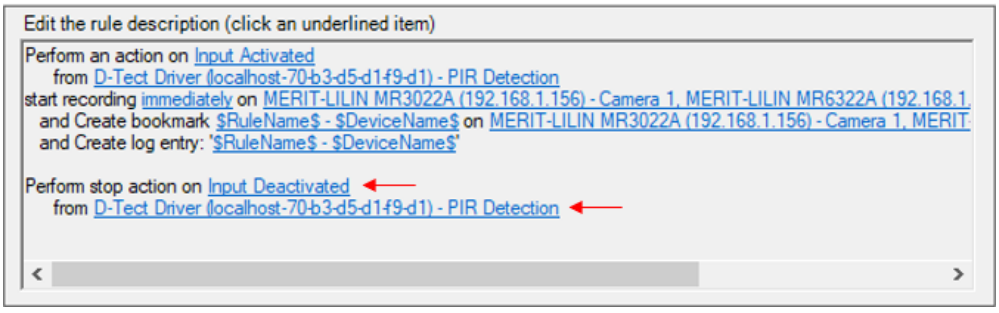
20. Select **Make new <log entry>** action. Like the previous steps, add **Rule name** and **Device name** as pictured below. Click **OK** and **Next**.



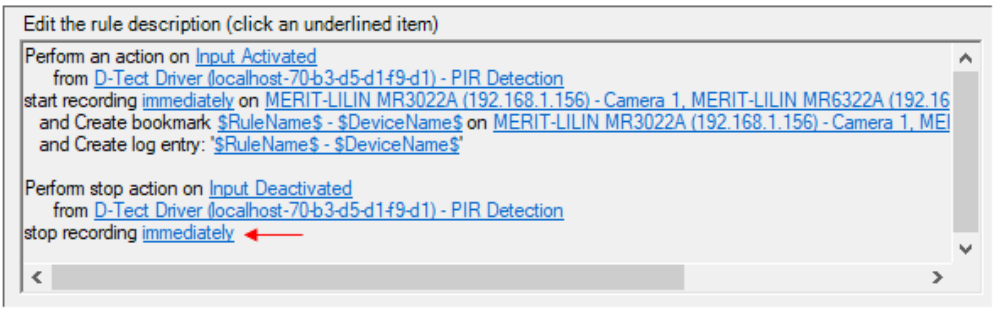
21. Add a stop action for your recording. You can do this by adding a **Perform stop action on <event>**, or by **Perform stop action after <time>.** Depending on your requirements, this option will vary. We will use **Perform stop action <event>** for this example.



22. **Perform stop action** on **Input Deactivated** will be there by default, as well as seeing where its coming from. Click **Next.**

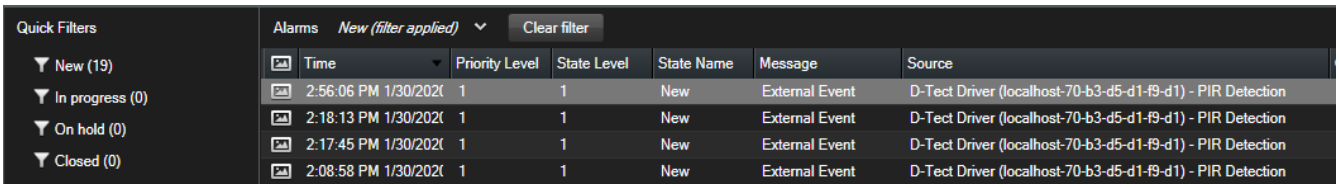


23. Add a stop action for recording, which we can see is automatically generated. If your requirements are different, click **Immediately** to adjust. Click **Finish** when done.

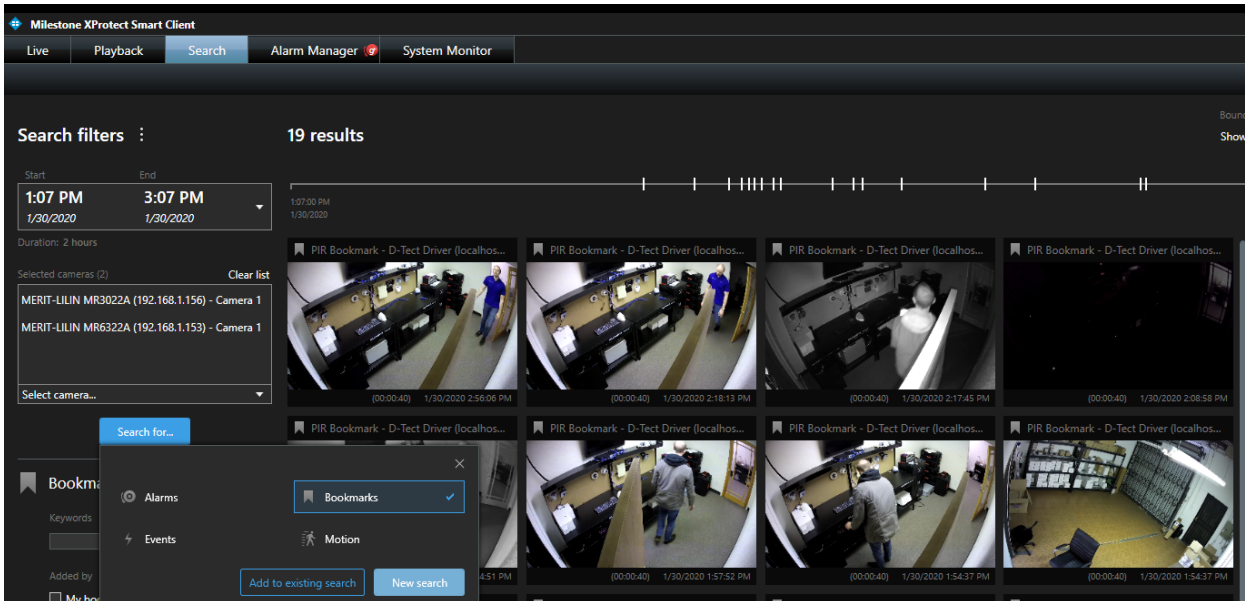


Smart Client – Alarm Notifications & Bookmarks

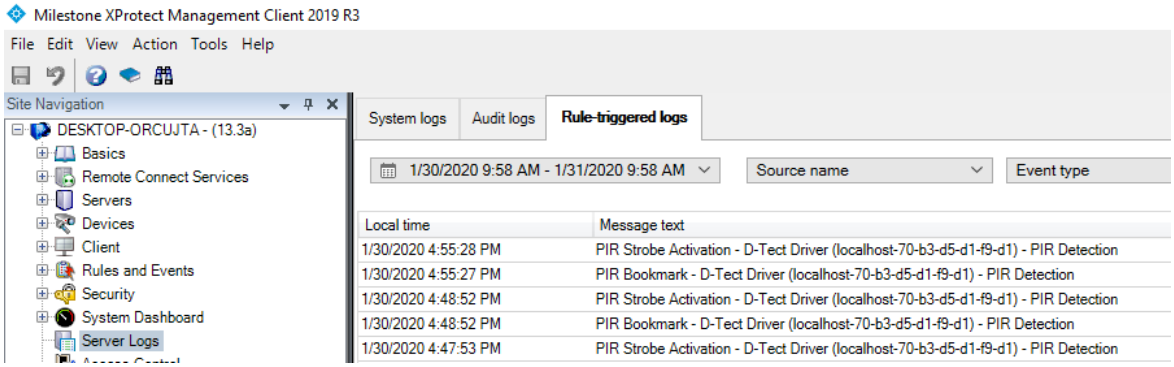
1. Launch **Smart Client**. After testing your motion sensor with a few walk tests, click on **Alarm Manager**. Here we can see several alarms created automatically by the D-TECT PIR Detection source. Clicking each one will play footage associated with it.



2. Click on **Search.** Chose cameras you would like to search. Click **Search for>Bookmarks** then click **New search**. All bookmarks are automatically logged and searchable here through the D-TECT Rule you created.

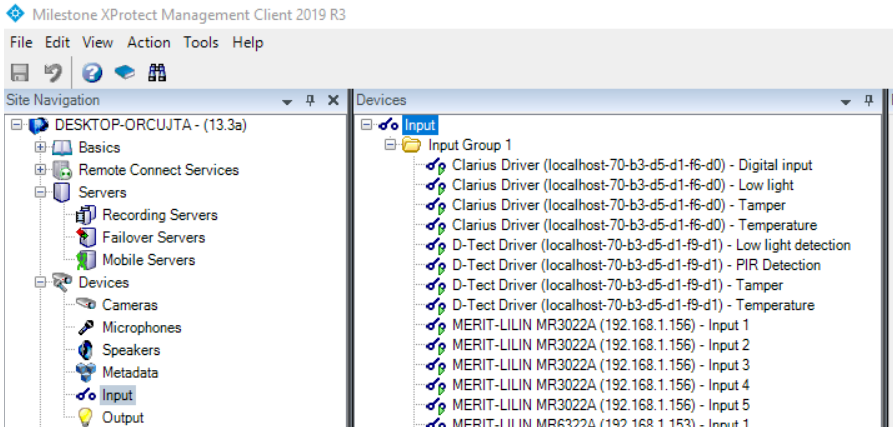


Note: The created log entries for this rule can be found in **Management Client>Server Logs>Rule-triggered logs**, which can be useful to identify when alarms occurred within the Management Client environment. Check here to make sure logs are populating properly as a final check of your setup.

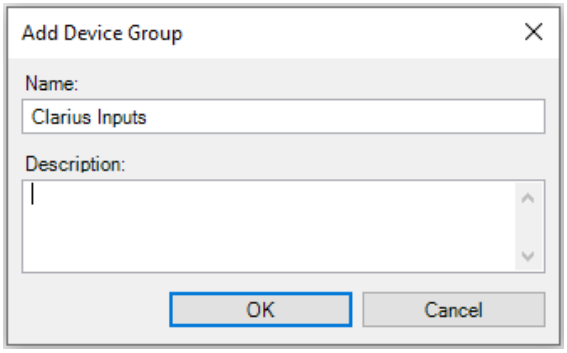


IP Illuminator - Intelligent Deterrence & Camera Enhancement Control through Smart Client

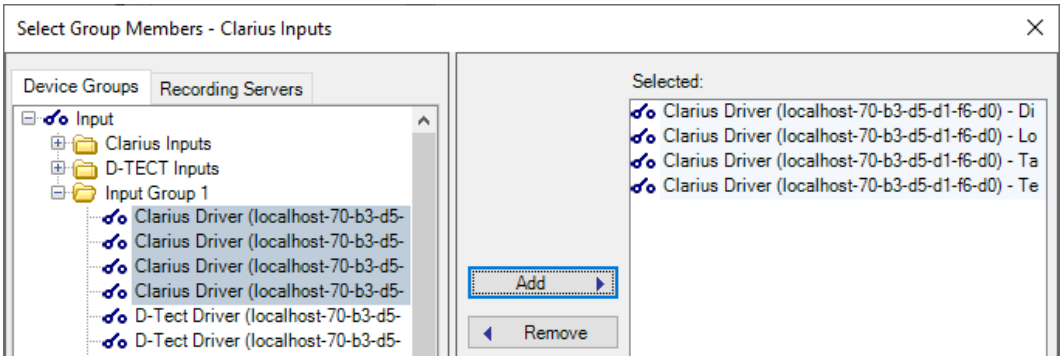
1. In **Management Client** on the left pane, select **Inputs** and open the folder containing your Clarius Inputs. Currently, we have all inputs of our devices in one folder. If you haven't already separated them for ease of use, we will do so now.



