

1 Introduction

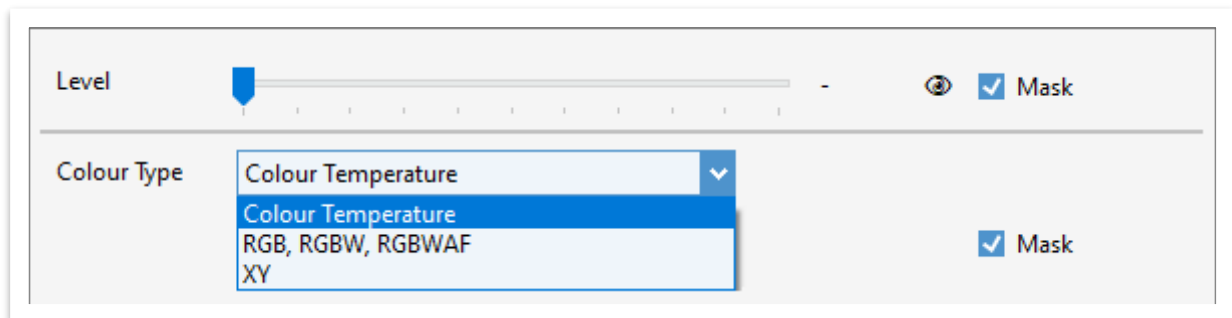
DALI Type 8 Control Gear allows the setting of luminaire light level and colour. There are several options defined in the DALI standard for setting the colour, with the most common being:

- Colour Temperature;
- RGB (Red, Green, Blue);
- RGBW (Red, Green, Blue & White)
- XY

The RAPIX system supports setting the colour in DALI Type 8 devices using any of the colour options listed above.

2 Colour Selection

A common colour editor is used throughout the RAPIX software. The colour options provided depend on the capability of the device(s) being edited. If there is more than one valid colour type, a selection box will allow a choice.

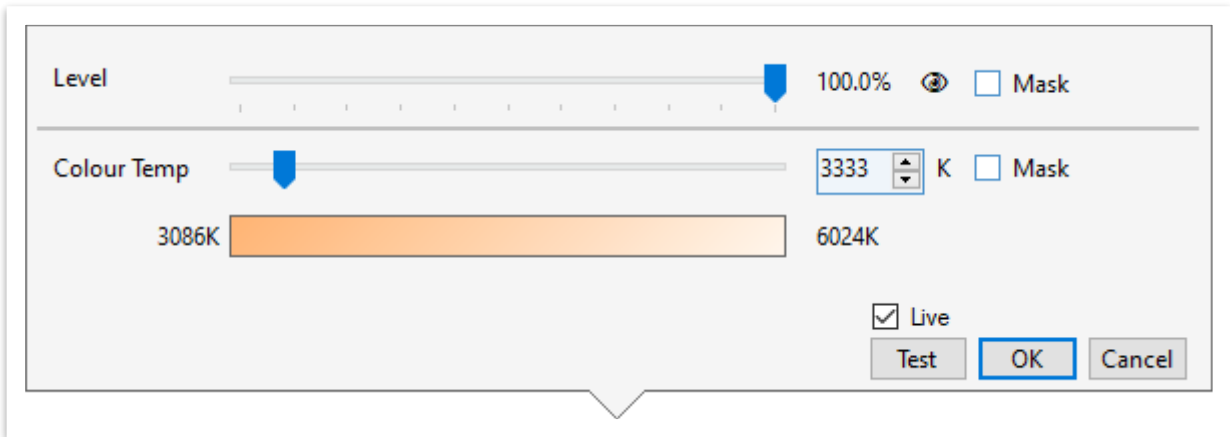


Colour Type Selection

Note that the colours displayed on the colour selection form are very approximate, particularly for XY devices. The colour should be tested using the actual device for confirmation.

2.1 Colour Temperature

When editing a Colour Temperature, the editor will look like this:



Editing a Colour Temperature

To edit the colour, drag the **Colour Temp** slider or use the numeric entry. Note that not every value of colour temperature is able to be set due to the finite resolution of the DALI messages.

The level can be set using the **Level** slider.

