NICOLAUDIE ARCHITECTURAL

ESA PRO2

ESA Pro Version 2.5

User Manual

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Introduction

Welcome to ESA Pro 2.5, the latest update to the powerful DMX programming software from Nicolaudie Architectural. In this guide we'll cover everything you need to know to get to grips with the software and begin creating stunning lighting displays.

You can find the ESA Pro 2.5 Quick start guide by following the link below:
https://eu-litterature.n-g.co/Release/esapro_2_qs_en.pdf

What's In The Box?

Your package should include the following:

- USB DMX Interface
- USB Cable
- Technical Datasheet
- Power Supply (optional accessory)

The latest versions of our software and manuals can be found by following the link below to the Nicolaudie Architectural 'Downloads' page:
https://www.nicolaudie.com/download.htm

Note: When downloading the latest software it is recommended to check you have the latest firmware using the included Hardware Manager app.

Minimum System Requirements

- Microsoft Windows 10 & 11 (64 bit)
- Mac OS Catalina and newer
- 4Gb ram, 1GB free hard disk space, 1680x1500 minimum display resolution
- OpenGL 3.2 minimum for Easy View 2 3D Visualizer

Limitations

For DMX controllers with internal flash memory, it is possible to run out of available memory when writing a standalone show to the device. This does not affect devices using SD or MicroSD memory cards.

Internal Flash Memory (affected devices):

STICK-CW4, STICK-GU2, STICK-GA2, SLESA-U9, SLESA-U8
SLESA-U10, DINA DR Micro

To reduce memory use:

- Use scene compression. This reduces the number of steps.
- Use dynamic scenes sparingly
- Use fewer DMX channels, if possible]
- Keep the number of scenes to a minimum

These controllers are based on STICK4, STICK5, STICK2C, STICK2B, SIUDI-9S, SIUDI-8A, SIUDI-10A and SUSHI-1A hardware.

SD/MicroSD Memory:

SLESA-U11, DINA DR2, DINA DR1, DINA SR1, STICK-KE2, STICK-DE3, SLESA-UE7

These controllers are based on SIUDI-11A, DINA2A, DINA1A, STICK1C, STICK3, SIUDI-7B hardware.

Included Software

The following software is included:
ESA Pro 2.5 - Lighting programming software
EasyView 2 - Real-time 3D visualizer

Hardware Manager - Device configuration tool
DALI Manager - Commission and configure DALI Gears
Maintenance Tool - used to uninstall the software

Fixture Profiles

To program your lights or fixtures, ESA Pro 2.5 needs to understand the DMX channels and functions (presets) that make up each DMX channel. The more accurate the fixture profile, the easier it will be to program your lighting. DMX channels and other information is stored in 'Fixture Profiles' which have the .ssl2 file extension. Generic architectural lights, such as mono (single dimmer), RGB, RGBW and LED pixel tape are now easily accessible in the **Add Lights** panel.

For more complex lights, you can search for a suitable profile in our database of over 20,000 fixtures by brand and fixture model name. These fixtures are located within the ESA Pro2\ScanLibrary folder. You can also search the database online at two locations:
https://store.nicolaudie.com/ssl
https://cloud.nicolaudiegroup.com/#/profiles

"What if a profile does not exist?"
If you have a fixture that does not exist in our database, you can create a New Fixture Request to have a profile built for you by our dedicated team. Visit the page below to create a new profile request:
https://store.nicolaudie.com/en/ssl

Useful Definitions

Standalone Mode: A controller operating on its own without a connection to the computer.

Live Mode: A live connection between the controller and computer for programming and dmx output. This is useful for testing effects before writing to the controller. A controller is in Live Mode when set to 'Active' in ESA Pro 2.5.

NSA Device: Devices with the *New StandAlone* engine which includes advanced triggers known as TCA (Trigger Condition Action). These include SLESA-U11 (SIUDI-11A), DINA DR1 and DR1 LITE (DINA1A), DINA DR2 and DR2 LITE (DINA2A) and DINA SR1 (SRACK1). Other SIUDI11 devices exist which can be upgraded to use ESA Pro 2.5.

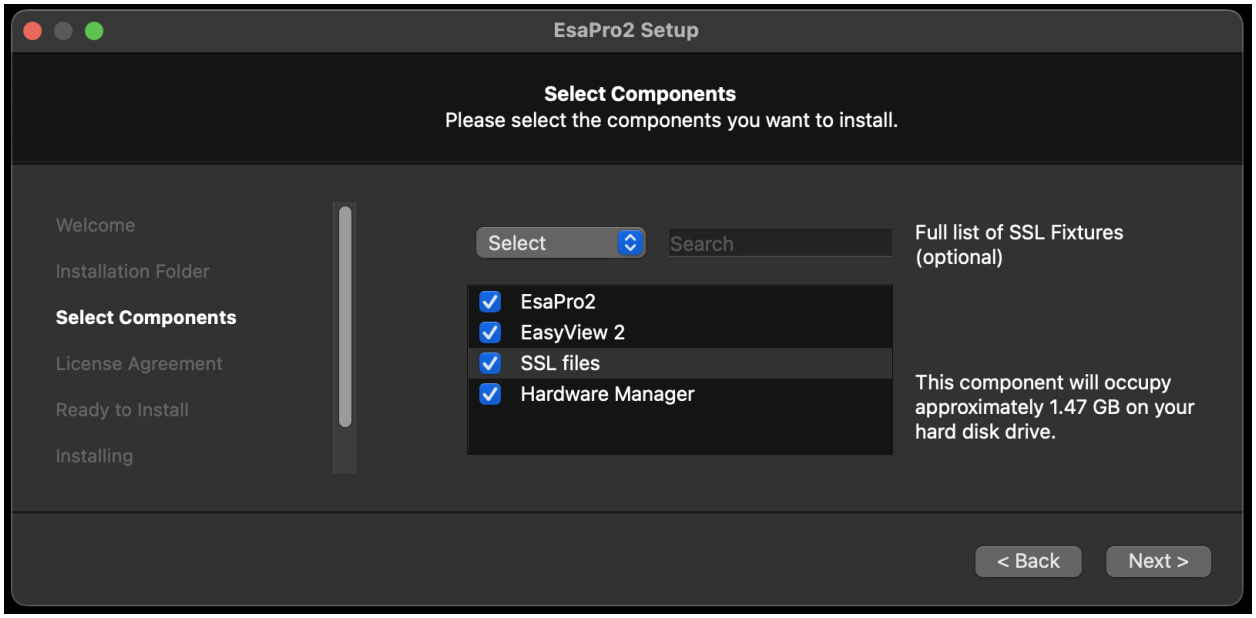
Non-NSA Device: all other lighting control devices from Nicolaudie Group. These use standard calendar triggers for date/time and ports.

Installation

To begin you'll need to visit our website so you can download the latest version of ESA Pro 2.5. Please visit the link below:
https://www.nicolaudie.com/en/esapro2.htm

Note: Versions of ESA Pro 2.0 & ESA Pro 2.5 are listed on the website. Please download ESA Pro 2.5 to work with this User Manual.

During the installation process you'll be asked which auxiliary software packages you would like to install. To get the most out of ESA Pro 2.5 you should install all of the software.



Note: Windows systems may run a second device driver installation(SIUDI Drivers). Once you see a message on the taskbar to say that the driver has been installed, you are ready to start the ESA Pro 2.5 software.

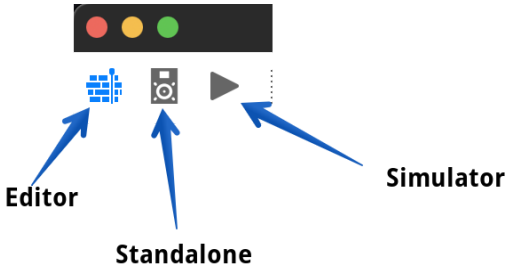
ESA2 Compatibility

ESA Pro 2.5 compatible with .dlm show files generated by ESA2. You can open .dlm files just as you would open an ESA Pro 2 showfile (.arc2). This will import the scenes from that file into ESA Pro 2 and set them up as DMX sequences so you can continue editing them. You can learn more about programming DMX sequences later in the manual.

Note: 1) Time & port triggers are not imported with .dlm files, these will need to be recreated. 2) It's not possible to convert ESA Pro 2 .arc2 files to ESA2 .dlm files or import .arc2 files into ESA2.

Navigating ESA Pro 2.5

ESA Pro 2.5 is divided over three pages; **Editor**, **Standalone & Simulator**. You can switch between the pages by using the selector (pictured below) in the top left corner of the software.



We're first going to begin by looking at the **Editor** page.

File Import & Export

ESA Pro 2.5 includes standard *File Open, Save, Save As* options but also *File Import* and *Export*. What's the difference?

- File Open / Save / Save as - opens and saves an .arc2 profile file which does not include any extra media files like images, audio, dmx (.drec) etc in the file itself. Instead, it stores links to these on your local computer. This can cause a problem if you want to send your project to another person or computer where the files don't exist or are in different folders.
- Import / Export - this will open and save an .arcx archive file which contains both the project file and media files such as images, audio, dmx etc. The arcx file is easier to transfer to another computer.

Note: If you import an .arcx file and then save as an arc2 file, the software will export your media files into subfolders.

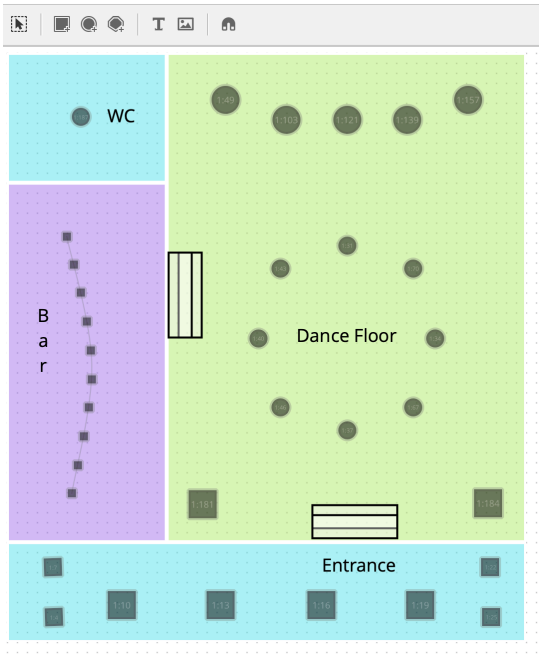
Editor

The **Editor** page is divided into five sections accessible by tabs; **Canvas, Builder, Selections, Mappings** and **DALI.**

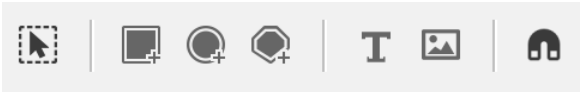
We'll begin in the Canvas tab.

Canvas

Canvas allows you to add design elements to your grid - shapes, images and text labels on 3 layers. For example, you could add a floorplan diagram and set it to the background later and then add labels, images and shapes on top to illustrate your lighting design.

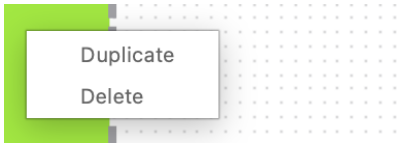


The canvas tool bar contains the following tools (left to right).

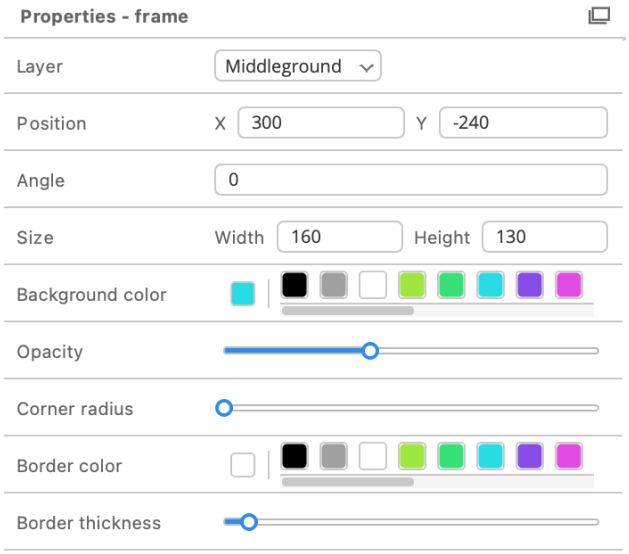


1. Selection - select, move and resize existing elements. Select corner points to make adjustments to an object or click and drag it to move.
2. Draw a rectangle - Click and drag to create a shape.
3. Draw a Circle - As above.
4. Draw a Polygon - Click to create points to form your shape. You must close the shape for it to be valid. Press Esc to cancel making a shape.
5. Add a text Label - Adds a Text label in the middle of your workspace.
6. Add an image - opens window allowing you to import an image
7. Snap - elements will snap to the grid allowing you to line them up with each other more easily

To duplicate or delete an object, use the right click menu.



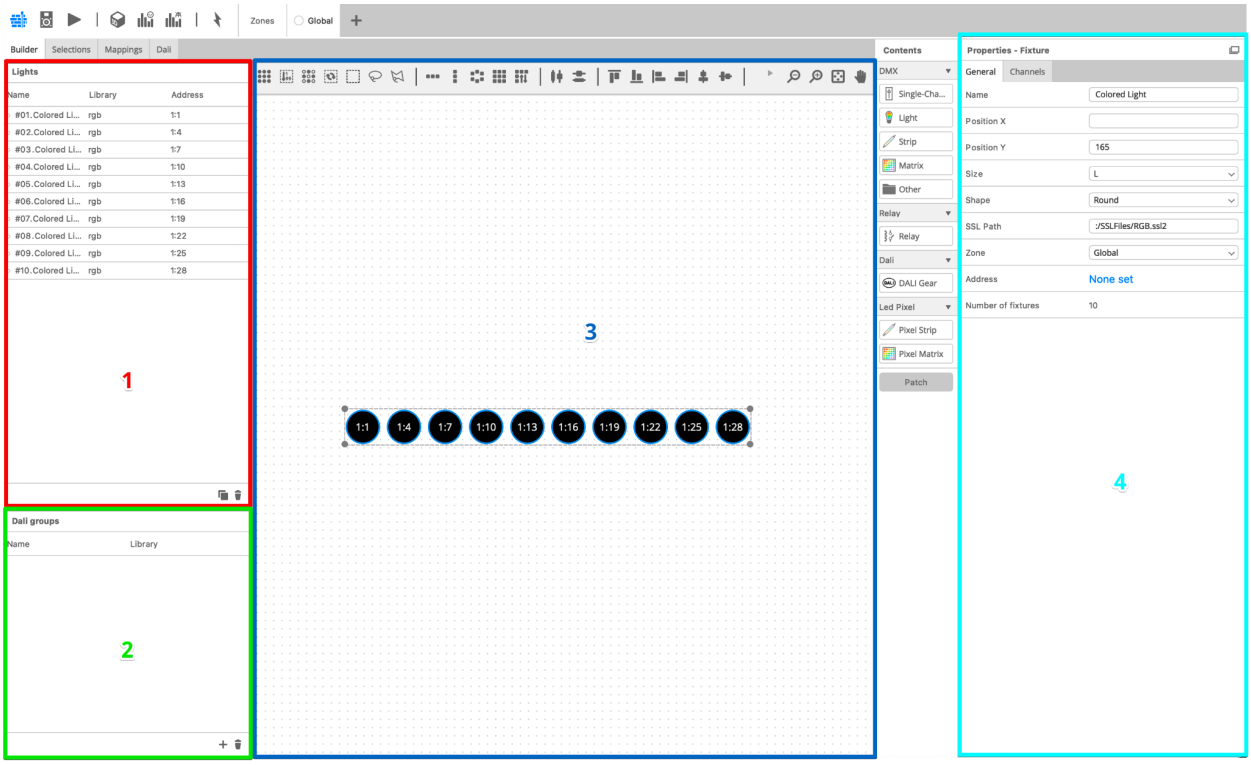
Each object on the Canvas screen has properties to allow you to customize it.
Example shape properties:



Using these you can change the layer, position, angle, opacity, color and border of the available objects.

Builder

The **Builder** is where fixtures are added to your project. Once added, your fixtures are displayed in a list in the top left (1) and DALI groups in the bottom left (2)You can



change how the light list (1) can be sorted by name, library or address by clicking on the header of each column .

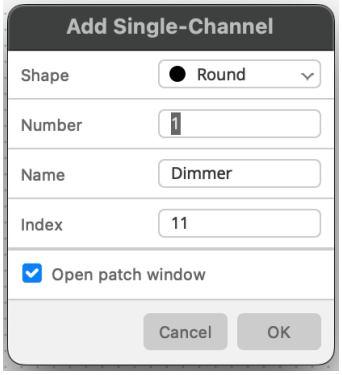
Fixtures are represented by 2D shapes in the workspace (3). Fixture properties, such as DMX address, are displayed on the right (4) when a fixture is selected.

Most architectural lights can be controlled with 4 options : Single Channel, Add Light, Strip or Matrix. For more complex fixtures, ESA Pro 2.5 comes equipped with 25,000 + profiles from some of the biggest light manufacturers in the world in the SSL fixture (accessed via the *Other* button).

Note: if your fixtures are **RDM compatible** you could import them and configure them using the RDM Manager instead of manually adding them. See section, Tools > RDM Manager nearer the end of the manual.

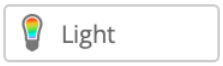
If you can't find a profile for your fixture in our database then you can always request it by following the link below:
https://store.nicolaudie.com/ssl

ESA Pro 2.5 comes equipped with several generic, simple fixtures and external devices for you to patch.

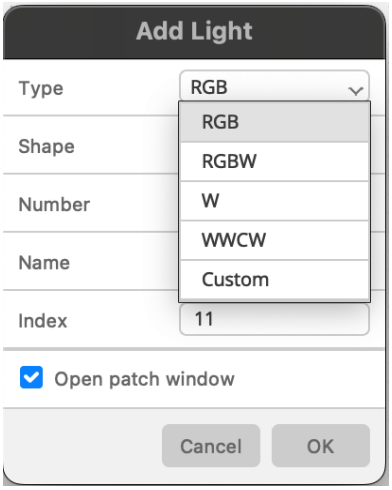


When you add any DMX fixture you will see a window that allows you to select the number, shape and in some cases, type. There's also a check box to open the patch window if you wish to assign a DMX address right away. This can be done later in the Properties panel when a fixture is selected.

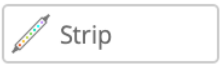
Single channel fixtures (as the name implies) are very simple and will only feature one assignable control, a Dimmer.
Note : A Single Channel fixture can be used with Basic Blocks, however, as it contains no color mixing channels it will not work with Pixel or Mapping Effects. If you need to work with these, you can patch as a **Colored Light > Custom** *and patch a single Neutral White channel.*



Colored fixtures by default will list RGB, RGBW and WWCW fixture types. Using the **Type > custom** option you can create lights containing one or more of the following channels; Red, Green, Blue, Neutral White, Warm White, Cold White, Amber and UV.



Note: The order the channels appear here reflects their channel order in the profile. The Custom profile builder is accessible across Colored, LED Strip and Matrix.

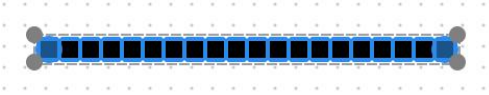


The **Strip** is designed to work with DMX addressable LED pixelstrips or tape. Select your fixture type and the number of dots. Each dot represents an LED on your strip and has a DMX address. If you're working with pixel tape that's controlled by an SPI protocol such as WS2812B (Neopixels) or APA102 (Dotstar) then you should use the **Pixel Strip** fixture type instead. You can learn more about the Led Pixel fixture types later in the manual.

Note: The LED Strip type is not suitable for controlling or visualizing analogue LED strips where all the dots share the same DMX Address given by the DMX driver.

Some pixel tape is or can be configured to control more than 1 LED per dmx address. In this case, a single dot in the software may represent 2 or more dots on your tape.

Strip also gives you some unique positioning capabilities. When you first add a Strip it will look like this:



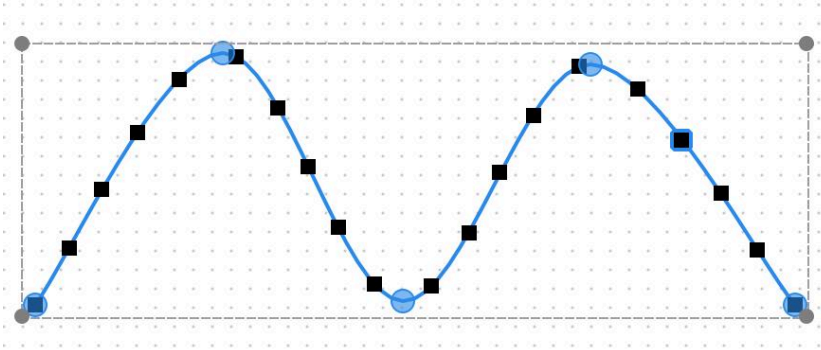
This line of Pixels can be stretched and curved however you like.

To stretch, click and drag one of the anchor points at either end. This will space out the LED's whilst keeping them equidistant from one another.

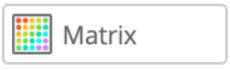
To add a curve :

1. Double click on any pixel to add another anchor point.
2. Click on a blank area on the grid to deselect all points.
3. Reselect the new point.
4. Move the point to bend the LED tape into the desired shape.
   Anchor point can be moved along the length of the LED strip.

In the example below we've created a sine wave shape with our LED Pixels using the anchor points highlighted in blue.

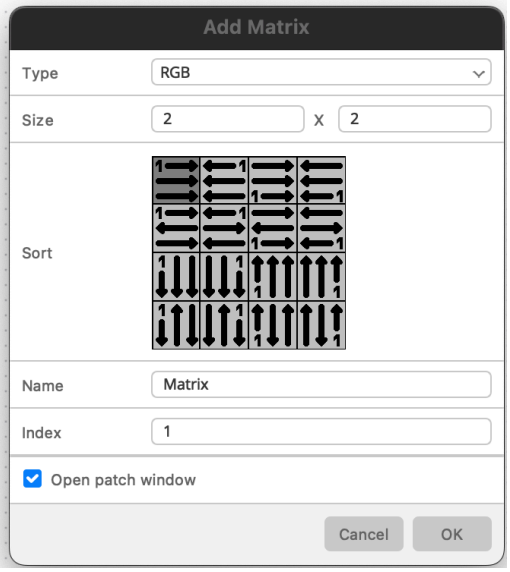


Note : Each LED strip can only occupy space within 1 universe (512 channels); it cannot span several. For example, an RGB strip is limited to 170 dots (3 channels x 170 = 510 channels). For LED strips that span several universes use Colored Lights instead and position them using the positioning tools in the grid.



The **Matrix** fixture option allows you to quickly create a matrix of coloured lights. When you select this fixture

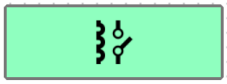
the pop up window will ask you to specify the length and width of the matrix you wish to create.
The sort options in this window allow you to set the flow of the matrix.



Note : Each Matrix can only occupy space within 1 universe (512 channels); it cannot span several. For matrices that span several universes use Colored Lights instead and either the *Auto Matrix* or *Custom Matrix* positioning tools to set the position and direction of the effect.

Relays allow you to trigger external electrical relays connected to the relay connections on the DINA DR1, DR1 LITE and DINA SR1. Once you've patched your Relay you'll need to activate the Relay Port on your controller.
To do this you should navigate to the Standalone screen and look for the 'Outputs' tab in the bottom right of the window. From here you can map the outputs of your controller. Select the 'Relay Port 1 or 2' output and select which relay you want to correspond to which output.

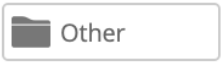
Programming Relays will be discussed later in the manual. See your controller technical datasheet for information on the physical connections.



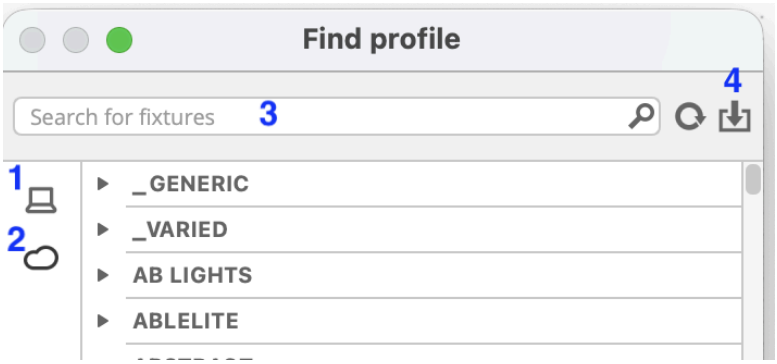
ESA Pro 2.5 includes the option to programme **DALI** control gears (fixtures).

*Note: The **DALI** fixture type is only compatible with the **DINA DR1** and **SR1** controllers.*

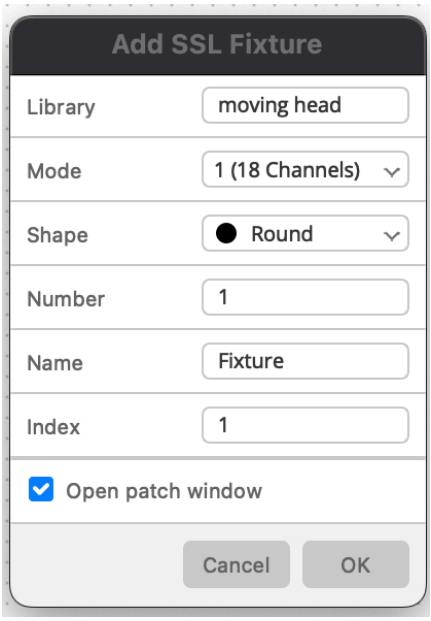
Note: The patch window that appears when patching DALI gears is completely different than the one that appears when adding DMX fixtures, this will be covered in the next section where we discuss patching and in the dedicated DALI section later in the manual



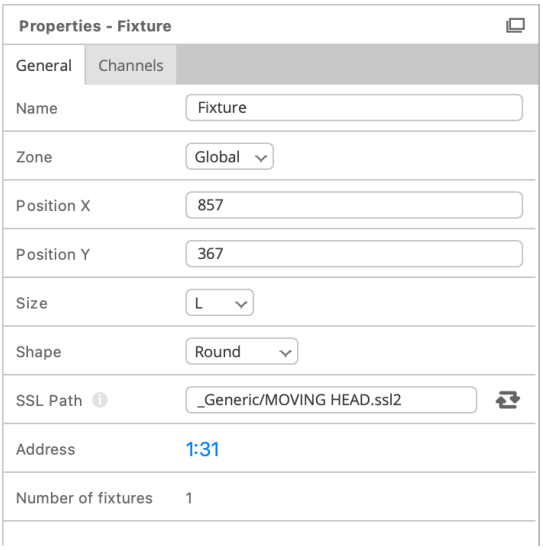
The Other icon is used to **import fixture profiles** from our fixture library. These can be located from two sources : on your computer (1) or from the Nicolaudie cloud (2) by selecting these in the left toolbar. Other than _GENERIC, you will only see profiles on your computer if you chose to install SSL files during the software installation. By default, these are not installed.



Once you have selected a fixture file, you will see this Add SSL Fixture window. Pay particular attention to the *Mode* setting which must match the mode set on your fixture for correct control. For example, the number of channels must match. If more than one mode has the same number of channels, some further investigation may be required using our online Profile Builder tool (link below) and the fixture manual to correctly match the fixture modes. https://profile.nicolaudiegroup.com/



Once added, you can view the associated information in the **Properties** menu on the right side of the screen.

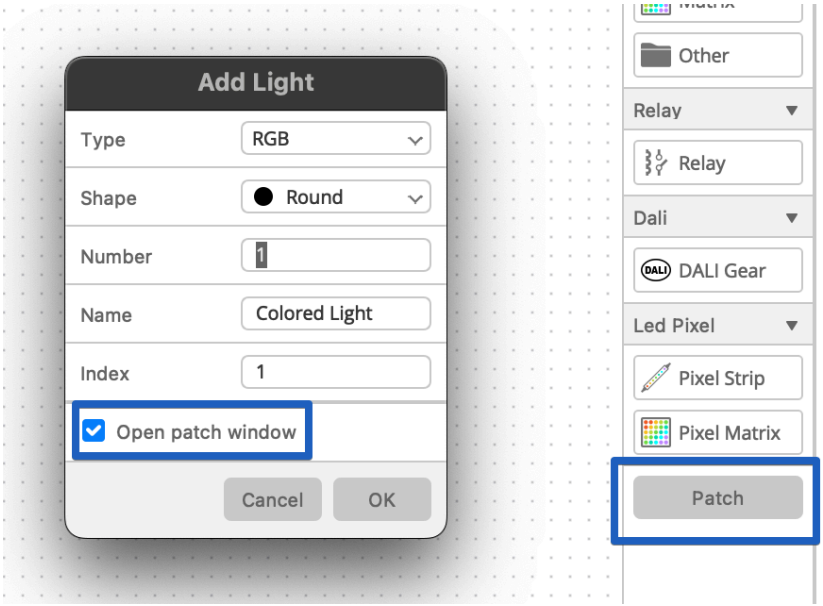


From this window you can edit fixture name, position, size, shape and address.
The **SSL Path** refers to the file path used to locate your fixture profile.

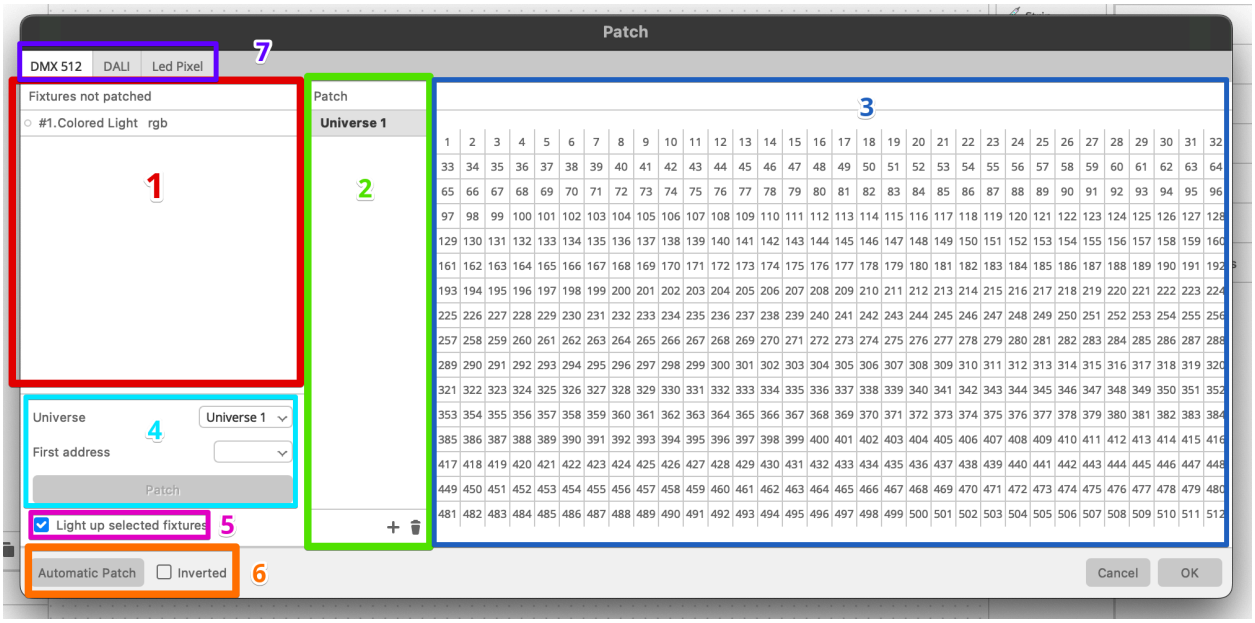
ESA Pro 2.5 introduces the **Channels** tab in Fixture properties. This allows you to view the channels within your fixture. From this window you can invert or swap Pan & Tilt parameters or enable and disable Fades on channels.

Patching Fixtures

After you've chosen which fixtures you want to import it's now time to begin patching them.
There are two ways to call up the **Patch window** in ESA Pro 2.5. The first way is to tick the **Open Patch window** option that appears in the pop up window when creating a fixture. The second is to press the **Patch** button that appears underneath the LED Pixel fixture options.



Once you patch a fixture with the box ticked or press the Patch button the Patch window will appear.



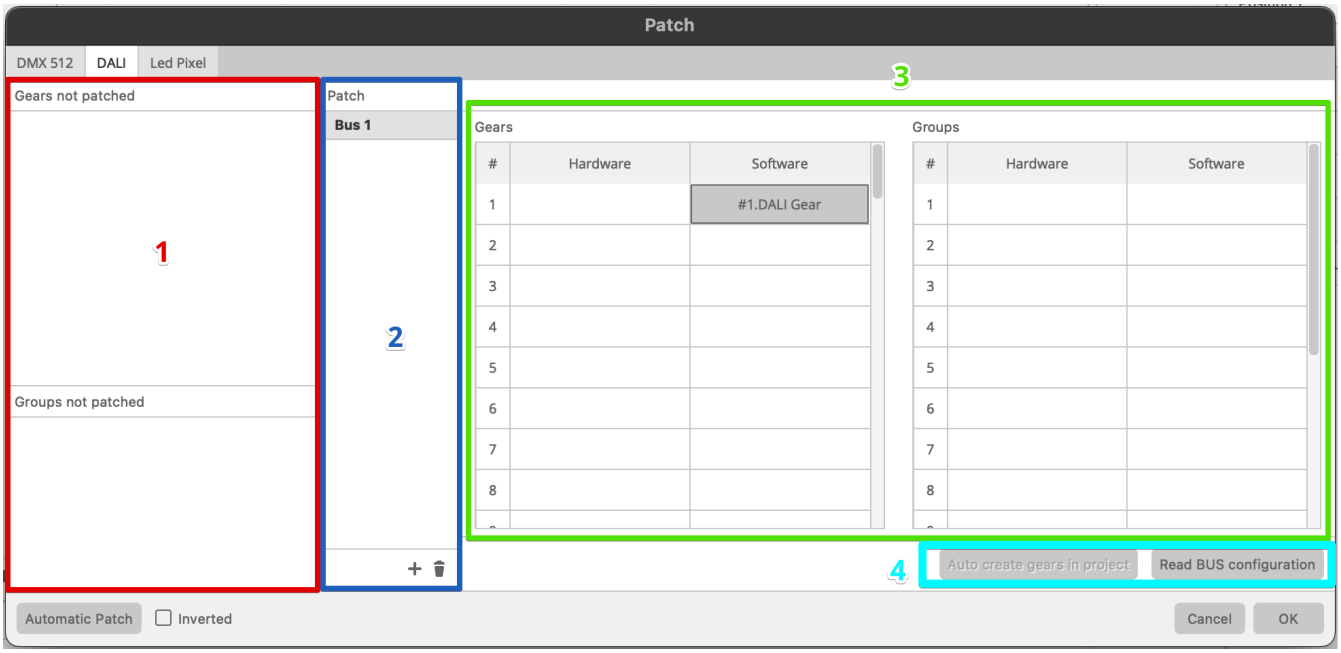
Fixtures that are waiting to be patched will appear in the **Fixtures not patched** column (1).

In the column to the right of this (2) you can see we have Universe 1 listed, if we want to add more universes to our show we can do so by pressing the **+** button at the bottom of this column, to remove universes click the bin icon, this will remove the last universe in the list.

The numbered grid (3) from 1-512 represents the DMX channels available in the currently selected universe and gives you a visual representation of what's patched.
Using the **Universe** and **First address** dropdowns (4) we can begin patching.
If you have multiple fixtures awaiting to be assigned an address you can either drag and drop the fixtures onto the channels in the universe to assign them or select the address you want to begin with and press **Patch.** Once patched you can drag a fixture to a new address if desired.
The **Light up selected fixtures** option (5) will make any fixture you currently have patched light up, this is helpful for identifying fixtures.
If you wish to patch all fixtures awaiting an address beginning with the next available channel you can press **Automatic Patch** (6). The **Inverted** check box will patch fixtures in reverse index order when ticked.
Next to the **DMX 512** tab at the top of the window you have the **DALI** tab and **LED Pixel** tab (7). Switching tabs will show you the patch windows for these alternative protocols.

