



USER MANUAL

HOW TO PATCH PROFILES (LIBRARIES)

V1.7.0

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INTRODUCTION

This chapter describes how to easily and quickly Patch fixtures profiles with the **Patch Manager**.

Patching fixtures means assigning a DMX channel address to corresponding software's profiles. The DMX address can be chosen from 1 to 512 according the universal DMX standard. All DMX controllers, including DMX softwares, send DMX datas to the light system using up to 512 DMX channels. The first DMX channel number assigned to a profile in the software must match the DMX address on the lighting fixture itself.

You must start the software before you begin patching profiles and make sure you have some profiles available.

OPENING THE PATCH MANAGER

Click the Add button, the Patch Manager will show up and you can update the Patch in this window.



Add profile(s)

Patch Profile just created in the profile editor

Manufacturer List

Fixtures profiles available for the manufacturer

DMX Address settings

Matrix patch settings

Send profiles to the DMX grid

DMX Universe selector

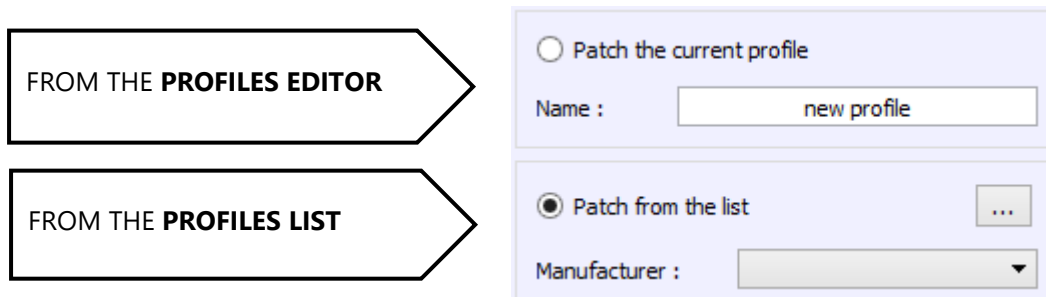
DMX addresses grid

The Patch Manager window is divided into two main sections. The left section contains settings for adding profiles, including a 'Patch' tab, a 'Name' field, a 'Patch from the list' radio button, a 'Manufacturer' dropdown, a list of fixtures (ARCHIBAR 100 DRS RGBW 9ch, CMY, DIMMER 1ch, LED Dimmer RGB, LED Dimmer RGB_13, LED RGB, LED RGBW), 'DMX Universe' and 'First DMX channel' dropdowns, an 'Offset' dropdown, and a 'Number of fixtures' spinner. At the bottom of this section are 'Matrix' and 'Patch' buttons. The right section is a large grid for assigning DMX addresses to profiles. The grid has 48 columns (labeled 1 to 48) and 48 rows (labeled 1 to 48). Each cell contains a profile name and a DMX address. For example, the first row shows 'LED RGBA_1' at address 1, 'LED RGBA_2' at address 6, 'LED RGBA_3' at address 9, 'LED RGBA_4' at address 12, 'LED RGBA_5' at address 16, 'LED RGBA_6' at address 20, 'LED RGBA_7' at address 24, and 'LED RGBA_8' at address 28. The grid is organized into 12 groups of 4 columns each. At the bottom of the grid are four buttons labeled #1, #2, #3, and #4. A status bar at the bottom right shows a green checkmark and a red X.

The patch manager window is divided in 2 sections. The left area is for profiles catalog and information's. The right area is the DMX addresses grid where to place the effective address of the profiles. **The first DMX channel number assigned to a profile in the software must match the DMX address on the lighting fixture itself.**

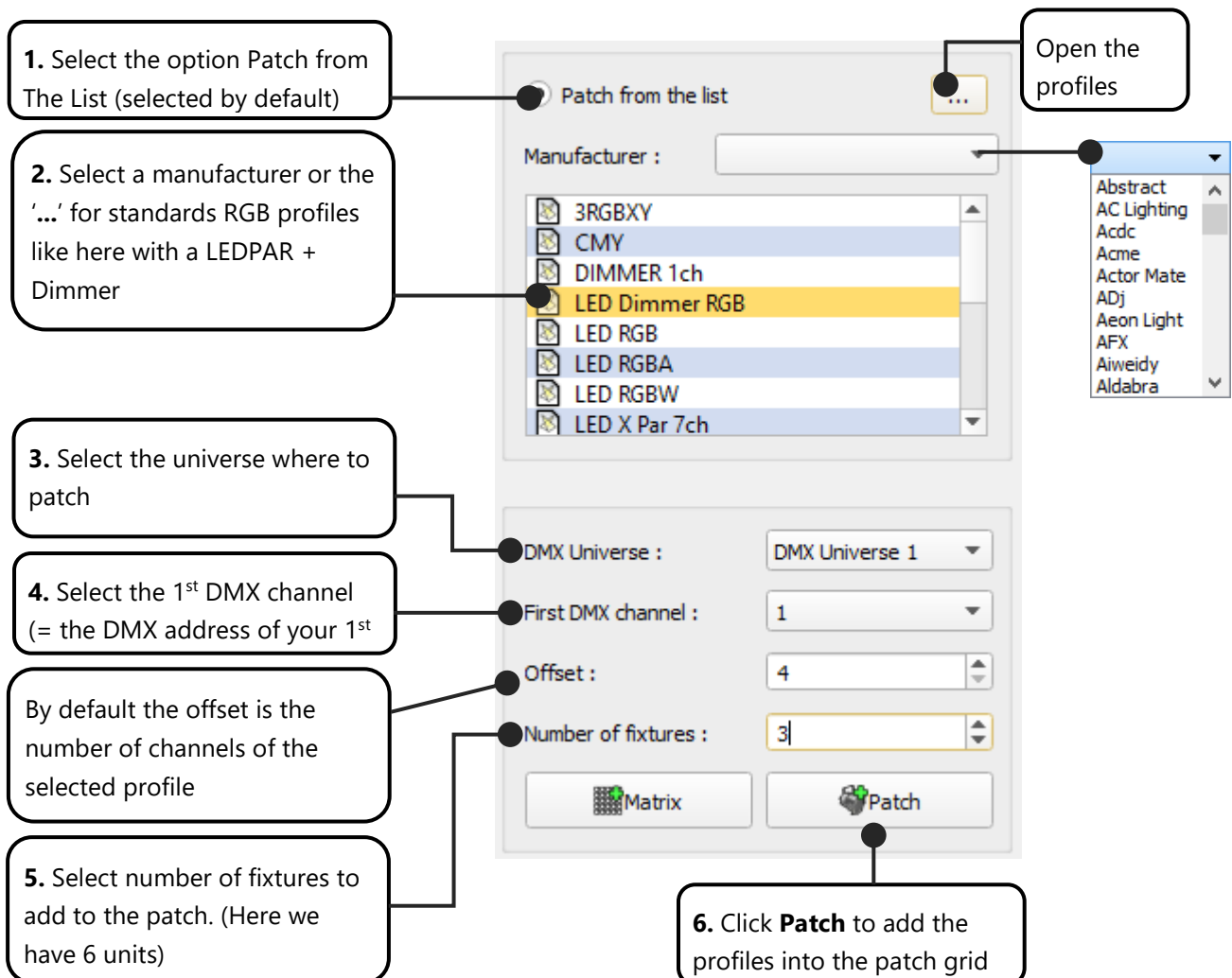
ASSING PROFILES TO THE PATCH

There are 2 ways to add profiles to the patch of 512 channels and organize your patch to match your actual physical lighting fixtures DMX addresses:



PATCH PROFILES FROM THE LIST

From the list, you can patch existing profiles files provided in the software. Follow those 6 steps:



Here is the result. You can see the 6 LED Dimmer RGB's profiles consecutively patched from address 1 on DMX universe 1. The first fixture starts with DMX address 1 and the five others will follow starting at the next available DMX channel.

The screenshot shows a DMX patching software interface. At the top, there is a toolbar with icons for file operations (open, save, print, etc.) and a resolution selector set to '10 Bit'. Below the toolbar is a large grid of 512 addresses, arranged in 16 rows and 32 columns. The first 24 addresses in each row are highlighted in blue and labeled 'LED Dimmer RGB'. The remaining 8 addresses in each row are labeled with their respective fixture numbers (1, 2, 3, 4, 5, 6). The status bar at the bottom shows four fixture selection buttons labeled #1, #2, #3, and #4. A green checkmark and a red X are visible on the right side of the interface.

Patch DMX addresses grid – DMX Universe 1

Click **OK** to validate the patch

1 fixture = 1 address



It is not possible to patch several fixtures on a same channel. When channels already receive a profile, you cannot patch anything over it. You can use the key CTRL and SHIFT for an advanced selection.

PATCH PROFILE FROM THE PROFILE EDITOR

You can add a freshly created profile by using the Profile Editor. If you want to create a profile refer to the user manual [How To Create Profiles](#).