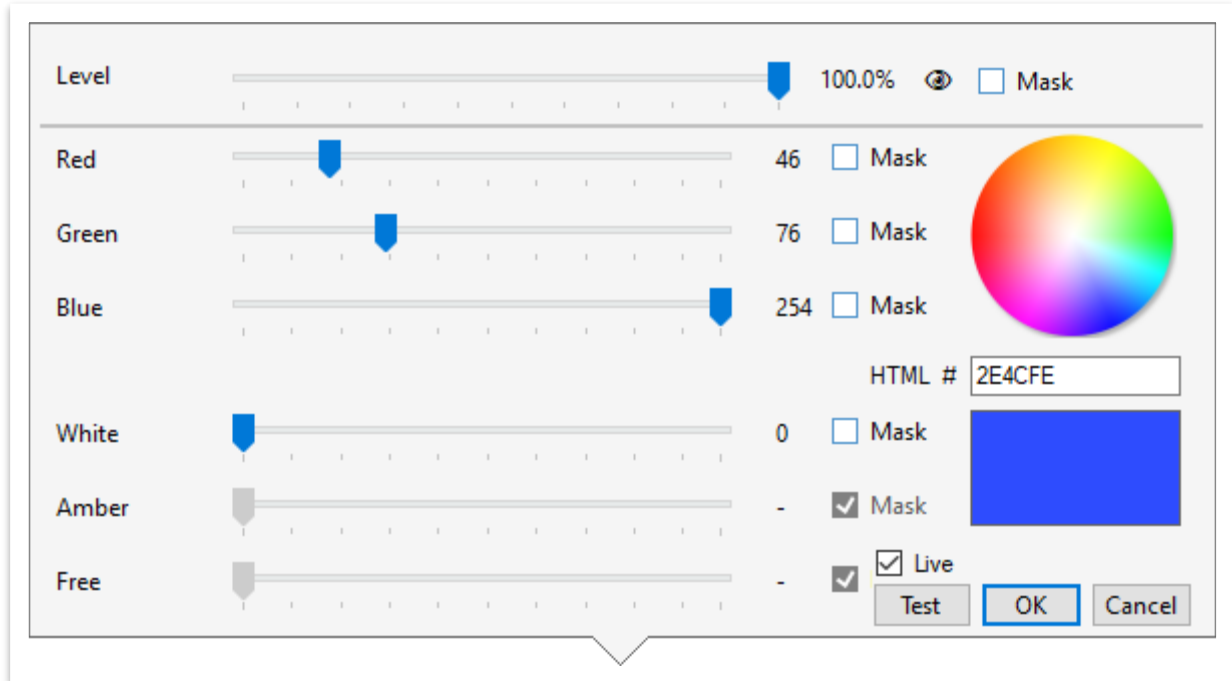
If either the level or colour is not applicable, then select the appropriate **Mask** check box.

If the "**Live**" check box is selected, then the colour will change real-time as the sliders are adjusted. Alternatively, click on the **Test** button to set the live colour.

When finished, either click on **OK**, or click anywhere off the form.

2.2 RGB / RGBWAF

When editing an RGB(WAF) colour, the colour editor will look like this:



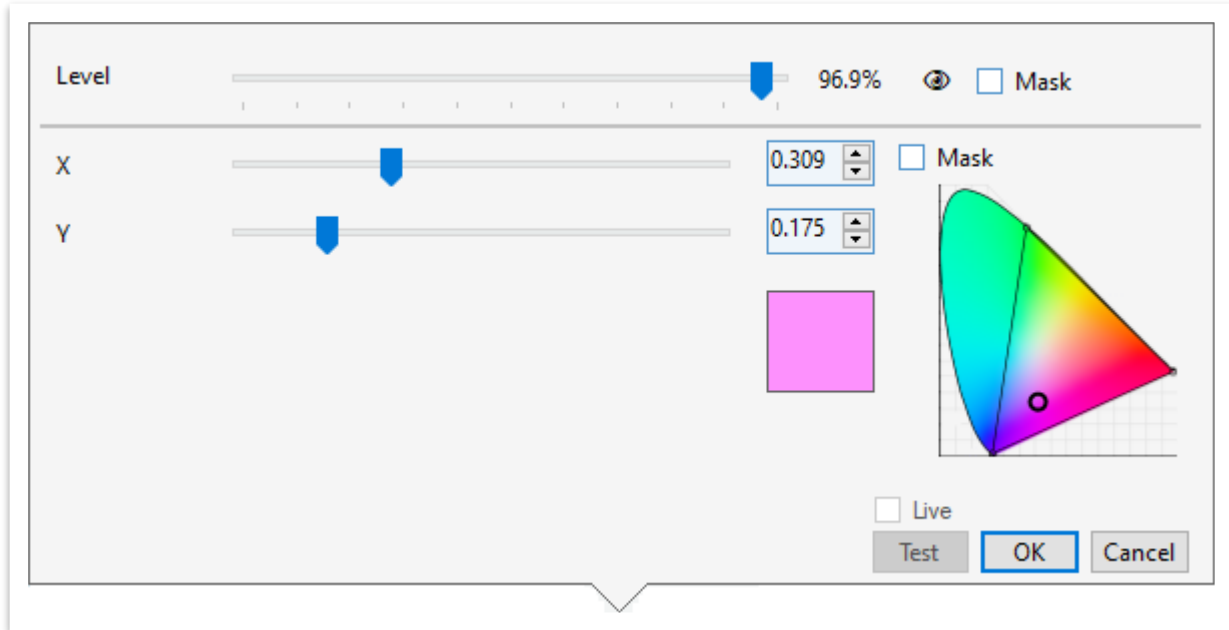
Editing an RGBW Colour

The colour can be selected:

- Using the sliders; or
- Clicking on the colour selector image; or
- Entering an HTML colour code

2.3 XY

When editing an XY colour, the colour editor will look like this:



Editing an XY Colour

The colour can be selected:

- Using the sliders; or
- Clicking on the colour selector image; or
- Entering numbers in the numeric editors.

