Rev. A

WHELEN®
TRUSTED TO PERFORM™

Whelen Command™ WeCan®

LEADING THE WAY IN INNOVATION

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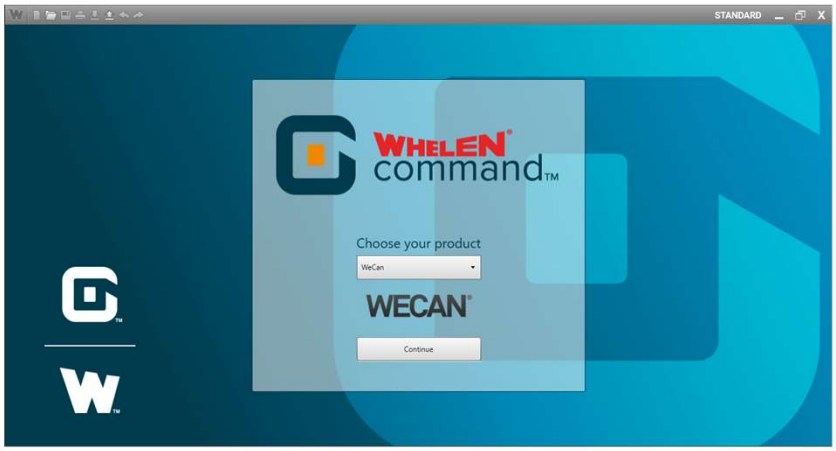
Whelen Command WeCan



LEADING THE WAY IN INNOVATION

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Whelen Command WeCan

Current Version

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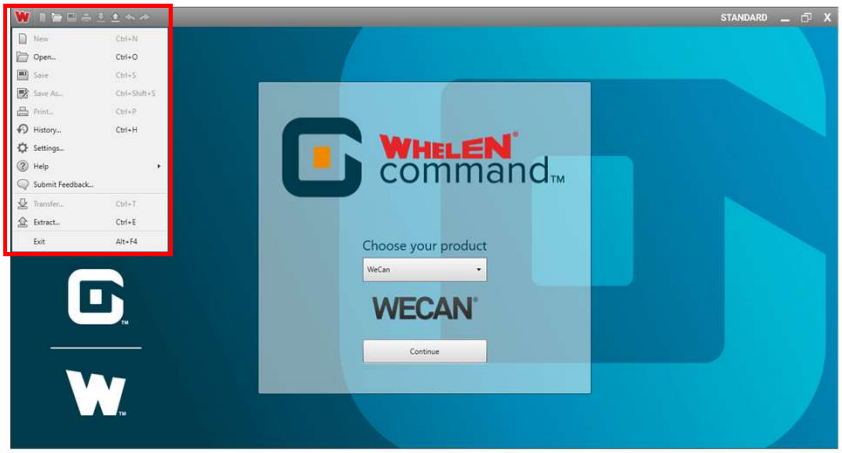
Main Menu



On the start page the main menu will allow us to open a configuration, view help information and extract a configuration from a system that is already programmed

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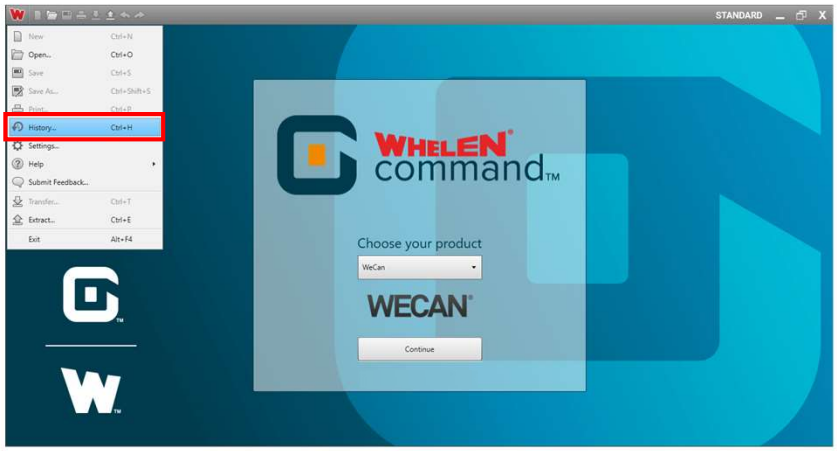
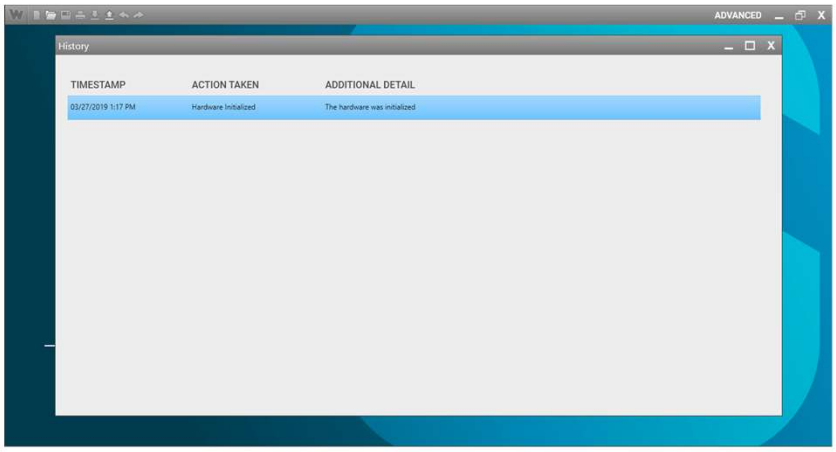
Main Menu



In the **History** window we can view changes made to the configuration since it was opened.

6

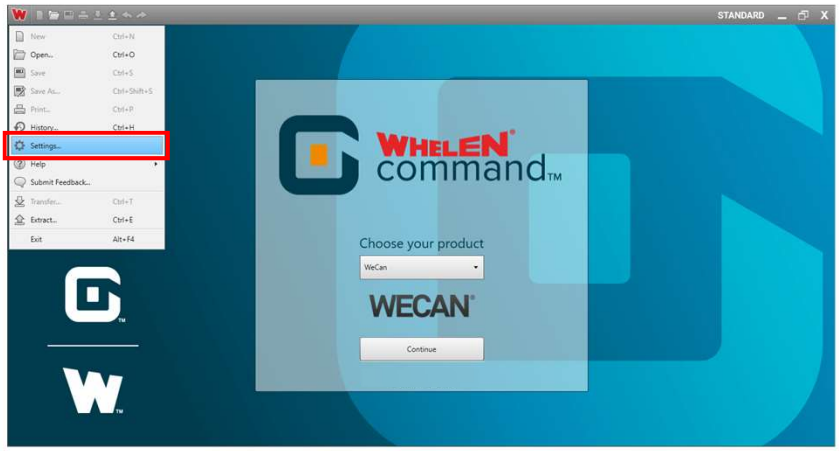
History Viewer



The **History** window will show all changes made to the configuration since we opened it. This will be cleared each time we close a configuration.

7

Main Menu



We can change some of the features of Command under **Settings**

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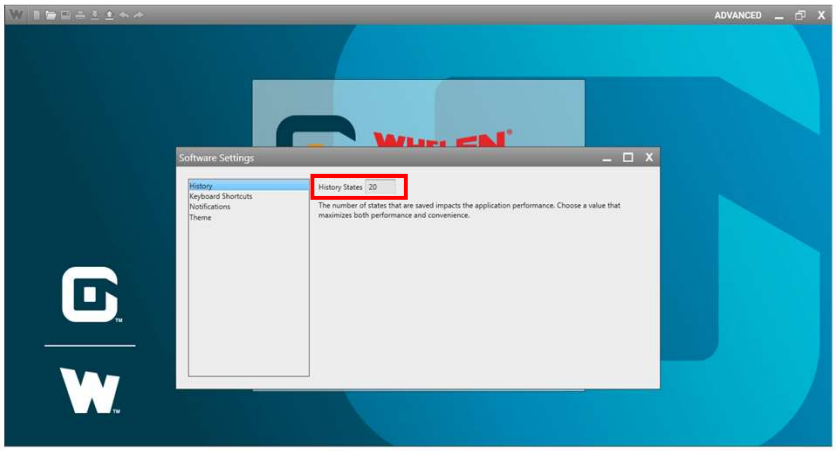
Software Settings Window



Under the **History** category we can change the number of program changes we wish to save for the **Undo** Function

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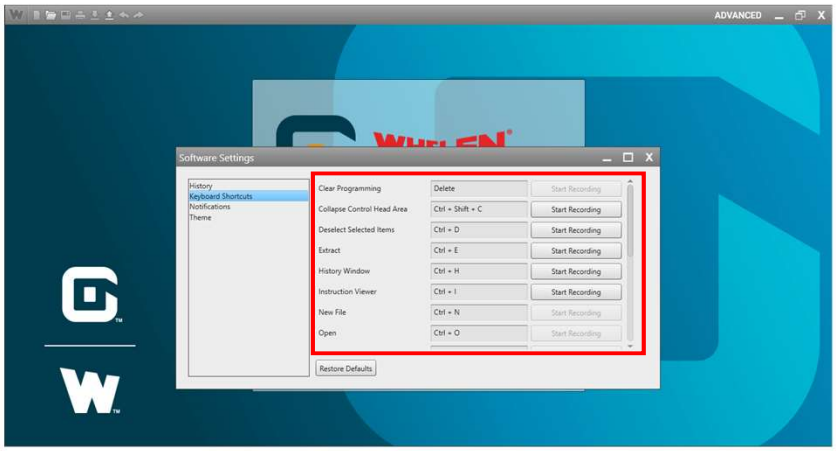
Software Settings Window



Under the **Keyboard Shortcuts** category we can view, change, and create our own keyboard shortcuts to use throughout the Command Software.

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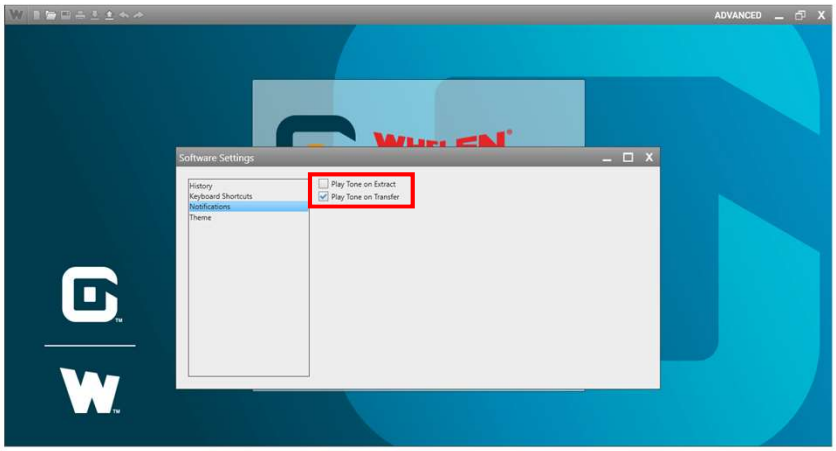
Software Settings Window



Under the **Notifications** category we can turn on/off tones that will be played upon completion of an Extract or Transfer

LEADING THE WAY IN INNOVATION

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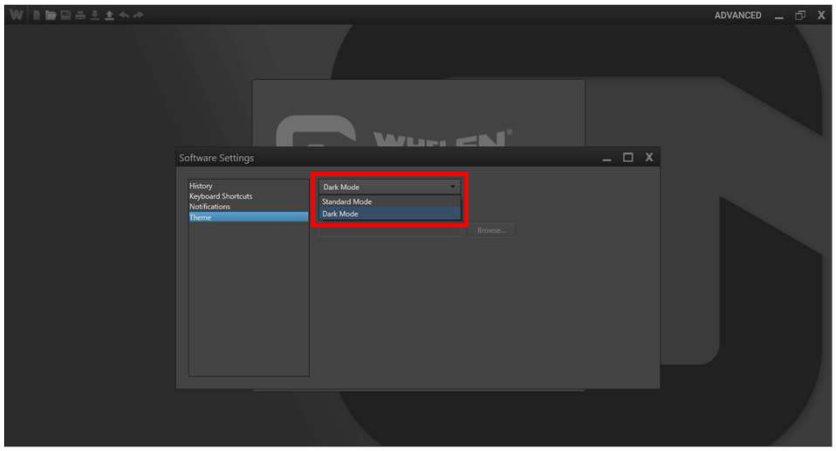
Software Settings Window



Under the **Theme** category we can change between **Standard Mode** and **Dark Mode**

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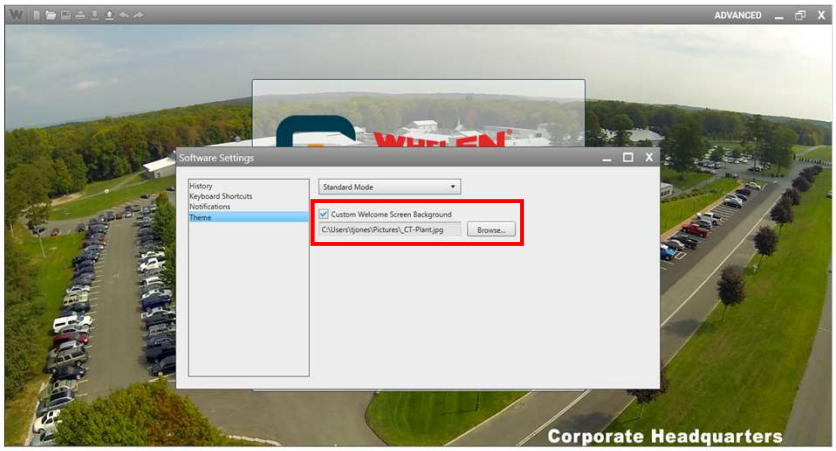
Software Settings Window



Also under Theme we can set a **Custom Welcome Screen**

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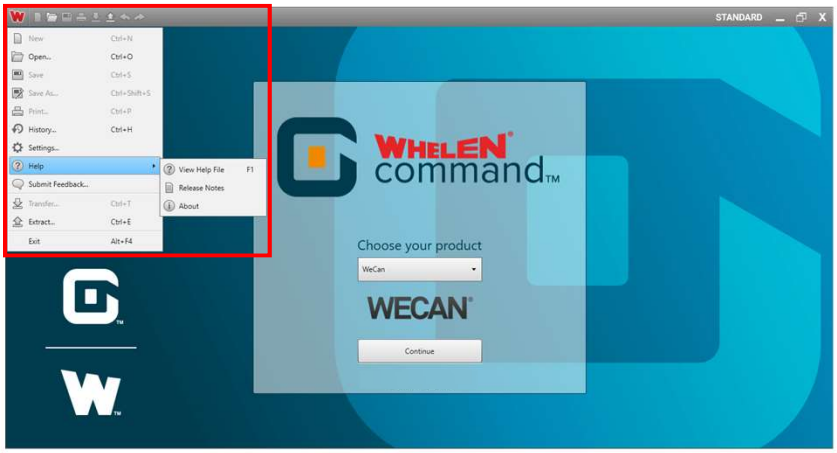
Main Menu - Help About



Under help we can **View Help File** and review the **Release Notes** that get updated when there is an update for Whelen Command

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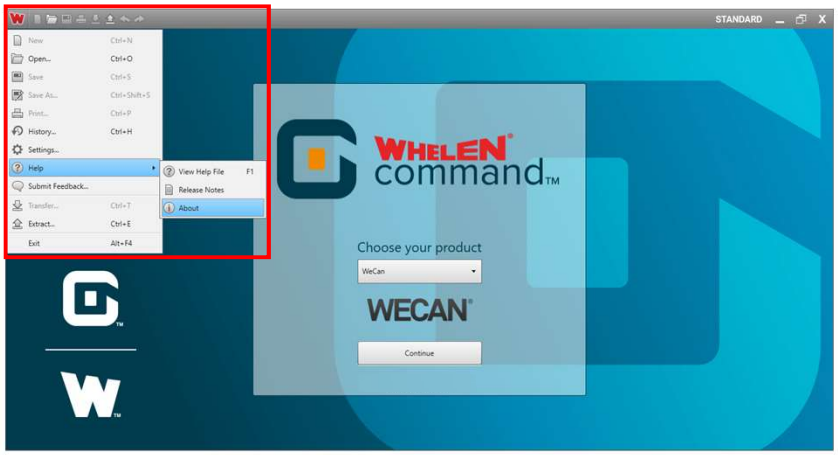
Main Menu - Help About



Under help selecting **About** will open the **About Window**

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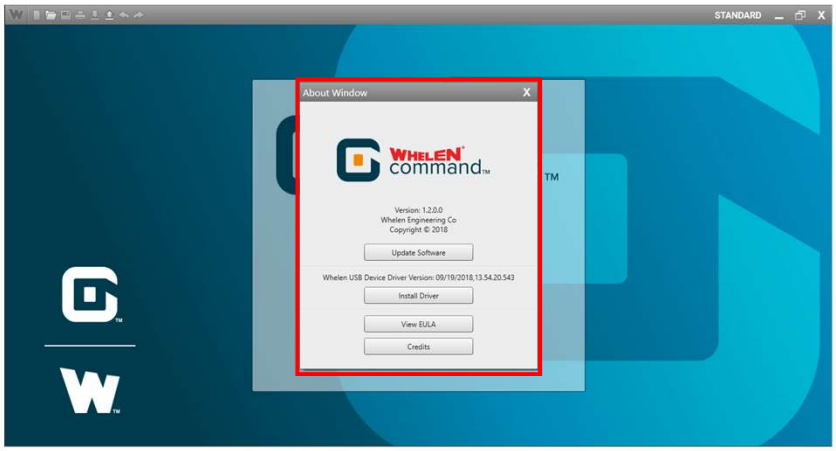
About Window



On the **About Window** we can manually check for a software update, install the USB drivers, and view the EULA information

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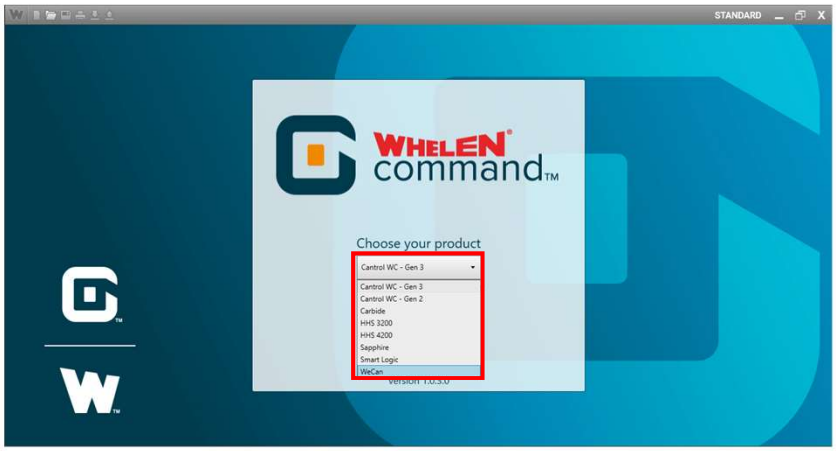
Choose Your Product



In the drop down list we want to select **WeCan®** and then click continue

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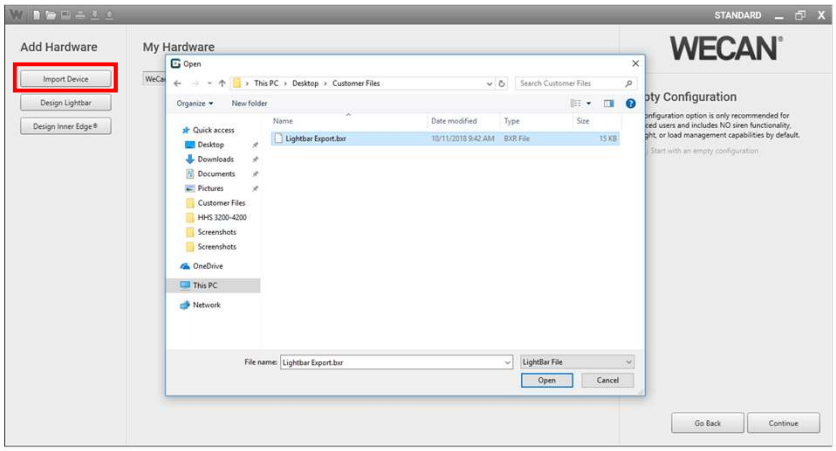
My Hardware Import Device



On the **My Hardware** page we can **Import Device.** This will allow us to import a custom lightbar .bxr file we have exported from WeCad™

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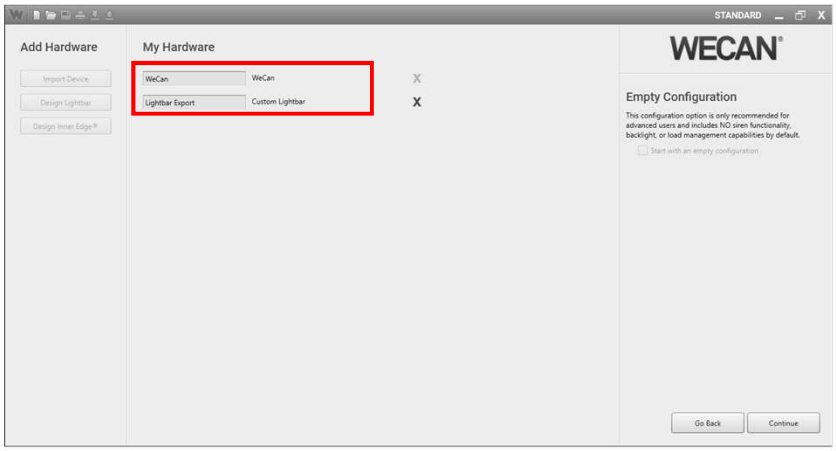
My Hardware Import Device



Once we select our .bxr file it will be added to our list. We can give all of our hardware including the control point a friendly nickname of our choice