Note: Your DMX controller will come with a number of DMX connections via XLR sockets, phoenix connectors or screw terminals. These may not all be enabled, depending on the model of controller. If you're unsure how many universes your device has enabled, out of the box, you can check the technical datasheet for your device, or the SUT window in Hardware Manager (compatible devices only).
You can purchase more universes for devices that are SUT compatible by following this link: https://store.nicolaudie.com/

DALI Patch Window



The **DALI** patch window bears some similarities to the DMX 512 patch tab. On the left side (1) you have Gears (fixtures) and groups (a selection of gears on the same DALI bus) that are waiting to be patched. Next to this is the column where you select which DALI bus you're looking at (2).

DALI buses function like DMX universes, each bus can control up to 64 DALI gears, you can add or remove buses using the **+** and **bin** buttons at the bottom of this column.

The **Gear** and **Group** columns (3) show you how your gears and groups are assigned, much like the universe view in the DMX 512 patch tab.

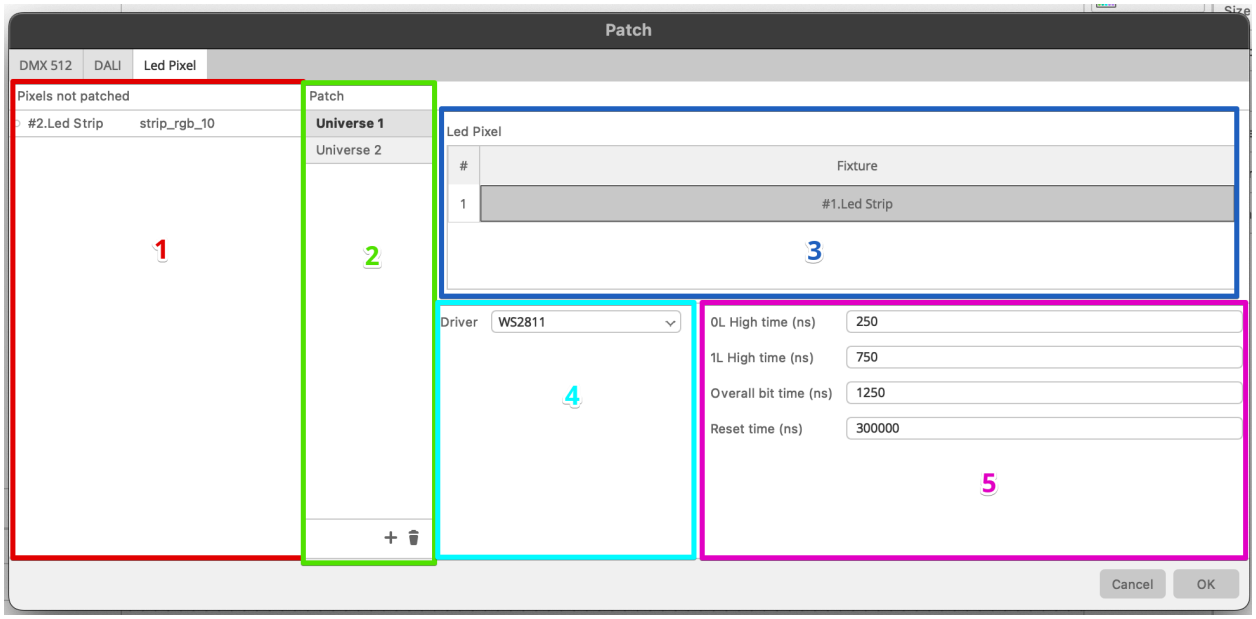
Beneath the **Group** column you have two buttons (4), **Auto create gears in project** and **Read BUS Configuration**.

The **Read BUS configuration** button will make ESA Pro 2.5 communicate with any connected DALI bus and pull the addresses of any connected gears, importing them.

*Note: For the **Read Bus Configuration** feature to work you need to commission your DALI bus in Hardware Manager. For more information on this please see the DALI section of the manual or the DALI documentation on the website.*

You can then use the **Auto create gears in project** button to have the software import these gears to the project, create the 2D icons and patch them.

LED Pixel Patch Window



The LED Pixel patch window is where you patch any LED Pixel (SPI) fixtures that will be connected to your controllers native LED Pixel outputs. The only device capable of using this feature is the DINA DR1 & DINA DR1 Lite (the DR1 LITE requires an upgrade). Like the DMX512 and DALI patch windows, unpatched fixtures will appear in the pixels not patched section on the left (1).

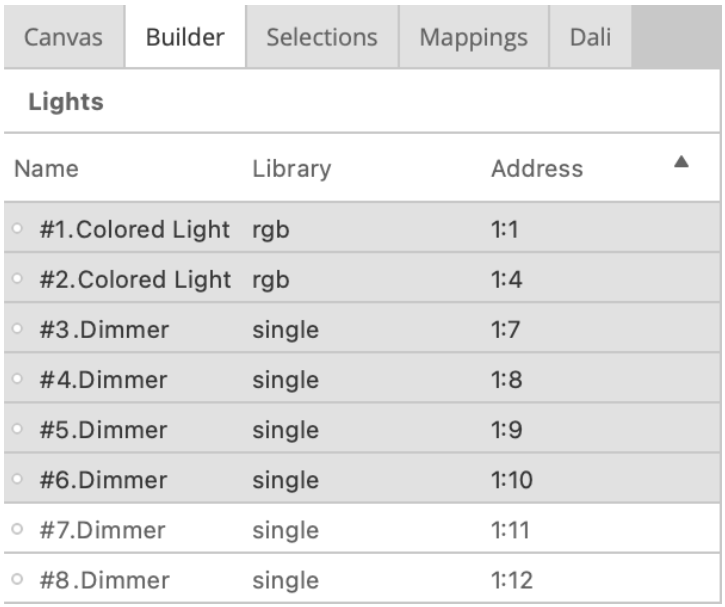
You can choose which universe you're patching in and then create or remove LED Pixel universes in the patch column (2).
Note: The DINA DR1 can control up-to 2 LED pixel universes in addition to its DMX512 and DALI outputs.

You can view the LED pixels that have already been patched in the Fixture pane (3). It's important to note you can only patch 1 LED Pixel fixture per LED Pixel output.
You can change the LED Pixel protocol for each output using the dropdown in the Driver pane (4). From here you can view compatible protocols and select the desired protocol from the dropdown. Protocol settings can be edited in the pane to the right of this (5). These settings are preset but can be edited if you wish to do so. Parameters are measured in Nanoseconds (ns).
Note: For some protocols, such as APA102, the only parameter you can change is Baudrate.

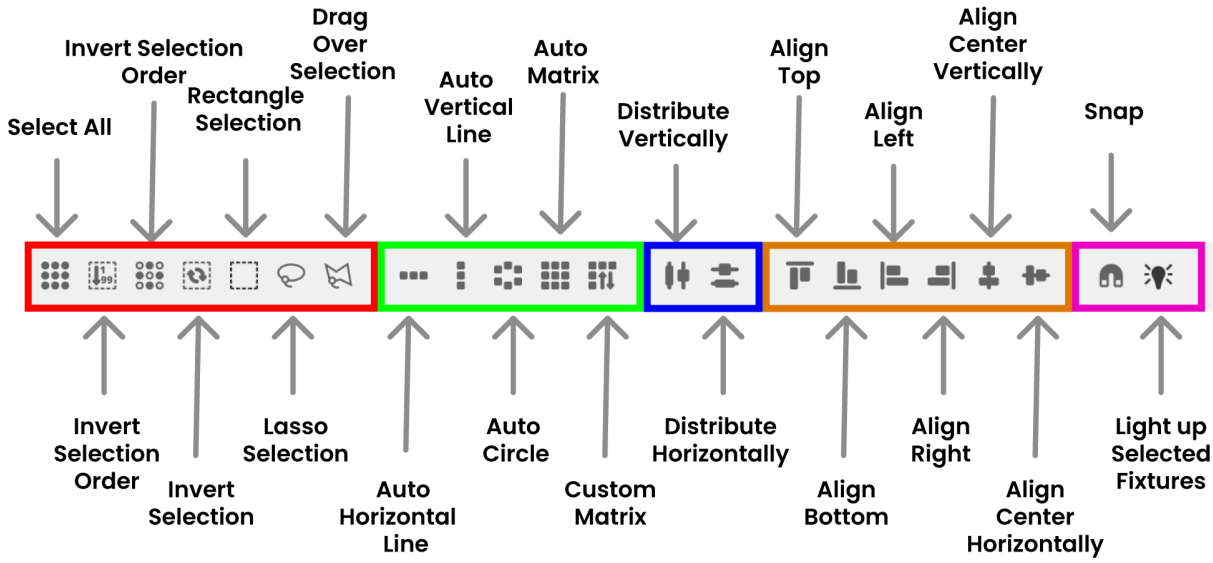
You can patch different LED Pixel protocols to each output of your device. For example Output 1 could use WS2812B pixels and Output 2 could use APA102 pixels.

Fixtures List

The left side of the Builder, Selections, Mappings and DALI tabs have a list of fixtures you've imported to the software. By clicking the header of each column you can change how they are sorted. E.g. sort by Name, Library or Address.



Now you've imported & patched your fixtures it's time to arrange them. ESA Pro 2.5 gives you several tools to help with arranging your fixtures. You can find arrangement tools in the bar at the top of the Builder screen workspace.



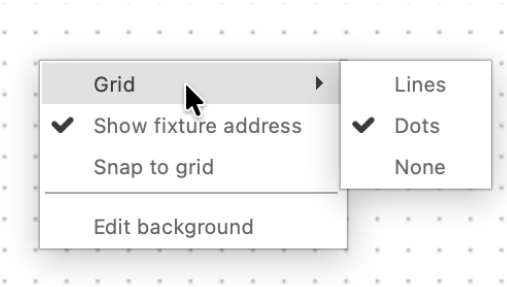
The tool bar is divided into 5 key sections, Selection tools (1), Position Tools (2), Distribution Tools (3), Alignment Tools (4), Snap tool (5) and Light up Selected Fixtures too (5). Position, distribution, alignment and the snap tools are only available in the Builder screen, Selection Tools are also available in the Selections screen.

Managing the Workspace

You can manage the workspace using the tools in the top right corner to zoom and drag your way around.

Top tip: Use the middle mouse button to move around the grid. Use CMD or CTRL + mouse scroll wheel to zoom in and out.

ESA Pro 2.5 also gives you some customization options, including how the grid appears in the workspace and whether to show fixture addresses. Edit background takes you to the Canvas screen where you can add an image and set it to the background layer.



Zones

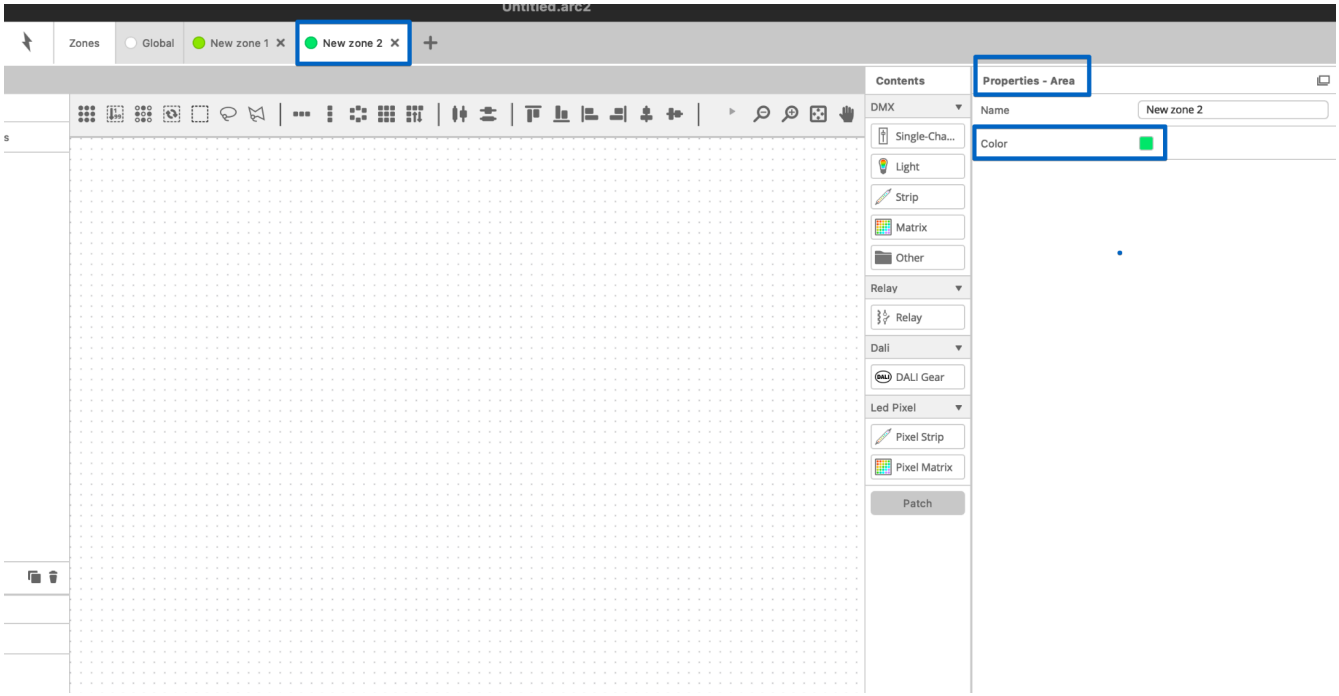
Zones allow you to group fixtures and control them independently of each other. Scenes from different zones are loaded onto different pages (A,B,C or 1,2,3 etc.) on the controller. Zones don't have to be playing the same scene, each zone can be playing a different scene. For example, these are useful for controlling different rooms in a house or different zones within a room, depending how you want to use them.

When a new project is created you are given one zone called Global which controls all of your fixtures. It is your choice if you want to use this Zone or not; you may choose to use custom zones only to control, for example, different rooms.
A fixture can be in the Global zone and one other custom zone; It cannot be in multiple custom zones.
Each Zone contains the Builder, Selections and Mappings tabs. This allows you to work only on the fixtures and scenes in each zone. Scenes created in one zone cannot play on fixtures in another.
You can find Zones along the top bar of the software.

Use the **+** and **x** buttons to add and remove zones. You can also rename your zone by double clicking on it.

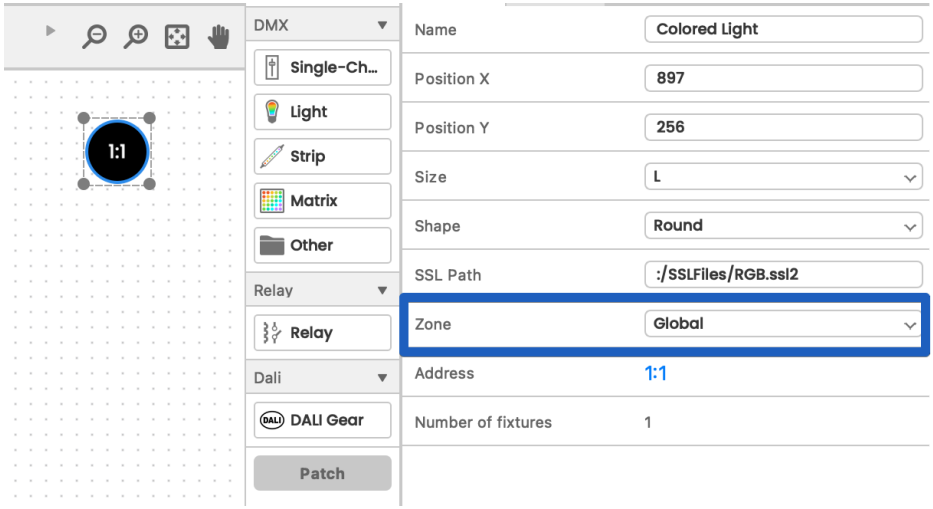
Note: Deleting a zone that contains scenes will also delete the scenes.

You can change the colour assigned to a zone by selecting it and opening the colour picker from Properties > Area

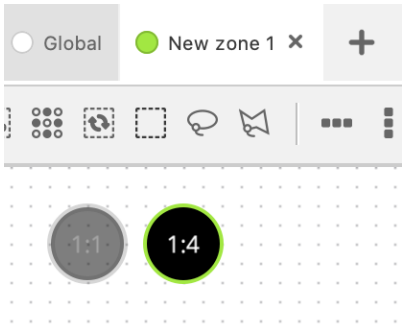


Note: Some of our interfaces have limits on how many zones they can control. If you're unsure how many zones your device can control you can find the information on the Technical Datasheet for your device. If the datasheet doesn't mention zones your controller only has a single zone.

It's possible to change which zone a fixture is in without re-patching it. Head to the **Builder** tab and select the fixture you wish to reassign. Then select the **Zone** dropdown from the **Properties** menu that appears on the right side of the screen and select the zone you wish to move your fixture to.



If a fixture isn't in the zone you're currently editing then it will appear grayed out and unselectable. In the example below, New Zone 1 is selected. The left fixture is only available in the Global zone. Fixture 1:4 is in *New Zone 1* and is editable.



Selections

The **Selections** tab allows for fixture selections to be created and linked with effects on a timeline. Selections are created either by dragging a box around a set of fixtures on the fixture grid, using the selection tools or by holding ctrl (PC) or command (Mac) and clicking fixtures as you would with files within a folder.

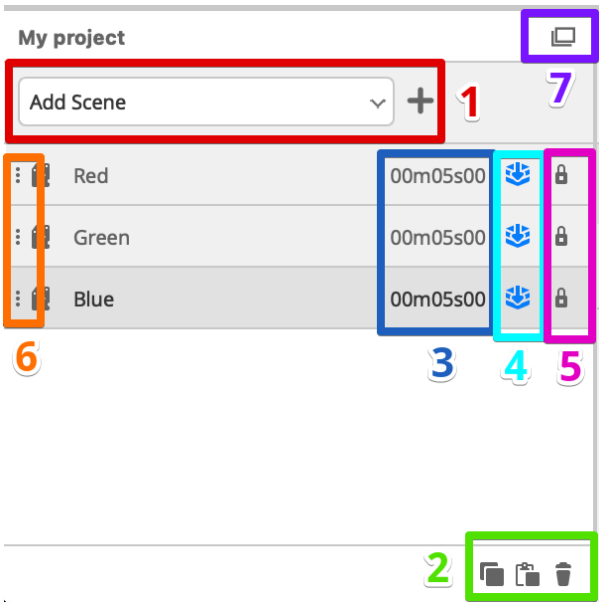
Selection order can be changed by ctrl (pc) or command (mac) clicking individual fixtures or by using the selection tool set in the top left of the work space. More information on these tools can be found in the previous section: **Builder; Arranging Fixtures**.

This allows you to select fixtures in a custom order. For example, if you wanted to create a custom knight rider effect that doesn't play in a linear fashion.

Selections may be saved for later use by clicking the + button to the bottom right of the **Selections** panel. This is very useful for grouping fixtures in a zone together for quick recall or adding a selection as a target to a block. To do this simply select the selection from the Selections list.
Each selection can be expanded to view fixtures within the selection, to do this click the dropdown arrow on the left side of the desired selection.

You can add a light to an existing selection by right clicking on it pressing >Add To>Selection

Scenes, DMX Sequences, DALI Sequences & **Recorded Sequences** can be added using the dropdown menu in the **My Project** panel in the bottom left corner of the Editor. This is where you'll find the scenes you've programmed. Only the scenes you've programmed for the zone you're currently in will appear. For example, if you have a red scene in zone 2 it won't appear in the zone 3 scene list.



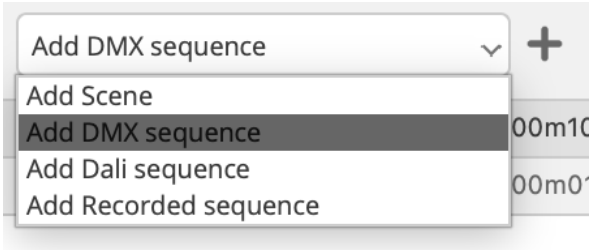
In the scenes panel you can select timeline types and add new scenes via the dropdown(1) and copy scenes to the clipboard to be used in other zones or be duplicated and remove scenes (2).

As you can see in the image above, each scene lists total scene length (3). Next to this is the pre-selection indicator (4), when this is blue it means the scene has been selected for Standalone mode and can be seen in the Standalone screen.

Scenes can also be locked (5) to prevent any further editing.

You can use the three dots to the left of a scene (6) to re-order it in the list.

The button in the top right (7) can undock the My Project panel from the rest of ESA Pro 2 allowing you to move and position it freely.



➔

- ➔ Scene - a standard scene contain a mix of DMX, SPI, DALI, audio and Relay data
- ➔ DMX Sequence - provides a simple fader board, representing each DMX channel from 0-512, and a list of steps much like ESA2 software. When importing an ESA2 file it will automatically convert scenes to DMX Sequences.
- ➔ DALI Sequence - create a list of DALI commands without a timeline.
- ➔ Recorded Sequences - import a recorded dmx data file in .drec format created using the Nicolaudie *DMX Recorder*. *DMX Recorder* and manual is available at nicolaudie.com/download

Timelines

Let's begin by looking at the **Master Timeline.**

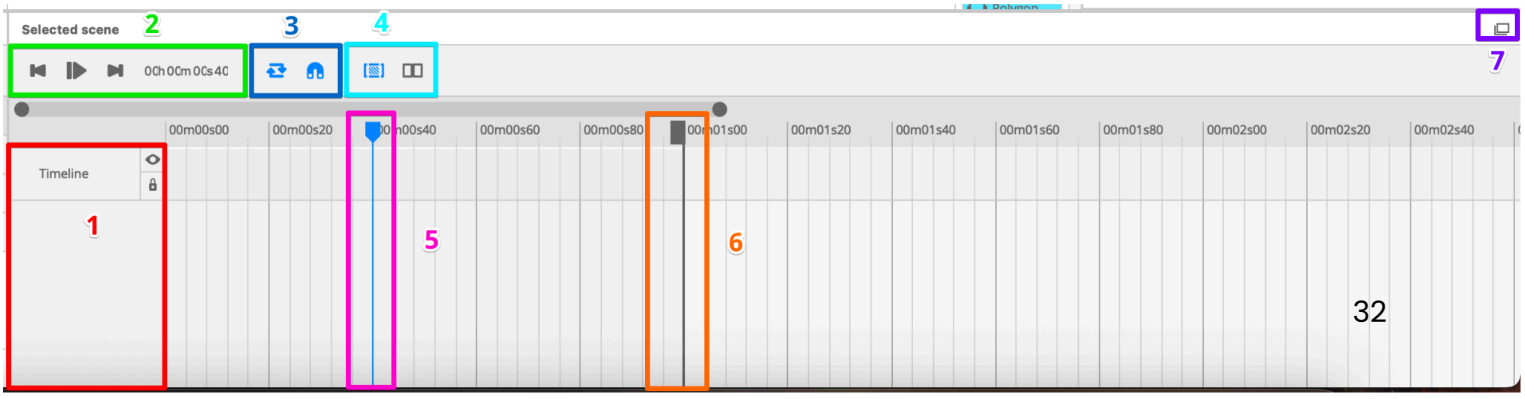
Master Timeline

The **Master Timeline** is where your effect blocks appear and is where you automate controls such as Opacity, Phasing & Saturation. **You can program DMX512, DALI & LED Pixel** using the **Master Timeline.**

The **Master Timeline** window is located next to the **My Project** panel.

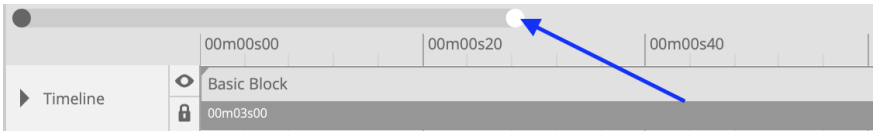
Each scene contains at least one timeline, this is where you'll program your scenes.

When you first create a scene the master timeline window will look like this:



The timelines in your scene will be listed in the column on the left (1), if your scene has multiple timelines these will be listed as well. Each timeline has controls to enable/disable the timeline (the eye) and to lock the timeline (the padlock), preventing further editing.
At the top of the window you have the playback controls (2) and timecode; Play, move forward and move backwards. Next to these you have the Loop and Snap tools (3). The loop tool will loop your scene. The snap tool will snap effect blocks to the grid lines in the timeline when moving them.
To the right of these you have two icons that allow you to enable or prevent block overlaps in the timeline (4). The blue line (5) is your playhead, you can use this to locate where you are in a scene, this can be dragged to change where you are if desired. The gray line (6) marks where your scene ends. You can undock the Master Timeline from the rest of ESA Pro 2 using the button in the top right corner (7).

The gray bar between the timeline tools and the timeline allows you to zoom in/out and scroll the timeline, when the cursor becomes a magnifying glass you can left click and drag up & down to zoom in & out.



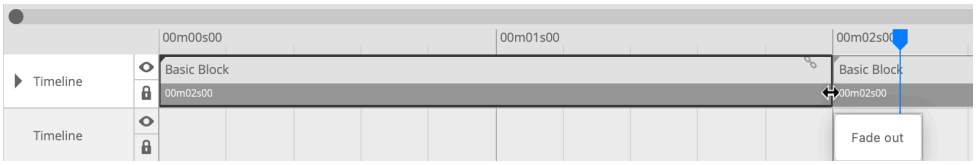
Master Timeline Blocks

The programming data you create to control your fixtures is represented by **Blocks** on the timeline. To add an effect block to a timeline simply drag and drop the effect you wish to create onto the fixtures you wish to affect.
You have several tools at your disposal to edit blocks on the timeline.
To move a block you should hover along the top half of it, the cursor will become a hand, allowing you to drag it along the timeline as you please.

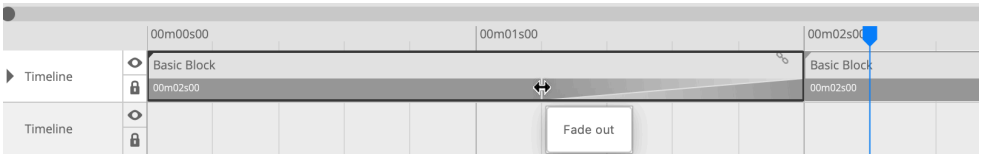
If you wish to lengthen or shorten your block you should find the start or end of the block and hover in the top half, like in the image below. When you see the icon appear you can drag left or right to shorten/lengthen the block.

You can also add fades to blocks from the timeline. There are two different fading behaviours.

1. Dissolve - This crossfades or 'blends' two blocks together. By default dissolve is enabled in Block properties.
    a. Select the left block of the two blocks you want to crossfade.
    b. Move your mouse to the right edge and lower half (dark grey) of the block, until the mouse cursor shows a double arrow (as below).

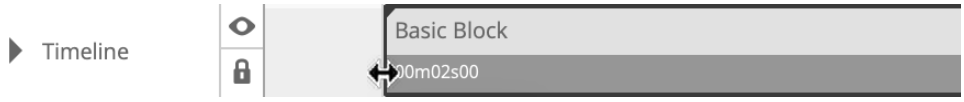


    c. Left click and drag the mouse left. You will see the crossfade appear as below.



    Play the scene and you will notice the two blocks now blend together.

2. Fade in / out
    a. Select the block you want to fade in or out.
    b. Move your mouse to the left or right edge and lower half (dark grey) of the block, until the mouse cursor shows a double arrow.



c. Left click and drag into the block

Notes:

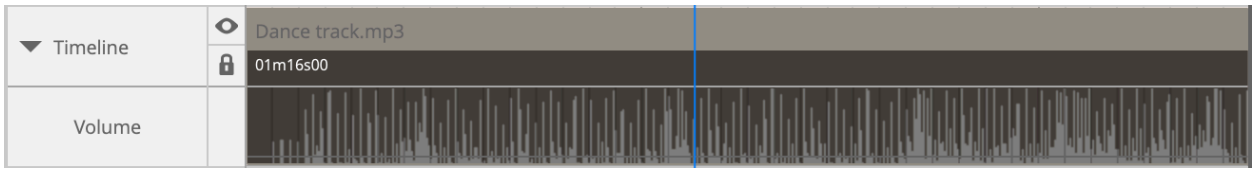
1) If fading from the right edge of a block connected to another block, it will crossfade by default. If you want to fade out instead, uncheck *dissolve* in the block properties window. Below you can see the left block is now fading out. The right block has also been set to fade in.

2) You want your scene to fade from one scene to another. A block level fade in or fade out, as described above, is not the correct way to do this. For example, if the scene is looping, it will fade every time the scene loops. It will also not fade into the content of your previous or next scene ; it can only fade within the scene.

To fade between scenes, please see the section of the manual Standalone > Scene Properties. There you will see a fade in property.

You can also import Audio files to your timeline, this is very handy if you're programming scenes to music.

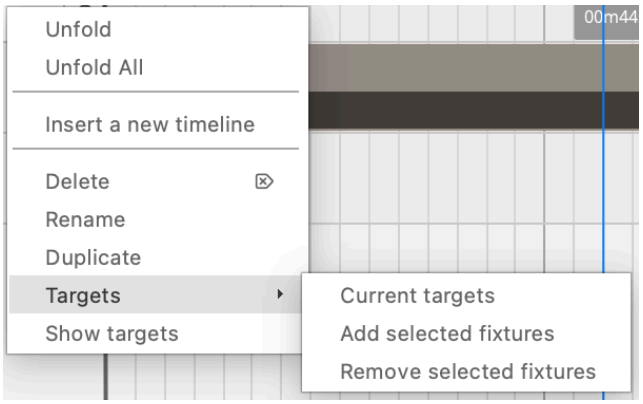
To do this you simply drag & drop your audio file onto a timeline, you can then view the waveform of the audio file by clicking the dropdown arrow on the timeline.



Note: Only .mp3 & .wav files are compatible with ESA Pro 2.5.

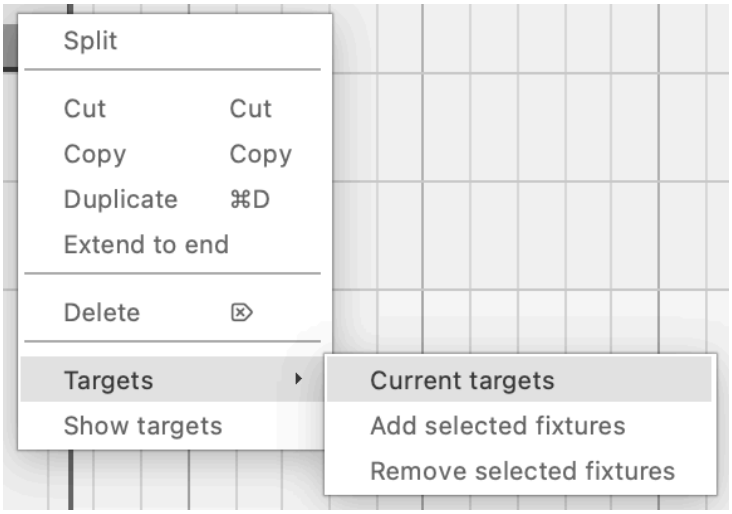
Note: Our controllers don't store & play the audio file you import, this should be handled by a third party product. An example is a DMX controlled audio player.

There are two context menus that provide useful tools when working with Master Timelines.
Right clicking on the **Timeline** will summon the context menu pictured below.



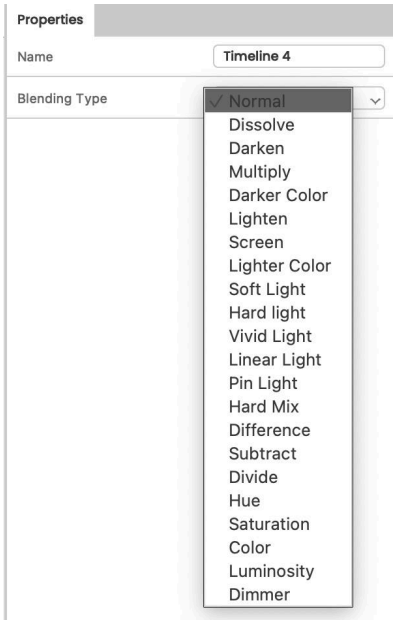
Unfold and Unfold All expands either the selected timeline or all timelines. If you already have your timelines expanded to view automation data these will appear as Fold or Fold All.
Insert a new timeline will add a new timeline to the scene.
Targets refers to fixtures the selected timeline is targeting. Hovering over this gives you options to view the fixtures the timeline is targeting and add or remove your selected fixtures.

Right clicking on the effect block that appears on your timeline gives you the options that appear below.



The options that appear here work in the same way they do when selecting a timeline with the notable exception of **Split**.
Split will split (or Cut) your blocks and all the data within it at the point you right clicked on. This is very handy if there's a particular portion of an effect block you want to apply to other fixtures or timelines without recreating all of the data.

Several timelines can be linked with the same target selection of fixtures. The topmost timeline will take priority over the timelines lower in the list. Timelines may be blended together by selecting the timeline (be sure to select the timeline and not the effect block) and setting the blending type from the *Properties* panel.



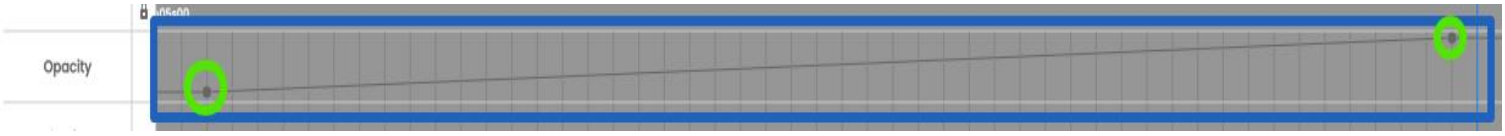
Master Timeline Automation

Master Timelines can be automated. To view timelines where automation is available you should click the dropdown arrow icon to the left of your timeline name to expand the timeline.

Once you've done this the timeline will expand into four timelines, the main timeline you see when the timeline is collapsed and then timelines for Opacity, Phasing & Saturation.

If you're familiar with timeline automation in most Digital Audio Workstations (e.g. Cubase, Logic Pro, Pro Tools etc.) this will be very familiar as it works in the same way. Double click on a point in the timeline where you want to make a change, this creates a cue point. You can drag this cue point up and down to affect the level of

that particular timeline or left & right to change when the cue point takes place. To create fades you need at least two cue points, just as you see in the image below.



However you're not limited to just two cue points, you can place as many as you need, see the image below which has several cue points in it to create a 'peaks and valleys' style effect on the opacity channel.

Automation allows you to create truly unique lighting effects every time you start a new project and can be used to create amazing custom effects.

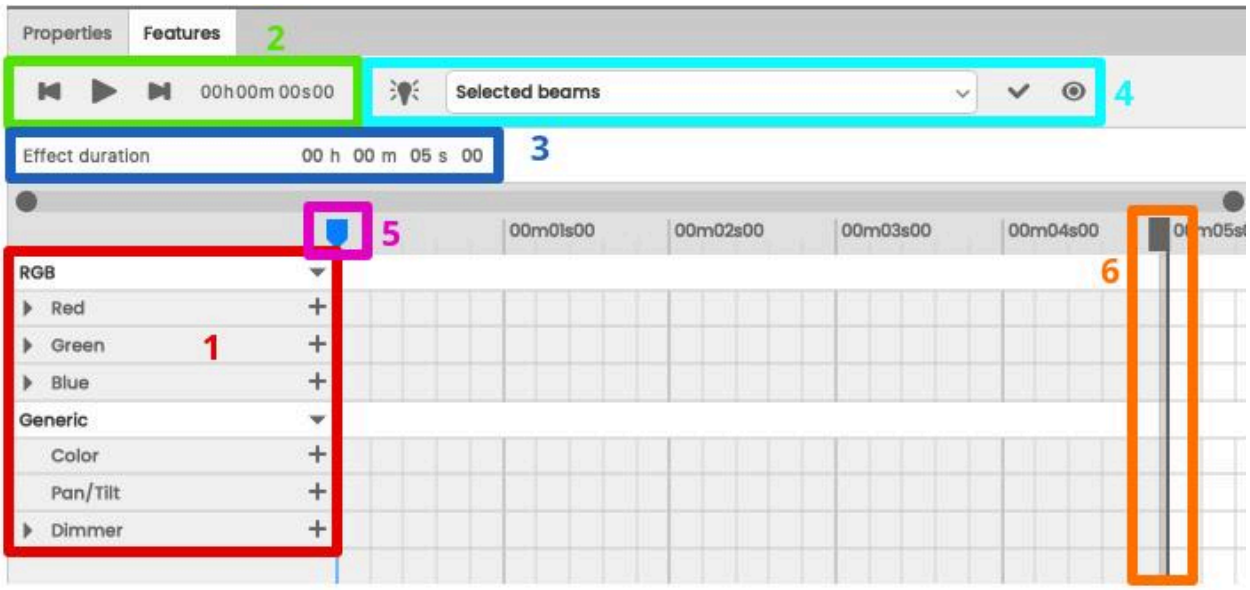
Feature Timeline

The second type of Timeline in ESA Pro 2.5 is the **Features Timeline**. This is where fixture specific feature timelines appear. The **Features Timeline** window appears when you drag a **Basic Block** object to your fixtures or timeline. This is where you can edit and automate fixture specific features.
DMX512 & LED Pixel fixtures can be programmed in this way.

