Sunlite Suite

English

Table of contents

1.Welcome to Sunlite

Prologue

Thank you for your interest in the Sunlite control software.

Our User Manual is divided into the following chapters:

1. Welcome to Sunlite
Quick start guide, Overview
2. Basic Programming
3. Intermediate Programming
4. Advanced Programming
5. General Settings
Appendices

In this manual, the most elemental concepts of lighting control are presented early on, followed by increasingly more complicated software tools and functions as the manual progresses. Though our software is designed to be simple to use and intuitive to learn, we strongly recommend beginner users to read this manual consecutively, starting from the first chapters and so on. Intermediate and advanced programmers will usually skip through sections without a problem.

This first chapter gives users a quick overall look at our software (essential if you are impatient like most of us). We will walk you through the installation process for the software and the interface drivers. Then we will play around with our preprogrammed DEMO shows. At the end of this chapter, we will quickly show you how to add your own fixtures into the software, just in case you cannot wait to test your own lighting fixtures.

The second chapter will show you the most elemental programming tools within the software. By the end of this chapter, you should be able to program a decent looking show very quickly.

The third and the fourth chapter describe more advanced (not necessarily complicated) software tools. This knowledge, along with a little practice, will allow you to create almost any lighting scene/effect your fixtures can handle.

The fourth chapter briefly describes peripheral software tools in the Sunlite Suite package, such as the 3D visualizer (Easy View), a profile/library editor (Scanlibrary), a music/video/lighting timeline synchronization tool (Easy Show), and downloading scenes/shows into the internal memory of the electronic interface (Easy Stand Alone).

The fifth chapter include several starting parameters the user should be familiar with, options for the windows management and Backup/Technical support

Finally, you will find appendices that include a DMX512 review, MIDI review, list of available accessories, and a troubleshooting guide.

1.1.Installing software/interface

1. Installing the software

Whether you are holding an installation CD in your hands or you downloaded the software from the internet, the first thing you want to do is install our Sunlite software.

Insert the installation CD in your computer (if you downloaded the software from the internet, you can skip this paragraph). Once the installation screen is open, select your language and click NEXT,

then accept the license agreement, and finally click on the INSTALL icon for Sunlite Suite.

Select the Setup language and accept the license agreement (again). Choose your installation folder (default is C:SL2006). The next screen will ask if you want to install the software with or without DEMO PAGES. If you are a beginner user, we recommend you install WITH demo pages.
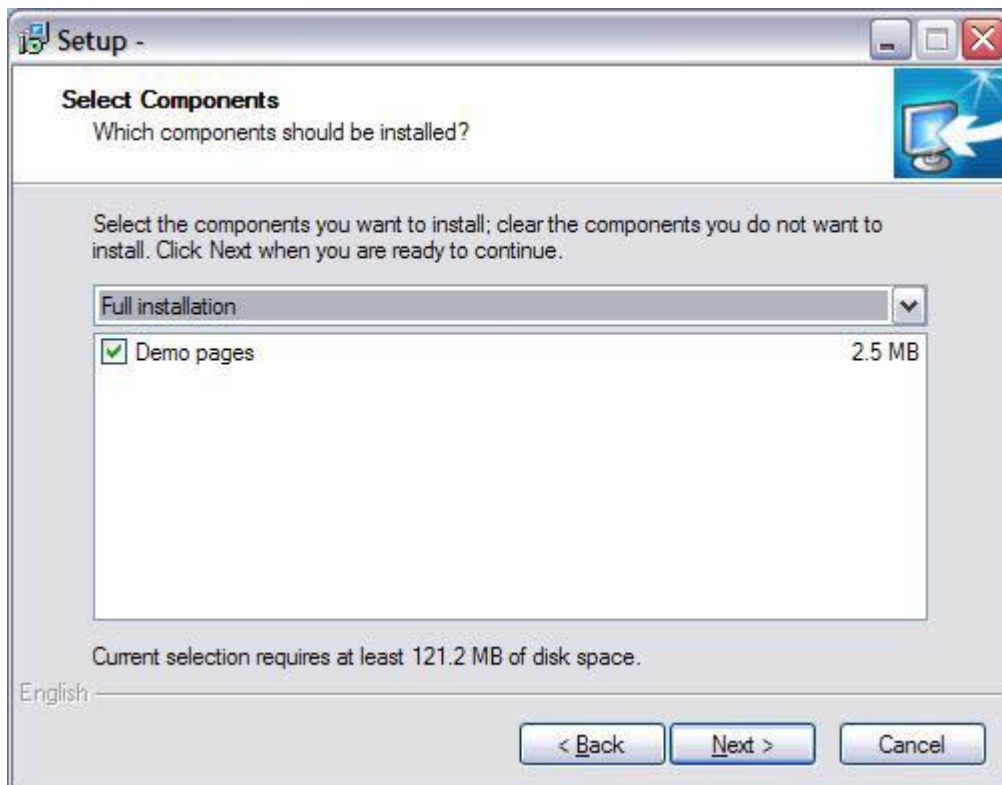
Finally, the setup wizard will ask if you want to start the software in BEGINNER MODE. Again, if you are a beginner user, we recommend you click YES on the beginner mode option.
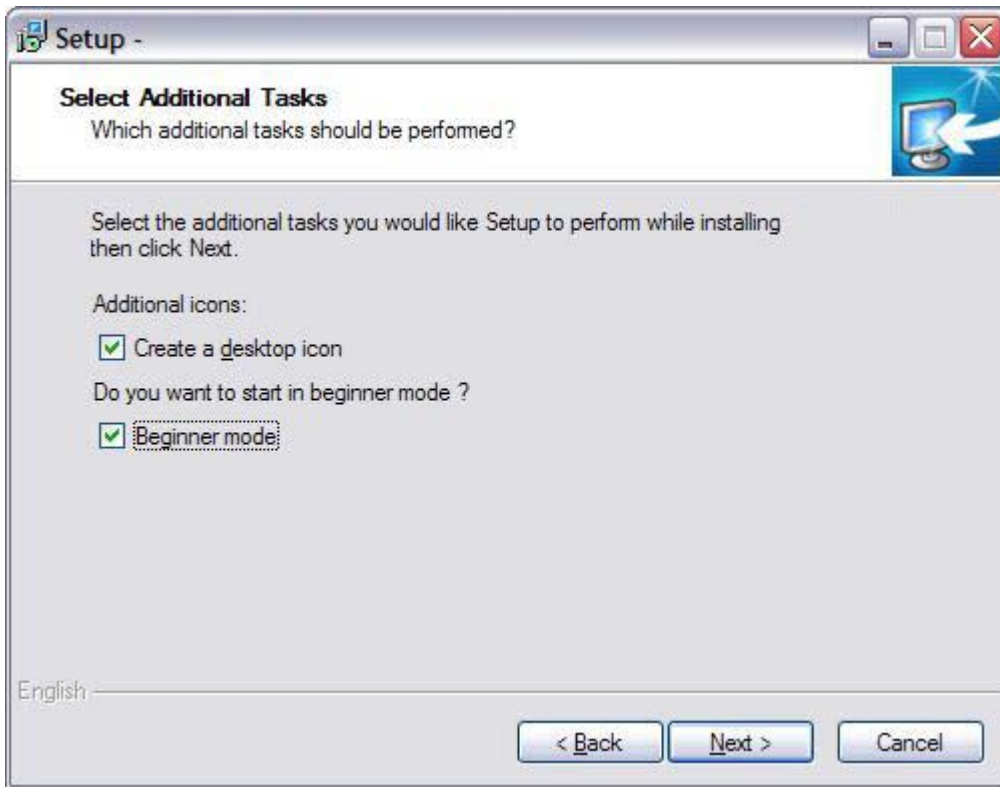
You are done! Now, it is time to start playing with our software.

2. Installing USB drivers

If you purchased a software package and received a USB to DMX interface, you will need to install the drivers for it. You can use the full software without the interface, but you will need this USB-DMX device if you want to control real lighting fixtures.

Windows will find the driver and will tell you the device is not validated, and will ask if you wish to continue. Although Microsoft does not have a numberical registry for this driver, there is no risk of incompatibility. Click "Continue Anyway".

You are done! But remember, the software detects the USB interface when it starts. This means that you must have the USB interface connected to your computer before you open the control software. Otherwise, there will be no communication between the software and the interface.

3. Using IP/Ethernet interfaces

If you purchased a Sunlite package with an IP/Ethernet interface, please refer to the Appendix section for instructions.

1.2.Demo shows

For this section, we assume you installed the software in BEGINNER MODE and that you enabled the installation of DEMO PAGES. If you did not, you will see many options on your screen apart from the ones described here, but the information will still be valid.

Your screen should look like this:
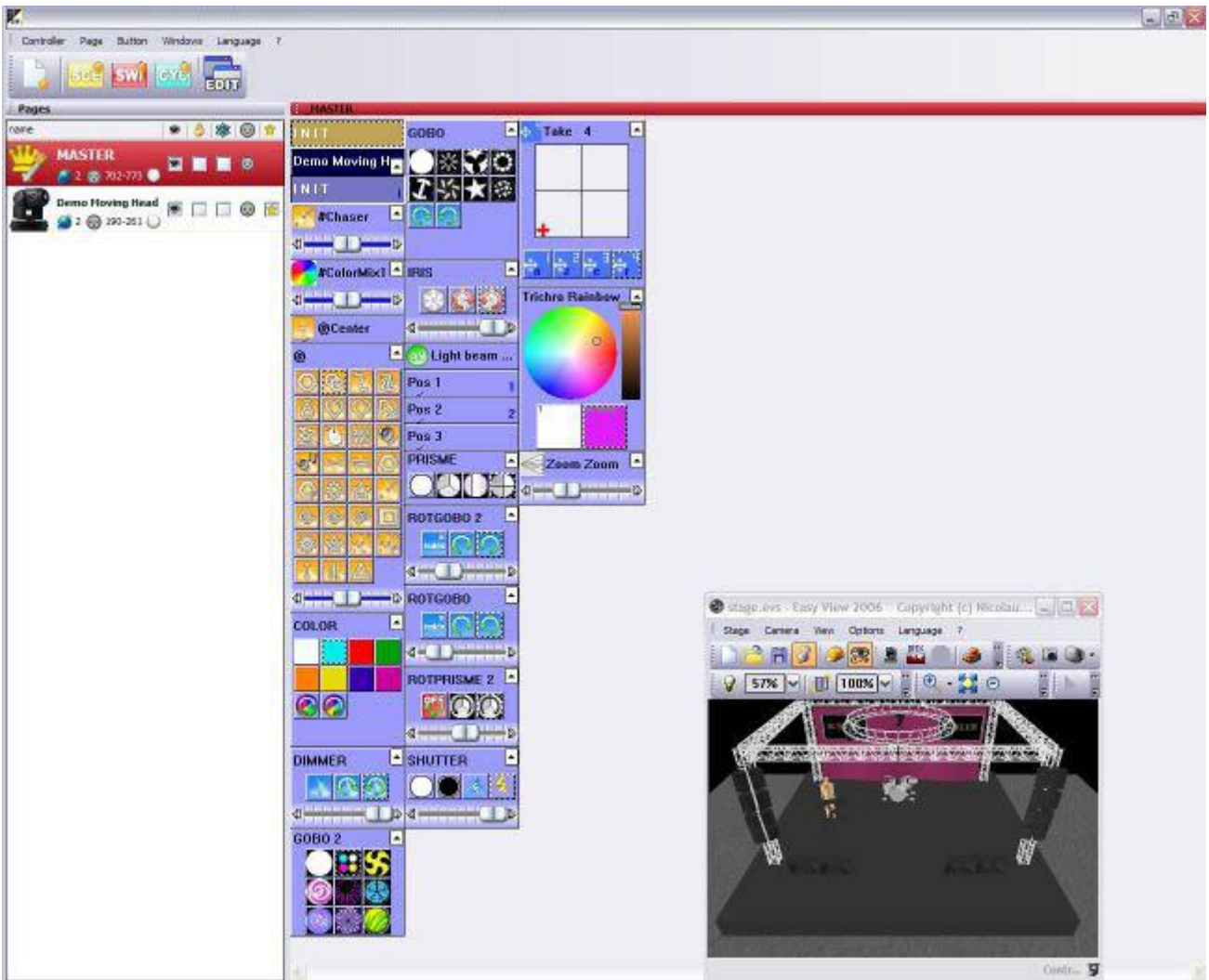
The Sunlite software will display 1 button for every function that the lighting fixture can perform. There will be 1 button on the screen for every color, gobo, macro, prism effect, etc.

Depending on the type of intelligent lighting that you□re using, there will also be preprogrammed buttons with generic effects (in this case, the DEMO MOVING HEAD page contains buttons with movements that are generic to all moving heads and scanners, like circles, random curves, etc).

As you can see on the 3D visualizer window, every time you press a button on your screen the moving heads respond to that command.
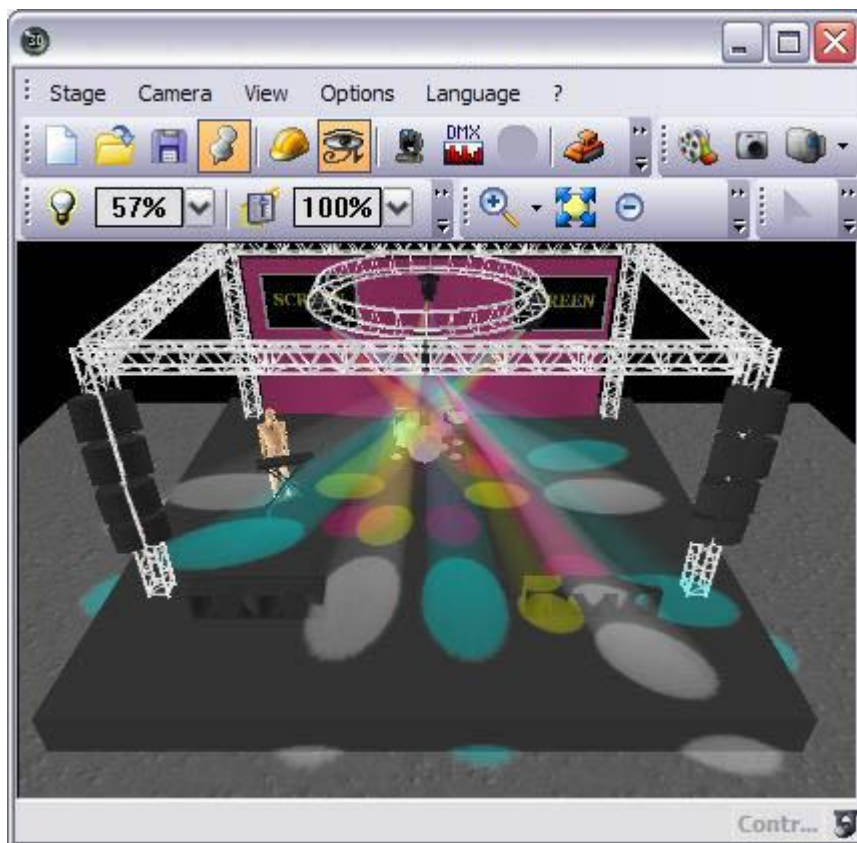
Keep in mind that the 3D window is a real-time visualizer. This means that if you had those 4 moving heads connected to your computer, they would be doing that exact same thing you are seeing on the screen.

Keep pressing any combination of buttons play around. If you want to reset everything, double click on the yellow INIT button. If you find a look or effect that you like, you can save it by going to:

Button menu ☐ New Scene ☐ As you see now ☐ OK
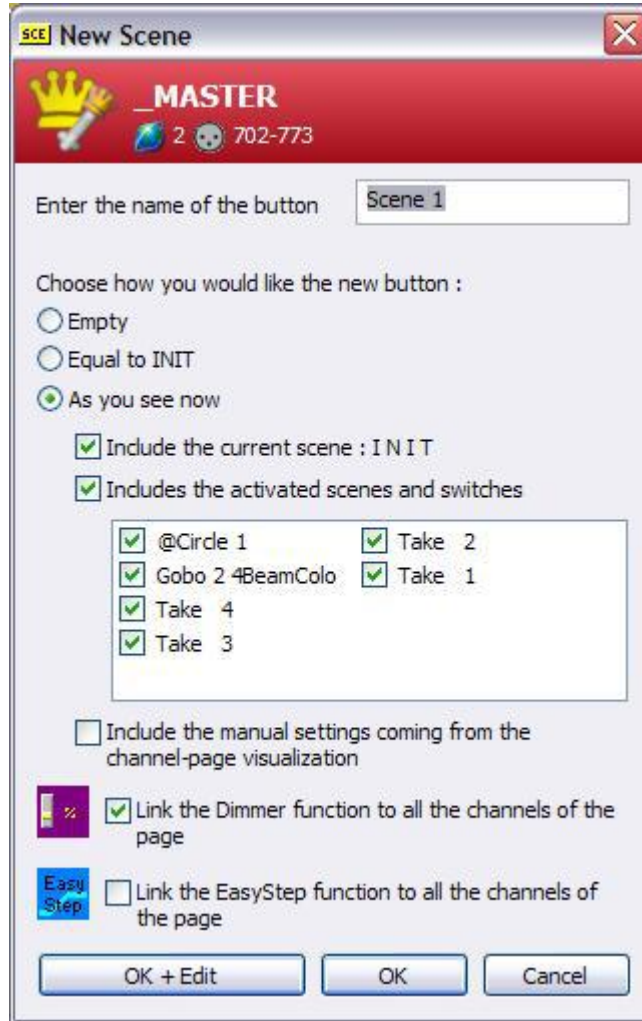
We recommend you create a few scenes like this, so that you get somewhat familiar with the controls. Once you feel comfortable with the preprogrammed controls in the Demo Moving Head page, you will be ready to add your own fixtures and learn more advanced programming techniques. We still recommend, however, that you read this manual consecutively, and advise beginner users against jumping in between chapters at this point.

1.3.Adding your first fixture

If you already have an interface connected to the software and you cannot wait to test these movements and effects on your own lighting fixtures (or if you want to preview how your own fixtures would work), this is how you can add them to the Sunlite software:

Page menu ☐ New page
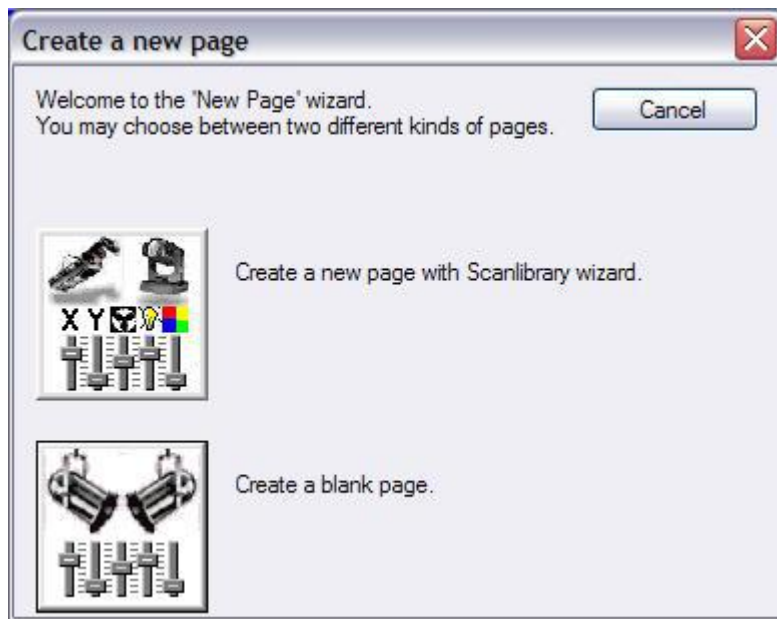
Select "Create a new page with Scanlibrary wizard".
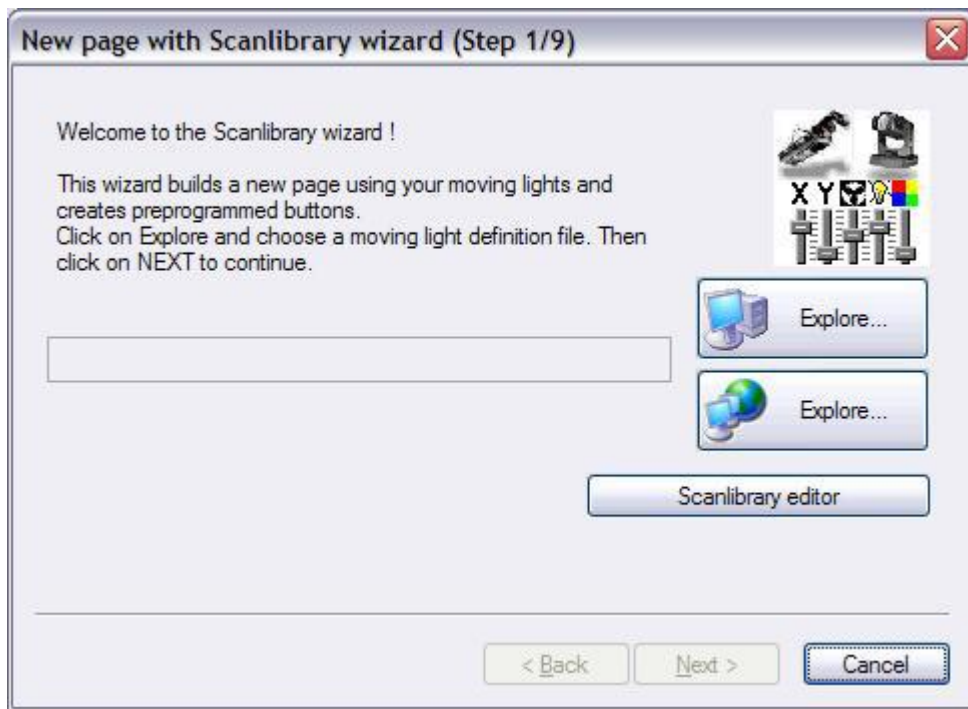
You will be able to browse through the profile library in your computer. Search for your manufacturer's folder and then your particular fixture (notice there is a VARIED folder where fixtures from small manufacturers are included).
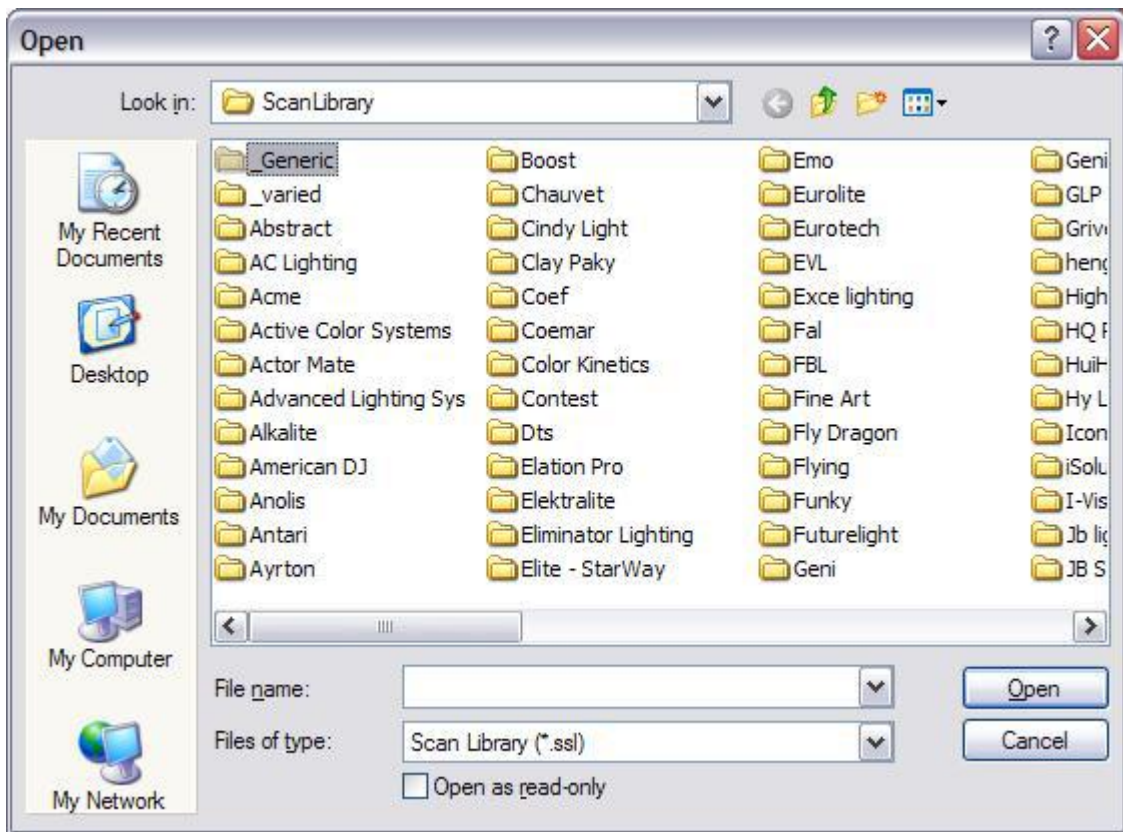
After you find your lighting fixture in the manufacturer folders, you will need to set the starting DMX address and number of fixtures (if you do not know the meaning of ⬚starting DMX address⬚, please read Appendix A ⬚DMX Review⬚ before you continue).
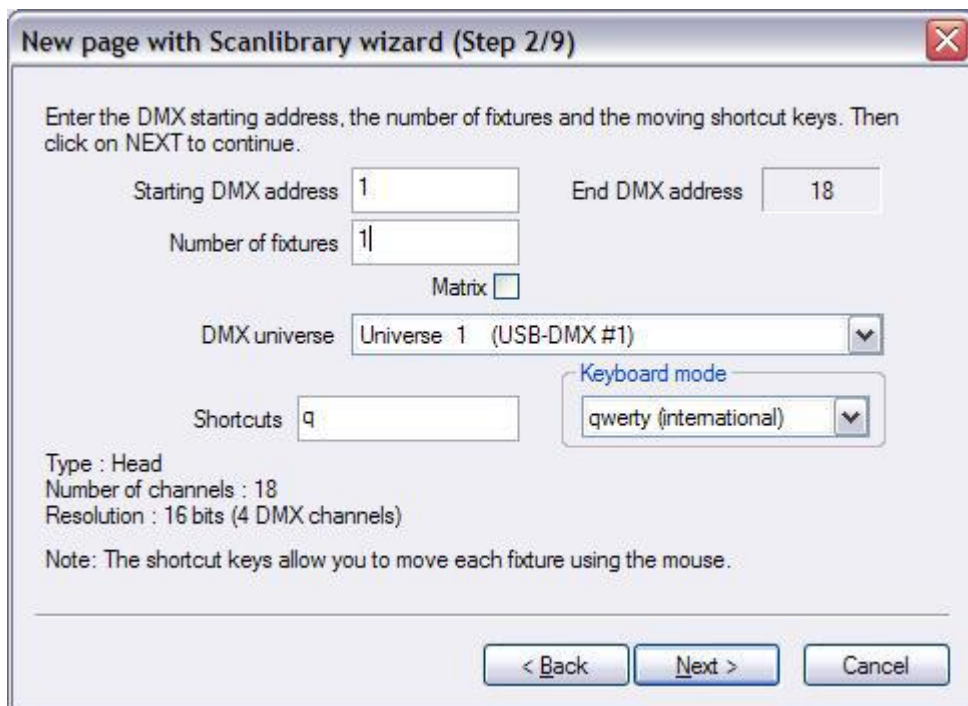
Then, simply click NEXT to all the options that the wizard presents (not important at the moment, but will be explained in detail in later sections in the manual).

You□re done! Now you have 2 pages: the DEMO MOVING HEAD and your MANUFACTURER FIXTURE. Assuming your lighting fixtures are connected and addressed correctly, everything shown in the 3D visualizer should be simultaneously happening with your real lighting fixtures. If you think you have everything setup correctly and are still having problems, please refer to Appendix D □Troubleshooting□.

There you go! Keep reading the manual to learn how to program more elaborate lighting scenes/shows/effects.

1.4.Sunlite Overview

The following chapter will provide an Overview of the entire Sunlite Suite package. The main goal of this chapter is to give you a better idea of Sunlite□s full potential□

Easy View

Our real-time 3D visualizer, which will show you all of your lighting effects on your computer screen in the same way they would look if your actual lighting fixtures were connected to the computer. Ideal to pre-program without lighting fixtures. Create your own stages adding objects and textures, making them as realistic as you want. Record videos of your lighting shows or take still pictures. Print 2D views from your stage, including all your fixtures, trussing, furniture, etc.
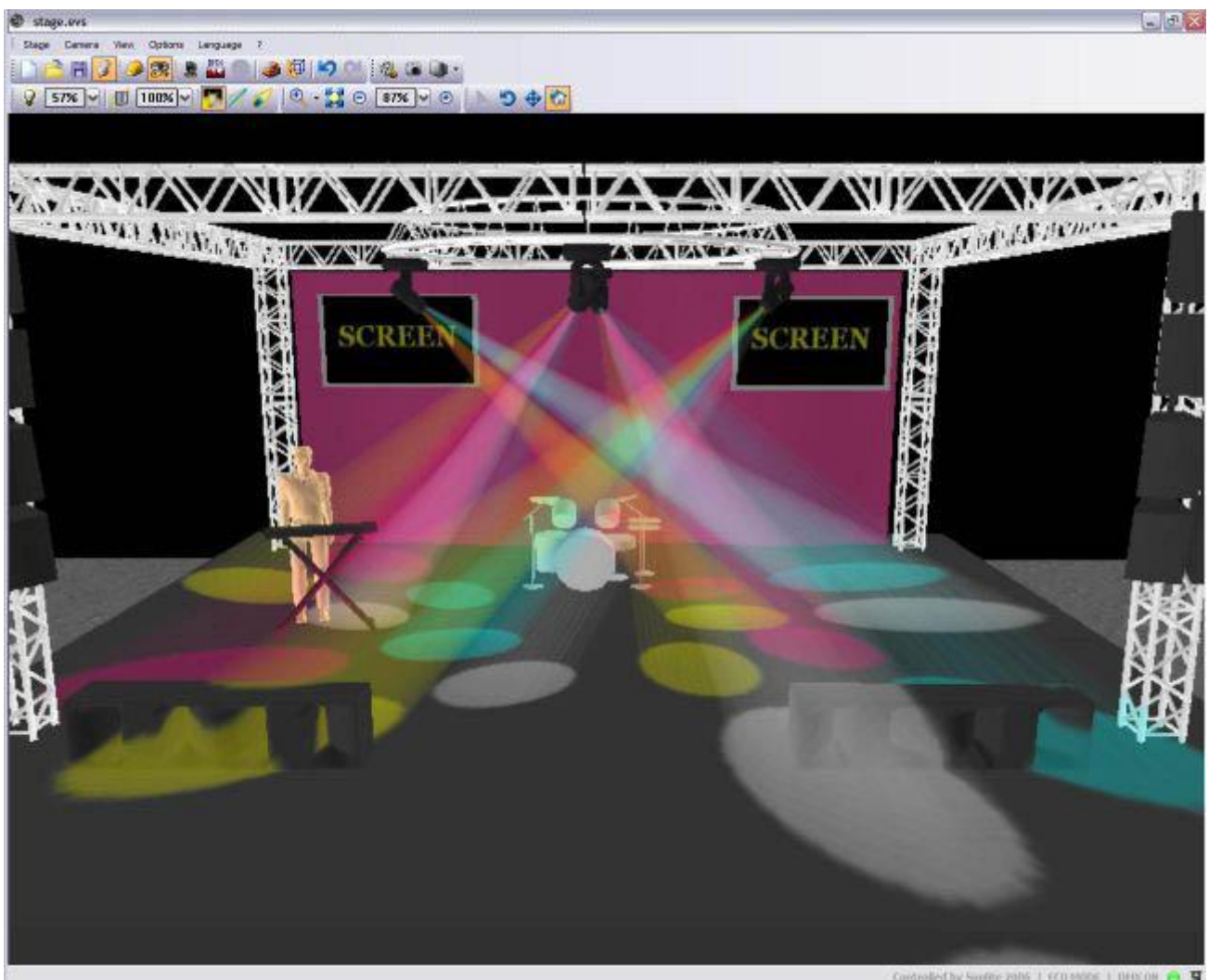
Easy Show

Ideal to synchronize lighting effects with audio and video. Similar to audio editing software, Easy Show includes timelines where you can drag, drop, expand, scroll your lighting effects, along with Audio and Video timelines.
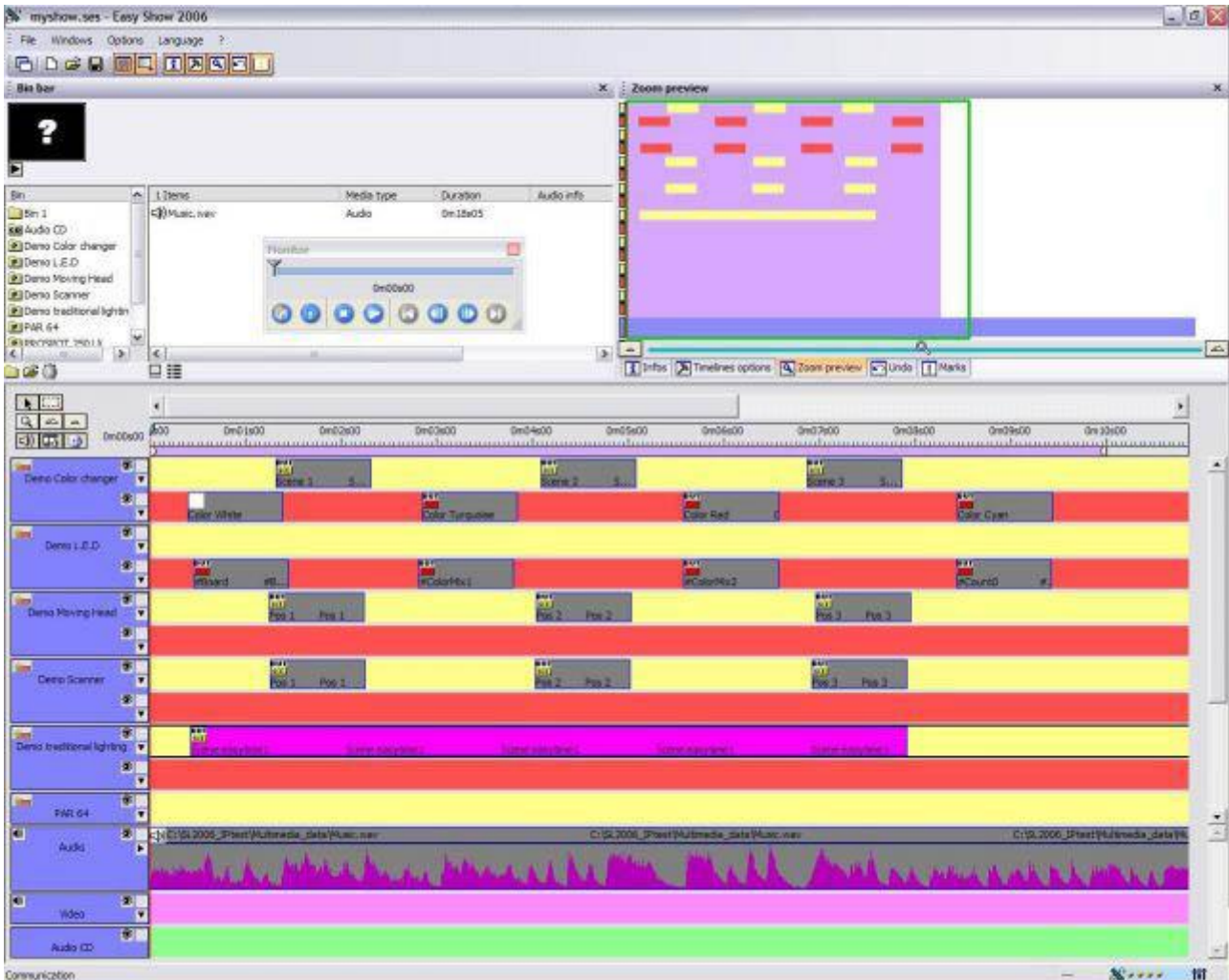
Easy Stand Alone

Create your lighting scenes, then download them to the memory of the interface. Depending on the number of lighting fixtures that you're using, you can have hundreds, even thousands of scenes recorded in our small electronic interface. Trigger lighting shows at scheduled times using the interface's internal clock and calendar. Activate lighting scenes using simple IO contact closures.
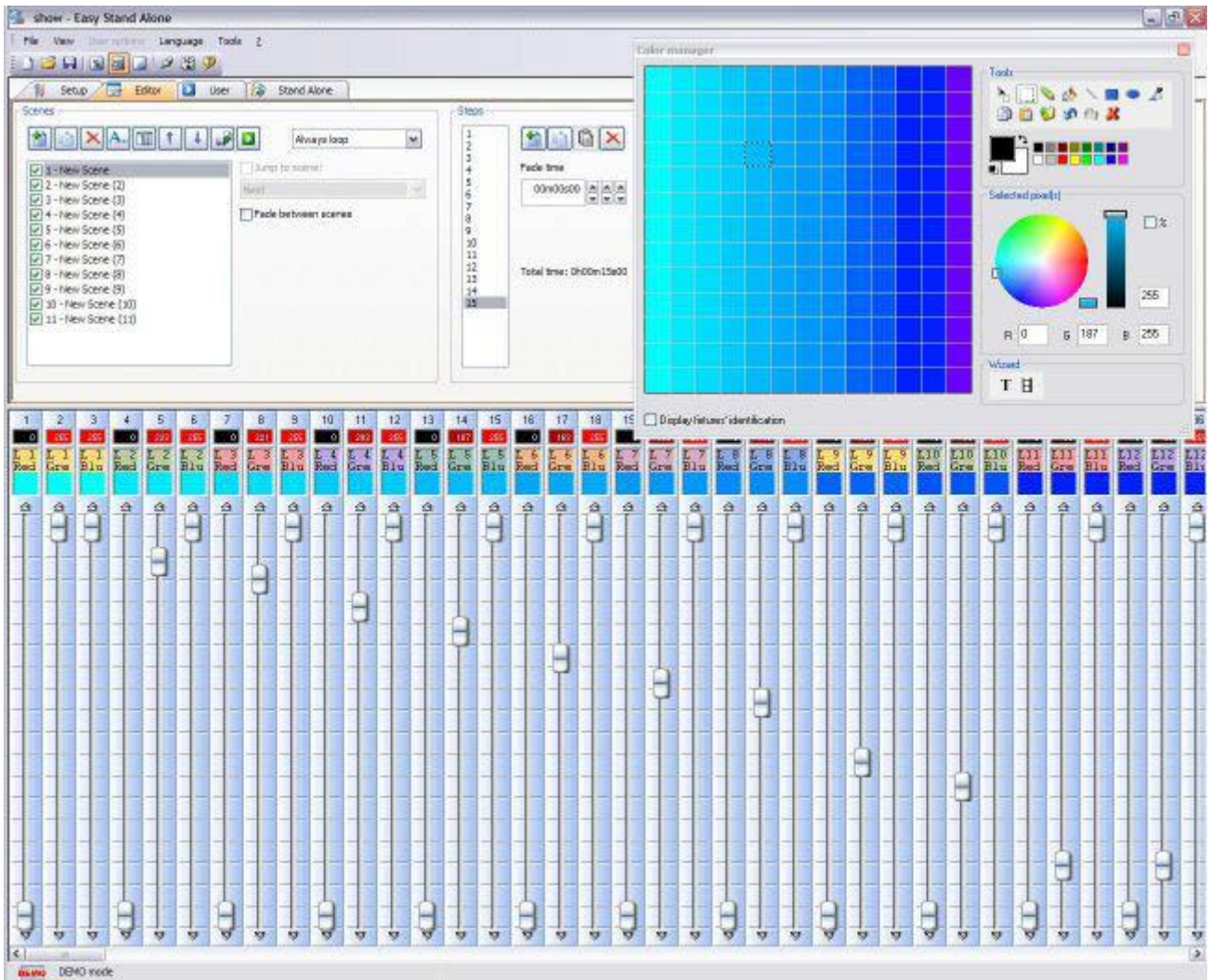
Scanlibrary Editor

Create your own profiles or modify existing profiles for lighting fixtures. All effects are included (color, gobo, gobo rotation, prism, etc). Preview your profiles using our 3D visualizer.
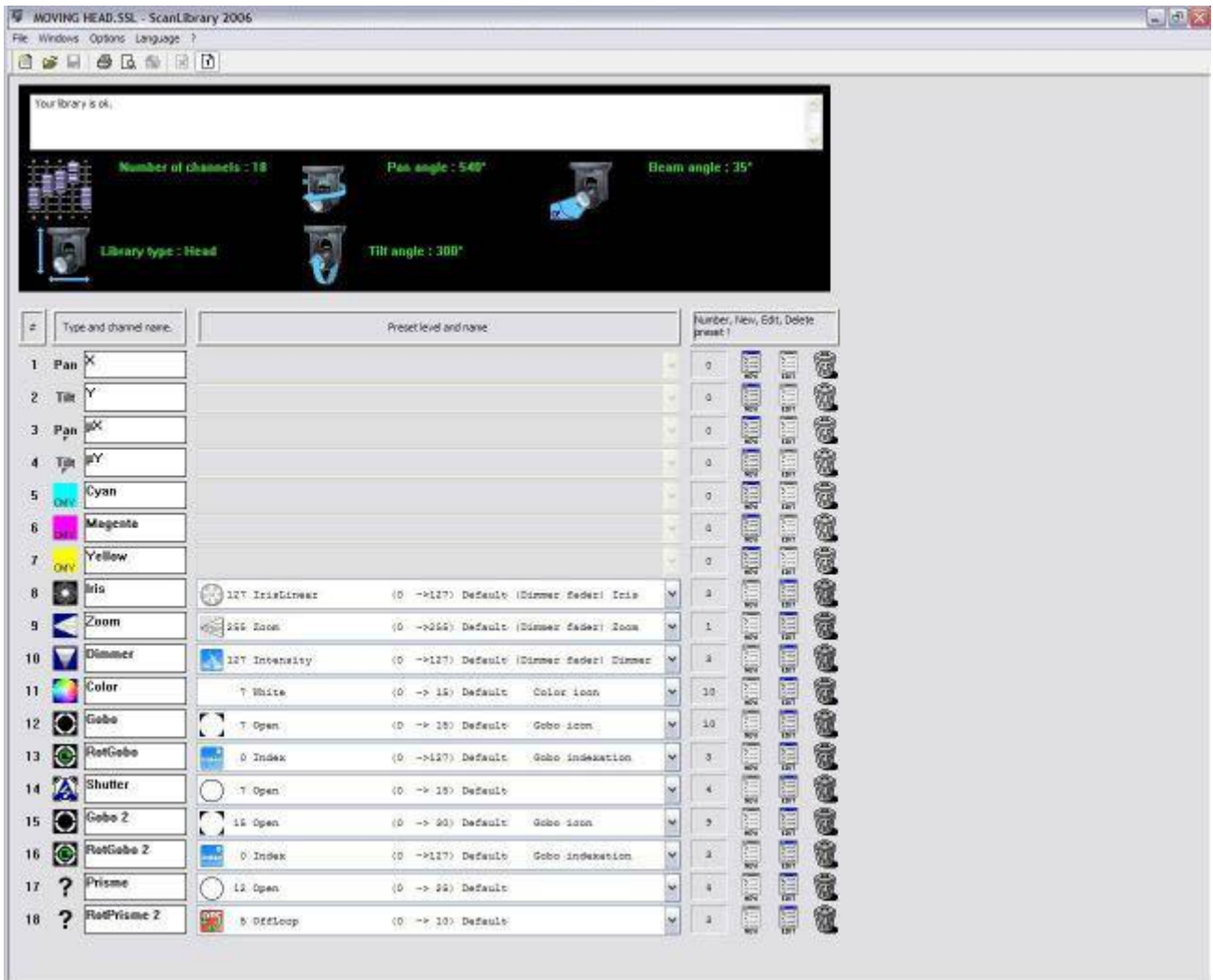
2. Basic programming

Overview

After reading our "Welcome" chapter, you might have a good idea of what you would like to accomplish with our Sunlite controller. Now it is time to learn how to create all those lighting scenes you have in your mind already.

This chapter explores the options available when adding your own fixtures through our 〉New Page Wizard〈. Then we focus on available preprogrammed buttons for all intelligent lighting. We look deeper into the 〉New Scene 〉 As you see now〈 option. Finally, this chapter explores the triggering of lighting scenes from your computer's keyboard.

2.1. Adding your own fixtures

Whether you purchased the electronic interface already or simply downloaded the free software from the internet, you probably have an idea of what type of lighting fixtures you want to control. The Sunlite Suite includes a library of about 2,000 profiles from lighting manufacturers from around the world; most likely your lighting fixtures are included.