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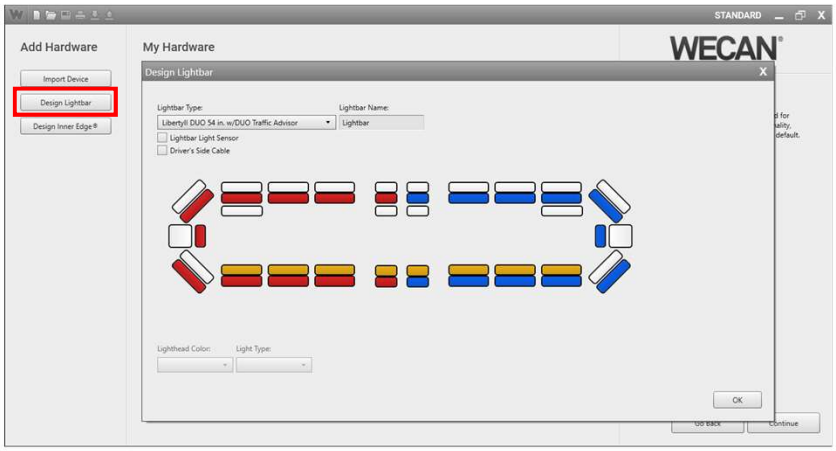
My Hardware Design Lightbar



On the **My Hardware** page we can use **Design Lightbar** to use the blanket .bxr file that will show every possible module position

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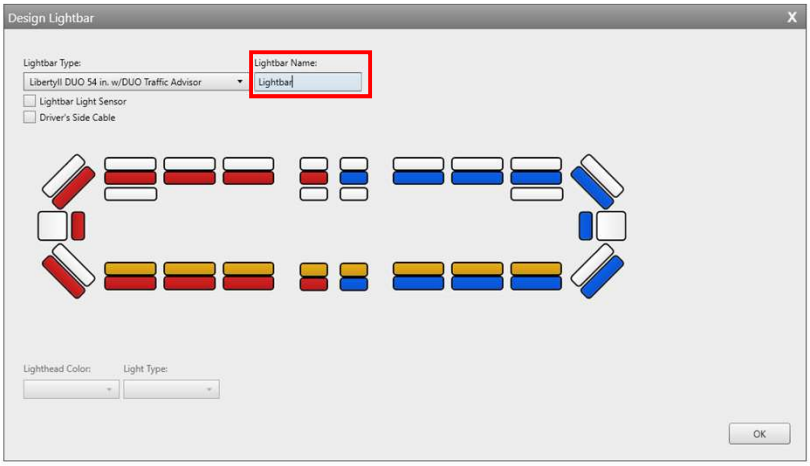
My Hardware Design Lightbar



We can give our lightbar a friendly nickname on the **Design Lightbar** window this name will persist over to the **My Hardware** page

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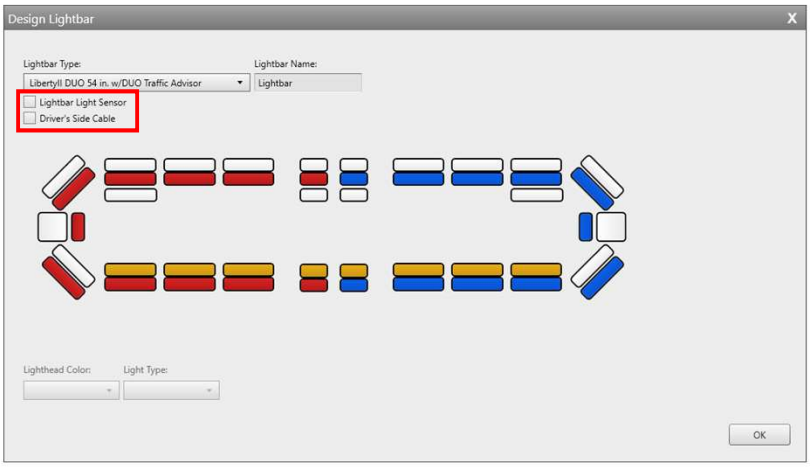
My Hardware Design Lightbar



If we ordered our lightbar with a **Lightbar Light Sensor** or **Driver's Side Cable** we can check each option we ordered

LEADING THE WAY IN INNOVATION

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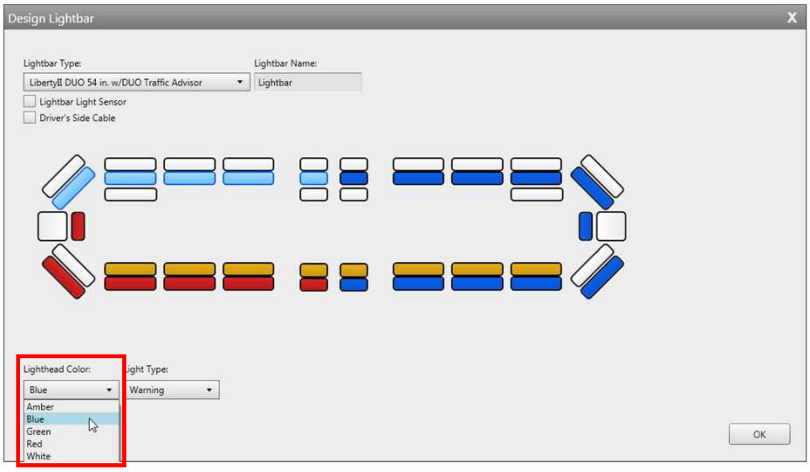
My Hardware Design Lightbar



We can select multiple modules and use the lighthead color selector to change the color of our modules

LEADING THE WAY IN INNOVATION

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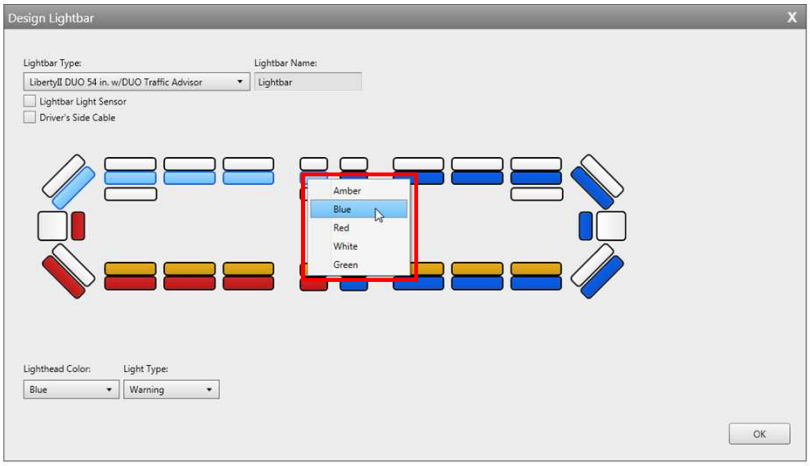
My Hardware Design Lightbar



If we right click on each module we can change the color or we can select multiple modules and then right click to change the color of the selected modules

LEADING THE WAY IN INNOVATION

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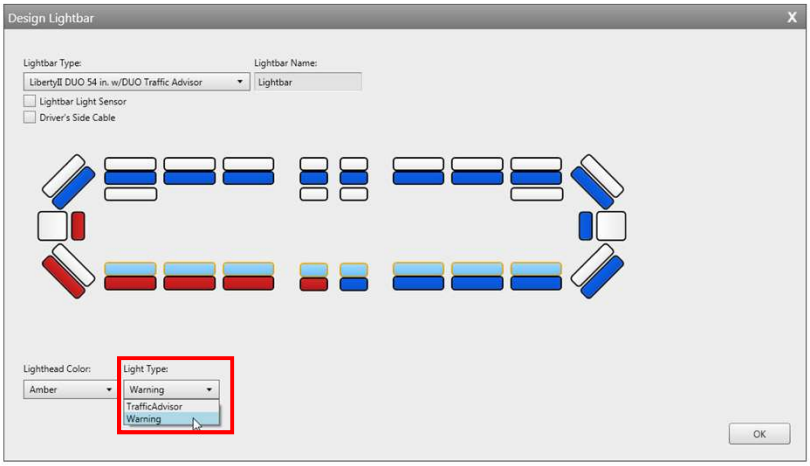
My Hardware Design Lightbar



We can set the light type of our amber TA modules to **Warning** and the Red and Blue warning modules to **Traffic Advisor™** using the **Light Type** drop down list

LEADING THE WAY IN INNOVATION

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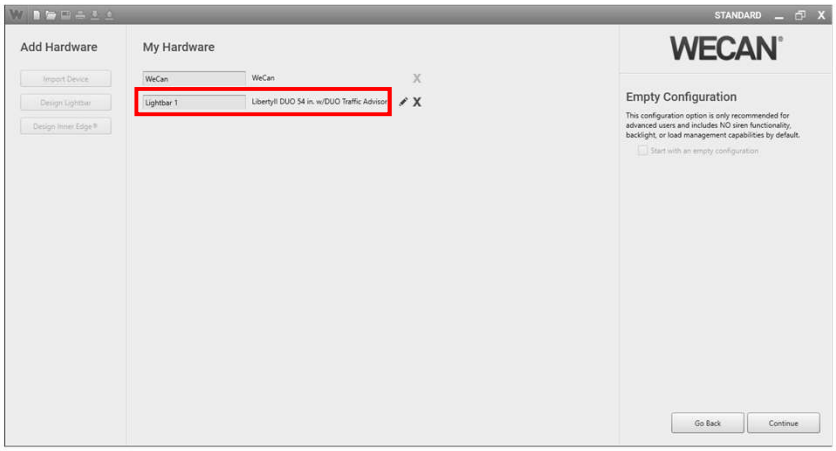
My Hardware Design Lightbar



Once we are done editing our lightbar and we click ok the **Design Lightbar** window will close and our lightbar will be added to our hardware list

LEADING THE WAY IN INNOVATION

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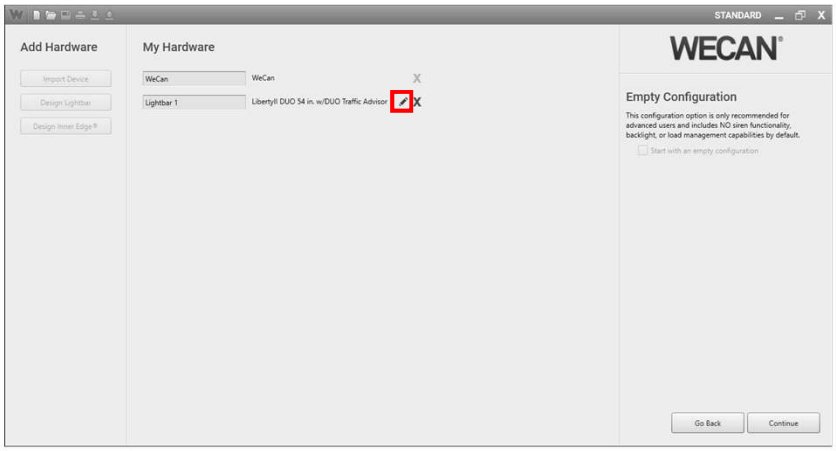
My Hardware Design Lightbar



We can also edit any lightbar we have added using **Edit Hardware**

LEADING THE WAY IN INNOVATION

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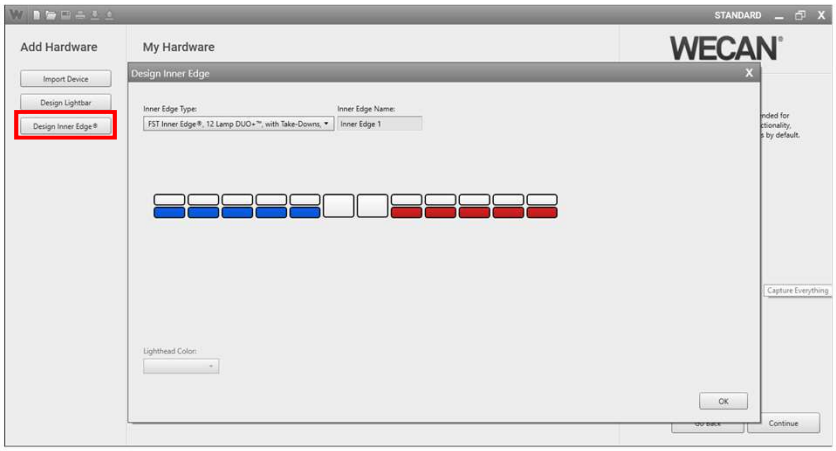
My Hardware Inner Edge®



On the **My Hardware** page we can use **Design Inner Edge** to select and modify the Front or Rear Inner Edge we wish to program

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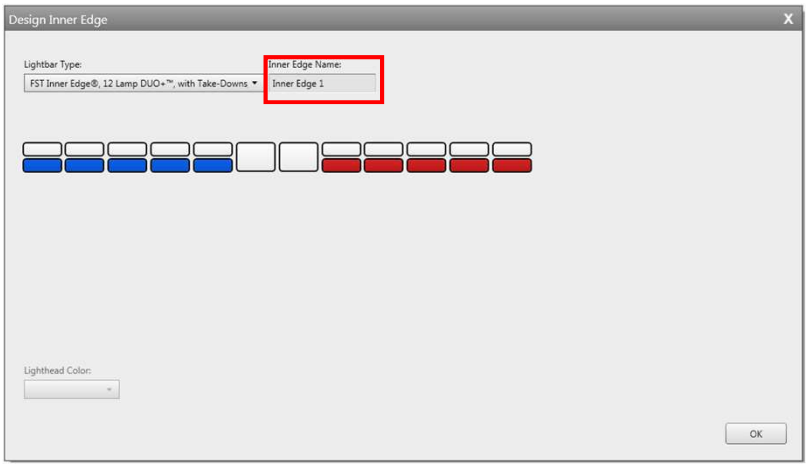
My Hardware Inner Edge®



We can give our Inner Edge a friendly nickname on the **Design Inner Edge** window this name will persist over to the **My Hardware** page

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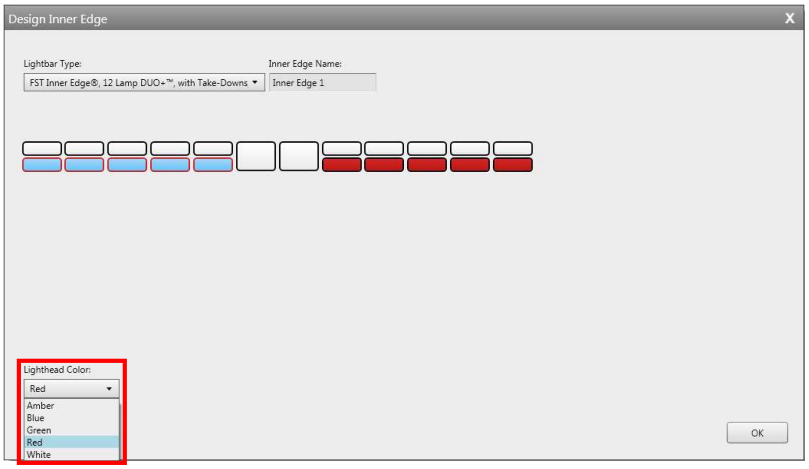
My Hardware Inner Edge®



We can change lighthead colors on the same 2 ways that we can on a Lightbar.

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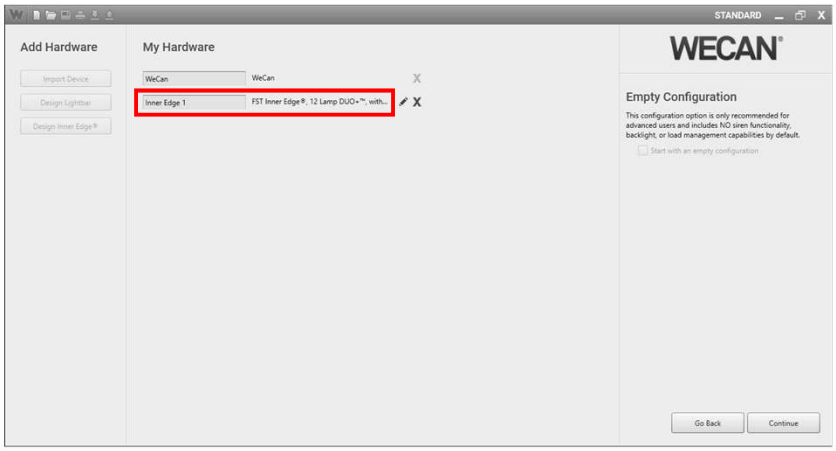
My Hardware Inner Edge®



Once we are done editing our Inner Edge and we click **Ok** the **Design Inner Edge** window will close and our Inner Edge will be added to our hardware list

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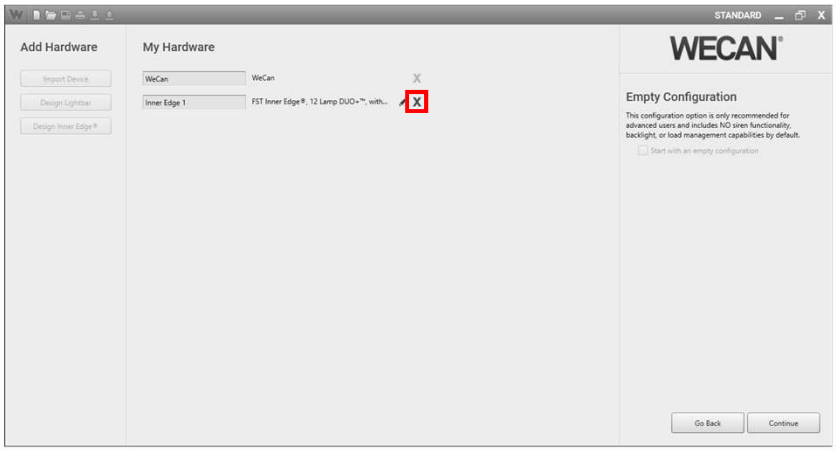
My Hardware



To remove any hardware we have added to our hardware list we can click on the **X** to the right of the hardware's name

LEADING THE WAY IN INNOVATION

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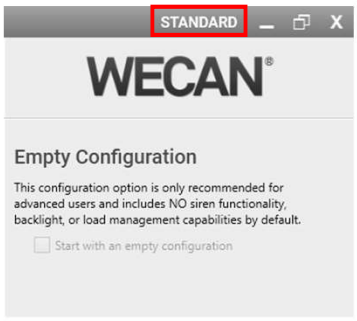
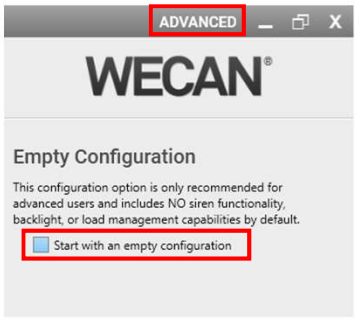
My Hardware Advanced





If we click on **Standard** we can change to **Advanced** mode and we can now start with an empty configuration

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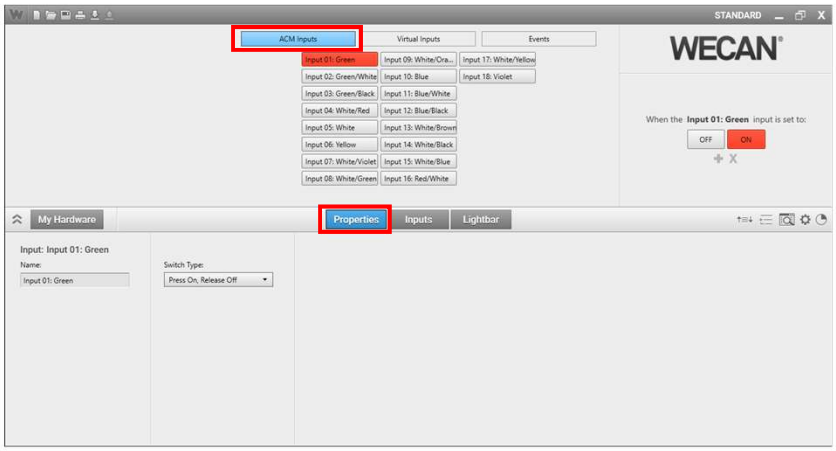
Program View



Once we have configured our hardware and continue, the program view will load. By default the **ACM Inputs** tab and the **Properties** page are selected

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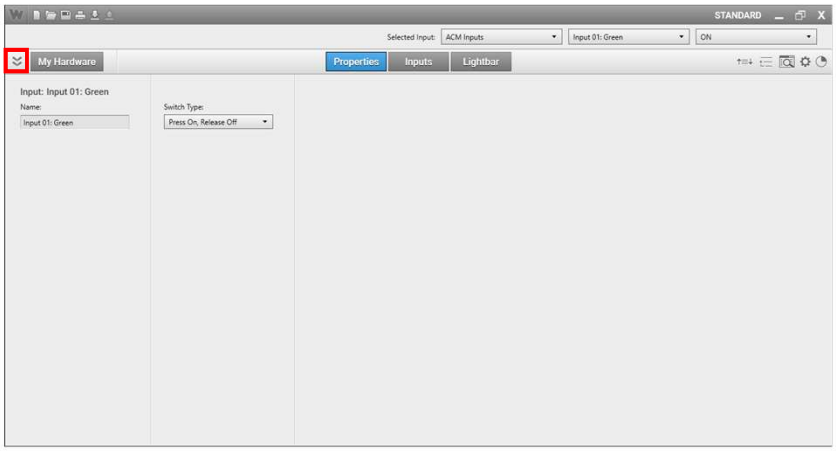
Program View



When working with smaller screens we can collapse the **Program View** view by clicking on the Expand/Collapse "" control

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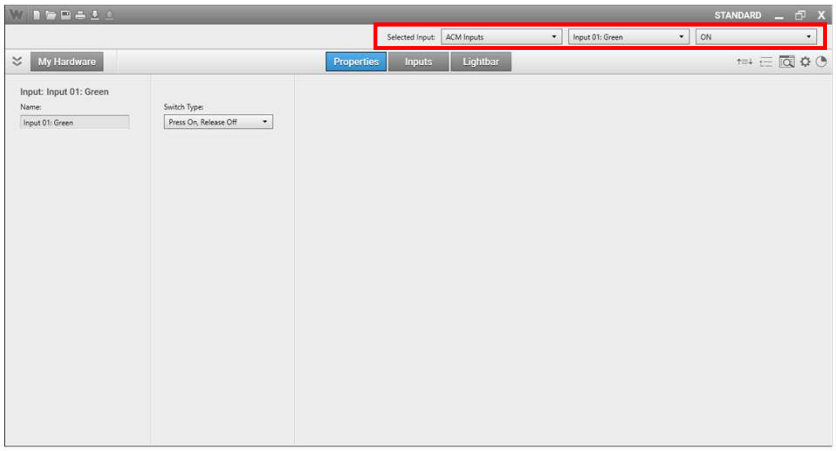
Program View