For example, a generic coloured light may only have Red, Green & Blue channels appear in this timeline as those are the only controllable parameters available, whereas an Elation Arena Par has Red, Green, Blue, White, Color Macros, Dimmer & Strobe channels available for programming and automation. In the image below you can see the features of an Elation Arena Par (1) and a simple coloured fixture (2).

Note: This window only appears with the Basic Block.

When you first see the **Features Timeline** window it will look something like it does in the image below.



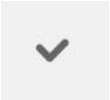
The column on the left (1) is where you'll find the features specific to the fixture you have selected. In this case we only have Red, Green & Blue available as we're using a generic coloured fixture.

You can find your playback tools and time code for the Features Timeline at the top of the window (2). Below this the total duration of the effect you're creating can be found (3), you can edit the total length by double clicking on the timecode and entering the desired length.

To the right of the playback bar is where you find beam controls (4).
You can use the **Beams On** button (pictured right) to activate the beams on any fixtures associated with the Basic Block you've created, this is a quick way to identify which fixtures you're effecting. When you press this button key points will be added to your color channels so you don't have to keep pressing this to activate your beams. You can use the dropdown next to this (Beam selection dropdown) to manually

update which fixtures you have selected. Any selections you've previously created will also appear here.

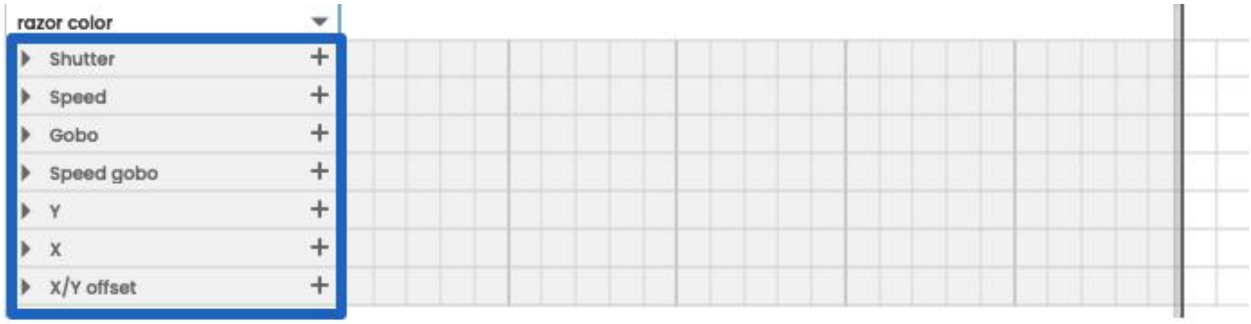
The **Update Beams** button (pictured, right) which is located next to the beam selection dropdown can be used to quickly apply the effects that you've made in the Basic Block to new fixtures.



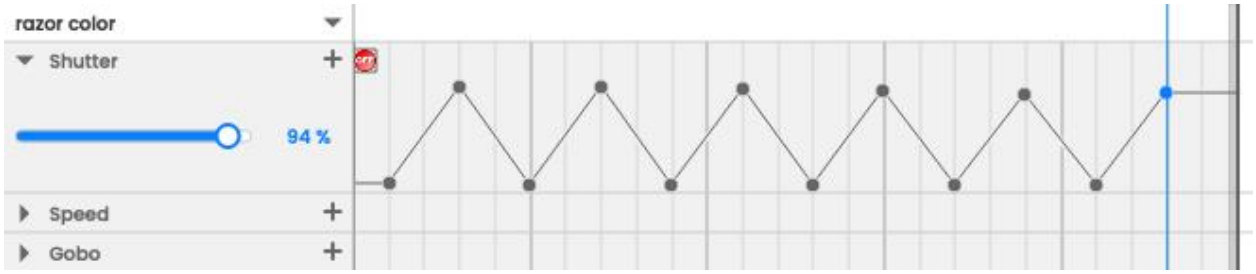
The **Show Current Beams** button (pictured, right), highlights which fixtures you're affecting in the workspace and also shows their order.

Just as with the master timeline, the playhead is the blue line (5) and the gray line (6) shows where your effect ends. Dragging the playhead in the **Features Timeline** window will also update where the playhead is in the master timeline.

These timelines are automatable, just like the master timeline in the previous section. Because the features timeline is where fixture specific channels appear you'll have expanded automation options here, depending on which fixture you have selected. Below you can see the channels that can be automated on an Elation Razor Color fixture.



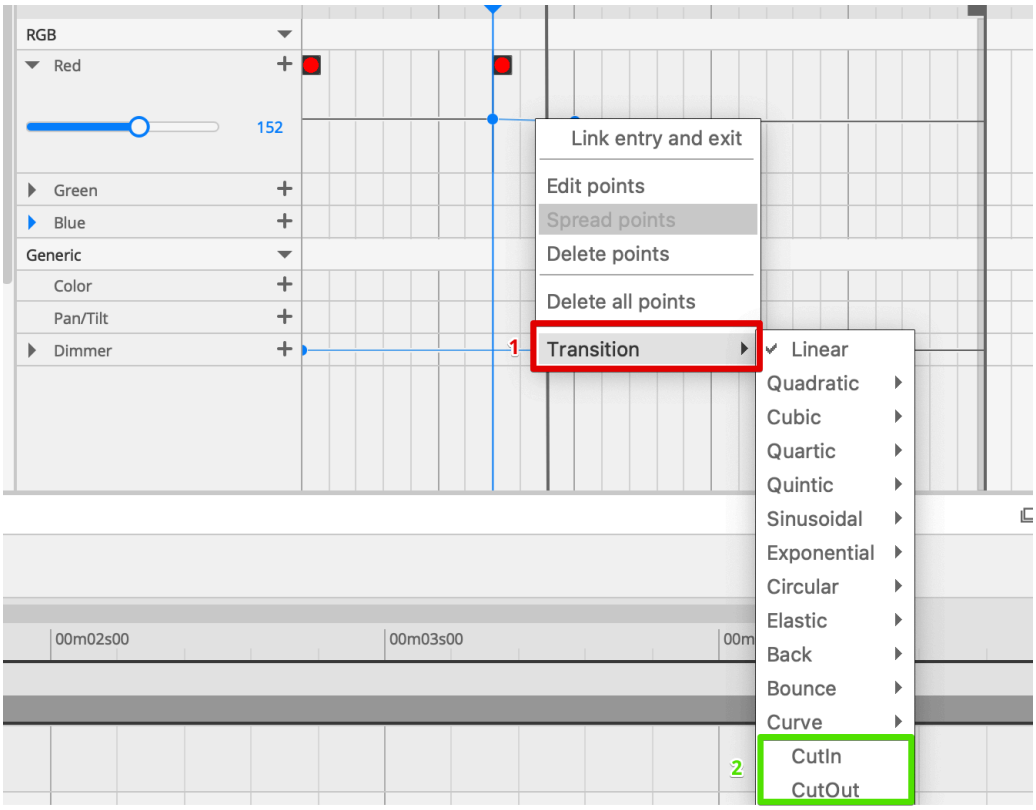
Like master timelines, you double click to add a new cue point, you can then drag the cue points to create the automation curves you desire, just as in the image below.



Automation Transitions

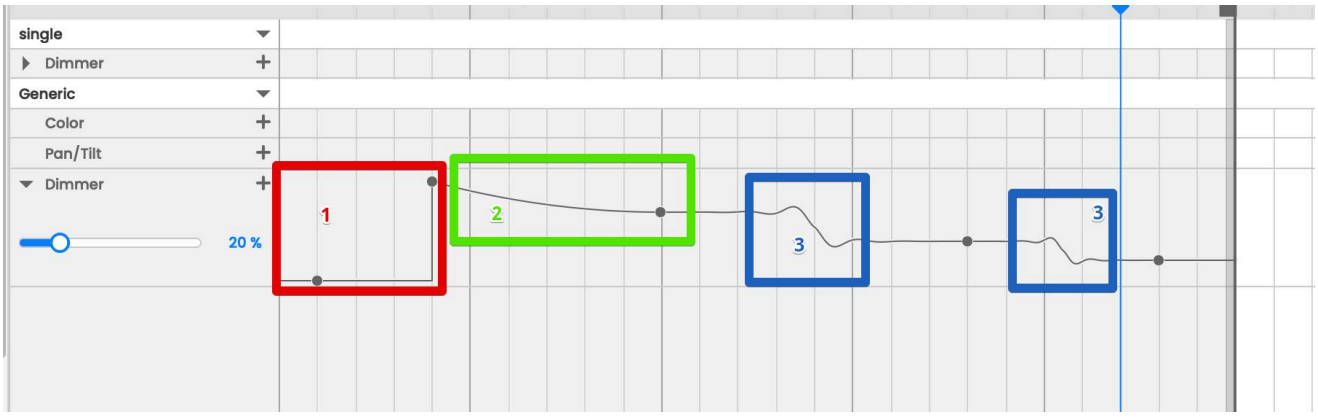
It's possible to add a number of pre-programmed curves between the cue points in your automation, these are called transitions.

To access Transitions you should right click on or between the cue points in the feature timeline you wish to automate and select 'Transitions'. You can now choose from a variety of transition options (1).



Of particular note are the 'Cut In' & 'Cut Out' (2) transitions which allow you to create a vertical automation transition (e.g. Automation jumps from 0-255 opposed to transitioning to 255 in a linear fashion, which is the default behavior). These are particularly useful for controlling DMX devices that require an On/Off state.

You can use several transitions in a single feature automation timeline between cue points. In the image below you can see a dimmer that has cut-in (1), quadratic (2) & elastic (3) transitions.



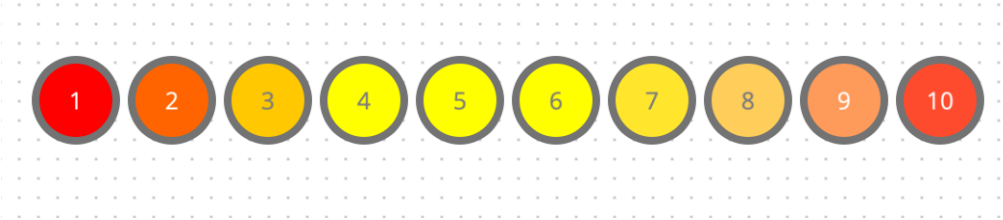
Basic

Basic Block

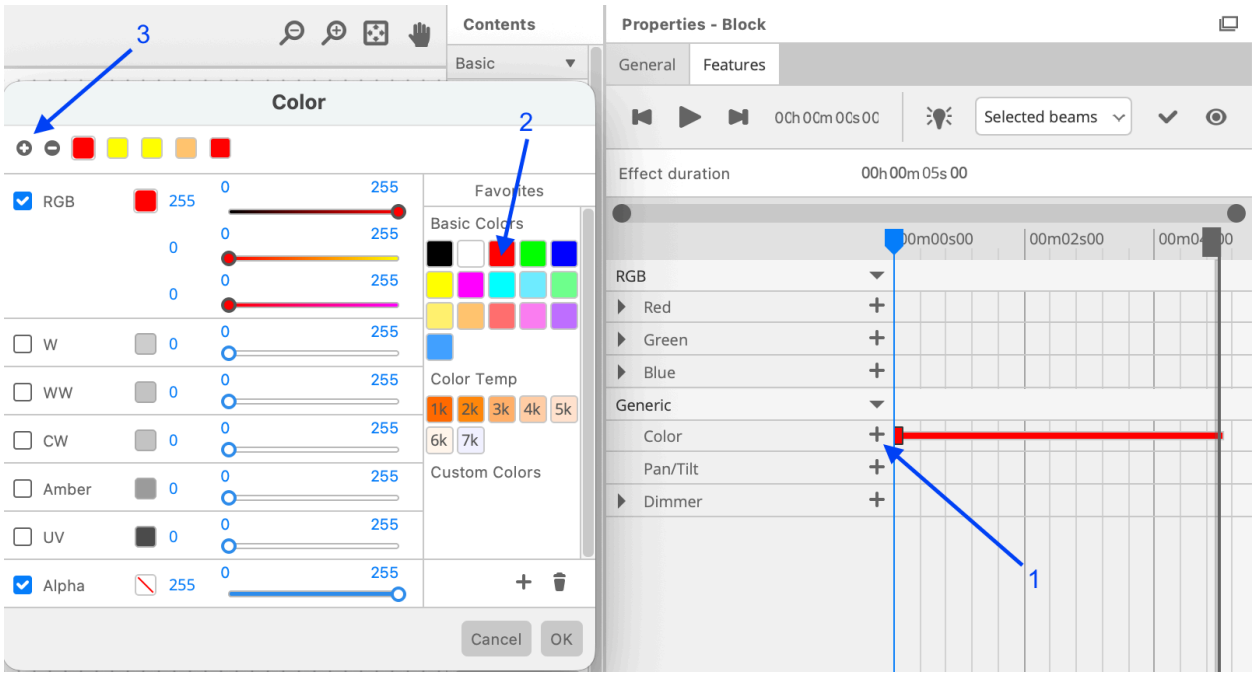
Much of how to use a Basic Block is covered in the section above on Timelines.

Static Gradient

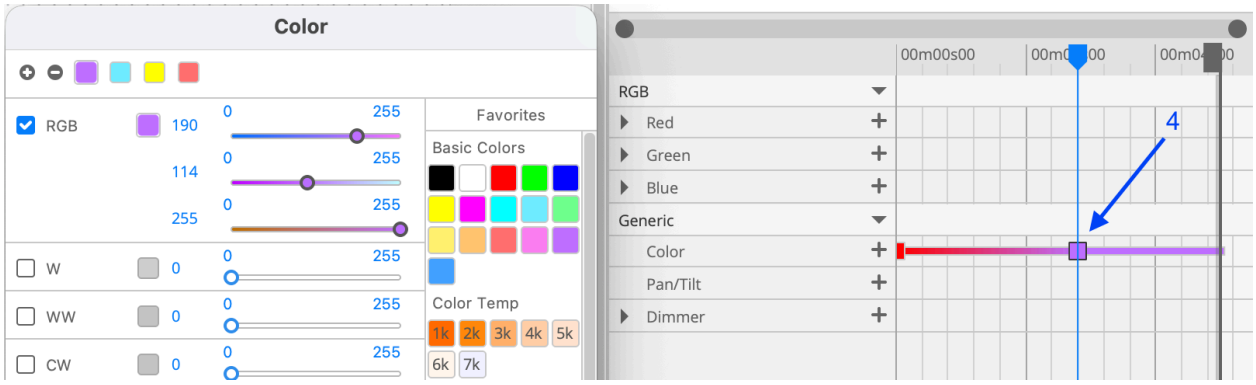
You can create a Static Gradient across your lights using a Basic Block and color mixing RGB lights. When using a Basic Block and the Generic : color feature it is possible to select multiple colors to create a gradient. See steps below.



1. Select your color mixing lights and drag a Basic Block to them.
2. In the *Properties - Block* window, click the + next to Generic > Color (1). The Color window will open.
3. Select your first color (2) and it will automatically check RGB (color mixing) and add a color to the top row.
4. Press + button (3) at the top of the Color window to add a new color.
5. Keep pressing + button (3) to add more colors. You can add colors to the left of any color swatch by selecting it first.



6. You can fade between multiple gradients by double clicking on the color bar (4) at any point along the timeline.



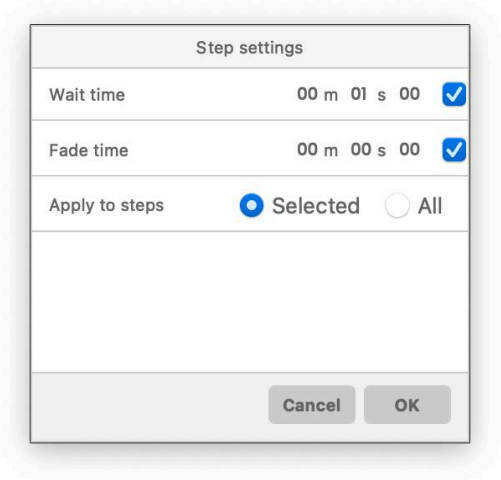
Note: The stored color (1) will display as your first color in the features timeline.

Paint Block (Step Programming)

When you first create a **Paint block** you'll have a new window appear called **Paint Steps** . This appears next to the properties tab, where feature timelines appear when programming a basic block.

You can change the color of your **Brush** by clicking on the colored square (2). You can use the square with a line through it to make fixtures inactive. The dotted square (3) puts you into selection mode so you can drag across which fixtures you're affecting. Next to this is the paintbrush tool, you can use this to click on fixtures, painting them the color you currently have selected.
Steps you've created will appear in the steps list (4). Wait time controls how long your scene will stay on a particular step before moving to the next step, fade time allows you to fade between steps.

At the bottom (5) of this window you have controls to create a new step, delete, copy & paste steps. If you click the pencil icon you'll call up a steps edit window like the one pictured below.

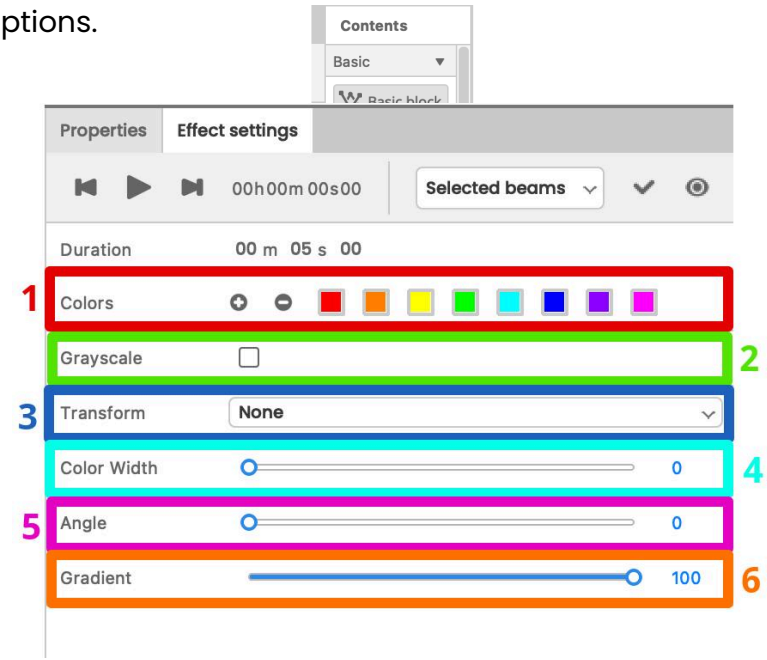


This window is a great way to change wait and fade times on multiple steps at once.

Effects

ESA Pro 2.5 comes with a powerful effects engine that allows you to manipulate and customize several pre-programmed effects, this allows you to create amazing lighting with ease. To begin using these effects you simply need to drag and drop them onto the desired fixtures. **DMX512 & LED Pixel fixtures can be programmed with these effects.**
Let's begin by looking at pixel effects.

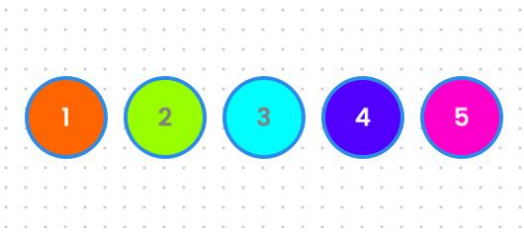
Pixel effects can be found in the **Selections** tab underneath the Basic Block and Paint programming options.



The parameters that appear here will vary from effect to effect. The effect we selected in the above image was Rainbow but a lot of them will be similar.
You can edit the color palette the effect uses (1), and add or reduce the amount of colors in it.
The grayscale option (2) will translate the color effect into grayscale, allowing it to be played on lights that don't have color options such as generic single channel fixtures.
The transform dropdown (3) allows you to apply vertical or horizontal symmetry to your effect.

As the name suggests, Color Width (4) widens a color. In the case of a rainbow effect each fixture will have a different color, like in the image below.

When you increase color width each color will begin to appear over multiple fixtures, like below.



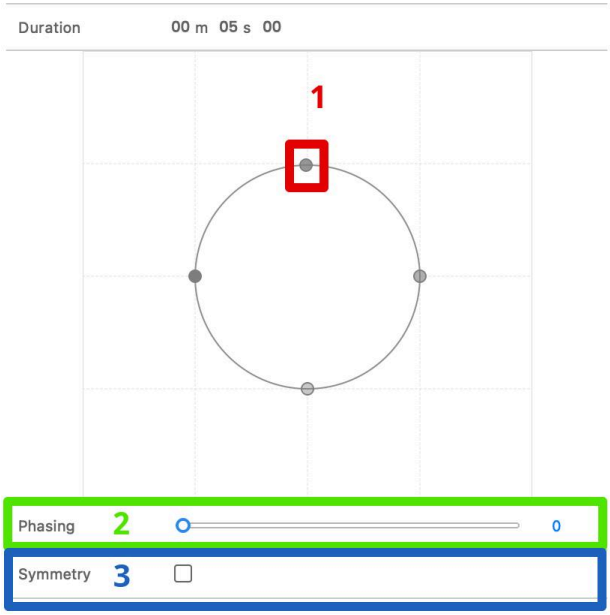
Angle (5) shifts the angle of an effect anywhere from 0°-360°, particularly useful when working with a matrix.

Gradient (6) affects the gradient between fixtures, when set to 100 the color transition from fixture to fixture is smooth, at 0 the color between fixtures becomes a hard change, see the images below.

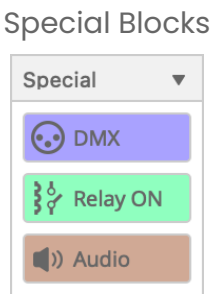
X/Y Effects

X/Y Effects or Move effects, work exclusively with moving fixtures, if you don't have any of those patched, the effects won't do anything.

The X/Y Effects are named by the motion your fixtures make but you're not limited to these movements. When you first drag one of these effects to your fixtures the effect settings window will look like it does below.



The shape in the center (a circle in this case) represents the motion your moving head will make. By dragging and stretching the dots around the shape (1) you can manipulate the motion your moving head makes. You can add anchor points just like with the LED strip fixture type, this allows for truly unique movement.
The Phasing slider (2) manipulates the phase of your moving heads, controlling if they move in or out of sync with each other.
The Symmetry tickbox (3) will make your moving fixtures move in symmetry, very useful if you have multiple groups of moving heads moving together.

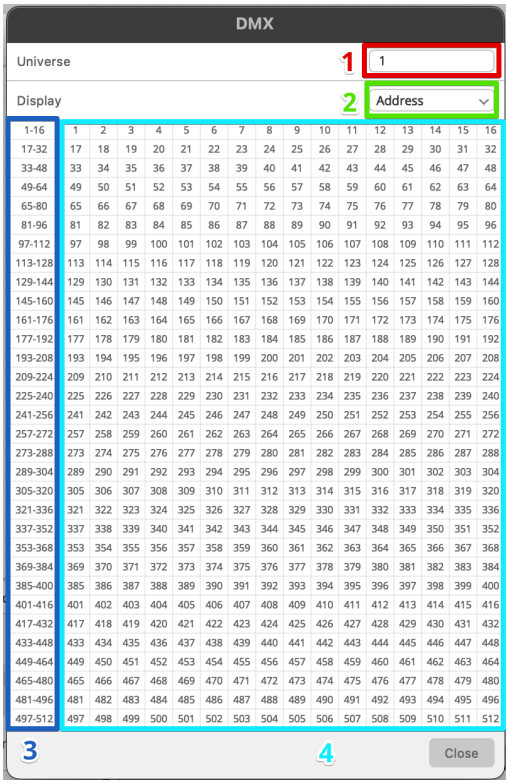


ESA Pro 2 has several 'special' block types. These aren't traditional effects as we've previously discussed but take advantage of features available in certain controllers.

DMX Block

The DMX block is a type of step programming new to ESA Pro 2. Unlike the Paint block which allows you to 'paint' over your fixtures or DMX Sequences which gives you a faderboard and steps, the DMX block allows you to program on a grid view of your chosen universe.
The steps window that appears here works the same as it does for the Paint block. You can add, delete or duplicate steps using the tools in the bottom right of the steps window.

To call up the grid view press the button highlighted in the image on the left.
The image on the right shows the DMX block grid view this calls up.

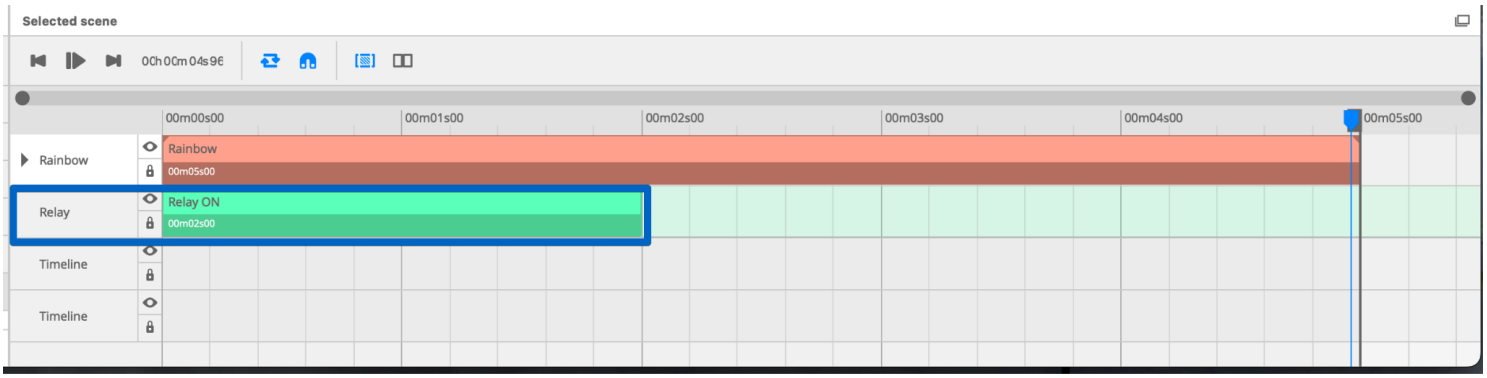


Change which universe you're viewing using the Universe dropdown (1). You can also change if the grid shows the address (2) or the DMX value on that channel. When you select DMX value the grid will become blank except for the column on the left which lists the addresses on the selected row (3). In this mode the address numbers in the grid (4) will disappear, replaced with a DMX value if one is present on that channel on that particular step.
The ability to target specific channels with a DMX value makes this a good way to trigger third party devices that can listen for a DMX value on a specific channel to perform a function.

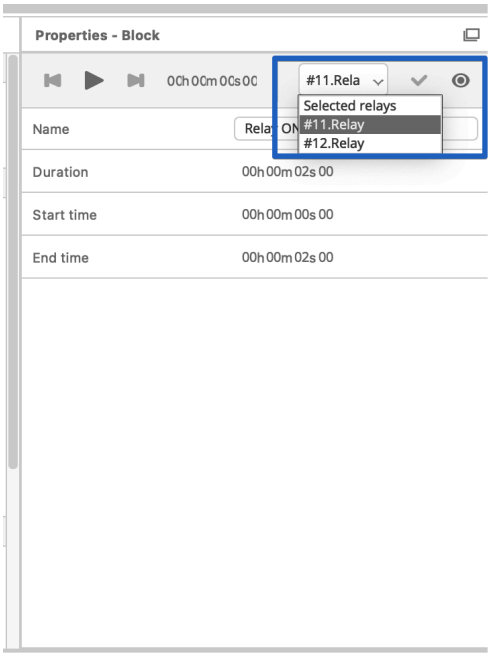
As with the Paint block or a DMX sequence you can add multiple steps for the block to step through using the tools in the bottom right of the steps pane.

Relay On

Relay On is how you control any electrical relays connected to your controller. Drag and drop this on a patched relay fixture, this creates a Relay On block on your master timeline. Where a Relay On block is present the connected relay will be powered on, when that block finishes the relay will be switched off. In the image below you can see the Relay is active for the first two seconds of the scene and then becomes inactive as the Relay On block has ended.



You can change which relay your block is targeting by selecting it and then navigating to the drop down in the top right of the Properties - Block window pictured below.

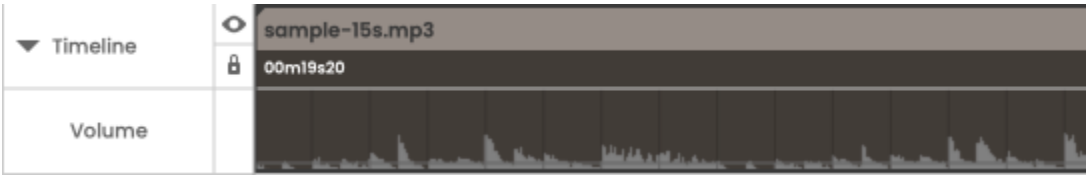


You can find more information about setting up Relays on page 13.

Audio

When you drag the Audio block to a timeline a file tree screen will appear, allowing you to import the audio file of your choice. Clicking the expand arrow next to Timeline will display the Volume timeline and the Waveform. This can be useful if you want to manually target effects to happen at particular points in the audio.

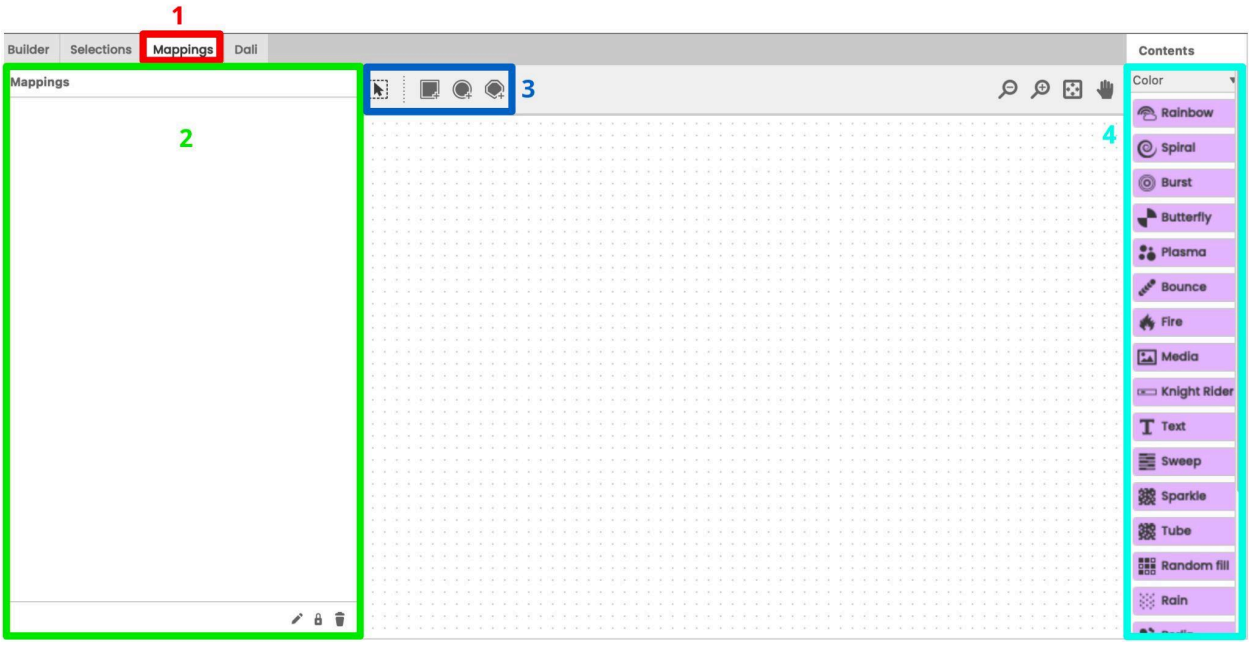
Note: Only .mp3 & .wav files are compatible with ESA Pro 2.5.



Note: Nicolaudie controllers are ***NOT*** *capable of audio playback or storing audio files in their memory, this needs to be handled by a third-party device. This block is intended purely as a programming aid.*

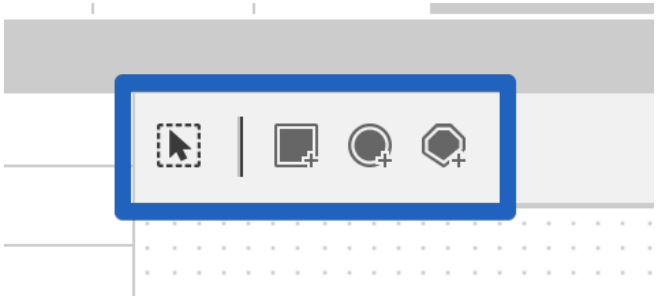
Mappings

Mappings is where you create a shape and link it with a timeline. There are a few key differences between the Selections Tab and the Mappings Tab, these are highlighted in the image below.



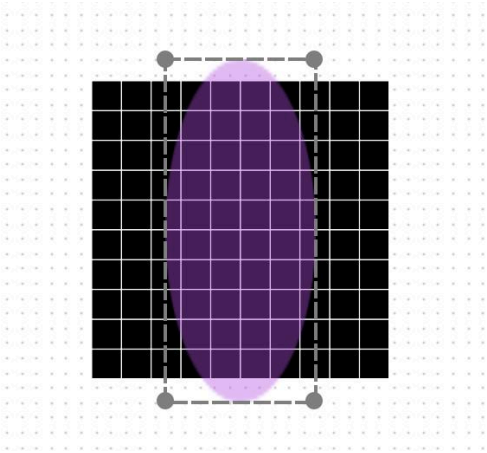
You can select the mappings tab from the tab selector (1). Just like in the selections tab, your mappings will appear on the left side of the workspace (2).
Mappings provides a different toolset (3) than what's in the selections. The pointer with a dotted square around it allows you to select fixtures. The tools to the right of this allow you to create rectangles, circles and polygons in the workspace, these are essential for mappings.
On the right hand side of the workspace (4)you have mapping effects, these are exclusive to the mappings tab and can't be accessed in any other tab.

After you've patched your fixtures you can begin creating mappings. Go to the mappings tab and choose a tool from the toolbar to create your shape.



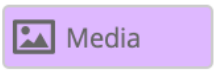
You should then click & drag to create your desired shape. You can do this over the top of fixtures or create your shape and then drag it over the desired fixtures. You can resize the shape once it's been created.

As you can see in the image below I've created an oval mapping over a matrix.



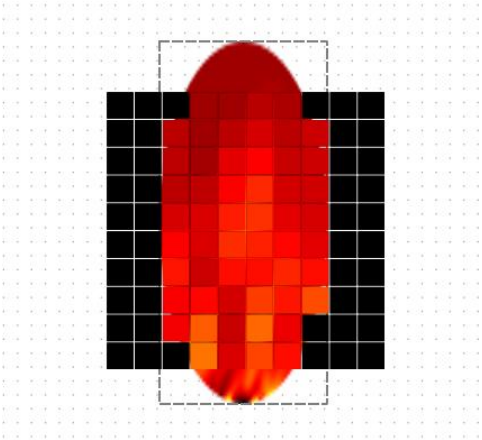
Once you've created a shape it's time to create your programming.

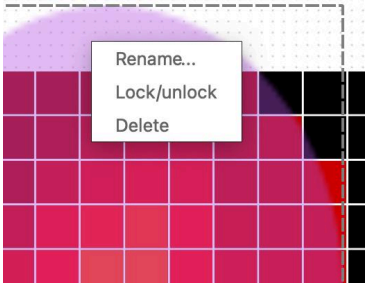
Mappings offer several unique ways to program your fixtures. You can drag and drop one of the pre-programmed effects to your mapping or use the Media block to import a media file of your choice to be mapped.