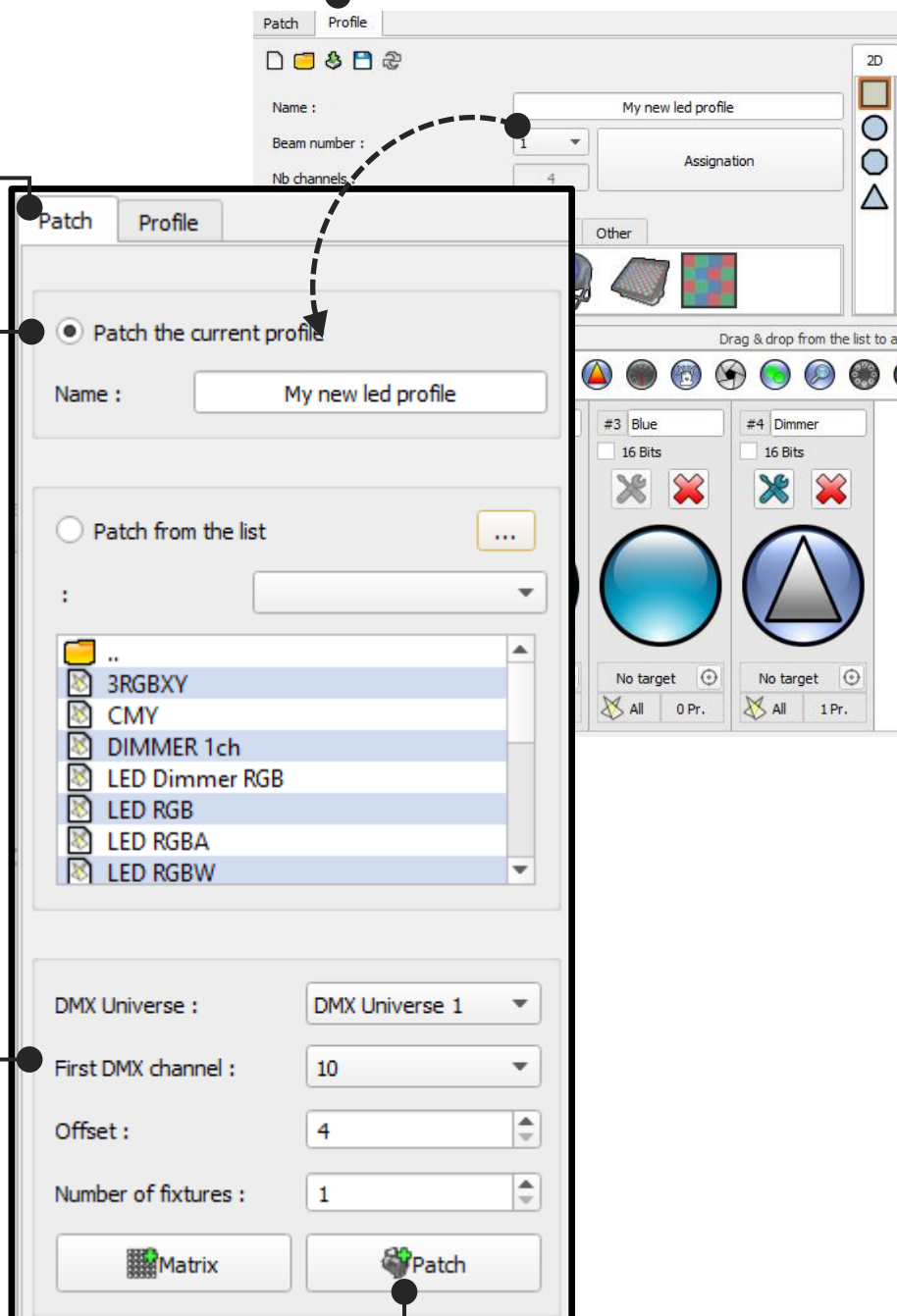
1. Create a fresh new profile in **Profile tab**

2. Come back to the **Patch tab**

3. Select Patch current the profile

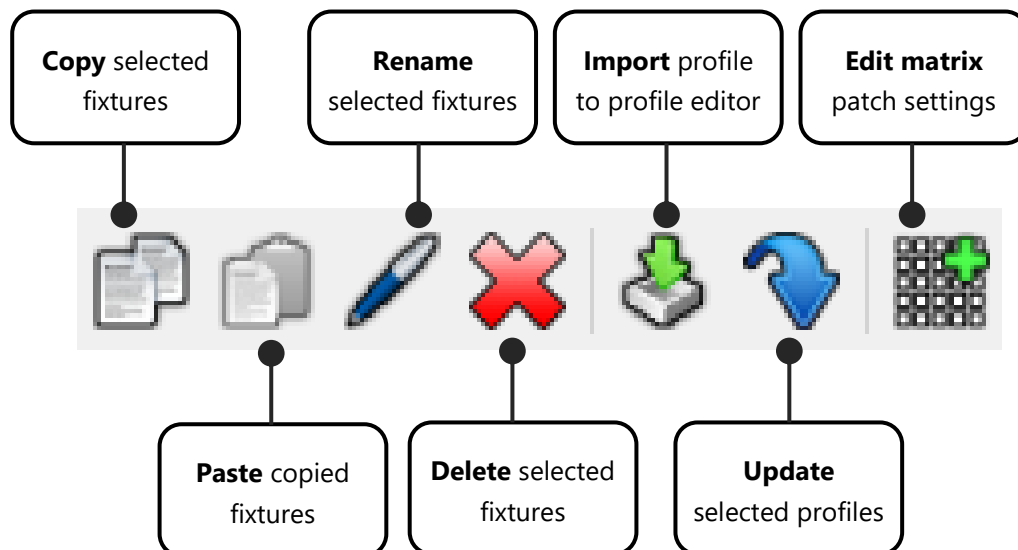
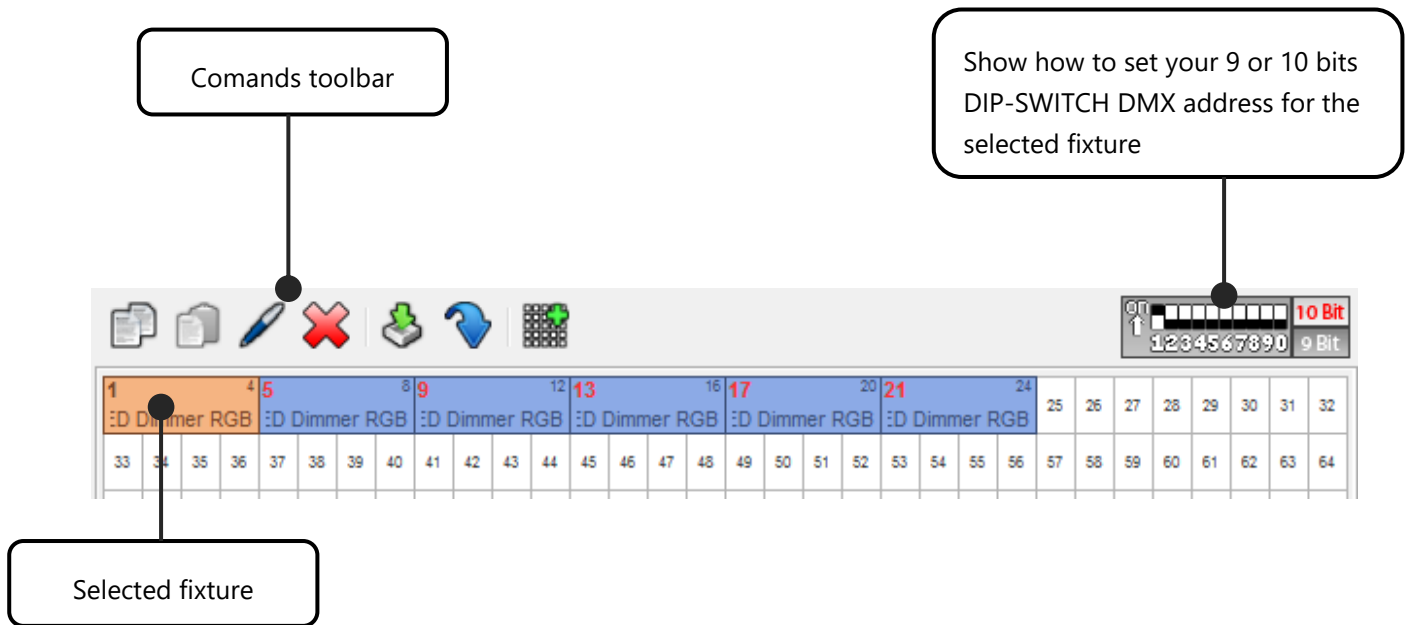
4. Select the **DMX universe** with the 1st **DMX channel** where you want to patch and then choose the **number of fixtures** to insert

5. Click **Patch** to insert profile into the patch.



PATCH COMMAND TOOLS

At the top of the DMX grid you'll find a commands tools bar. They are accessible only if there is one or more patched fixtures and if least one of them has been selected.



UPDATE A PROFILE IN THE PATCH

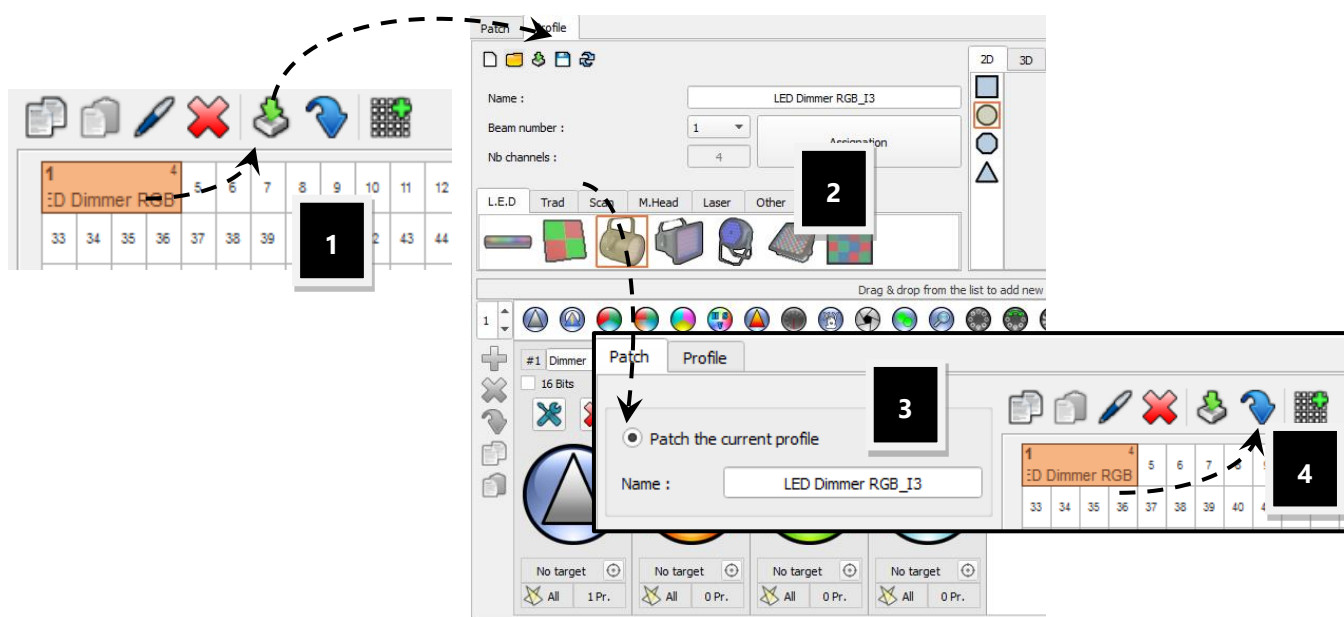
A profile can be updated from the profile list or directly from the current edited profile. The new profile need to have the exact same channels number. You can modify profiles with the profile editor (Profile Tab) and update it in the patch area. Follow the steps to do it:

Step 1: Select the profile that needs to be updated in the patch grid area.