With the **Program View** collapsed we can still see the **Tab** selected the **Input** selected and the **Press/State** we have selected

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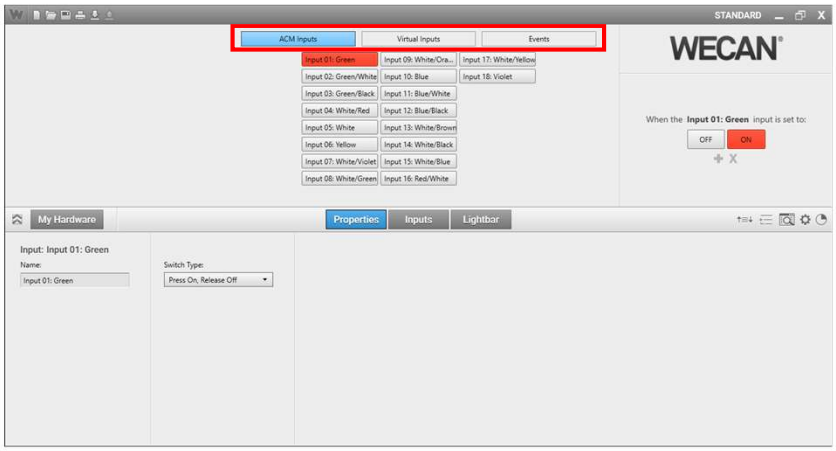
Program View



At the top of the **Program View** we have our tabs for the **ACM Inputs**, **Virtual Inputs** and **Events**

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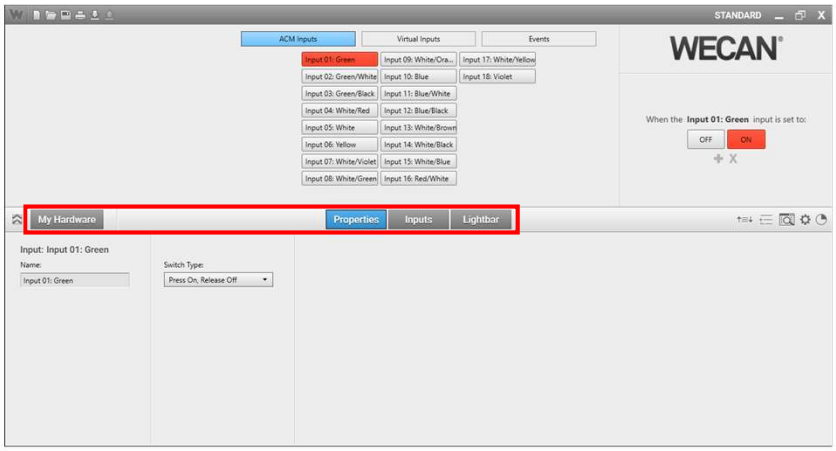
Program View



From the main navigation bar we can go back to **My Hardware**. We can also navigate between the **Properties**, **Inputs** and the **Lightbar** page

LEADING THE WAY IN INNOVATION

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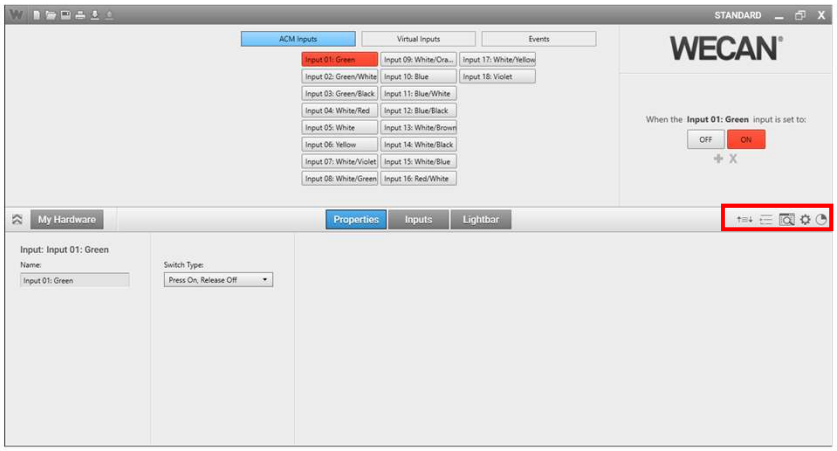
Program View



We can also access **Priorities**, the **Events Overview**, the **Instruction Viewer** and the **Configuration Settings** from the main navigation bar

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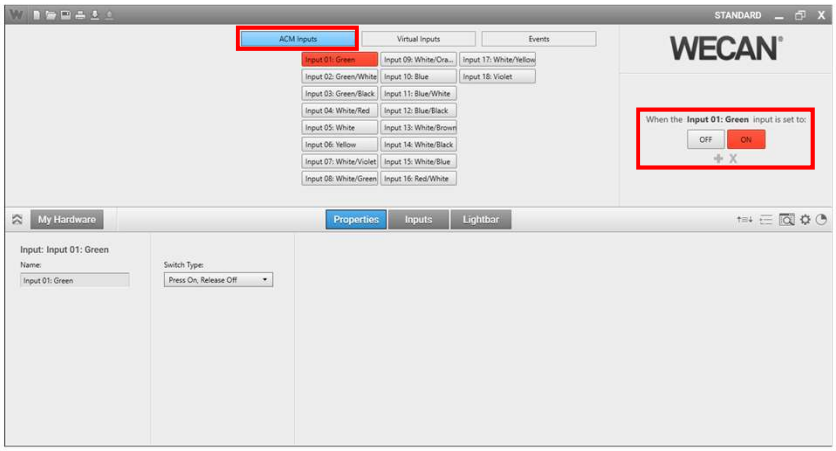
ACM/Virtual Inputs



On the **ACM Inputs** tab and the **Virtual Inputs** tab we can select the input and the press we want to program

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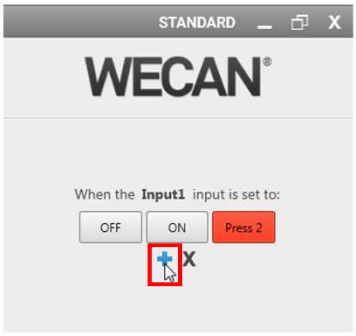
ACM/Virtual Inputs



Depending on our **Switch Type** we can add a **Press/State** to the selected input by clicking on the **+** symbol in the state viewer

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ACM/Virtual Inputs

If we have more than one **Press/State** we can remove a **Press/State** by clicking on the **X** in the state viewer

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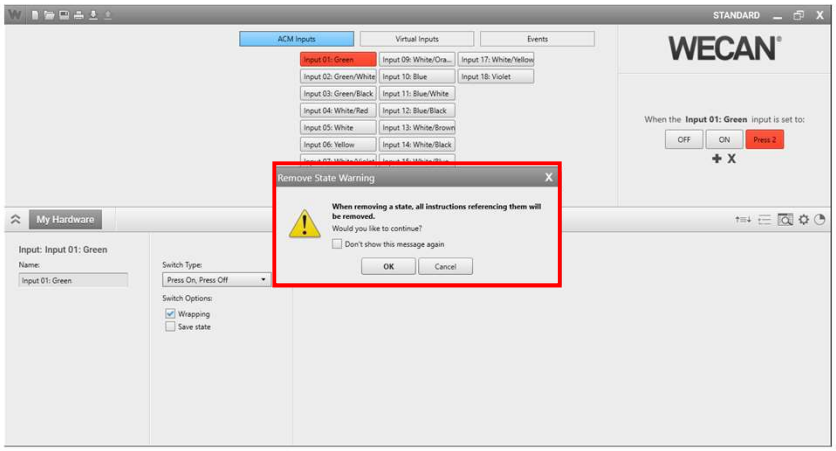
Control Head ACM/Virtual Inputs



If we remove a **Press/State** we will have the option to **Cancel** the removal of the Press/State

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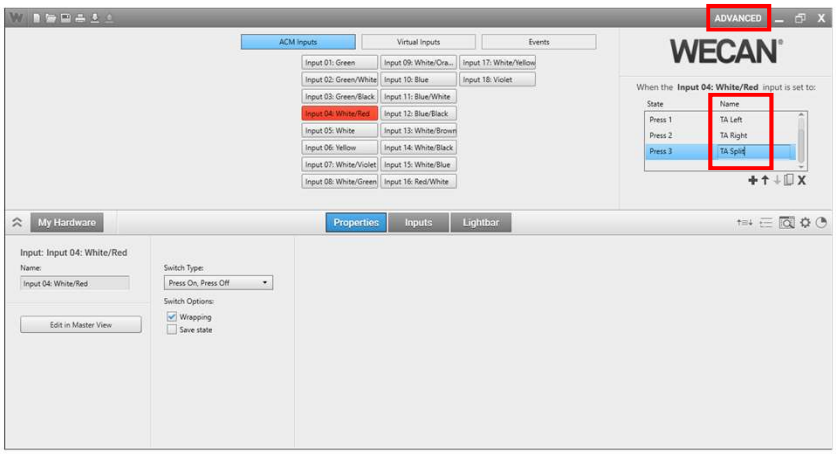
ACM/Virtual Inputs



In **Advanced** mode we can change the name of each **Press/State** that we have added to **ACM/Virtual** inputs.

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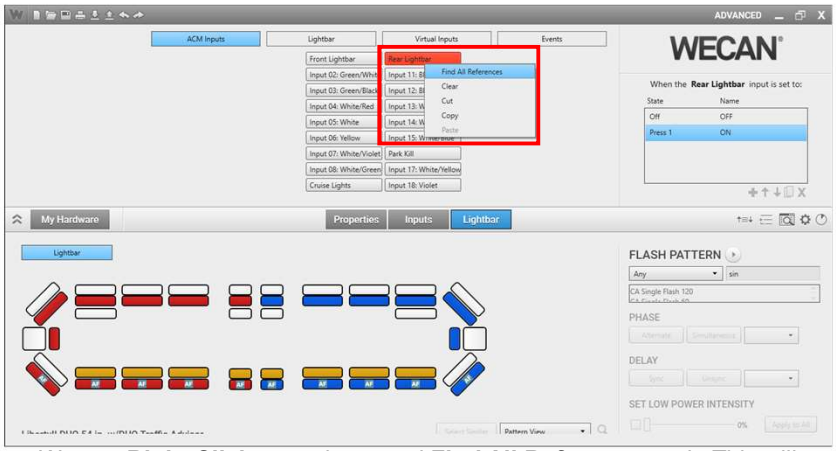
Cut/Copy/Paste



We can **Right Click** on an input and **Find All References** to it. This will open the **Instruction Viewer** and highlight all instructions regarding that input.

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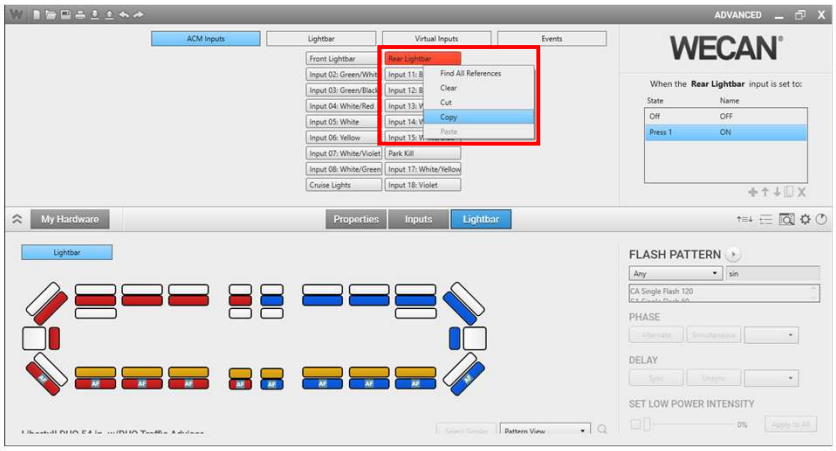
Cut/Copy/Paste



Also in the **Right Click** menu you can **Clear**, **Cut**, or **Copy** the input.

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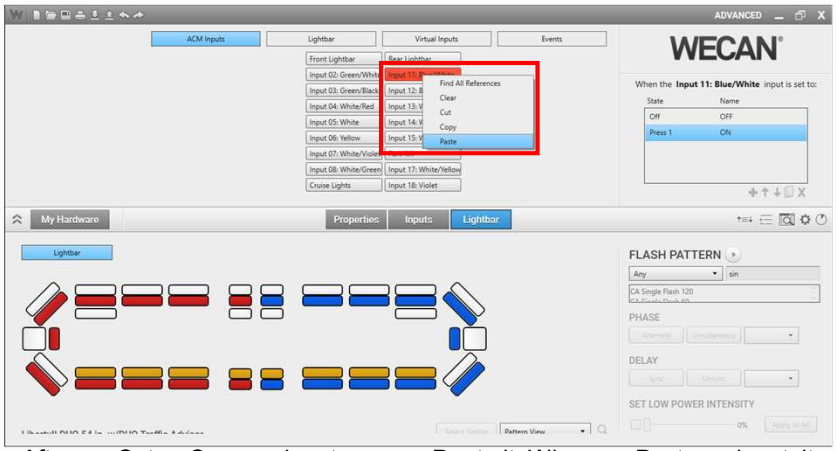
Cut/Copy/Paste



After we Cut or Copy an input, we can **Paste** it. When we Paste an input, it will first clear any programming currently on that input then apply the Cut or Copied programming.

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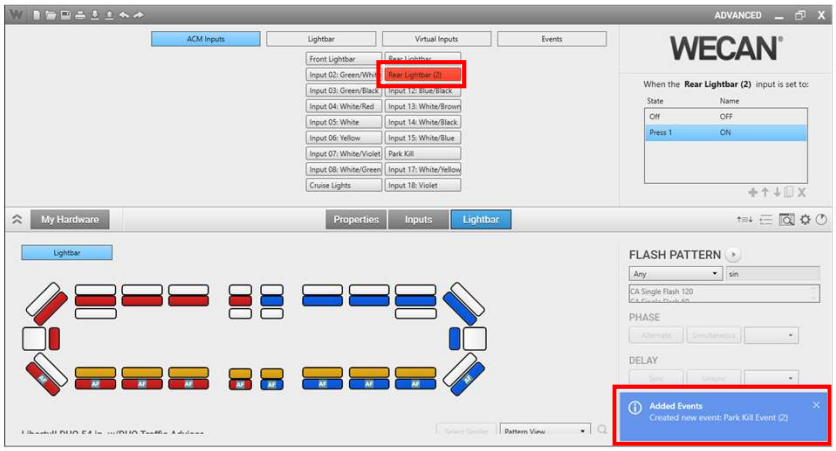
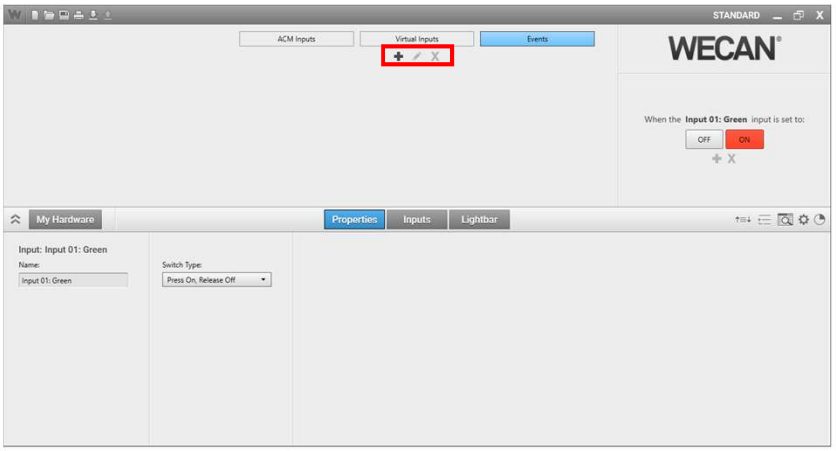
Cut/Copy/Paste



If we Paste an input that has instructions to a Virtual Input or an Event, it will create the new Event and Virtual references and inform you.

48

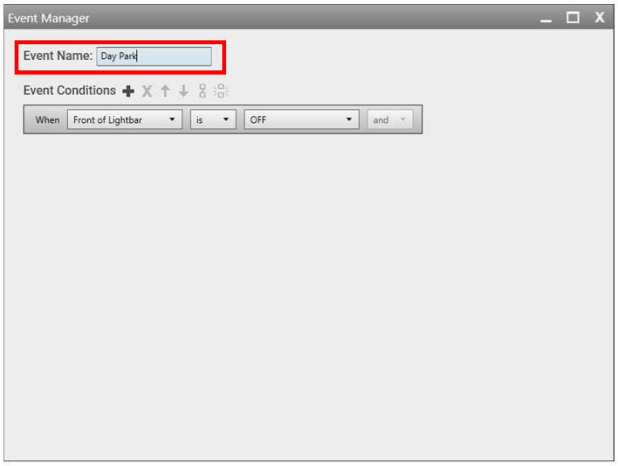
Events



Events allow us to apply conditional logic to our configuration. On the **Events** tab we can **Create** a new event, **Edit** a selected event or **Remove** a selected event

49

Events

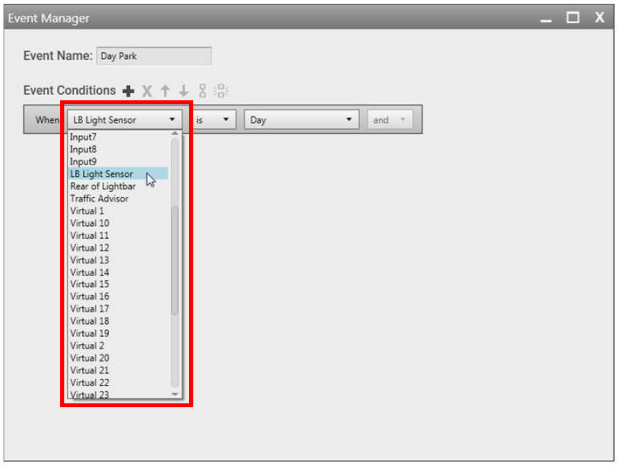


When we create a new event the event manager will open. Here we can give our event a custom name by default we always have one **Event Condition**

LEADING THE WAY IN INNOVATION

50

Events

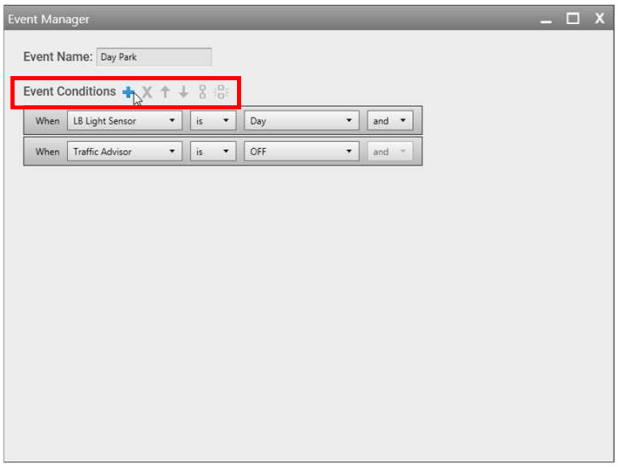


We can modify the **Event Conditions** by selecting from the list of available choices

LEADING THE WAY IN INNOVATION

51

Events

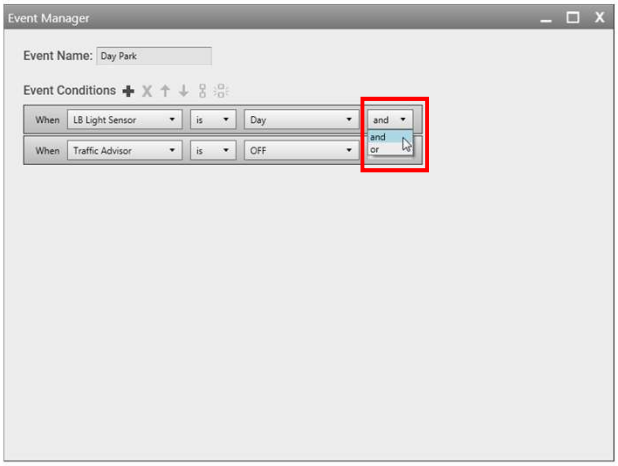


We can add another **Event Condition** by clicking on the **+** in the event controls

LEADING THE WAY IN INNOVATION

52

Events

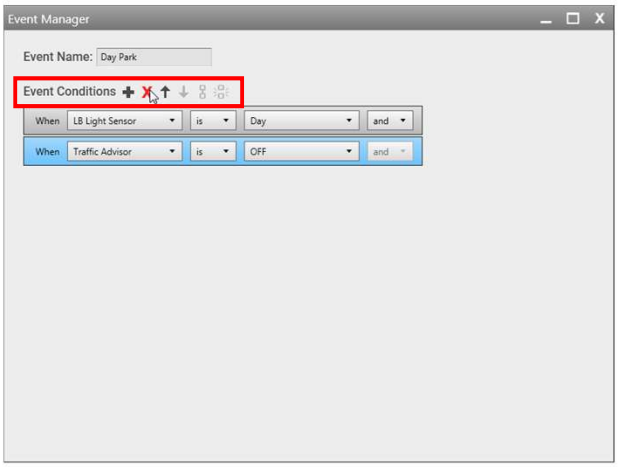


With our new **Event Condition** added we can choose if one or both of the conditions need to be true