Fixtures are grouped inside the Sunlite software into "Pages". Thus, to add your own fixtures, go to:

Page menu 〉 New page
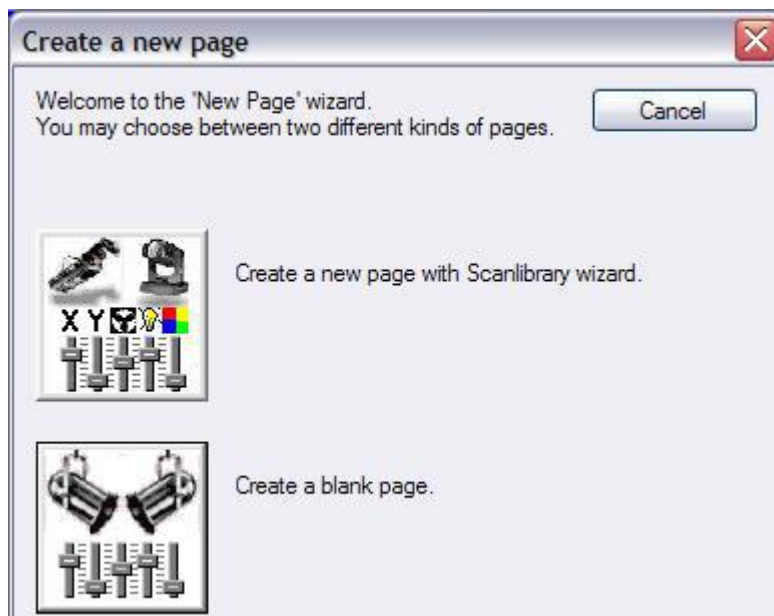
You can see two buttons. The first "Create a new page with Scanlibrary wizard" opens our profile library. The second "Create a blank page", adds an empty page of DMX channels in the software (configuration for these blank pages is described in later chapters).
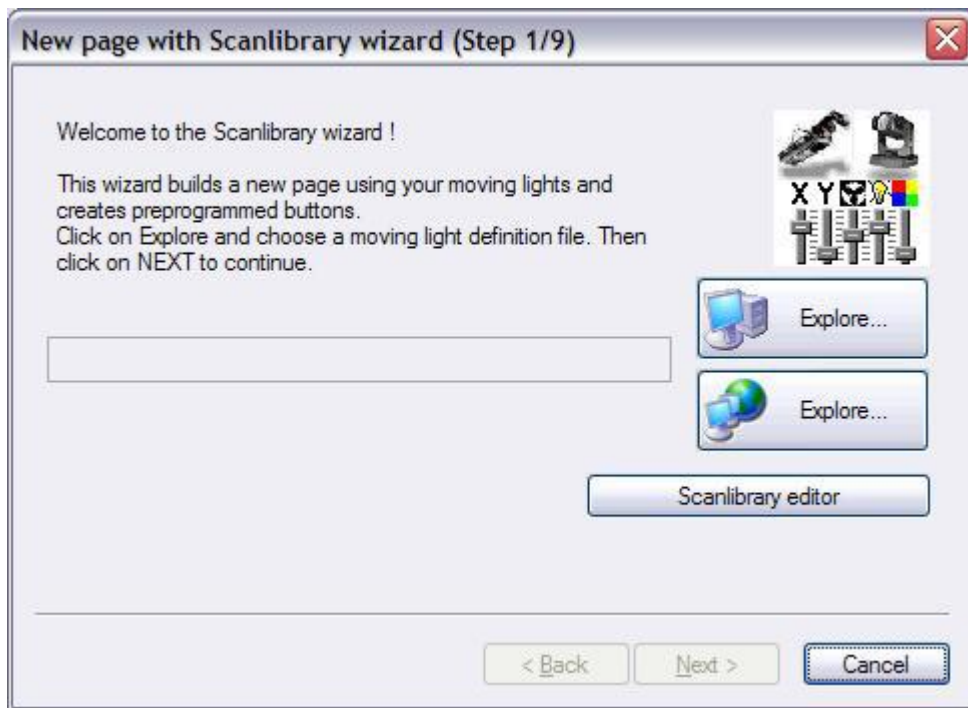
The first "Explore" button allows you to search the library of profiles installed in your computer along with the software. The second "Explore" button is a link to our online library.

We recommend you look for your profiles within your computer first, and if you can't find them, then go online. The third button opens the Scanlibrary Editor. This is an aditional software tool that allows you to construct or modify your own profiles. Please read the "Scanlibrary Editor" manual for more information on how to create personalized profiles.
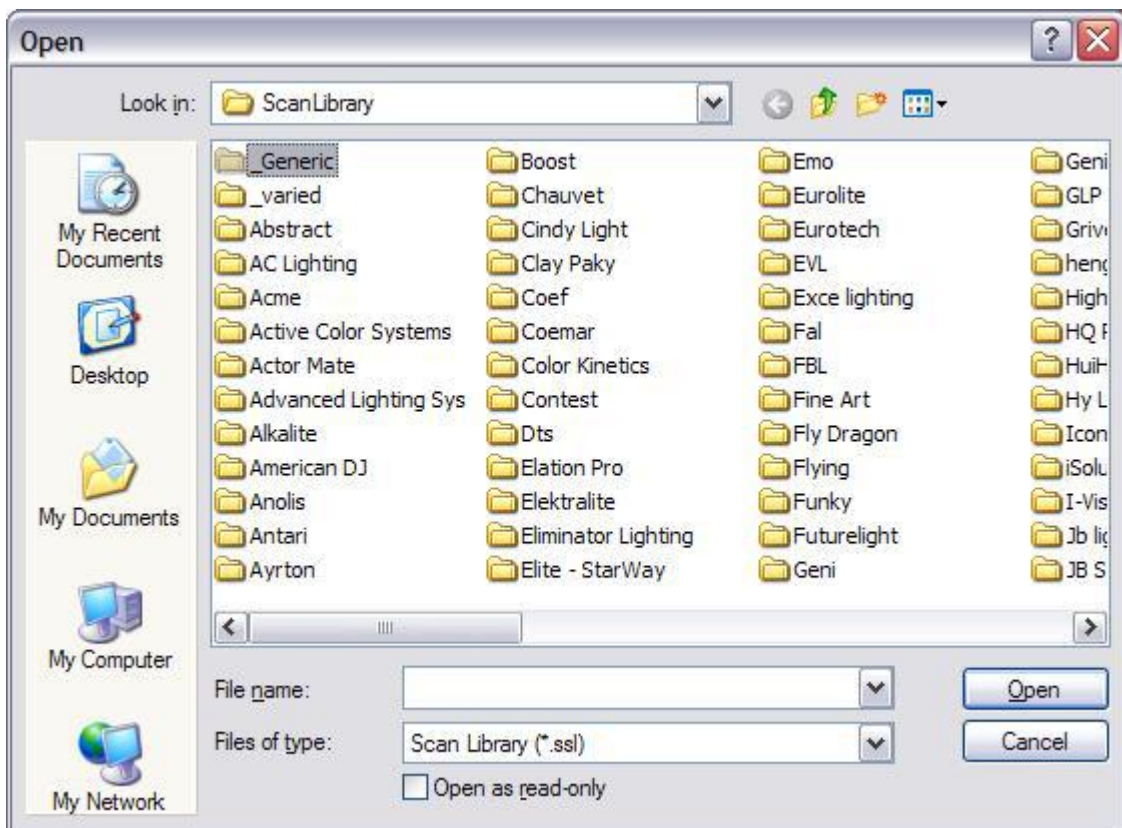
Note: If you cannot find your fixture's profile in the library, please refer to the Scanlibrary Editor manual.

Once you find your fixture inside your manufacturer's folder, you will need to set a starting DMX address and the number of fixtures that fit this profile. If you are unfamiliar with the term "starting DMX address", please read our DMX Review appendix.
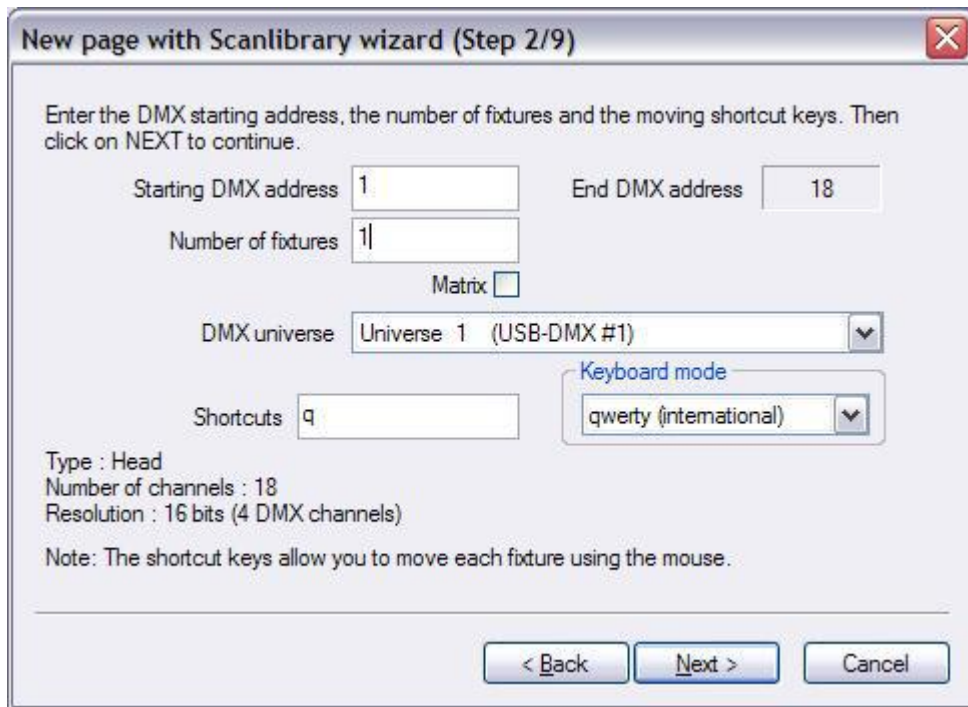
In this screen, you can also set the DMX universe you want your fixtures to work with (in case you have more than 1 DMX outputs).
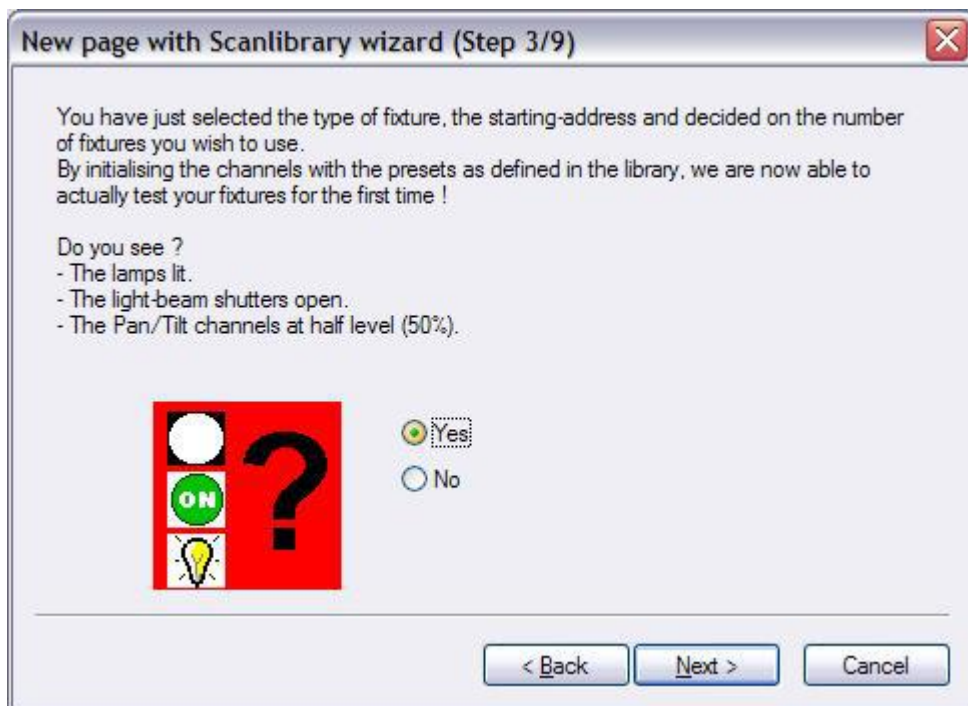
Look at your lighting fixtures (whether the real ones or the ones inside the 3D visualizer). You should see

all of them turn on, white color, to 50% pan and tilt (if available). If your fixtures fail this check, then:
1. You selected the wrong profile (some fixtures have different "modes"). You should go back and find the appropriate profile.
2. You addressed your fixtures differently than the software (Sunlite addresses similar fixtures consecutively). Figure out if it is better to re-address fixtures in the software or the real world.
3. The fixture's lamp is not ON, in which case, continue with the setup process, there will be a DMX command to turn it ON within the Sunlite page.
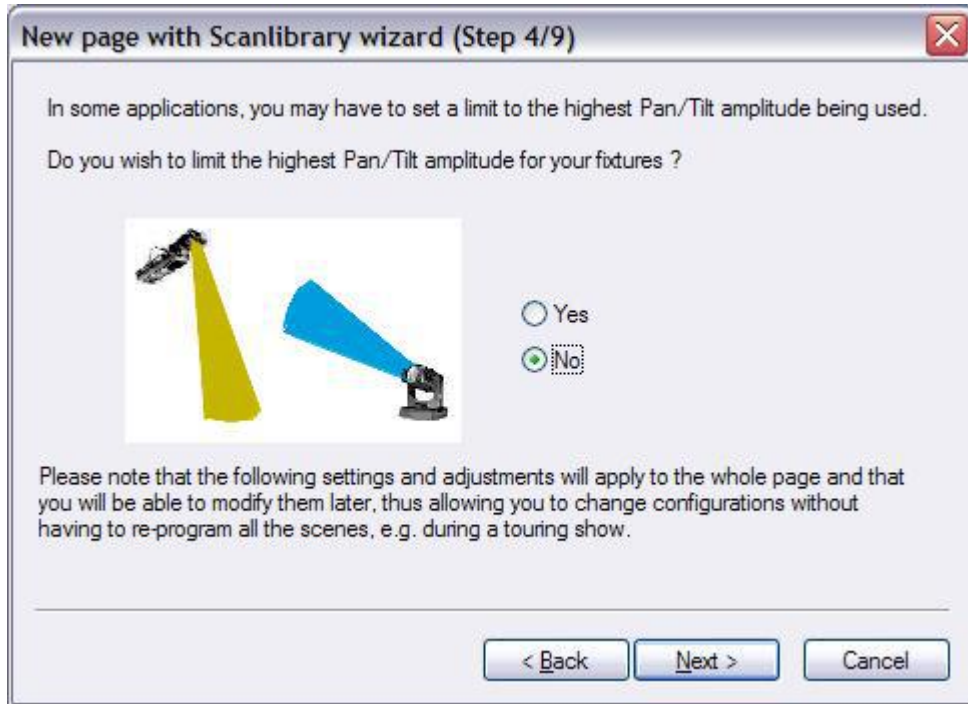
This screen allows you to limit the maximum Pan and Tilt in your moving heads and scanners (the wizard will skip this step if your fixtures do not have these properties). Setting limits to pan and tilt channels can be useful, but we recommend you get familiarized with other controller tools first, and then decide if setting limits for the fixtures is what you need to create your lighting effects. If it is, you can always change these limits from the "Page Properties" window (described later in the manual).
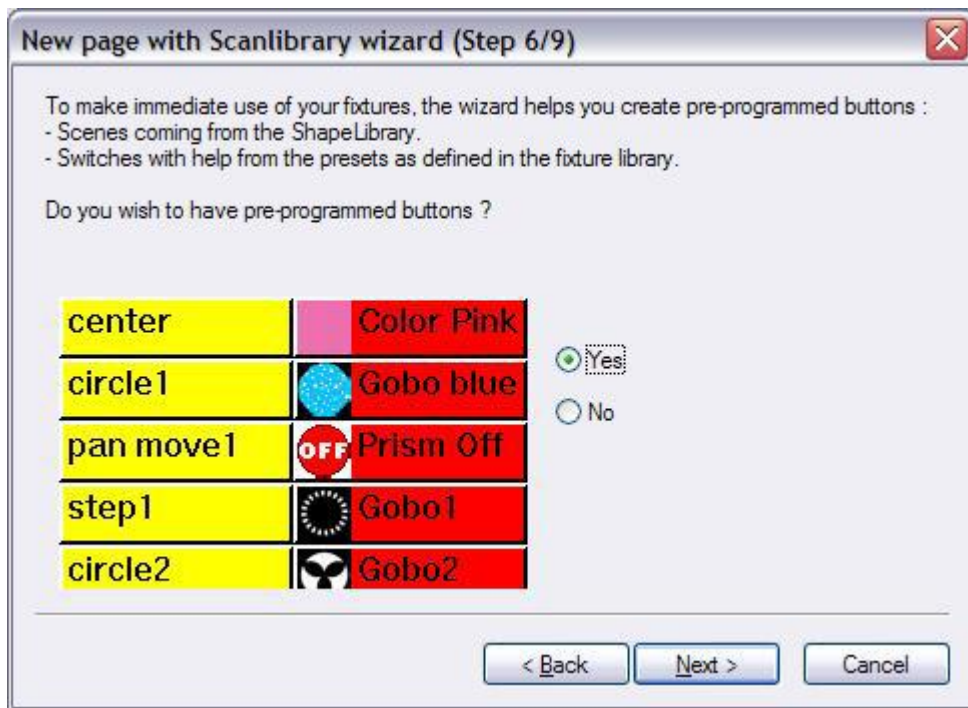
The next screen asks which preprogrammed movements you want to include (for moving heads and scanners only). Again, we recommend you include all movements (default selection).
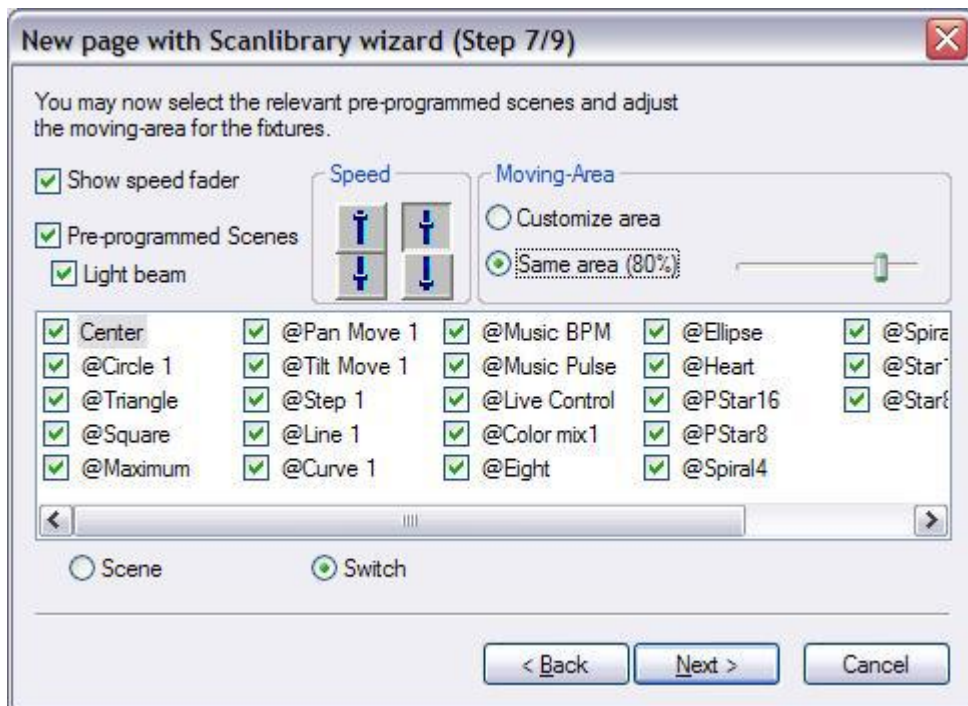
Do not worry about all other options on the screen, once you learn the concepts of the software, these will be obvious.

There is no limit to the number of pages that you can add. We recommend you to add all your lighting fixtures from the same type within the same page, and that you do not repeat DMX addresses across different pages.

2.2.Pages and Buttons

Pages

Within the Sunlite software, a PAGE corresponds to a group of lighting fixtures of the same type (manufacturer and model). You can have any number of fixtures within each page, and also you can have any number of pages. The power behind these PAGES is to control fixtures together (simultaneously) which allows for very easy programming. Fixtures can also be controlled independently if you want, as explained in Chapter 4 ⸢Intermediate Programming⸥.
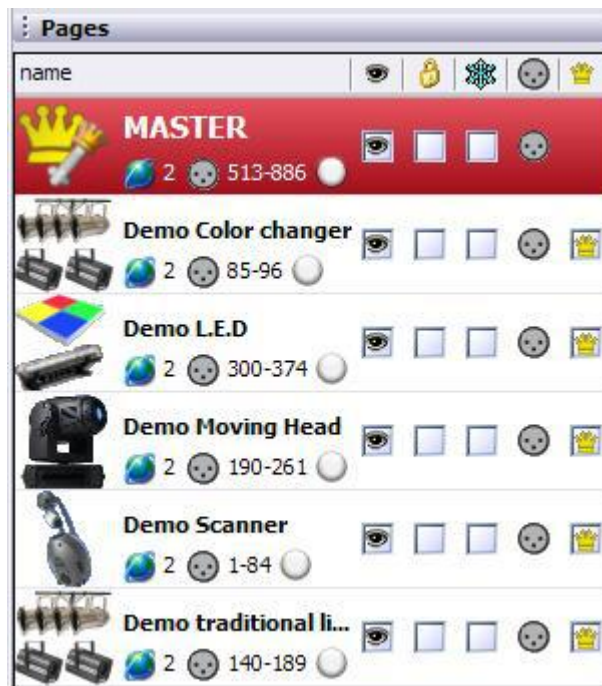
Do not worry about the options available within this window for the moment, as they will be explained later in the manual and are not necessary to understand the basics of the software.

Buttons

There are 3 different types of buttons, each with their own properties:
- Scenes (yellow buttons)
- Switches (red buttons)
- Cycles (blue buttons)

Scenes
A Sunlite SCENE is a button that typically recalls a combination of functions and effects (sometimes known as a "cue" or "look", it can be movement with colors, gobos, prisms, etc). There can be 1 and only 1 Scene selected at a time inside each Page. This means that every new Scene that you activate will release the previous scene.

Switches
A Sunlite SWITCH is a button that typically recalls a single function or effect (i.e. 1 movement, or 1 color, or 1 color combination, etc). As long as 2 switches don[t affect the same property (DMX channel), you can have as many switches activated as you want. For instance, if you add a gobo switch to a movement switch, both can be activated simultaneously.

Cycles
A Sunlite CYCLE is a button that sequentially recalls cue lists of Scenes and Switches. For instance, if you create Scene 1 and Scene 2, and you want them to alternate continuously every few seconds, a Cycle can include these 2 scenes and define the timing in between.