Step 2: Edit it and modify it in the profile editor tab.

Step 3: Return in the patch tab and selected the freshly current modified profile.

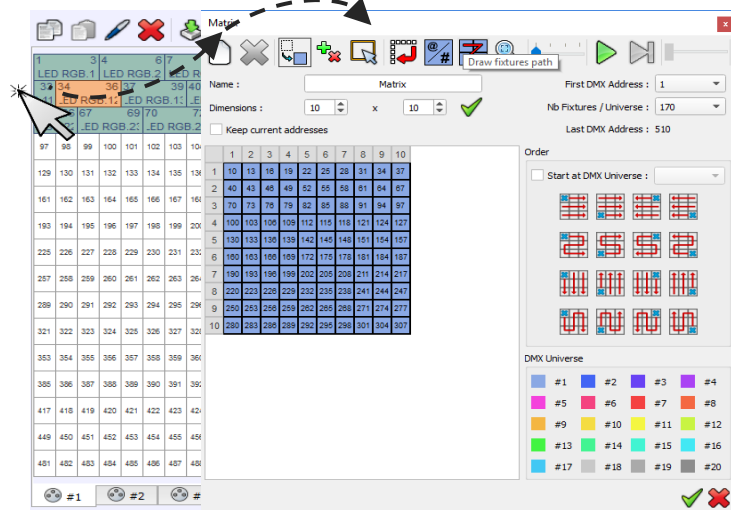
Step 4: Click Update.



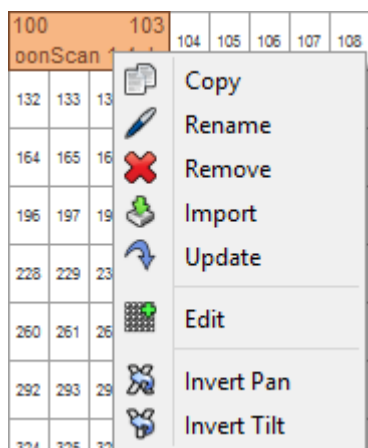
The new profile must have the same number of channels to replace the old one

EDIT AND UPDATE A MATRIX IN THE PATCH

You can edit and update a matrix configuration by selecting only one fixture's item of a matrix, in the DMX grid. Select one fixture and click 'Matrix Edit'



INVERT THE PAN AND TILT CHANNELS



Right click over the fixture's item will show up the local menu where you can inverse the pan and tilt. This feature is useful to synchronize beam movements when the lighting fixtures are positioned upside down across the stage.

CHANGING PROFILE DMX ADDRESSES

A DMX address designate the first DMX channel number used by a fixture. Therefore the DMX channel number assigned to a light in the software's patch must match the DMX address on the lighting fixture itself. Of course, the profile's channels features must also match DMX chart of the lighting fixture itself.

1	3	4	6	7	9	10	12	13	15	16	17	18	19	20	21	22
LED RGB.1	LED RGB.2	LED RGB.3	LED RGB.4	LED RGB.5												
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117
118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134
135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	

You can use the drag and drop to move a profile across the DMX grid to a new DMX address. Select one or several profiles (they will be highlighted in orange), then move them to a new DMX address. If you already have created scenes and programs, the address modification will be applied directly to each scene and program. In this way your show content will manage all the new addresses in an easy and timely fashion.

Tips : you can also drag and drop a profile across different DMX univers, through the Univers Tabs.

CREATING A LIGHTING FIXTURES MATRIX

You can setup your lighting fixtures as a matrix. This configuration will give you more options to generate visual effects with the tool effects generator, included in the editor mode. Matrix mode is mainly used with LED/RGB lighting systems, but it can operate with dimmers too.

The Matrix Editor has been created to allow users to create any possible matrix and manage pixels configuration. If the lighting system installation is fixed and if you are not allowed to change the DMX addresses physically, our tool helps to reproduce exactly the same patch and DMX wiring like is set your lighting system.

Step 1: Select a Profile from the Current or from the List

Step 2: Click the Matrix option to open matrix manager

Step 3: Setup the matrix

The screenshot shows the 'Add profile(s)' window with the 'Profile' tab selected. Under 'Patch from the list', the 'LED Dimmer RGB' profile is selected (indicated by a black box with '1'). Below, the 'DMX Universe' is set to 'DMX Universe 1', 'First DMX channel' is '1', 'Offset' is '4', and 'Number of fixtures' is '15'. A black box with '2' is next to the 'Matrix' button. The 'Matrix' window is open, showing a 10x10 grid (indicated by a black box with '3') and various settings: 'Name: Matrix', 'First DMX Address: 1', 'Nb Fixtures / Universe: 170', 'Last DMX Address: 510'. The 'Order' section shows a grid of 20 colored squares representing DMX universes. The 'DMX Universe' section shows a list of 20 universes with corresponding colors.



You need to ensure you got enough free DMX channels to create a large matrix.

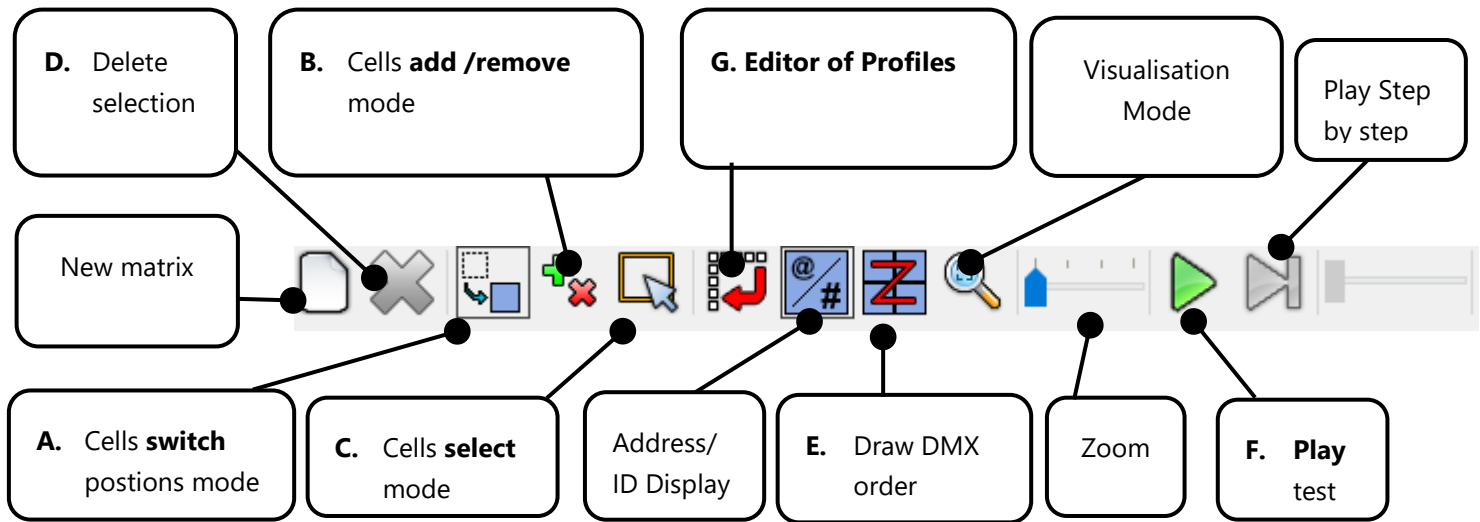
You can choose the Name and the Dimensions of the matrix. For the matrix Dimensions, the first value is the number of columns and the second value is the number of lines. If you change one of the values, the number of cells will be automatically updated. Here is a configuration with 10 columns and 10 rows.

The screenshot shows the 'Matrix' configuration window with the following components and callouts:

- Matrix tools:** A toolbar at the top containing icons for file operations, selection, drawing, and playback.
- Matrix Name:** A text field labeled 'Name:' containing the text 'Matrix'.
- Dimensions:** Two spinners labeled 'Dimensions:' showing '10' and '10' with a green checkmark, indicating 10 columns and 10 rows.
- Matrix cells (also called pixels):** A 10x10 grid of cells, each containing a DMX address. The addresses range from 10 to 307 in a sequential row-major order.
- DMX addresses auto-ordering:** A checkbox labeled 'Keep current addresses' is unchecked. A callout points to the 'Order' section, which includes a 'Start at DMX Universe' dropdown and a grid of 20 color-coded buttons representing DMX universes.

	1	2	3	4	5	6	7	8	9	10
1	10	13	16	19	22	25	28	31	34	37
2	40	43	46	49	52	55	58	61	64	67
3	70	73	76	79	82	85	88	91	94	97
4	100	103	106	109	112	115	118	121	124	127
5	130	133	136	139	142	145	148	151	154	157
6	160	163	166	169	172	175	178	181	184	187
7	190	193	196	199	202	205	208	211	214	217
8	220	223	226	229	232	235	238	241	244	247
9	250	253	256	259	262	265	268	271	274	277
10	280	283	286	289	292	295	298	301	304	307

MATRIX TOOL BAR



A: Drag and drop a cell to switch the 2 cells positions in the matrix and their DMX addresses.

B: Delete or add a cell of the matrix by clicking over the cells.

C: Select a part of the matrix. Hold the key CTRL + click cells or draw a selection rectangle over the cells.