Note: Only the following video formats work with ESA Pro 2.5; .Gif, .MP4, .MOV (with resolutions less 1280x780 pixels)

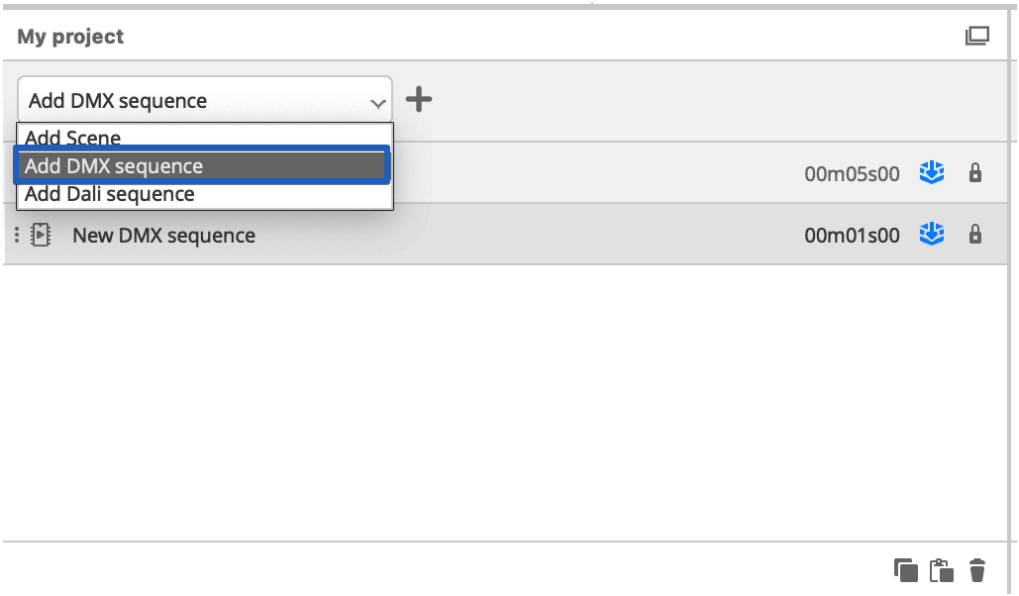
Below you can see the Fire effect mapped to an oval.
Just like in selections each mapping effect has multiple parameters to adjust, giving you a world of possibility for your effects.
Each mapping can be locked to prevent accidental editing by right clicking and pressing lock/unlock from the context menu that appears





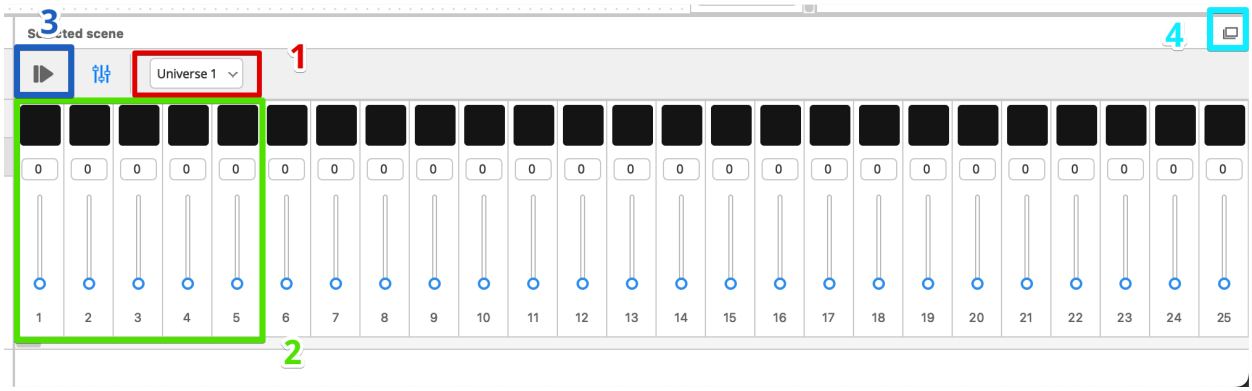
DMX Sequences

ESA Pro 2.5 introduces an alternative way to program your fixtures - DMX sequences.
DMX Sequences allow you to program your fixtures using a fader board & steps.
You can create a DMX sequence from the My Project dropdown menu.



Note: When you import an ESA2 .dlm file into ESA Pro 2 the scenes will be imported as DMX sequences.

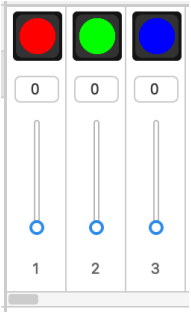
Users of ESA & ESA2 will find this programming method familiar as it works in the same way here as it does in those softwares.
When you first create a DMX sequence the timeline will be replaced with a faderboard like you see in the image below.



The faderboard controls an entire DMX universe and gives you 512 individual faders to control. You can select which universe you're controlling using the dropdown on the top (1). Moving the faders (2) will control a channel of the fixture you have patched at this address, e.g. if you have a single RGB fixture patched at address 1-3

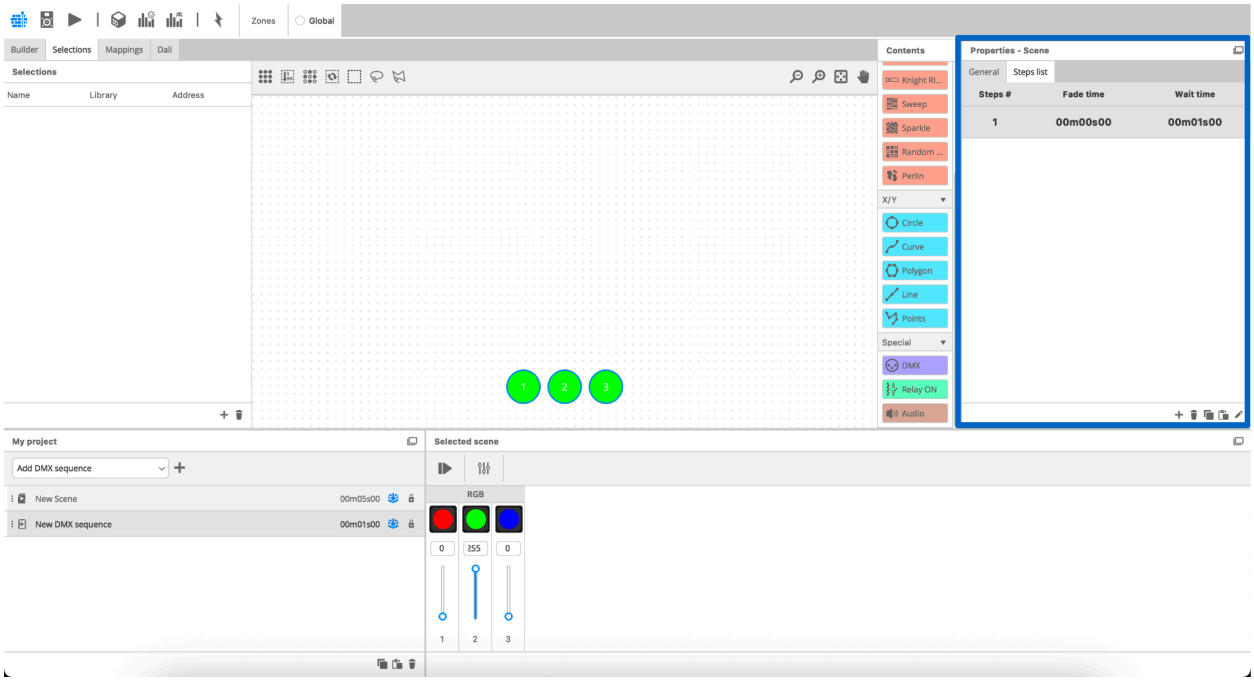
then fader channel one controls red, 2 controls green and so on. You can playback the sequence using the play/pause button (3) in the top left. Use the button in the top right corner to undock the fader panel from the rest of ESA Pro 2.

The black square at the top of each fader identifies the channel you're controlling. In the image below you can see we're controlling a fixture with red, green and blue channels.



If you prefer to enter DMX values instead of moving the fader you can enter the desired value in the field where you see 0.

On the right side of the screen the steps window will also appear.



The steps window here works the same as it does when using the Paint block. You can add, delete or duplicate steps using the tools at the bottom right of this window. Unlike the paint block where you can paint over the desired fixtures with your cursor you have to program with fader position when using DMX sequences.
You can edit the fade & wait time of each step individually.

DMX sequences can be converted to timelines by right clicking the Sequence under the My Project and selecting **Make Timeline**. This will convert the sequence into a DMX block on a timeline.

DALI

The DALI tab is where all DALI programming takes place using DALI Command Blocks within Scenes or DALI Sequences.

DALI is available as standard on the Nicolaudie DINA DR1 and DINA SR1 models. It is available as an optional license upgrade for the DINA DR1 LITE. See Smart Upgrade Tools for more information.

Note: Available features vary depending on what type of DALI gear you're using. Not all DALI Gear types are fully compatible with ESA Pro 2.5, some will only respond to basic generic commands. See the table below detailing support.

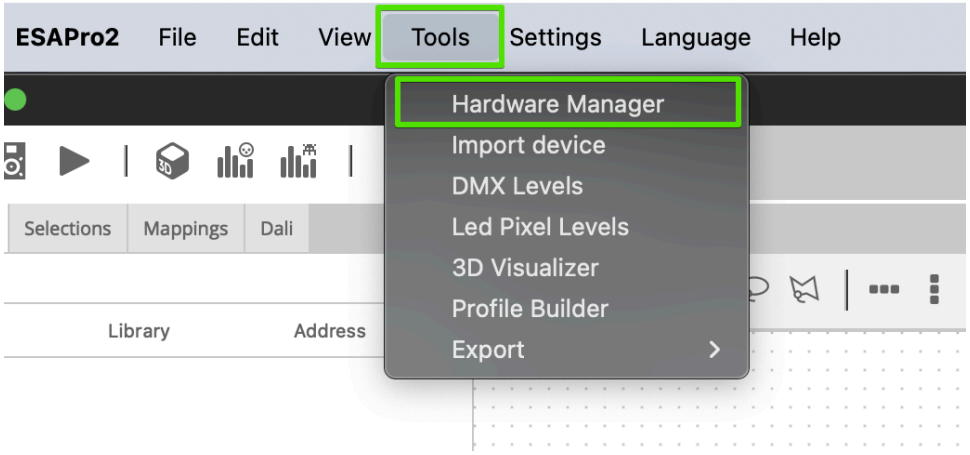
DALI Gear Compatibility Table

Gear Type	Description	Full Compatibility?
DT0	Fluorescent Single Channel	Yes
DT1	Self-Contained emergency control gear	Partial
DT2	Discharge (HID) Lamp	Partial
DT3	Low Voltage Halogen Lamp	Partial

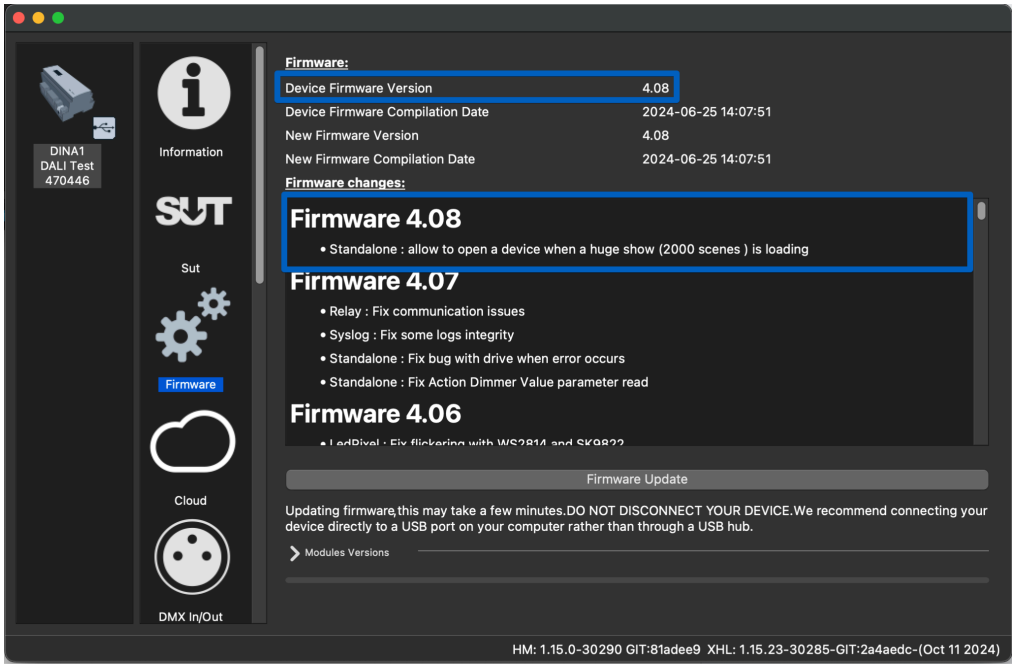
DT4	Incandescent Lamp	Partial
DT5	DC Converter	Partial
DT6	LED Lamp (Single channel)	Yes
DT7	Switching (relay) Gear	Partial
DT8	Colour Control Gear	Yes

DALI Commissioning

Before you can begin programming your DALI gears you'll need to commission your DALI bus. This process takes place within the **Hardware Manager**. You can access Hardware Manager via the **Tools** drop down in the software or in the **Hardware Manager** folder, found in the file structure for ESA Pro 2.5.

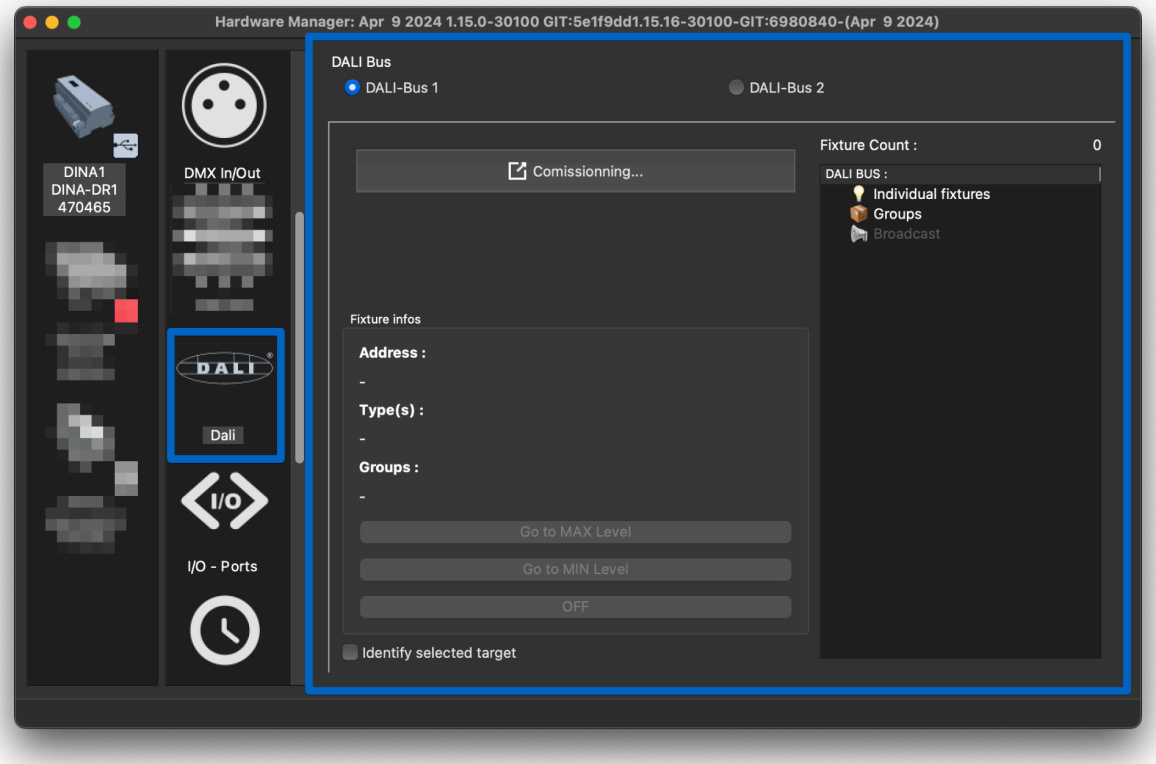


Once you're in Hardware Manager you should connect to your DINA DR1. The first step to take is checking your device firmware. To use the DALI functionality you need to be Using **firmware 4.00+** but we recommend at least firmware **4.08**.

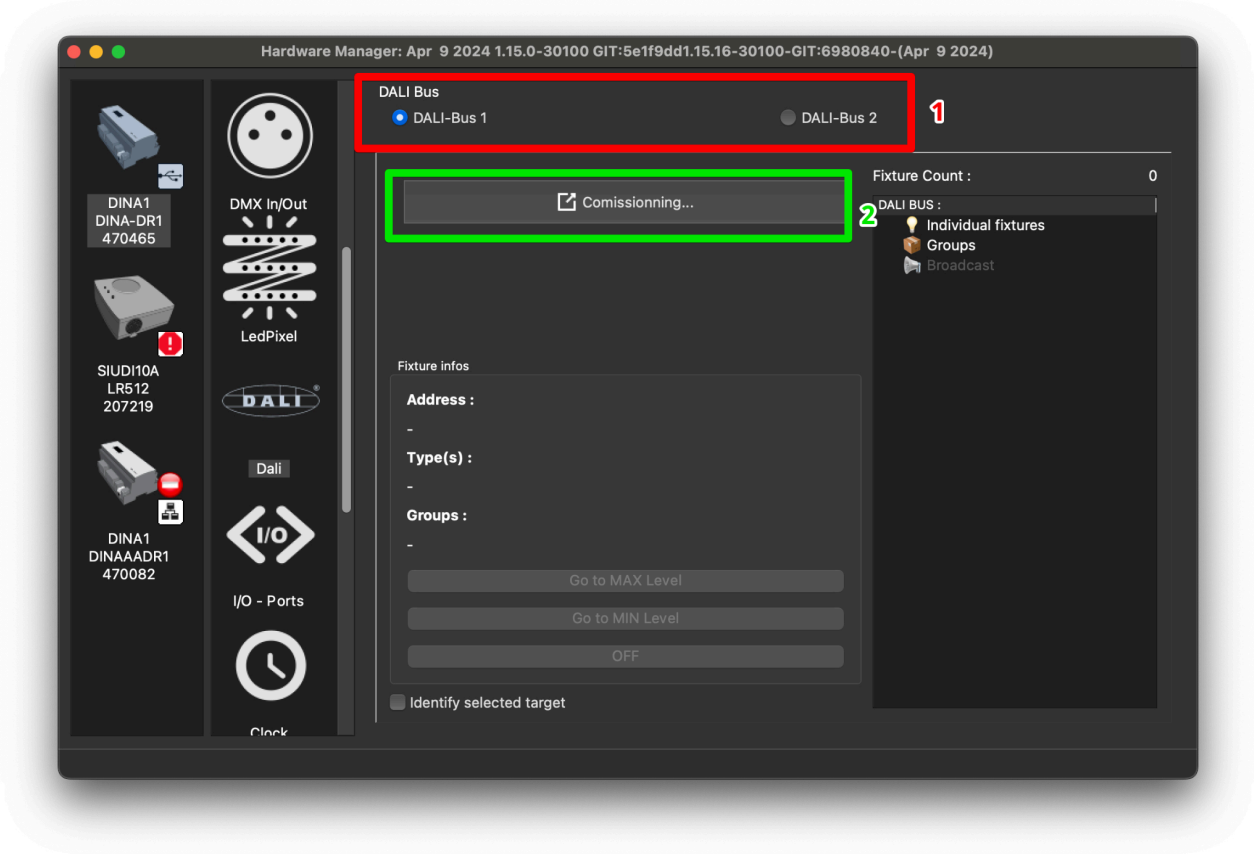


If you don't have the option to update to **Firmware 4.00+** you should download a new version of Hardware Manager from the downloads page on our website… https://www.nicolaudie.com/download.htm

Once you've updated to **firmware 4.00+** you'll see a new tab appear in Hardware Manager; **DALI**.



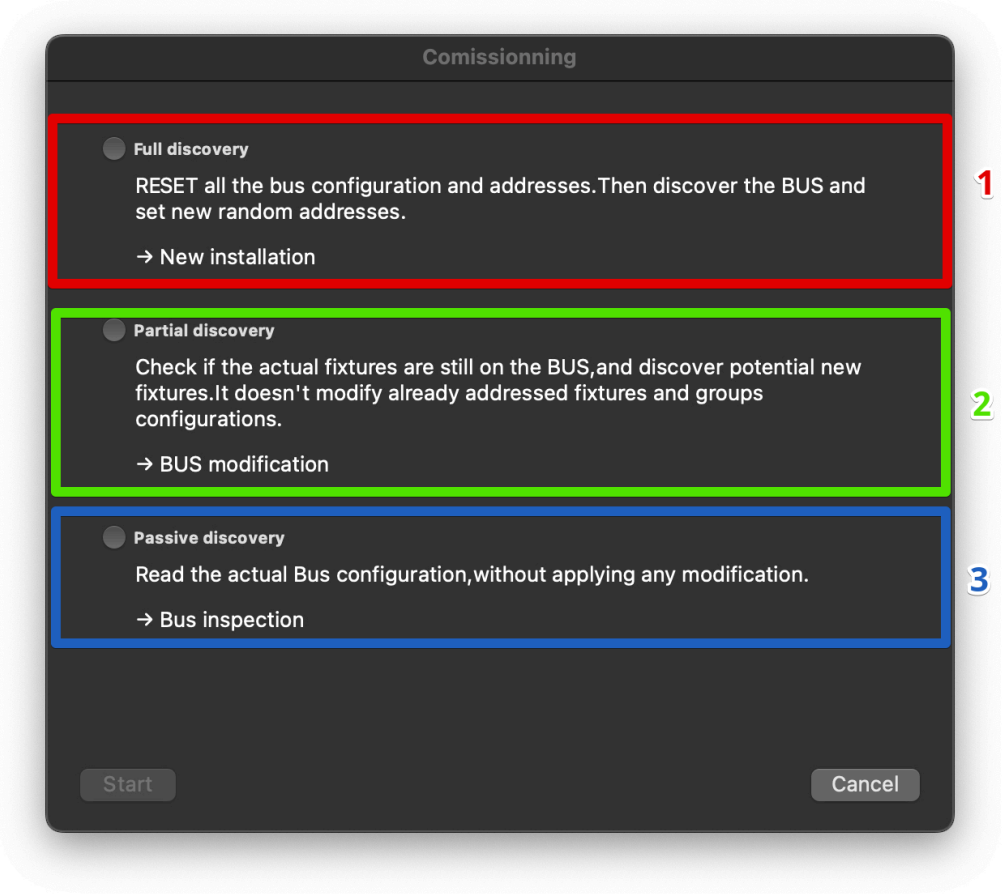
This tab is where all DALI commissioning takes place.



To begin you should select the DALI bus you want to commission (1). The DINA DR1/SR1 can control up to two DALI buses. Each bus can control up to 64 gears.

Once you've selected the bus you can now press the 'Commissioning...' button (2).

Next, the Commissioning screen will appear which lists the options available to you.



Full Discovery (1) should be used when commissioning your bus for the first time. It will scan the bus, check for gears & their types and automatically address them.

Partial Discovery (2) will check the bus to see if all gears are still present, check for new gears & remove gears no longer present on the bus from the software list. This should be used if you're integrating new gears into a bus or removing them, without resetting the whole bus configuration.

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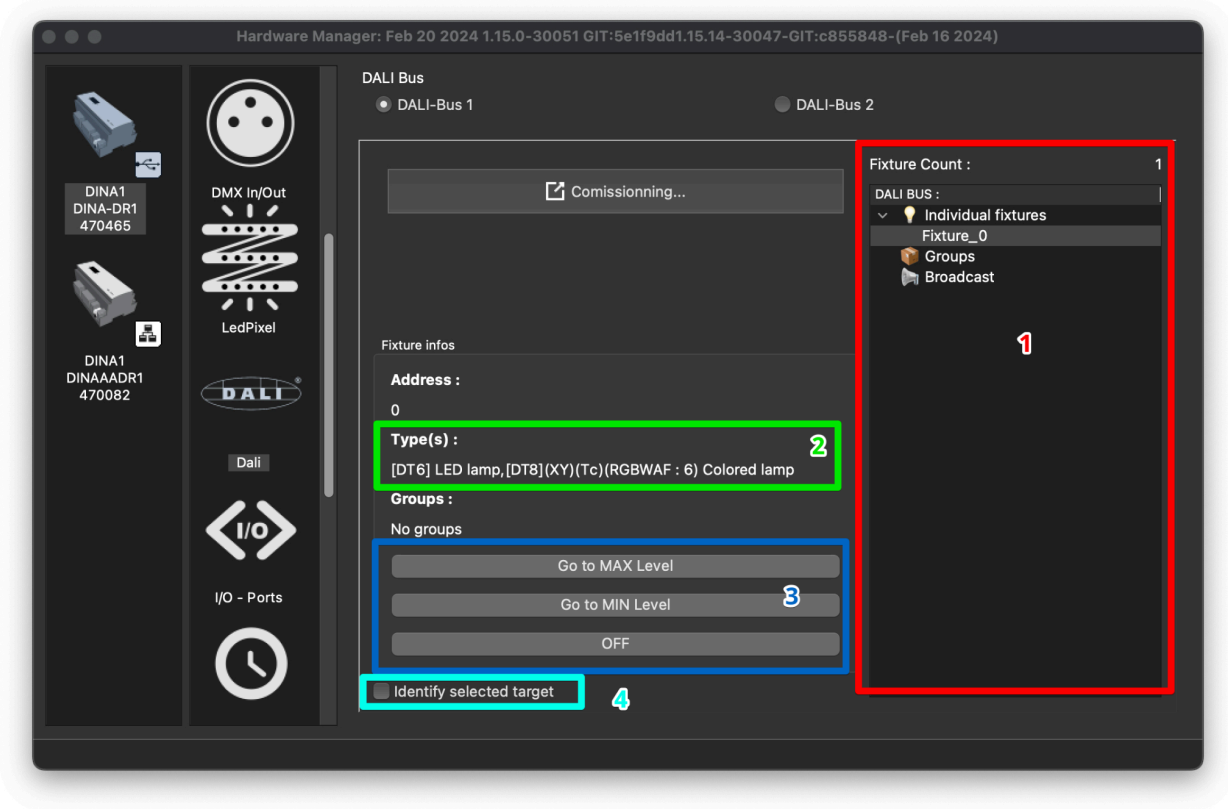
Passive Discovery (3) will read the bus status but won't make any modifications to it. This is useful if you want to check what gears are on your bus.

Once you've commissioned your DALI Bus your gears will appear in a list on the right.



Gears on your bus will appear on the right side of the window (1). When you select a gear you'll have information about it appear in the middle of the screen (2). It will typically include the address,type of gear (DT number), groups and the available color channels.
This information is all stored within the Gear(s) memory.

In the above image you can see there's a DT6/DT8 (switchable) Gear that has access to RGBWAF channels. You can recall the maximum or minimum levels for the selected gear or turn it off (3).
If you wish to identify the gear you have selected you can check the **Identify Selected Target** (4) box at the bottom of the window. This will cause the selected gear to flash until the box is unchecked.

Once you've commissioned your bus you can close Hardware Manager and return to ESA Pro 2.5 and begin programming. Your device can only connect to one bit of software at a time.

Programming DALI

Now your bus has been commissioned you can import the gears into ESA Pro 2. This is done via the DALI tab in the Patch window. Information about the DALI patch screen can be found earlier in this manual under **DALI Patch Window**. It's recommended you patch your DALI gears in a separate zone to your DMX fixtures if you want to control them independently. If you plan to control your DALI fixtures using the same scenes as your DMX fixtures you can patch them into the same zone.

When your gears are patched you can begin programming.

There's two ways to program your DALI gears:

1) Scene & DALI Blocks : Yellow DALI command blocks are added to a scene timeline and send commands when they are reached in the scene playback.
2) DALI Sequence : DALI Sequences behave as a scene with no duration and no loops, all DALI commands are sent immediately when the sequence is started.

DALI Blocks & Scene Timelines

DALI commands are found on the right side of the workspace in Yellow. General Commands (1) can be used with any DALI gear that's compatible with ESA Pro 2.5, for a list of compatible gears Gear type-specific commands (2) will be listed underneath the relevant gear. In the image to the right you
can see the color command is only usable with DT8 gears.

On the next page you can find a table that details each command.

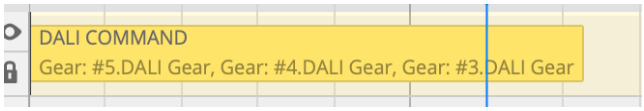
Configuration Commands	Commands that configure a parameter for the selected gear(s) until told otherwise
Fade	Configure fade time for selected gear(s)
Non-Fading Commands	These commands will ignore any set fade configuration
On (100%)	Recall Maximum gear level
Off	Turn gear off
Fading Commands	These commands follow the fade configuration unless instructed otherwise
Dimmer	Set dimmer level
Scene	Start a scene from the gear(s) memory
DT8 Commands	These commands are only compatible with DT8 gears.
Color	Set a color (DT8 only)
Miscellaneous	
Commands	Create a custom block with advanced commands

When programming changes to color temperature with DALI, by default, values are in Mirek (or Mired). These values don't work like Kelvin. For example 0 Kelvin = 65535 Mirek/Mired and 10,000 Kelvin = 100 Mirek/Mired.

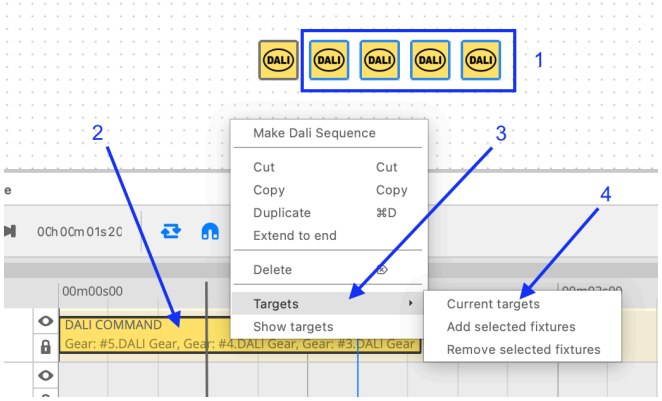
When you select your Type as Temperature you'll have a dropdown appear that allows you to switch between Kelvin and Mirek values.

There's two ways to assign commands to your DALI gear(s).

Option 1) Use the same method as creating Selection effects; Select which gear(s) you wish to affect in the work area and then drag a yellow DALI command block onto them or into the timeline. You will see the block displays which Gears are targeted..

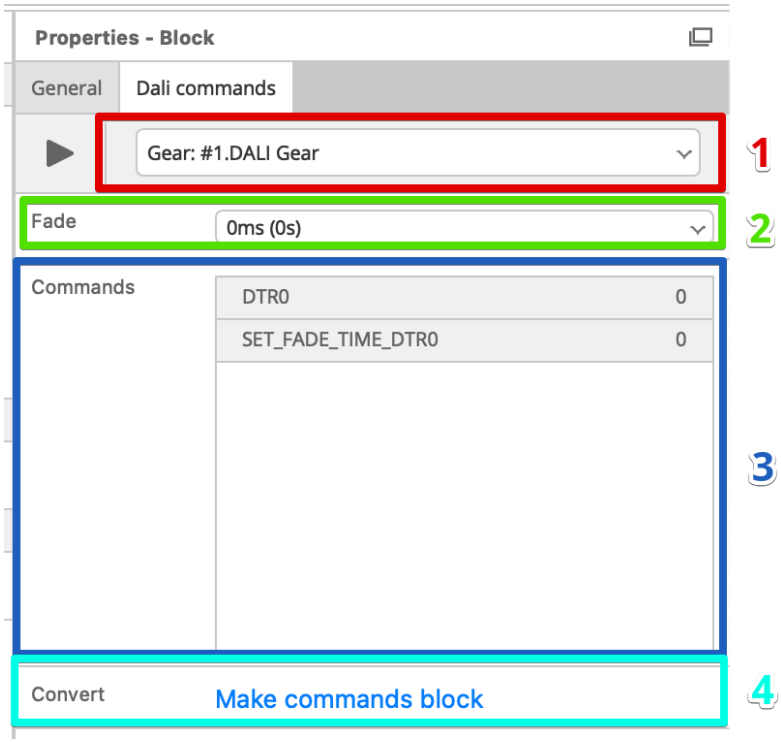


You can later modify this by selecting your DALI gears (1) then right click your a DALI command block on the timeline (2), select Targets (3) and Current targets (4). You may also use Add or Remote selected fixtures options.



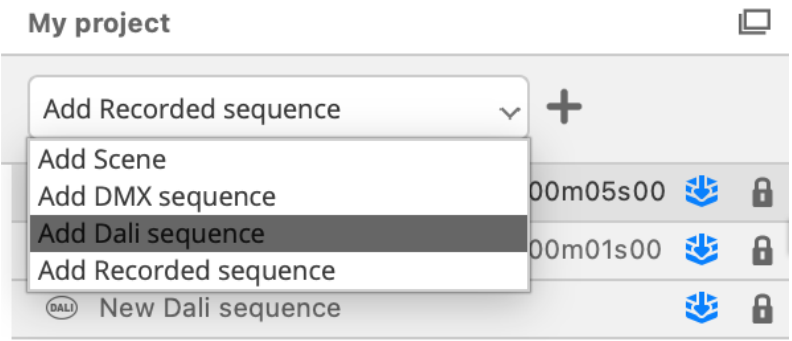
Option 2): Use the dropdown highlighted in the image below (1) to select if the command is sent to a specific gear, group or broadcast to all gears present on the selected bus.

The Properties window that appears when editing DALI command blocks is very different to the one you've previously seen when editing Selection & Mapping effects.



The fade dropdown (2) will add a fade to the selected command. If a fade is set here the selected gear(s) will ignore any fade configuration commands previously sent .
If this is set to **ignore** then the gear(s) will continue to fade according to any fade configuration command you've previously sent. The Commands box (3) breaks down the actions that happen, and the order in which they occur in a command block.
To edit the actions that happen in a block and the order they happen in you should select Convert; Make commands block (4).

You can add DALI commands to any scene, just as you would a regular effect but you can also create a **DALI Sequence**. These can be selected from the dropdown in the **My Projects** section of the editor window.



In a DALI sequence you can stack multiple commands. These commands will be issued in the order they appear in the sequence. Commands take approximately 40 ms to send.

DALI commands can be placed in a timeline just as regular mapping & effect blocks do, however they can't be stretched/shortened or automated. You can have both DMX and DALI in a timeline.

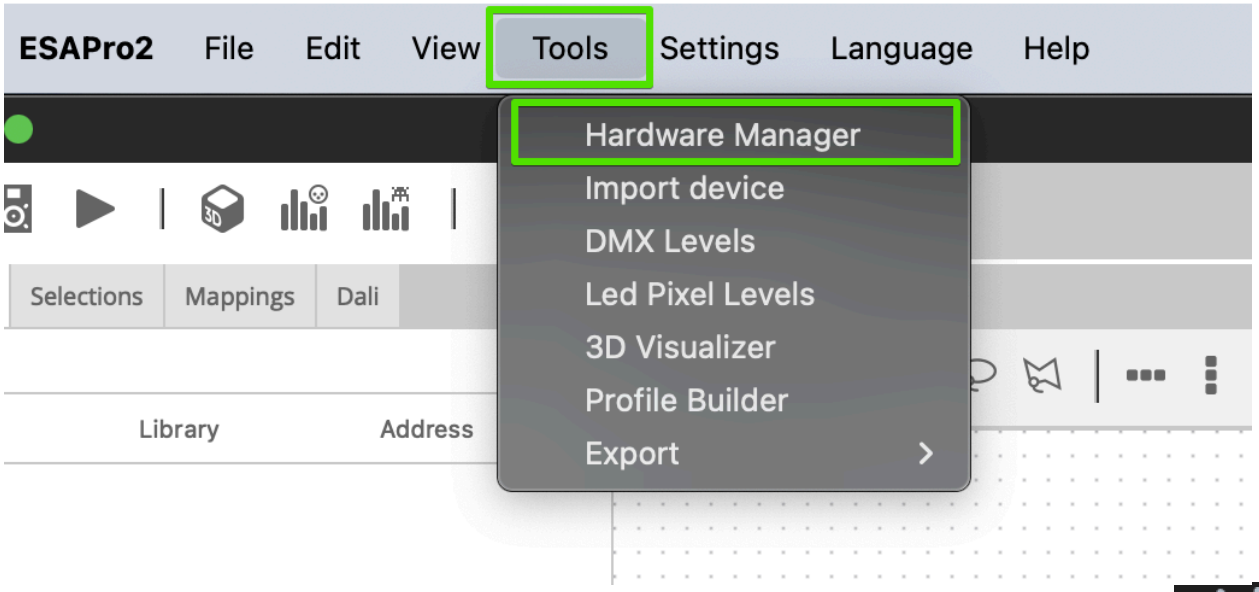
LED Pixel (SPI)

The DINA DR1 & SR1 (DR1 LITE requires an upgrade) are capable of controlling two LED pixel universes natively via the LED pixel port (DR1) or D-Sub connector(SR1). Each output can control up to 1536 channels of LED Pixel. If you're using RGB pixels that's a total of 512 pixels per output.
A variety of SPI protocols are supported, see the full list below...