LEADING THE WAY IN INNOVATION

53

Events

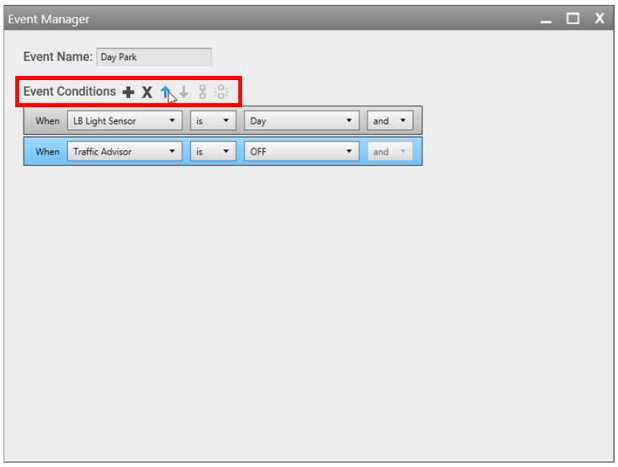


To remove a condition we need to select the condition and click on the **X** in the event controls

LEADING THE WAY IN INNOVATION

54

Events

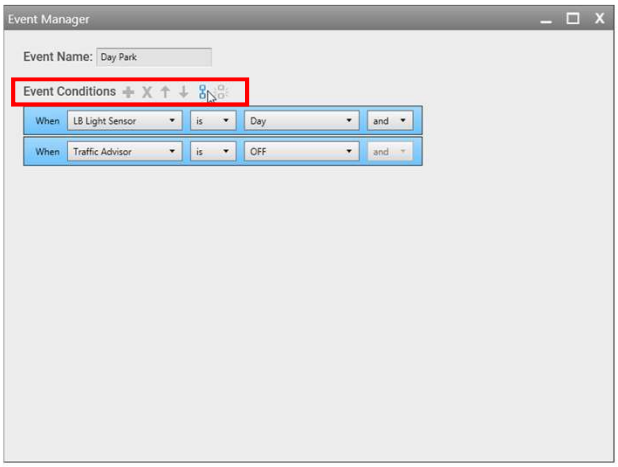


When we have more than one **Event Condition** we can change the order of the conditions using the ↑ or ↓ arrows

LEADING THE WAY IN INNOVATION

55

Events

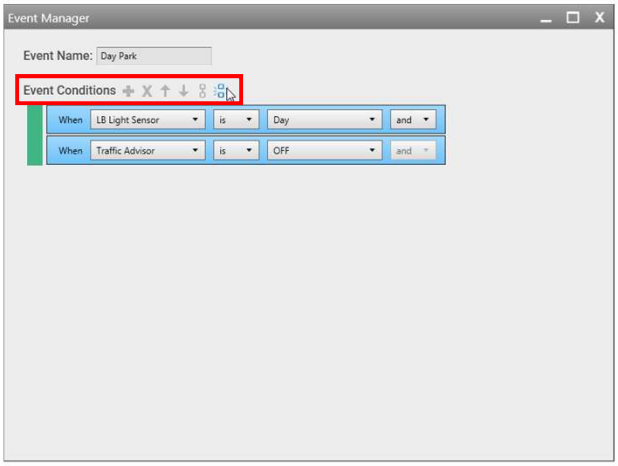


We can select multiple conditions by using **CTRL + LMB** or **SHIFT + LMB** once selected we can then **Link** them by clicking on "⛓" in the event controls

LEADING THE WAY IN INNOVATION

56

Events

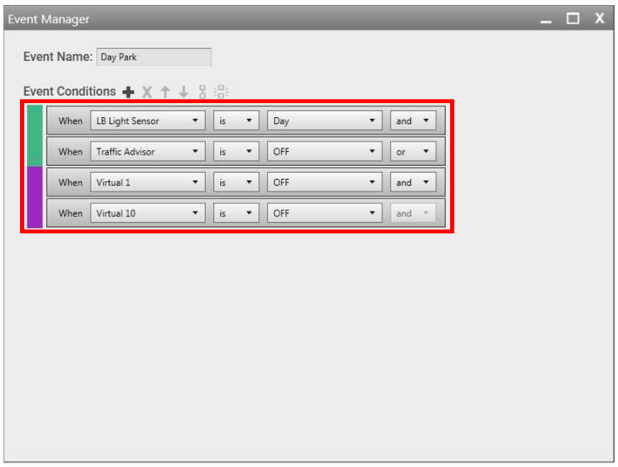


Once linked we will have a color indicator showing our linked conditions. We can always unlink them by selecting them and clicking on "⛓" in the event controls

LEADING THE WAY IN INNOVATION

57

Events



Multiple linked conditions will have different color indicators. Linked events allow us to have blocks of conditions that need to evaluate to true for our **Event** to trigger

LEADING THE WAY IN INNOVATION

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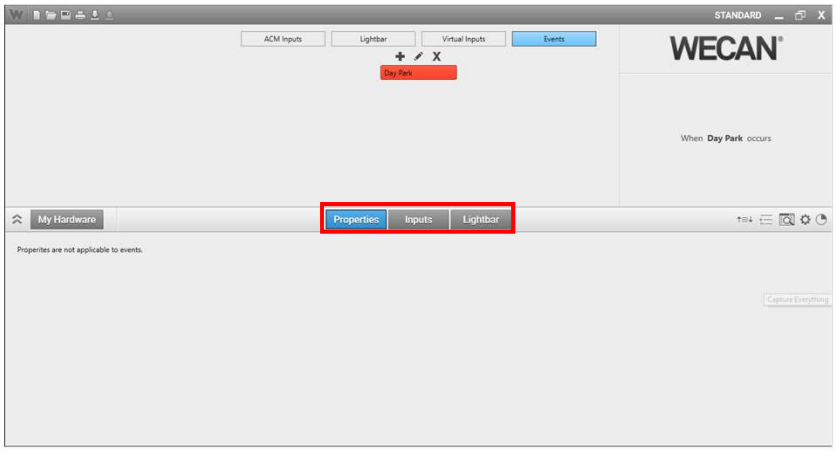
Events

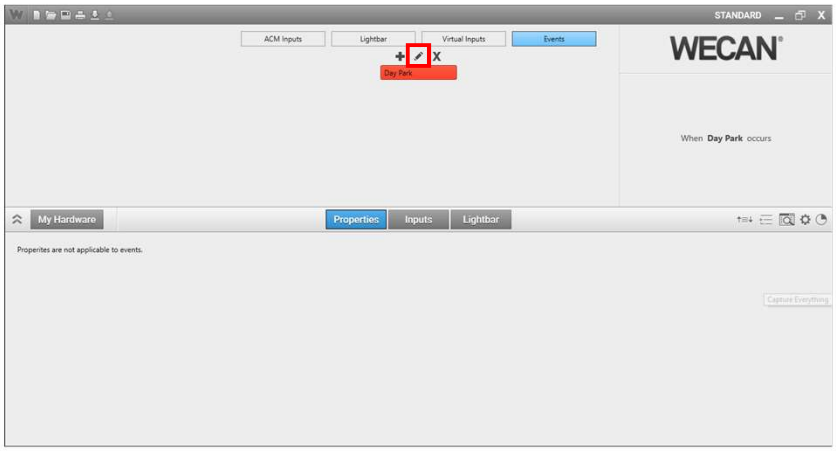


Once we have created our **Event** we can close the **Event Manager** and program what the event will do

LEADING THE WAY IN INNOVATION

59

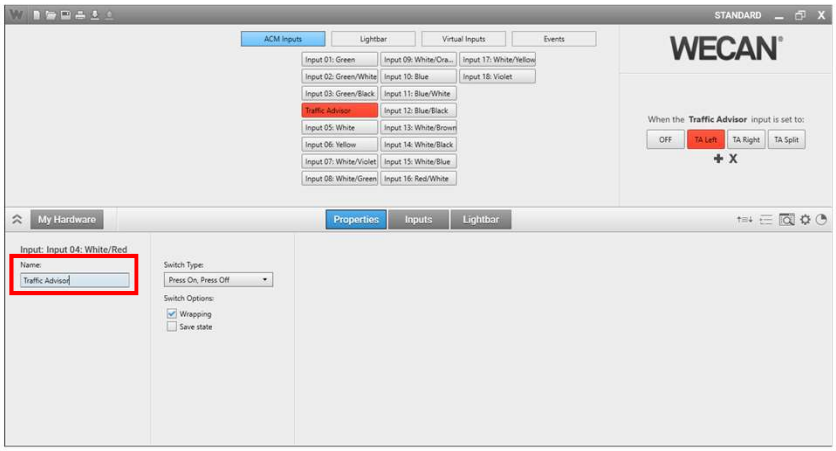
Events



To **Edit** an Event, click on the ✎ icon or Double Click on the event name.

60

Properties Page



On the **Properties** page we can give each input a custom name up to a maximum of 24 characters

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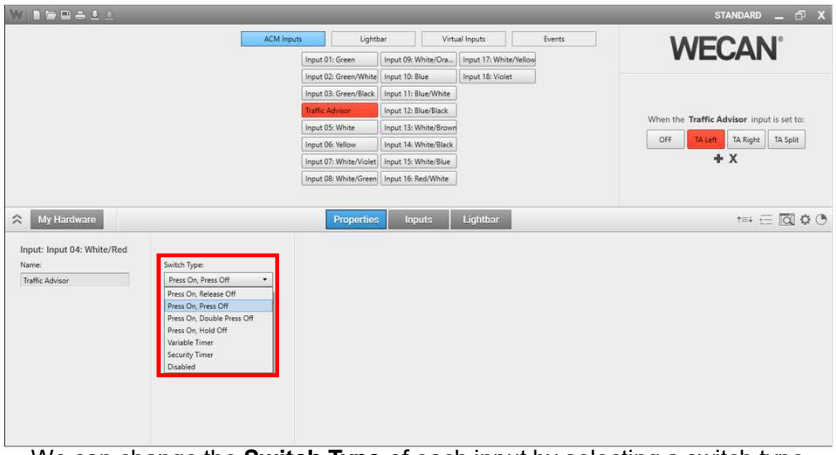
Properties Page



We can change the **Switch Type** of each input by selecting a switch type from the drop down list. For more information on switch types see the definitions in the back of this guide

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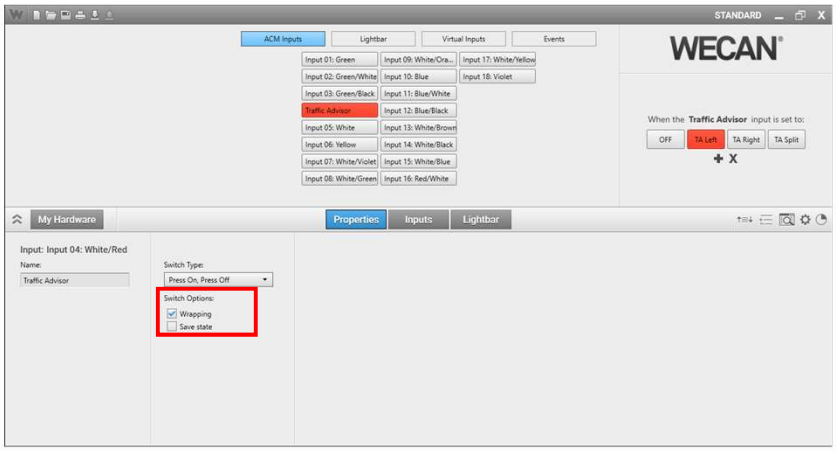
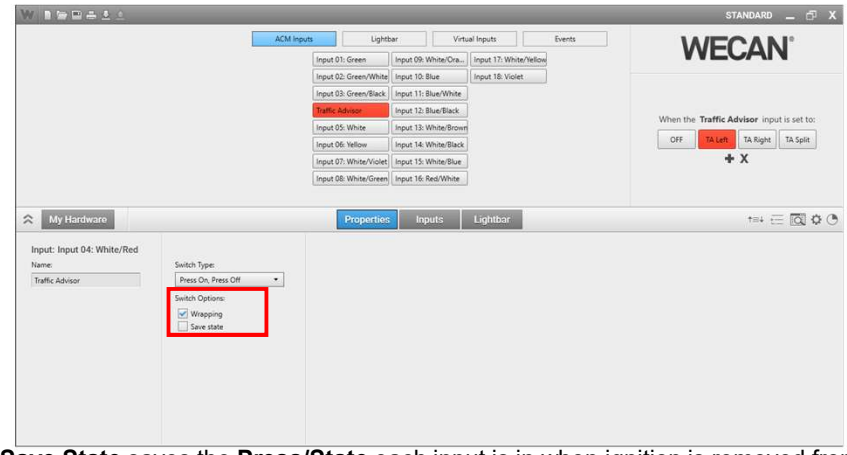
Properties Page



Depending on the switch type selected we will have **Switch Options**. **Wrapping** allows the last press of an input to wrap around to the off **Press/State**

63

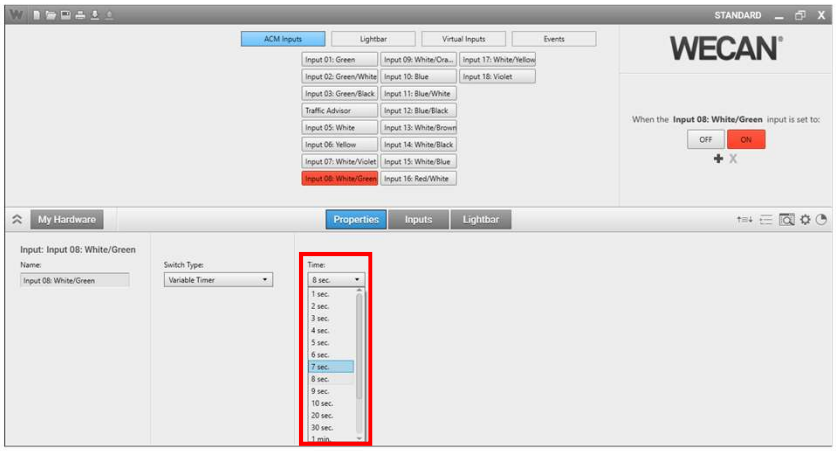
Properties Page



Save State saves the **Press/State** each input is in when ignition is removed from the system. Once ignition is reapplied the **Press/State** will resume from the **Press/State** it was in just before ignition was removed

64

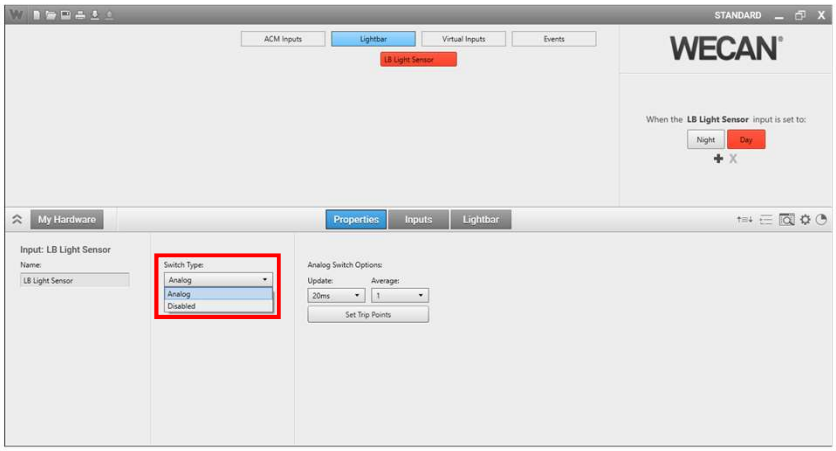
Properties Page



If we select the **Variable Timer** switch type we can set the **Time** that we want for our timer from 1 second Up to 4 minutes

65

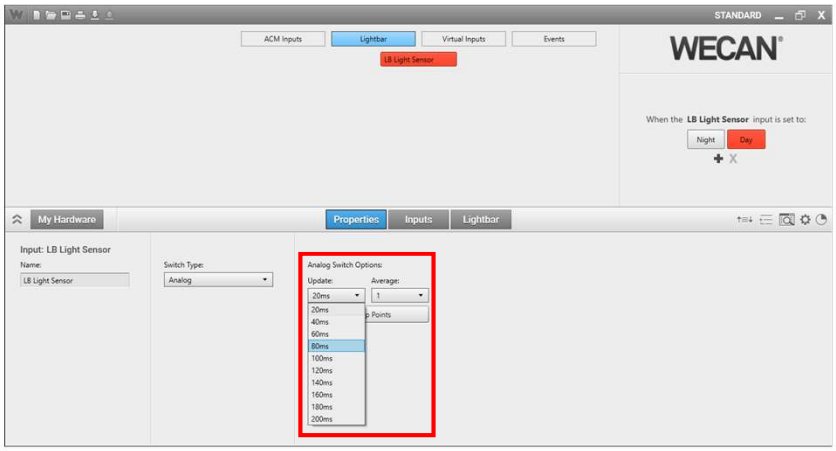
Properties Page Analog Inputs



If we select an Input that is an **Analog** input, on the properties page the switch type can only be **Analog** or **Disabled**

66

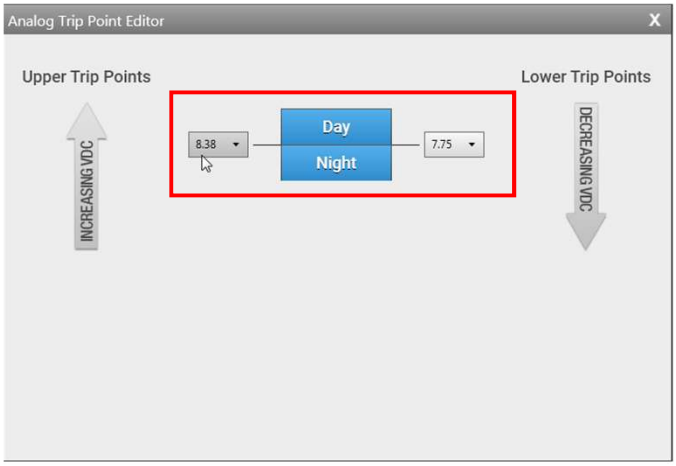
Properties Page Analog Inputs



Under switch options we can set the **Update** from every 20ms up to 200ms and then **Average** from 1 to 10

67

Properties Page Analog Inputs



Selecting **Set Trip Points** will open the **Analog Trip Point Editor** where we can set the increasing/decreasing voltage range for each press/state of the analog input

LEADING THE WAY IN INNOVATION

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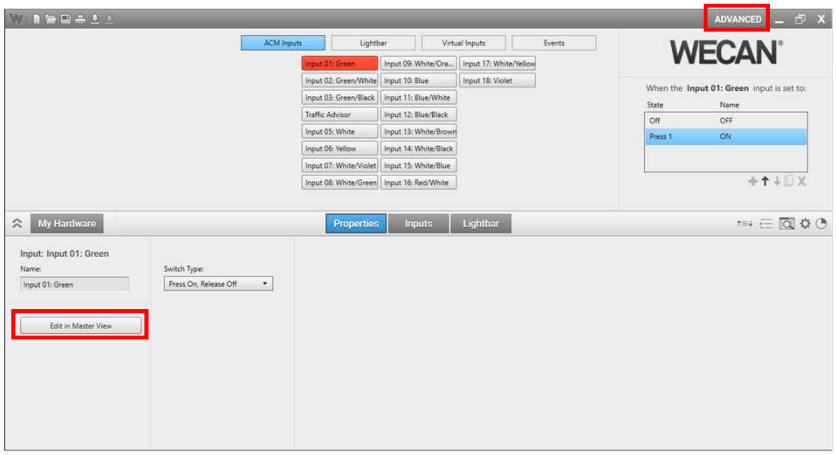
Properties Page



In **Advanced** mode we can select **Edit in Master View**

LEADING THE WAY IN INNOVATION

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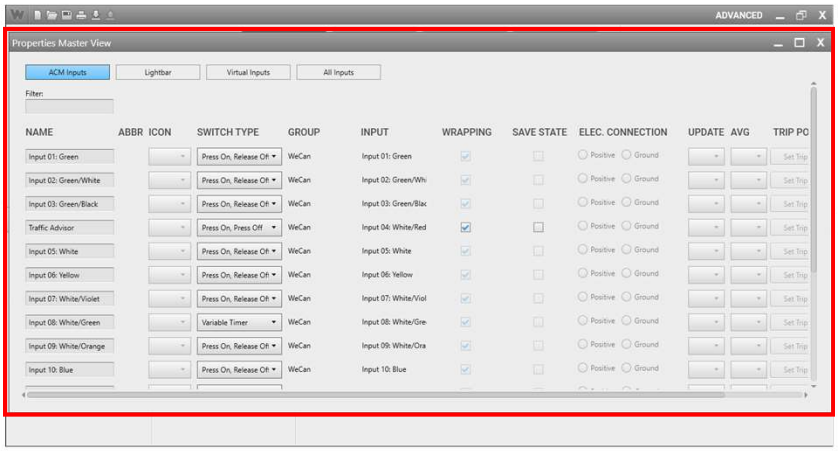
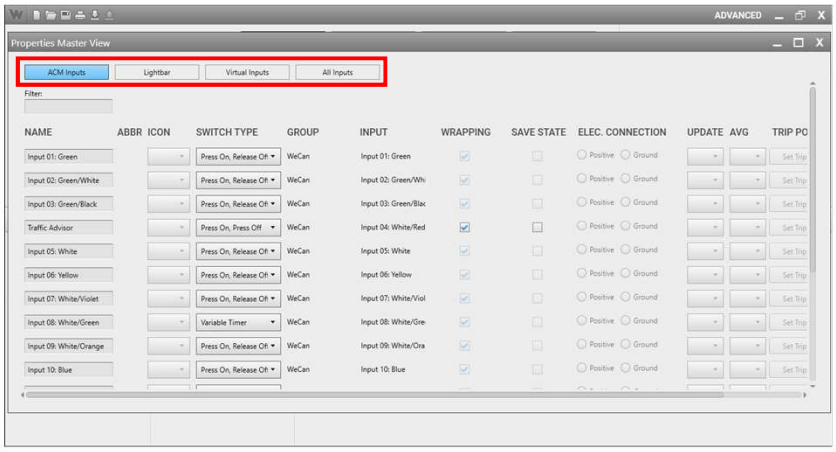
Properties Page