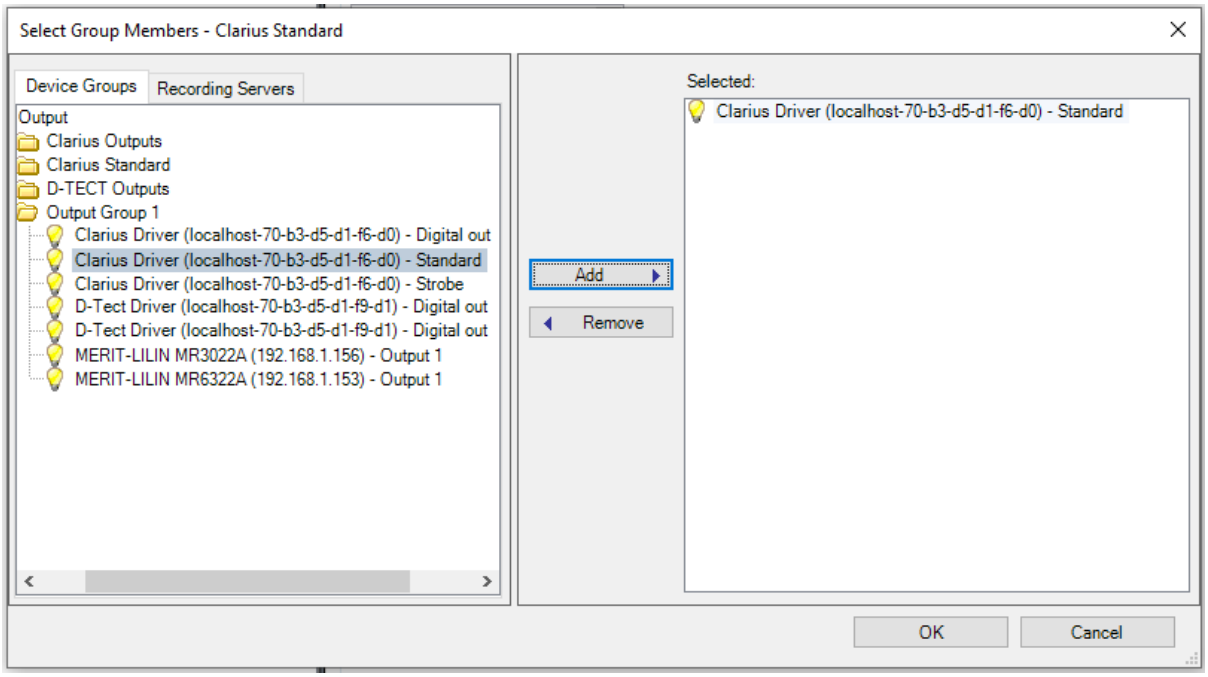
2. Right click on the **Input** icon and select **Add Device Group.** We will name it Clarius Inputs. Click **OK**.



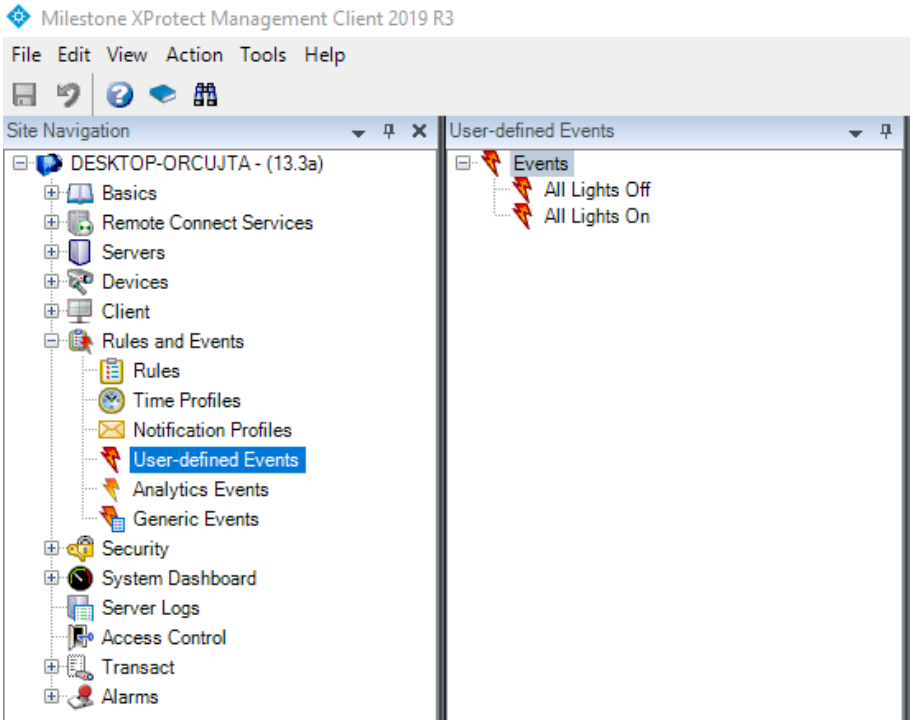
3. Right click on your new folder and select **Edit Device Group Members**. Select all your **Clarius Driver** inputs and add them over to the new folder, then click **OK**. Replicate this process under **Outputs**, naming the folder **Clarius Outputs**.



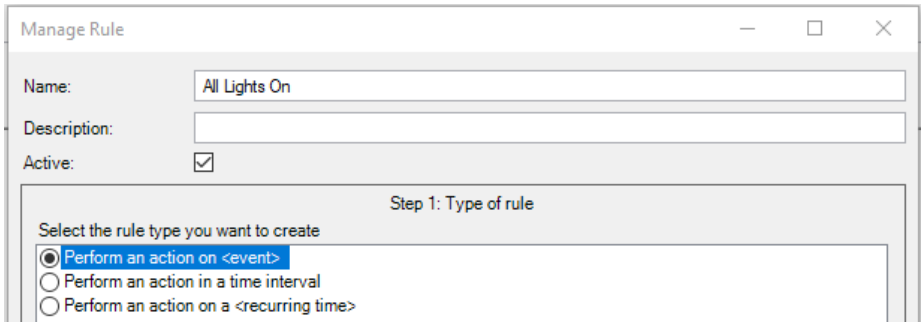
4. Under **Outputs**, we will also create another group, called **Clarius Standard**. Right click Clarius Standard, **Edit Device Group Members** and add the **Standard** output to this folder. Click **OK**.



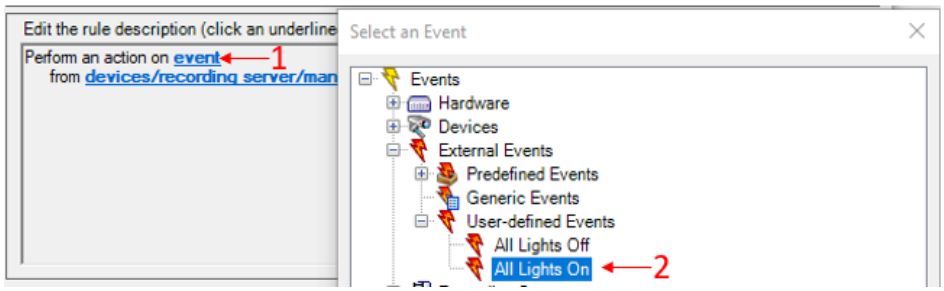
5. Navigate to **User-Defined Events** on the left pane. Right click and **Add User Defined Event**. Name this **All Lights On**. Create another one, named **All Lights Off.**



6. Now create a rule that allows you to turn on and off the light in your project through Smart Client. Navigate to **Rules>Right Click>Add Rule**. Name it **All Lights On**.

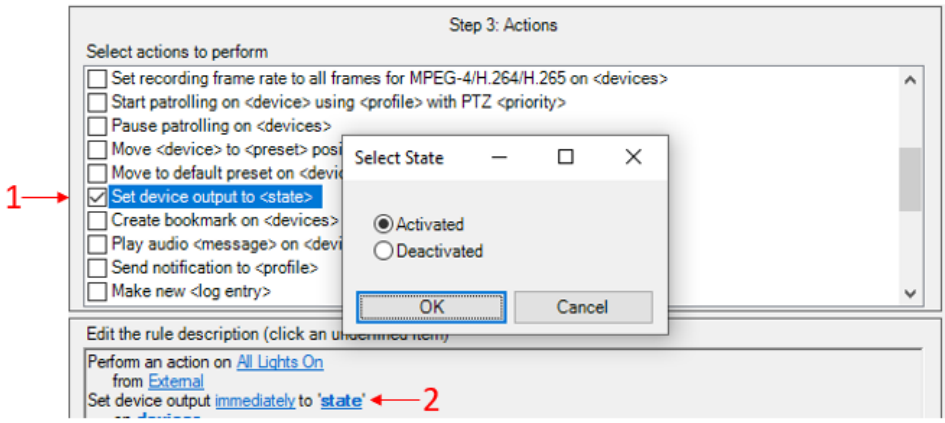


7. Under **Event**, select **External Events>User-defined Events>All Lights On**. Click **OK** then **Next.**

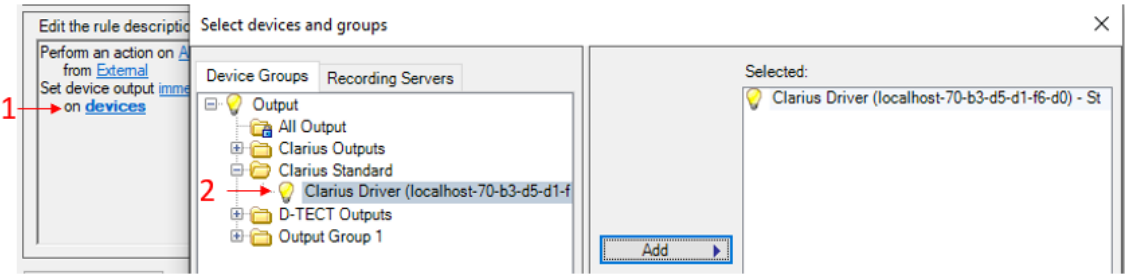


8. Here you may add any conditions you may like, for our example we will be skipping this portion. Click **Next** again.

9. Scroll down and select **Set device output to <state>.** Click on **state** and select **Activated** and click **OK**.