3 Using Colours

3.1 DALI Scenes

When a DALI Scene is "set", a DALI Type 8 device can respond by changing the output level and/or colour:

- Level
 - a) Fade to a specific level; or
 - b) Not change (aka "Mask")
- Colour
 - a) Fade to a specific colour; or
 - b) Not change (aka "Mask")

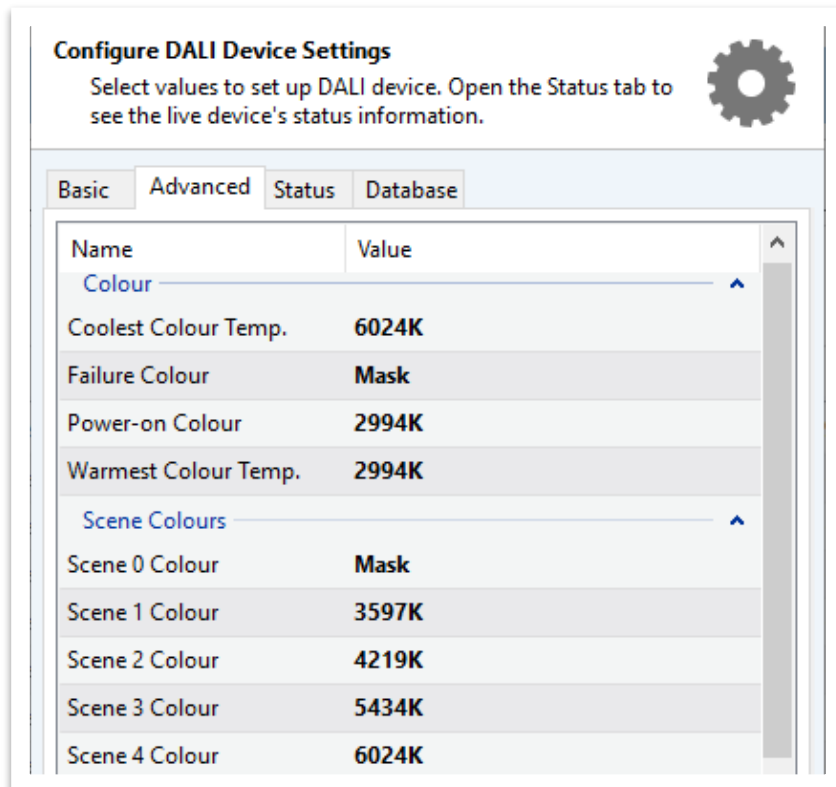
In the RAPIX system, DALI Scenes (and therefore colour) can be set from:

- Wall Switches & Dials (using Xi Device templates)
- Movement Sensors (using Xi Device templates)
- Light Level Sensors (using Xi Device templates)
- Dry Contacts (using Xi Device templates)
- Schedules
- Third-party interface (for example, the EisBär software)

3.1.1 DALI Device Settings

When the properties of a DALI Type 8 device are edited, the Advanced tab will allow the editing of the device colour properties, including:

- Power-on colour
- Failure colour
- Colour temperature limits (warmest and coolest)
- Scene Colours



Configure DALI Device Settings
Select values to set up DALI device. Open the Status tab to see the live device's status information.

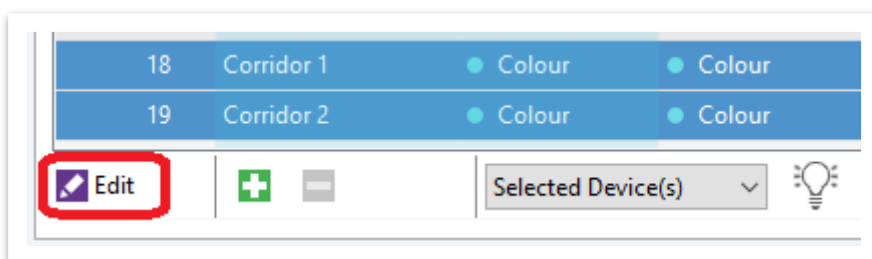
Basic | **Advanced** | Status | Database

Name	Value
Colour	
Coolest Colour Temp.	6024K
Failure Colour	Mask
Power-on Colour	2994K
Warmest Colour Temp.	2994K
Scene Colours	
Scene 0 Colour	Mask
Scene 1 Colour	3597K
Scene 2 Colour	4219K
Scene 3 Colour	5434K
Scene 4 Colour	6024K


The DALI Device Settings form for a DALI Type 8 device

To edit the colour of a DALI Scene, click on the "value" column and the colour editor will appear.

It is possible to edit the colours of more than one device at a time by selecting the required devices, then clicking on the **Edit** button.