This will allow us to edit the properties for all of our inputs at one time without having to select each individual input

70

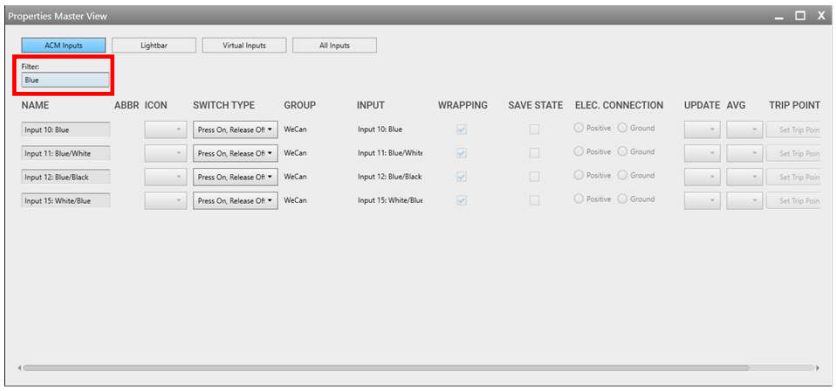
Properties Page



In **Master View** we can view the **ACM Inputs**, **Virtual Inputs** or we can view **All Inputs**

71

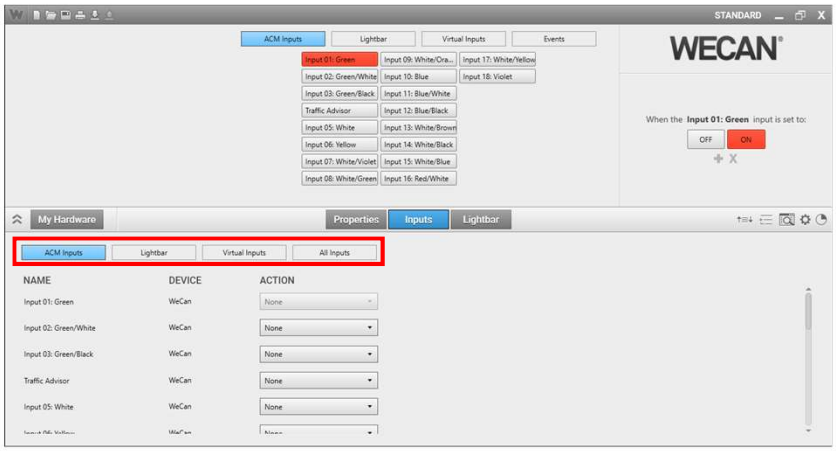
Properties Page



In **Master View** we can also **Filter** our inputs by their name

72

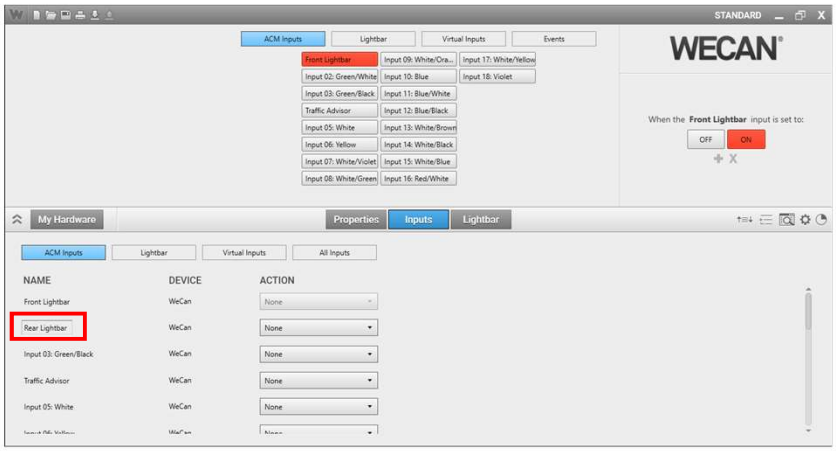
Inputs Page



On the **Inputs** page we can view the **ACM Inputs**, the **Virtual Inputs** or we can view **All Inputs**

73

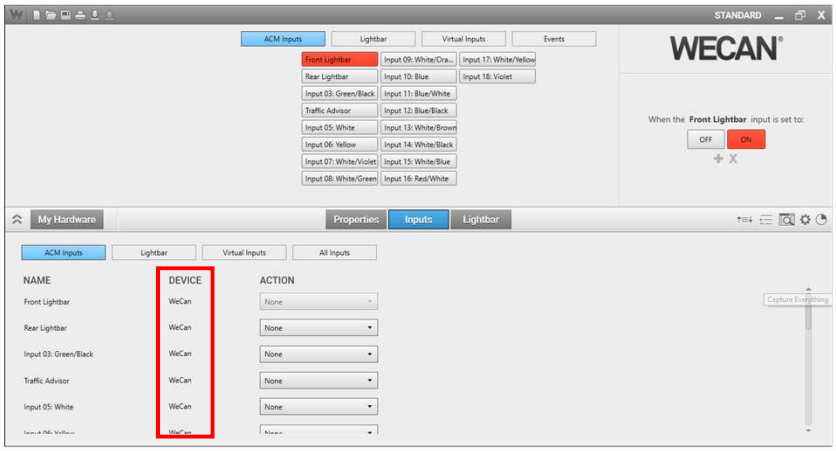
Inputs Page



We can modify any input's name, once we select another input the name will be saved and will persist throughout the configuration.

74

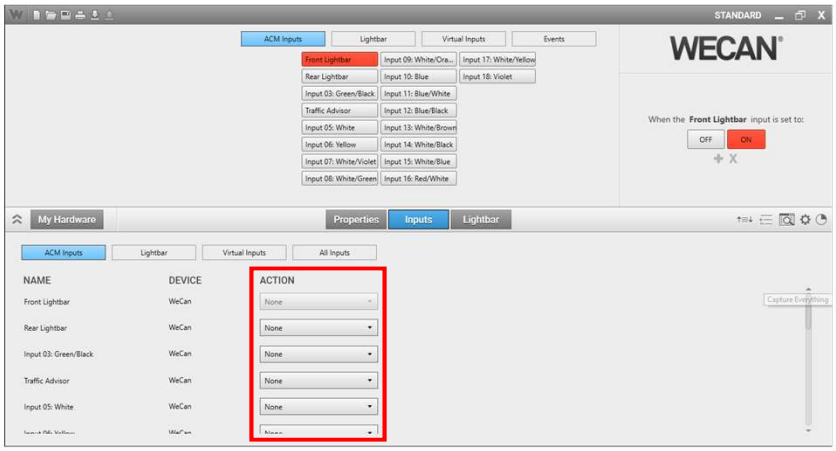
Inputs Page



If we have given our device a custom nickname that nickname will be displayed in the **Device** column

75

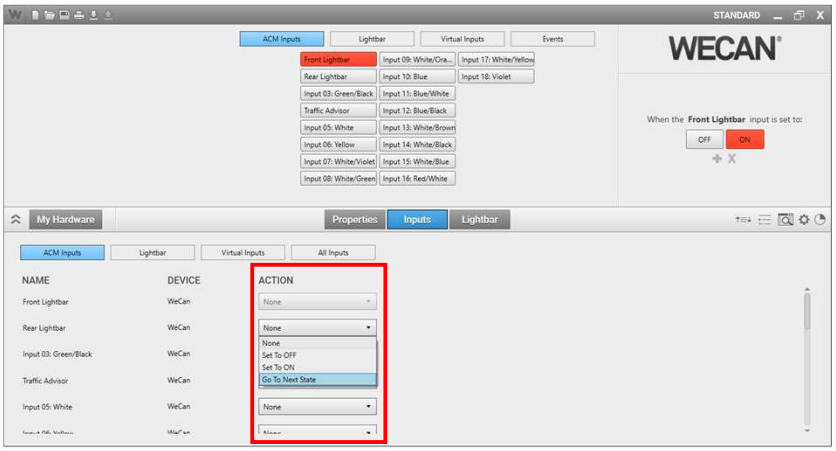
Inputs Page



We can **Turn On** or **Off** any of our inputs when the selected input is activated by selecting an action from the **Action** drop down list

76

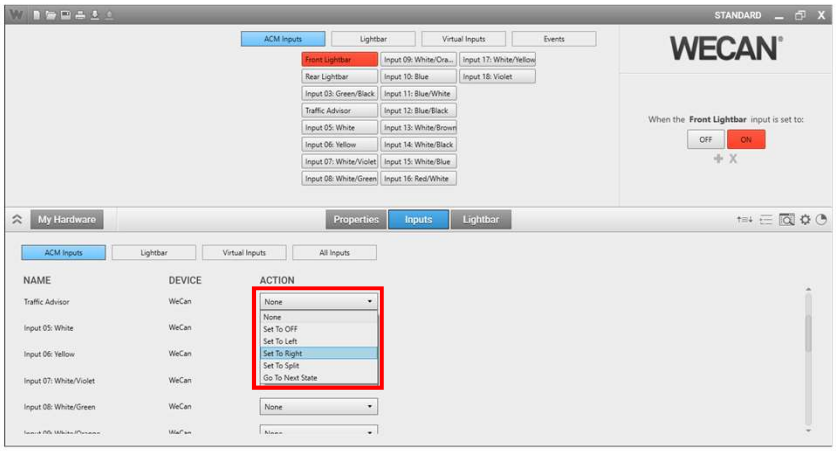
Inputs Page



Go To Next State is the replacement action for **Simulate Pressing** it will step our inputs through their **Press/States** and allow our timers to countdown

77

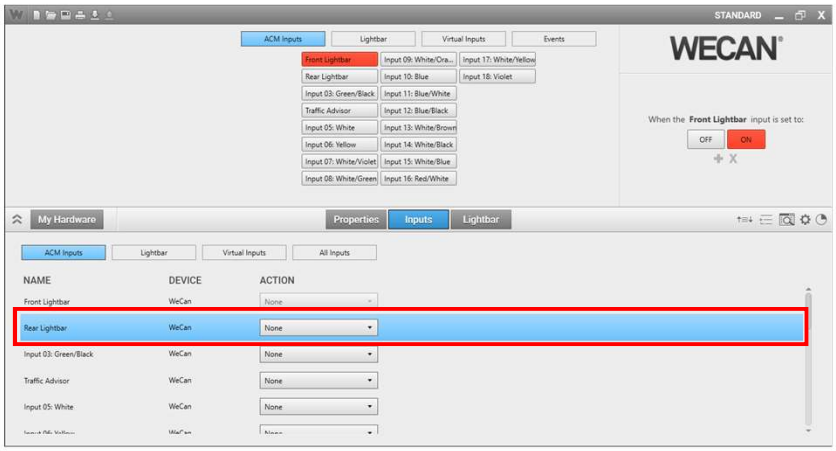
Inputs Page



If an input has more that one **Press/State** the action drop down list will display each **Press/State** that has been added

78

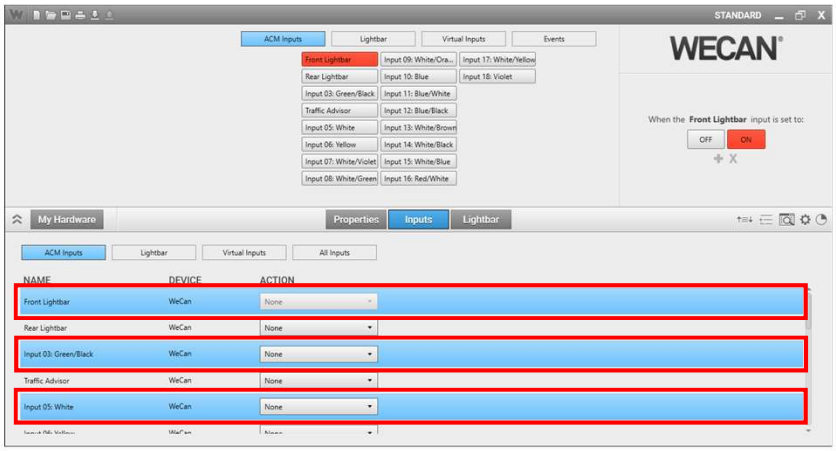
Inputs Page



We can highlight an input by clicking on it's row

79

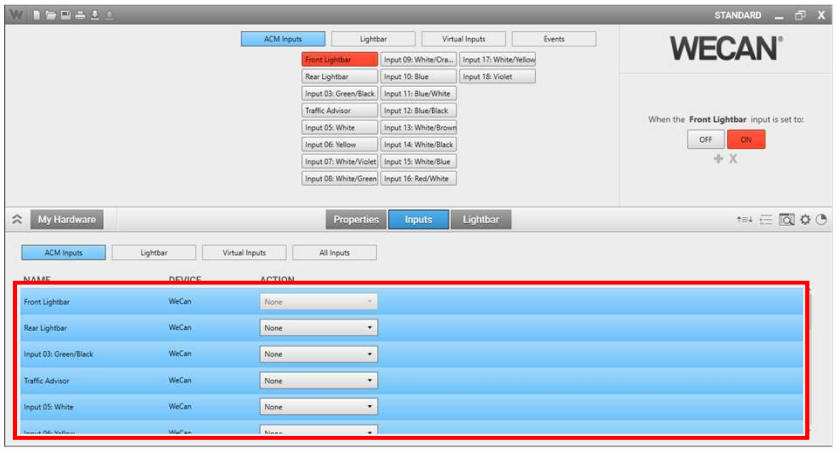
Inputs Page



If we use **CRTL + LMB Click** we can select multiple inputs, this will allow us to change the **Action** for all of the selected inputs

80

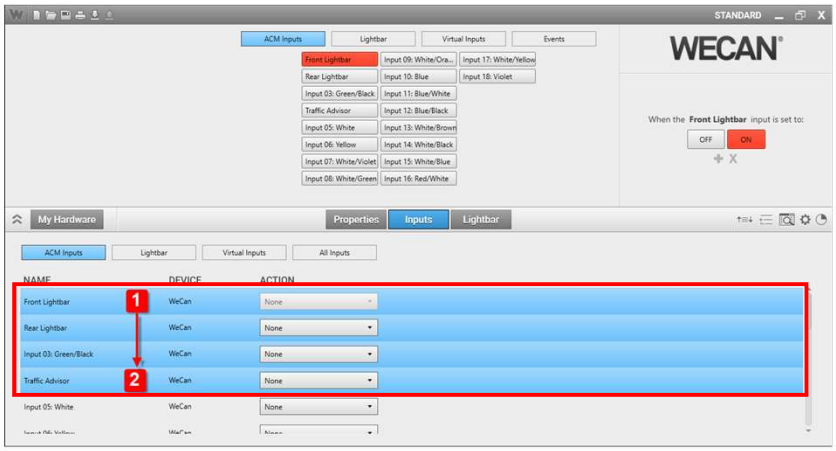
Inputs Page



If we select an input and use **CTRL + A** we will select all the rows on that page **CTRL + D** or **ESC** will deselect all selected rows

81

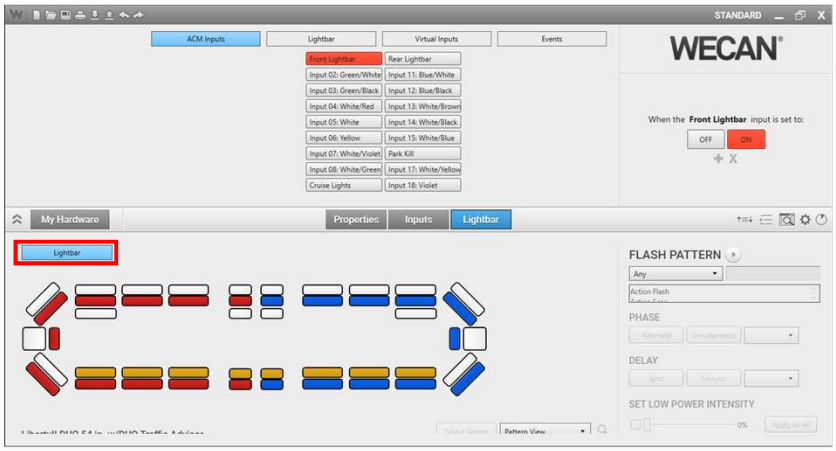
Inputs Page



If we select one input then **SHIFT + LMB Click** another input all the inputs between click **1** and **2** will be selected

82

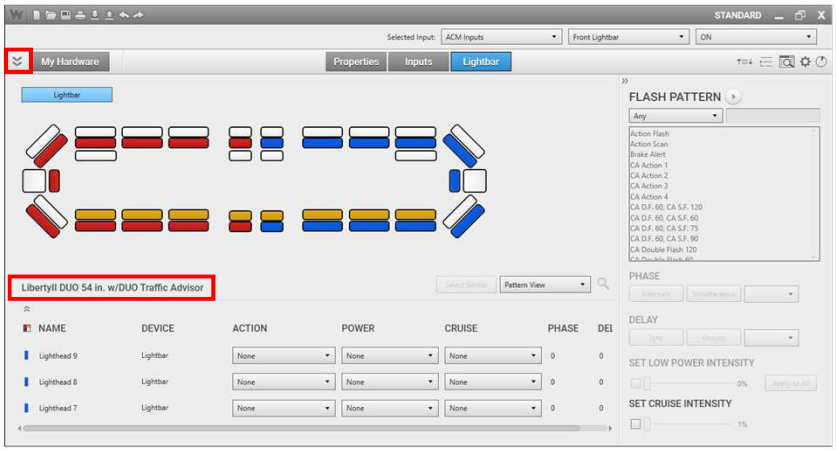
Lightbar Page



On the lightbar page if we have given our lightbar a custom nickname that nickname will be displayed on the lightbar tab

83

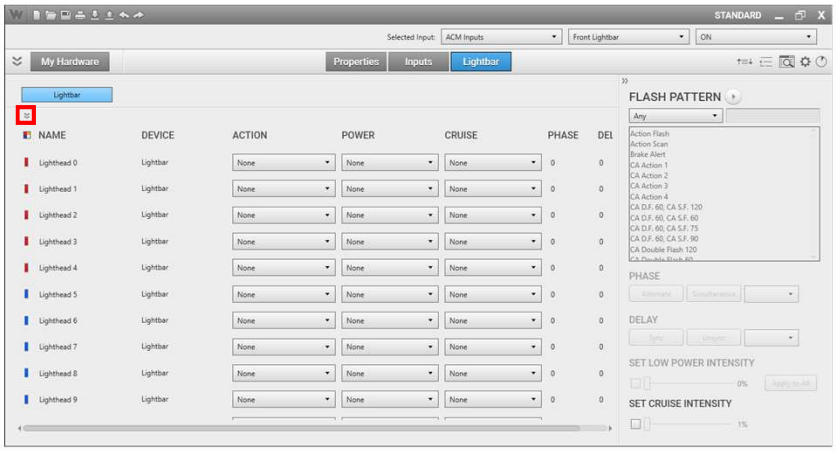
Lightbar Page



If we imported a .bxr file under the tab it would say **Custom Lightbar** but if we used **Design Lightbar** we will see the name of the lightbar we selected

84

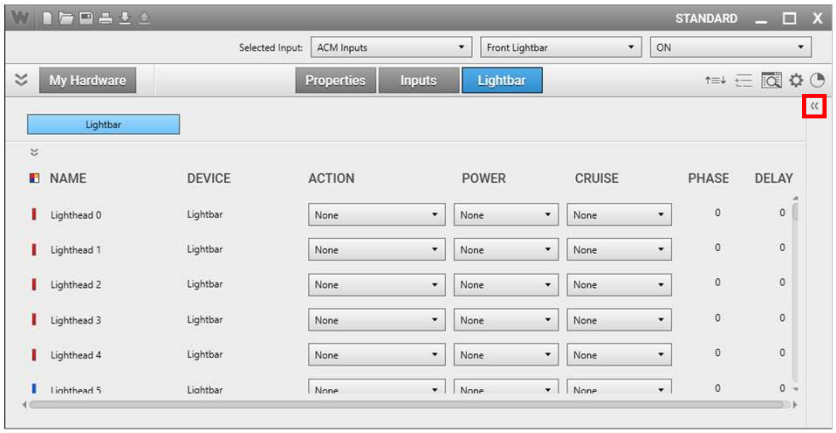
Lightbar Page



We can collapse the lightbar by clicking on the Expand/Collapse "" control

85

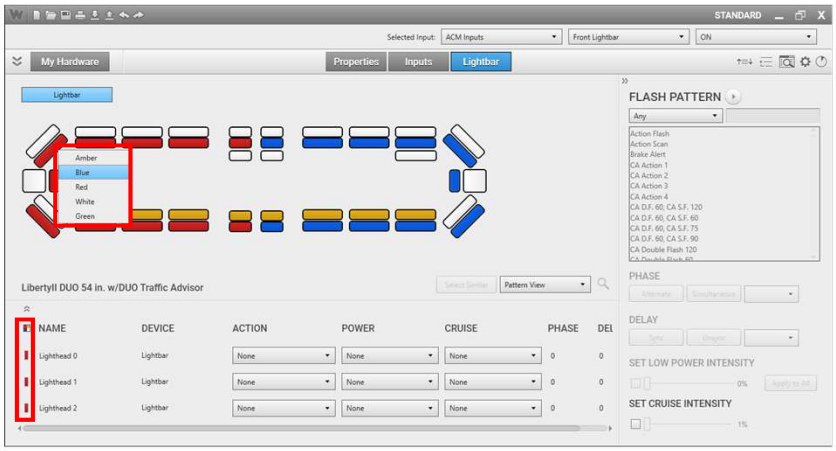
Lightbar Page



When using a smaller screen we can collapse the **Flash Pattern** selector by clicking on the Expand/Collapse "»" control