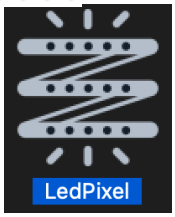
- WS2811
- WS2812B
- UCS2903
- APA102
- APA102C
- SK9822

LED Pixel Commissioning

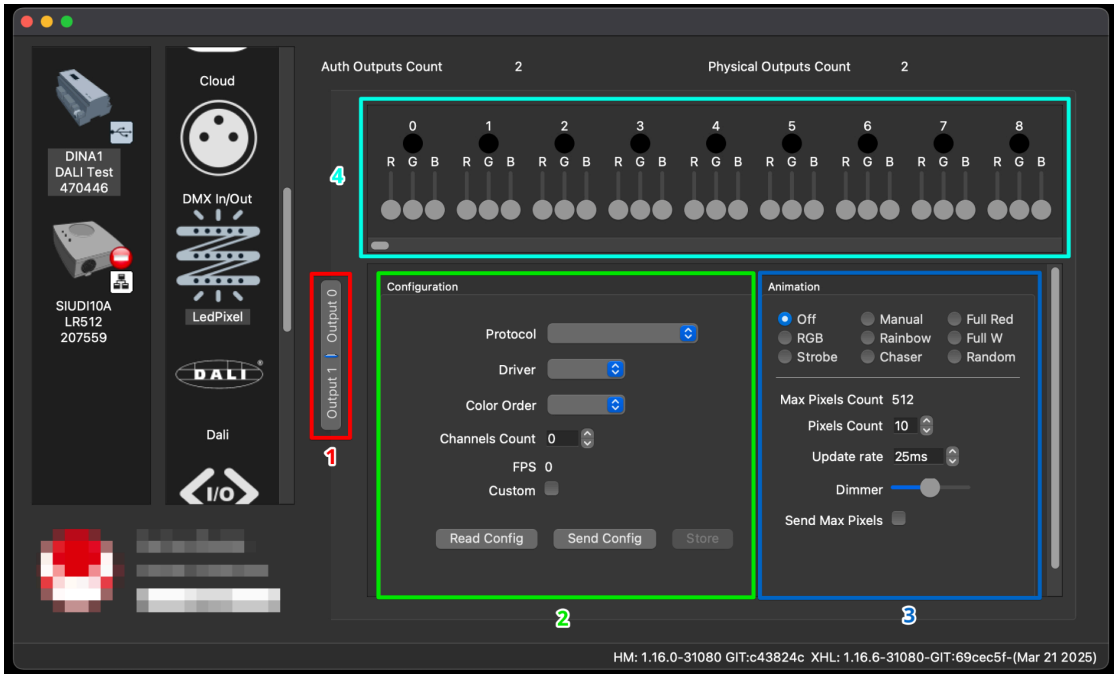
The first step in controlling LED Pixels is to commission them in Hardware Manager. You can access Hardware Manager using the tools dropdown in the software or via the software file structure.



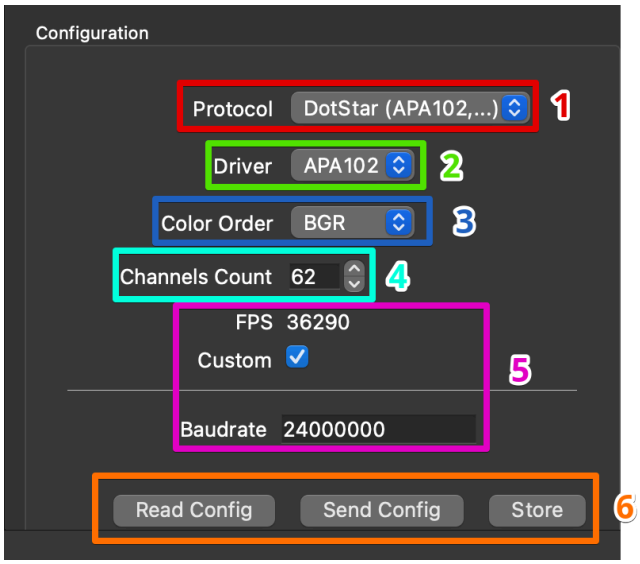
Once in Hardware Manager you should select your controller (ensure there's no active connection to ESA Pro 2) and then navigate to the 'LED Pixel' tab.



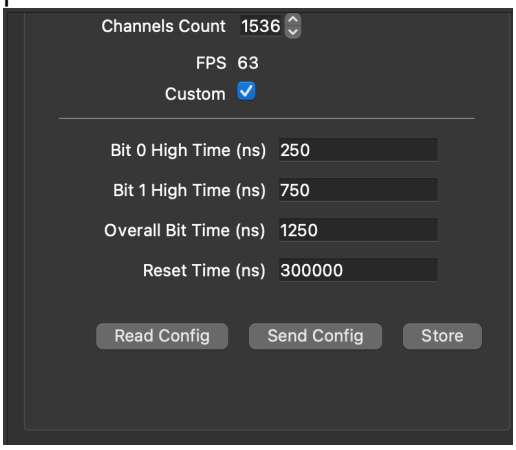
When you open the LED pixel tab it will look like the image below.



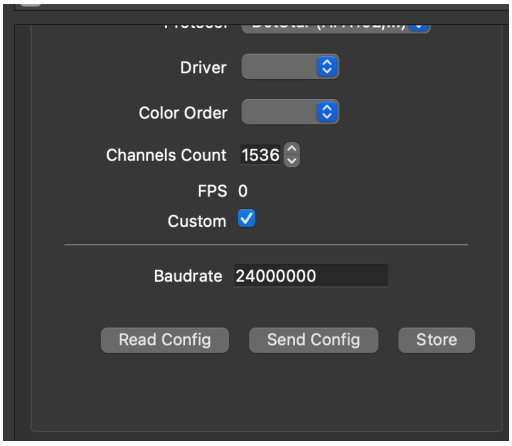
You can change which output you are commissioning using the output tab selector (1). Once you've chosen your output you can now select the LED Pixel configuration you wish to use (2). We'll discuss configuration options in more detail shortly.
Once configured you can test the connected pixels using the animation test section (3) or by using the channel faders at the top of the window (4).



There are various options for configuring your LED pixel strips. Firstly you should choose your Protocol (1). You can choose from DotStar protocols such as APA102 or Timed protocols such as WS2812. Depending on the protocol you choose some options might be different. Once you've selected a protocol you should now select the driver (2), dotstar protocols can choose from APA102, APA102C or SK9822, Timed protocols can select WS2811, WS2812B or UCS2903.
You can now select the colour order of your pixels (3) and total channel count (4). Total channel count can't exceed 1536 per-output. As channel count increases FPS will decrease (5) but you can set some custom parameters with the Custom box checked. The parameters you can customize depend if you're using DotStar or Timed protocols.



DotStar APA102



Timed WS2811

Once you've chosen the desired settings you can save them to the controller by pressing 'Send config' and then 'store' (6). You can then read the configuration back from the controller if required.
The last thing you need to do to output LED Pixel is activate the **LED Pixel Outputs** on your device in ESA Pro 2. You can do this by navigating to the **outputs window** at the bottom-right of the **Standalone** screen, finding the **LED Pixel 1 & 2** outputs and selecting which universe to output using the dropdown.

Recorded Sequence

The Recorded sequence Timeline is designed to work with recorded DMX data created by the Nicolaudie *DMX Recorder* available from nicolaudie.com/download

- Select + and a file manager window will open.
- Open a .drec file created by DMX Recorder and it will import the file. Once imported, the user interface is exactly the same as DMX Sequences.

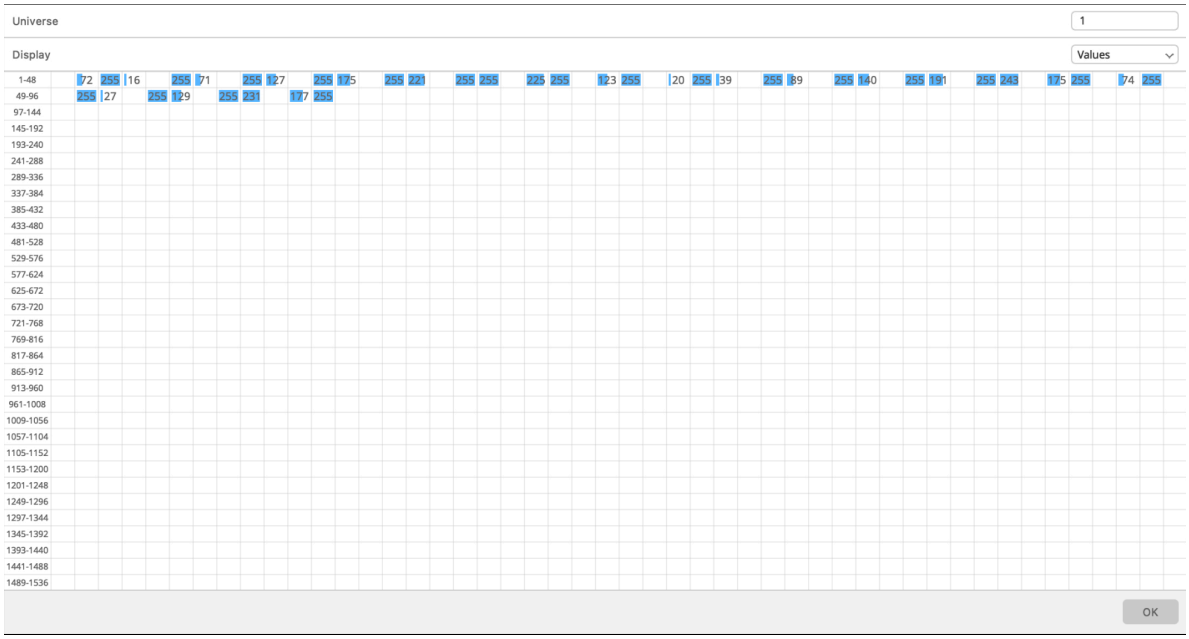
  Note: a .drec file can also be dragged and dropped directly into a standard Scene timeline. This allows you to mix recorded dmx data with other kinds of blocks available in the software.

Programming LED Pixel

Once you've commissioned your LED pixels in Hardware Manager you can re-connect and patch them in the software. See the [LED Pixel Patch Window section] earlier in the manual for more information on this process.

Once you've patched your LED pixels in the software you can now begin to program them. Programming LED pixel fixtures works the exact same way as it does with DMX fixtures and you have access to the same tools and pre-generated FX.
Additionally you can program LED Pixel, DMX & DALI in the same scene.
You can view the LED Pixel levels window by clicking the icon below…

The levels window allows you to change which Pixel universe you're looking at and view the address of each pixel in the universe or their output level in that given moment.

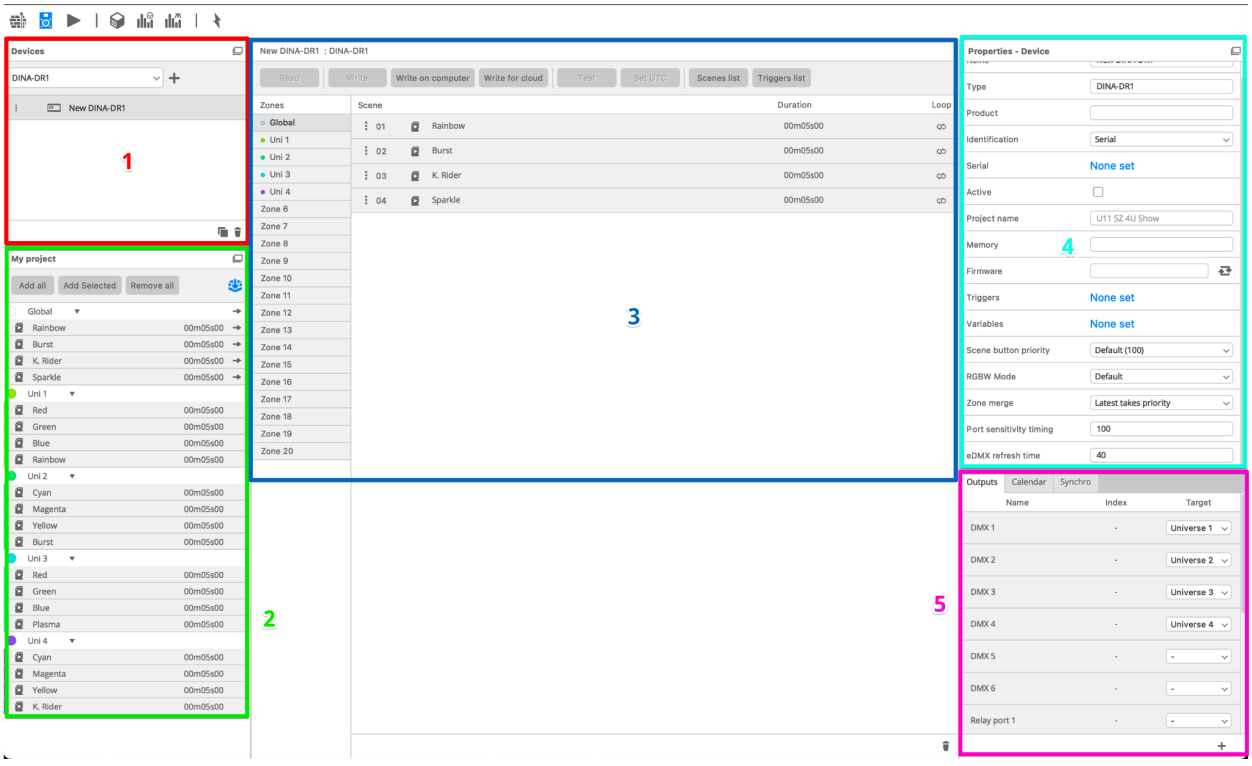


Standalone

The Standalone screen is where you will add your programmed scenes to your controller. Other standalone options can be set from here, such as calendar triggers and other types of external triggers to start scenes.

Note: The options that appear in this screen can vary depending on the controller you're using, these will be covered as we get to them.

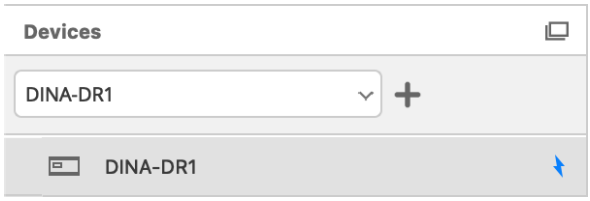
When you enter the Standalone Screen it will look something like it does in the image below, divided into 5 main sections, the devices window (1), the My Project window (2), the device memory window (3), the Properties window (4) and the Output/Calendar/Synchro window (5).

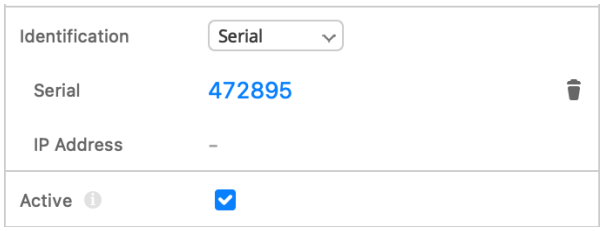


The Devices window, pictured below, is where you manage the devices ESA Pro 2.5 is connected to.

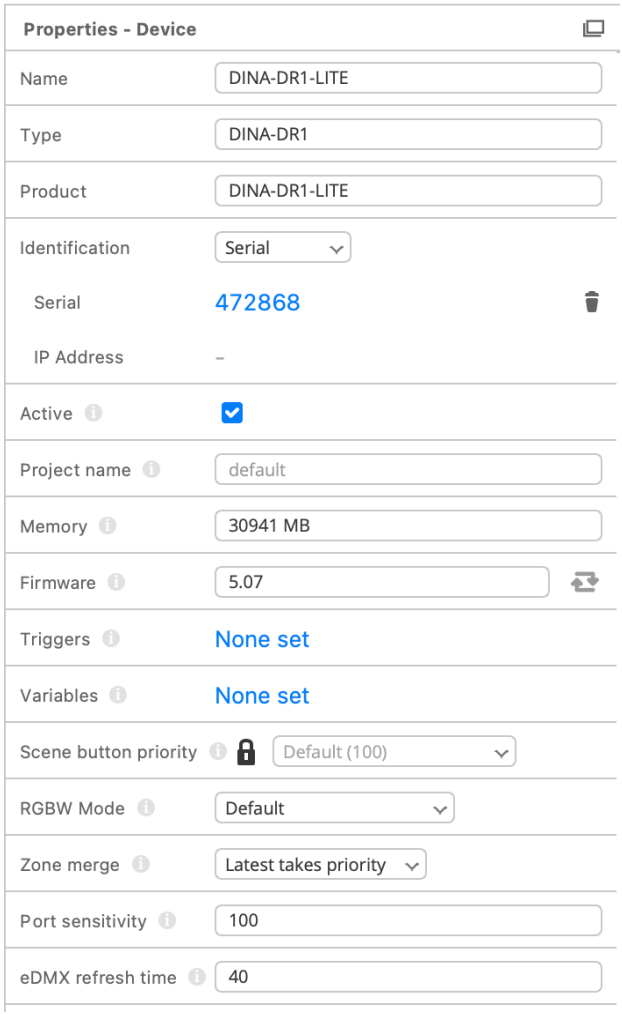
You can add a device either by connecting it via USB or local network and using the *Tools > Import Device* window. Or, if you don't have the device available, you can add a virtual device using the dropdown list and the + button. You'll need to add the serial number to your virtual device later.

You can connect to a device either by clicking the lighting bolt or the device property Active checkbox.





When you select a device in this window you'll see Device Properties appear in the properties window to the right of the device memory window.
This is where you can edit some of the advanced options on your device. The Active tick box controls if your device is active in the software. Memory shows you the total available memory on the device.



Name The name of the device shown in the Device list.

Type This may refer to the product or PCB type. E.g. DINA DR1 or SIUDI11

Product If there is a variation of a product, it will be shown here.

Identification

Serial number of the USB detected device. You can manually add or edit it.

IP Address of the detected device. You can manually add the IP address and subnet mask here. You may wish to use this if network autodetection fails.

Active is where you can toggle a device as active or inactive.

Project Name used to identify the name of the project when uploaded to the cloud.

Memory will list the total usable memory on your device.

Firmware shows the firmware of the currently selected device. Clicking the refresh button may update it, if a newer firmware exists.
Connection Status shows your current connection status.

Triggers is where you go to set T-C-A (Trigger-Condition-Action) triggers. This will only appear if you have an NSA Device (Nicolaudie Standalone Engine).
Note: NSA compatible devices are the DINA DR1, SR1 & DR2 as well as the SLESA U11.
TCA triggers will be covered in depth later in this section.

Variables is an advanced feature, only available for the DINA DR1 and SR1. These can be used in conjunction with TCA triggers to create more sophisticated behaviour.

Scene button priority controls the priority of the physical buttons on the device. It is *strongly recommended* to leave this as the default (100) value unless you need to change it and understand the consequences. A scene will only trigger if the priority value is equal to or more than the previously triggered scene.

For example, if you were to set 'User takes priority (255)', all TCA triggers with a priority of 100 will not work and this includes triggers from Arcolis remote control apps which use priority 100.

RGBW Mode changes the color calculation for RGBW lighting.

Zone Merge when using the Global zone and a custom zone in the same project, it is possible to trigger 2 scenes in different zones which control the same fixture(s). This setting allows you to control how this is managed.

Below is a brief description of the two operating modes:
LTP (Last Takes Priority): This mode means that the last triggered scene will always take priority and be visible regardless of which zone it is in. This is the default behavior.

Zone order: Imagine you have a Global zone and Zone 1 which share some lights. Note: Global always controls all lights. Place Global and Zone 1 in an imaginary 'stack' so that Global is on top of Zone 1. In this mode, scenes playing in Global will hide those playing in Zone 1 below until they are stopped (released). You can use this behaviour to create a priority.

For a more in-depth description see the section ***Advanced Standalone Techniques***.

Port Sensitivity Timing changes how often the controller checks the Dry Contact Ports on your device in milliseconds. This is set to 100ms by default.

eDMX Refresh Time allows you to adjust how many Artnet frames per second your controller sends to a node.

Keypad Mode - SLESA-U11 /SIUDI11 only.

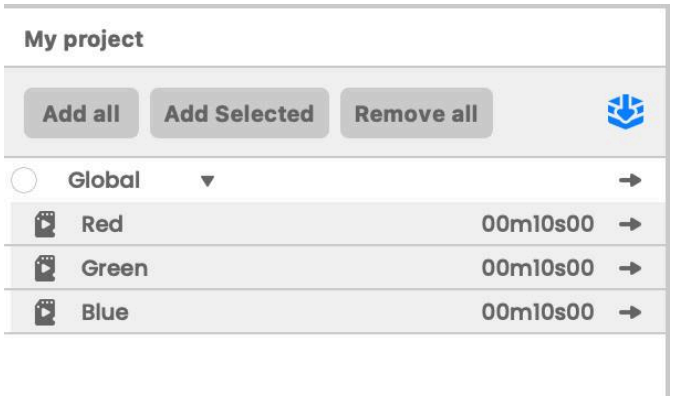
- Scene Button (Default) - trigger scenes 1-10 in each zone, A to F.
- Trigger - allows you to use the Button trigger in the TCA Triggers window.
- Disabled - disables the keypad buttons 1-10. The Zone buttons A-B-C and < & > still work but these are only useful for seeing which scenes are playing, not actually changing scenes.

Selecting a Zone in the Device Memory window will give you two options to modify in the properties window. Starting scene dictates what scene the Zone will start on when the controller boots up, by default this is set to 'Last Played Scene'.
The other option you're given is whether you want the controller to process triggers for the zone you have selected on startup, by default this option is enabled.

Adding Scenes to Memory

The **My Project** window, pictured below, is where your programmed scenes appear in their relevant zones. You can add or remove scenes and zones by using the arrows

that appear next to them or by pressing the Add all, Add Selected or Remove All buttons.
The Pre Selection icon that you see appear next to your scenes in the Editor tab also appears here. By default this is active but if you deactivate it then any scenes that don't have pre-selection enabled will disappear from this list.



The device memory window is where you view the scenes that are waiting to be written to your devices memory and access tools to create show files and test your show in Standalone mode.

Scenes in this window can be re-arranged by clicking and dragging the three dots that appear left of a scene.

Along the top of this window is where you have device memory tools.

Read will pull the showfile that's stored on your device and import it into ESA Pro 2.5 (If compatible), this is very useful if you want to edit a show but don't have the original file to hand, just the device.

Write; will write all of the scenes listed in this window to the device memory.

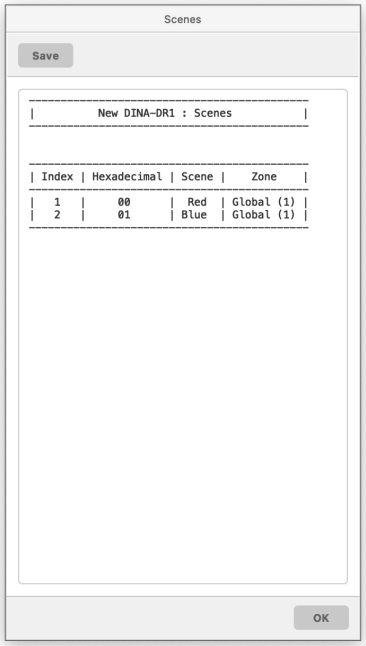
You can use the **Write on Computer** button to create the same folder that would be written to the device on your computer. To copy the folder to your device, make sure to only copy the **show1** folder and its contents. Do not copy the parent folder which starts with Show_ and includes the device name and serial number.

If you're creating a show to be uploaded to the Nicolaudie Cloud use the **Write for Cloud** button to create an .xsa file to upload. Note that this .xsa file cannot later be opened or imported by ESA Pro 2 software.

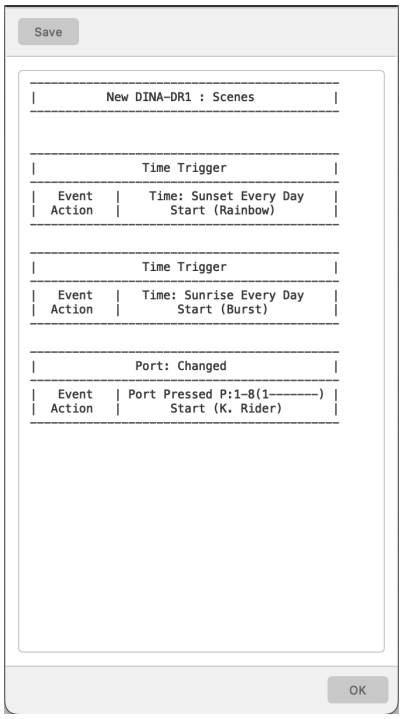
The **Test** button puts your device into standalone mode within ESA Pro 2.5, this allows you to check your show has been written correctly and all of your fixtures are behaving as expected.

Set UTC allows you to set your device's internal clock. To do this you should first navigate to the **Settings** menu and click the **System Location** option that appears. From here you can select the location of your controller. Once you've done this press **Set UTC** to update the Date, Time & Location of your device.

Scenes List will create a simple, exportable, plain text scene list. This details the scene index, hex identifier, name & zone.



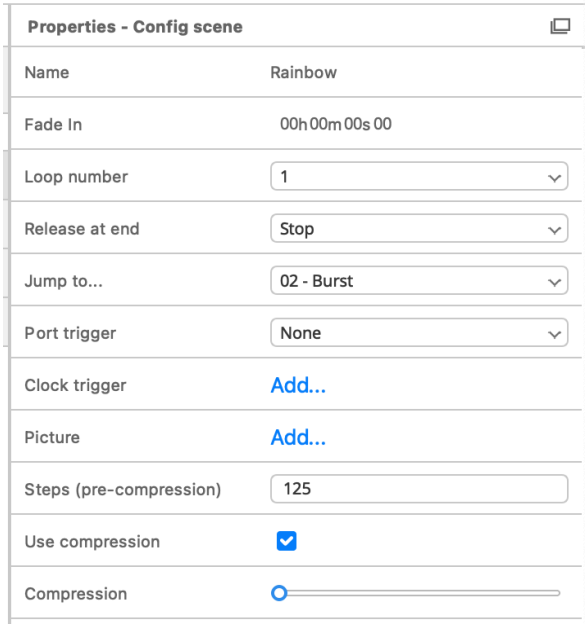
Triggers List creates a simple, exportable plain text trigger list. This will breakdown the **trigger event, conditions** (if any) and the associated **actions.**



Scene Properties

When you select a scene in this window you'll see some more options relating to the scene appear in the properties window on the right hand side.

Note: The options that appear here will vary from device to device, device exclusive features will be noted.



- **Scene name** . This name may show on remote control apps or on the screen of the device depending on which device you have.
- **Fade in** sets the scene fade time from the last scene. In the example above, it will take 30 seconds to fade between scenes.

  There is no fade out time. If you want a scene to fade out to black (or 000 values) you could create a black or 000 scene with a fade in time and trigger this to 'fade out' from your last scene, whichever this may be.

  There is a difference in behaviour in how devices fade between scenes, depending on the model. DINA-DR1, DR2, SR1 and SLESA-U11 (SIUDI11Ahardware) will blend the scenes together. I.e. If fading from a blue to a yellow scene, you will see green at around the half way point. All other models use a less sophisticated method ; They will fade out to black (or 000 values) and then

fade to the new DMX values to start the next scene.

- **Loop number** controls how many times a scene will loop before finishing, this is set to infinite by default. If you set a finite number of loops (e.g 10) then the release at end dropdown box will appear.
- **Release at end** dropdown allows you to control what happens when a scene finishes the set number of loops. You have two options; pause and stop.
- **Pause** will pause the scene on the last DMX frame, holding those values until another scene is triggered.
- **Stop** will stop the scene. This will reveal the *Jump to* option.
- **Jump to** will jump to the next, prev or a specific scene. Note: for NSA devices, this will create an uneditable trigger in the TCA window.

The **Port Trigger** dropdown is where you assign scenes to dry contact ports for triggering. The amount of ports available varies from device-device, if you're unsure how many ports your device has you can find out by consulting the technical datasheet for your device on our website by following the link below:
https://www.nicolaudie.com/en/download.htm
Note: For NSA devices such as SLESA U11, DINA DR1 & DINA DR2 port triggers are found in the TCA Triggers menu.

Clock Trigger is where you create Date & Time triggers for non-NSA devices such as the STICK DE3. Clock Triggering will be covered in detail later in this section.
Note: For NSA devices such as SLESA U11, DINA DR1 & DINA DR2 clock triggers are found in the TCA Triggers menu.

Picture is an option available exclusively for the STICK DE3. This allows you to upload an image file to be displayed when the selected scene is playing.
Note: Only .jpg & .png files with a maximum resolution of 160x128 are accepted.

Compression tools are very useful if you're working with a large project or devices with limited storage capacity such as SLESA U9 or U10.

Use the tick box to enable/disable compression.
The slider below this dictates how compressed your scene will be. It's worth noting that on dynamic scenes more compression will lower the resolution of the scene, to keep a scene running smoothly you should use minimal or no compression.

Zone Properties

Zone properties can be used to set the startup behavior of scenes in each zone on NSA devices (DINA DR1, SR1 DR2 and SLESA-U11).

Devices can have a different starting behavior for each zone using the zone properties below.

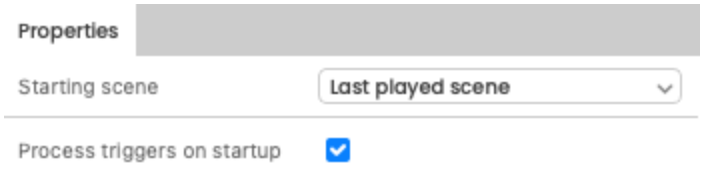
Starting Scene

- Last played scene : start the last played scene.
- blackout: start with the zone off. (i.e. scene 00)
- Set scene : select a specific start scene from those assigned to the device.

Process triggers at startup: if enabled, the device will run through the triggers from that day, ensuring the device state is as it should be.

1. Select a Zone in the list

2. Look at the options in the Properties panel to see options for Starting Scene and triggers.

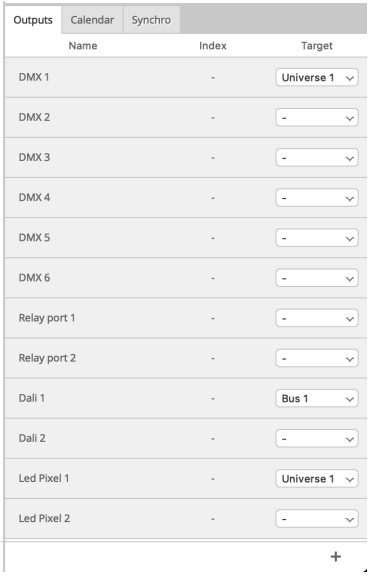


Process triggers on startup. When the device powers on into standalone mode, the device simulates time triggers at each minute between the last time we were in Standalone mode (24h max) and current time. Note that it does not do this after simply disconnecting from software.

Note: For non-NSA devices the Zone properties window is blank. Instead, look in Device properties in ESA Pro 2 or Hardware Manager > Settings. Devices such as the SLESA-UE7 and Stick-DE3 have a scene recovery system. This will trigger the last scene from that day regardless of whether the device has been in standalone mode or not.

Output, Calendar & Synchro

The **Output, Calendar & Synchro** window has three tabs, these will be individually covered beginning with the Output window.



Output Window

The **Output** window will look something like it does in the image left.

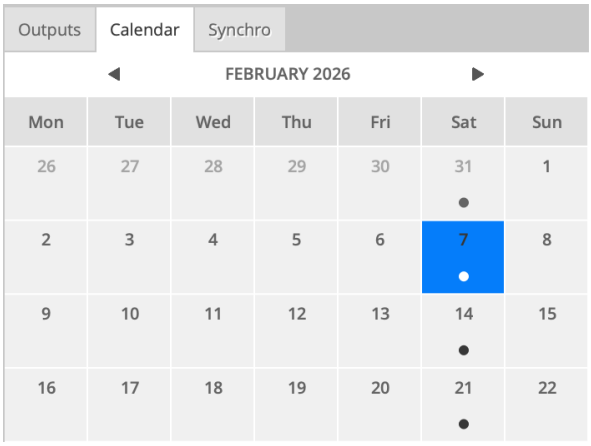
Note: This window will vary from device-device, not all devices will have the features listed here.

DMX Output directly correlates to DMX output on your controller, in the image above a DINA DR1 is connected which has 6 DMX outputs so we have the option to change which universe each output is sending. If your device has alternative output options (such as relays, DALI or LED Pixel) these will also appear here.
When you click on the Universe dropdown a list of 100 universes will appear, select the universe you wish to output from the DMX output. For example; both DMX output 1 and DMX output 2 can output universe 1 etc.

The Relay port option is exclusive to the DINA DR1, DR1 LITE and SR1. Use the dropdown menu to select which relay these ports control.

If you scroll down in the Output window you'll also find options for DALI & LED Pixel outputs if these are available for your controller.
Art-Net will be covered later in the manual.
You can add Art-Net universes or sACN outputs by clicking the **+** button in the bottom right corner of the software.
Note: Additional Art-Net universes must be purchased separately, you can check how many Art-Net universes your device has licenses for in the SUT window of Hardware Manager.

Calendar
The calendar window allows you to quickly view which days of the week have a date/time trigger occurring.
Days that have a trigger occurring are marked by a dot below the date, you can see this highlighted in the image below where a scene is triggered every Saturday.



When you double click on a date a window will appear that lists all of the triggers for that day like in the image below.

Network Synchronisation

(**Synchro** for short) works with STICK KE2 & DE3 controllers. This feature allows two or more STICKS of the same model (e.g. 2x STICK DE3's) to have scene selection synchronized on a per page basis. For example, if a user selected scene 2 on page A on one STICK, all the other STICKs on the network can be made to select this scene if configured as below. This is particularly useful when controlling one space from different locations in a building. Note that this feature relies on broadcast network

messages being sent and received and is therefore not compatible with VPNs or networks that block broadcast messages.

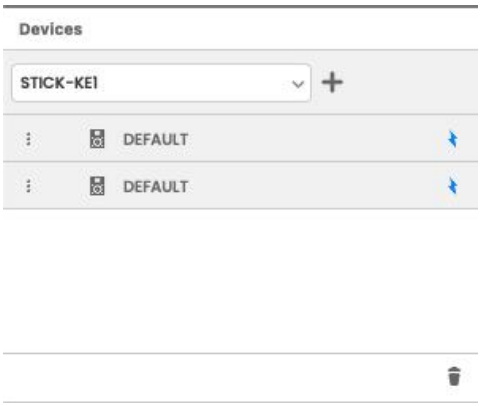
You can select which pages / zones to synchronize in ESA PRO 2. You may choose to only synchronize some of your pages / zones.

The Stick-DE3 and KE2 work slightly different:

- The Stick-KE2 will only synchronize pages A - E; it does not care what zone is loaded onto it. 2. If you are using the extra pages beyond A-E such as A1, A2, A3 etc, this feature will not work.
- The Stick-DE3 is more advanced and will synchronize zones regardless of what page they are loaded onto.