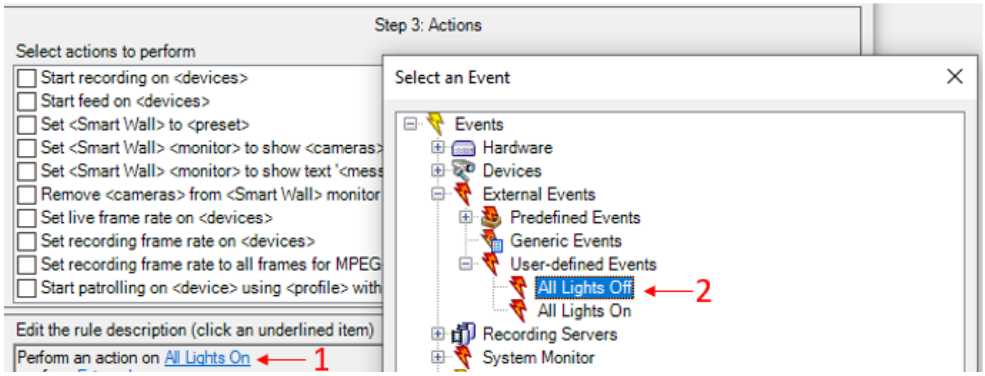


10. Click **Devices**, **Select Devices**, then open your **Clarius Standard** folder and add the **Clarius driver Standard output** over. Click **OK**, **Next** and **Finish**.

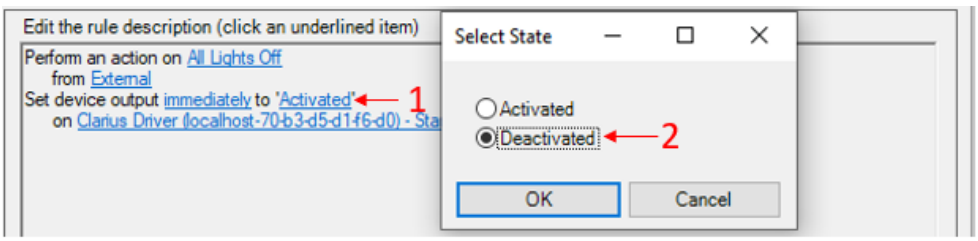


11. We will repeat this process, however we will make the rule for **All Lights Off**. We will expedite this by copying and modifying the rule we just created. Right click **All Lights On>Copy Rule**.

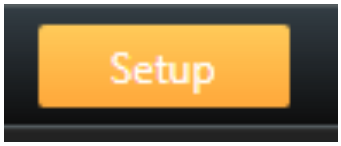
12. Change the name to **All Lights Off**. Click All Lights On and change to **All Lights Off**.



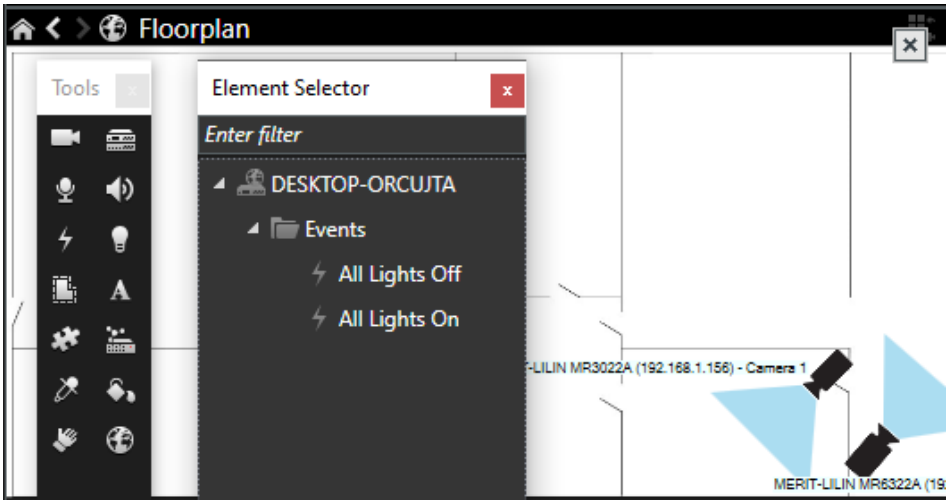
13. Change **Activated** to **Deactivated.** Click **OK** then **Finish.**



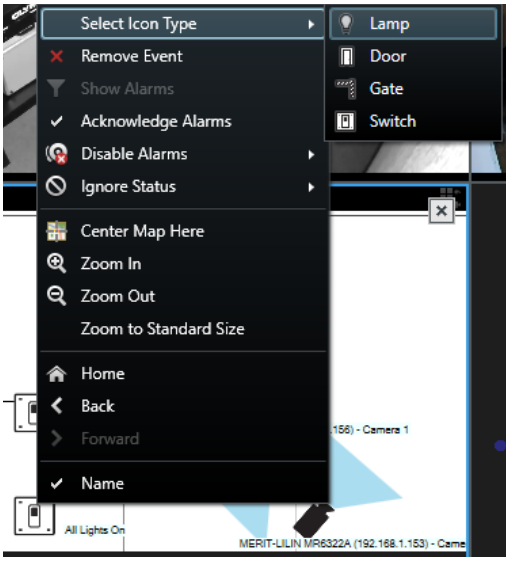
14. Now launch Smart Client and click on **Setup** in the upper right-hand corner.



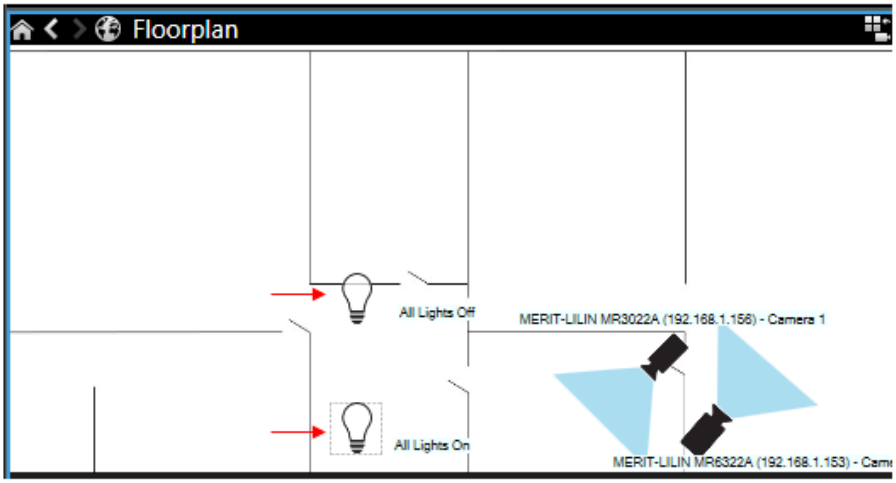
15. On a premade floorplan with our two cameras, we will add Illuminator control to this. Using the **Tools** box, select **Add Event** (lightning Bolt) icon and open your **Events** folder. Drag and drop your **All Lights On** and **All Lights Off** events to the floorplan.



16. As an option, after adding your events you may right click on them and choose **Select Icon Type>Lamp** to switch the icon to something more relevant.



17. Exit **Setup**. Click each lamp icon to confirm they are operational.

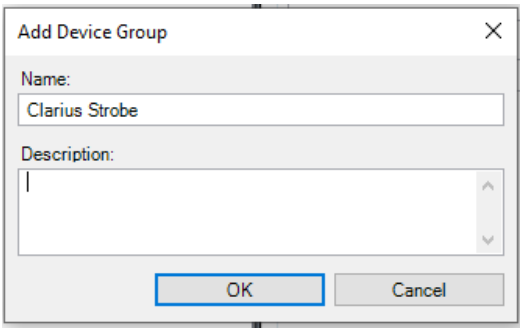


Light Off

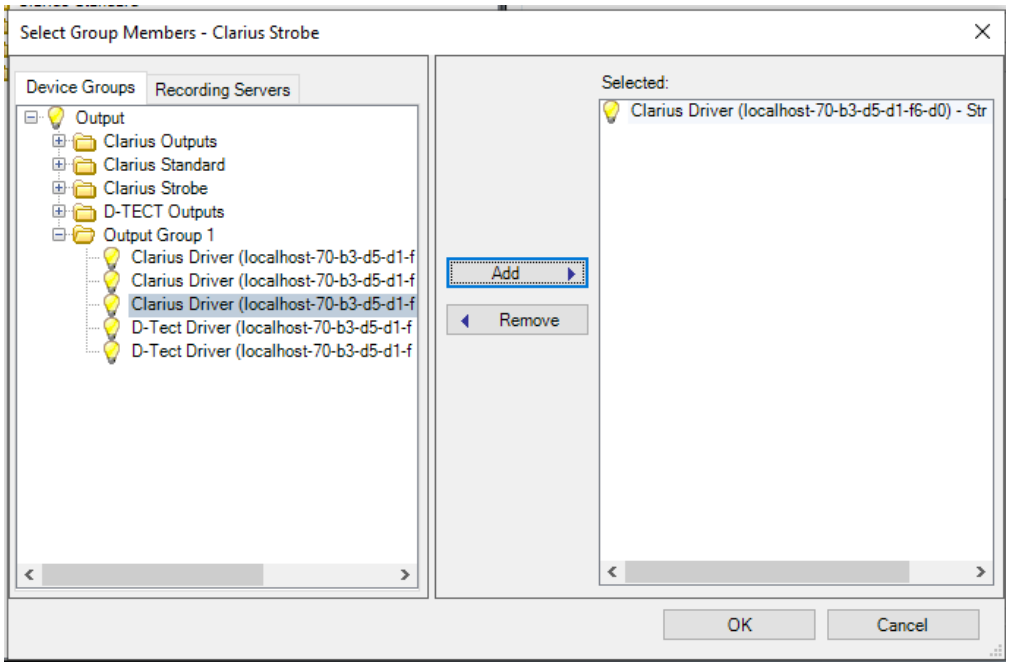
Light On

Creating Alarm Activated LED Strobes

1. In **Management Client** under **Outputs**, create a new folder called **Clarius Strobe.**

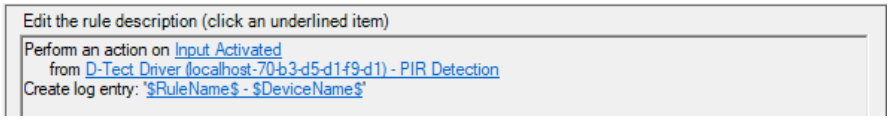


2. Right click **Clarius Strobe** folder and select **Edit Device Group Members.** Add **Clarius Driver Strobe** and click **OK**.

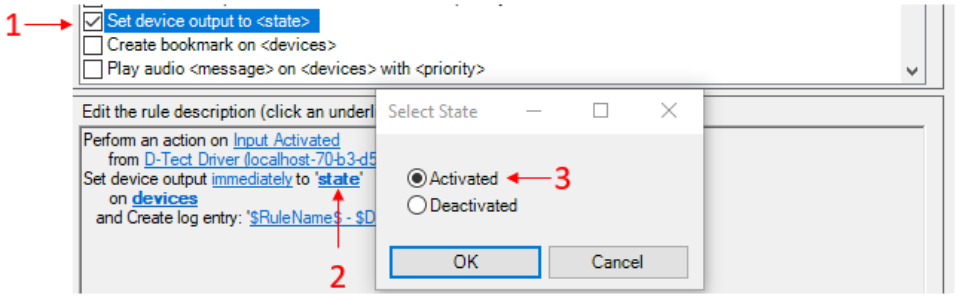


3. Navigate to **Rules**. Copy the PIR Bookmark rule created earlier in this walkthrough. If you have yet to do so, visit the first portion of this guide to see the steps involved. Rename the rule to PIR Strobe Activation.