86

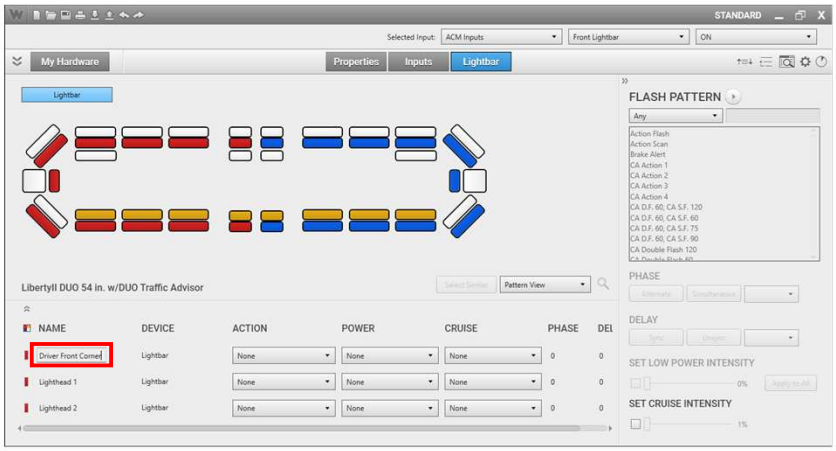
Lightbar Page



To customize the color of the modules in the lightbar we can right click on any module in the lightbar or on the color control next to the lighthead's name

87

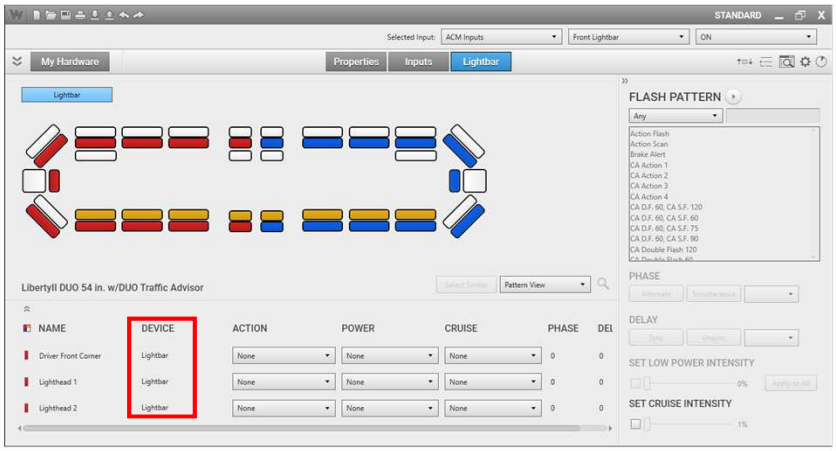
Lightbar Page



If desired we can give each module in the lightbar a custom name

88

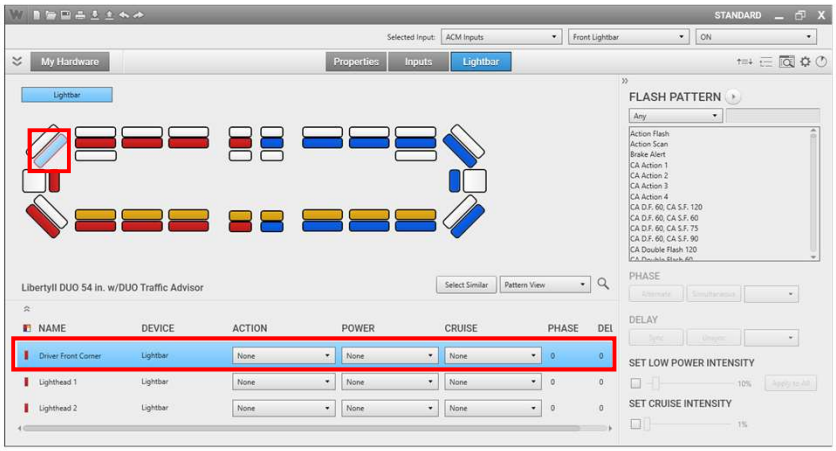
Lightbar Page



If we have given our lightbar a custom nickname that nickname will be displayed in the **Device** column

89

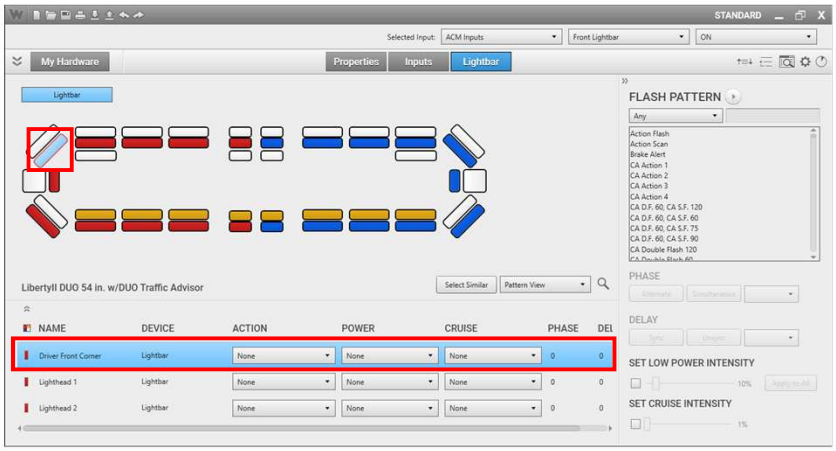
Lightbar Page



If we select a module on the lightbar the corresponding Lighthead row will be selected in the list below

90

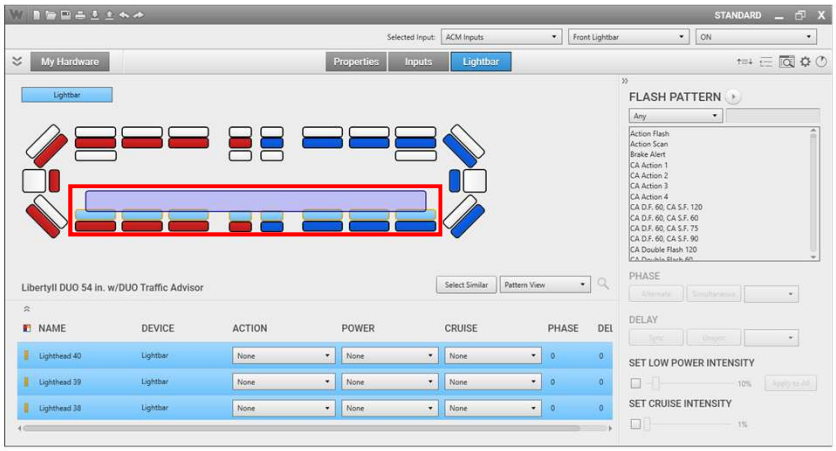
Lightbar Page



If we select a lighthead in the list below the corresponding module in the lightbar will be selected above

91

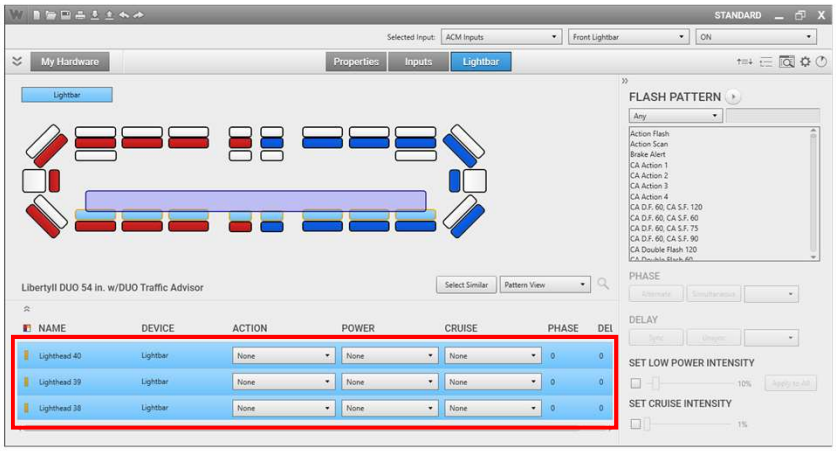
Lightbar Page



If we hold the LMB we can use the drag select to select groups of modules in the lightbar

92

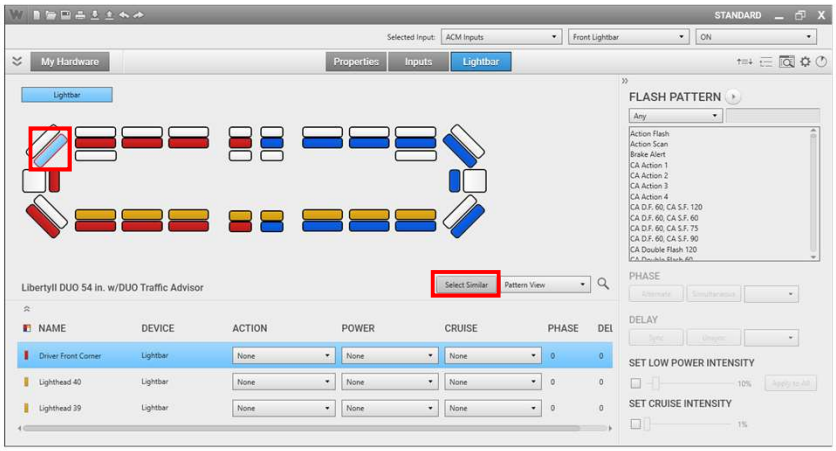
Lightbar Page



The selected modules will always be filtered to the top of the **Lighthead** list

93

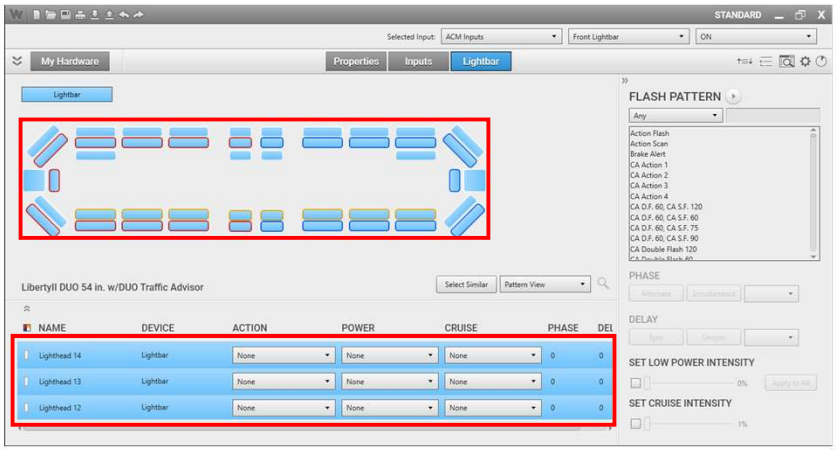
Lightbar Page



After we select a lighthead, we can click **Select Similar** which will select all lightheads of the same color.

94

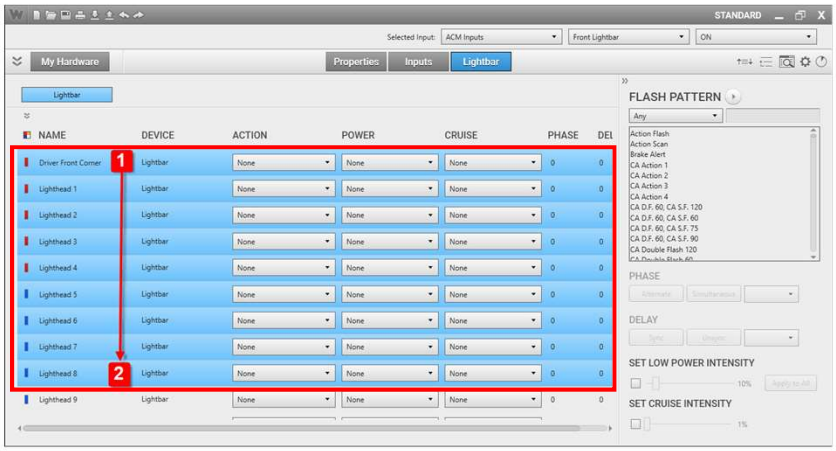
Lightbar Page



If we select a module in the list and use **CTRL + A** we will select all the modules **CTRL + D** or **ESC** will deselect all selected modules

95

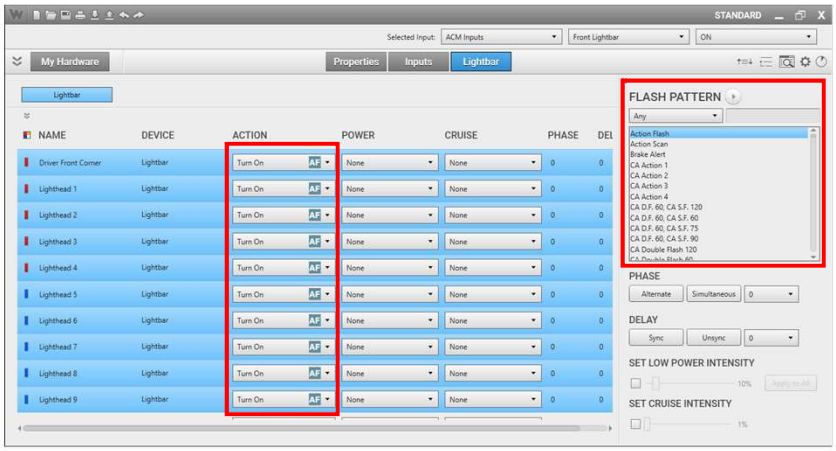
Lightbar Page



If we select one module in the list then **SHIFT + LMB Click** another module all the modules between click **1** and **2** will be selected

96

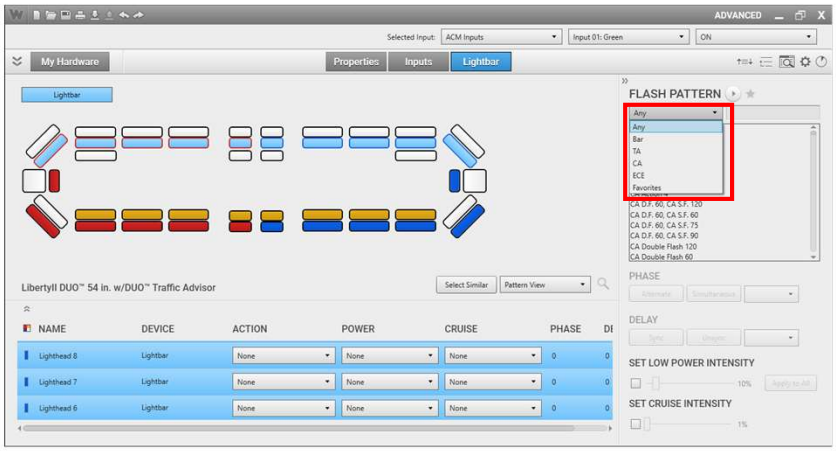
Lightbar Page Pattern View



Once we have selected modules we can set a flash pattern from the flash pattern list. This will set the default **Action** to **Turn On**

97

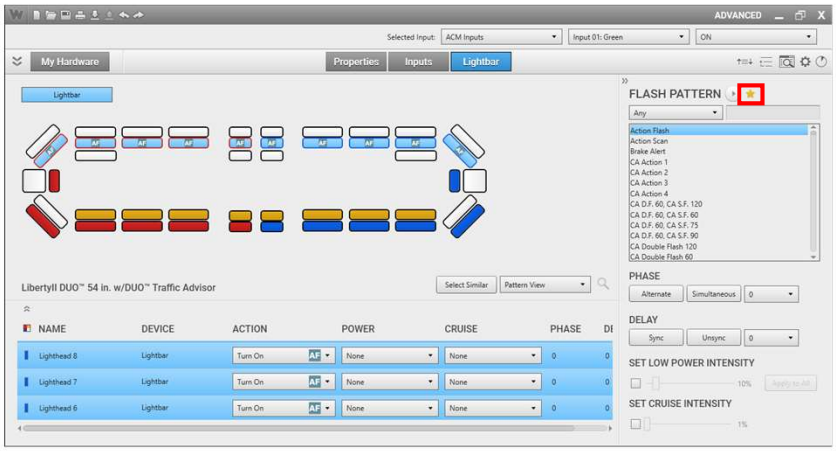
Lightbar Page Pattern View



We can filter the pattern list from **Any** pattern, **Bar** patterns, **TA** patterns, **CA** California Compliant patterns, or **ECE** European Compliant patterns.

98

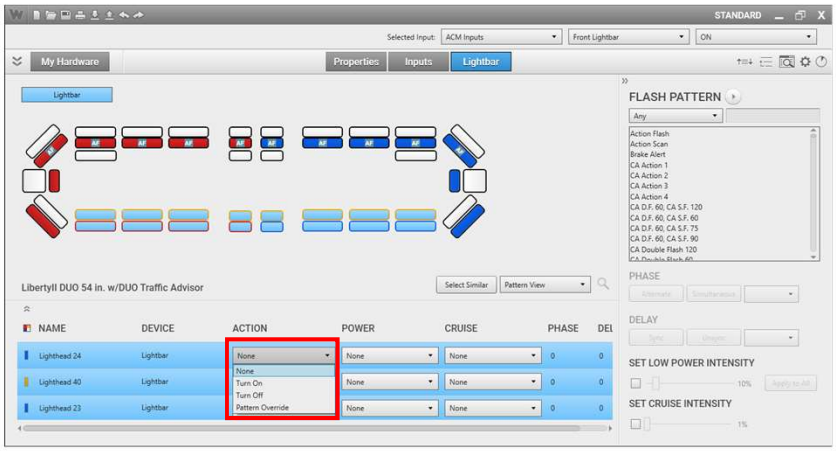
Lightbar Page Pattern View



To add a pattern to the **Favorites** list first select it then click the small star above the pattern list.

99

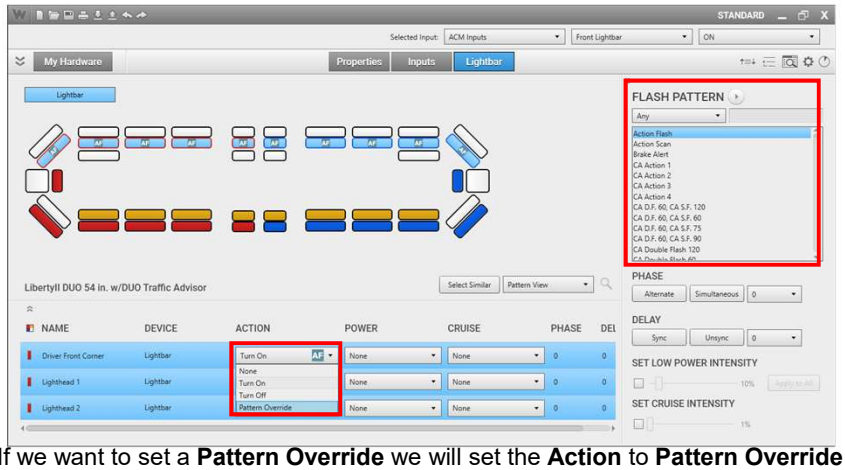
Lightbar Page Pattern View



To turn off modules we will select our modules in the lightbar and set the **Action** to **Turn Off**

100

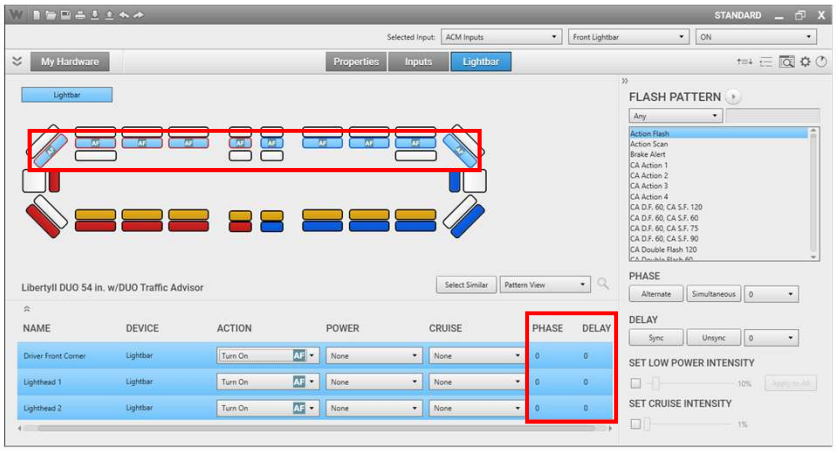
Lightbar Page Pattern View



If we want to set a **Pattern Override** we will set the **Action** to **Pattern Override** and then we will select a flash pattern from the flash pattern list. See definitions for more on **Pattern Override**

101

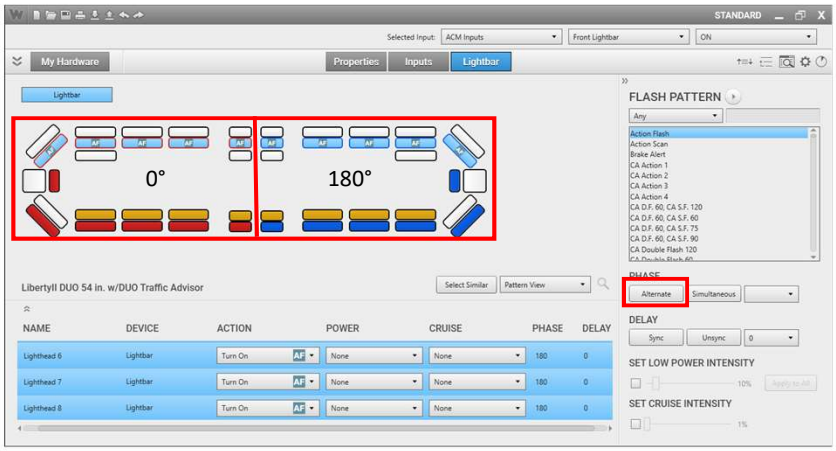
Lightbar Page Pattern View



Once we select a flash pattern the pattern symbol will be applied to the selected modules the phase will default to “Phase 1” **0**° degrees and the delay set to **0**ms.