18	Corridor 1	● Colour	● Colour
19	Corridor 2	● Colour	● Colour

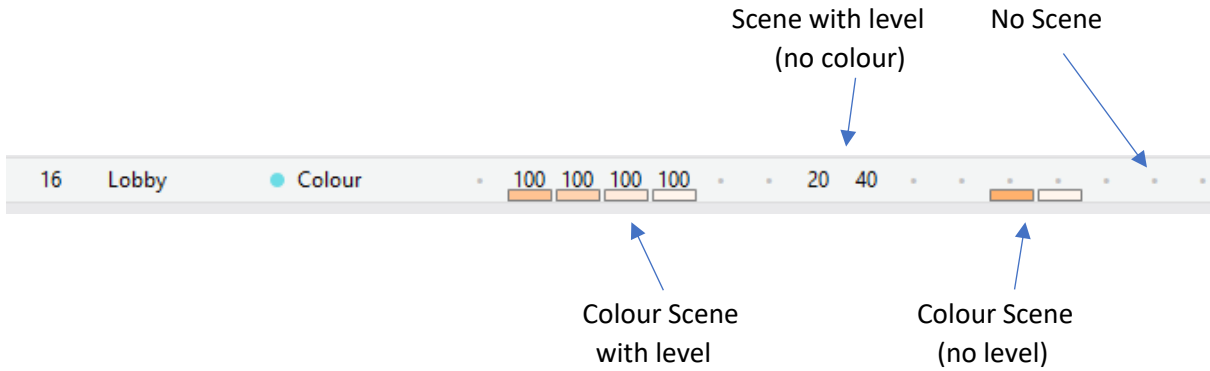
Edit + - Selected Device(s) 

Editing Multiple DALI Type 8 Devices

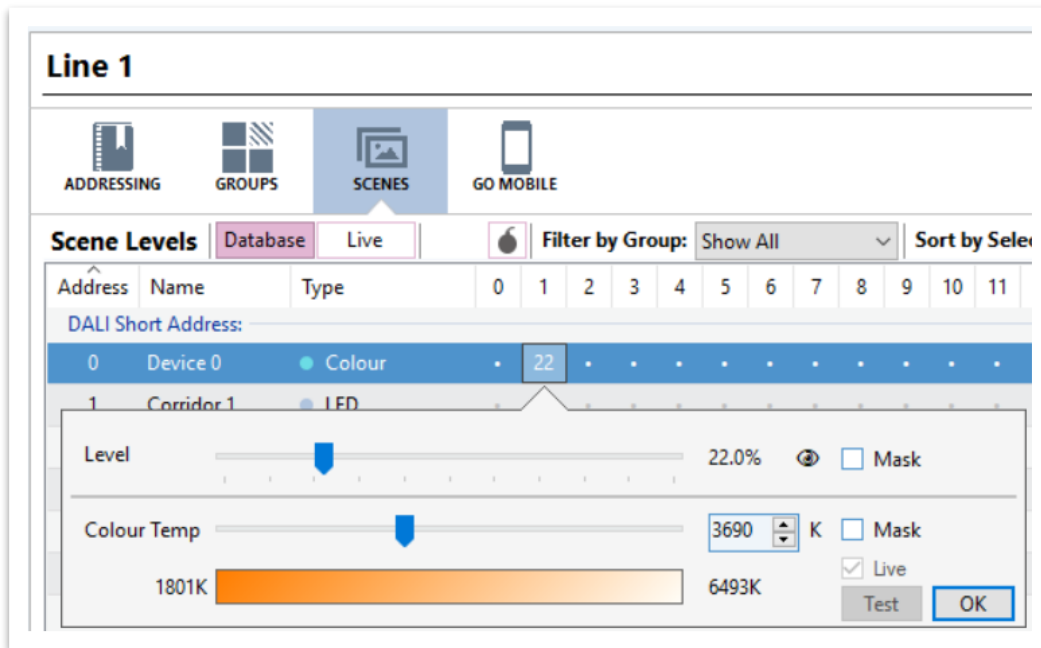
If editing multiple DALI Type 8 devices, it is important to ensure that only devices supporting the same colour options are selected.

3.1.2 DALI Scene Tab

The scene grid cells show the presence of a colour scene:



To edit a DALI scene level or colour for a DALI Type 8 device, click on the cell to pop-up the colour editor:

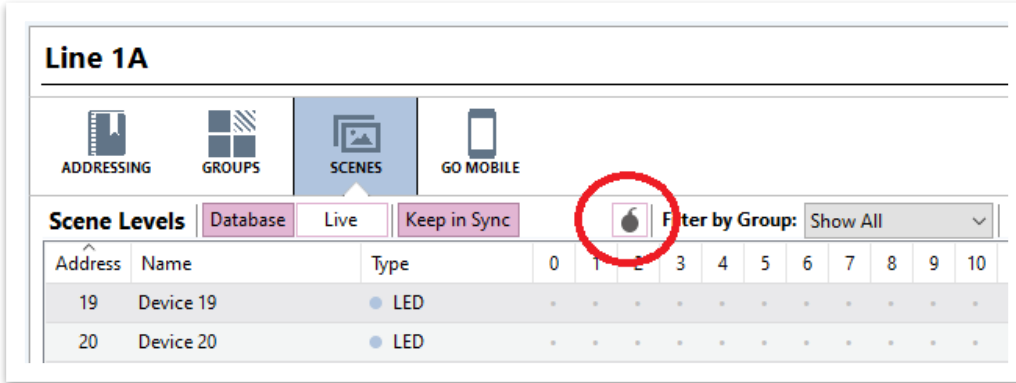


Editing a Scene in the DALI Scene Editor

The Scene colour and/or level can be edited as described previously.