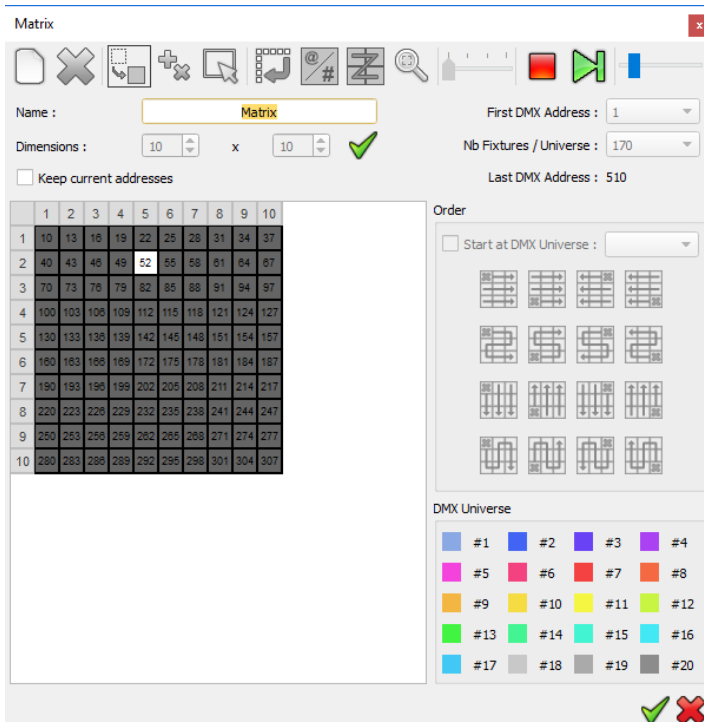
D: Remove the fixture from the matrix for the selected cells.

E: Draw the fixtures addresses ordering path over the matrix cells.


F: Play a general test to check your matrix patch.

G : The editor of profiles allows users to configure the Beams of their fixture (the latter must be multi beams). The modification will be effective in the Matrix only. To set up a modification by default, you shall go back into the profile editor.

SIMULATE AND CHECK DMX ADDRESSES

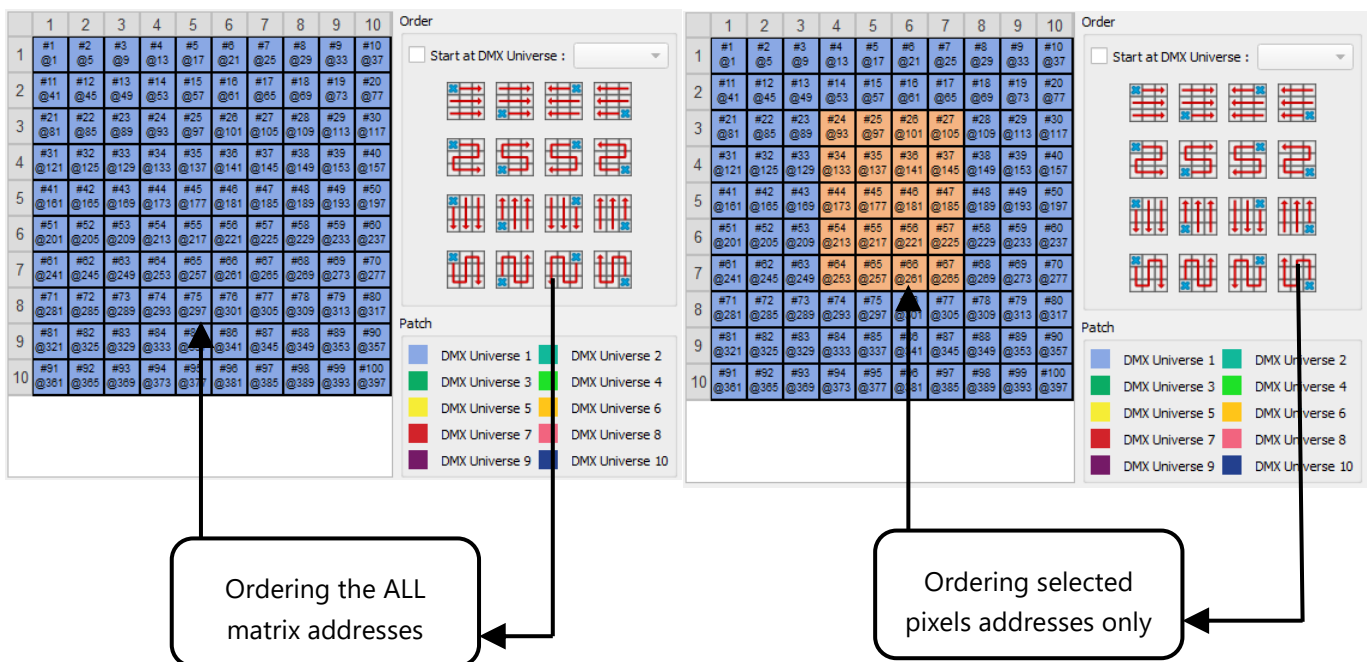


When you use the Play tool, your lighting fixtures will turn on automatically one by one according the order you have set them up. With this option you can check if your DMX patch matches the lighting fixtures themselves. The opening beam option will depend on the default DMX preset of each profile's channel. The Dimmer, Shutter and Iris channels must have a correct default preset. For RGB, each channel will be set to their maximum intensity.

You can scroll through the steps by clicking on the Next button : 

ORDERING THE MATRIX'S CELLS

You can define the fixtures DMX addresses in a logical order over all or selected part of the matrix pixels. There are 16 possible configurations (from left to right, right to left, up to down, etc...), choose the one that matches your lighting system ordering (using pixel selection or global). After selecting a configuration, all the DMX addresses will be arranged to match the chosen configuration.



MODIFY MANUALLY SOME CELLS DMX ADDRESSES

#1	#2	#3	#4	#5	#
@1	@4	@7	@10	@13	@
#11	#12	#13	#14	#15	#
@31	@34	@37	@40	@43	@
#21	#22	#23	#24	#25	#
@61	@64	@67	@70	@73	@
#31	#32	#33	#34	#35	#
@91	@94	@97	@100	@103	@
#41	#42	#43	#44	#45	#

You can reorganize the matrix with a simple drag and drop from 1 light position to another. The light position order in the matrix and the DMX channel of the light will change. This is very useful in case some mistakes appear on the installation and you need to switch several fixtures.

REMOVE FIXTURES FROM THE CELLS

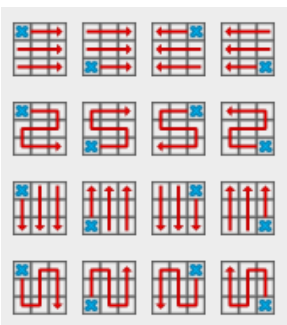
#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
@1	@4	@7	@10	@13	@16	@19	@22	@25	@28
#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
@31	@34	@37	@40	@43	@46	@49	@52	@55	@58
#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
@61	@64	@67	@70	@73	@76	@79	@82	@85	@88
#31	#32	#33	#34	#35	#36	#37	#38	#39	#40
@91	@94	@97	@100	@103	@106	@109	@112	@115	@118
#41	#42	#43	#44	#45	#46	#47	#48	#49	#50
@121	@124	@127	@130	@133	@136	@139	@142	@145	@148
#51	#52	#53	#54	#55	#56	#57	#58	#59	#60
@151	@154	@157	@160	@163	@166	@169	@172	@175	@178
#61	#62	#63	#64	#65	#66	#67	#68	#69	#70
@181	@184	@187	@190	@193	@196	@199	@202	@205	@208
#71	#72	#73	#74	#75	#76	#77	#78	#79	#80
@211	@214	@217	@220	@223	@226	@229	@232	@235	@238
#81	#82	#83	#84	#85	#86	#87	#88	#89	#90
@241	@244	@247	@250	@253	@256	@259	@262	@265	@268
#91	#92	#93	#94	#95	#96	#97	#98	#99	#100
@271	@274	@277	@280	@283	@286	@289	@292	@295	@298

With the Remove option, you can delete fixtures from the matrix configuration.

First, you must select the fixture that you want to remove with the selection tool.

#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
@1	@4	@7	@10	@13	@16	@19	@22	@25	@28
#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
@31	@34	@37	@40	@43	@46	@49	@52	@55	@58
#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
@61	@64	@67	@70	@73	@76	@79	@82	@85	@88
#31	#32	#33					#38	#39	#40
@91	@94	@97					@112	@115	@118
#41	#42	#43					#48	#49	#50
@121	@124	@127					@142	@145	@148
#51	#52	#53					#58	#59	#60
@151	@154	@157					@172	@175	@178
#61	#62	#63					#68	#69	#70
@181	@184	@187					@202	@205	@208
#71	#72	#73	#74	#75	#76	#77	#78	#79	#80
@211	@214	@217	@220	@223	@226	@229	@232	@235	@238
#81	#82	#83	#84	#85	#86	#87	#88	#89	#90
@241	@244	@247	@250	@253	@256	@259	@262	@265	@268
#91	#92	#93	#94	#95	#96	#97	#98	#99	#100
@271	@274	@277	@280	@283	@286	@289	@292	@295	@298

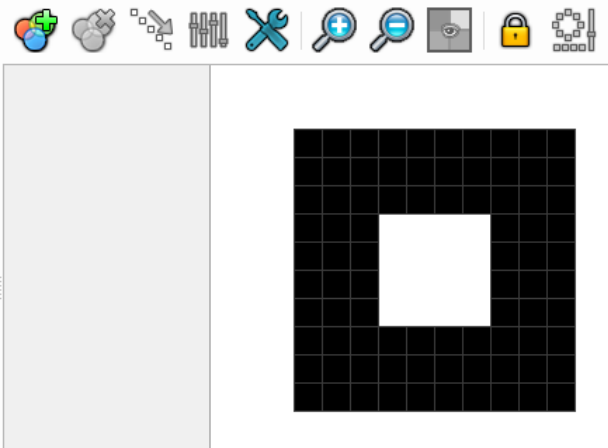
Then you can create a hole in the matrix field and thought free some channels.



To re-use the free channels, click on one of the 16 order configuration to change the DMX addresses of the fixtures. When the fixture DMX address has changed the newly available addresses will be automatically reassigned to the fixtures following on in sequential order. You will then have more channels available after the matrix and should you wish you can decide to increase the size of the matrix and add more fixtures. The Software can manage up to 32 DMX universes in a matrix.

The main advantages here are that you can increase the size of your matrix when you use the free channels and you don't need to change the DMX addresses one by one.