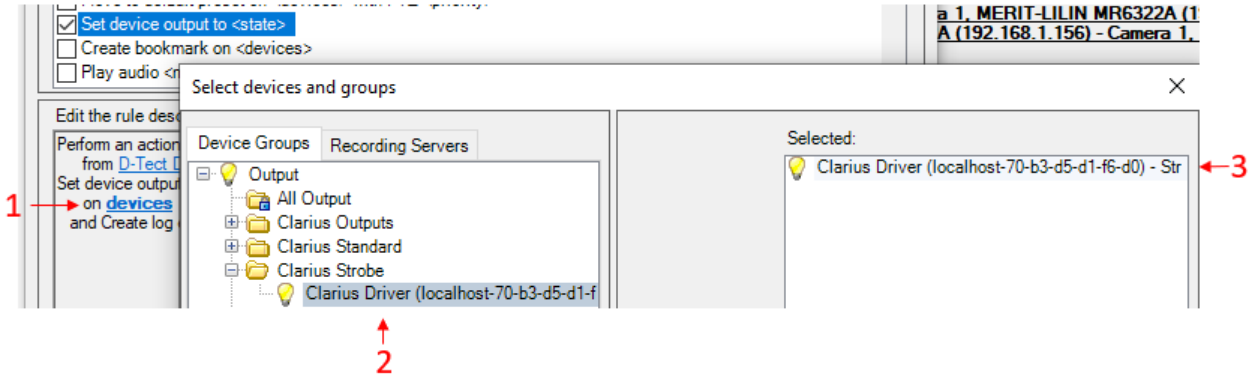
4. Unselect **Start recording on <devices>** & **Create bookmark on <devices>** from the list. The rule description should now look like this:



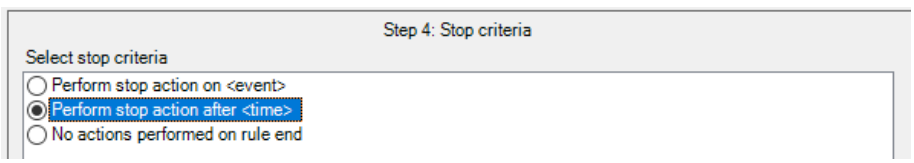
5. Select **Set device output to <state>** and click **<state>** in the rule description box. Select **Activated** and click **OK**.



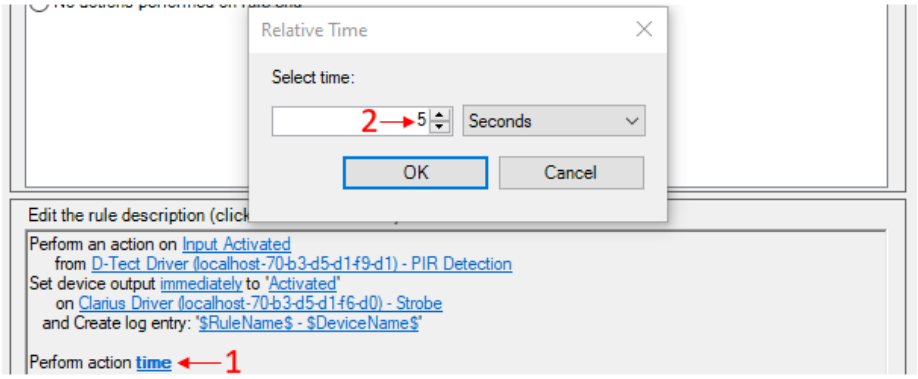
6. Click **Devices>Clarius Strobe** and add it. Click **OK** then **Next**.



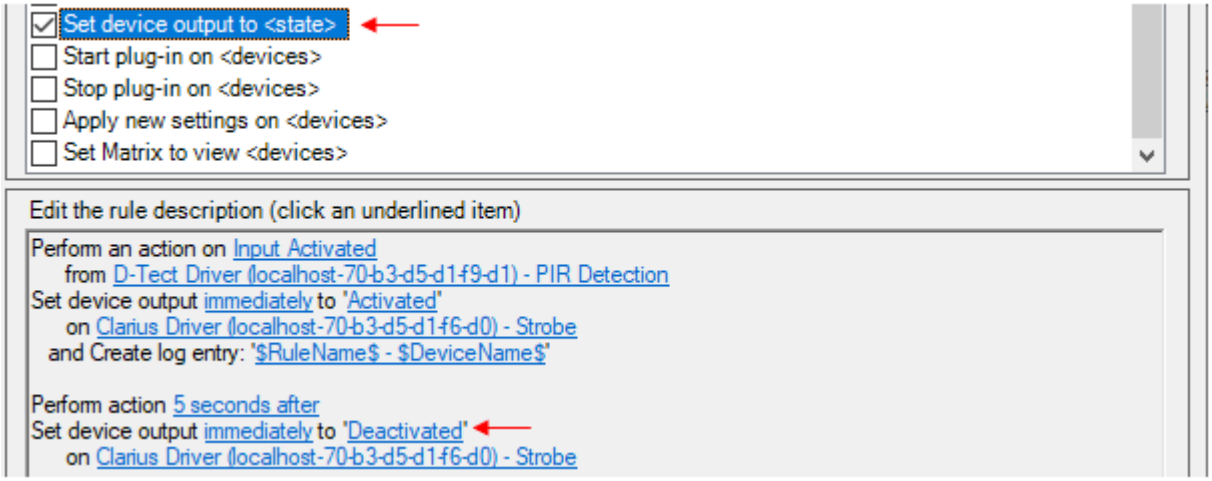
7. Add a stop action based on a timer by selecting **Perform stop action after <time>.**



8. Click **Time** and adjust parameter to 5 seconds. Click **OK** then **Next**.



9. Select **Set device output to <state>**. You will see in the description that it automatically sets the output to **immediately** and **'Deactivated'**. Unless required, these default settings are OK and don't require adjustment.



Laser Watch – Alarm Zone & Action Setup

Tip: After alarm zones are created, you may reference the Automated Bookmarks, Log Creation & Alarm Recording portion of this guide and replace the D-TECT IP with the Laser Watch.

1. Log into the web interface of your Laser Watch unit. Click **Add alarm** and select **Zone Alarm**. For this example, it will be called Zone 1.

2. Set your **Near** (beginning measurement of Zone Alarm) and **Far** (End of Zone Alarm measurement) distance.

3. Click **Add action** and select **Connect to URL** as your **Action type**.

4. In the URL **Start** and **End** fields, put the appropriate information for the Zone alarm you are setting up. Using the template below, replace the IP address with your Milestone server IP, Laser Watch MAC address(found in the GJD gateway or the help section of the Laser Watch login) and change the digital input(di) to the relevant Alarm Zone number.

URL format for Alarm Zone 1:

Start: http://**127.0.0.1**:**5000**/callback?**mac=address**&type=**di1**&state=1

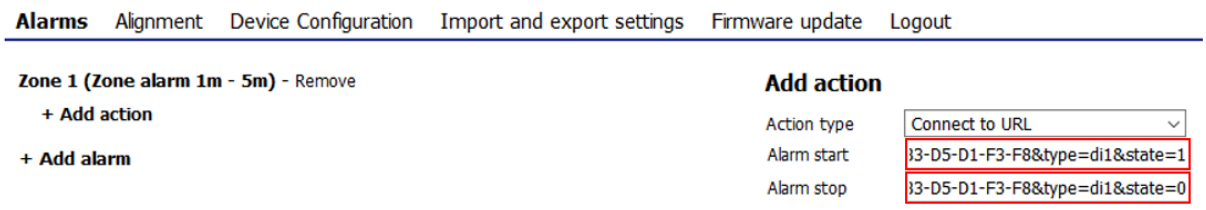
End: http://127.0.0.1:5000/callback?mac=address&type=di1&state=0

Example URL for Alarm Zone 1 completed:

Start: http://192.168.1.7:5000/callback?mac=70-B3-D5-D1-F3-F8&type=di1&state=1

End: http://192.168.1.7:5000/callback?mac=70-B3-D5-D1-F3-F8&type=di1&state=0

5. After filling in the Start and End URLs, click **Add Action** below.



On the following page, a table of the URL commands for each individual zone is available may be copied over and modified in the Laser Watch web interface.

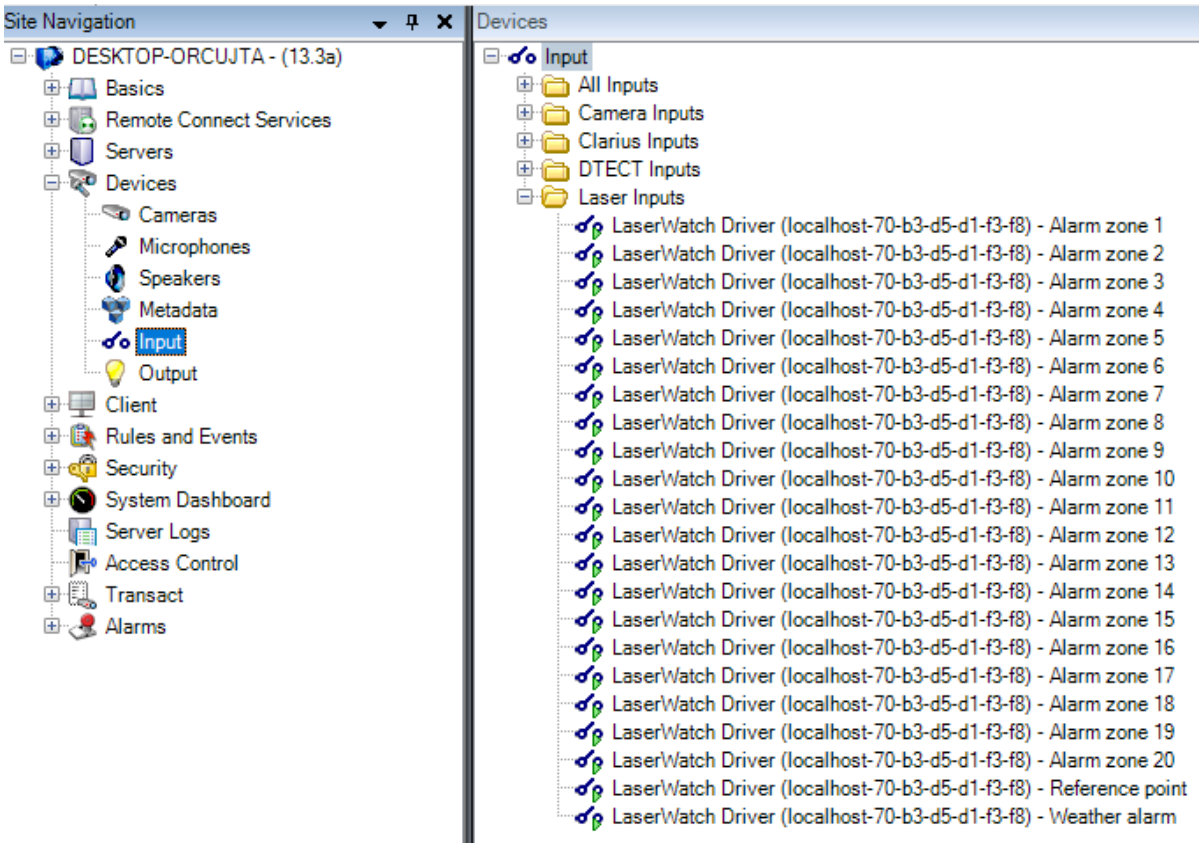
Zone Template Table:

Zone 1	Start	http://127.0.0.1:5000/callback?mac=address&type=di1&state=1
	End	http://127.0.0.1:5000/callback?mac=address&type=di1&state=0
Zone 2	Start	http://127.0.0.1:5000/callback?mac=address&type=di2&state=1
	End	http://127.0.0.1:5000/callback?mac=address&type=di2&state=0
Zone 3	Start	http://127.0.0.1:5000/callback?mac=address&type=di3&state=1
	End	http://127.0.0.1:5000/callback?mac=address&type=di3&state=0
Zone 4	Start	http://127.0.0.1:5000/callback?mac=address&type=di4&state=1
	End	http://127.0.0.1:5000/callback?mac=address&type=di4&state=0
Zone 5	Start	http://127.0.0.1:5000/callback?mac=address&type=di5&state=1
	End	http://127.0.0.1:5000/callback?mac=address&type=di5&state=0

Zone 6	Start	http://127.0.0.1:5000/callback?mac=address&type=di6&state=1
	End	http://127.0.0.1:5000/callback?mac=address&type=di6&state=0
Zone 7	Start	http://127.0.0.1:5000/callback?mac=address&type=di7&state=1
	End	http://127.0.0.1:5000/callback?mac=address&type=di7&state=0
Zone 8	Start	http://127.0.0.1:5000/callback?mac=address&type=di8&state=1
	End	http://127.0.0.1:5000/callback?mac=address&type=di8&state=0
Zone 9	Start	http://127.0.0.1:5000/callback?mac=address&type=di9&state=1
	End	http://127.0.0.1:5000/callback?mac=address&type=di9&state=0
Zone 10	Start	http://127.0.0.1:5000/callback?mac=address&type=di10&state=1
	End	http://127.0.0.1:5000/callback?mac=address&type=di10&state=0
Zone 11	Start	http://127.0.0.1:5000/callback?mac=address&type=di11&state=1
	End	http://127.0.0.1:5000/callback?mac=address&type=di11&state=0
Zone 12	Start	http://127.0.0.1:5000/callback?mac=address&type=di12&state=1
	End	http://127.0.0.1:5000/callback?mac=address&type=di12&state=0
Zone 13	Start	http://127.0.0.1:5000/callback?mac=address&type=di13&state=1
	End	http://127.0.0.1:5000/callback?mac=address&type=di13&state=0
Zone 14	Start	http://127.0.0.1:5000/callback?mac=address&type=di14&state=1
	End	http://127.0.0.1:5000/callback?mac=address&type=di14&state=0
Zone 15	Start	http://127.0.0.1:5000/callback?mac=address&type=di15&state=1
	End	http://127.0.0.1:5000/callback?mac=address&type=di15&state=0
Zone 16	Start	http://127.0.0.1:5000/callback?mac=address&type=di16&state=1
	End	http://127.0.0.1:5000/callback?mac=address&type=di16&state=0
Zone 17	Start	http://127.0.0.1:5000/callback?mac=address&type=di17&state=1
	End	http://127.0.0.1:5000/callback?mac=address&type=di17&state=0
Zone 18	Start	http://127.0.0.1:5000/callback?mac=address&type=di18&state=1
	End	http://127.0.0.1:5000/callback?mac=address&type=di18&state=0
Zone 19	Start	http://127.0.0.1:5000/callback?mac=address&type=di19&state=1
	End	http://127.0.0.1:5000/callback?mac=address&type=di19&state=0
Zone 20	Start	http://127.0.0.1:5000/callback?mac=address&type=di20&state=1
	End	http://127.0.0.1:5000/callback?mac=address&type=di20&state=0

Note: If you are using a Weather Alert or Reference Alarm, it will use up one of the digital inputs. The Laser Watch may handle up to 20 requests in any combination of Alarm Zones, Reference Points or Weather Alarms.

6. In **Management Client**, review that your Inputs are populating correctly:

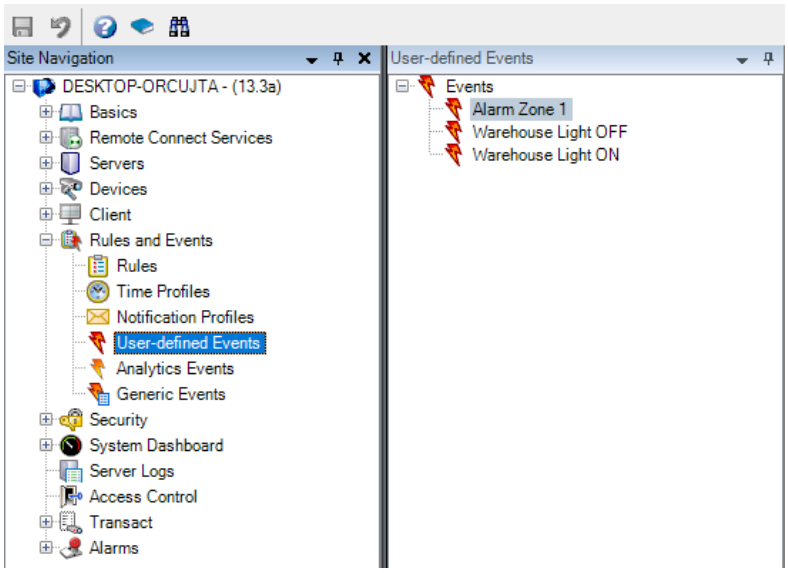


Laser inputs may now be used to trigger different rules throughout a Milestone Systems deployment. Such rules can be real time embedded map notifications, PTZ control & LED Illumination, all activated through the networked based virtual alarm zone. The next portion of the walkthrough will go through the setup of map notifications and PTZ preset control.

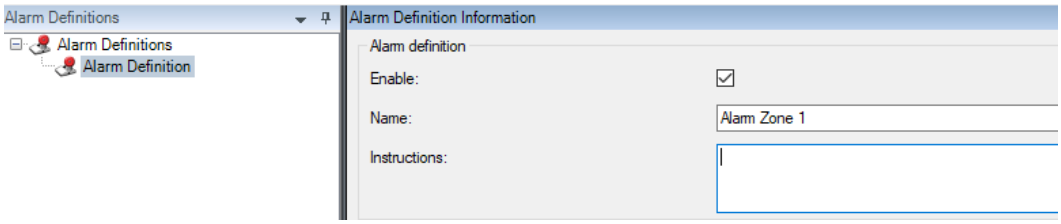
Laser Watch - Creating Map Events & PTZ Preset Control

Map Events will give the operator real time indicators of their property perimeter detection system using the Laser Watch, while also having a PTZ activate its relevant preset.

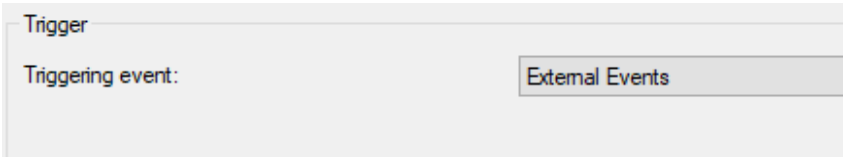
1. On the left pane, go to **Rules and Events>User-defined Events** and add a new one. For this example, we are calling it Alarm Zone 1.



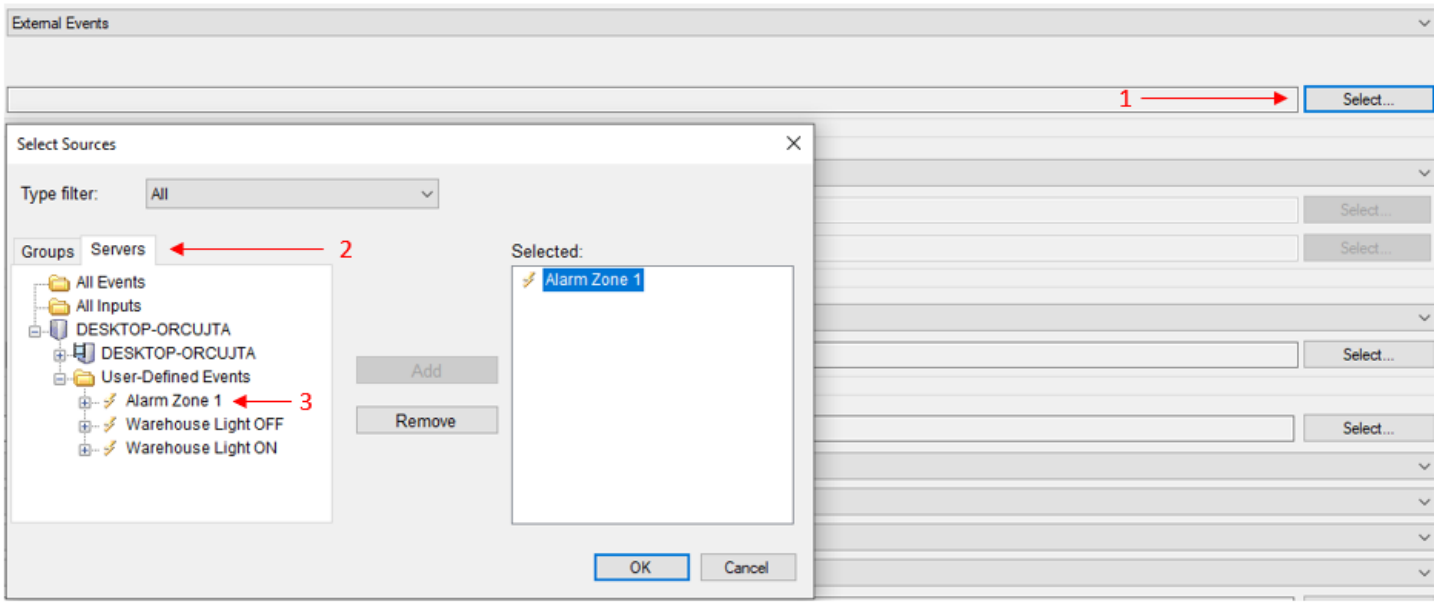
2. Under **Alarms**, click **Alarm Definitions** and add a new one.