102

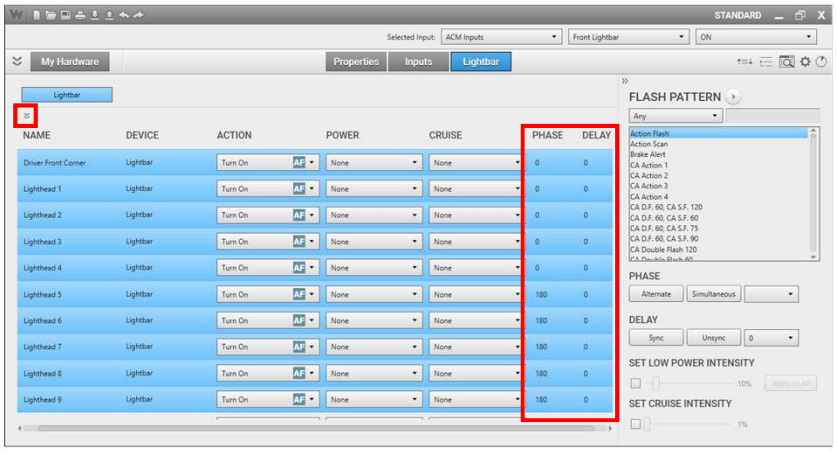
Lightbar Page Pattern View



By clicking on the **Alternate** button we set all the selected modules on the driver side of the lightbar to “Phase 1” **0**° and the passenger side to “Phase 2” **180**°

103

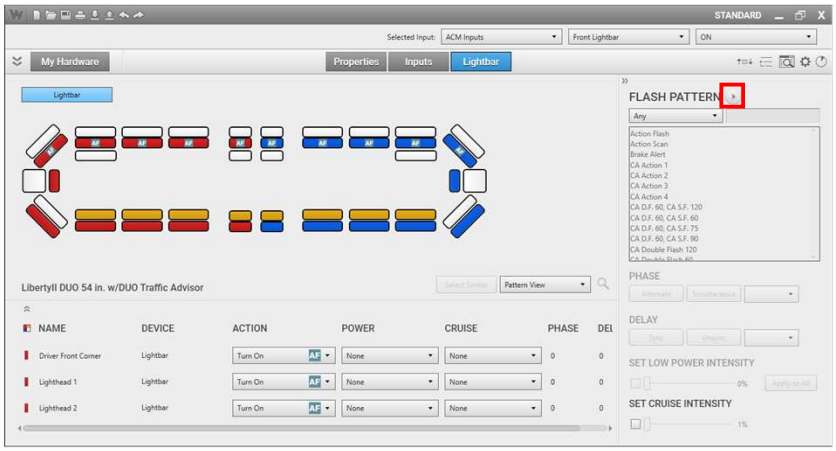
Lightbar Page Pattern View



In the lightbar module list we can see the **Phase** and **Delay** set on each module

104

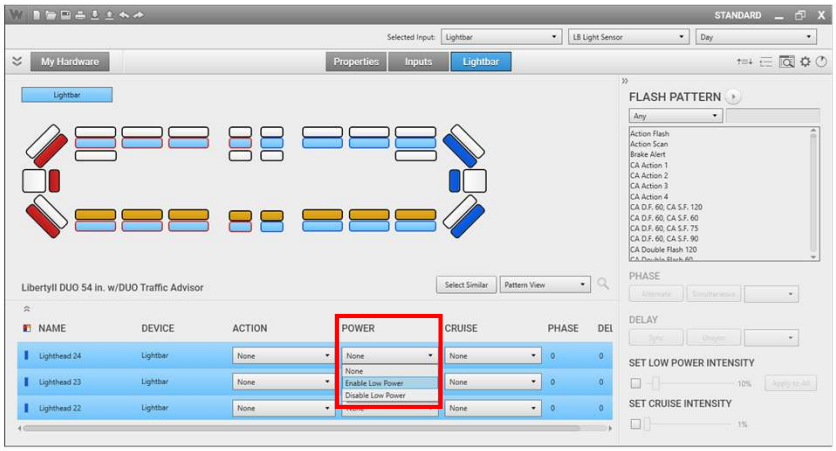
Lightbar Page Pattern View



Once we have set the **Flash Pattern**, **Phase** and or the **Delay** we can press the **Simulate** button to preview our flash pattern settings

105

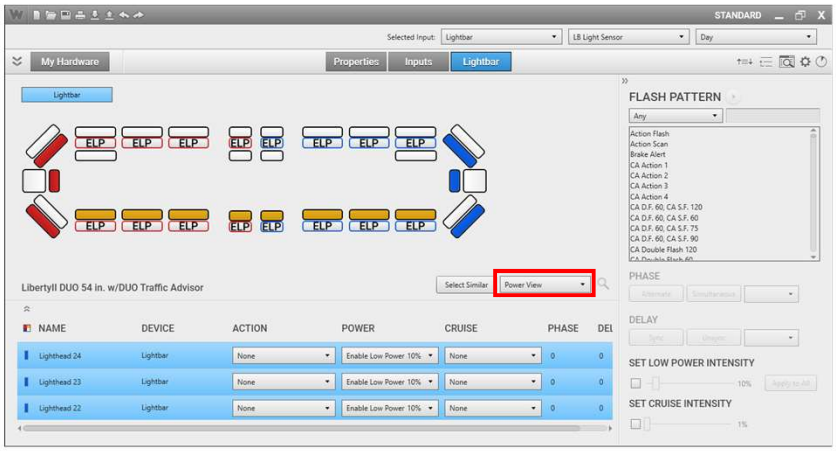
Lightbar Page Power View



To **Enable** or **Disable** low power under the **Power** selection we can select the desired action

106

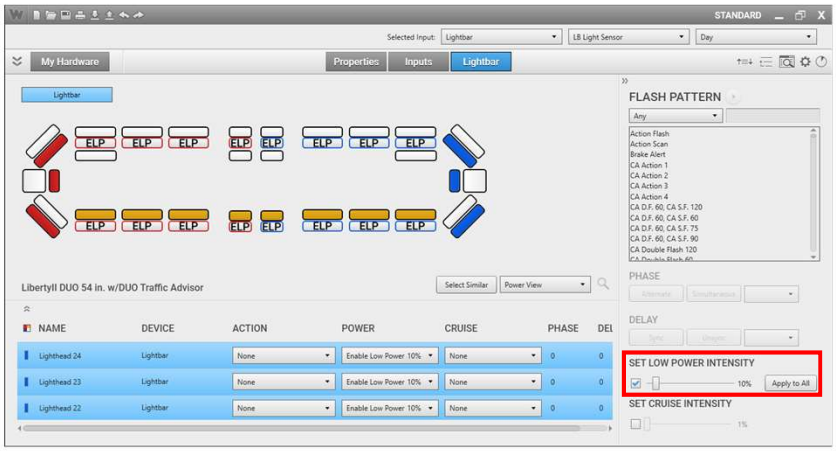
Lightbar Page Power View



Once a selection has been made the proper symbol will be applied to the selected modules and **Power View** will automatically be selected from the list

107

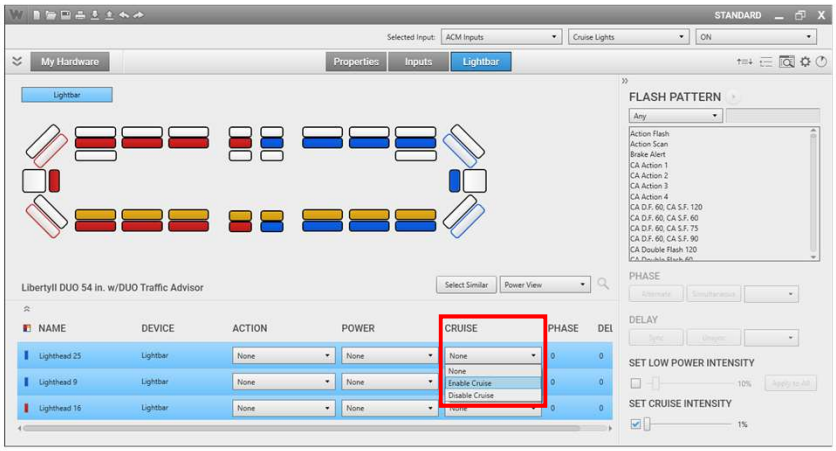
Lightbar Page Power View



We can set a custom **Low Power Intensity** which we can Apply to each lighthead individually or **Apply to All**

108

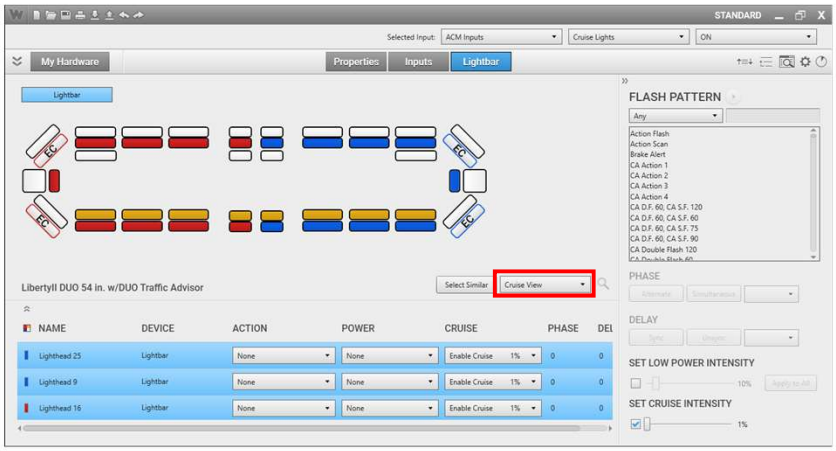
Lightbar Page Cruise View



To **Enable** or **Disable** Cruise lighting under the **Cruise** selection we can select the desired action

109

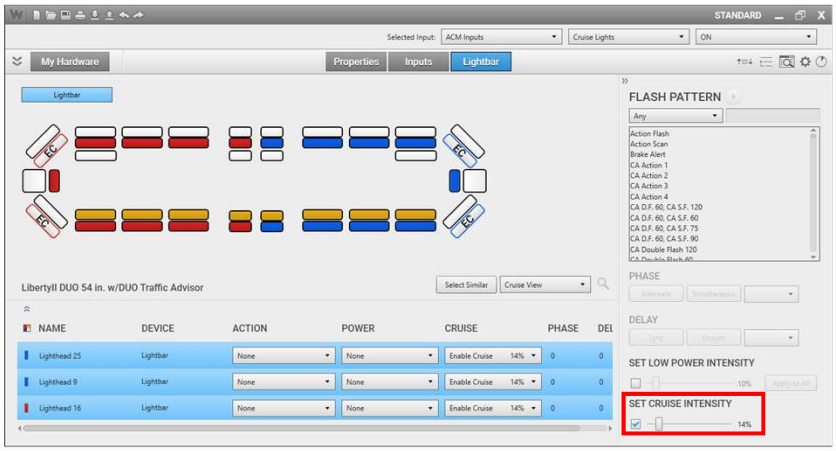
Lightbar Page Cruise View



Once a selection has been made the proper symbol will be applied to the selected modules and **Cruise View** will automatically be selected from the list

110

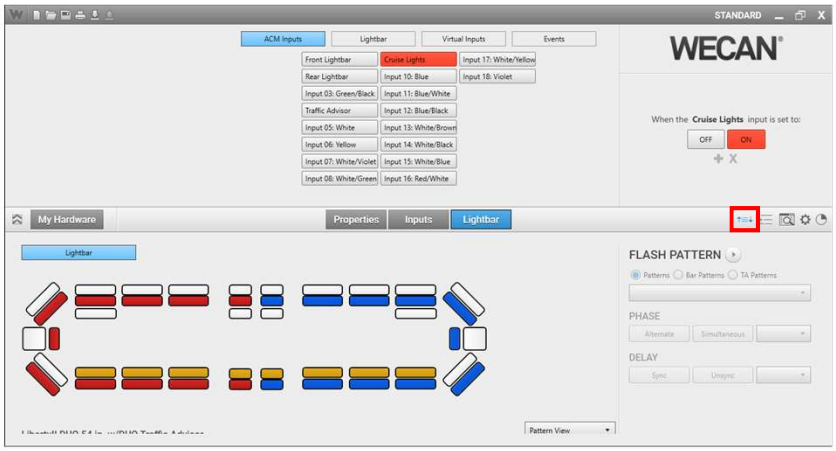
Lightbar Page Cruise View



Once a selection has been made we can set a custom **Cruise Intensity**

111

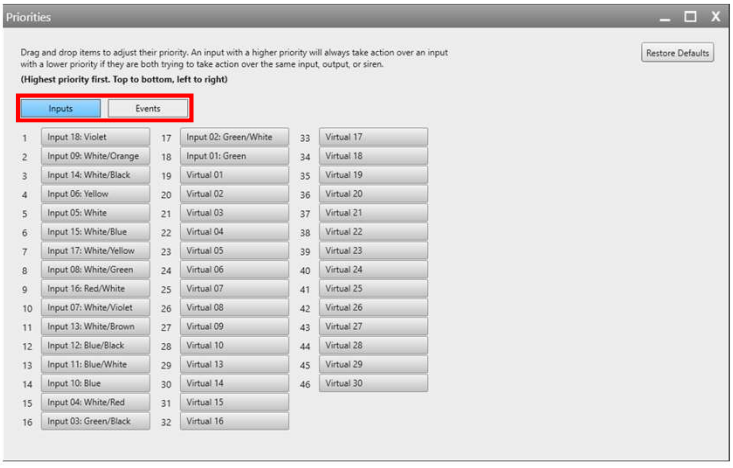
Priorities



On the main navigation bar we can click on the **Priorities** control to open the **Priorities** window

112

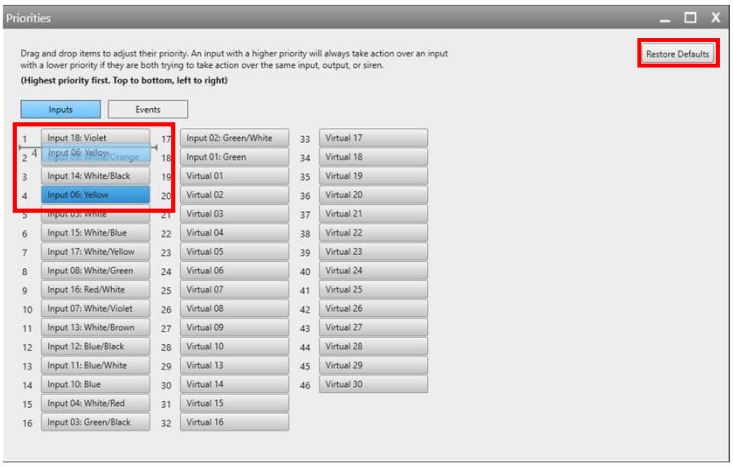
Priorities



Priorities allow us to control what flash pattern we want to see if two inputs are active at the same time. We can also set the priority level of our **Events**

113

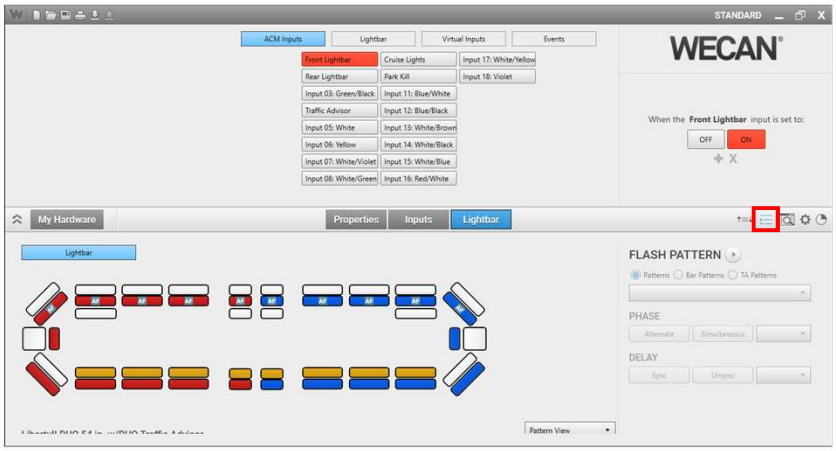
Priorities



If we **LMB** click and hold we can drag and customize the priority list. If needed we can reset the priorities to their default by clicking on the **Restore Defaults** button

114

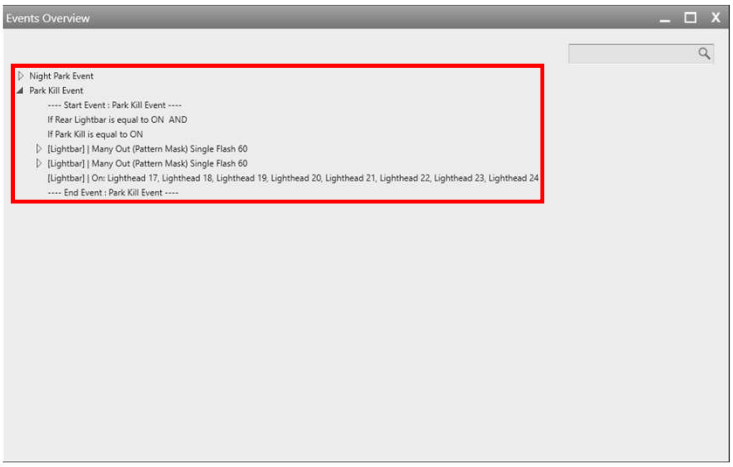
Events Overview



On the main navigation bar we can click on the **Events Overview** control to open the **Events Overview** window

115

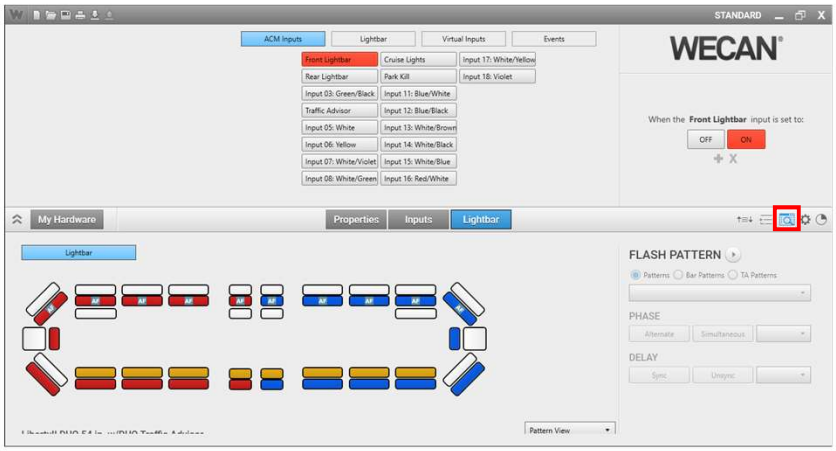
Events Overview



We can expand each **Event** and view the conditions we set in the **Events Manager**. We can also **Search** for an event instruction.

116

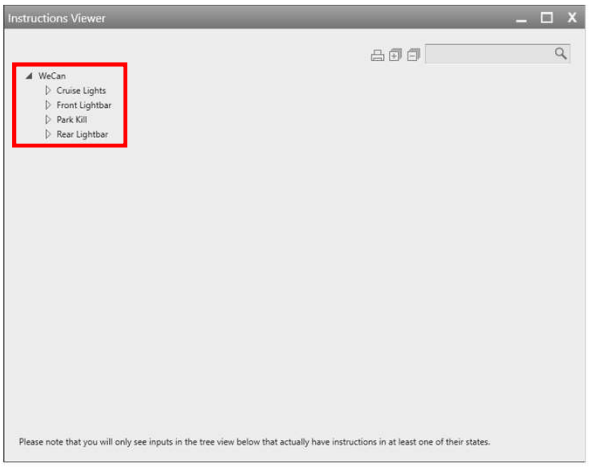
Instruction Viewer



On the main navigation bar we can click on the **Instruction Viewer** control to open the **Instructions Viewer** window

117

Instruction Viewer

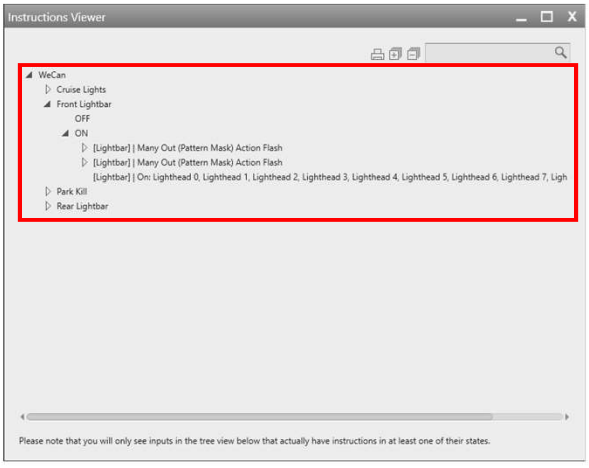


The **Instruction Viewer** allows us to see what we have programmed on each press/state of each input.