You can create new Scenes, Switches, and Cycles from the 〖Button〗 menu on the top. Simple instructions to create Scenes, Switches, and Cycles follow in upcoming sections.

2.3.Preprogrammed buttons

Using preprogrammed buttons

Every time you create a new page for a group of lighting fixtures, depending on the type of fixtures (moving heads, scanners, LEDs, conventionals, etc), there will be preprogrammed buttons on the screen that will help you create lighting effects.

Movement buttons

These are generic to all moving heads and scanners. These include the CENTER switch, which is a fixed position at 50% pan and tilt. Movement buttons include both the position and dimmer, iris, shutter, lamp information necessary to display a white/open gobo light source.

Color, gobos, effects, etc〗

Depending on the features of individual lighting fixtures, there will be a button that will correspond to every function that a lighting fixture can perform. You can visualize most of these in the 3D window. The ones that you cannot visualize (like macros, for example) still have a button on the screen that would trigger the lighting effect if the real lighting fixture was connected to the computer.
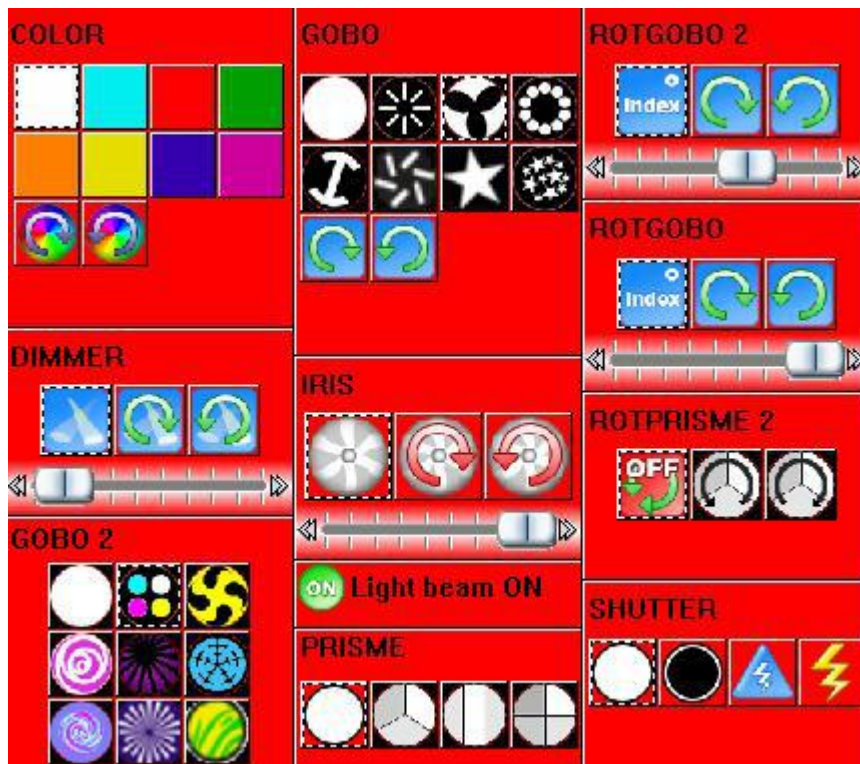
X-Y

With the X-Y buttons, you can define a fixed position for the light beam of any scanner or moving head. There will be one X-Y button for each fixture in the page, so that each can be controlled individually. The X-Y buttons control only the pan and tilt channels, and not the dimmer, iris, etc. that are necessary to have a visible light beam. For this reason, we recommend you use any preprogrammed Movement button (in particular CENTER) to have a visible beam first, and then move your fixtures to their position.
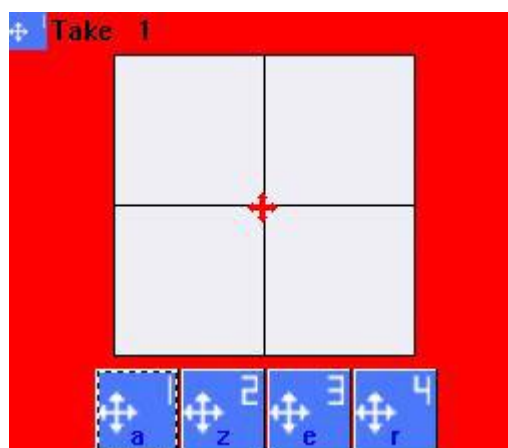
RGB

If your lighting fixture has RGB or CMY capability, there will be a Color Wheel button that will allow you to select the color displayed by the fixtures and the intensity of the light beam.

As we explained earlier, you can press different buttons simultaneously. For example, you can select the Circle movement, then add a Blue color, then add a Star gobo, then add a Prism effect, then add Gobo

Rotation, then fix a couple fixtures in a defined position, and so on
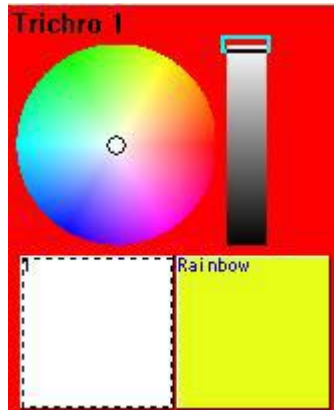
2.4.Example: create your first scene

Overview

This section provides a step-by-step example to create a simple lighting scene with the DEMO moving heads. If you have some kind of scanner or moving head already connected to your Sunlite controller, you can use the preprogrammed buttons for your own fixtures.

Step 1 - Turn lamps ON

The first thing you want to do is turn ON your lighting fixtures. This can be done in a number of ways. However, the most convenient at this moment is to click on the [Center] button.

This will make the lamps to turn ON, move Pan and Tilt to 50% (light beam straight out from the base), with Open Gobo and Open Color (white). This should be your starting position for most simple scenes.

Note:
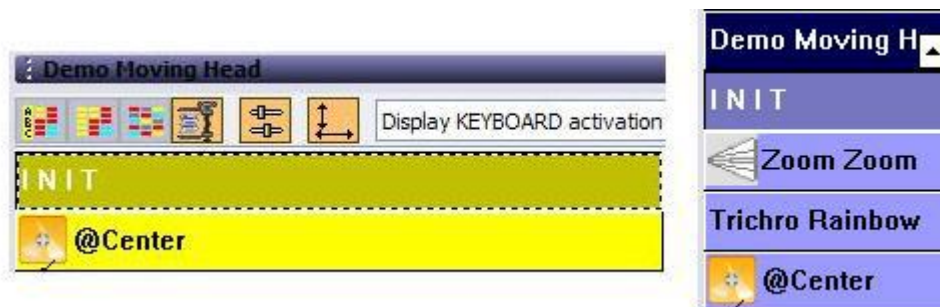
Step 2 - Adjust beam positions

Using the X-Y buttons, you can adjust the position of any of the beams coming from your fixtures. There will be 1 button for each fixture. Simply click on one button, then move the red arrow inside the white area, then click on the next button, move the red arrow, and so on...
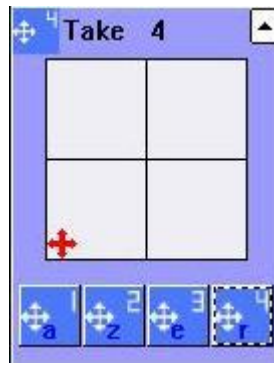
Step 3 - Adding effects

Once you have your positions adjusted, you should as many effects to your lighting scene as you want: colors, gobos, prism, etc. Feel free to use as many of the preprogrammed buttons available.

Notice that you can activate effects by clicking on them once, and deactivate them if you click on them a second time.
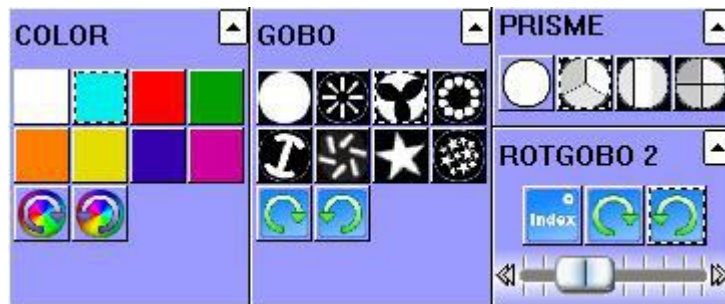
Step 4 - Save AS YOU SEE NOW

Once you find a combination of buttons that you like, you will probably want to save that look. To do this, you must create a new button on your screen that will return your saved lighting scene:

Button menu ☐ New Scene
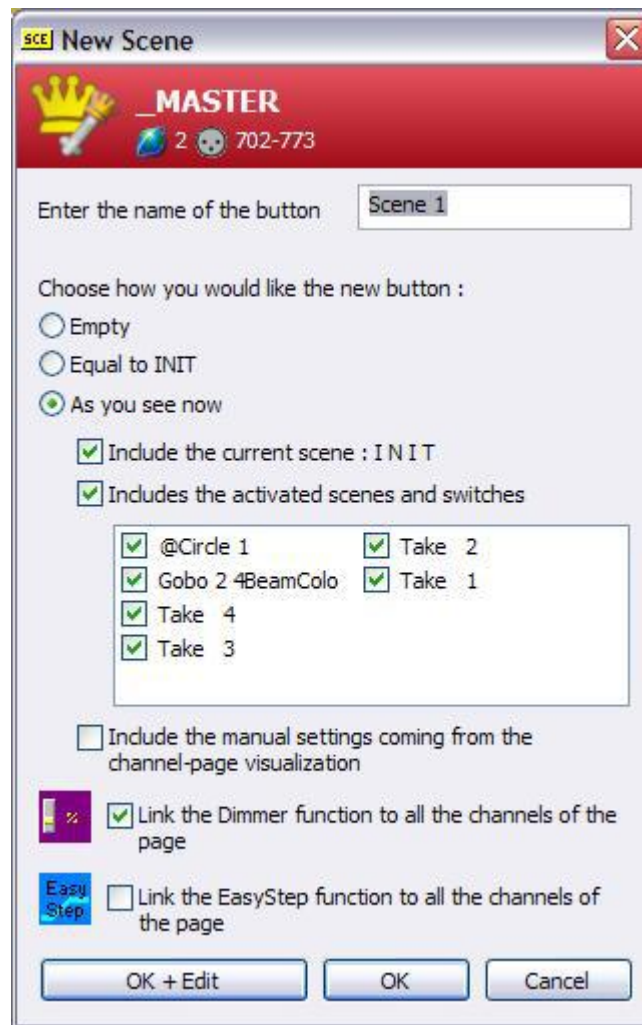
(Button menu is the pull down menu at the top of the main Sunlite screen)

You can set the name of the button at the top. It is important to select the "As you see now" option, which allows you to include all or any of the buttons that you activated already.

Leave the options at the end of the window as they are. These will be explained in detail in later sections of the manual.

Finally, click [OK] to create your new button.

Note: You can create a ⬜New Switch⬜ instead of a New Scene, if you want. The only difference will be, as explained on the previous section, that during playback a Scene button will replace any other Scene buttons, while generally Switch buttons will add to other existing Switch buttons.

Keep pressing preprogrammed buttons and create as many scenes as you want. Remember, the more you practice, the faster you will learn, the easier it will be to create elaborate lighting shows...

2.5.Record Cycles (cue lists/shows)

Once you have many Scenes and Switches saved as buttons on your screen, you will probably want to reproduce them sequentially. CYCLES will help you do this. A Sunlite Cycle is a cue list of Scenes and

Switches in time.

To create a new Cycle, go to:

- Button menu - New Cycle

A new Cycle button will appear on your screen. Click on it, and the following window will appear from behind the Pages List:
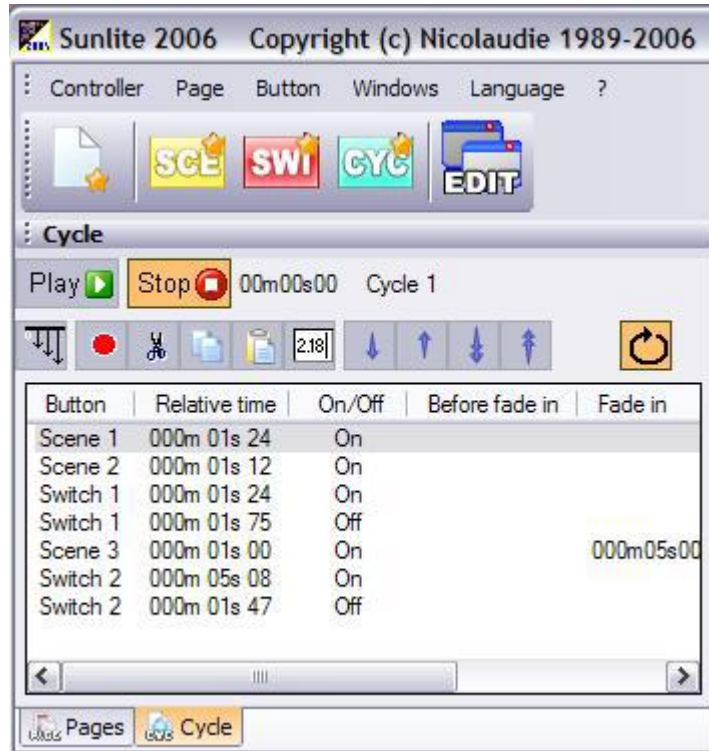
To begin recording Scenes and Switches into your empty Cycle, all you need to do is:

1. Click on the Cycle button
2. Start clicking on the Scene and Switch buttons in the order you want them to be played
3. When you are done, click the [PLAY] button inside the Cycle editor window, and click on [YES] when asked if you wish to save the Cycle

Clicking Play will start running the cycle, scrolling through your buttons. If you wish to change the timing between each Scene or Switch, first click on [STOP], and then click on the TIME button (with [2.18] written on it, right underneath the Cycle clock). The "GO" option inside the TIME window allows you to scroll through the cycle using your keyboard's [PgDn] and [PgUp] keys.

If you want to delete a step within your Cycle, click Stop and then use the CUT tool (scissors). If you want to add a Scene or Switch, click on the RECORD button (red circle underneath PLAY), and then click on PLAY to end the recording process and preview your Cycle.

The LOOP option (circular arrow on the right end of the window) allows you to select whether you want your cue list of scenes and switches to repeat itself, or simply run once and remain in its final state.

Note: To add FADE times to your Scenes, you must double-click on the Scene button first, then go into

- Button menu - Settings
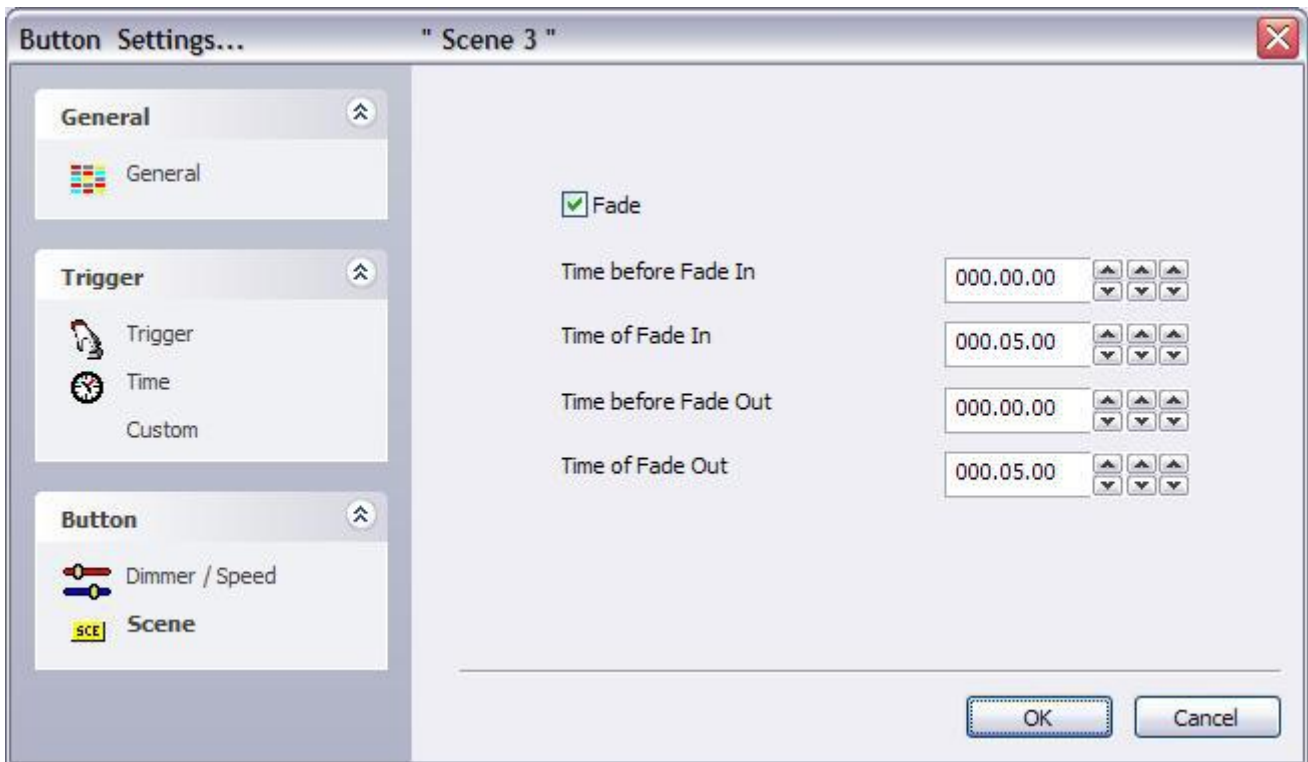
Select "Scene", the last item on the left. In this window you can set the fading times for your scenes (only Scenes are allowed to have Fade In/Out times, not Switches).

2.6.Keyboard triggering (hotkeys)

Buttons on the screen can be triggered using your computer□s keyboard, along with your mouse. You can assign any button on the screen to any key on your keyboard. To do this, you need to go into:

- Button - Settings
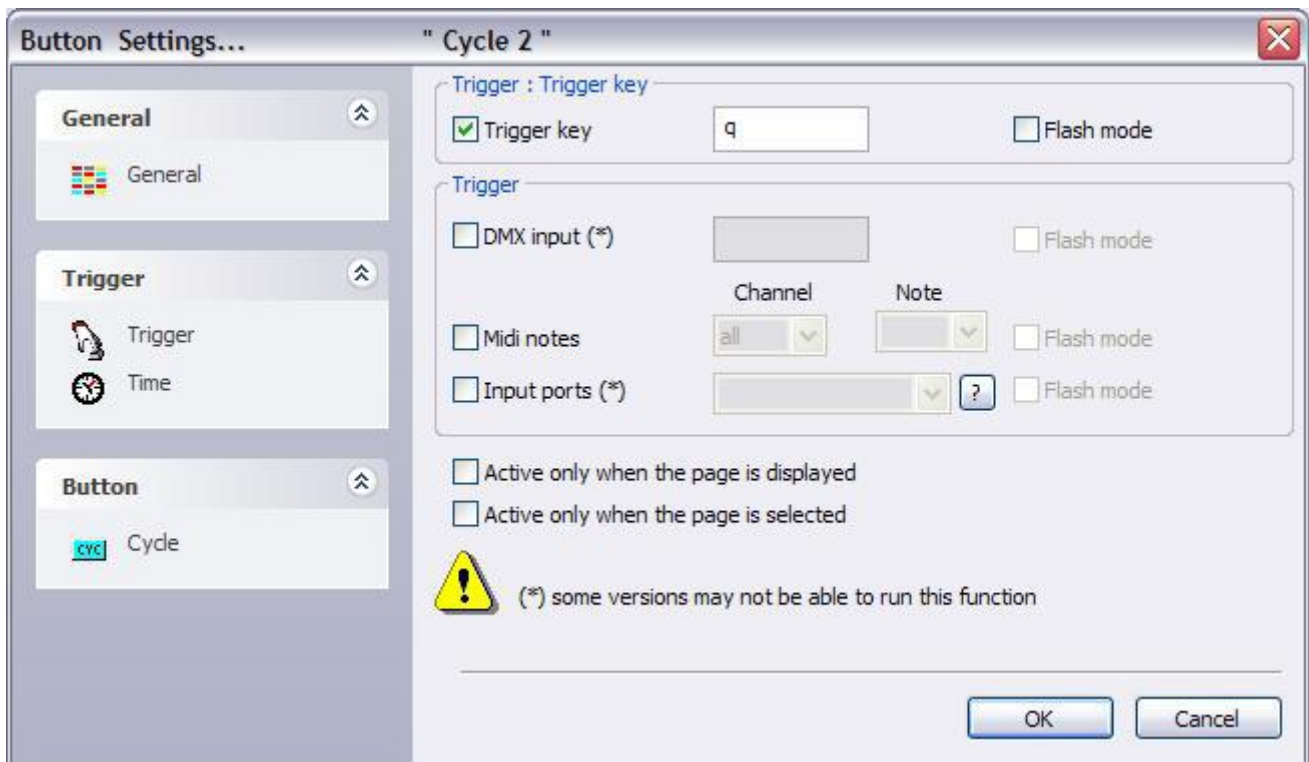
Select the "Trigger" option on the left, then tick the "Trigger key" box on the top, and assign whatever letter you want. "Flash mode" creates keys which are only active while the keys are physically being pressed; the moment you release your finger from the keyboard, they will automatically become inactive (only works with Switches, not Scenes). Try this FLASH key option with the Strobe effect, for example.

A useful shortcut to assign keyboard triggering:

1. Activate the button by clicking on it with your mouse
2. Simultaneously press the [CTRL] key and the [letter] key that you want to use

Note: A ⬚key⬚ is defined as any character on your keyboard; i.e. [q] and [Q] are different, so are [3] and [#], etc. This allows you to have around 90 hotkeys from your keyboard.

You will see that a small blue letter (the one you pressed on your keyboard) will appear inside the button. Every time you press this key, that button will be activated (and inactivated, if it is a Switch).

If you assign the same letter on the same button twice, the shortcut letter inside the button will turn green, which represents FLASH keys (explained above).

You can only use a key once within each page, but you can use the same key on multiple pages. This allows you to trigger effects simultaneously across all your lighting fixtures (i.e. try the red color, or the closed shutter, etc, across multiple pages). The Master page makes this simultaneous control much easier, and will be explained in the following chapter.

Note: Touchscreens, MIDI devices, DMX wings, and IO keypads can also trigger any button within the Sunlite software, as you can see inside the Button Settings window. These will be explained further in Chapter 4 ⬚Advanced Programming⬚.

3.Intermediate programming

The following chapter presents you with intermediate level tools to continue creating lighting scenes.

3.1.EasyStep scenes

The EasyStep rack (tab) inside the BUTTON EDITOR allows you to create simple scenes based on steps, where you can set fade and wait times between each.