How to setup Network Synchronisation:

1) Connect both of your devices to ESA Pro 2 and import them to your project. If the STICKs are available, you also add two STICK devices using the + button (see image), and activate them later using the serial number + device name (USB connection) or IP address (local network). Each can be activated in the properties window



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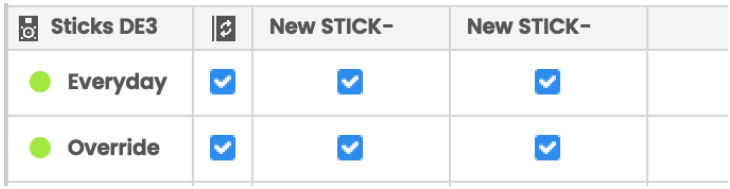
2) Add your scenes to each device. Notice the Zone name is copied to the page. (e.g. Zone 1 becomes 'Global' etc). Only scenes from the same zone can be added to a page. With the Stick-DE3, the zone order does not have to be the same on each device for sychronisation of those zones to work. With the Stick-KE2 it is necessary to use the same zone order on each page on each device.

3) Switch the bottom right window to set up Synchro. In the example below I have enabled 2 zones on the Stick-DE3s to sync, called Everyday and Override. You will need to select each device in the Devices list and enable this.

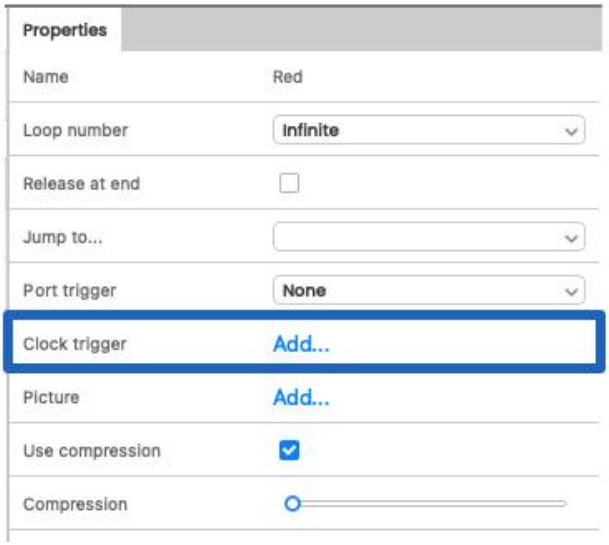


4) Write your show to each device using USB or Network.
(note : for customers who remember ESA Pro 1, it was necessary to write all devices at once over a network. With ESA Pro 2, you can write each device individually over USB or Network.)

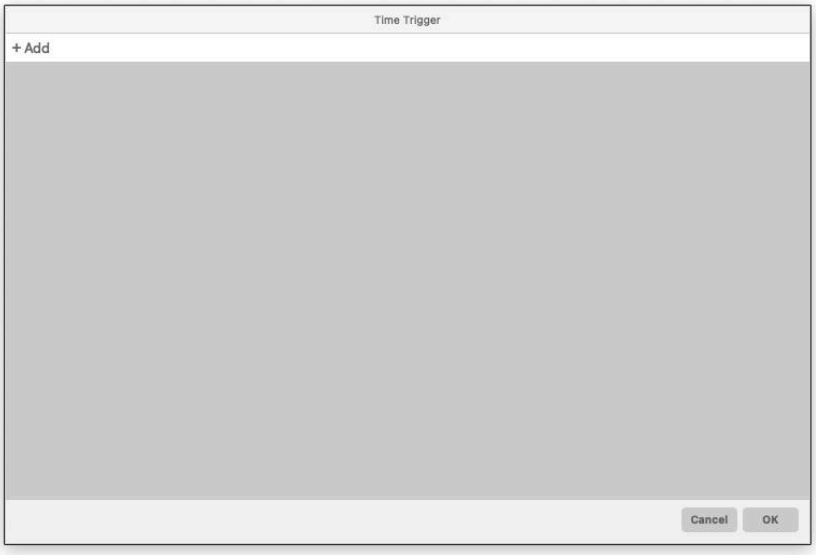
To test the network synchronization, connect all STICKs to the same network and change scenes on the pages/zones you have selected to sync. You should see them changing. If not, re-check your sync settings above and make sure nothing on your network could block broadcast messages.

The following section discusses **Clock & Calendar triggering**. This type of triggering is only available for older, non-NSA devices such as the SIUDI 10 (and older) and the entire STICK range of controllers. The more advanced T-C-A triggering options (which include clock & calendar triggering) will be discussed in the next section.

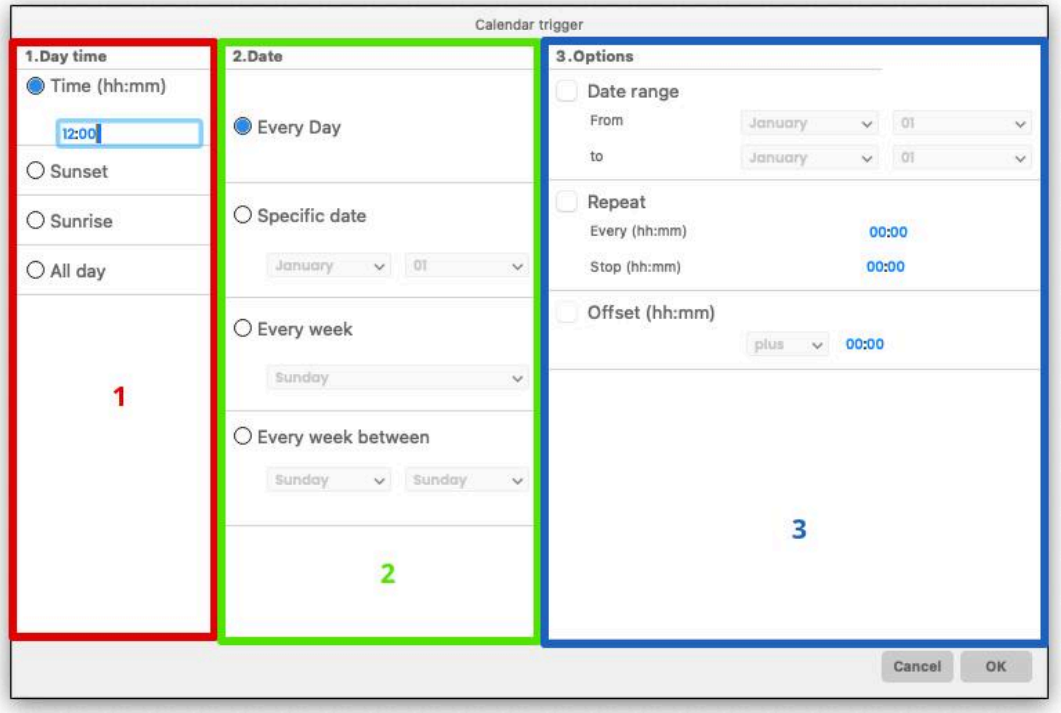
To access Clock & Calendar triggering you should begin by selecting the scene you wish to set a trigger for in the Standalone window and select 'Clock Trigger… Add' from the scene properties window.



Once you've done this the Clock & Calendar triggering window will appear as it does below.



To set up a new trigger we press ‘Add’ to begin creating our trigger.



The Clock & Calendar trigger window is divided into three main sections, Time (1), Date (2) and Options (3). Time is where you set the time of day you want your scene to trigger. With devices that have an astronomical clock you’ll also have the options to trigger at Sunset & Sunrise for your device location.

Note: Device location can be set in Hardware Manager or by using the “Set UTC” button in the Standalone screen of ESA Pro 2.5. All devices default to Montpelier, France as standard.

Once you’ve set the time of day you want your device to trigger you can move onto the ‘Date’ pane. Here you can set how often you want the trigger to occur, being able to select every day, a specific date, day of the week or weekday-range.

Lastly you have the Options pane. Here you can select a date range within the year to trigger, how often (if at all) you want the trigger to repeat and any time offset you want to apply.

When we've decided the parameters of the trigger we press OK and the trigger is ready to go. Each scene can have multiple triggers.
Note: If using clock triggers with Static scenes (e.g scene is static red) then you don't need to use the repeat option to loop the scene indefinitely. Instead navigate to Scene properties, Loop number and set it to infinite (this is usually set by default).

You can use scene list order on the device to give scenes which trigger at the same time a priority. This can be useful in a situation where you want a standard 'everyday' scene to play each day but have 'special day' scenes which override this on certain days of the year.

Scenes are triggered in list order, from top to bottom in each zone. You can use this to your advantage by placing your 'special day' scenes below your 'everyday' scenes in the scene list added to your device.

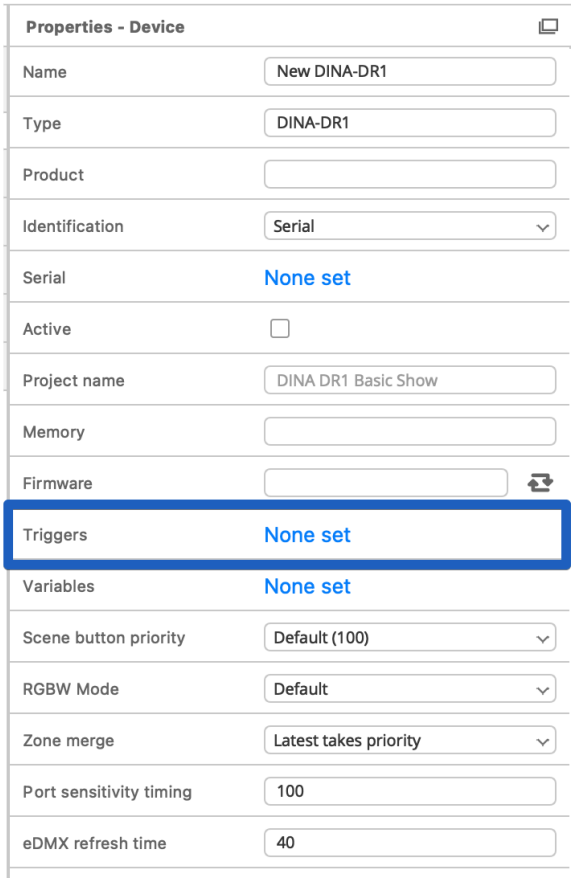
For example, I have an everyday scene as the 1st scene on my device which is set to trigger at 10.00am everyday. On my birthday, I want a special scene to play instead of the 'everyday' scene.

I set a clock trigger to this special scene, to start at 10.00am on January 7th (my birthday) and position this scene further down my list than the everyday scene.
Now on January 7th at 10.00am the standard everyday scene I set is overridden by the 'special' scene I set.

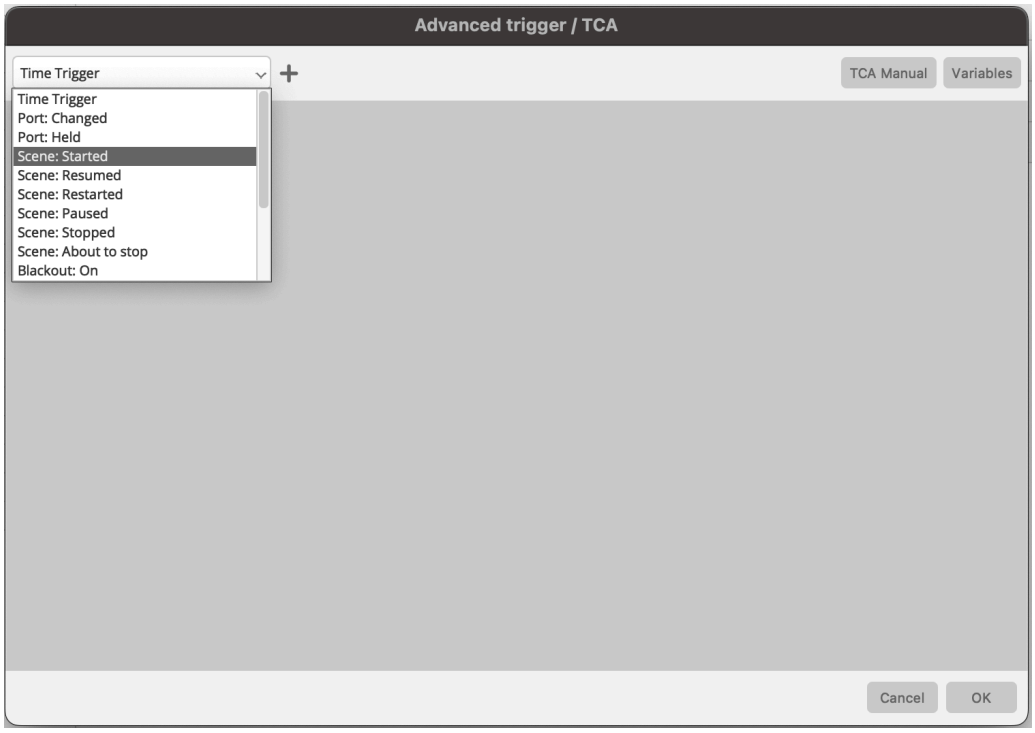
T-C-A Triggering

The following section discusses T-C-A Triggering. This type of triggering is only available on NSA devices such as the SLESA-U11, DINA DR1, SR1 & DR2.
If you're searching for T-C-A definitions you should skip to the end of the manual.

Trigger - Condition - Action or T-C-A triggering is a powerful tool only available on our newest devices. T-C-A triggering can be accessed from the device properties window by clicking on Triggers, None Set (highlighted below).

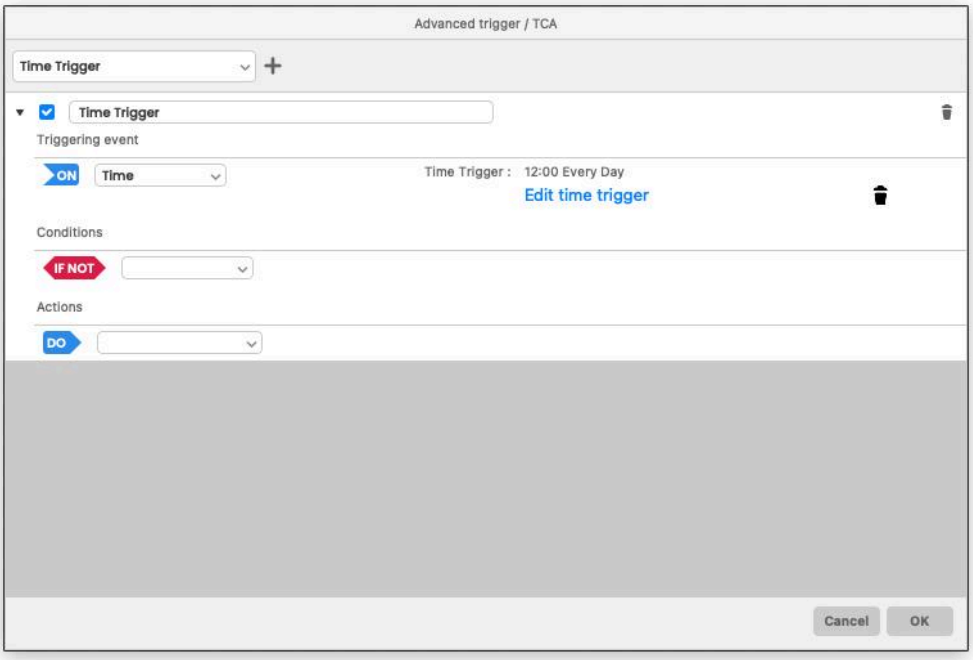


Once you've selected this the T-C-A window will appear.



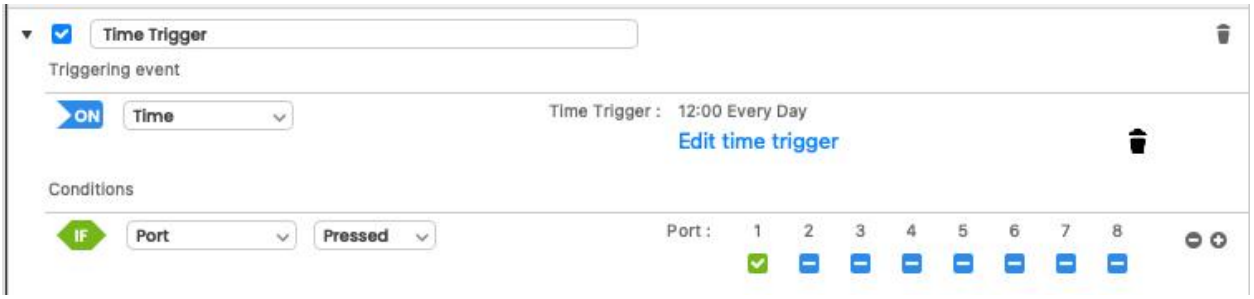
The drop down above lists a variety of trigger types, for now we're going to stick with a Time Trigger.

Once we've selected the trigger type we want and added it a window will appear as it does below. As you can see our trigger (T) is a time trigger occurring at 12.00 everyday.



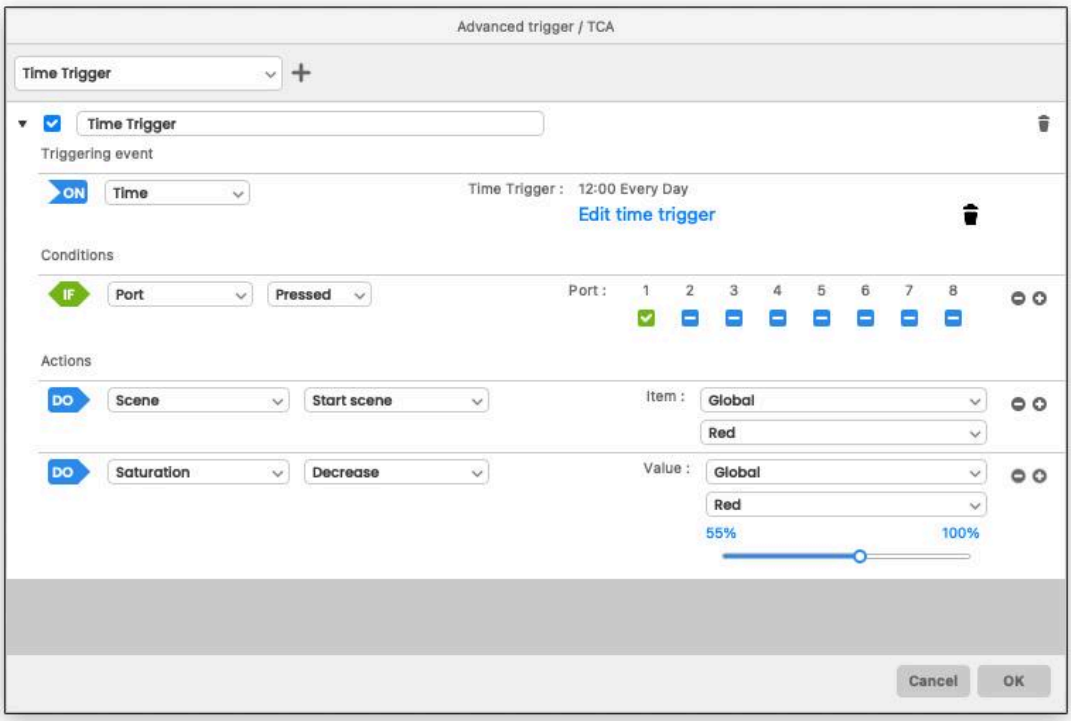
Now we've set our trigger we can move onto the conditions (C).
You can use conditions to set prerequisites that need to be met before a trigger occurs. Each trigger can have multiple conditions and conditions can be changed from **If Not** to **If** by clicking on If Not.
Note: Conditions are completely optional, you can leave these blank if you don't want or require conditions.

The dropdown menu gives you several condition options to choose from.



As you can see we've now got a trigger at 12.00 (T) that will only activate if port 1 is pressed (C), the only thing left for us to set is an action (A).
Just as each trigger can have multiple conditions it can also have multiple actions, in the image below you can see the two actions we have selected to occur.

In summary our T-C-A trigger occurs at 12.00 everyday IF port 1 is pressed. When it's 12.00 and port 1 is pressed the Red scene in our Global zone activates at 55% saturation. You can see the complete trigger in the image below.



This is only a brief summary of how to use T-C-A triggers. The system is very powerful and allows for a whole host of complex triggering options.

You can find out the function of each trigger, condition and action in the “Trigger - Condition - Action Functions” section at the end of the manual.

Port Triggers

You can use a single port or combinations of ports to create a trigger event or condition. You can choose from different port trigger behaviours described below: Changed, pressed, released or held.

Port states

- Port pressed (closed)
- port released (open)
- ignore the state of this port

Note: The ports are checked (polled) by default every 100ms. This timing can be changed in ESA Pro 2 on the Standalone screen. Go to Device Properties and change

the *Port Sensitivity timing*, if required.
Port: Changed - This trigger happens only once when a condition is met, no matter when the ports were activated/deactivated.
This is the recommended port trigger behaviour if using multiple ports and manual buttons or when using multiple relays which may have a small

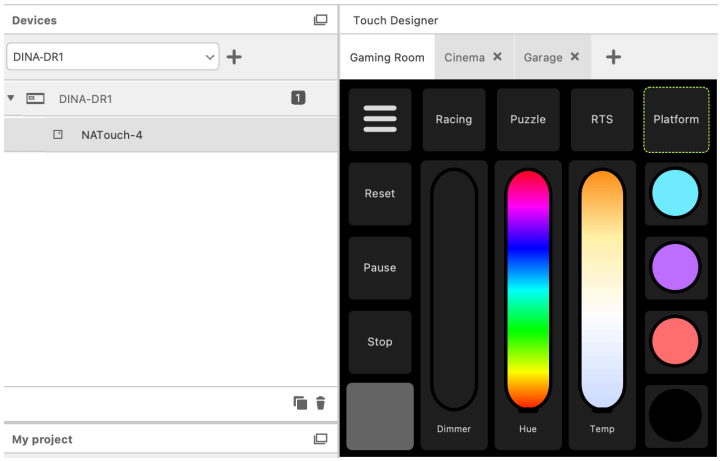
Port: Released - Trigger if all the specified ports are released (opened) at the same time.

Port: Pressed - Trigger if all the specified ports are pressed (closed) at the same time.

Port: Held - The trigger happens multiple times while the condition is met based on the *Port Sensitivity timing* (default 100ms). Trigger happens as soon as the condition is met, no matter when the ports were activated/deactivated.

Arcolis Touch app & Touch Designer

Arcolis Touch is a remote control app with an entirely customisable user interface. It is designed to work exclusively with ESA Pro 2.5 and compatible Nicolaudie controllers. Use ESA Pro 2.5 Touch Designer to create your interface, write it to the controller and then connect Arcolis Touch to control your fixtures.

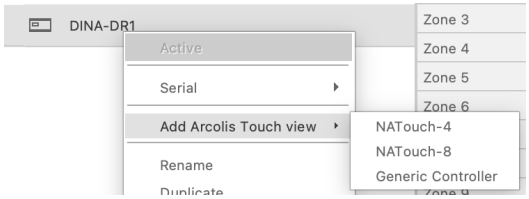


Requirements:
Arcolis Touch is compatible with the DINA DR1 (& Lite), DINA DR2 (& Lite), DINA SR1, SLESA-U11 and Stick-DE3 controllers only.

Arcolis Touch works via local wired & wireless networks, and *is* available on NATouch-4 and NATouch-8 wall controllers, iOS (Apple Appstore) , Android (Play-store). It will soon be available for Windows and MacOS from the Downloads section of the Nicolaudie.com website. A version compatible with the Nicolaudie Cloud will be available in future.

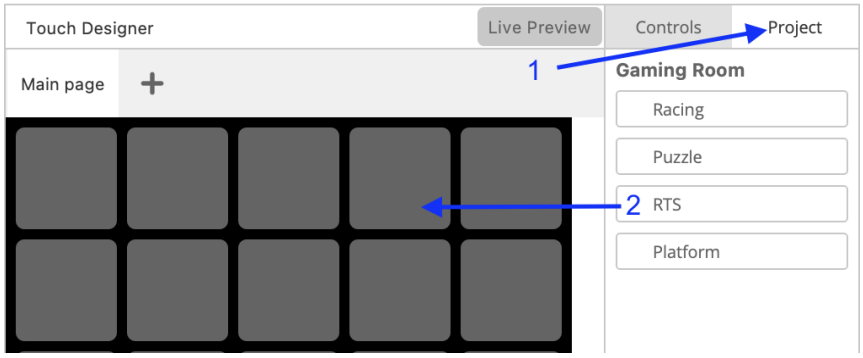
Touch Designer - Quick Start Guide

1) Patch lights and design some scenes using the ESA Pro 2 *Editor* screen.
2) Add a compatible Nicolaudie Controller in the Stand Alone screen - Devices list.
3) Add your scenes to the controller.
4) Right click on your device and select *Add Arcolis Touch View* and select *NATouch-4*, *NA-Touch 8* or *Generic Controller*. NATouch-4 displays a 5x5 grid, NATouch-8 displays a 10x6 grid and Generic Controller allows you to select a customisable size.



5) Use the Properties of Touch Designer to select your desired Theme. Dark is the default. Select the *Project* tab (1). This will display any scenes you have added

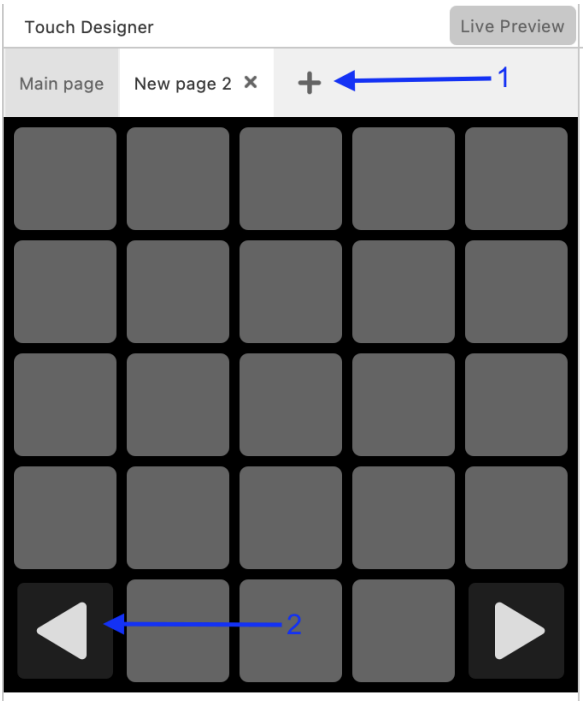
to your device. Drag scene buttons to the grid (2) to create scene buttons.



6) Select the *Controls* tab and add buttons such as Stop, Pause and Reset. You can also add Faders (e.g. Dimmer, Speed etc) and color controls like the Color Wheel.

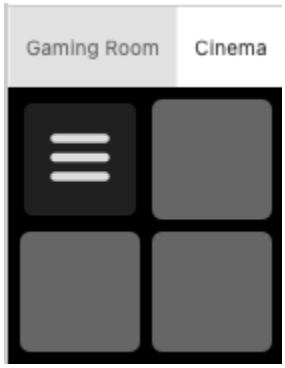
7) Multiple pages

You can add multiple pages by pressing the + button (1) next to Main Page. You can see in the image below, I have added 'New page 2'. This can be renamed in the page properties.



8) Page Navigation
   In Arcolis Touch, you'll need a way to move between pages. When adding more than 1 page, Touch Designer will *automatically* add page navigation controls using the Device settings 'Auto nav buttons' and 'Nav button position'. By default, it will add left and right arrows (2) to the bottom of the screen. Note: It will display a warning if these positions are occupied on *any* of your pages. You may need to move some controls.

   Alternatively, the app can display a pages menu button which may look better with position at the top. This opens a sidebar in the app allowing the user to select different pages. This looks like a classic burger menu button.



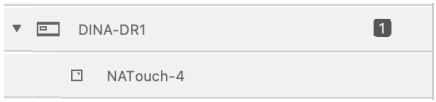
9) Once you're finished with your design, select your device in the list and use the *Write* button on the *Stand Alone* page. This will write both your light programming and your Arcolis Touch view to the memory of your controller.
10) Uncheck Active in Device Properties to let your device enter Standalone mode.
11) Connect your Nicolaudie controller to your network using the Ethernet port. HardwareManager > Ethernet can alter network settings.
12) Open *Arcolis Touch*. It will search for and display all compatible controllers on your local network.

13) Selecting your device will load your Arcolis Touch design and allow control of your lights.

Touch Designer - User Interface

Devices List

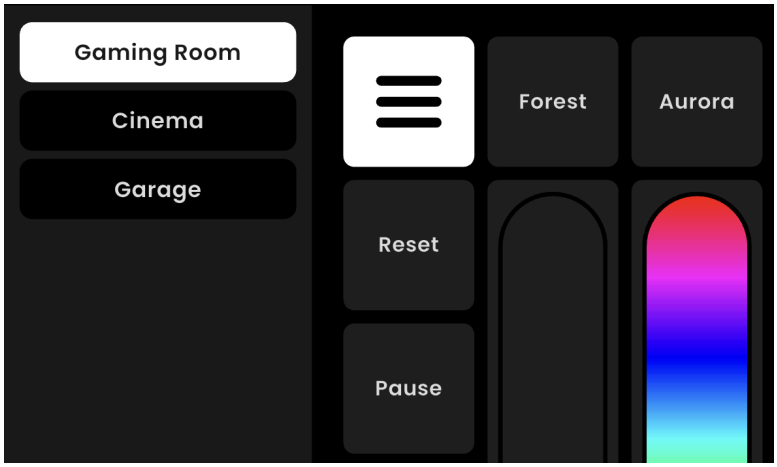
Right click on a device to choose 'Add Arcolis Touch View'.



Note: Currently each device can have one Arcolis Touch view. Use the right click menu, you can duplicate the design to another controller in the devices list, rename it or delete it.

Pages

Add new pages using the + button or duplicate them using the right click menu. Page names are displayed in the sidebar in the app, if you add the menu button to allow the user to open it.



Basic Controls

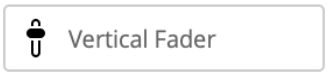
Add a label to your page such as a page title. Change the text color and text alignment. Change the size of the label on the grid to increase / decrease label font size. More customisability will be implemented in future.

This button can be Start, Stop, Pause, Reset, Next, Prev Scene button. Targeting options change depending on Trigger type.

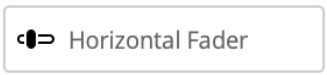
Shortcut to a Trigger Button set to *Stop*. A stop button becomes active when a targeted scene is playing.

Shortcut to a Trigger Button set to *Pause*. A pause button remains active when a targeted scene is paused.

Shortcut to a Trigger Button set to *Reset*. A reset button becomes active when a targeted scene is modified with dimmer, color and/or speed.



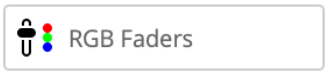
A vertical fader can change the *dimmer* level or alter the *speed* of a scene while it is playing. It can also override a scene with static color using color control : hue, saturation, color temperature, red, green, blue and extra color.
Extra colors include *white* (useful for RGBW) as well as *warm white* and *cold white* for control of color temperature fixtures .



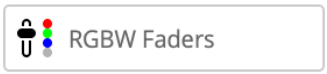
A horizontal version of the fader above.

Used for controlling RGB channels. Takes up 4x4 grid by default. Used to override a scene with a static color. Not able to control extra color channels.

Display a single color. Used to override a scene with a pre-defined static RGB color. These cannot control Extra Colors such as white. Not able to control extra color channels.



Red, Blue and Green faders for RGB lights.

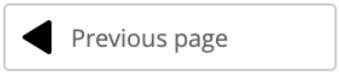


Red, Blue, Green and White faders for RGBW lights. Notice that *white* channel is defined as an *extra color*.

3x3 grid of pre-defined RGB color buttons.

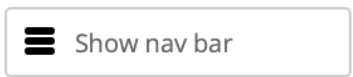
Navigation Buttons

You may decide to use the 'auto nav bar' settings to add navigation buttons automatically to all pages. If you prefer to add buttons manually the software offers these buttons in the toolbar. Note that if the buttons have already been added, the same buttons become disabled in the toolbar.



Next and previous page buttons.

Link to another specific page. This button type is the only one not available via the auto nav bar options.



Add a burger menu button. This will open the side menu in Arcolis Touch displaying your page names and allowing the user to navigate among them.

Live Preview

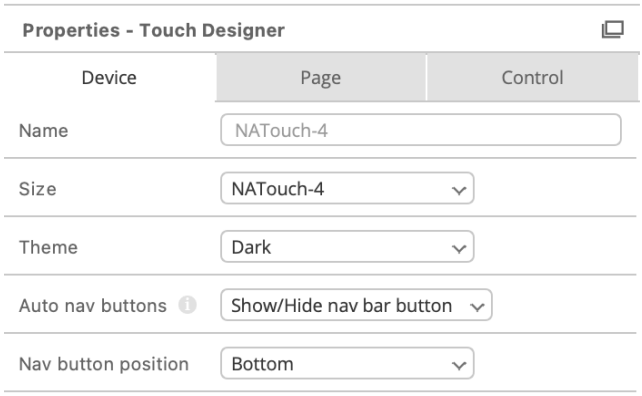
This screen allows you to test triggering buttons and using faders to see how your interface works. Note : this screen does not start scenes playing or output DMX.

Properties

Edit three aspects of your design:

1. Device - change the display grid size, auto navigation controls and theme.
2. Page - change the page name.
3. Control - change the properties of the selected control.

1. Device



- Name : Arcolis view name
- Size: This defines your grid size. We have some pre-defined grid sizes such as
- NATouch-4 (5x5 grid) or NATouch-8 (10x6) or Generic Controller (custom X by Y grid). You can use a Generic Controller for any device to specify a custom sized grid.
- Theme: select the look of your interface. The default is dark.
- Auto nav buttons:
  When more than one page is added (+ button) , this option is used to display

page navigation buttons on every page automatically.
Warning: You can turn this off Without these navigation buttons on every page, users may get stuck on a page. If the grid space is already occupied, when adding buttons to *all* pages, a warning will be displayed. You may need to move controls.

- ➢ Prev/Next buttons : Displays arrows for navigation.
- ➢ Show/Hide navbar button : Displays a burger menu button which opens a sidebar to navigate between pages in the app.
- ➢ Nav button positions: vertically aligns the controls top or bottom.

2. Page

- ❖ Page Name: Change the name of your page. This name is displayed in the sidebar. It is recommended to keep this short.

3. Control

The properties displayed here depend on the control selected.

- ❖ Type: Displays the type of trigger : Trigger Button, Fader, Color Button, Color Wheel or Navigation Button. This is non-editable.
- ❖ Name: Use the control default name (displayed in grey) or specify a custom name. Most controls display their name in App.
- ❖ Trigger: describes the property changed when activated. E.g. Start scene, pause scene.

  Note: When using Trigger: Extra Color, the extra channel must exist for this fader to control it. I.e. using a White fader will not make RGB channels display White; it will only control a specific White channel (aka Neutral White).

- ❖ Targeting : Controls can have 3 different targeting behaviours set. Not all controls have access to all 3 targeting options.

- Last affected scene: This will target whichever scene was last affected, regardless of the zone. A scene is affected if it is changed in some way (i.e. start, stop, pause or has a property modified such as dimmer, color, speed etc).

- Zone : this will target the last affected scene in a particular zone. Imagine a hotel with guests in different rooms. You don't want one room controlling another ! This setting will ensure the controller always targets the correct zone.

- Scene : this targets a specific scene only.

  Note: For all compatible devices except the Stick-DE3 it's possible to change a scene property when a scene is *not* playing. For example, you could set a scene to red and 50% dimming, then start the scene.

Sound-to-Light with T-C-A

ESA Pro 2.5 paired with a DINA DR1 or SR1 gives you the ability to create sound-light effects using beat detection.

This section is only relevant to the DINA DR1, DINA DR1 LITE (with Audio triggering SUT license upgrade) and DINA SR1 models.

How does audio triggering work?

When an audio signal is received by the controller, it will look for transients in the signal which are spikes in waveform. The Audio LED will flash to show when these are detected by the controller. Audio:Beat triggers can be used with the action 'Next step in a scene' to step through each DMX frame in memory with each audio pulse; this creates the sound-to-light effect.