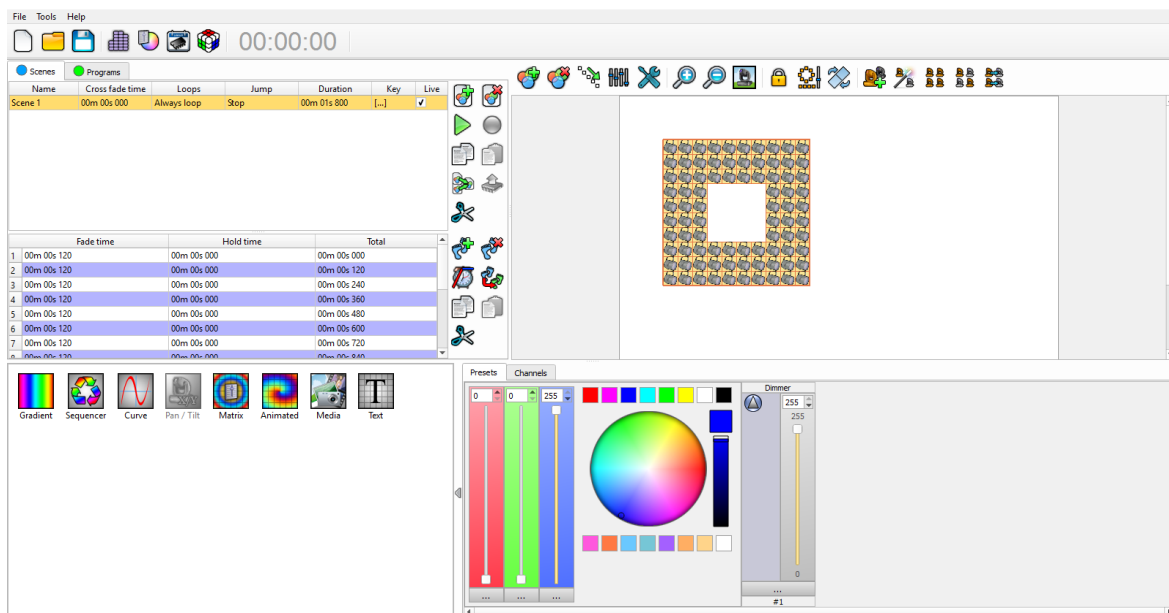
UPDATING AND MODIFYING THE PATCH



You can change and update the patch anytime you want to remove, add fixtures or change their DMX addresses. Click on the ADD button of the 2D tool ribbon to open the Patch manager again and do modifications. The changes will appear in the 2D area of the software after confirmation of the new patch.

If you have created several scenes and you decide to change some DMX addresses, then the content of your scenes and programs will automatically move to the new DMX addresses.

PATCH CONSEQUENCES IN THE SOFTWARE

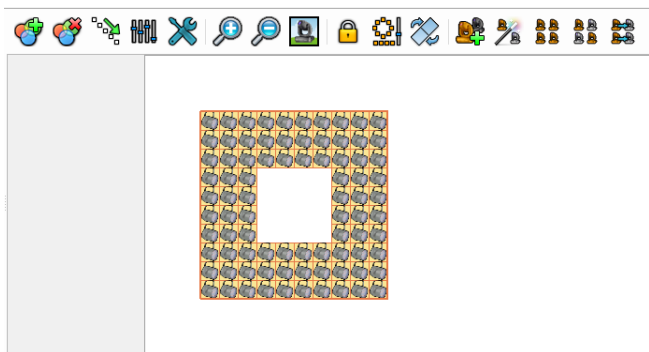


When the Profiles and DMX addresses match the lighting fixtures, you can confirm the Patch and click OK. The software uses the patch information and can generate powerful functions that will help you to create your show in a very short time.

All the profiles appear in the Editor Window and their light beam shapes are shown in the 2D Editor area, so it is possible to have a complete view of the project from the 2D software area.

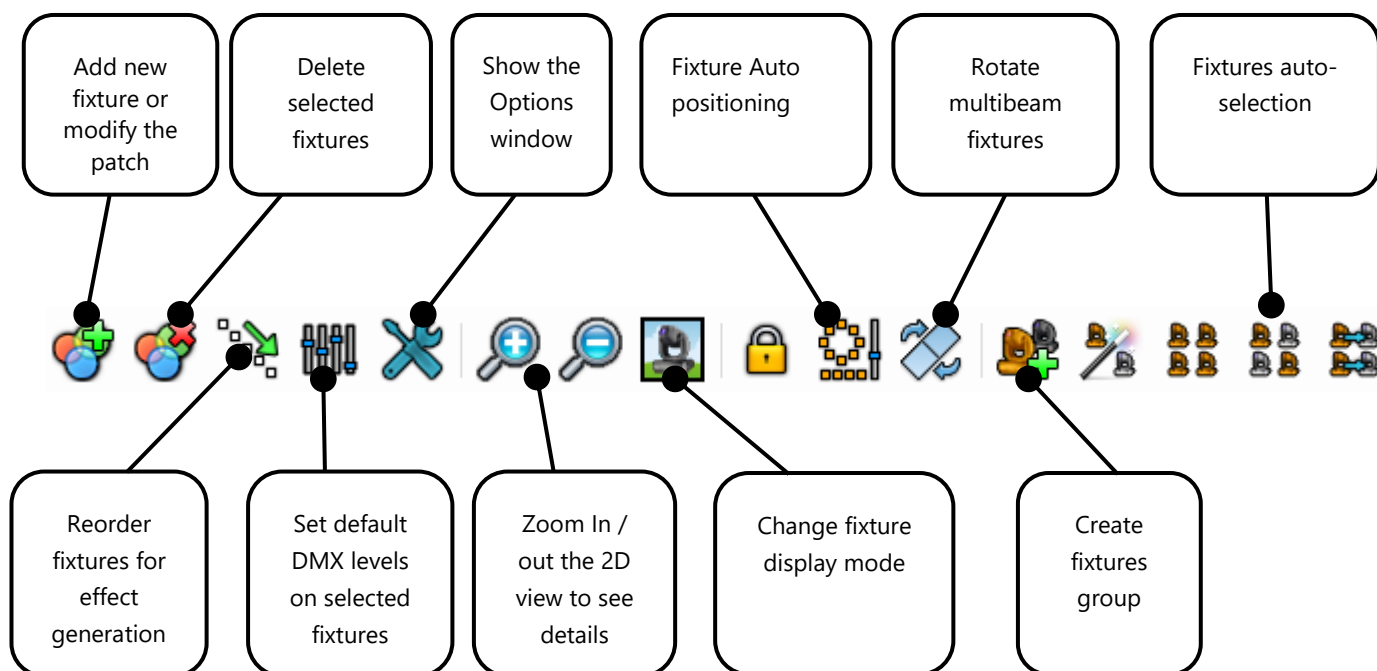
Now the software is ready to work and program your show. When you select fixtures from the 2D area, the fixtures dedicated channels appear below.

2D GRAPHIC AREA



The 2D graphic area displays the light profiles. The 2 default actions of the mouse are to select fixture profiles with a left click and change the position of the selection in the 2D area. To change position, left Click and hold it then move the selection somewhere else. Additional commands are possible in the 2D ribbon.

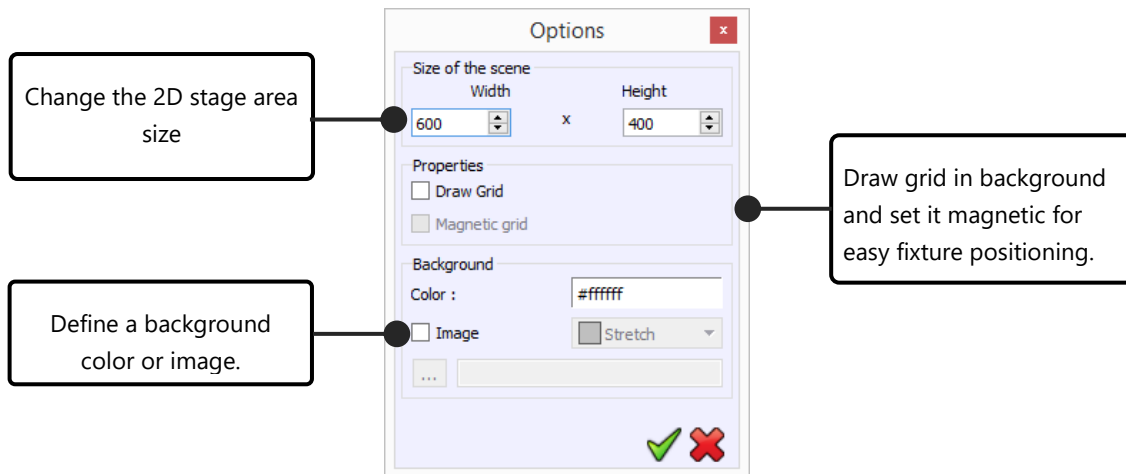
Commands icons of the 2D ribbon tools allows you to:



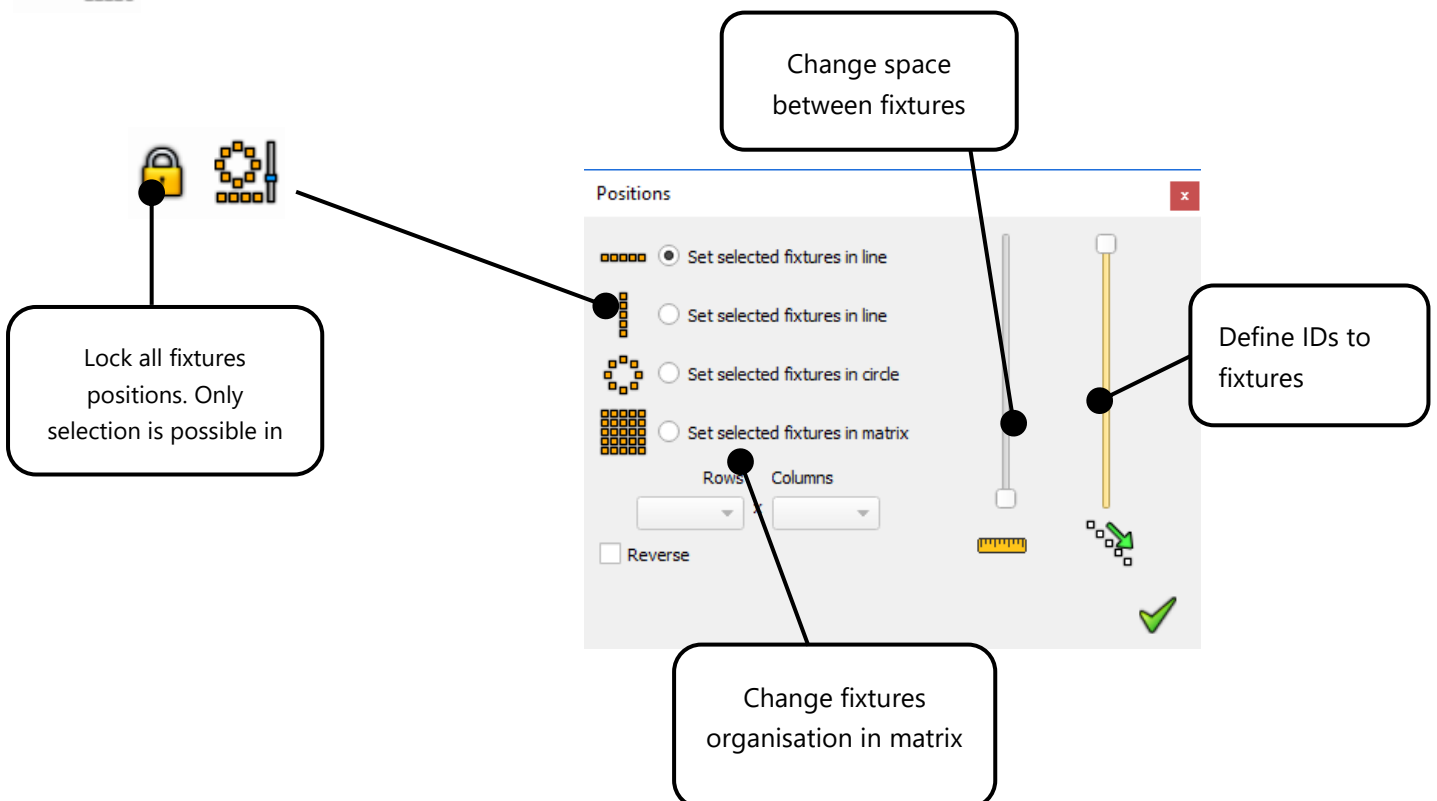


FOCUS ON THE OPTIONS COMMAND

Select a new color from the color palette to change the background and define an image to the 2D area background. You can display a view of a stage or room and place all the fixtures in their respective locations.

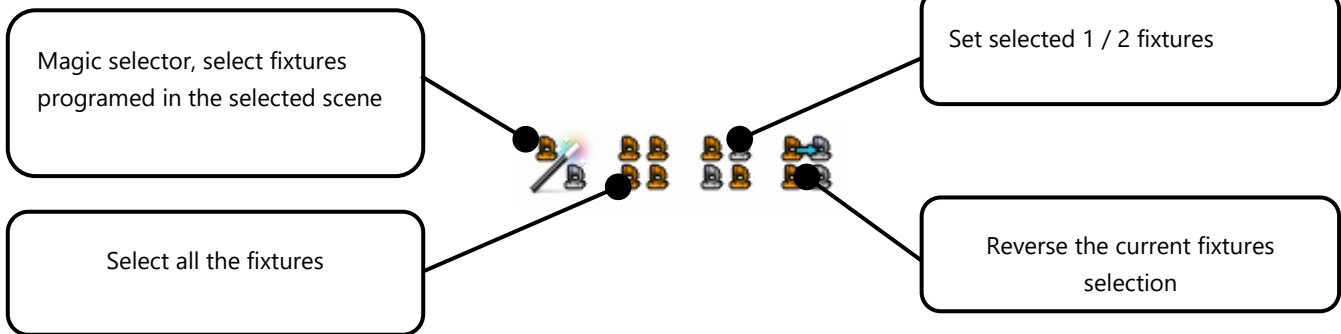


FOCUS ON THE AUTO-POSITIONING COMMAND





FOCUS ON AUTO-SELECTING COMMAND



FOCUS ON GROUP COMMAND

This command allows to record a fixture selection under the F1 to F12 keys of your keyboard. To do that, first select a group of fixtures, then press the Group command and choose the shortcut F-key you want to use to recall your group selection at any time.



F1

F2

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33					38	39	40
41	42	43					48	49	50
51	52	53					58	59	60
61	62	63					68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Step 1: select some fixtures

Step 2: Define a group F-Key shortcut

Step 3: The group is recorded under key shortcut and a shortcut button automatically appears in the group ribbon. You can click it or press your keyboard to recall the fixtures selection.



Shortcuts

Shortcut

Select shortcut : F2

Shortcut(s) already used (Click to remove)

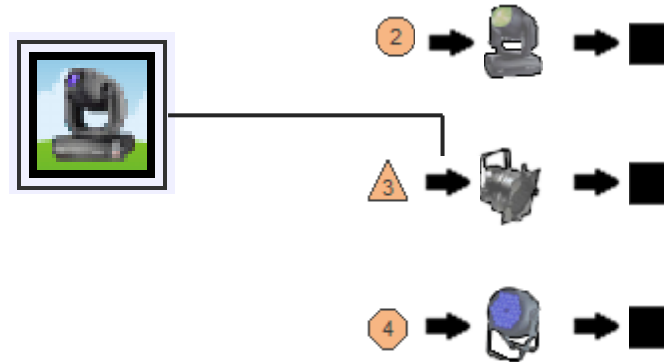
F1 F2

✓ ✗



FOCUS ON FIXTURE DISPLAY MODE COMMAND

Switch between image or shaped icon to display fixtures items. You can choose the fixture's image and the shaped icon in the Profile Editor. (you must update the profile to change the fixture image).

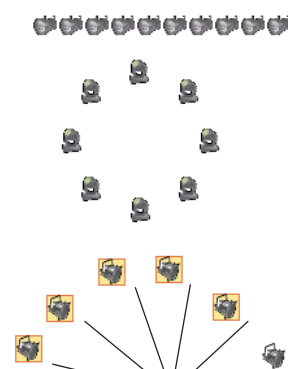


FIXTURE SELECTION

In the 2D area you can select / unselect the fixtures by clicking on their pictograms

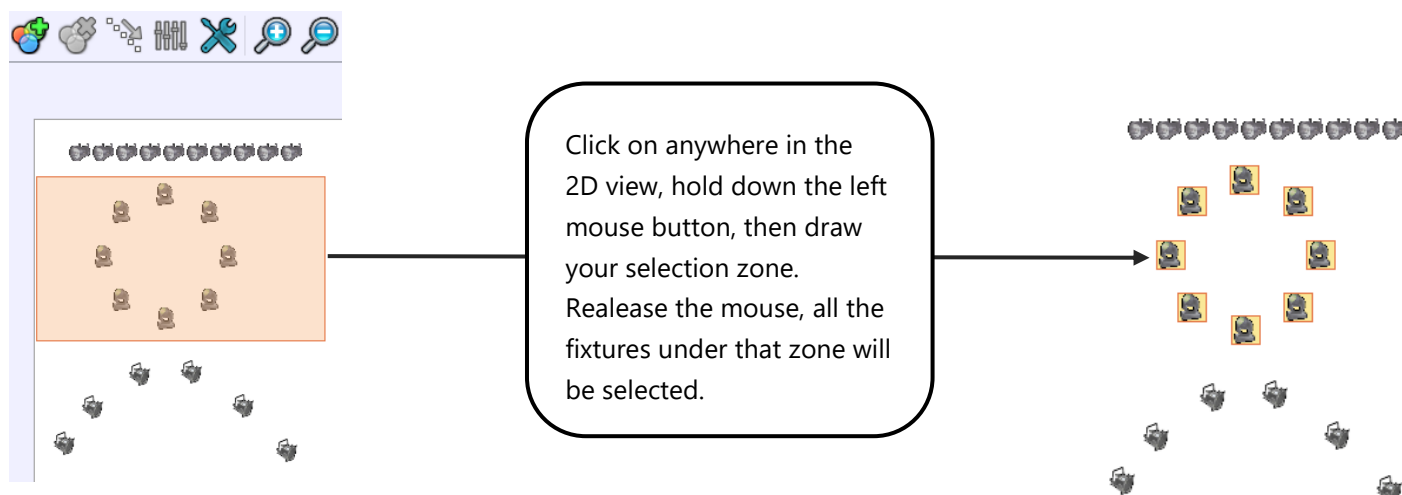


Click on a fixture item to select it



Hold CTRL+Click for multiple select

You can also select them by drawing a selection zone



You can unselect all of the fixtures by clicking anywhere on the 2D area.

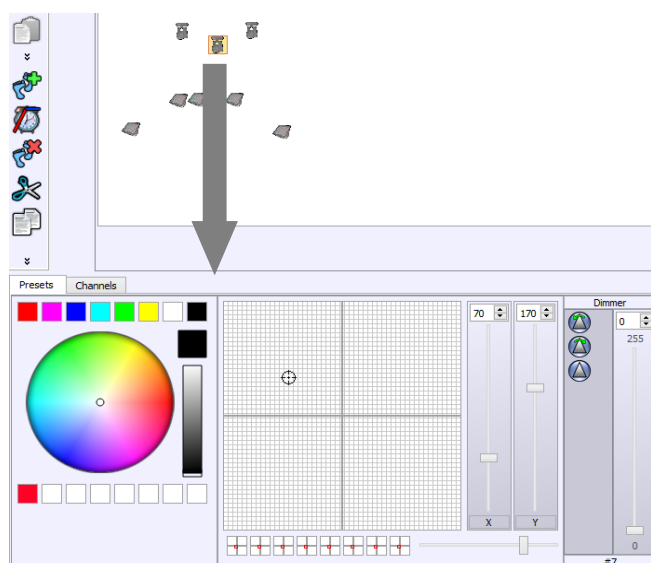


When the lock position is activated, you can unselect fixtures by clicking the item a second time.