Create a "New scene" or "New switch" from the "Button" menu and then select the "Link the EasyStep function to all channels of the page". This will convert all channels into EasyStep channels, so every step in your scene could include effects from any or all channels.
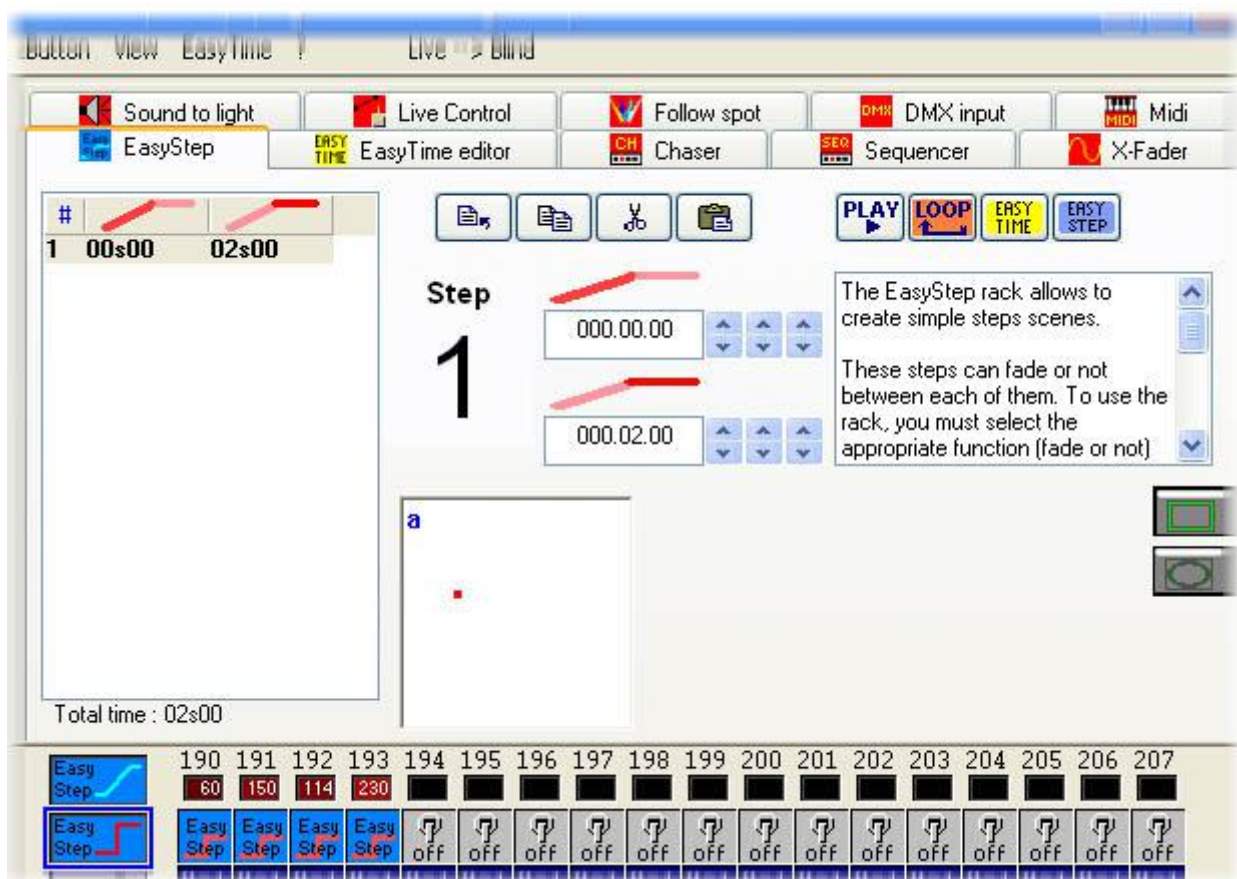
You can change the properties for each channel manually, if you want. Simply select any of the buttons on the bottom left (2 EasySteps, 1 ON/OFF, 1 Dimmer), and then click at the top of each channel. For the moment, it is best if you leave all channels as EasyStep channels.

When you create an EasyStep sequence, you can go through your steps for each channel in one of two ways: with or without fade. Light beam movement might look better fading in between positions, but gobo rotation might look better as a step change in between the two. To do this, you must use the "EasyStep with fade" function on Pan/Tilt channels and "EasyStep without fade" function on the gobo

channels, for example.

To change these properties, use the two EasyStep buttons at the bottom left, where the top ramp-like button represents WITH FADE, and the second step-like button WITHOUT FADE).
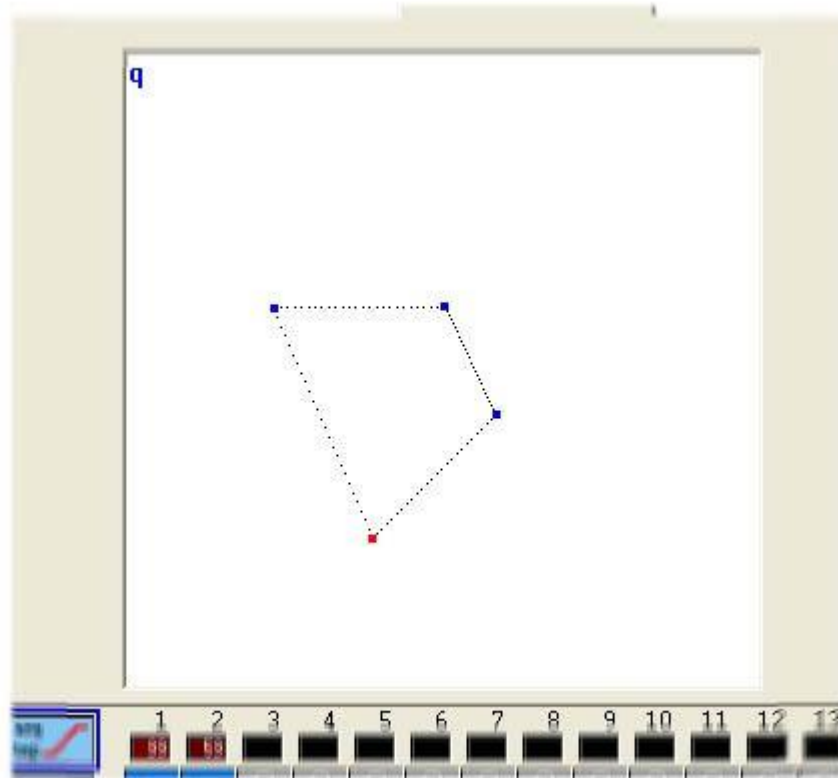
Each corner in the picture represents the X-Y position in each step. These can be moved individually with the mouse. Steps with fade in between show dotted lines in between the corners in the shape area. Steps can be selected by clicking on the corresponding point (white area) or directly from the step list at the top.

To set the FADE and WAIT times for each step, use the number boxes at the top (minutes.seconds.1/100). The top box controls fade and the bottom one wait times.
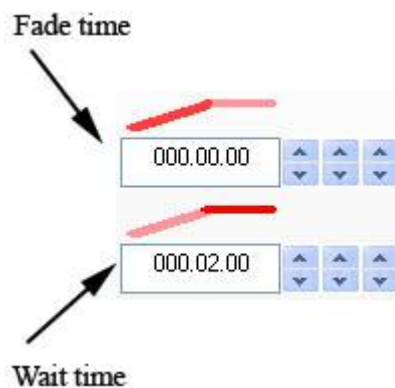
Other available functions on the EasyStep rack are copy, cut, paste and insert step. The PLAY button

allows you to preview your scene. You can choose to make your scene loop or not. Finally you can convert your EasyStep scene into an EasyTime sequence (advantages of EasyTime will be explained in the Advanced Programming section).

New step   Cut the selected step   Play   Convert to an EasyTime sequence

Copy the selected step   Paste the step   Make the scene loop   Assign the function to all channels
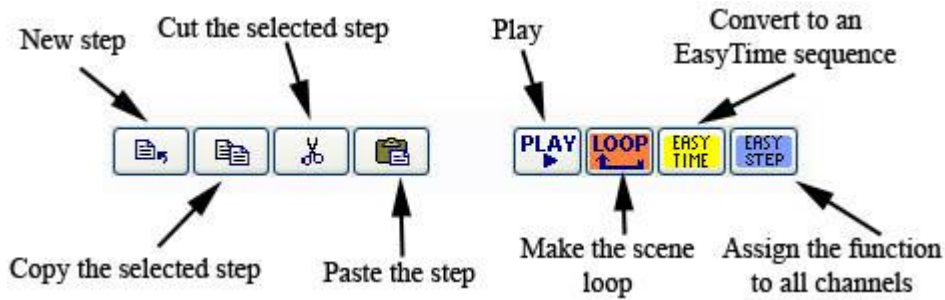
3.2.Channel properties: On/Off, Dimmer

When you create new Scenes or Switches, you are given the option to "Link the Dimmer (or EasyStep) function to all channels of the page".
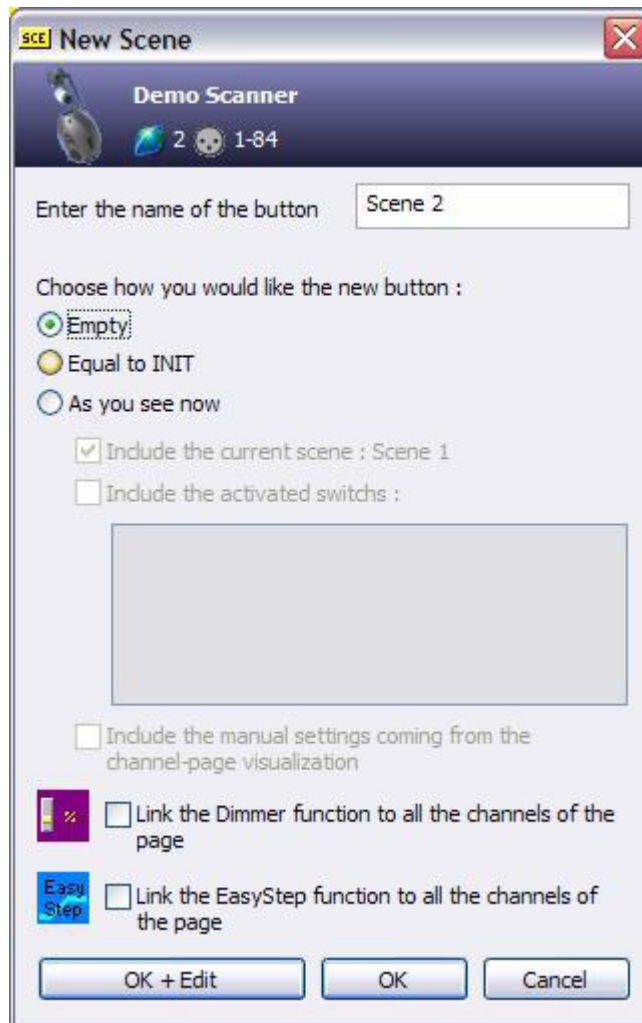
Selecting any of these options will assign that particular property to every channel of fixtures for that particular button.

If neither "Dimmer" nor "EasyStep" functions are selected, the channels will have the OFF property by default.

If a channel is OFF, the final output for this channel will not be affected by this particular scene/switch. For example, a COLOR switch has all of its channels in OFF, except for the COLOR channel, which is assigned a DIMMER property and a particular value.

DIMMER channels are fixed values within the scene/switch. For example, if you have an EasyStep scene, where the light beam fades in between positions and all gobos and colors are kept the same throughout the scene, you can assign these color and gobo channels the DIMMER property and set the constant value for this scene. This dimmer value will automatically be the same for all steps in the EasyStep scene.

ON channels are just like 100% DIMMER channels. However, we must emphasize that a 0% dimmer IS NOT the same as an OFF channel. An OFF channel does not affect the channel in question, whereas a 0% DIMMER assigns this value to the channel, which would replace any values coming from different buttons.

Note:

3.3.Group/Individual control of fixtures

Fixture grouping is one of the most powerful tools within our control software.

As you may have noticed, our preprogrammed buttons (movement, color, gobo, effect, etc) operate on all fixtures within a page. If you want to have independent control of your lighting fixtures (assign each a different color, for example), you will find our Fixture Group tools very helpful.

(This function is not available in the software's BEGINNER mode. To change to EXPERT mode, simply go to: *Controller menu - Expert mode*. Once you are in Expert Mode, go to: *Windows menu - Reset positions - Reset to tabs*.)
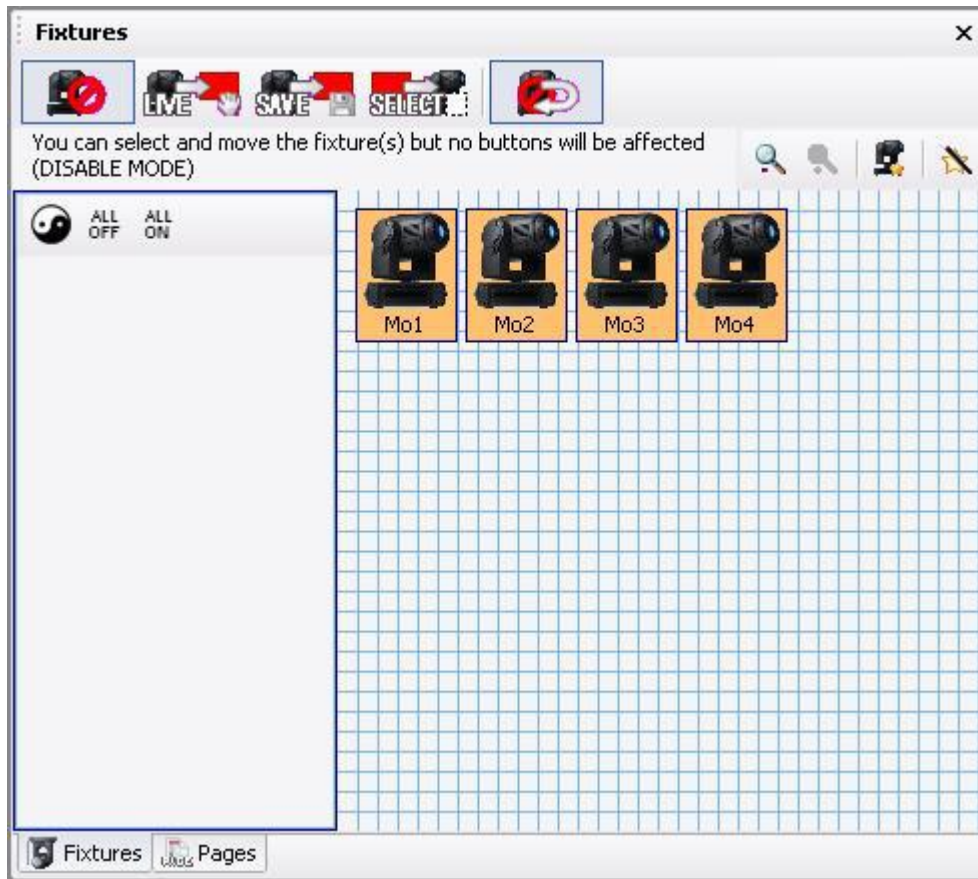
Fixture positions

The sofware allows you to arrange the icons (fixtures) in any way, ideally representing the same layout you have on stage. Simply left-click and hold on a selected fixture (orange) while moving it to its new position. You can arrange them, for example, like the circle shown below.
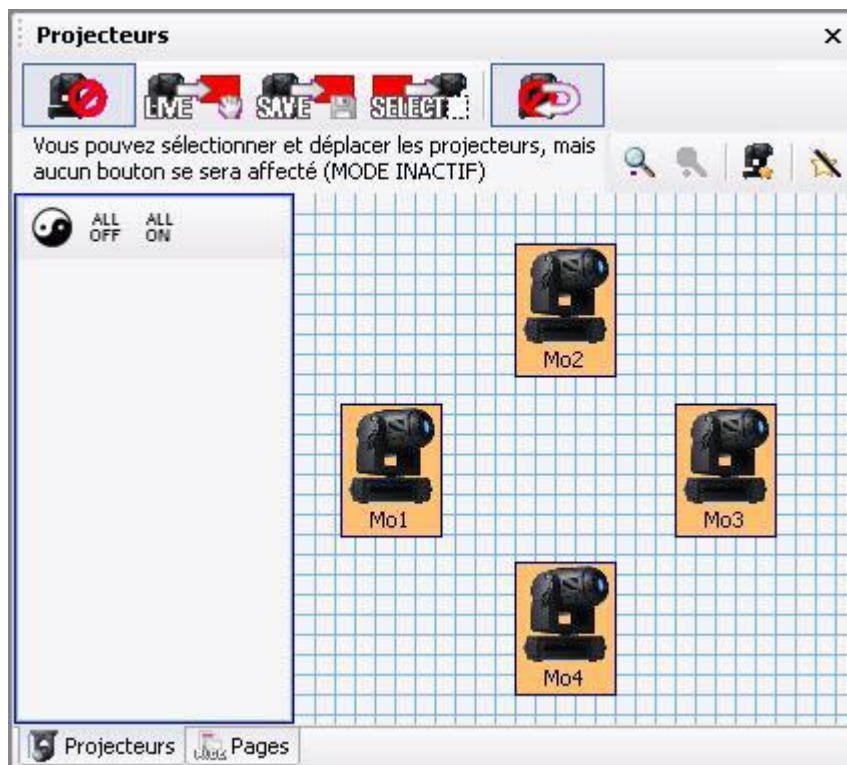
Creating groups

This tool allows you to create groups of fixtures (stage left, stage right, house lights, etc).

Going back to our example with 4 moving heads arranged in a circle, imagine now that we want to create 2 groups [Mo1 + Mo3] and [Mo2 + Mo4]. Click on the icons to select/unselect until you reach your desired group (also, you could first click on the "ALL OFF" button to unselect all fixtures and then select only Mo1 and Mo3). Once these are selected, click on the "New group" button (red arrow in picture below) and enter any name you want, in this case [Mo1 + Mo3].
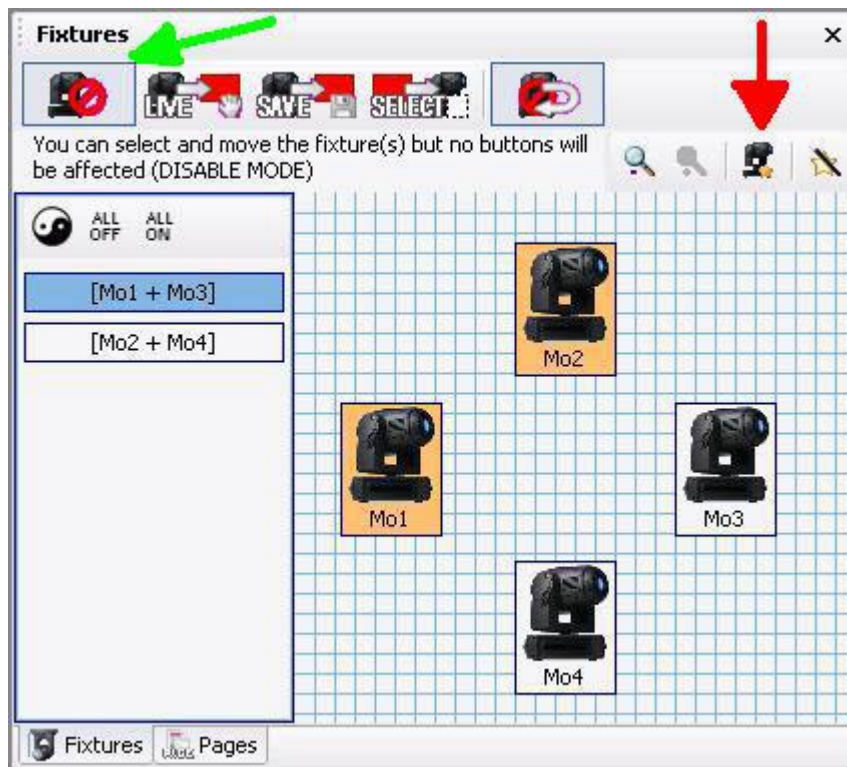
There is no limit to the number of groups that can be created in each page. Even when this simple example includes only 4 fixtures, you can imagine the potential of the grouping tool when using a larger number of fixtures.

It is possible to assign shortcut keys F1 through F12 on your keyboard to any of these groups. All you need to do is right click on the group name to access this feature. To trigger a group, you need to select the appropriate page and click SHIFT + F1 on your keyboard, for example.

Using groups / Individual fixture control

The "Fixtures Group" tools allow you to control fixtures individually or using the groups you just created. By default, this tools will be disabled (green arrow above, first button on the toolbar).

There are 3 different modes to use this group/individual control fuction: LIVE, SAVE, and SELECT. By default, group/individual control will be disabled automatically after every action. To allow continuous group/individual control, click on "Return to Disabled mode" (last button of the toolbar) to unselect it.

LIVE mode

To use this mode, select the second button of the toolbar (remember that, by default, LIVE will be disabled after every action unless you click and unselect the last button "Return to disabled").

Back to our 4 Moving Head example, imagine you want to have you 1st group [Mo1 + Mo3] in cyan and [Mo2 + Mo4] in red.

0 - Turn the light beam ON (click on CENTER or any movement button)
1 - Select the LIVE option (2nd button) and release the "Return to disabled" option (last button)
2 - Select the [Mo1 + Mo3] group
3 - Activate the Color Cyan button on your normal fixture page (if you have the 3D visualizer open, you will notice how ONLY fixtures 1 and 3 change color)
4 - Click on the "Invert selection" button (to the left of ALL OFF). This action will unselect the first gruop and automatically select the second
5 - Activate the Color Red button on the page
6 - Disable group/individual control (1st button on the toolbar) to return everything to normal.
7 - Save a new scene/switch AS YOU SEE NOW

LIVE mode is the most versatile function in this toolbar. Most of the time you will be working with preprogrammed buttons and LIVE, then creating scenes/switches AS YOU SEE NOW. During LIVE performances, when "on the fly" control is required, the LIVE button will become very useful.

SAVE mode

As you probably realized, LIVE mode modifies button properties momentarily. The group/individual fixture information is not saved within the button, so that once LIVE mode is disabled, for example, all preprogrammed buttons will work on all fixtures.

If you want to save group information in a button, you will need to use the SAVE and SELECT modes. Imagine now you want to have your assign the cyan color button exclusively to the 1st group [Mo1 + Mo3] and the red color button exclusively to the second [Mo2 + Mo4].

0 - Turn light beams ON (CENTER or any movement switch)
1 - Select the SAVE option (3rd button) and unselect "Return to disable" (last button)
2 - Select the [Mo1 + Mo3] group
3 - Activate the Color Cyan button on the page
4 - Click on "Invert selection" (to the left of ALL OFF, or select/unselect manually)
5 - Activate the Color Red button on the page
6 - Disable SAVE (1st button of the toolbar)

If you look closely at your 2 color buttons (red and cyan), you will see a small 'S' flag inside. This means that a group (or individual fixture) was assigned and saved into the button, which will not be disabled even when the SAVE mode is no longer active.