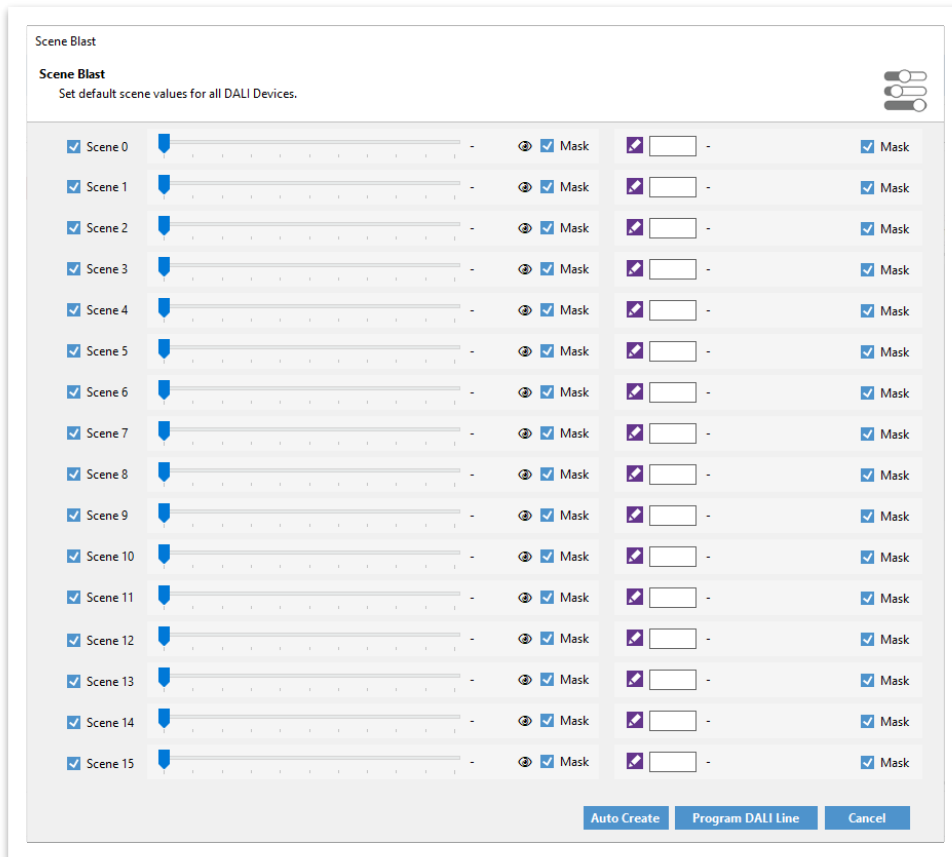
3.1.3 Colour Scene "Blast"

The Scene Blast feature can also be used to set DALI scene colours in all devices on a DALI Line at once. To open the Scene Blast form, click on the Scene Blast button on the DALI Scene tab:



The DALI Scene Blast button

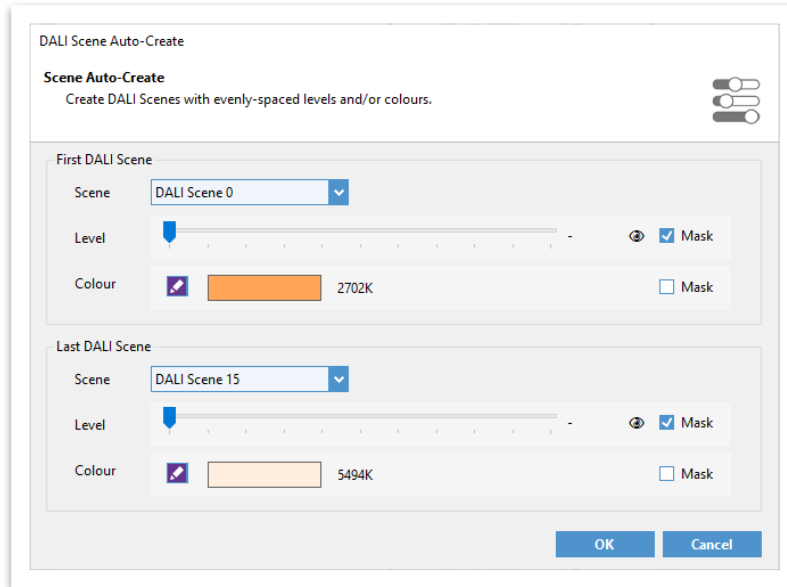
The Scene Blast form will be shown:



The DALI Scene Blast form

The DALI Scene levels and colours can be selected. Clicking on the **Program DALI Line** button will save the selected DALI Scene settings to the devices.