**DMX levels and presets values are activated only on the selected fixtures in the 2D area.
Make sure that you select the right fixture every time.**

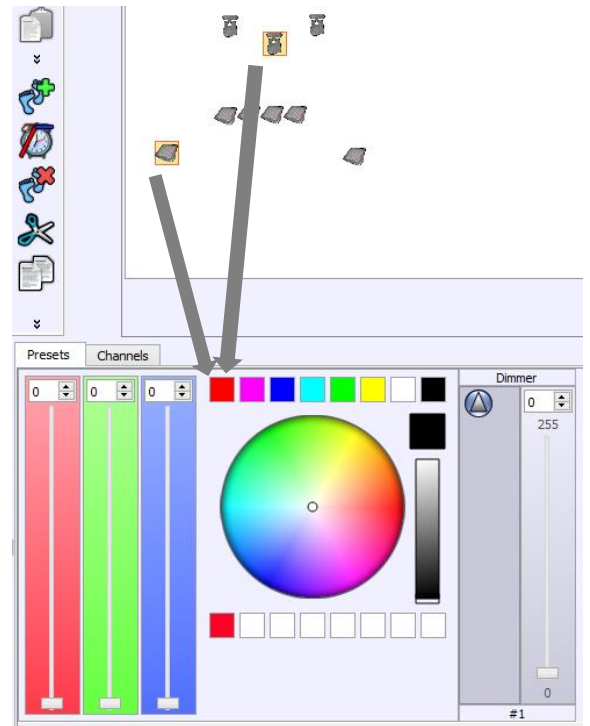
FIXTURE'S CHANNELS CONTROL PANEL



When you select a fixture, its channels and presets appear in the presets panel located just below the 2D area. (You can see all the profile's channels that were earlier defined using the Profile Editor)

If you select 2 or more different fixtures with different profiles then the software will only display the common channels. For example, if you select 2 different fixtures with a RGB function, the software will show the RGB color pallet. If the 2 fixtures have both a Pan and Tilt, the software will display the Pan and Tilt pallet. If they both have a dimmer, the software will display the dimmer. But if only one of them has RGB color, the software won't display the RGB Color pallet. Commons channels are shown others are hidden.

The commons channels types who can be displayed are RGB, CMY, RGBY, RGBA, Pan, Tilt, Dimmer, Focus, Iris and the Zoom.

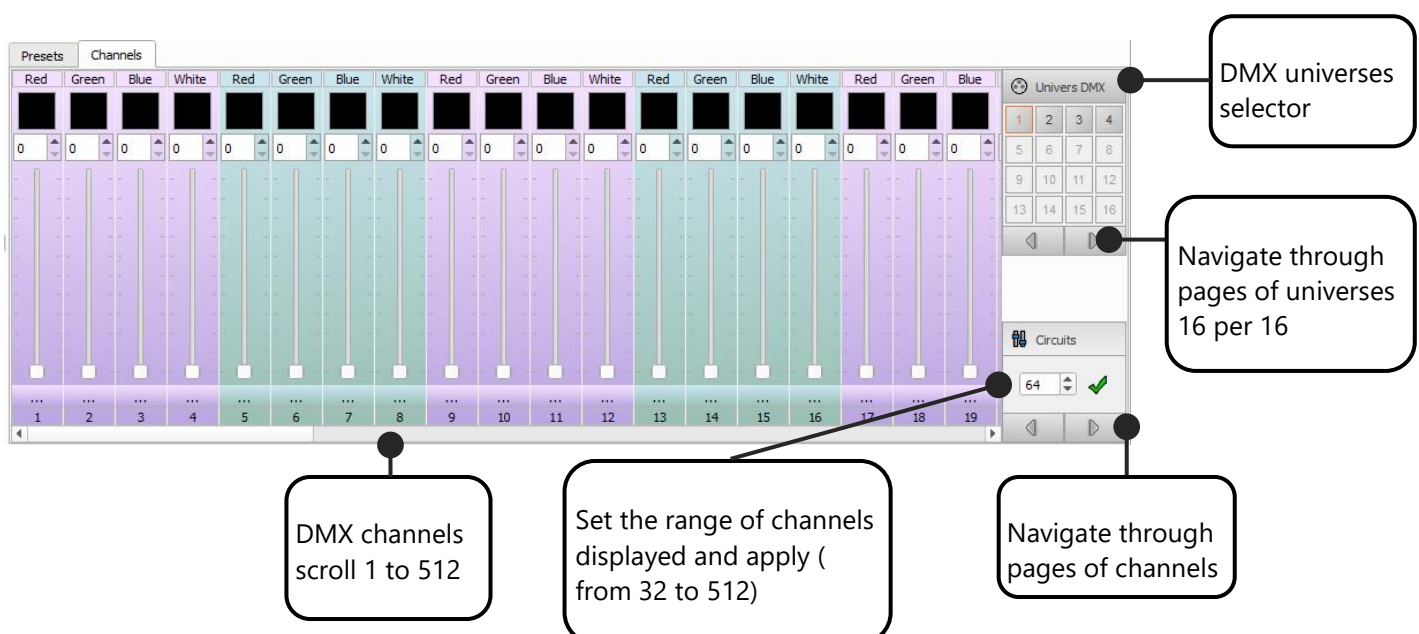


CHANNELS AND PRESETS WINDOW

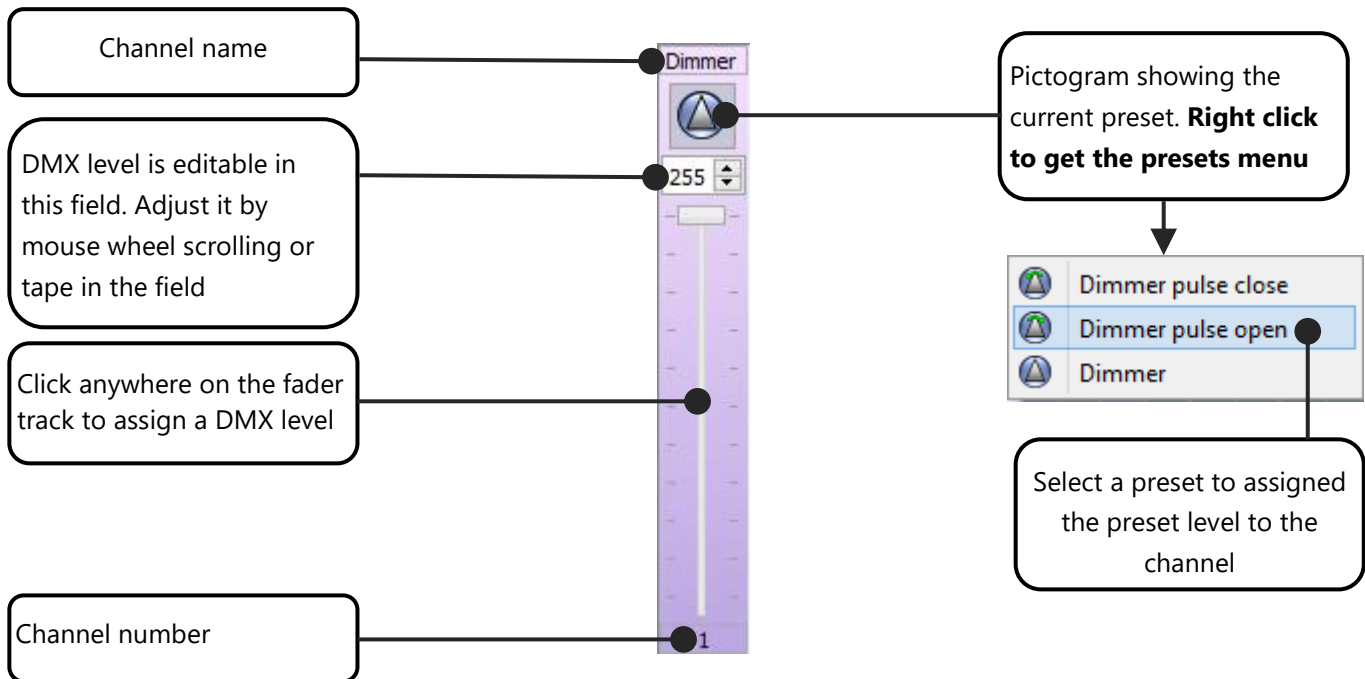
Under the 2D area is located the DMX controls window. There's two possible types of controls display.

THE CHANNEL DISPLAY MODE

The Channel mode shows a traditional fader board for each of the 512 DMX channels. The software can manage 128 DMX universes of 512 channels each so users have the possibility to switch from 1 universe to another. The software have 3 fader colors : light grey for neutral channels (no profile associated), and two other colors to distinguish the odd and even fixture channels.