Compatible Scenes

To create effects that work nicely with audio triggering we recommend using

- Paint block effect with fade time set to 0:00 for each step, or
- Basic blocks, with the property *Static block* enabled.

Why is this? For sound-to-light to work well, the values between DMX frames need to be different enough that you will notice them change with each beat. Pixel and Mapping effects can generate amazing effects but many of the frames are very similar if you step through them at 60 -100 beats per minute, for example.

Configure TCA Triggers for Audio

In the example below we will create 2 scenes controlled by audio beats.

1. Create 2 *Scenes using the Paint block or Basic Block* (with Static block enabled).
2. Open the Standalone Screen, select your DINA DR1 or DINA SR1 on the left.
   In the Properties - Devices panel (right) click the *Triggers link*. The TCA window will open

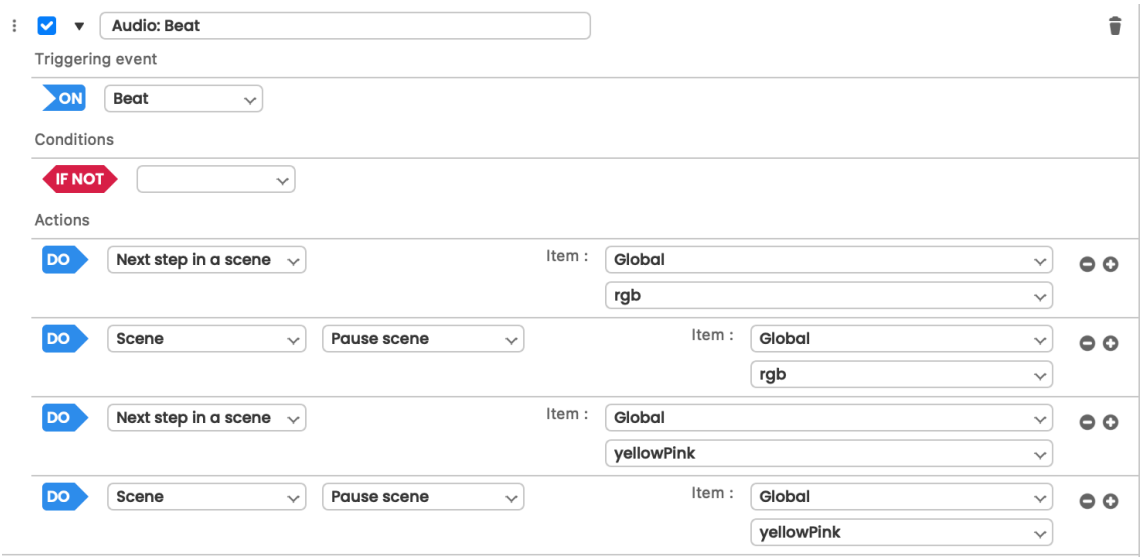
3. Create one Audio :Beat trigger to control all scenes you want to use with sound.

   Triggering event :
   On : Beat

   Actions:
   i. Do: Next step in Scene (specify zone and scene name)
   ii. Do : Scene : Pause Scene (specify the same zone and scene name as above)

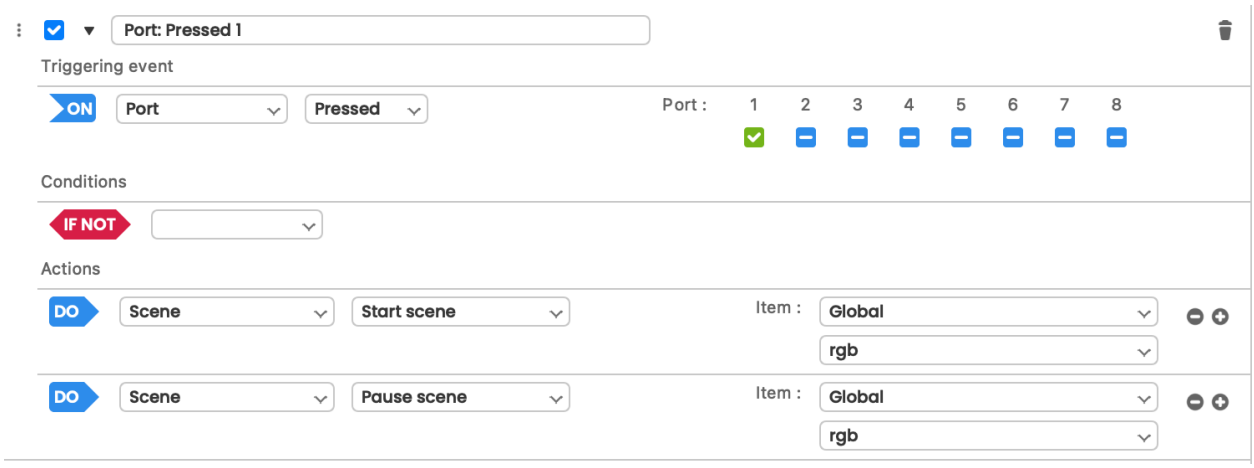
   Add these 2 actions for each scene you want to use sound-to-light with.

See example below where 4 actions have been added to control 2 scenes.



4. Write the show to your DINA and uncheck active to put it in standalone mode.
5. Connect audio
6. Select a scene. It will start playing with time until the first audio beat is detected. When audio is detected you will see it play according to the audio beat. You have sound-to-light! If the audio stops, the scene will pause.

If you would like your scene to wait for audio beats before starting, it needs to start and then pause. You could use a port trigger as in the example below.



Variables take the power of TCA and turn it up a notch. For example, you may want to start a random scene in a particular range of scenes or select a scene based on the minute of an hour. With variables this is possible and so much more. This is an advanced topic and is only briefly covered here. More documentation will be available in future.

The variables window can be opened by selecting your device from the Devices list, then in the Properties panel look for Variables and select 'None set'.

This will open the Variables window

Let's try a simple example to get started:

Start a random scene in a specific range

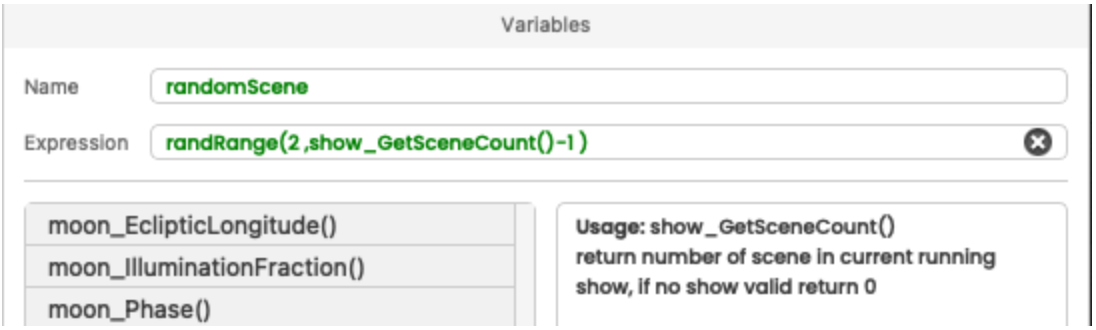
Imagine you have 7 scenes. The first 2 scenes are standard 'on' and 'low setting' scenes. Scenes 3-7 are more interesting and you want these to randomly play each minute during working hours from 9:00.

1) Open the Variables window from the Device properties panel.
2) In the Name field, give your variable a name without spaces, replacing New_variable. E.g. you could call it *randomScene*
3) In the Expression list, find and double click on RandRange(,). This function will pick a random number between 2 numbers with a min and max limit.

It appears as red because the expression is not yet valid. It needs two numbers added in the brackets, separated by a comma. Note: While we have scenes 1-7 the scene index that we will use to select scenes is actually 0-6 as computers start at 0. I.e. The scene index will always be 1 less. For the first number, we will enter '2' to select 3 as below:.

For the second number we could input '6' to trigger scene 7. But what if we wanted to add more scenes? We would have to change this number each time. We can be clever and make the device count the scenes itself and then calculate the scene index by minusing 1. See the expression below.

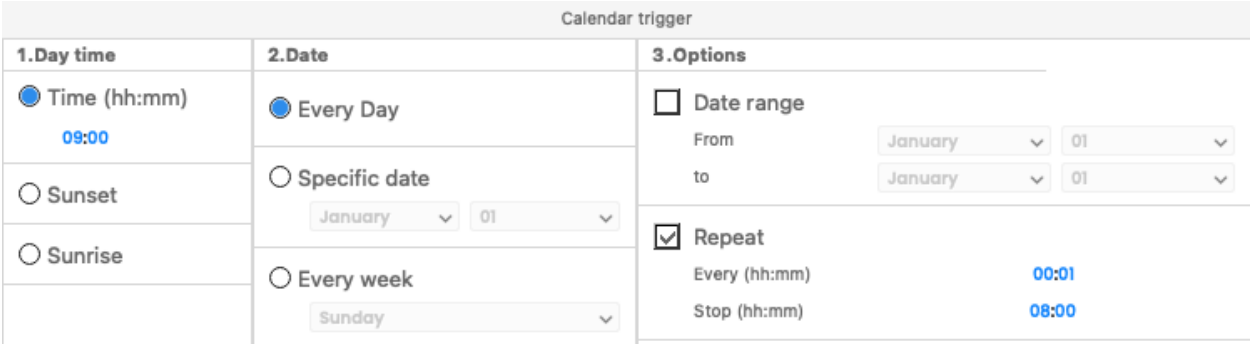
randRange(2 ,show_GetSceneCount()-1)



4) Leave cached and storage unchecked, and click OK.

Now we want to use our new variable and expression with a TCA in place of a static number.

5) Open the Triggers window.
Create a Time Trigger. We want our device to select a new random scene every minute from 9:00 for 8 hours. We enter 9:00, Everyday and check Repeat. Every 00:01 minute and stop in 08:00 hours. If your current time is outside of these hours you may want to adjust this for your own testing.



6) For the Action …
select Scene : Start scene
Item : Variable scene index : randomScene

OK

7) Make sure you have more than around 5 scenes and write the show.
8) Uncheck 'Active' to put the device in Standalone. You will notice every minute the device will randomly choose a scene in the range 3 to <max number of scenes>.

More examples will be coming soon.

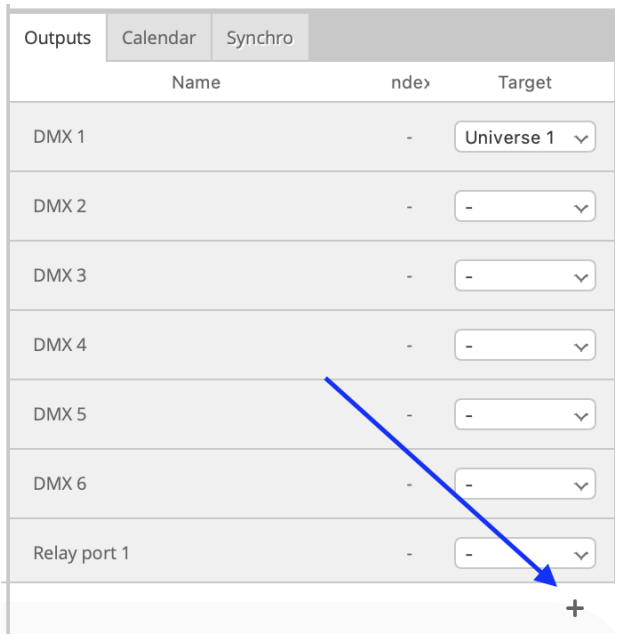
Artnet / sACN

Artnet and sACN (also referred to as eDMX) are popular protocols used to transmit DMX data via a computer network. This data can be received by a fixture that understands the Artnet/sACN directly or converted into DMX512 by a node for the final distance to your fixture.
Artnet and sACN allows you to use more universes than you have physical outputs for on your Nicolaudie controller and reduces cabling quantity and cost as many universes can travel over a single network cable.

To begin using Artnet or sACN you'll need :

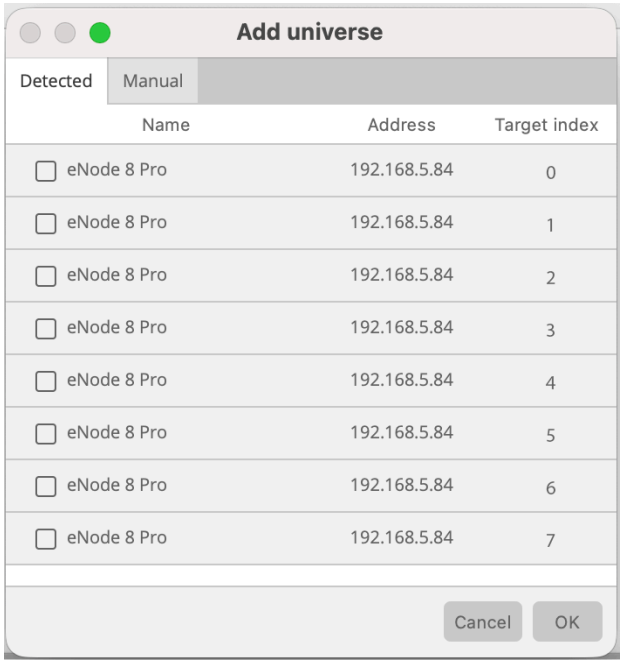
1. A compatible Nicolaudie device: DINA DR1 or DINA SR1
   (The DINA DR1 Lite is also compatible with an EDMX for Standalone and Artnet Universe upgrade.)
2. An Arnet or sACN Node. These are *third party pieces of hardware, not supplied by Nicolaudie.*

Once you have connected your DINA DR1 or SR1 to ESA Pro 2.5, head to the Standalone screen and you will notice a + button at the bottom of Outputs. Press this to add your node.

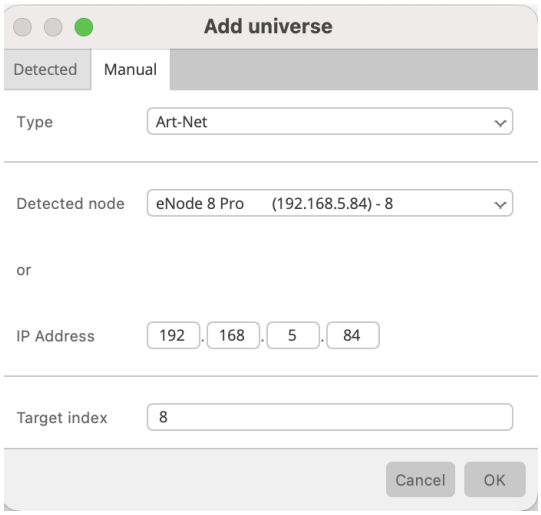


Add universe

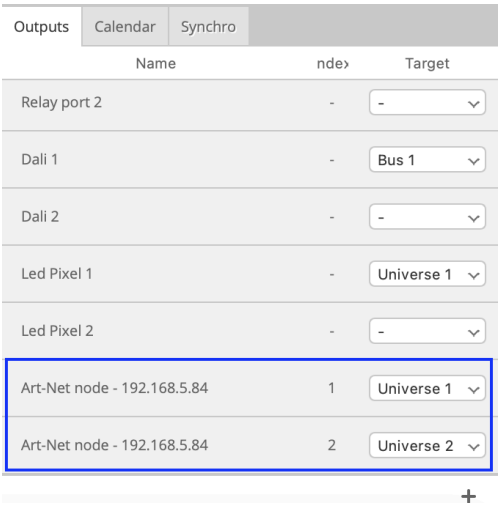
1. Detected - displays a list of all automatically detected sACN/Artnet nodes on your network, allowing you to select multiple at the same time and copy them to your Outputs window.



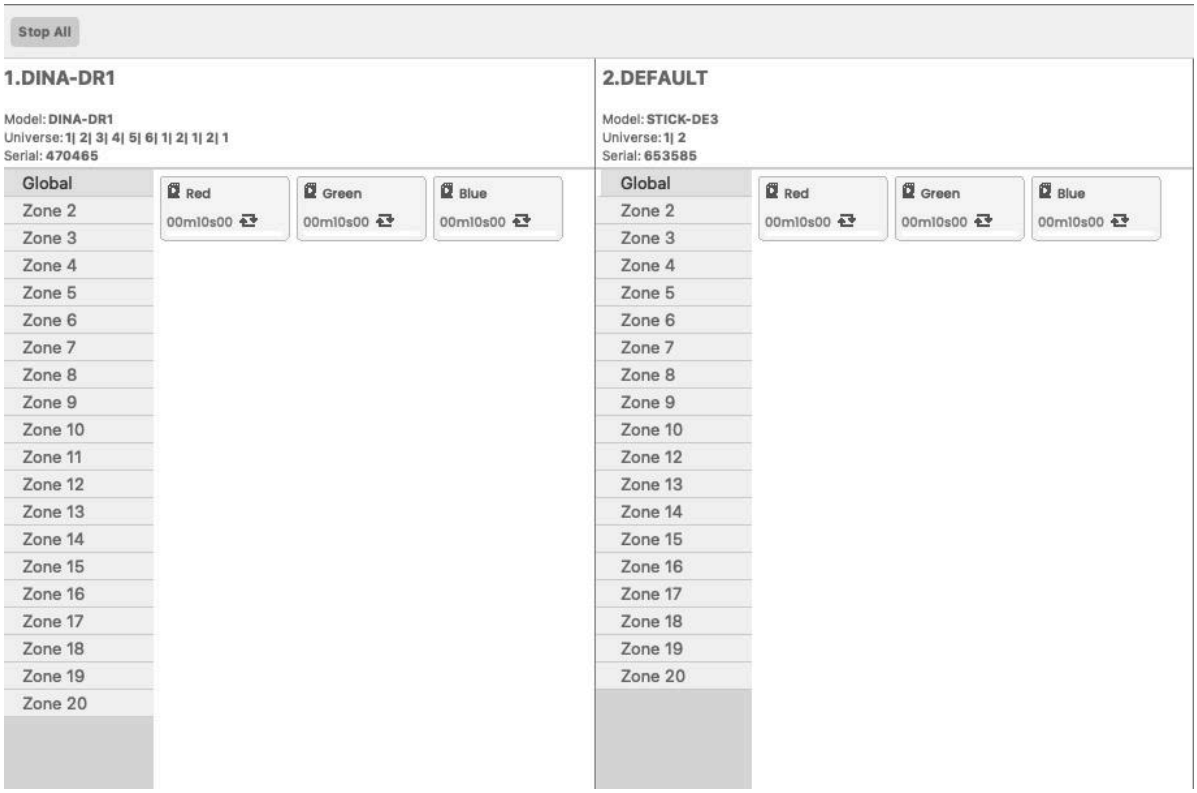
2. Manual - this window lets you add one universe at a time to your Outputs. You can either select a Detected node from the dropdown list or manually enter the IP address and target index in that node. Target refers to the output on the node you wish to send your universe to Note that Artnet.



Once you've entered these settings your nodes will appear in the Outputs window. Next, select which universes in the software to send to which nodes using the drop down list. In the image below, I have selected Universe 1 to go to Artnet node target 1 and Universe 2 to go to target 2 on the same node.



The Simulator screen is where you can test all of your programmed scenes whilst connected to your computer.



When you've added your scenes to your device they'll appear in this screen in the device they've been assigned to. As in the picture above, it is possible to have multiple controllers connected and using the Simulator at the same time.

To activate a scene in this mode you simply have to click on the desired scene.

One scene can be played per zone at once. Both controllers can be playing scenes simultaneously.

You can stop any scenes that are playing by pressing the 'Stop All' button in the top left of this window.

Tools

ESA Pro 2.5 comes bundled with several auxiliary softwares and features to enhance your use of the software, we'll discuss these briefly here.

Hardware Manager

Hardware Manager is the tool you can use to edit device settings such as clock, update firmware, set up networks etc. In order to check you have the latest firmware available you should check the Nicolaudie website for the latest version of Hardware Manager.
https://www.nicolaudie.com/en/download.htm

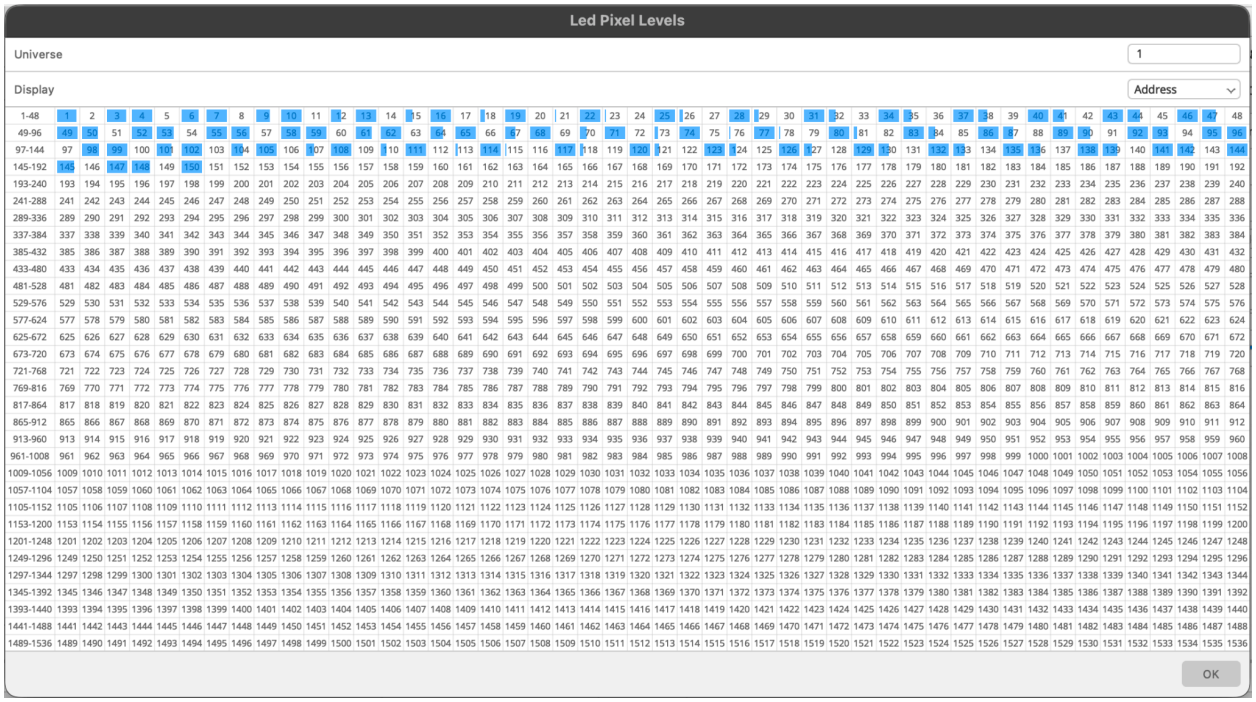
DMX & SPI Level Viewers

Menu : *Tools* > *DMX Levels* / *SPI Levels*
ESA Pro 2.5 comes with a DMX & SPI level windows, offering a quick and convenient way to check the DMX levels currently being output by the software.
You can summon these via the Tools dropdown menu or by clicking the icons pictured above.
The XLR icon calls DMX levels, the LED icon calls SPI levels.
Pictured below is the DMX levels view, you can change the Universe you're viewing by entering the number in the Universe field (1). The Display dropdown (2) changes if you're seeing the address view or the levels view.

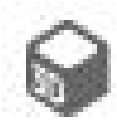
DMX Level Address view

DMX Level Value view

The SPI levels tool also allows you to select which universe you're viewing and gives the option of an address or values view.



3D Visualizer



Menu : Tools > 3D Visualizer

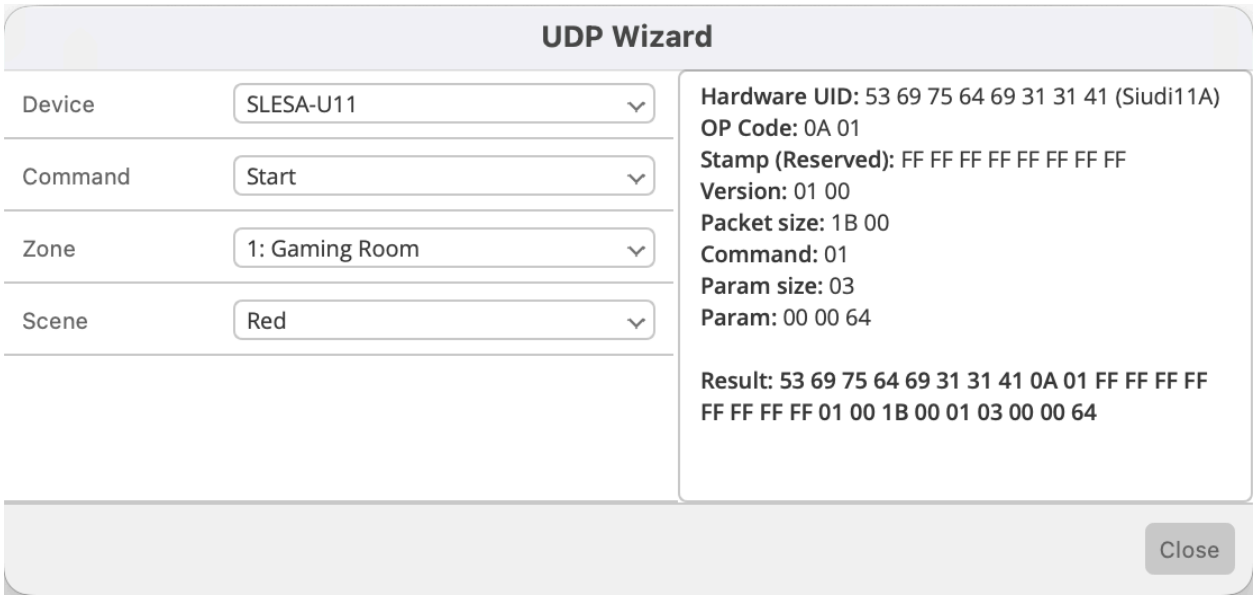
Easy View 2 is 3D visualization software included with ESA Pro 2.5. This is a great tool to check how your scenes will look in a digital environment, perfect when you're away from your work site.

Easy View 2 can be launched whilst in ESA Pro 2.5 by clicking the icon pictured at the top of this section.

Easy View 2 full manual:

https://eu-litterature.n-g.co/Release/easy_view_2_manual_en.pdf

UDP Wizard



Menu : Tools > UDP Wizard

This is an advanced feature. The UDP Wizard is designed for system integrators to generate hexadecimal commands to control Nicolaudie devices over a local network. These commands can be used by any third party system which can send a UDP Hex message over a network the controllers IP address on port 2430. You can test these commands from a computer using a tool like Packet Sender.

The UDP Wizard is also available via TCA Window when using a Network Action. This can be used to send a network command from one of our devices to another when they are running in Stand Alone mode. This is useful if you want to trigger something to happen on more than one device.

DALI Manager

Menu : *Tools* > *DALI Manager*

DALI Manager is a new tool bundled with ESA Pro 2. It allows for complete commissioning and configuration of your DALI system. You can view the full user manual by following the link below. Access DALI manager via the Tools dropdown or via the Software file structure.

DALI Manager Manual:

https://eu-litterature.n-g.co/Release/dali_manager_manual_en.pdf

RDM Manager

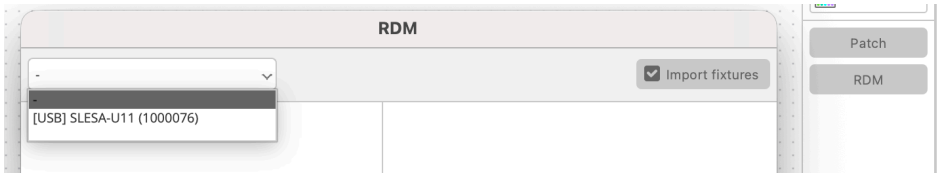
The RDM Manager allows you to detect RDM compatible devices connected on your DMX512 bus, find a suitable SSL file, import them to the patch grid and make configuration changes such as DMX address and personality.

Once detected, it will attempt to find a suitable SSL profile and personality mode from our database. The method below assumes you have not previously patched the RDM compatible lights.

RDM Manager is compatible with models: DINA DR1, DR2, + Lite models and SR1, SLESA-U9, U10, U11 & STICK-CW4. It is not compatible with the Stick-DE3.

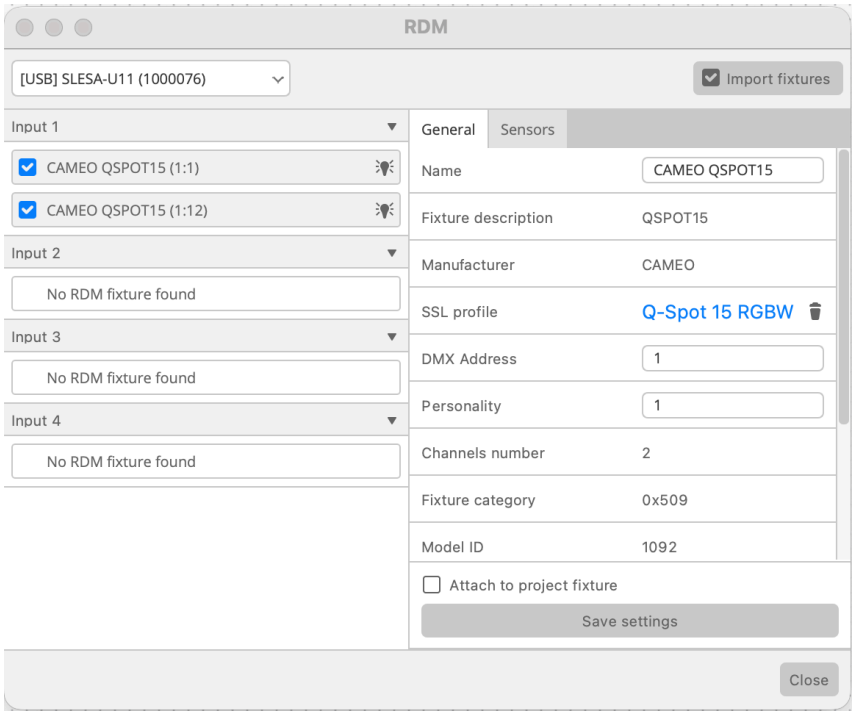
Discover and Import RDM Fixtures

1. Connect your Nicolaudie controller (device) to your computer by USB or make it available on your local network
2. Connect your RDM compatible fixtures to one of the DMX connections on your Nicolaudie Controller
3. Open the RDM window using the top menu, Tools > RDM Manager or press the [RDM] button on the Builder screen.
4. Click on the dropdown list and select your Nicolaudie controller. The software will connect to your device and begin RDM discovery.



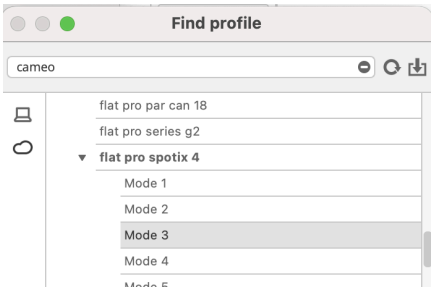
A list of discovered RDM devices will appear beneath each DMX input. Below you can see 2x Cameo QSpot15 have been discovered.

5. Click on one of the devices to access the General tab.



On the General tab you can do several things.

a. Change the name
b. Change the SSL profile. If discovery has not found a suitable SSL profile (personality file) you can delete the existing profile and/or click 'Find profile' . This will open the Find Profile window where you can load files from your computer or from the cloud. You can only access official Nicolaudie SSL profiles here.



c. Change the DMX address of your fixture. This will be between 1 and 512.
d. Change the personality (aka personality mode). Different modes use a different number of channels. You can choose which personality mode

you prefer by searching for the profile name in our online profile builder. https://profile.nicolaudiegroup.com/?filter=certified

You can also check any sensors on the Sensors tab.

6. Once you are happy with how your fixtures are configured, press the [Import Fixtures] button (top right) and answer [Yes] to confirm you want to patch the fixtures to the Patch grid. If you open the Patch window you can see the fixtures patched.

The method above assumes the RDM fixtures had not yet been patched. What if you have already patched your lights and created your show? You can link fixtures in the Patch window with fixtures discovered in the RDM Manager window. Follow the steps above until step 6, but do not click *Import Fixtures. Instead, do the following ….*

Link Patched fixtures to RDM fixtures

1. *Select each discovered fixture on the left*
2. Click 'Attach to project fixture'
3. Select the fixture number in the drop down list. This relates to a fixture already patched in your Patch window. If you are unsure, check the Patch window first.
4. Click [Apply profile settings]

Smart Upgrade Tools

All current Nicolaudie Group controllers are upgradeable via SUT licenses except for our STICK models. To confirm if your device is SUT compatible, connect it to Hardware Manager software and look for the SUT screen. Here you can see all of the licenses currently installed on your controller.
The following steps will explain how to add license upgrades to your interface or change the name.

First you need to register your Nicolaudie Architectural interface to your Nicolaudie Cloud account.

Either login with your existing account using the Login button ...
https://store.nicolaudie.com/
Or create a new account ...
https://connect.nicolaudiegroup.com/SignUp

To register your interface to your account:
- Make sure to close all other software (Hardware Manager, DMX software, etc)
- Install and open the SUT tool (Mac or Windows). Links below.
https://storage.googleapis.com/nicolaudie-eu-tools/Release/driver-sut.exe
https://storage.googleapis.com/nicolaudie-eu-tools/Release/driver-sut.dmg
- Go to the Nicolaudie store and login using your account. Note: Please do not use apple private relay email address accounts as these will not work.
- Go to "My Interfaces"
- Click the button "Register a new interface"
- Connect your interface by USB cable. The interface should register automatically on your account and appear on the left hand side.

To purchase an upgrade:

- Go to My Interfaces page
- Select your interface from the list on the left. On this screen you can check installed applications and buy new applications and features.
- Add the hardware feature or software application you want to your shopping cart and checkout. This will add the feature to your interface's keycard.

To change the interface name:

- Go to My Interfaces page
- Select your interface from the list on the left.
- Select Settings (spanner icon)
- Enter a Customized Name and press OK.

To sync the new license and confirm success:

- Close the SUT tool and all Nicolaudie software
- Open Hardware Manager (installed with your DMX software or available on the Downloads page).
- Connect interface and select it in Hardware Manager to connect

To see upgrades : Go to the SUT screen. This will show you all licenses on your interface.

Trigger - Condition - Action

ESA Pro 2.5 uses an engine called the NSA engine to give you powerful triggering options for a multitude of circumstances, these are called TCA triggers (Trigger, Condition, Action).

In this section, you can find the function of each Trigger & Action.