If you wish to reset your preprogrammed buttons back to normal, you need to redo the SAVE procedure (except this time you need to select ALL fixtures before you assign them to the button). Using the SELECT mode (explained below) allows you to reset groups in your preprogrammed buttons, also. Remember that, unless you change them, preprogrammed buttons work on all fixtures within the page.

SELECT mode

The SELECT mode works in a very similar way as the SAVE mode, except backwards. In SAVE, we first selected the group, then we selected in what button we wanted it assigned.

In SELECT mode, we first choose the button and then we assign a group to it. This tool is very useful when you have a large number of fixtures and complicated groups, because you can see the groups assigned to each button without the risk of losing them.

SELECT is also very useful during live performances if you want to change the group information inside a button without activating that button.

0 - Turn the light beam ON (CENTER or any movement switch)
1 - Select the SELECT option (4th button) and unselect "Return to disable" (last button)
2 - Select the Color Cyan button pressing "SHIFT + click" (this method will select the button, but will not activate it)
3 - We can see that the [Mo1 + Mo3] group is selected from the previous example
4 - Add the selection of the [Mo2 + Mo4] group
5 - Select the Color Red button using "SHIFT + click" (button selected but not activated)
6 - Add the selection of the [Mo1 + Mo3] group
7 - Disable the SELECT function (1st button of the toolbar)

3.4.The X-Y window (pan/tilt)

The X-Y buttons (referred to as TAKE in previous versions of our software) allow mouse control of the PAN/TILT channels in each fixture within a page. These are very useful when you want to control a single fixture while a movement sequence is running, or also to create scenes with static positions. There is one X-Y button for each fixture in the page.

Static position
1. Turn the light beam ON (CENTER or any movement switch)

2. Press the X-Y switch corresponding to the fixture you want to control
3. Move the red arrow to the desired position (notice that the light beam follows this movement)
4. Repeat for all of your fixtures
5. Save a new scene/switch AS YOU SEE NOW

You may have noticed that if you double click on the X-Y button for a fixture, your position will be lost. The reason is that once the X-Y button is unselected, the position information is lost.

If you want to retrieve that position information, you need to press [Alt] on your keyboard while clicking on the unselected X-Y button for each fixture.

Retrieving positions
1. Start a movement switch (CIRCLE, TILT, etc)
2. Press the X-Y switch for fixture 1, for example, and move it to a desired fixed position, while the rest of the fixtures continue their preprogrammed movement
3. Click on the X-Y switch for fixture 1 to unselect it, allowing fixture 1 to continue the preprogrammed movement
4. Press [Alt] on your keyboard while clicking on the X-Y switch for fixture 1 (notice how pressing [Alt] makes the light beam go back to the position assigned previously)
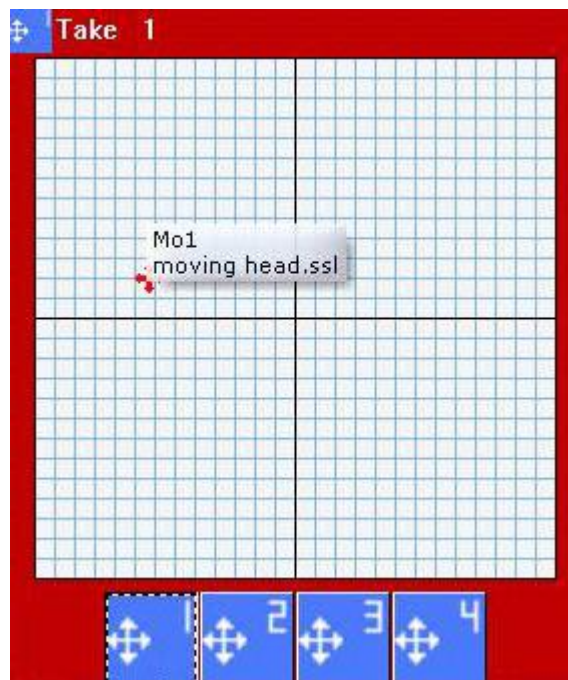
Example

The following example will show you how to create two fixed position scenes within the Master page, using the Demo Moving Head page and 3D Demo stage. Your first scene will have all light beams pointed to the drum set, while the second to the music keyboard on the stage. Furthermore, these scenes will be compressed together, allowing for easier organization and editing of the positions.

Creating the drums position
1 - Click on the "@Center" scene to open the light beams
2 - Select the X-Y button (previously known as TAKE) for the first fixture and move the red arrow until the

light beam is pointed at the drum set
3 - Repeat the procedure for the 3 remaining moving heads
4 - Click anywhere on the Master page to select it
5 - Create a new scene AS YOU SEE NOW
6 - Make sure all 4 X-Y buttons and the "@Center" scene are selected
7 - Rename the scene "Position Drums", then click OK

Creating the keyboard position
1 - Click on the "@Center" scene to open the light beams
2 - Select the X-Y button (previously known as TAKE) for the first fixture and move the red arrow until the light beam is pointed at the music keyboard
3 - Repeat the procedure for the 3 remaining moving heads
4 - Click anywhere on the Master page to select it
5 - Create a new scene AS YOU SEE NOW
6 - Make sure all 4 X-Y buttons and the "@Center" scene are selected
7 - Rename the scene "Position Keyboard", then click OK

Now you have 2 scenes, Position Drums and Position Keyboard, each represented as a button inside the Master page. The next step in this example is to compress both scenes together.

1. *Page menu - Settings*
2. Select COMPRESSION from the menu on the left
3. Click on the NEW button to create a new group
4. Name it POSITION
5. Change "Button type" to SCENE
6. Change "Compressionn type" to TAKE
7. Click OK
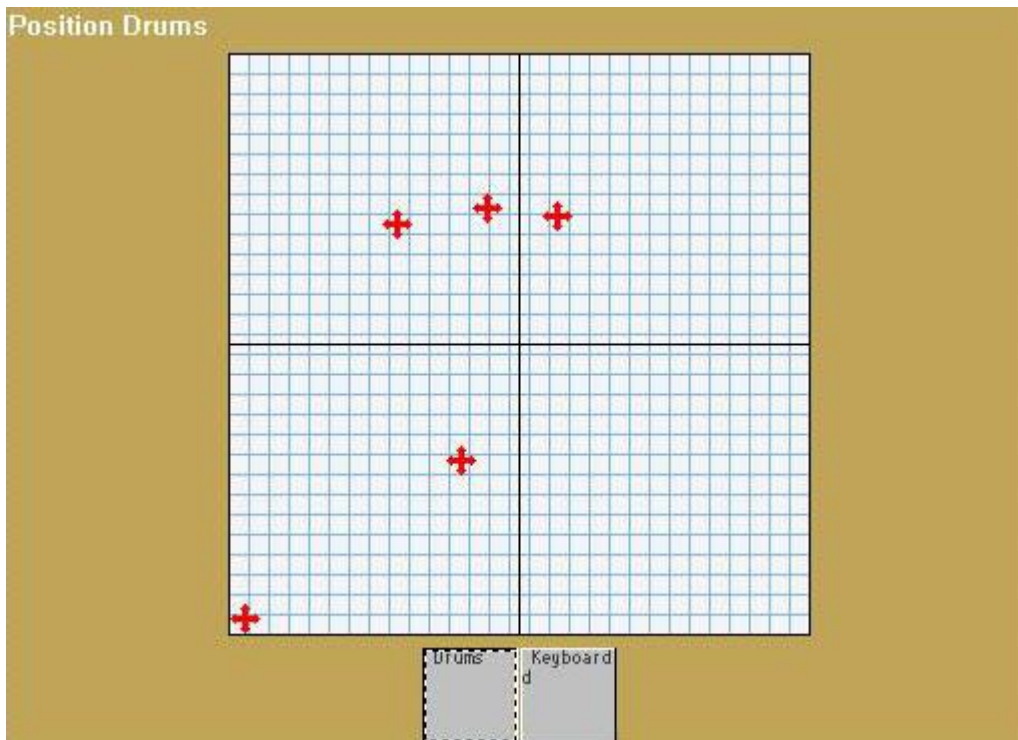
X-Y Settings

You can access X-Y settings by right-clicking on the white area. These settings include locking pan (X) or tilt (Y), allowing better control of your fixture, and a resolution control. Changing the resolution of the X-Y window will allow you to move your fixtures' beams larger or smaller distances with the same movement of your mouse (very useful for fine tuning positions, for instance).

3.5.Using the MASTER page

The MASTER page allows you to bring fixtures from different pages together:
- You can record scenes using fixtures from multiple pages
- You can add scenes and switches coming from different pages

1. As you see now (global)

In the same way you can create new scenes within each page using the AS YOU SEE NOW option, the Master Page allows you to create new scenes that include lighting effects from all pages and all fixtures. For example, if you have two pages in your controller, 1 SCANNER and 1 MOVING HEAD, and you select the CIRCLE movement scene in each, then you click on the Master page and create a new scene, the AS YOU SEE NOW option will include both of these effects from both of these pages.
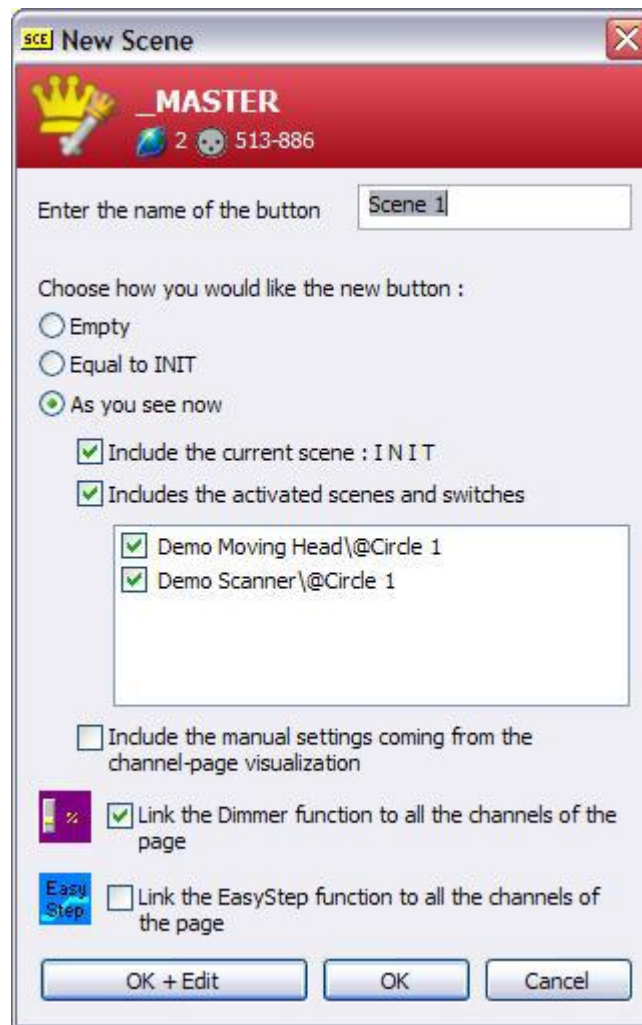
2. Drag and drop into Master buttons

It is easy to edit a Master scene/switch after it has been created. All you need to do is left click on a button within the conventional fixture pages, and drag it into the Master button. Select "Add to the button" to replace its properties with those included in the dragged button.
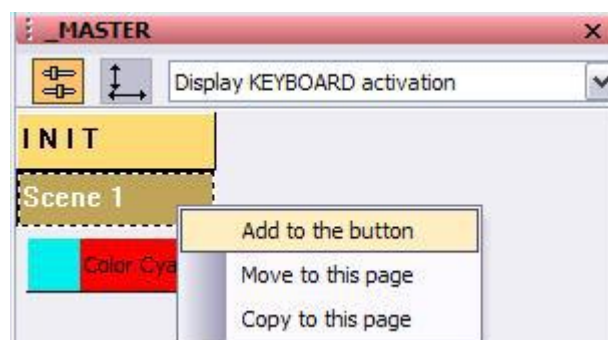
3. Playback page

If you are installing and programming the software for somebody else to use, and you wish to avoid possible problems (erasing scenes, etc), you can leave your customers with a simple PLAYBACK PAGE.
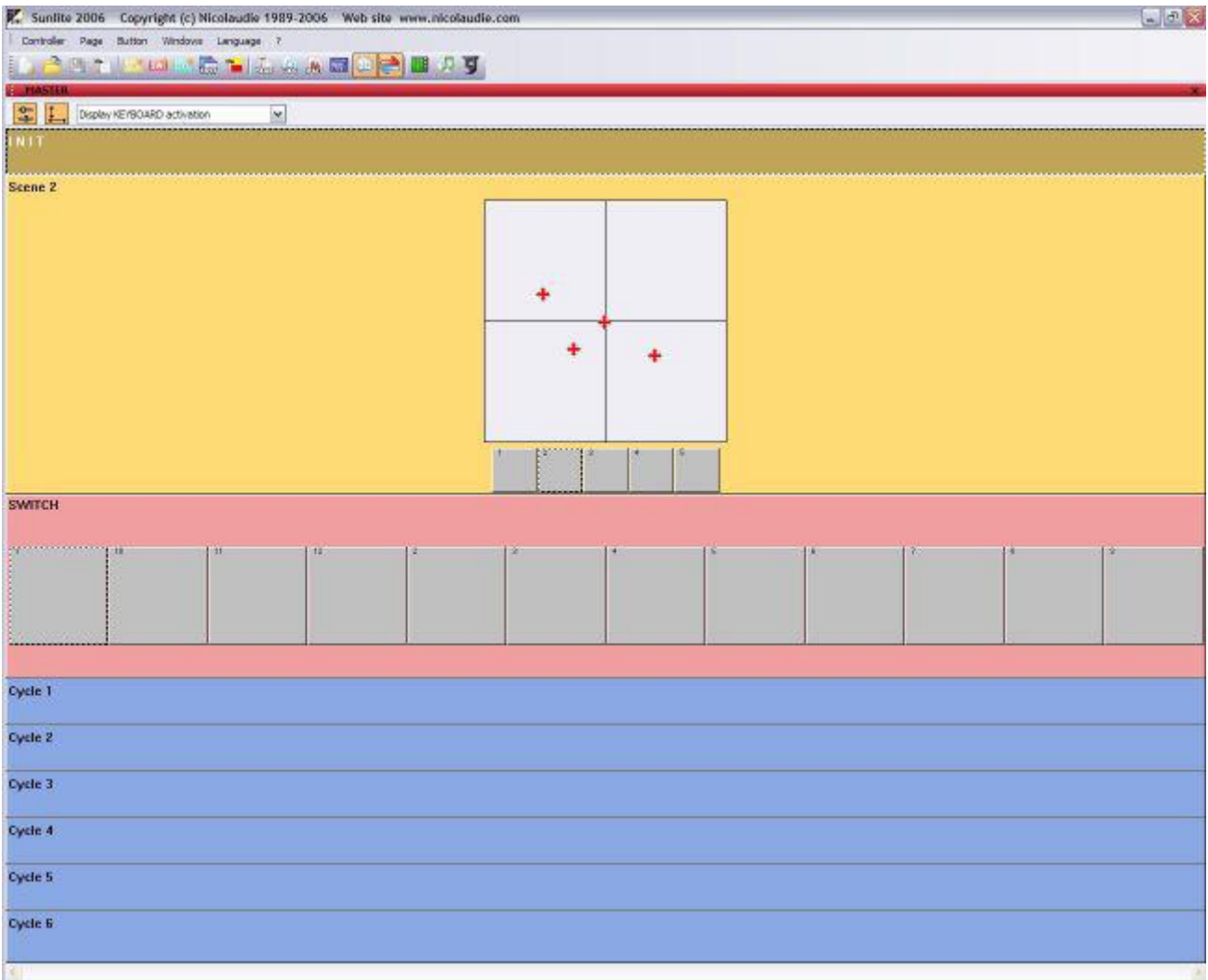
The easiest way to leave this PLAYBACK PAGE is to simply close all windows within the software controller (except the Master Page, of course) by clicking the [X] on the titlebar for each window. After this, you want to lock all windows to prevent users from closing your Master page as well. Go to - *Windows menu - Reset positions - Lock docked windows -*

3.6.Controlling Speed/Size of your scenes

As you probably realized already, some buttons on your screen have faders (or sliders) on them. These faders control one of three different properties in each button: SPEED, DIMMER and SIZE.

It is also possible to show faders that control these same properties for all buttons within a page:
- Page menu - Display - Live toolbar Button
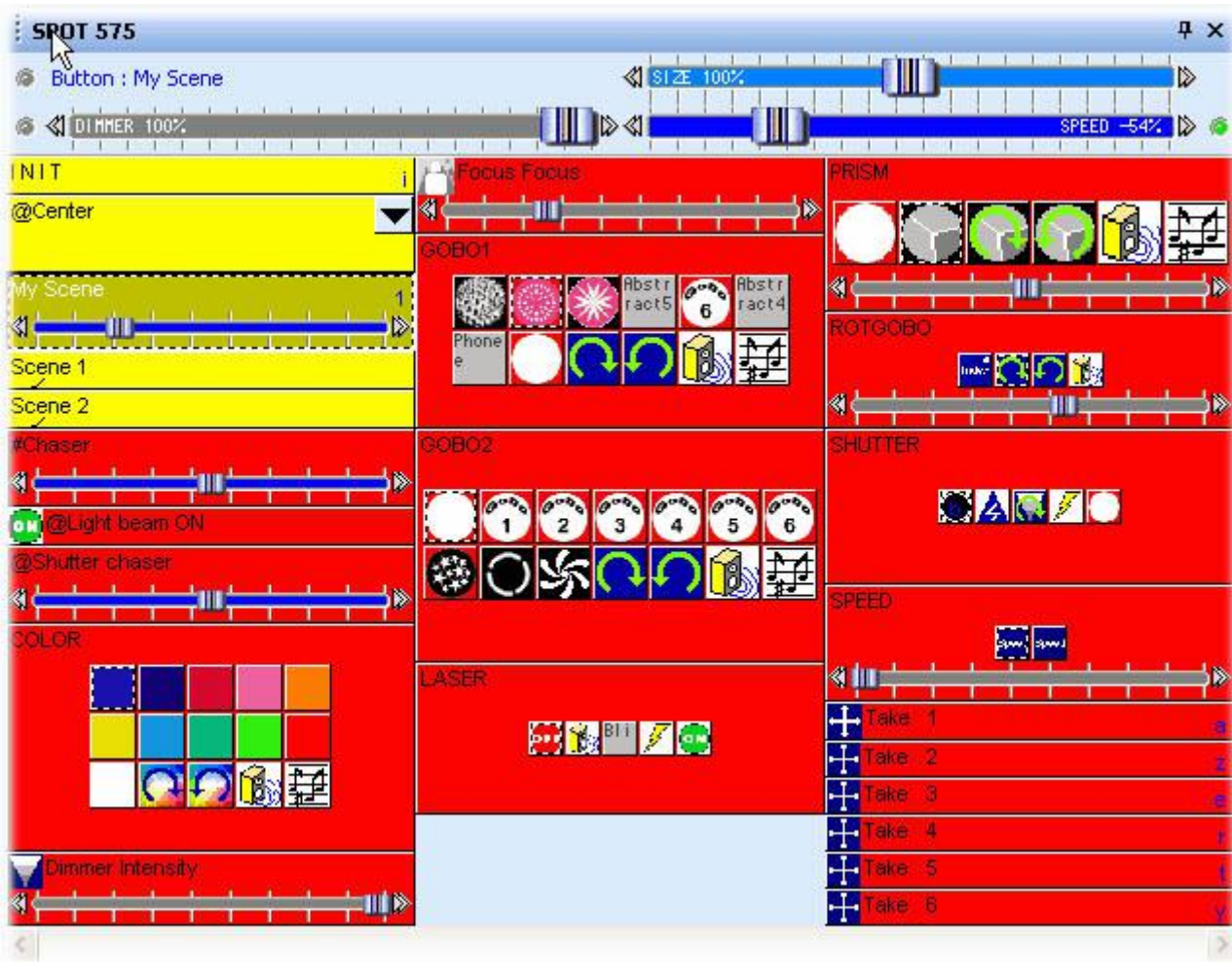
You can see the new toolbar appear above the buttons on the selected page. The three faders on this toolbar will control whatever button is selected (a SELECTED button is not necessarily the same as an ACTIVATED button, you can SELECT without ACTIVATE by left-clicking with the mouse).

You can also add either the SPEED or DIMMER fader (but not SIZE) to each button. Select the button, then go to
Button menu - Button Settings

Select the "Dimmer/Speed" tab and select which fader you want to show in that particular button.
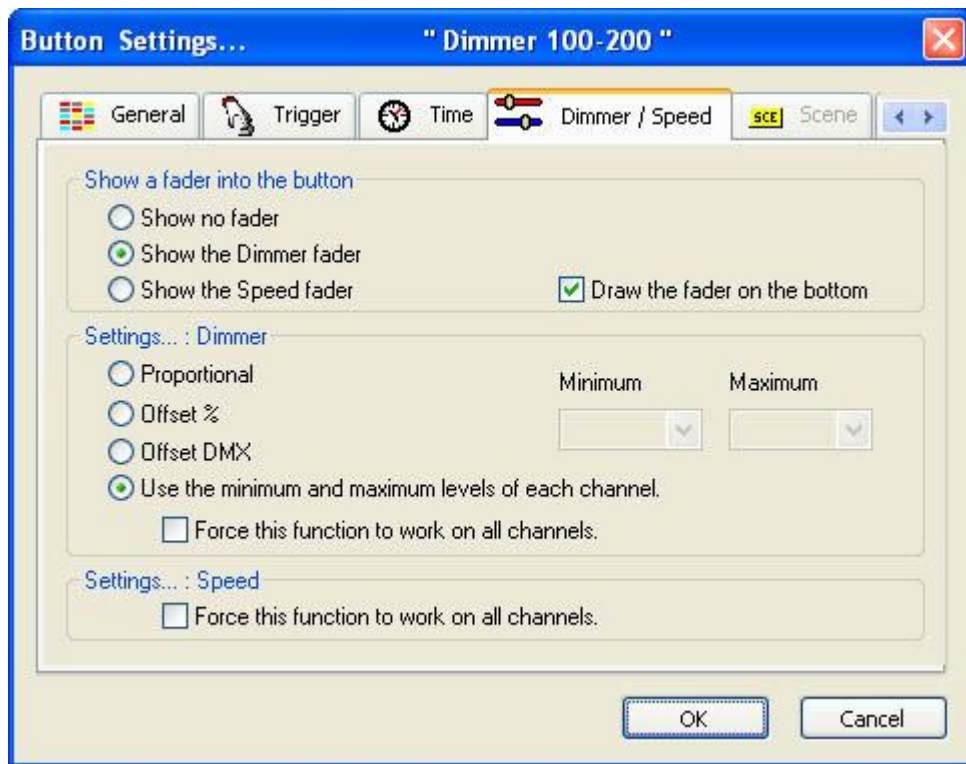
The Speed function

If you want to increase (or decrease) the speed of a sequence (Easy Time or Easy Step) in real time you must use the SPEED function. This feature allows you to modify the speed property without editing the button. Even when the fader position is saved for each button, none of these changes are saved inside the original program.