LEADING THE WAY IN INNOVATION

118

Instruction Viewer

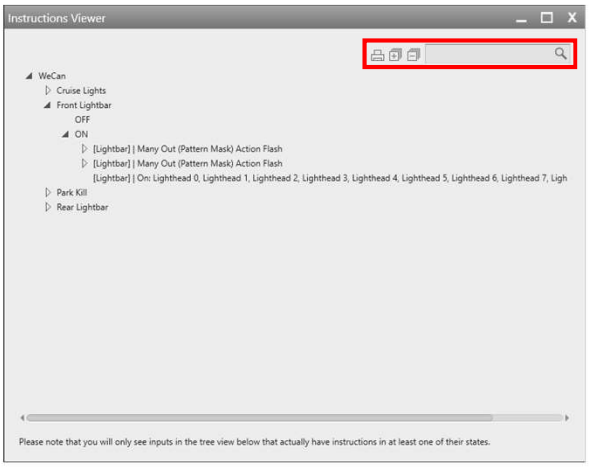


Once we expand an input we can expand each state and view the instructions we have programmed

LEADING THE WAY IN INNOVATION

119

Instruction Viewer

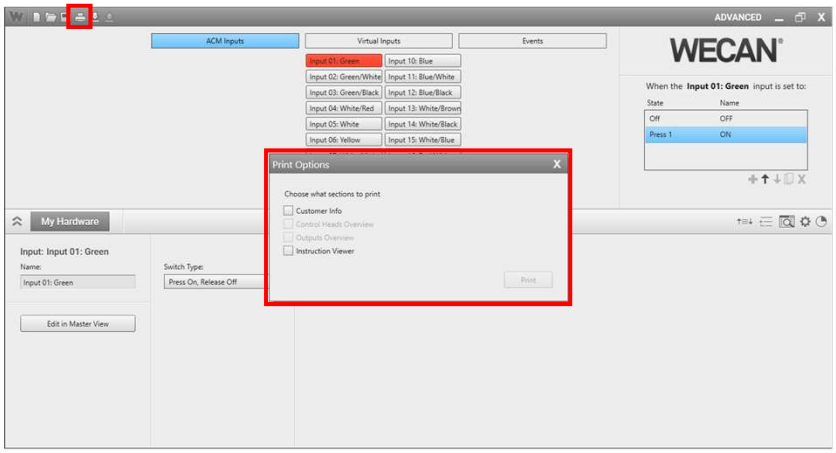


We can **Print** out all instructions, **Expand All** or **Collapse All** of our instructions, or **Search** for an Instruction

LEADING THE WAY IN INNOVATION

120

Instruction Viewer

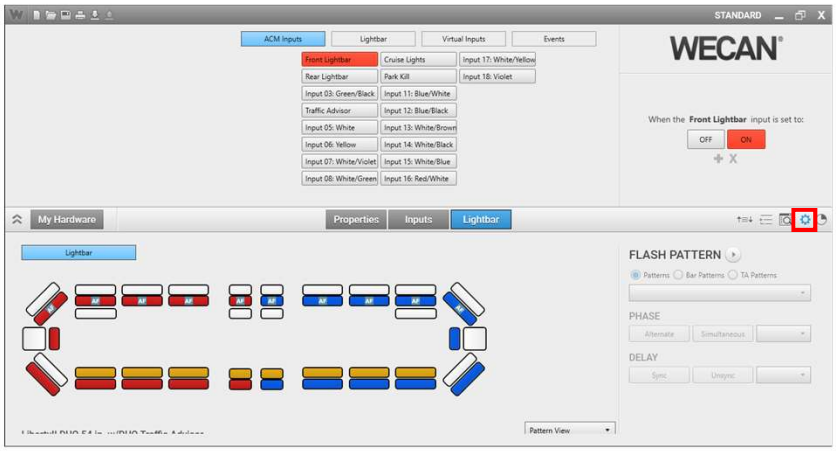


Clicking on the **Print** icon will open the **Print Options** window where we can select what information we would like to print.

LEADING THE WAY IN INNOVATION

121

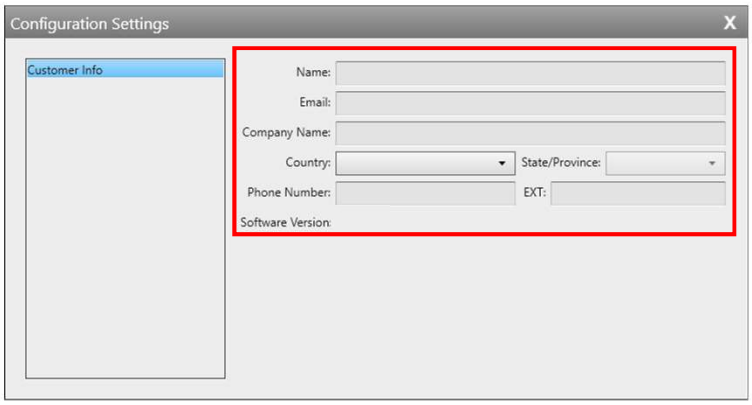
Configuration Settings



On the main navigation bar we can click on the **Configuration Settings** control to open the **Configuration Settings** window

122

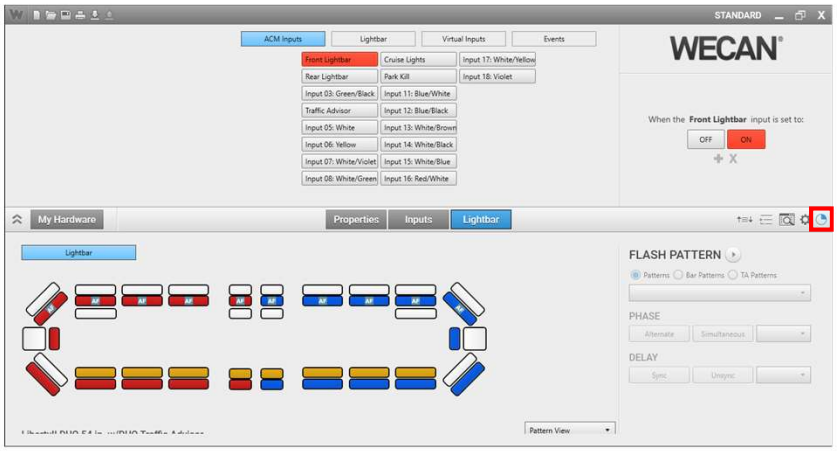
Configuration Settings



Here we can fill out the customer contact information

123

Configuration Size



On the main navigation bar we can view our **Configuration File Size**

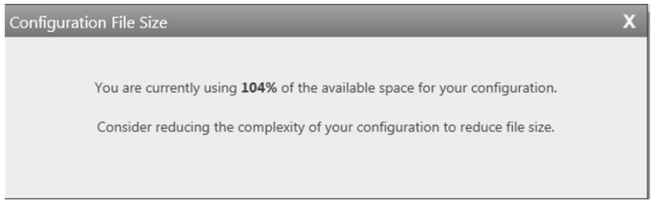
124

Configuration Size

Current hardware only allows the configuration file to be a specific size

125

Configuration Size

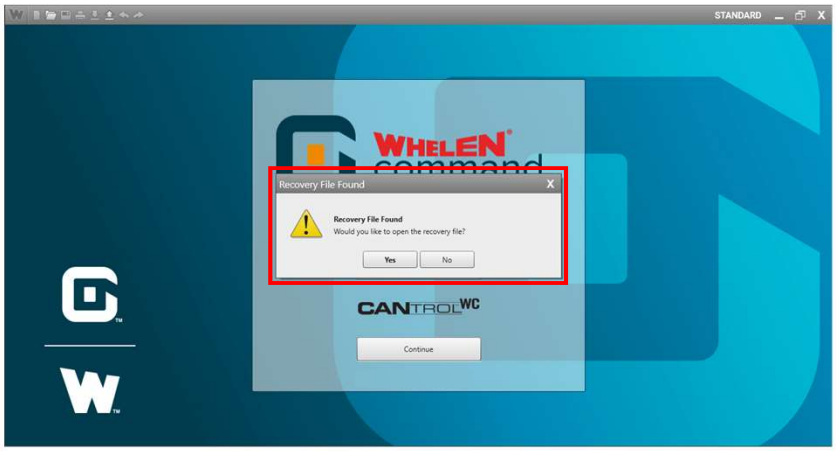


Once the maximum file size has been reached the configuration will not **Transfer** and you will be prompted to reduce your configurations complexity

LEADING THE WAY IN INNOVATION

126

Configuration Recovery

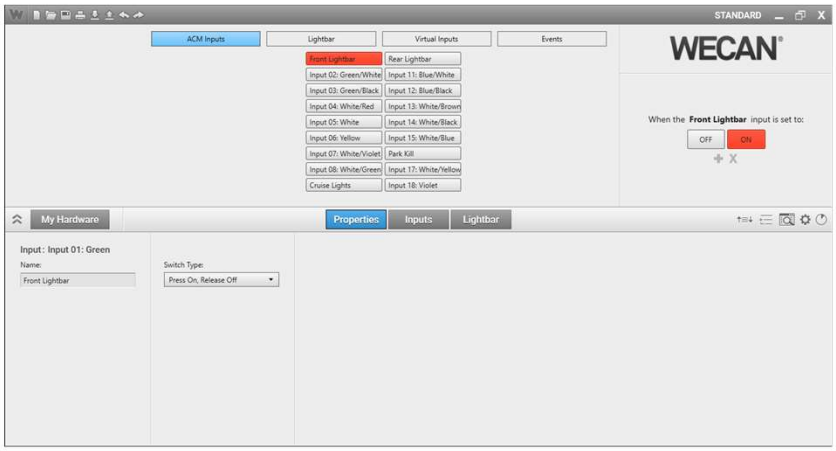


If for some reason the Command software crashes, the configuration you were working on can be recovered once the program is launched again.

LEADING THE WAY IN INNOVATION

127

Configuration Recovery

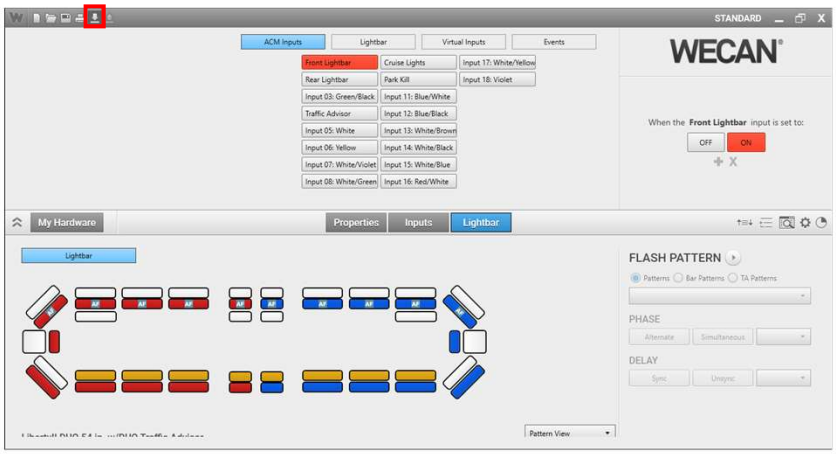


Once our configuration is complete we can transfer it to the WeCan **Control Point** by clicking on the **Transfer** control or by using the shortcut **CTRL + T**

LEADING THE WAY IN INNOVATION

128

Transfer

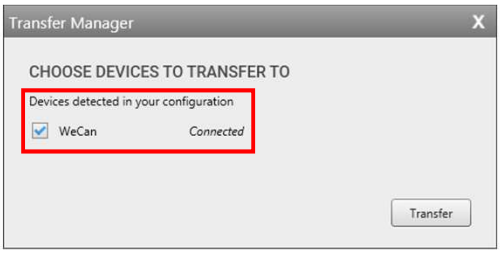


Once our configuration is complete we can transfer it to the WeCan **Control Point** by clicking on the **Transfer** control or by using the shortcut **CTRL + T**

LEADING THE WAY IN INNOVATION

129

Transfer

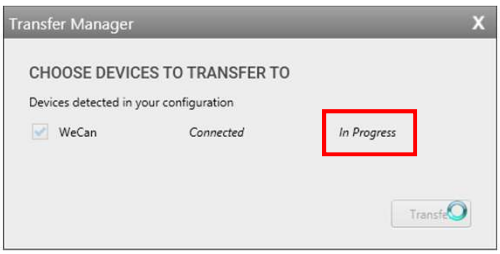


This will open the **Transfer Manager** where we can see all of our detected devices

LEADING THE WAY IN INNOVATION

130

Transfer

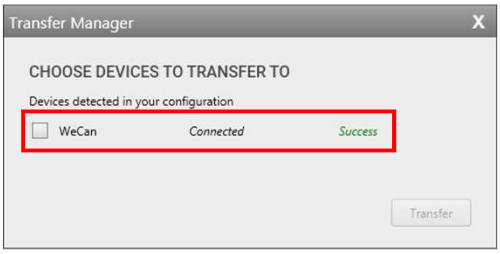


Once we click on **Transfer** we will see the status of our **Transfer** is **In Progress**

LEADING THE WAY IN INNOVATION

131

Transfer

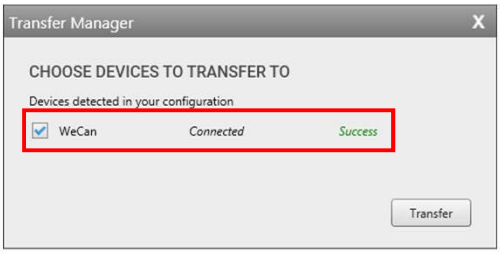


Once our **Transfer** is complete the status will show **Success** and the checkbox for our device will be unchecked

LEADING THE WAY IN INNOVATION

132

Transfer

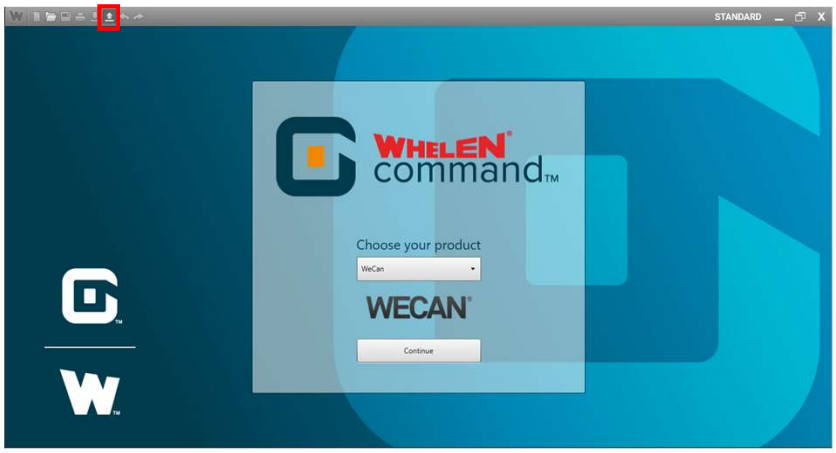


To **Transfer** to another device plug in the device and check the device checkbox and click **Transfer**

LEADING THE WAY IN INNOVATION

133

Extract

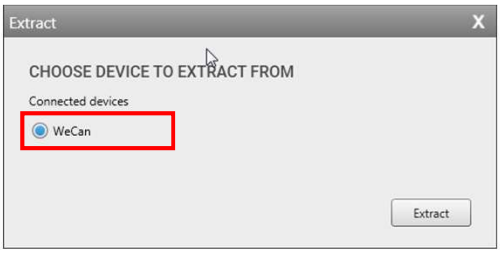


If we want to read a configuration from a **Control Point** that is already installed we can click on the **Extract** control or use the shortcut **CTRL + E**

LEADING THE WAY IN INNOVATION

134

Extract

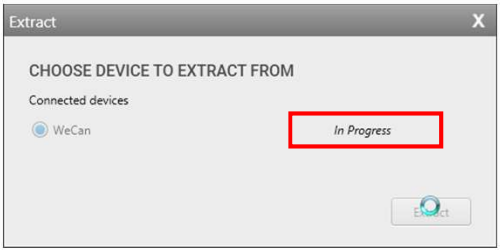


The **Extract** window will open and we can select the device that we want to **Extract** from

LEADING THE WAY IN INNOVATION

135

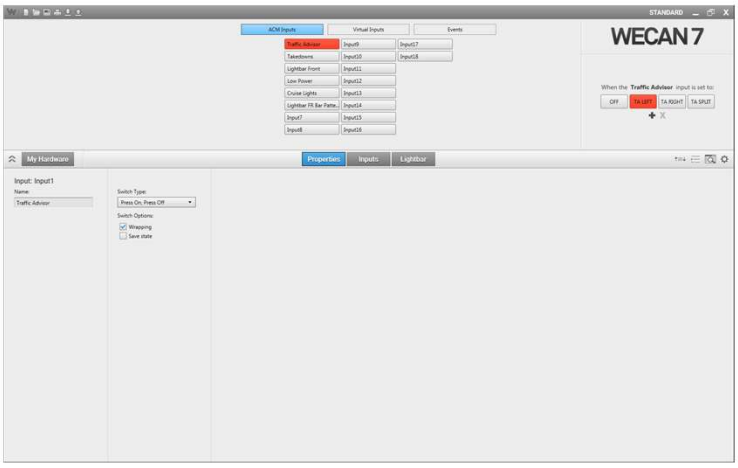
Extract



Once we click on **Extract** we will see the status of our **Extraction**

136

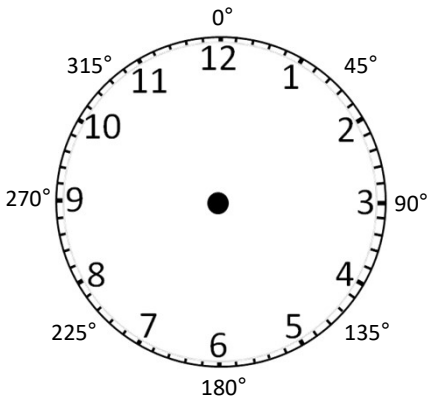
Extract



Once the **Extraction** is complete the configuration will displayed allowing us to make any changes that are necessary

137

Definition: Phasing



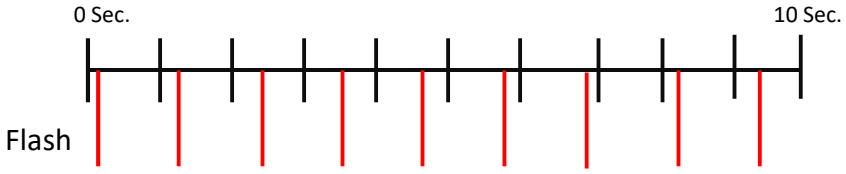
Flashing starts at Phase one 0°degrees. Phase one 0° degrees and phase two 180°degrees alternate with each other. Setting eight modules from 0°degrees to 315°degrees on our clock would allow our flash pattern to rotate clockwise.

LEADING THE WAY IN INNOVATION

138

Definition: Delay

Lets say our flash pattern flashes once per second



Here we have set a 10ms delay on the lighthead. The lower red lines are when the module flashes. We can see that the module does not start flashing at 0 but at 10ms. The module is delayed another 10ms during every flash. Over time, the module will catch back up and flash at the 10ms mark. If you were to set all the modules with a different delay you would create an asynchronous(out of sync) pattern.

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Definition: Pattern Override

Standard Flash Pattern

AF: On Instruction

A standard flash pattern has an "On" instruction, so when you turn the flash pattern on with a button or input, it starts flashing immediately until the button or input is turned off.

Override Flash Pattern

MF: No "On" Instruction

An override pattern has no "On" instruction. If you were to turn on only the button or input that has override patterns programmed, the outputs or modules will not flash. To get the override pattern to be displayed, another button or input needs to have an active flash pattern providing the "On" instruction.

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Switch Type Definitions

- Press On/Release Off
  - Press and hold the button to turn on, as soon as it is released it will turn off
- Press On/Press Off
  - Press the button once to turn on, press it again to turn off
- Press On/Double Press Off
  - Press the button once to turn on, double press the button to turn off

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Switch Type Definitions

- Press On/Hold Off
  - Press the button once to turn on, press and hold the button to turn it off
- Variable Timer
  - Press the button to start a timer, the time can be set from 100 Milliseconds up to 60 Minutes
- Security Timer
  - Double press to turn the button on, the time can be set from 100 Milliseconds up to 60 Minutes
- Disabled
  - The button will not react to being pressed

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Keyboard Shortcuts

Listed below are the Keyboard Shortcuts for Whelen Command™ some are standard Window's shortcuts

- CTRL + LMB Click
  - Select Rows of Inputs, Outputs or Modules. Will also deselect already selected rows
- CTRL + A
  - Select all rows on a page
- CTRL + D
  - Deselect all rows on a page

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Keyboard Shortcuts

- SHIFT + LMB Click + LMB Click
  - Select all rows between point “A” and point “B”
- CTRL + C
  - COPY
- CTRL + V
  - Paste
- CTRL + S
  - Save
- CTRL + O
  - Open

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Keyboard Shortcuts

- DELETE
  - Clears all programming on the selected outputs or modules in the lightbar(Name and Color will not be affected).
- CTRL + T
  - Open Transfer Manager
- CTRL + E
  - Extract a configuration from a device

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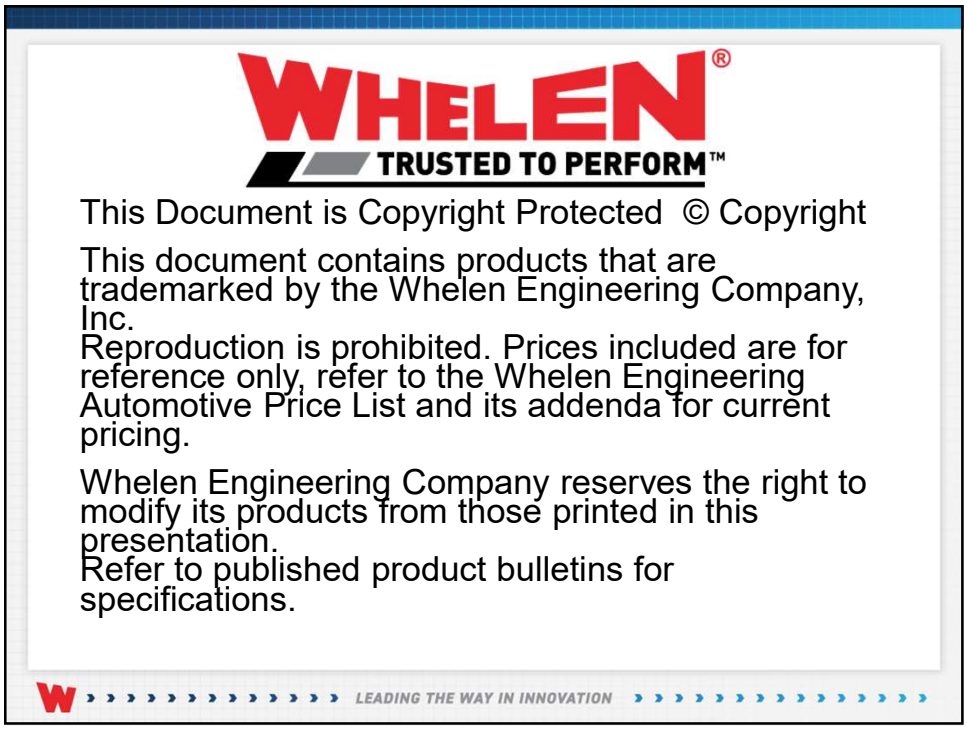
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