DMX fader Control

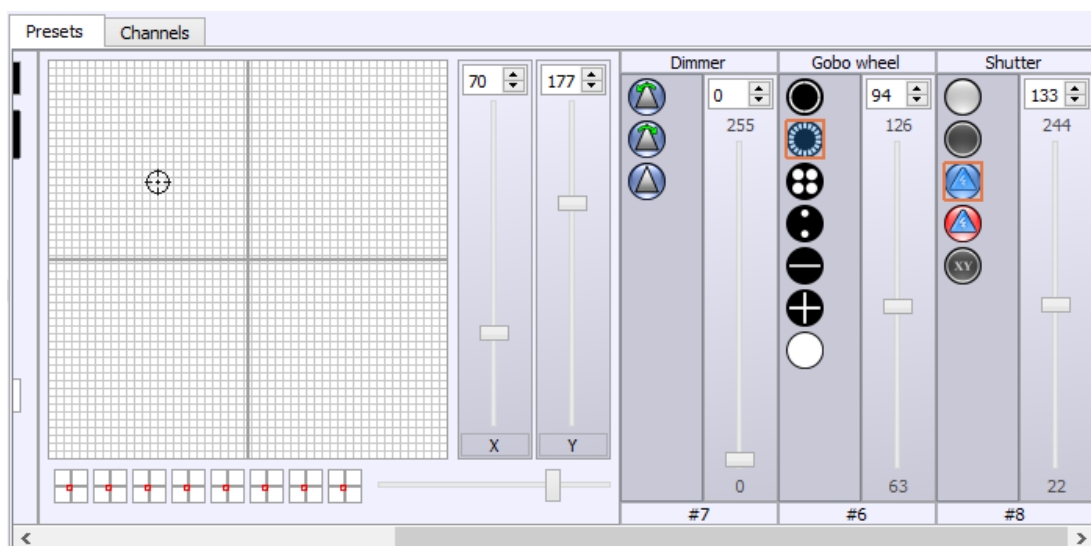


THE PRESET DISPLAY MODE

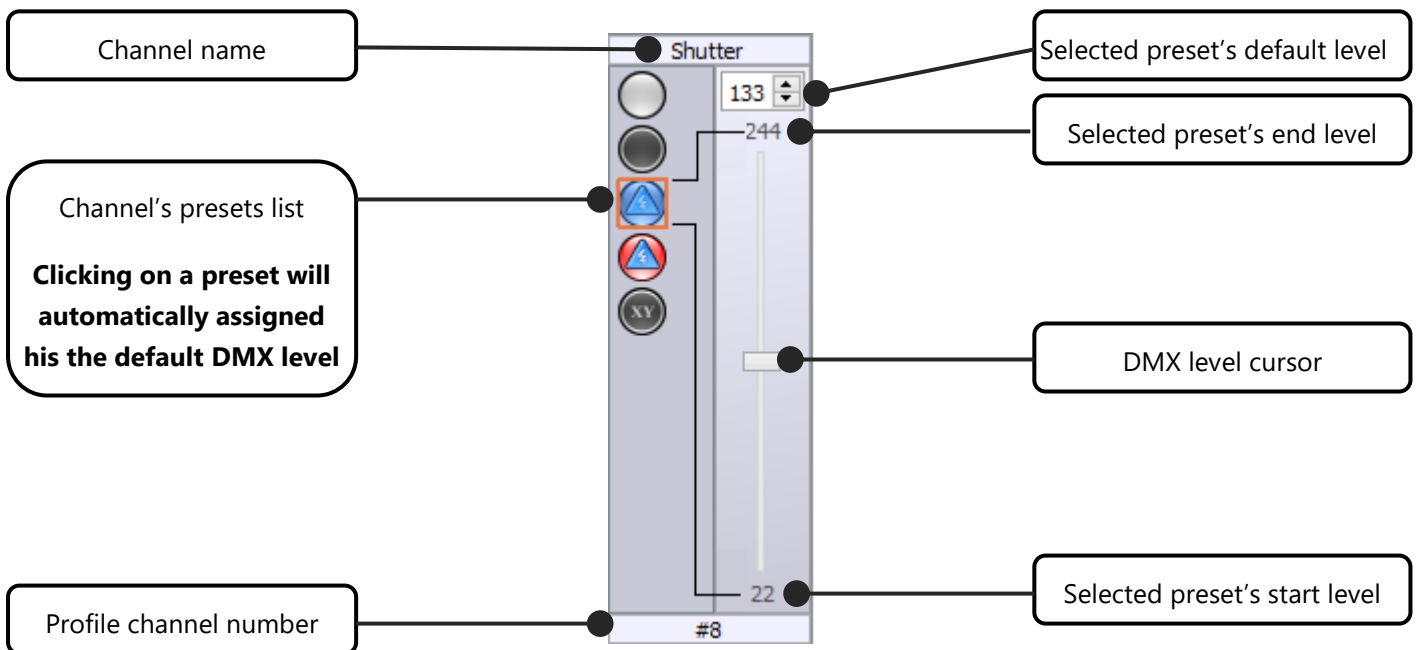
The second and more interesting control mode is the Preset mode. It's the software's default control mode. It provides a board containing palettes who mix cursors and presets menus, embedding powerful tools like RGB color mixing palette and the Pan&Tilt palette.



If no fixtures are selected, there's no presets to show and then the presets board stays an empty window.

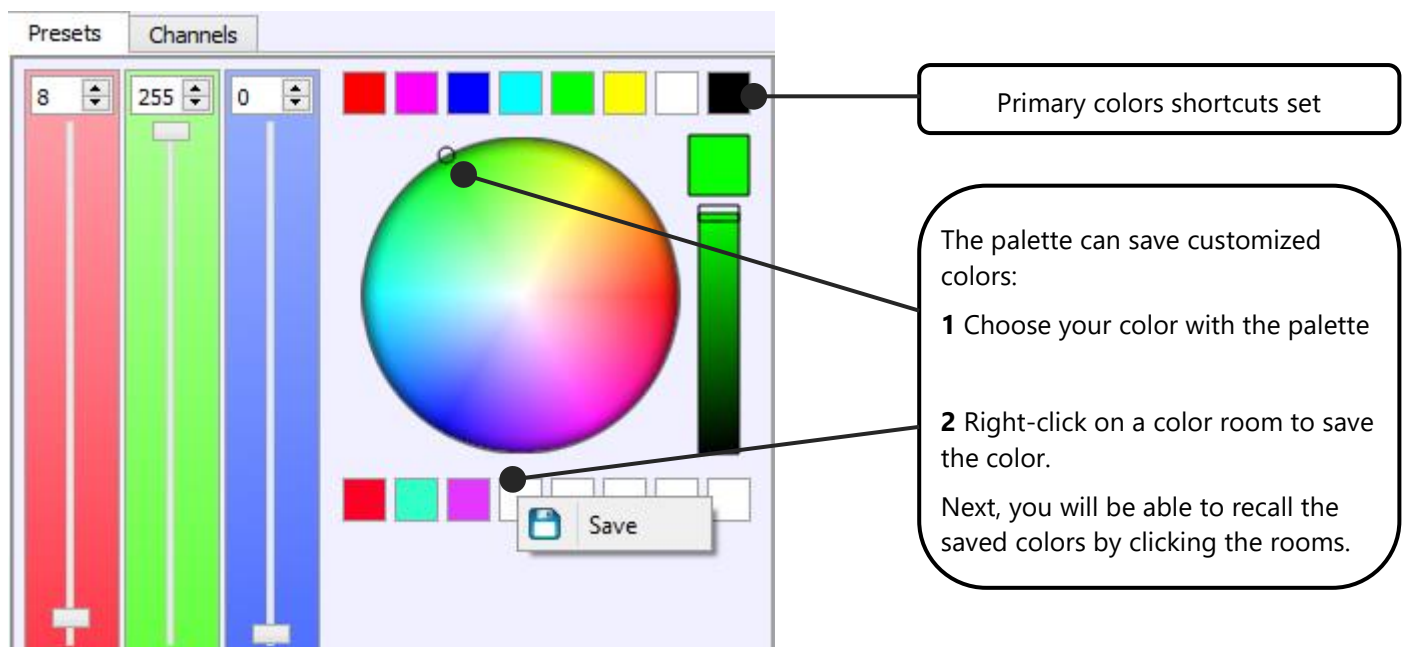


DMX Preset Control

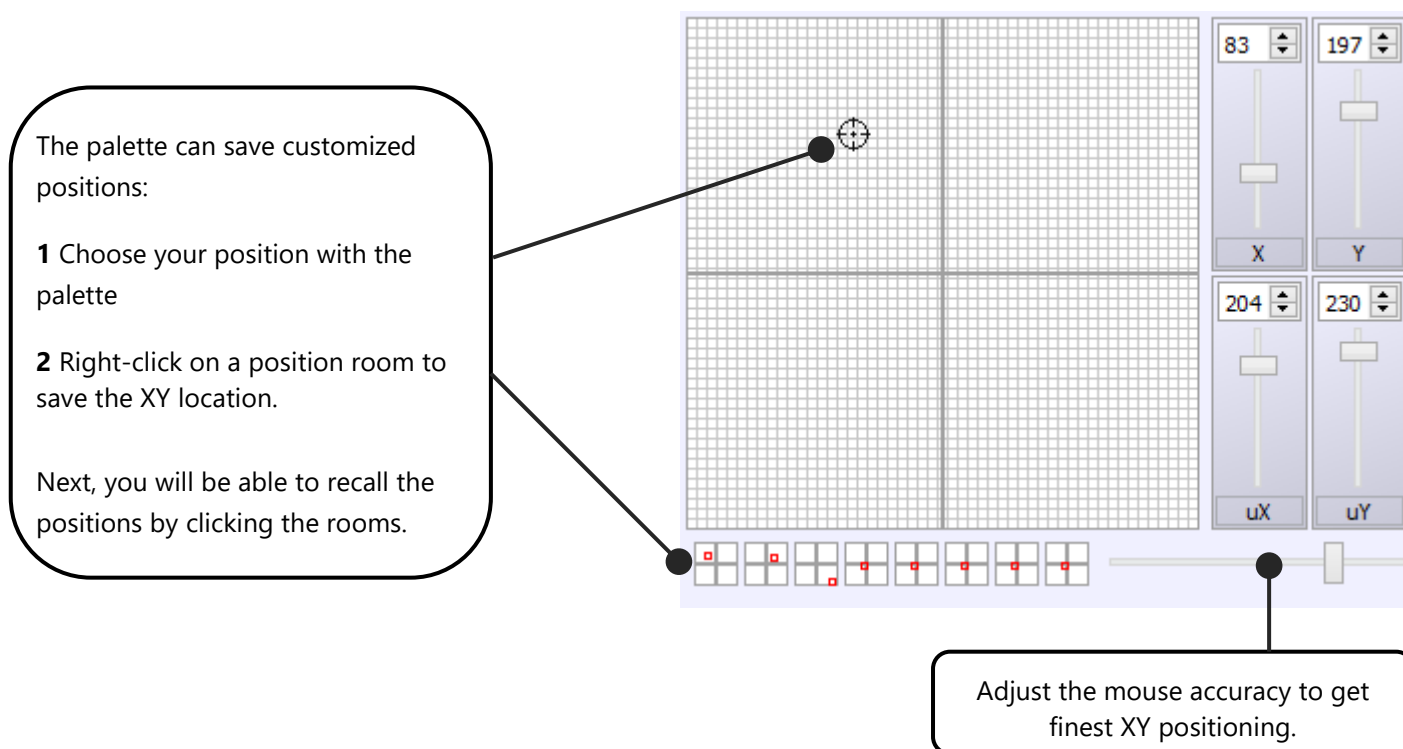


When the preset is selected the main cursor can move from the start to the end DMX level of the preset (refer to the user manual: **How to create Profiles**). You can click on the Preset a second time to unselect it and return to the DMX level 0.

The Color mixing palette for the RGB, RGBW, RGBA and CMY channels:



The Pan and Tilt palette for the XY channels:



NOTE: The Preset display mode automatically manage the DMX universes. You do not need to switch from one DMX universe to another one like in the Chanel display mode.

CREATING SCENES AND PROGRAMS

After successfully patching profiles and becoming familiar with the software commands and controls you can start to program your show. The software uses a very user-friendly method and powerful functions to create the show. Just refer to the user manual **How To Create Scene And Programs** for perfect programming.

Now you are able to create and update your DMX patch and use the control mode. A good Patch with good profiles is the basis of good programming. When the profiles perfectly match your fixture you will save time programming the show and the final visual result will be incredibly improved. It is now time to find out how to create scenes, programs and sequences.