3. Under **Trigger**>**Triggering Event**, set it to be an **External Events**.

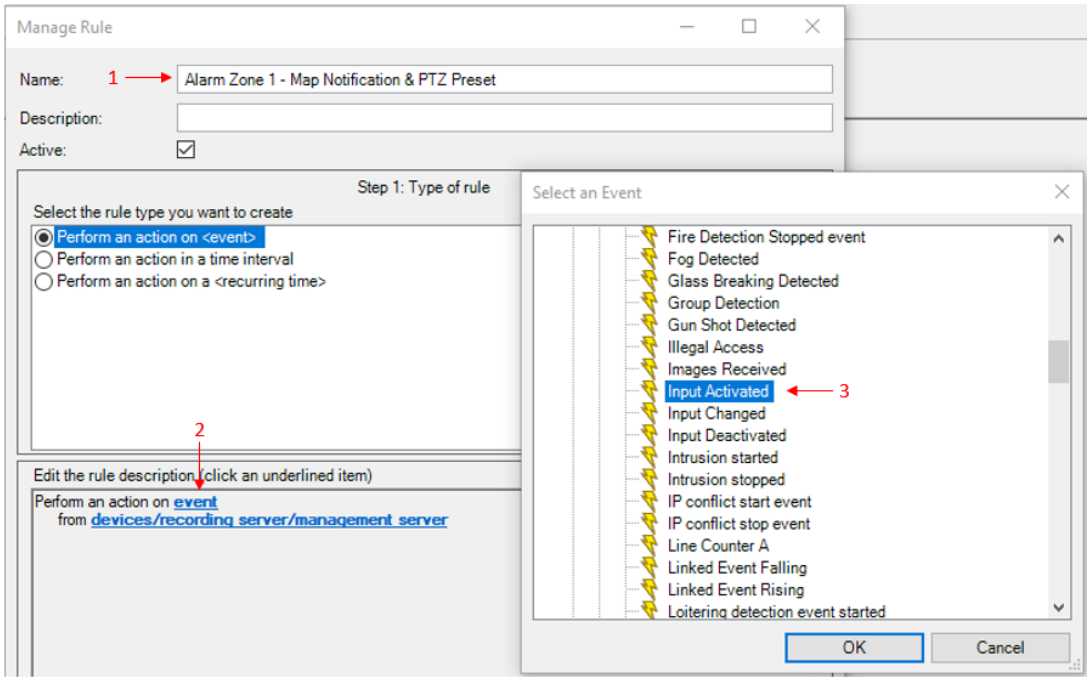


4. Select your source to be the User-Defined Event created earlier.

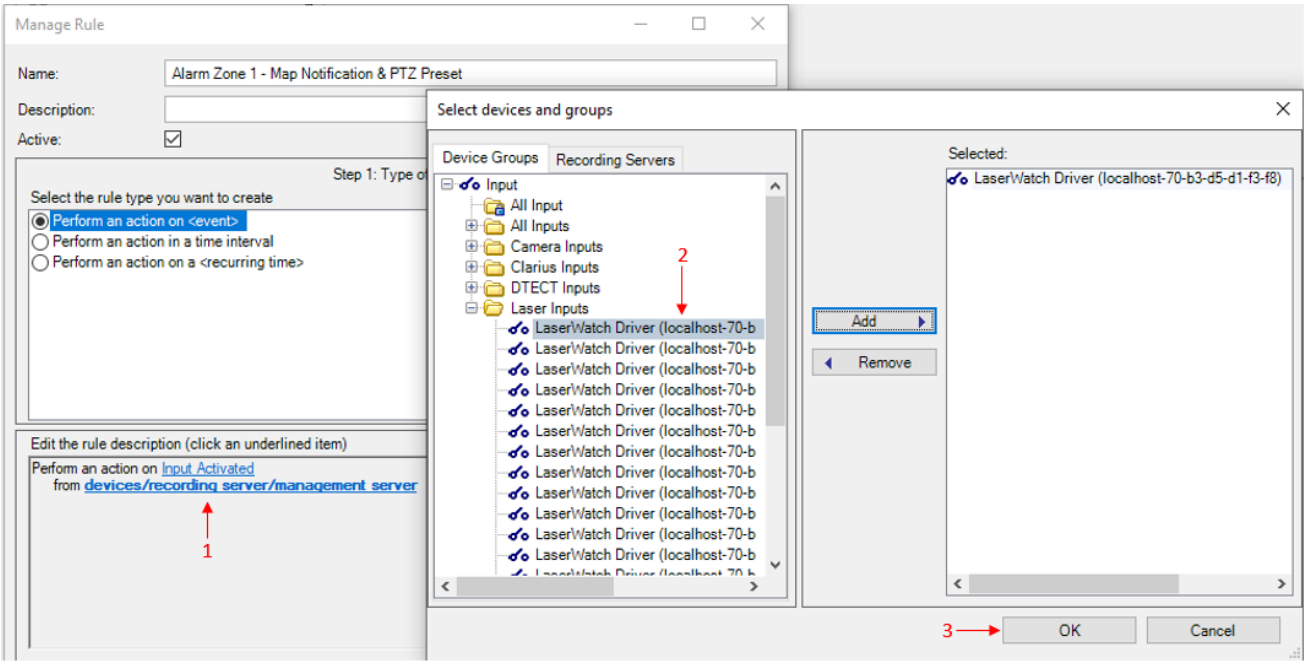


5. Click OK once you have added the relevant event over. Before moving off this page, click Save in the upper left-hand corner of MMC.

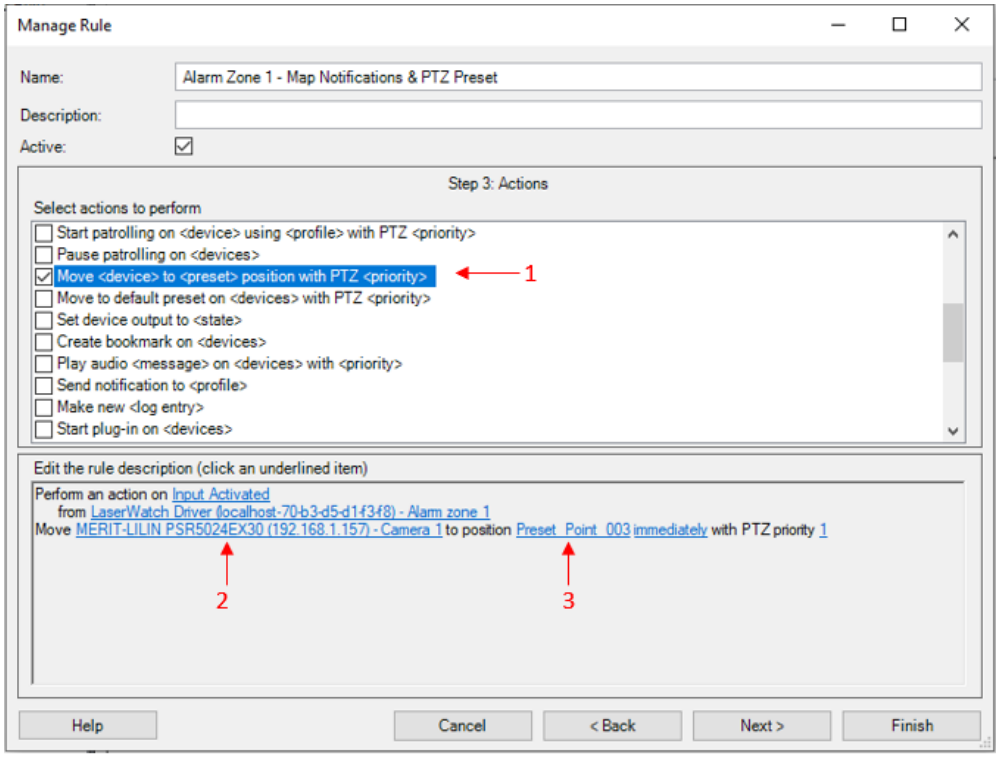
6. Under Rules and Events, add a New rule for Alarm Zone 1. Select Event>Devices>Configurable Events>Input activated and click OK.



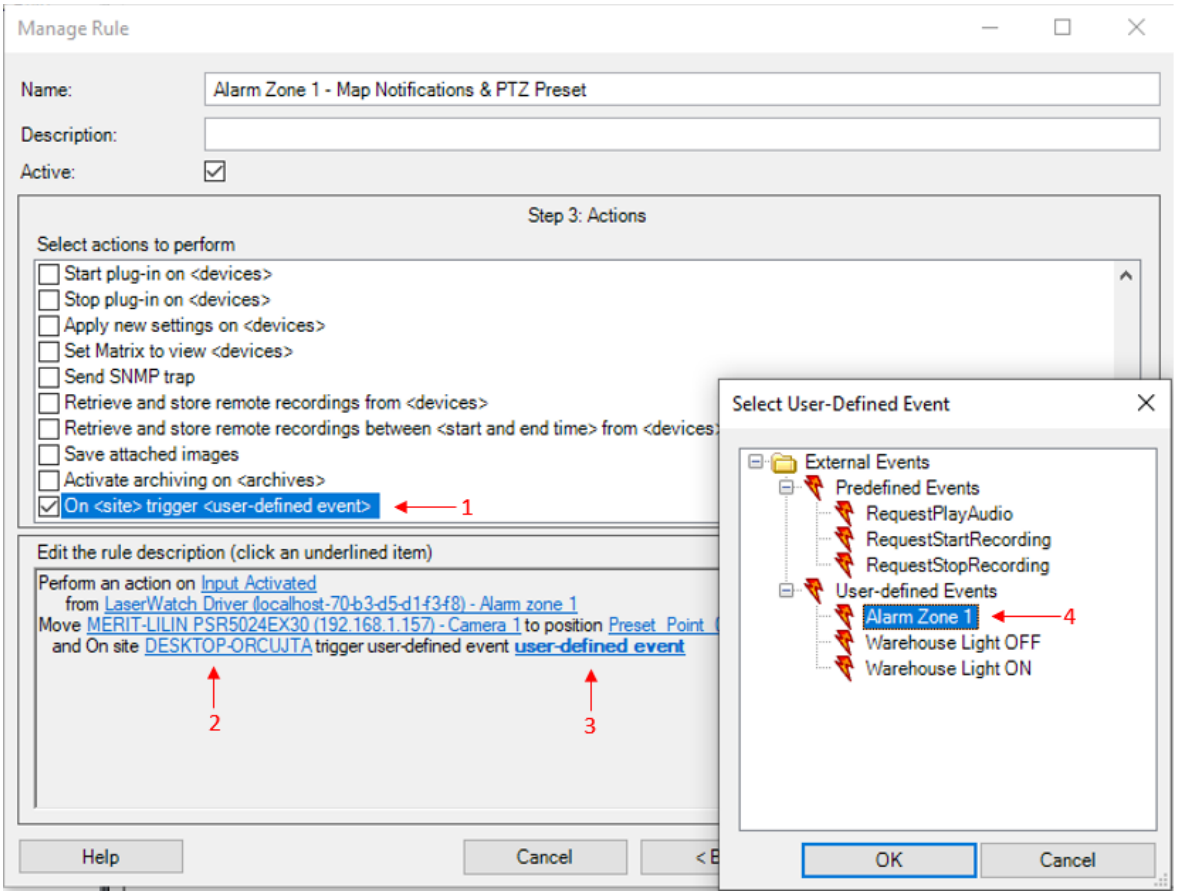
7. Select **Laser Watch Alarm Zone 1** as the input trigger and click **OK**.