If a pattern of levels and/or colours is required, the Auto Create function will greatly speed the process. To use this, click on the **Auto Create** button on the Scene Blast form. The Auto-Create form will be shown:



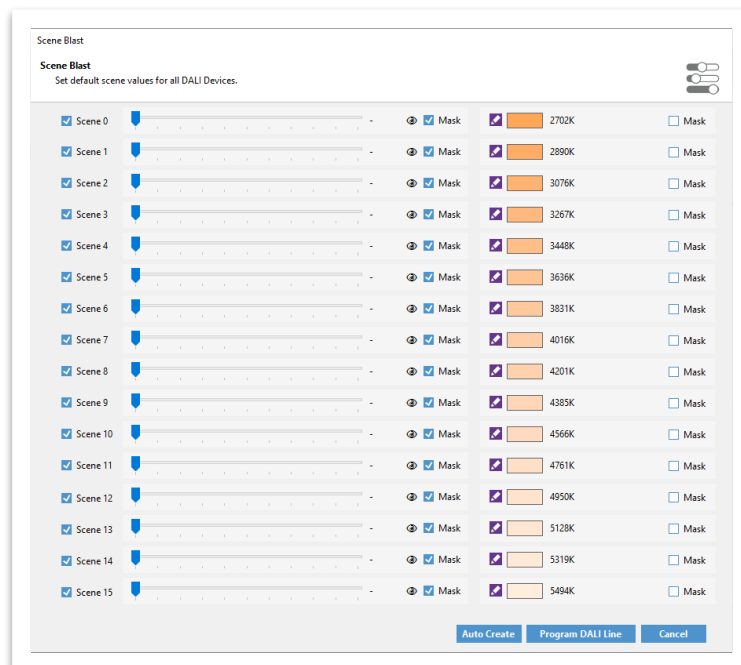
The dialog box is titled "DALI Scene Auto-Create" and contains the following elements:

- Scene Auto-Create**: Create DALI Scenes with evenly-spaced levels and/or colours.
- First DALI Scene**:
 - Scene: DALI Scene 0
 - Level: Slider set to "Mask" (checked)
 - Colour: 2702K (checked)
- Last DALI Scene**:
 - Scene: DALI Scene 15
 - Level: Slider set to "Mask" (checked)
 - Colour: 5494K (checked)
- Buttons: OK, Cancel

The Scene Auto-Create form

Select the range of DALI Scenes and the range of levels and/or colours. Click the **OK** button when complete.

The example shown above will set all DALI Scenes to level "Mask" (i.e. the level will not change) and colour temperatures from 2700K to 5500K:



The dialog box is titled "Scene Blast" and contains the following elements:

- Scene Blast**: Set default scene values for all DALI Devices.
- Table of 16 scenes (Scene 0 to Scene 15):

Scene	Level	Colour
Scene 0	Mask	2702K
Scene 1	Mask	2890K
Scene 2	Mask	3076K
Scene 3	Mask	3267K
Scene 4	Mask	3448K
Scene 5	Mask	3636K
Scene 6	Mask	3821K
Scene 7	Mask	4016K
Scene 8	Mask	4201K
Scene 9	Mask	4385K
Scene 10	Mask	4566K
Scene 11	Mask	4761K
Scene 12	Mask	4950K
Scene 13	Mask	5128K
Scene 14	Mask	5319K
Scene 15	Mask	5494K
- Buttons: Auto Create, Program DALI Line, Cancel

The example DALI Scene Blast form

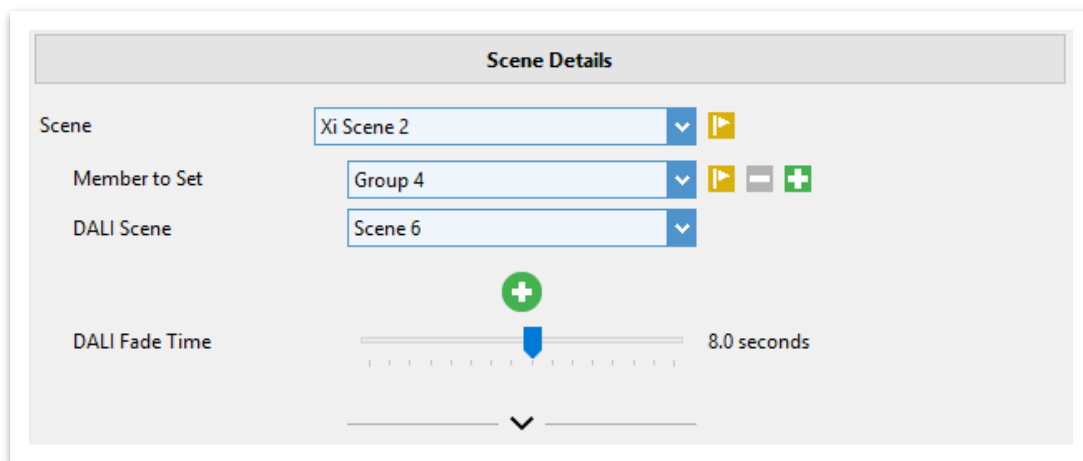
3.2 Using Colour DALI Scenes with Xi Devices

Applicable Xi Devices include: eHub, Xi Sensor, Xi Universal Input.