Trigger/Condition		**Function**
Time Trigger		Trigger an event at a specific time, day or date. Use *HardwareManager > Clock* page to check and set time and location settings. **1. Day time** - hh:mm - set a specific time of day - Trigger at Sunset or Sunrise based on location settings (longitude/latitude) of Country and City stored in device memory. Astronomical clock. 2. **Date** - Every Day - Specific date - Every week (on 1 day of the week) - Every week between 2 days of the week. E.g. Mon - Fri - Every month 1 date every month calculated from > 1st, 2nd, 3rd, 4th, Last (month)

		> Day of the week (Sun, Mon etc.) - Every month between 2 dates every month calculated from > 1st, 2nd, 3rd, 4th, Last (month) > Day of the week (Sun, Mon etc.) 3. **Options** - Date Range from one specific date to another. - Repeat Every hh: mm E.g. 00:10 will repeat every 10mins Stop hh : mm This is a specific time-of-day. It is not an amount of time. E.g. 12:00 will stop at midday.
Port		You can use a single port or combinations of ports to create a *condition* which is tested by a port trigger. You can choose from different port trigger behaviours described below: Changed, pressed, released or held. **Port states**  - Port pressed (closed)  - port released (open)  - ignore the state of this port Note: The ports are checked (polled) by default every 100ms. This timing can be changed in ESA Pro 2 on the Standalone screen. Go to Device Properties and change the *Port Sensitivity timing*, if required.
	Port : Changed	This trigger happens only once when a

		condition is met, no matter when the ports were activated/deactivated. This is the recommended port trigger behaviour if using multiple ports and manual buttons or when using multiple relays which may have a small delay.
	Port : Released	Trigger if all the specified ports are released (opened) at the same time.
	Port: Pressed	Trigger if all the specified ports are pressed (closed) at the same time.
	Port : Held	The trigger happens multiple times while the condition is met based on the *Port Sensitivity timing* (default 100ms). Trigger happens as soon as the condition is met, no matter when the ports were activated/deactivated.
Button (SLESA-U11 buttons, DINA DR2 < > & Z connections)	Released	Trigger when a button is … released.
	Pressed	… pressed
Variable (DINA DR1 and SR1 only)	Value	Trigger when a variable equals a specific value
	Changed	Trigger when a variable changes
Scene	Started	Trigger an event when a scene is … started
	Resumed	… resumed.
	Paused	… paused.
	Restarted	… restarted.
	Stopped	This trigger happens when a scene is stopped while playing. For example, a user stops it via

		an app or it is stopped by another TCA trigger (port, time etc).
	Ending	Trigger when a scene is about to stop naturally. i.e. It has reached the end of the scene and loop number, if playing multiple times. For a scene to end naturally, 2 things must be configured in the scene properties on the Standalone Screen: 1) Loop number must not be set to *infinite*. 2) *Release at end* must be set to *stop*
Blackout	On	Trigger when a blackout turns on. **Careful with Blackout mode! Triggering a scene does not turn it off as it overrides all. Only turning the blackout *off* will allow scenes to play.**
Audio : Beat (DINA DR1 and SR1 only)		Trigger when an audio beat is detected. Useful for sound-to-light.
Variable	Changed	Triggers if the value of the variable changes.
	Value	Triggers if the value of the variable equals that given in the empty field. Note : Variables are beyond the scope of this document.
Zone Stopped		Triggers when all scenes in the specified zone are stopped.
Show	Loaded	Trigger when a show is first loaded. You could

		use this to start specific scenes in each zone when the device starts.
	Unloaded	Trigger an event when a show is unloaded. This happens when swapping shows through the Nicolaudie Cloud website; one show is unloaded and another is loaded.
DMX In (DINA DR1 & SR1 only)	Value	Triggers when value on DMX universe and channel matches a target DMX value.
	Changed	Triggers when value on specified channel changes

* The ports are checked (i.e. polled) every x number of milliseconds. This setting can be changed from the default 100ms in the Device Properties panel on the Standalone screen.

Action		**Function**
Scene	Start Scene	Start the specified scene
	Resume Scene	Resume a paused or stopped scene
	Pause Scene	Pause the specified scene
	Stop Scene	Stop the specified scene
	Restart Scene	Restart the specified scene.
	Start Next Scene	Starts the next scene in the zone.
	Start Previous Scene	Starts the previous scene in the zone.

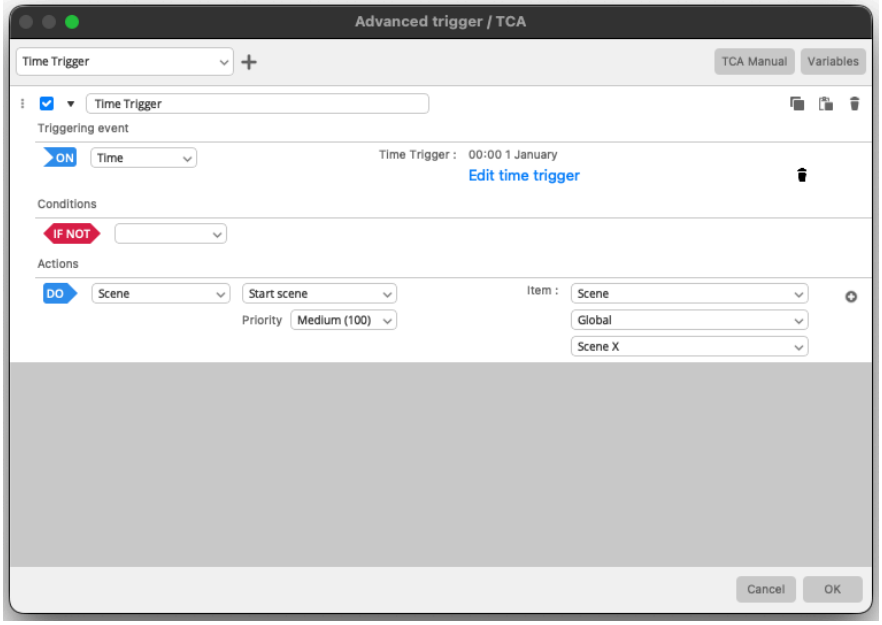
	Start First Scene	Starts the first scene in the zone.
	Start Last Scene	Starts the last scene in the zone.
	Restart Scene	Restarts the scene currently playing
Stop All Scenes		Stops all scenes currently playing in all zones
Start Random Scene		Starts a random scene in the specified zone
Next Step in a Scene		Jump to the next step in a specified scene
Dimmer	Increase	Increases the dimmer by a percentage value, variable value, or dmx in value.
	Decrease	Decreases the dimmer by a percentage, variable value, or dmx in value.
	Set Value	Set the dimmer using a percentage, variable value or dmx in value.
Saturation	Increase	Increases the saturation by a percentage, variable value, or dmx in value.
	Decrease	Decreases the saturation by a percentage, variable value, or dmx in value.
	Set Value	Set the saturation using a percentage, variable value or dmx in value.
Hue	Increase	Increases the hue by a percentage, variable value, or dmx in value.
	Decrease	Decreases the hue by a percentage, variable value, or dmx in value.
	Set Value	Set the hue using a percentage, variable

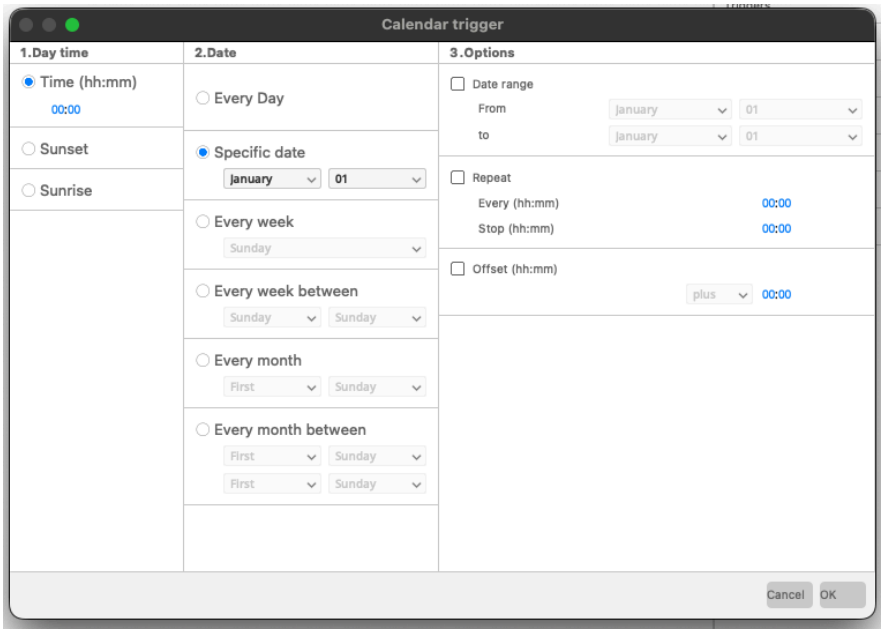
		value or dmx in value.
Speed	Increase	Increases the speed by a percentage, variable value, or dmx in value.
	Decrease	Decreases the speed by a percentage, variable value, or dmx in value.
	Set value	Set the speed by a percentage, variable value or dmx in value.
Extra Colour (affects neutral white, warm white, cold white, amber, UV)	Increase	Increases the level of an extra color channel by a percentage
	Decrease	Decrease the level of an extra color channel by a percentage
	Set value	Set the level of an extra color channel
Color		Create a static color that will override your scene
Reset		Resets a scene. Will clear overrides for color, extra-color, speed, and dimmer.
Blackout	On	Activate a blackout which sends 000 on all channels. **Careful with Blackout mode! Triggering a scene does not turn it off as it overrides all. Only turning the blackout *off***
	Off	Deactivate a blackout
	Toggle	Inverts the current blackout mode between on and off
DALI command (DINA DR1 and SR1 EP 2.5+ only)		Send a DALI command using the command builder

System (DINA DR1 and SR1)	Text	For information, contact support.
Network	UDP UDP Hex	Send a UDP or UDP Hex command to another networked device. You can trigger other Nicolaudie devices using **UDP Hex** mode on **port 2430**. Refer to the remote protocol sheets at nicolaudie.com/download
	RS232 RS232 Hex	Send an RS232 or RS232 Hex commands from the outputs on the DINA DR1 and SR1. For protocol, refer to the device technical datasheet at nicolaudie.com/download
Variable (DINA DR1 and SR1 only)		Call a variable to, for example, update a value. You can then use this variable in other actions. Variables are beyond the scope of this document.

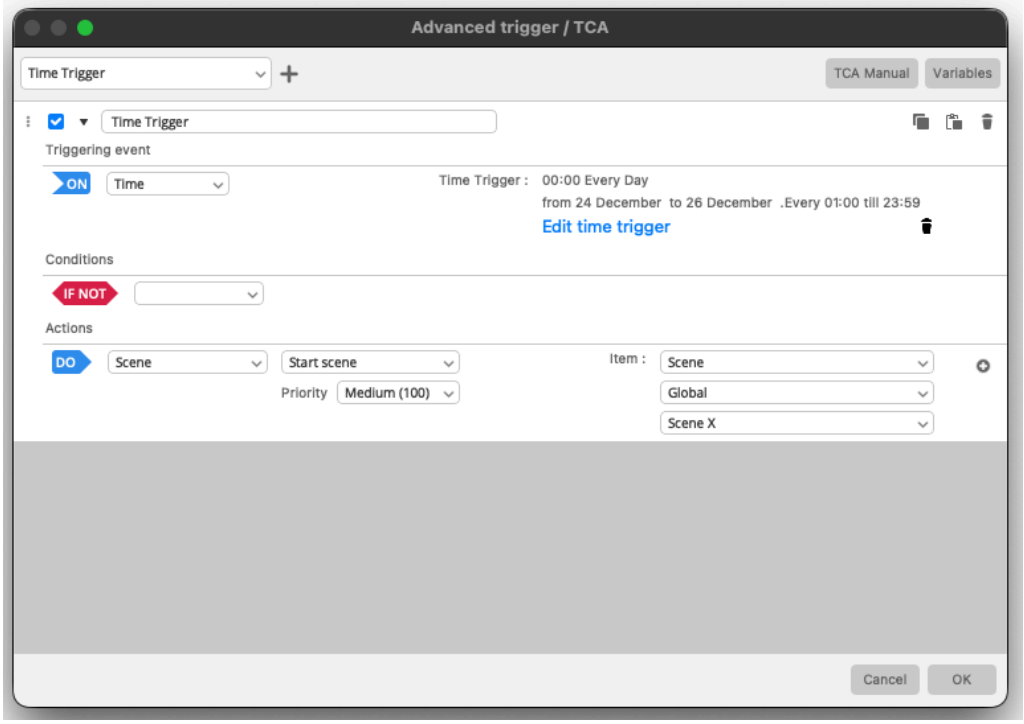
The following section gives you some examples of popular T-C-A Triggers.

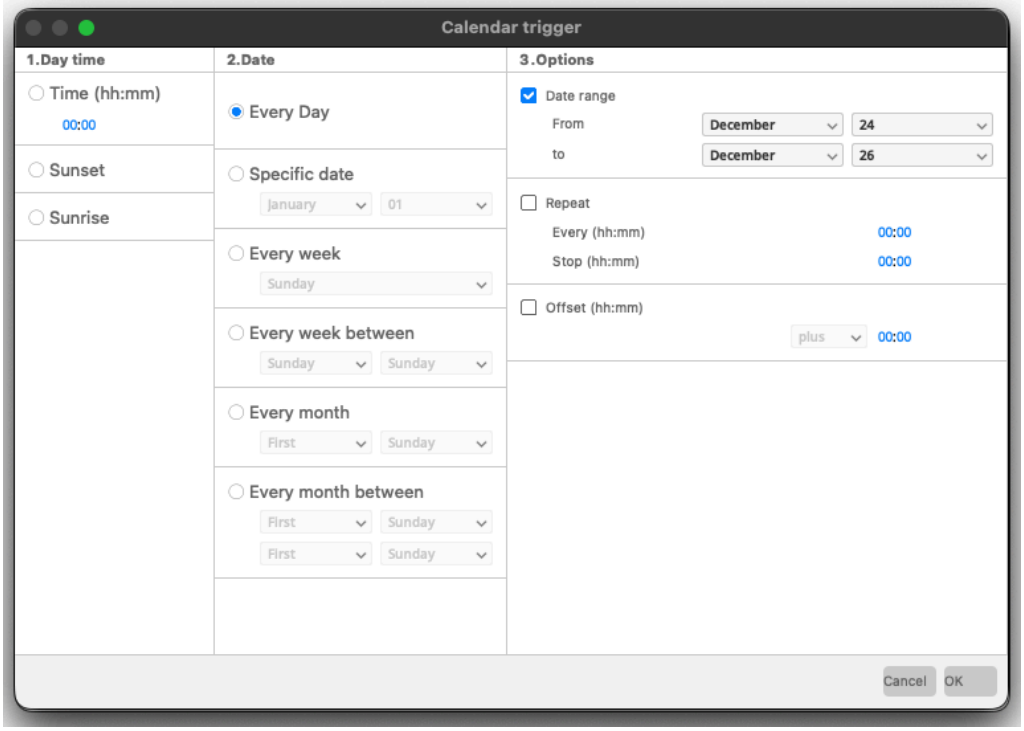
International - New Years Eve/New Years Day (clock strikes midnight)



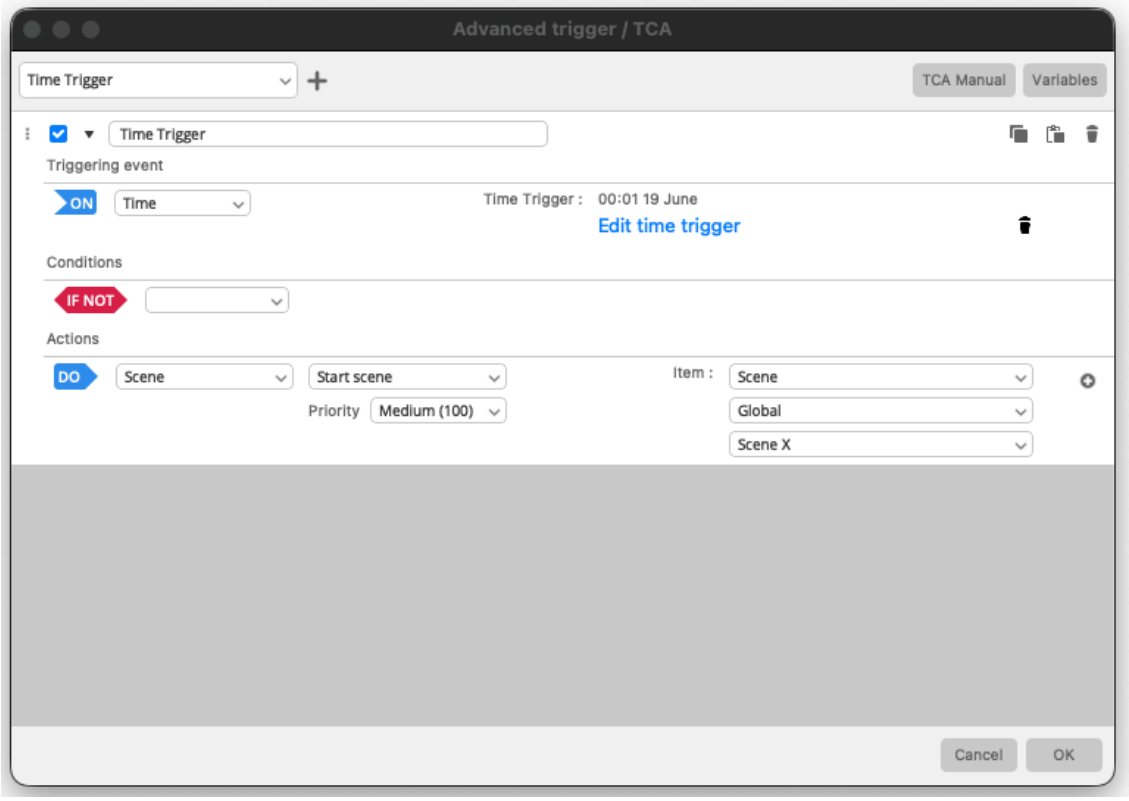


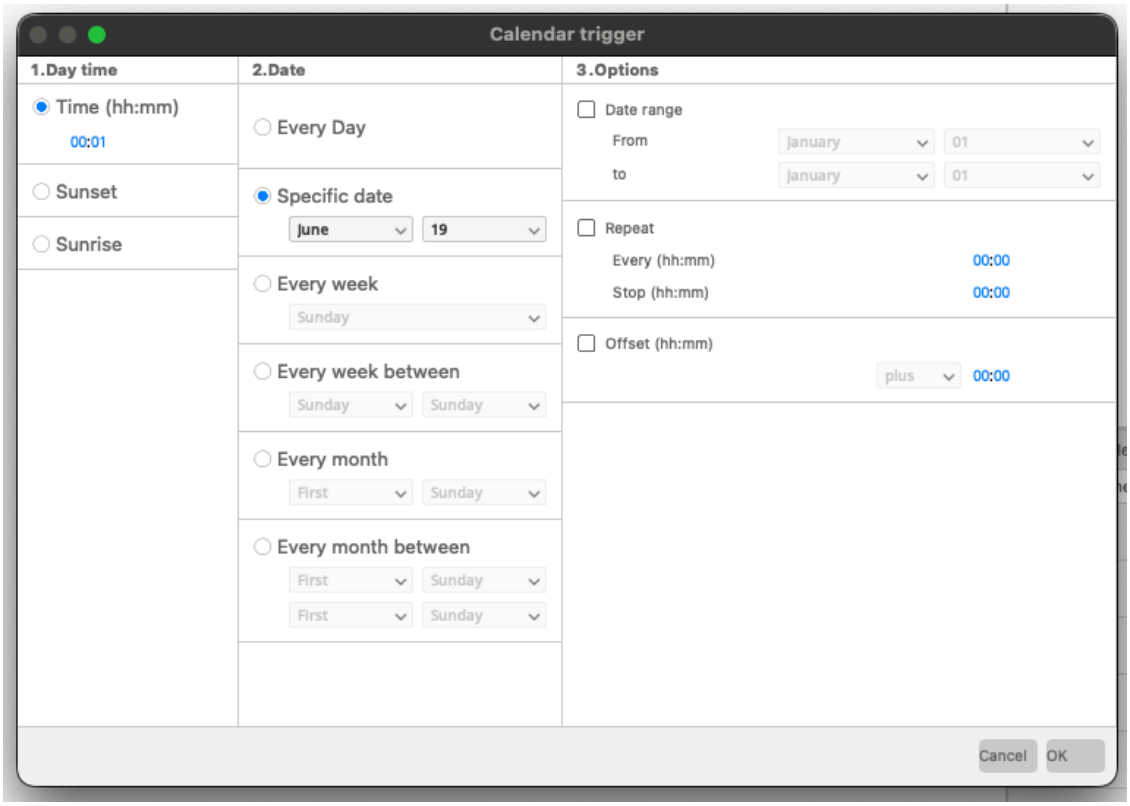
International - Christmas Eve, Christmas Day & Boxing Day Repeat every 1 hour until 23.59 December 26th


Advanced trigger / TCA
Time Trigger
TCA Manual
Variables
Time Trigger
Triggering event
ON
Time
Time Trigger : 00:00 Every Day
from 24 December to 26 December .Every 01:00 till 23:59
Edit time trigger
Conditions
IF NOT
Actions
DO
Scene
Start scene
Priority Medium (100)
Item :
Scene
Global
Scene X
Cancel
OK

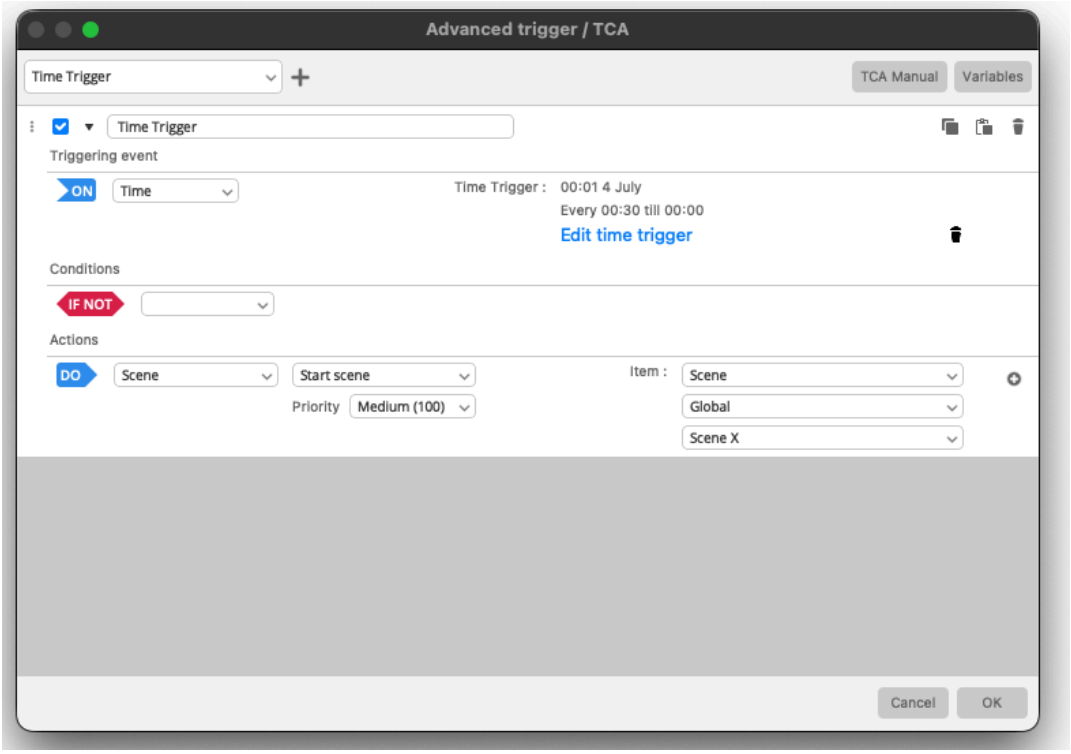

Calendar trigger
1.Day time
Time (hh:mm)
00:00
Sunset
Sunrise
2.Date
Every Day
Specific date
January
01
Every week
Sunday
Every week between
Sunday
Sunday
Every month
First
Sunday
Every month between
First
Sunday
First
Sunday
3.Options
Date range
From
December
24
to
December
26
Repeat
Every (hh:mm)
00:00
Stop (hh:mm)
00:00
Offset (hh:mm)
plus
00:00
Cancel
OK

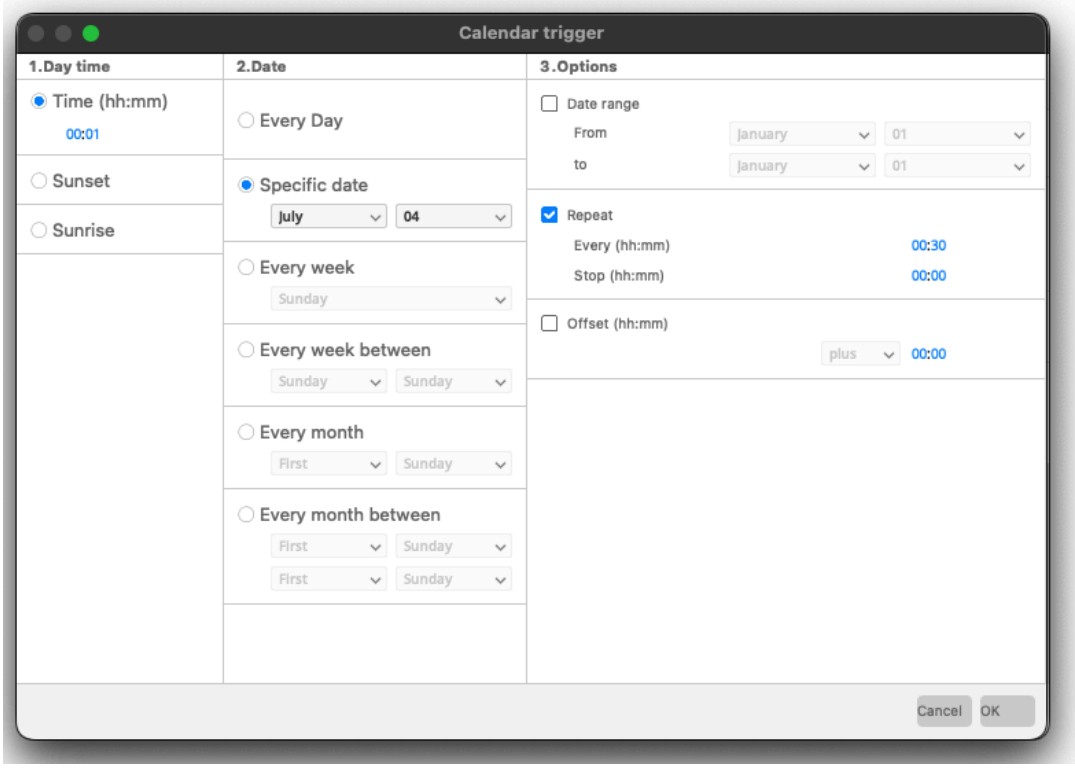
USA - Juneteenth (June 19th), All day



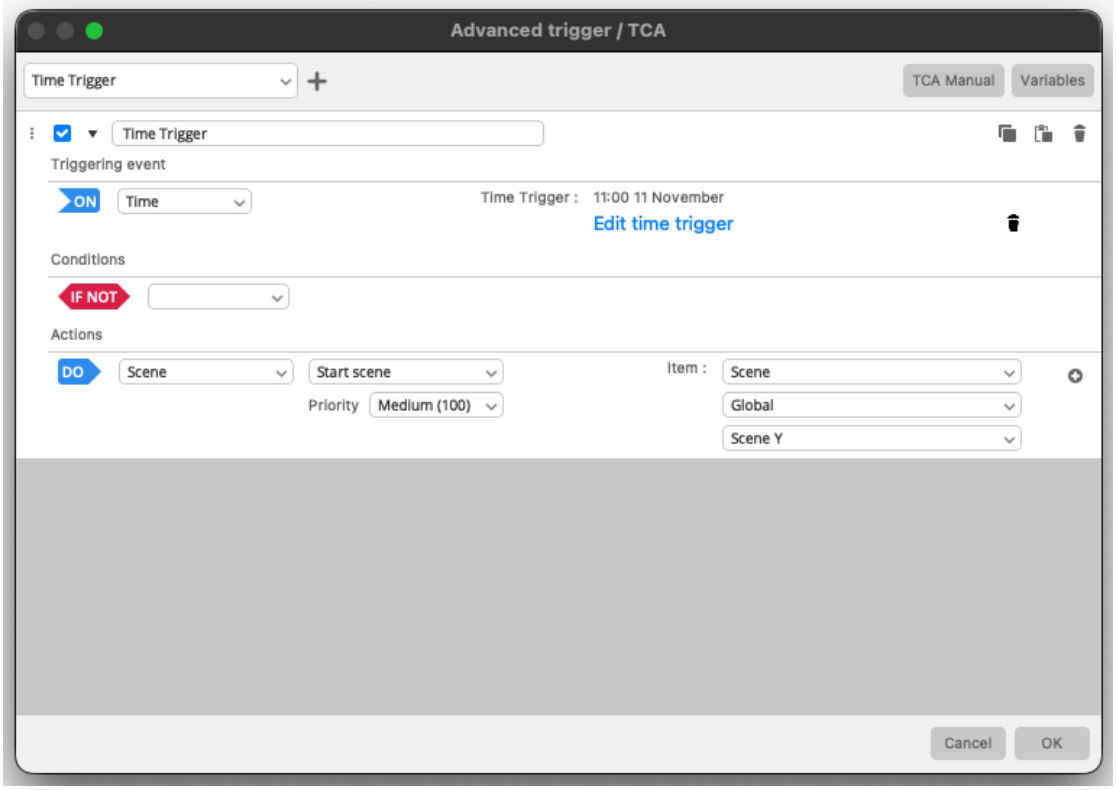


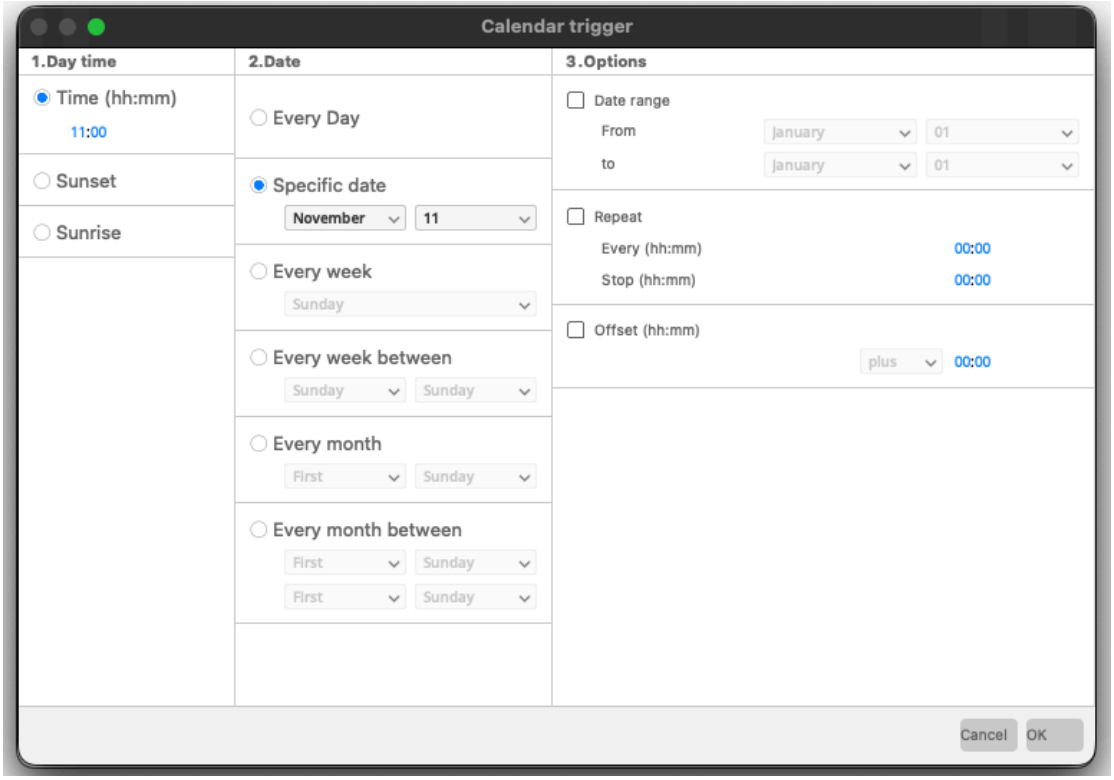
USA - Independence Day (July 4th), Repeat every 30 minutes



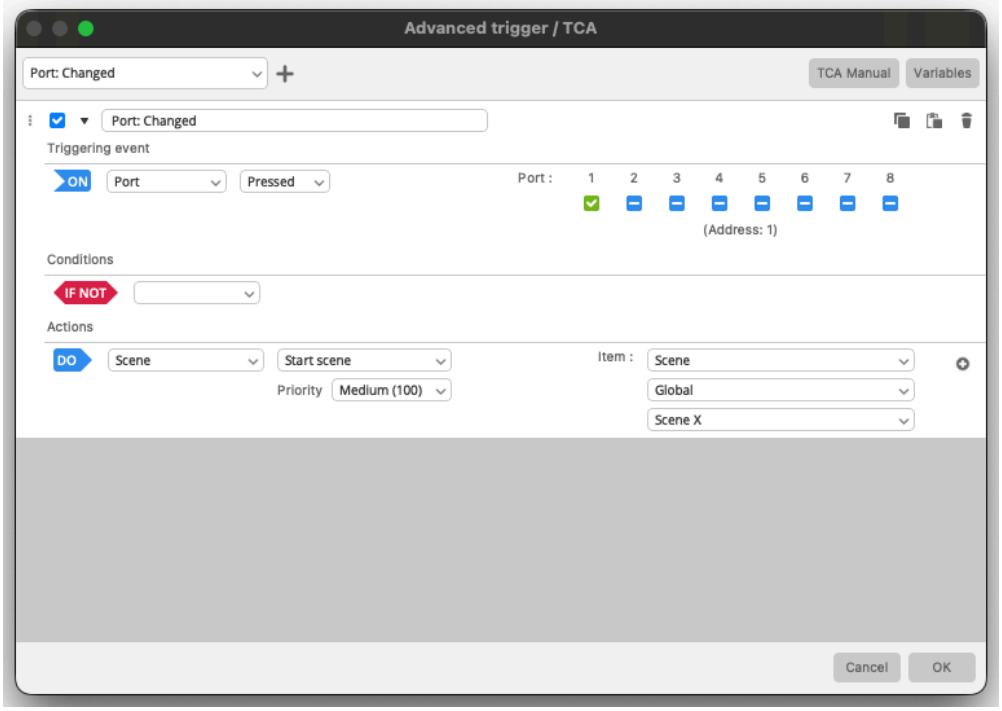


UK - Armistice Day (November 11th), Minute silence @ 11.00am

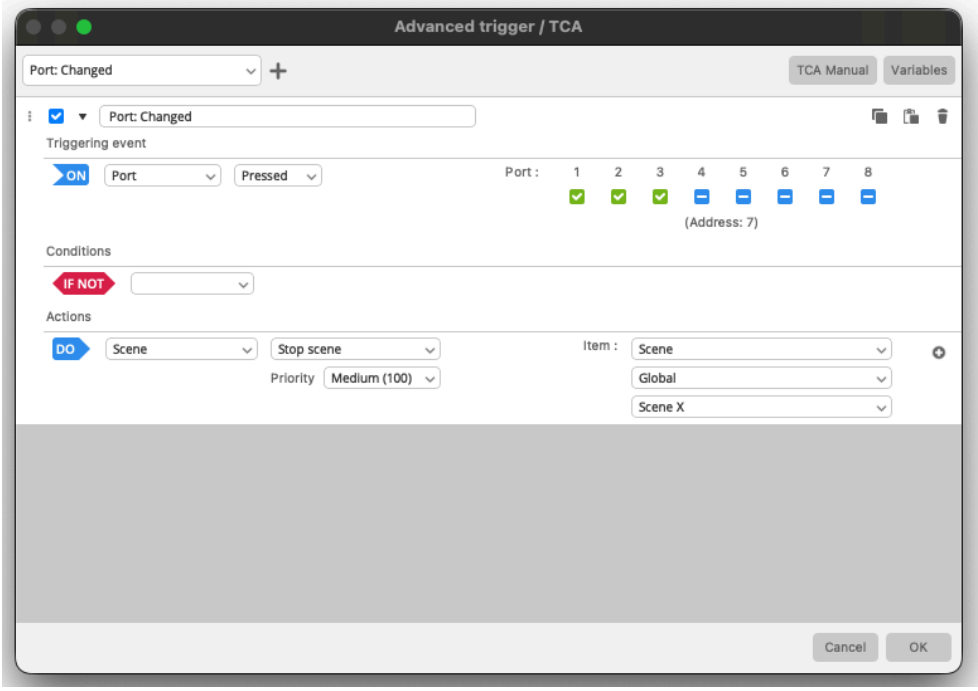

Advanced trigger / TCA
Time Trigger
TCA Manual
Variables
Time Trigger
Triggering event
ON
Time
Time Trigger : 11:00 11 November
Edit time trigger
Conditions
IF NOT
Actions
DO
Scene
Start scene
Item :
Scene
Priority
Medium (100)
Global
Scene Y
Cancel
OK


Calendar trigger
1.Day time
Time (hh:mm)
11:00
Sunset
Sunrise
2.Date
Every Day
Specific date
November
11
Every week
Sunday
Every week between
Sunday
Sunday
Every month
First
Sunday
Every month between
First
Sunday
First
Sunday
3.Options
Date range
From
January
01
to
January
01
Repeat
Every (hh:mm)
00:00
Stop (hh:mm)
00:00
Offset (hh:mm)
plus
00:00
Cancel
OK

Port 1 Pressed, start scene



Port 1, 2 & 3 changed, stop Scene X



Scene started, send UDP HEX network message to external device