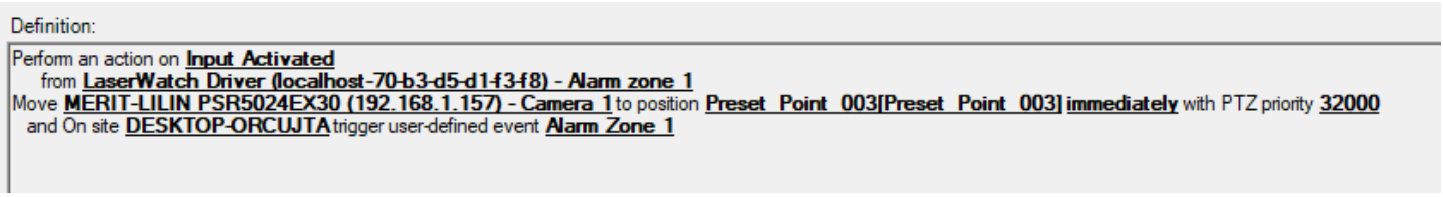
8. Next, for the first action we will select our PTZ & **Preset**.



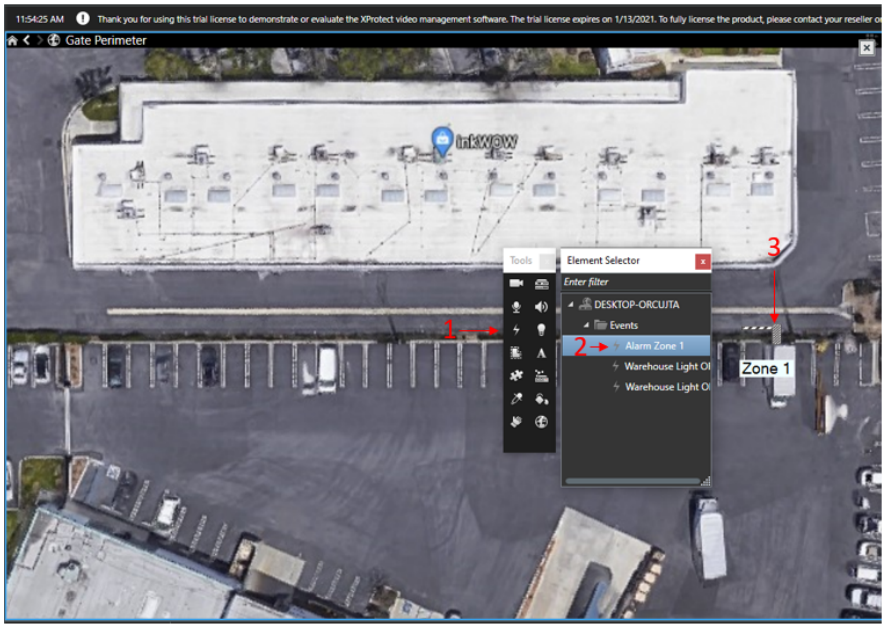
9. Our next action will be to trigger an onsite event. Select your recording server for your **site**, and the relevant **User-Defined Event**. Click **OK** and **Finish** unless it is required to add a **Stop Criteria**.



10. This example has the following definition when completed.

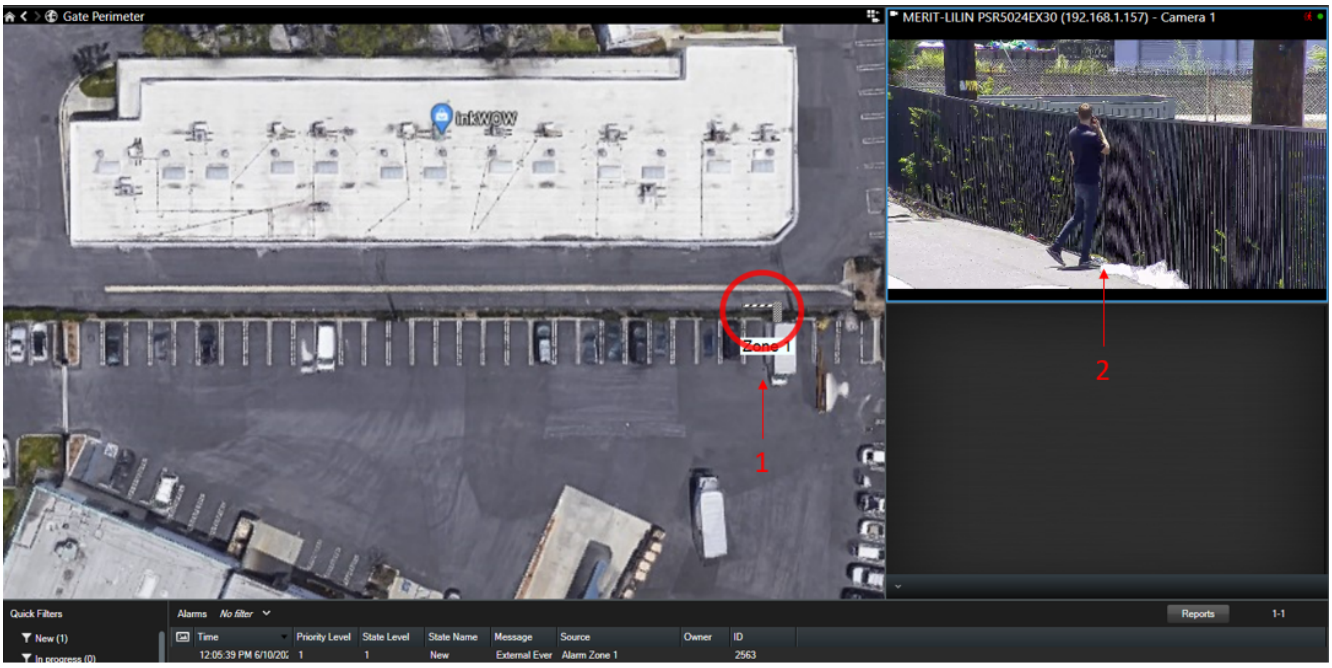


11. Open **Smart Client** and click **Setup**. A **Map** has been added representing the south perimeter of the property. Using the Toolbox, drag and drop your User-defined event onto the map and place where relevant. Adjust the size of text and change the icon that matches accordingly.



Note: Currently, there is limited icon selection within Smart Client which includes a switch, light bulb, gate, and door.

12. Test the Alarm Zone to make sure the Map Notification & Preset are working properly. A red circle will appear around the Alarm Zone that has been triggered and the PTZ moved to the appropriate Preset.

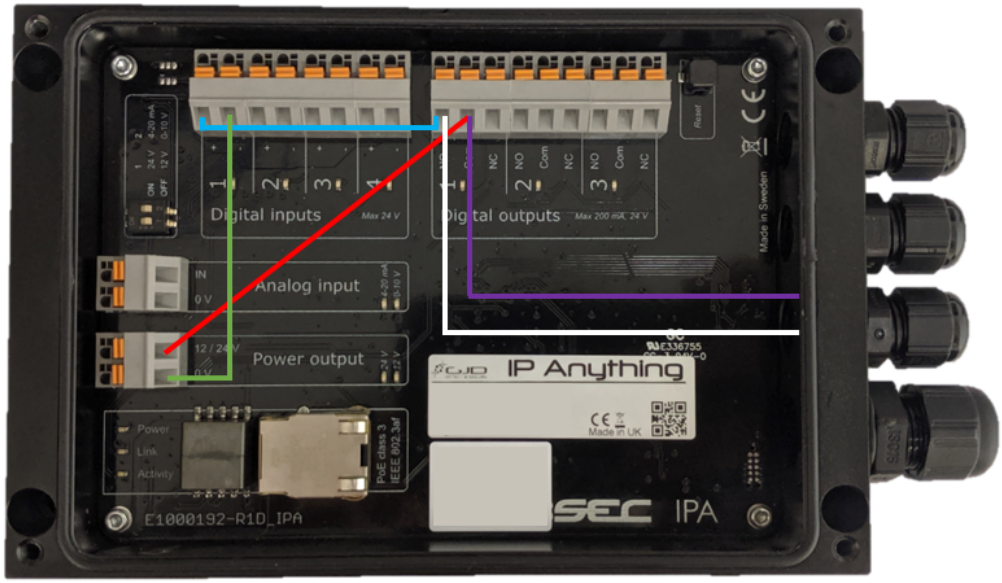


Internet Protocol Anything (IPA)

The following example demonstrates the process of using a locally powered GJD141 sensor and its alarm input with an IPA. This achieves an alarm input which may be interpreted via the network and trigger an event within Milestone.

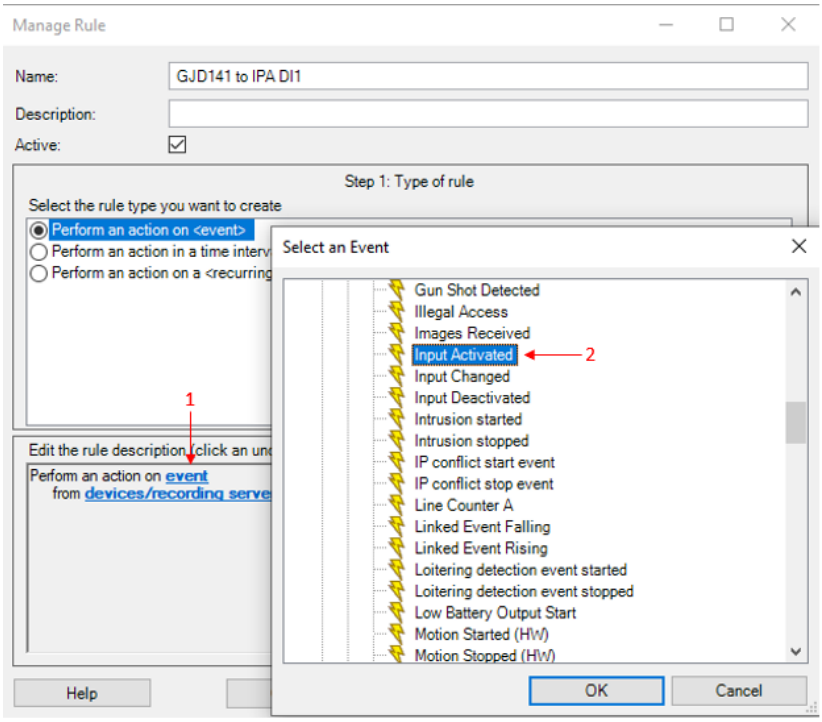
The wiring for this will be as follows:

Blue – Digital Input 1 positive to Digital Output 1 NO
Green – Power Output 0V to Digital Input 1Negative
Red – Power Output 12V to Digital Output 1 Com
White – GJD141 contact to NO on Digital Output 1
Purple – GJD141 contact to Com on Digital Output 1