To use Colour DALI Scenes in an Xi Device, the first step is to configure the required DALI Scene Colours for each device (as described above).

The scene can then be set from an Xi Device Button as follows:

1. Open the Xi Device editor;
2. Select the button or dry contact that is to be used to set the scene;
3. Add the "**Scene Control (New Local DALI Scene)**" template;
4. Select the scene members, DALI Scene and fade time:



Creating an Xi Scene in a template

5. Click on **OK** when complete;
6. Save the changes to the Xi Device.

To select a colour using a RAPIX dial, use the Scene Cycle (Local DALI Scenes) template. Up to 16 DALI scenes can be selected. If they are colour scenes with level "Mask" (as shown in the previous example), then rotating the dial will change the selected devices' colour without changing the level.

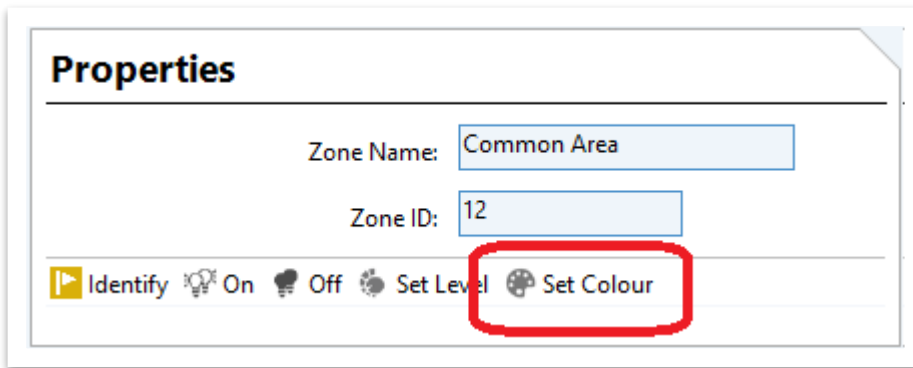
3.3 Colour Control with a Zone Controller

RAPIX Zones can be set to a colour directly when using a Zone Controller. This will set all DALI Type 8 devices within the Zone to the selected colour.

RAPIX Zone colours can be set using:

- Live control (for testing - see below)
- XI Scenes (see below)
- Schedules (see below)

The live colour of a Zone can be set from RAPIX Integrator by selecting the Zone, then clicking on the **Set Colour** button.



3.3.1 Colour Xi Scenes

A Zone Controller Xi Scene contains a list of DALI Addresses and/or Zones, each with:

- A level to be set
- A colour to be set
- A fade-time

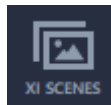
An Xi Scene can be set by the Zone Controller with:

- Live Control (for testing – see below)
- Schedules (see below)
- Third-party interface (for example, the EisBär software)
- Trigger from an Xi Device
 - Wall Switches & Dials (using templates)
 - Movement Sensors (using templates)
 - Light Level Sensors (using templates)
 - Dry Contacts (using templates)

Creating a Colour Xi Scene

Creating a Colour Xi Scene is the same as creating a normal Xi Scene:

1. Click the Xi Scenes button on the left column of RAPIX Integrator



2. Click the Add button



3. Enter a name for the Xi Scene
4. Click on the **Add** button in the Members panel
5. Select the member
6. Click on the Set Colour check box

7. Click on the edit button to select the Colour:

Member to Add


Level-based Zone
Add a level-based zone to be controlled by this Xi Scene.

DALI Line Broadcast
Add an entire DALI line to be controlled by this Xi Scene.


DALI Group Address
Add a specified DALI group address to be controlled by this Xi Scene.

DALI Short Address
Add a specified DALI short address to be controlled by this Xi Scene.

Select the target DALI level or DALI scene:

Target DALI Level: 100.0% 

DALI Scene:

Set Colour  2770K

Select the DALI fade time:

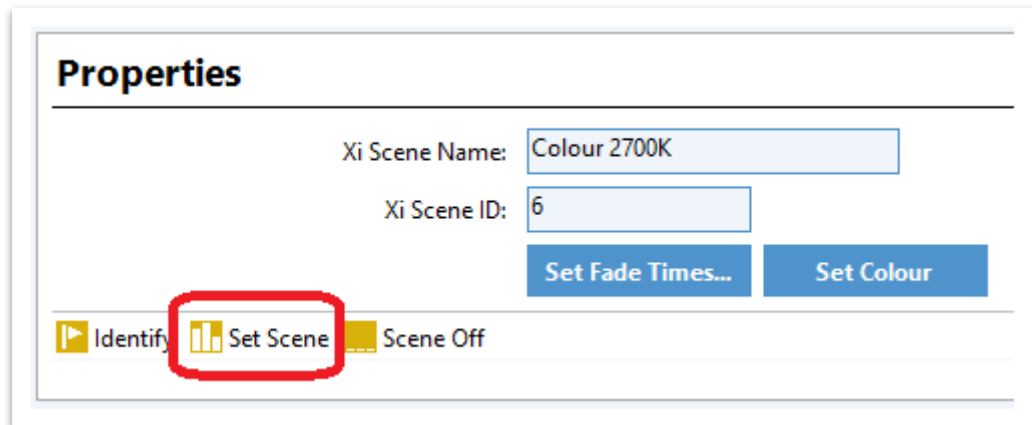
DALI Fade Time:

Creating a colour Xi Scene in the Scene Editor

8. Select the fade time
9. Click the > button to add the member to the Xi Scene
10. Click the **Close** button when complete.