You should see a SPEED fader in preprogrammed buttons that control movement, color wheel rotation, gobo rotation, strobe, etc.

The Dimmer function

This function allows you to modify easily the DMX level of certain channels in real-time. You should see a DIMMER fader on preprogrammed buttons like Dimmer, Zoom, Iris, Focus, etc. These faders allow you to modify the DMX values for those particular channels without using the button Editor.

You can also use this function with conventional lighting (PAR, etc). Such a button would allow to modify the beam intensity in real-time for one or any group of fixtures included in the button.

Example
Imagine you want to create a switch that controls dimmer levels from 100 to 200 (DMX values) with a fader. First, create a new switch ("Button" - "New Switch"), and call it "Dimmer 100-200". Make sure you create an EMPTY switch and that you DO NOT link all channels to Dimmer or EasyStep.

Then, edit this button by clicking on "Edit" from the "Button" menu. Once inside the Editor you can assign the "Dimmer" function (purple button on the bottom left-hand corner) to any or all the channels within

the page. If you assign the Dimmer property using the mouse's left click, you will see a full Dimmer, with maximum 100% and minimum 0% (255-0DMX).

If you right-click to assign the Dimmer, however, you can define the minimum and maximum levels for that channel.
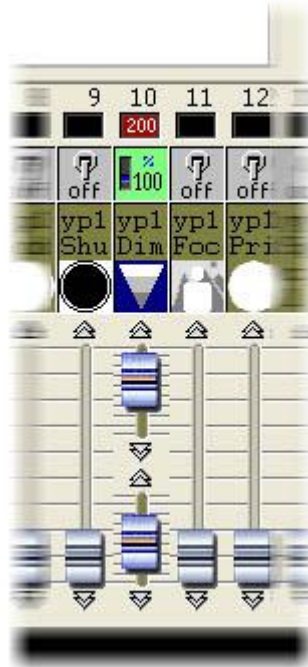
Set the minimum and maximum levels to 100 and 200 DMX, respectively, then close the Editor and save changes. You now have a button that can control a dimmer between DMX values 100 to 200. You can use the Toolbar Dimmer fader to change this value, if you want.

You can also add a small fader to the button. To do this, select your new button nnd go to - *Button menu - Button Settings - Dimmer/Speed tab* -. Then select:
- Show the Dimmer fader
- Draw the fader on the button
- Use the minimum and maximum levels of each channel

There you go! now you have a button with a fader that controls the DMX output between 100 and 200 for a particular channel only. You can verify the DMX signal from the OUTPUTS window (black area at the bottom of the controller)

Setting minimum and maximum dimmer levels is necessary, for example, when using a channel controlling a shutter (e.g. Blackout from 0 to 99, Dimmer from 100 to 200 and Strobe from 201 to 255%). This way, you can have several faders within the same channel, each controlling a particular fragment of the whole DMX range.

The Size function

This function allows you to increase or decrease the size of a movement. Imagine a scene with a simple

tilt movement. If you want to reduce the amplitude of the movement without editing your scene, you must use the SIZE function from the Toolbar. All you need to do is move the fader on the toolbar while the scene is running. You will be able to see the changes in real-time on your fixtures.

Page Dimmer and Speed

You can also use the DIMMER and SPEED functions as global parameters for the entire page:
- *Page menu - Display - Live toolbar page -*

Make sure that you keep track of the changes you make using this toolbar. The Live toolbar for the page has priority over all the buttons inside the page.

3.7.Multimedia features

A button can trigger multimedia functions. You just have to place files with the following extensions into "Multimedia_data" folder:

· WAV Sound files
· AVI Video files
· MID MIDI files
· MPE MPEG Video files
· MP3 MP3 Sound files
· MCI Multimedia Command Interface files
· BAT Batch command files
· EXE Windows program files
Linking a button to a multimedia file is very easy. For example:

· to trigger MUSIC.WAV sound file, just create a button called WAV#MUSIC
· to trigger VIDEO.MPE video file, just create a button called MPE#VIDEO
When CDs and/or DVD are used, the following syntactic rules should be followed:

· CDAUDIO#01 will trigger track 1 of the Audio CD.
· DVDVIDEO#02 will trigger track 2 of the DVD.

Stop and Pause function can be activated. For example:

· To activate Pause function of an WAV file, just create a button WAV#PAUSE
· To stop an MPE file, just create a button called MPE#STOP
· To stop an AudioCD, just create a button called CDAUDIO#STOP

How to build a Multimedia Show
All you have to do is to create a sequential cycle to activate "Light" buttons and "Multimedia" buttons.

4.Advanced programming

4.1.Overview

This chapter introduces all advanced features of the sofware (the editor screen, the fade function, the external triggering...). These parts of the sofware require to understand the difference betweeen a scene and a switch, to create and edit a new button, to record a cycle, to arrange the user-screen...

4.2.The Editor

4.2.1.Easy Time

4.2.1.1.How to use Easy Time

Easy Time is an advanced tool which must be used to program movements (circle, curve...). If you want to simply create steps, it is easier to use Easy Step.

Easy Time is a tool which enables you to control channels in time. Each channel is programmed independently. "EasyTime" has been designed for maximum ease and convenience when programming "Scenes" and "Switches".

Easy Time is similar to an Excel-sheet displaying all the values of each channel in time. Channels are shown on a horizontal axis and elapsing time on a vertical axis. This grid is called the "time sheet".

Therefore, "Time sheet" therefore globally represents the progress made by all the channels on a specific page from the corresponding "Scene" or "Switch" activation onwards.

Each line refers to a specific moment, since the button was activated.
To activate a period of time, i.e. to be able to visualize what will happen at some point, just move (yellow) edit line to appropriate time-cell. Each column in a time-sheet represents a channel.
As soon as a "Scene" or a "Switch" has been activated, the time-sheet associated with this button will be read from line 000'00'00 to the final line containing information.

To program a time-sheet with fade effects, you may program all cells in sequence but to make things easier, this software includes very efficient tools such as "Fade" or "Cut/Copy/Insert" modes.

Now a little training...

Things will go smoothly once the channel has been set in "EasyTime" mode as was done for "On" or "Dimmer" modes.
Just click "EasyTime" mode to pilot all the channels required in "EasyTime" mode (click and drag leds).
Now just scroll the time-sheet to time-indication. To set value, just move the fader. The value will be displayed in the cell concerned, i.e. at the channel column concerned.

You must move the cursor to the line corresponding on the total expected time for your scene before to setup your channels with EasyTime function. For example : for a 10s scene, we move the cursor (yellow line) to the 00m10s00 line and then we affect EasyTime function on selected channels.

In case there are blank cells in between the latest time programmed and current time, you will be prompted to answer the following questions :

- Prolong previous value up to current time?
- Gradually move from previous value to new value?
- Assign new value from latest cell programmed onwards ?

4.2.1.2.How to use Easy Time for movement

If you use moving lights, this software contains extremely quick basic functions to create sophisticated vectorial motion-effects.
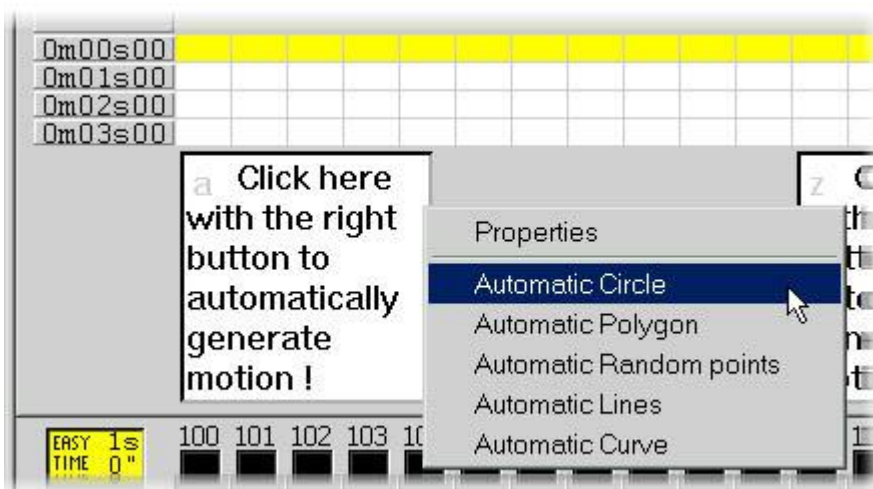
A circle will then automatically appear and EasyTime will display green cells including X/Y values as

referential points.
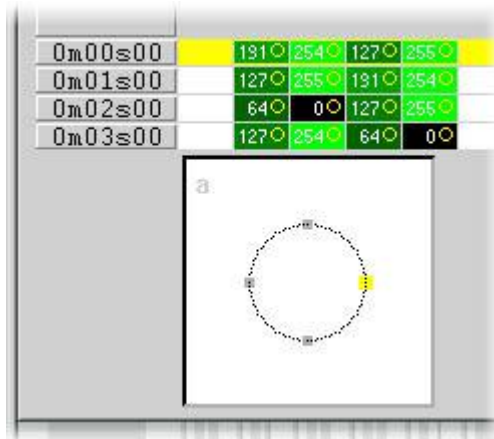
By default, a circle is drawn from 4 points. To move any of these, several methods can be used :
- Adjust the X/Y channels with one of the faders. Yet, this method is not very convenient.
- Press the shortcut key while moving the mouse.
-Click on the point and move it with the mouse.

As you can see, moving a point is carried out in real time on the fixture !
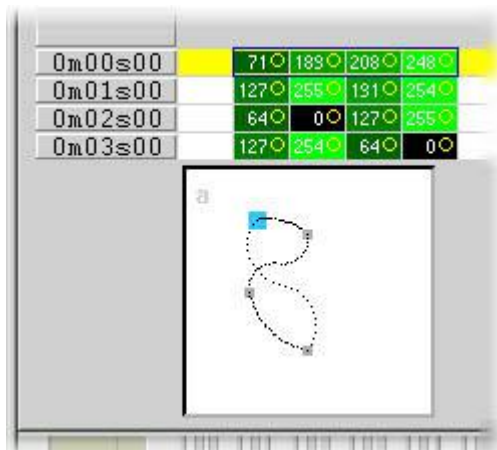
To add or delete a point, several methods can be used:
- Select the cells corresponding to the referential point (2,or 4 cells if the fixture has micro-steps) then use "Cut,Copy or Insert" from toolbar.
- Click right on the point and select "Cut","Copy" or "Insert " from menu.
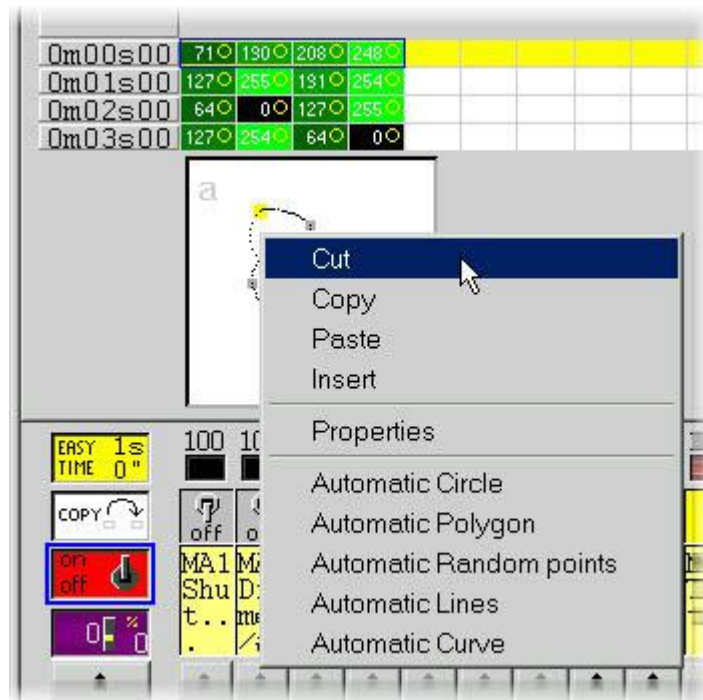
There are 3 different types of vectorial movements :
- Curve (e.g. a Circle)
- Line (e.g. a triangle)
- Positions (going straight away from one point to another)
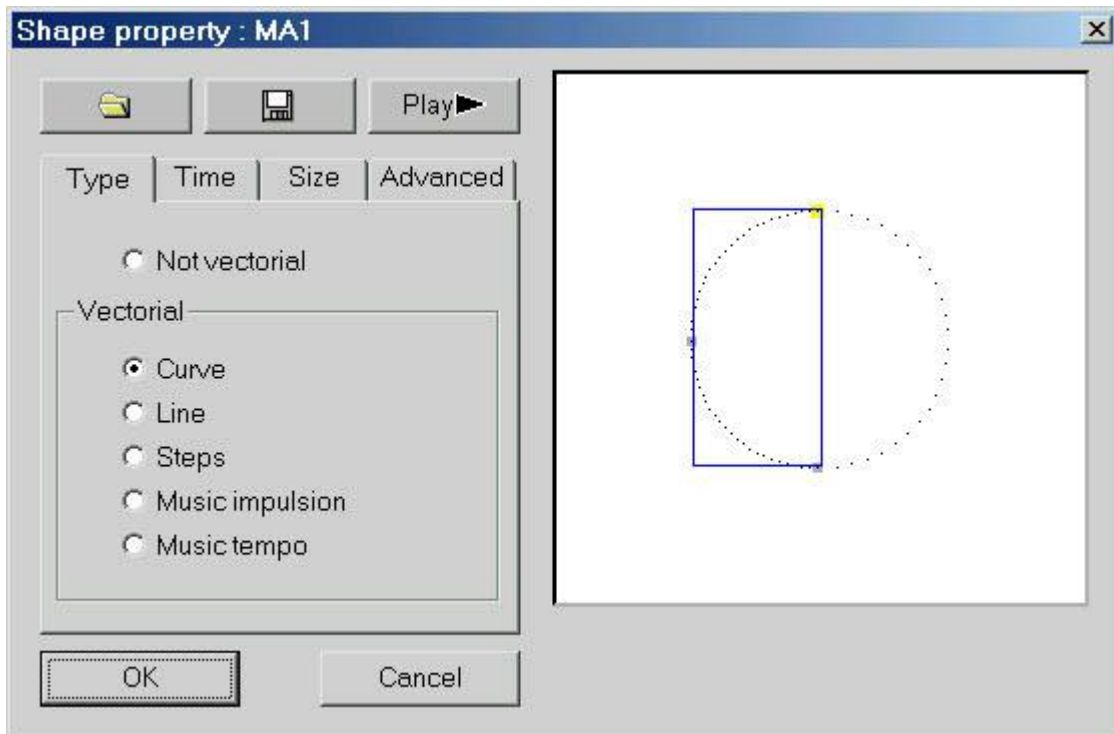
NB:
- A channel operated by a vectorial movement in EasyTime can be identified by green cells whereas red cells indicate that the channel is in "non vectorial" mode

- In one button, each fixture can only be assigned one type of vectorial movement (curve, line or positions). However, channels can be converted into "non vectorial" mode, then any cells can be modified.

4.2.1.3.Tools and options

EasyTime : "Fade" function

The "Fade" function makes it possible to create a fade-effect in between 2 cells by computing intermediate values. It can only be used with cells in "Not vectorial" mode (red cells).

To use the "Fade" function, first select a block of vertical cells, then click on "Fade" function. You will then have an alternative :
"linear" fade in between the 1st and last cell : intermediate cells are totally re-computed.
"fragmented" fade in between each cell : intermediate cells are taken into account ; this process re-computes as many intermediate fades as necessary to adjust to the number of lines.

NB : A fade can apply to several channels in one go ! Just select cells from several columns.

EasyTime : "Play" function

The "Play" button can be used at any time to visualize or stop programming in process.

When you edit a button after clicking it, the "Play" mode is necessarily active since the button itself is active...

When editing a pre-selected button without any prior shift-click, the "Play" mode is necessarily inactive since the button itself is inactive...

NB : It is essential to stop the "Play" mode to modify the "EasyTime" time-sheet.

EasyTime : "Loop" function

If "Loop" mode is activated, a "time-sheet" will be played over and over again.
If "Loop" mode is off, it will just be played once and each channel will remain unchanged and set on the latest value specified in the "time-sheet".

NB :
- If "EasyTime" programming time is the same for all the channels, (they all end up in the same line) then the loops will be identically recurrent; if at some point in the time-sheet, two channels have a similar value, then two hours (and a few minutes or seconds) later, they will have this value again simultaneously ; channels are always synchronized.

- If "EasyTime" programming time is different for all the channels (not all of them end up in the same line) then they will not recur simultaneously ; each channel will work independently ; each channel behaves as if it had its own loop and stands totally de-synchronized.

- This function is extremely powerful, if de-synchronized channels are used you will get seemingly-random combinations which are ideal if you wish to brightly illuminate light garlands, a ceiling or a solo

on the drums.

4.2.2.Effect Manager

4.2.2.1.Overview

The Effect Manager is an extremely powerful tool which allows you to easily create stunning effects with your lights without having to go through the laborious process of programming each individual step and scene. Once you have created your effect with these simple to use tools, you just need to click 〖generate〗 and the software will automatically create the steps required.
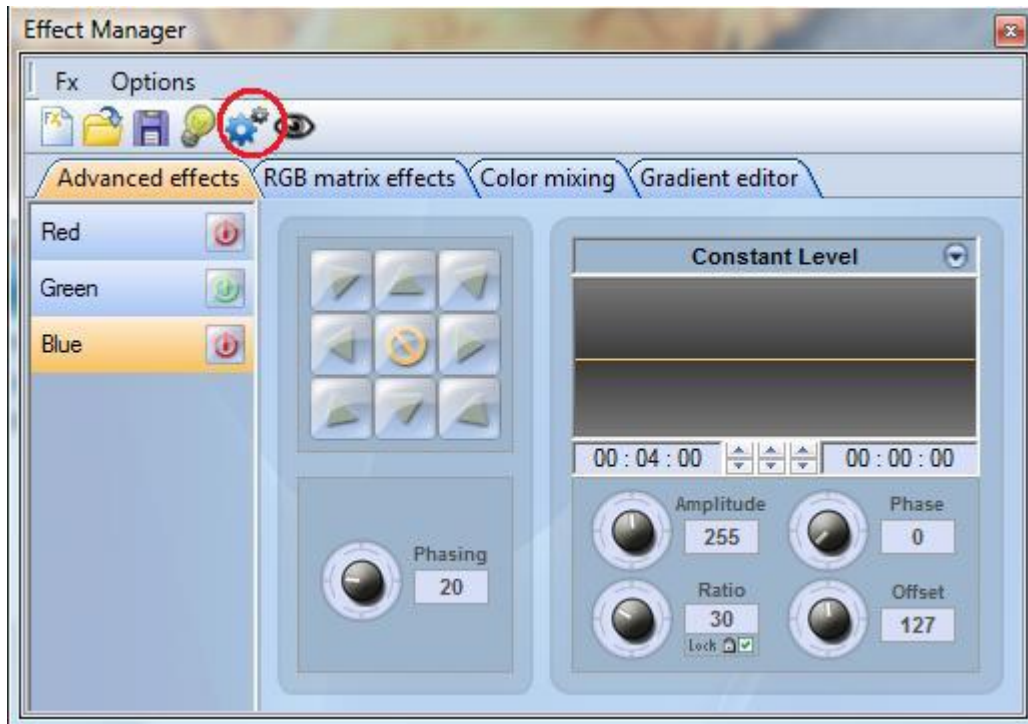
The Effect Manager adapts it〖s self depending on the fixtures you are using. To demonstrate the capabilities of this tool, we〖ll start by using a matrix of generic RGB LED colour mixing fixtures.
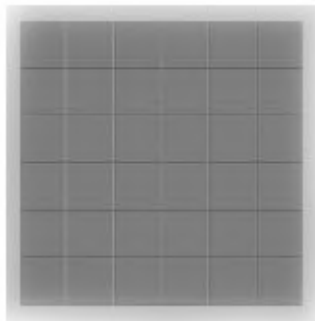
To access the effects editor, you〖ll first need to create a button and edit the button. In the EasyStep or EasyTime editor, double click on one of the channels.
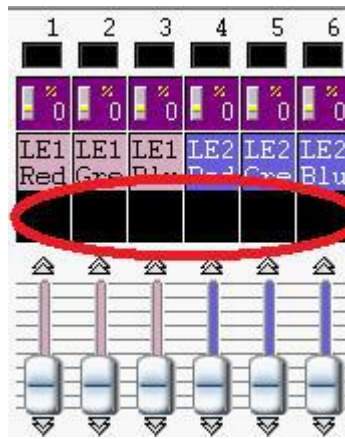
Effects can be saved for later use and reopened in other scenes and switches.

4.2.2.2.Gradient Editor

The gradient editor allows you to create many complex static gradients.
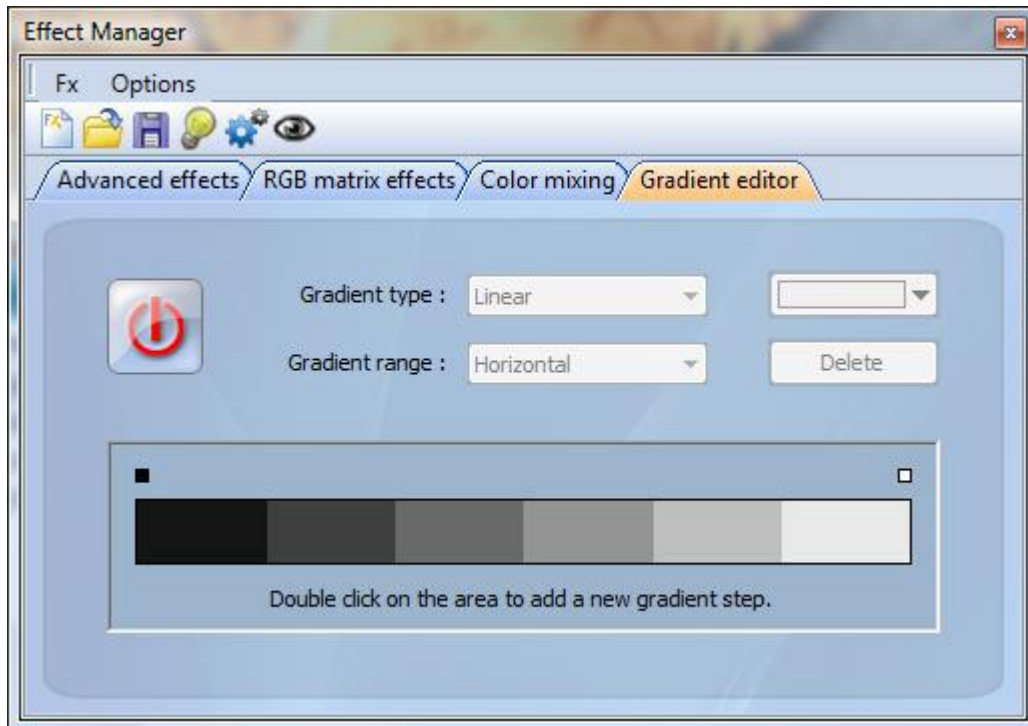
To switch the editor on by clicking on the red button and select a gradient type and range.