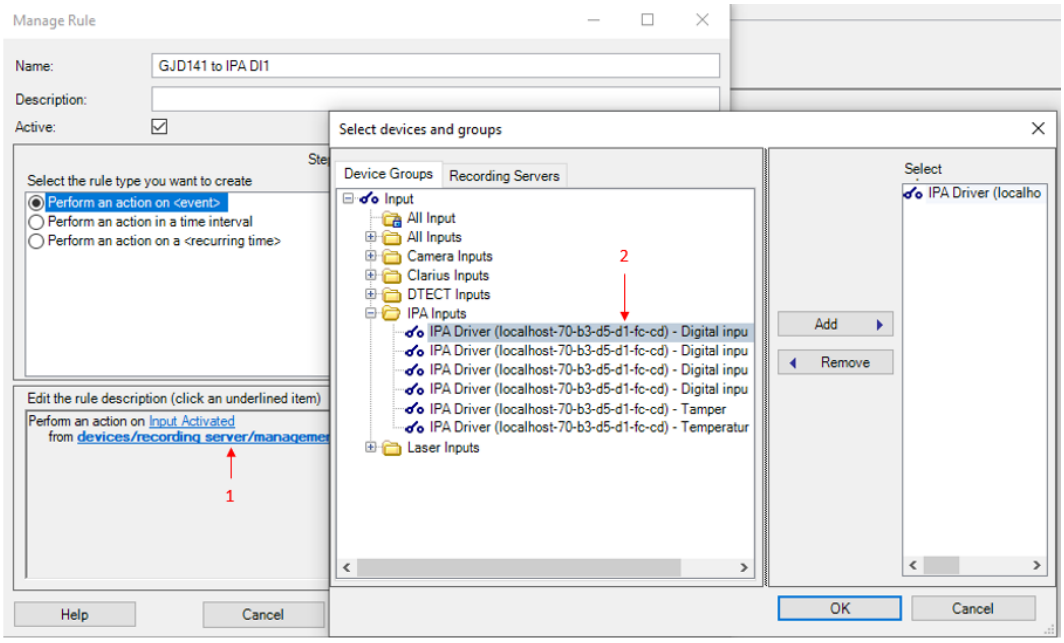


Note: This wiring is based on the GJD141, which comes with a NC contact. The Digital Inputs Open/Closed state can be manually controlled within the web interface of the IPA if it is required to change them.

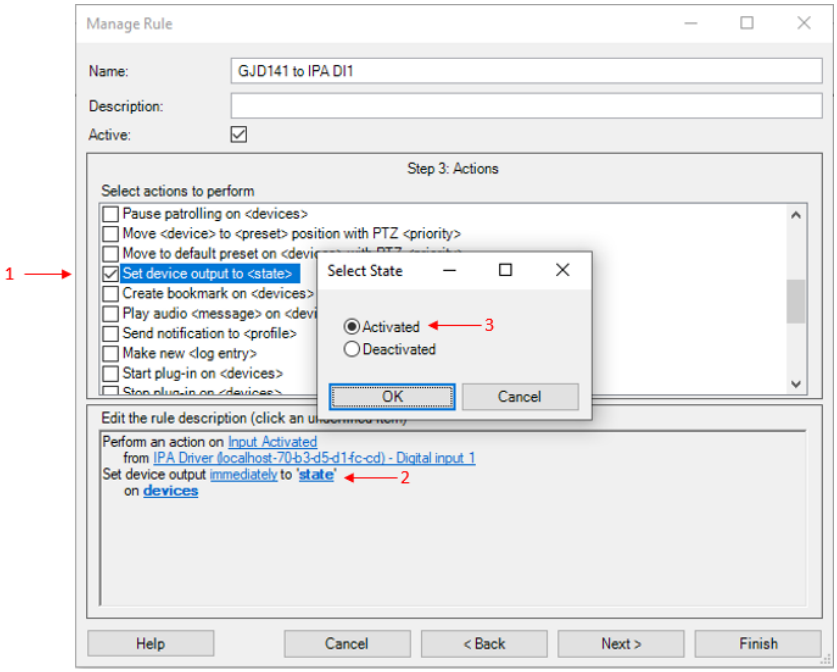
1. Under Rules and Events, add a New rule for the IPA and GJD141 1. Select Event>Devices>Configurable Events>**Input activated** and click **OK**.



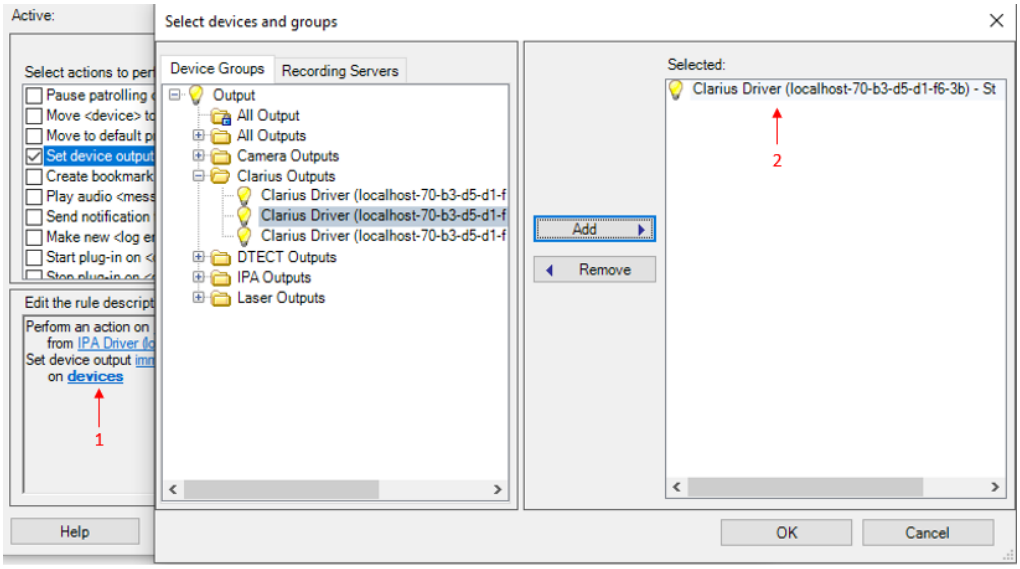
2. Select the IPA Digital Input 1 as your trigger and click **OK.**



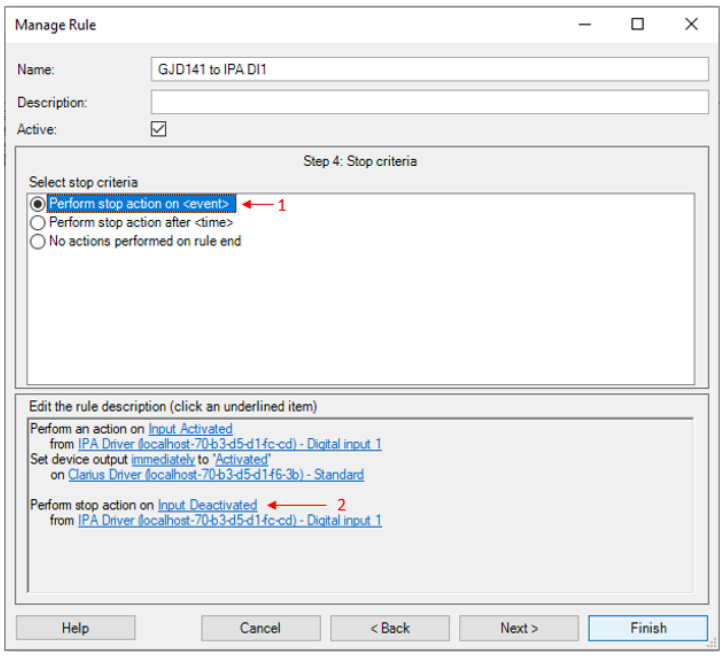
3. Under **Action**, select **Set Device output to <state>** and set it to **Activated.**



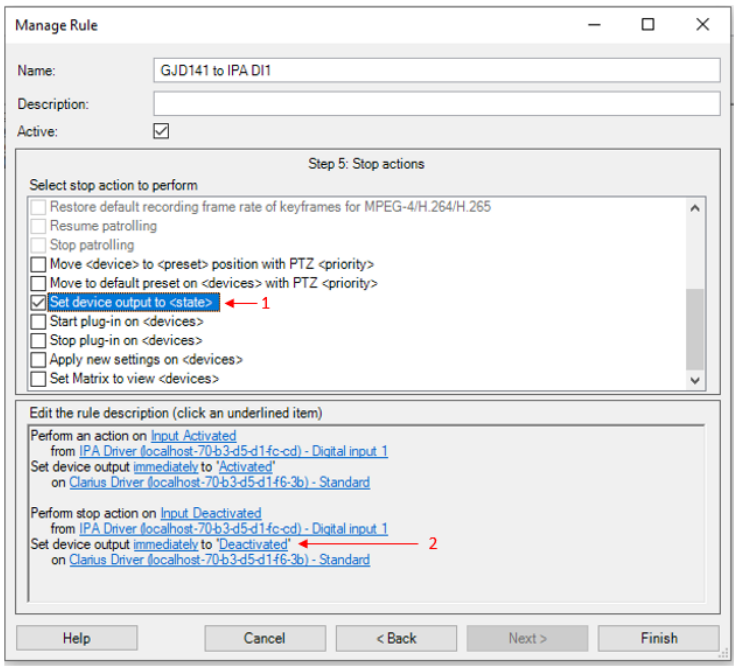
4. Under **Devices**, select the **Clarius Standard Output**.



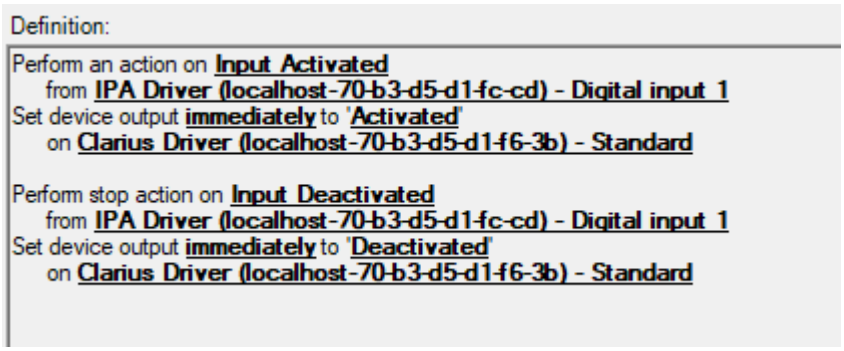
5. Setup a **Stop Criteria** for **Input Deactivated** on **IPA Digital Input 1** and click **Next**.



6. Select **Set device output to <state>** and Milestone will automatically fill it with **Deactivated**. Click **Finish** once you have made all the appropriate adjustments.



7. The rule definition will look like the following when finished.



The IPA is now setup to take in a non-IP sensor, convert it into IP and trigger an event within Milestone. The IPA may be used for many applications to monitor or activate different equipment, not just sensors or lighting. The inputs are even controllable through overlay buttons on Smart Maps, giving control to the operator activate/deactivate locks, sirens, horns etc., or any device that has contact.