Live Control (Testing)

Once a colour scene has been created, it can be tested by clicking on the button on the **Set Scene** button on the Xi Scenes tab:



The Set Scene button

Using a Colour Xi Scene

A Colour Xi Scene can be used the same way as any other Xi Scene.

- Xi Device Templates
 - Wall Switches
 - Dials
 - Movement Sensors
 - Light Level Sensors
 - Dry Contacts
- Schedules
- Third-party interface

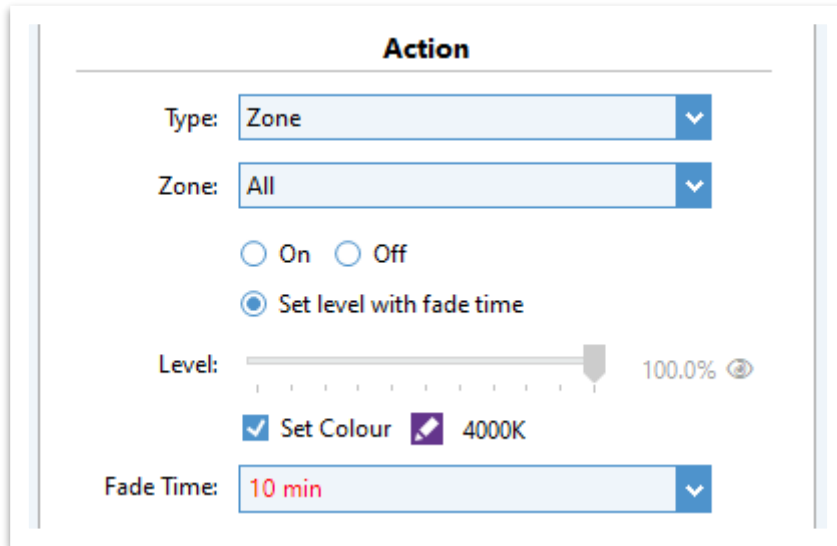
Refer to RAPIX Integrator training materials for details of using templates.

3.3.2 Schedules

A schedule contains a list of events, each with:

- A date and time
- An action:
 - Setting a Zone to a level and/or colour
 - Setting an Xi Scene (including a colour scene)
 - Others (not related to this discussion)

The schedule action can set a Zone colour or slowly fade a Zone to a new colour over a selectable period. By default, the action will only set the Zone level. To set the colour, select the **Set Colour** check box, then click on the colour edit button to select the required colour.

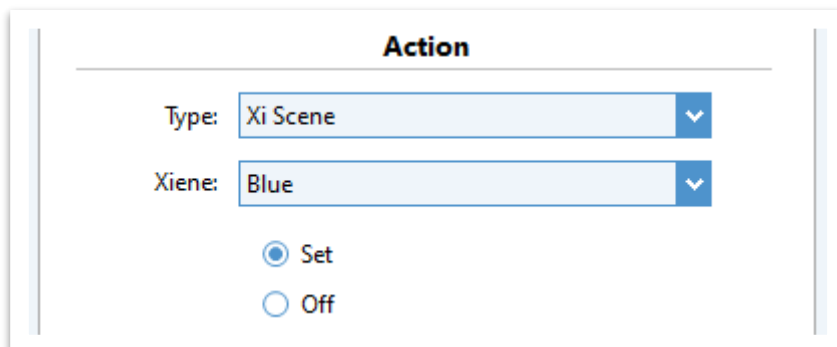


The screenshot shows the 'Action' configuration window. It includes the following fields and options:

- Type:** Zone
- Zone:** All
- On Off
- Set level with fade time
- Level:** A slider set to 100.0% with a refresh icon.
- Set Colour 4000K
- Fade Time:** 10 min

Schedule setting a Zone to a colour

Alternatively, a schedule can set a colour Scene. To do this, create the colour scene as described previously, then select the scene in the action of the schedule editor.



The screenshot shows the 'Action' configuration window for setting a colour Xi Scene. It includes the following fields and options:

- Type:** Xi Scene
- Xi Scene:** Blue
- Set
- Off

Schedule setting a colour Xi Scene

Change History

Rev	Date	Updated By	Comment
1	11 Oct 2019	D. S.	First Release
2	19 Mar 2020	D. S.	Added details of Scene Blast and Scene Cycle template.
3	23 Mar 2020	D. S.	Incorporated review comments.

Contact Information

Web www.ozuno.com
All Enquiries +61 8 8362 7584 sales@ozuno.com

Ozuno Trading Pty Ltd

ABN: 96 621 194 483
4/115 Payneham Rd
St Peters SA 5069
Australia

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APN-RAPIX-010-01 March 2020