Editing the colour of a gradient
In this example we have created a fade between blue and green.
Select the colour you wish to edit.

Choose your colour from the dropdown box.
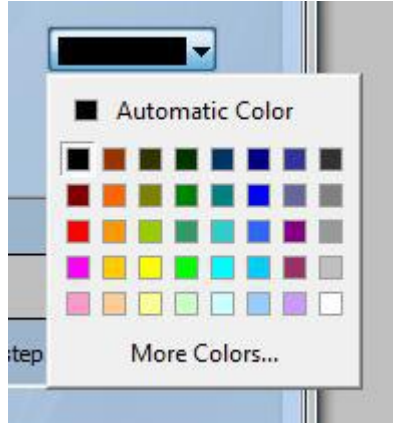
Changing the length of a gradient

Here we see an even gradient between blue and green. You may wish for the gradient to be long at the beginning and then short. To achieve this, we can create a gradient step by double clicking on a particular part of the gradient. A point will then appear. You can drag this point along to change the gradient.

Adding a colour to a gradient

You can use the points to add multiple colours to the gradient. For example, we may want the gradient to fade from blue to white, and then from white to green. This can be achieved by selecting the point and changing the colour from the dropdown box.
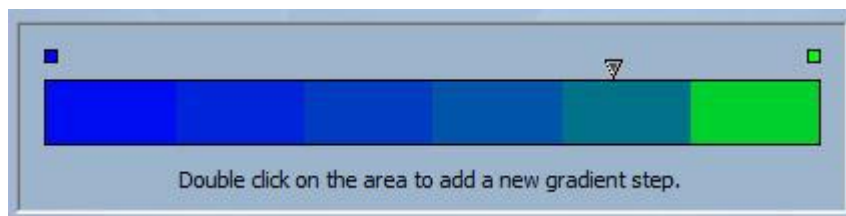
If you are unhappy with the points added, simply select the point and click the 〖delete〗 button. Remember to click generate before closing the effect manager.

4.2.2.3.Colour Mixing

The colour mixing tool is the easiest way to create complex colour effects. Firstly switch the tool on and select an effect. Click the preview button to see how your final effect will look.
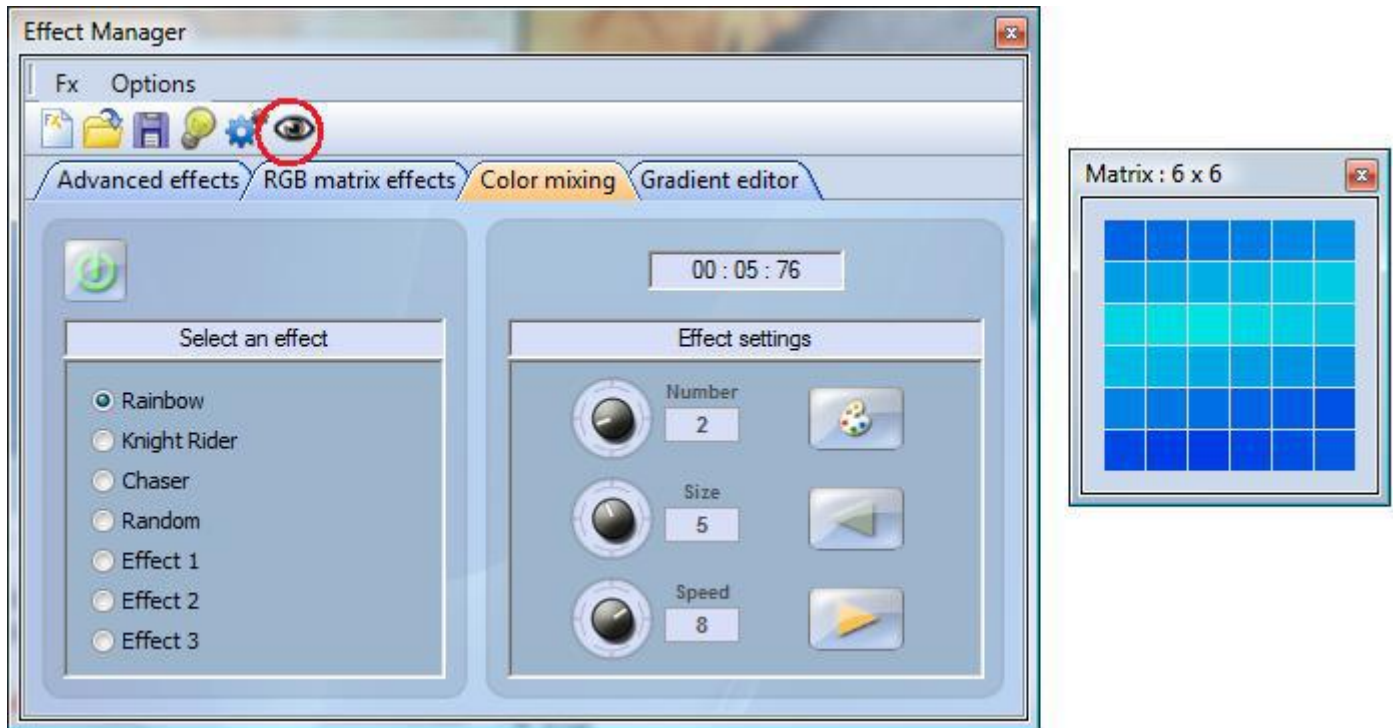
You can vary the size, speed and direction of the effect as well as changing the colours used by clicking the pallet icon. You can also change the number of colours used.
Remember to click generate before closing the effect manager.

4.2.2.4. RGB Matrix Effects

Colour Effects
This tool is specifically designed for the use with a matrix of LED panels. To get started, click the ￿+￿ button to add a layer. The layer name can be changed by double clicking it and there are several layer types available, the most basic being colour. The colour can be changed by clicking the pallet. Moving shape effects can also be created by selecting ￿effect￿ from the dropdown box.
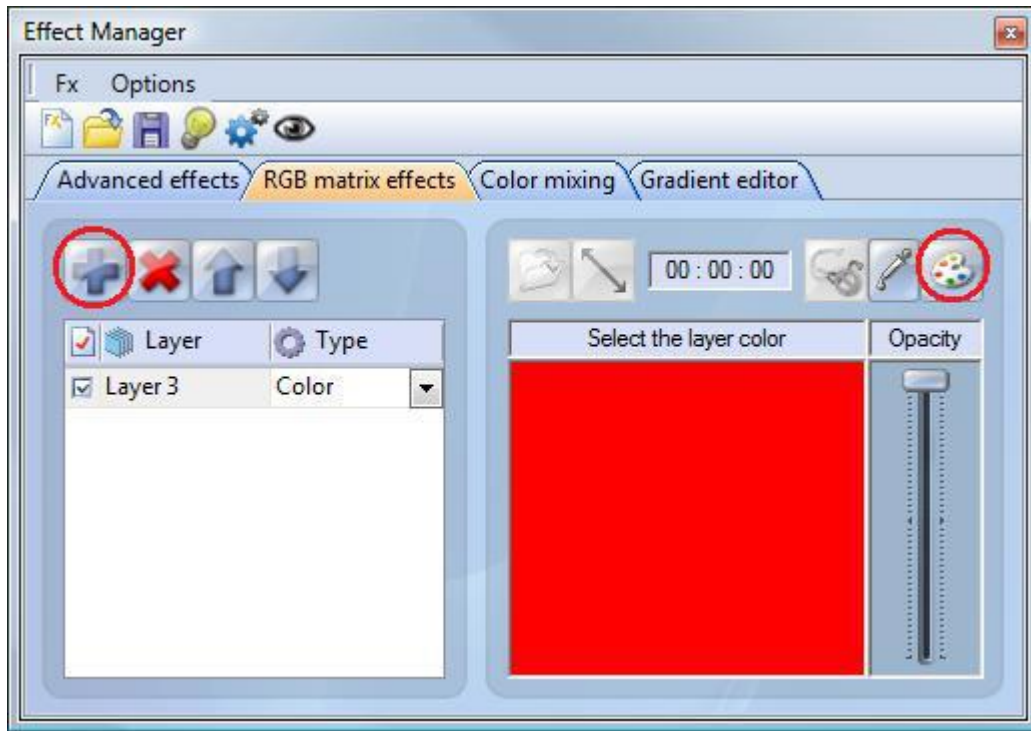
Image and video

The effect manager is capable of reading a jpg, bmp or gif image and interoperating this on an LED matrix. Select picture from the ⏹type⏹ dropdown box and load your photo. You can choose to stretch your photo filling up the full matrix, or to keep its original proportions. If you wish to go a step further, AVI video can also be played.
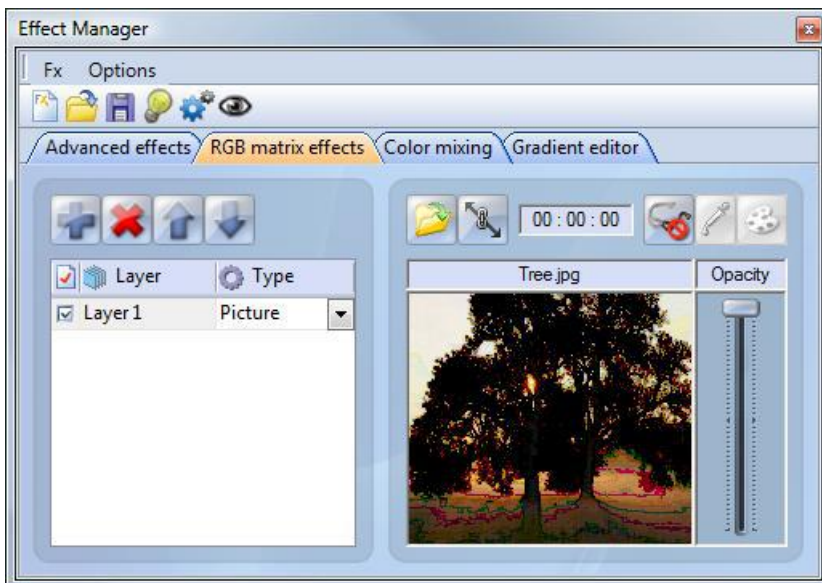
Text

Selecting ⏹Text⏹ in the dropdown box opens the text editor. Here you can enter a piece of text and choose where to place the text on your LED matrix. You can also scroll the text by clicking one of the 4 arrows and adjust the scroll speed. Clicking the ⏹T⏹ button allows you to change the font. To change the text colour and background, select the colour pallet.
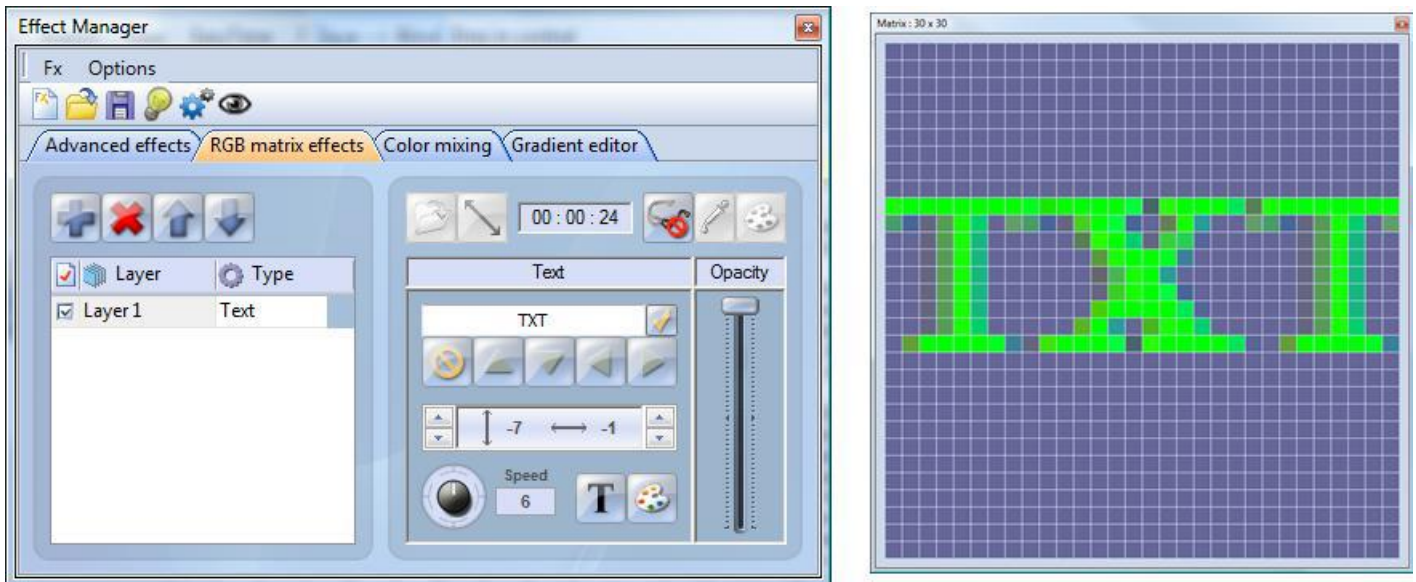
Remember to click generate before closing the effect manager.

4.2.2.5.Advanced Effects

This tool allows you to have more control over the individual channels of your fixtures and is extremely usefull with moving heads and scanners aswell as LEDs. To demonstrate the advanced effects section, we will insert 8 generic moving head fixtures. You will notice that when inserting the moving head fixture, the effect manager interface adapts itself. The new fixtures channels are displayed and the � RGB matrix effects꫞ tab is replaced with a ꫞Pan/Tilt effects꫞ tab.
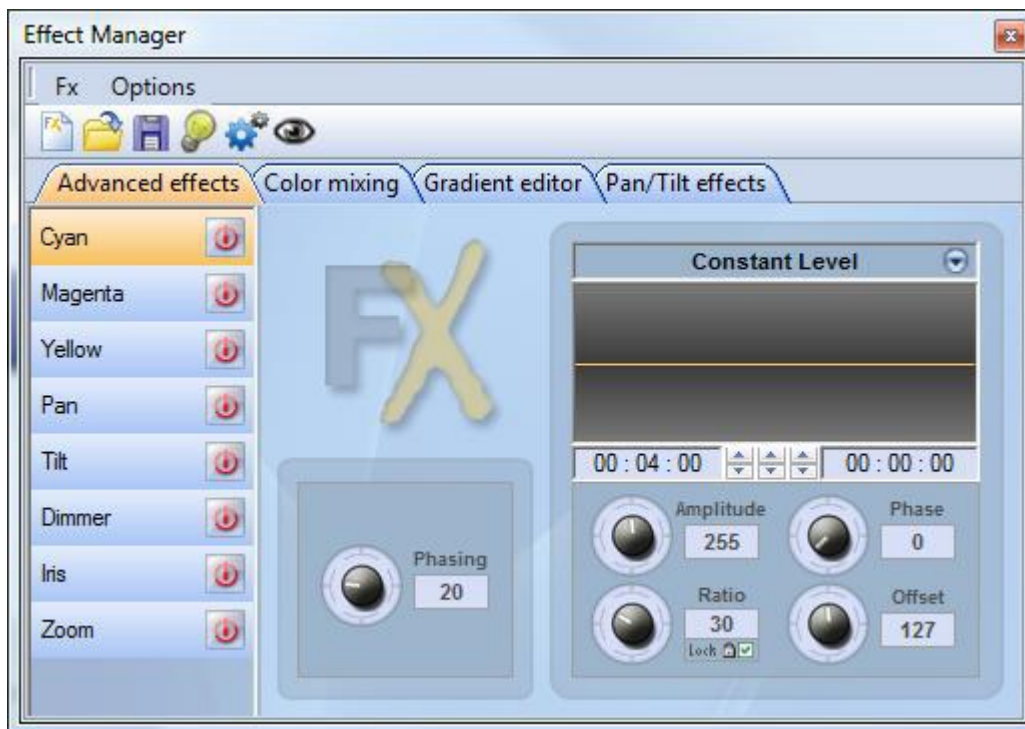
Firstly, you꫞ll need to click ꫞light beam on꫞. This sends a message to all the relevent shutter/iris/dimmer channels to show the light beam.

Select the channel you wish to apply your effect to. Here we have applied an effect to the dimmer channel.

Next, choose a waveform from the dropdown box, here we have chosen a sinus wave. You can preview your scene in real-time using the 3d Visualiser. Adapt the wave settings and choose if you wish to have all your fixtures synchronised or phased, then click 🗆generate🗆.
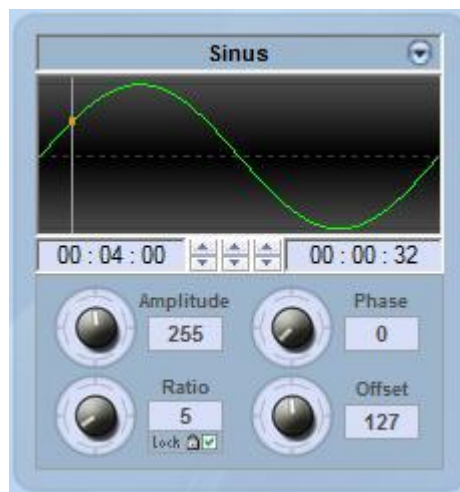
4.2.2.6.Pan/Tilt Effects

As well as using the 🗆advanced effects🗆 tool to create Pan/Tilt effects by creating waves, you can create more specific moving effects with the 🗆Pan/Tilt effects🗆 tool.
As with the other effect manager tools, you🗆ll need to click 🗆light beam on🗆. This sends a message to all the relevent shutter/iris/dimmer channels to show the light beam.

Once the tool is switched on, start by creating one of the shapes listed and hit play to test your effect.
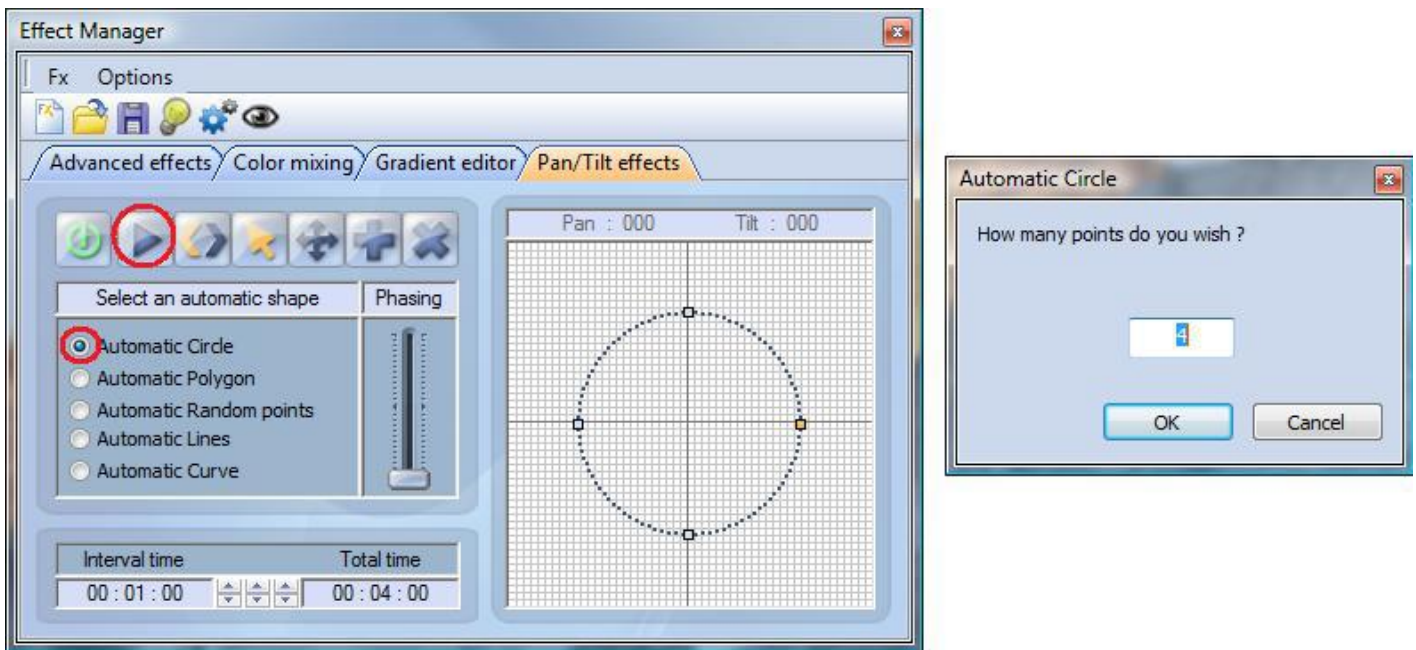
You can edit your shape by adding, deleting and moving the points.
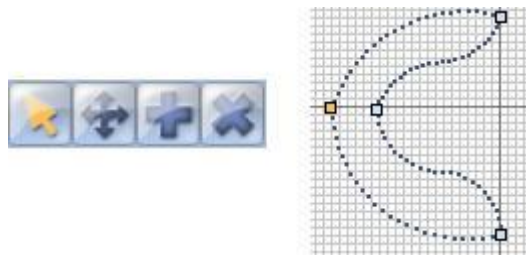
To slow/speed up your effect, change the interval time, this changes the time it takes to get from one point to the next.

Remember to click generate before closing the effect manager.

4.2.3.Color Manager

The "Color Manager" tool is basically a colour editor for RGB or CMY fixtures. It allows to create either static or dynamic colour sequences very easily. Imagine you want to load a bitmap or simply write a text on your matrix of LEDs, "Color Manager" will help you to make it in a few seconds. To open "Color Manager", click with the right button of your mouse on a color mixing channel in the editor screen. Several functions are available, let us see know how to use them:
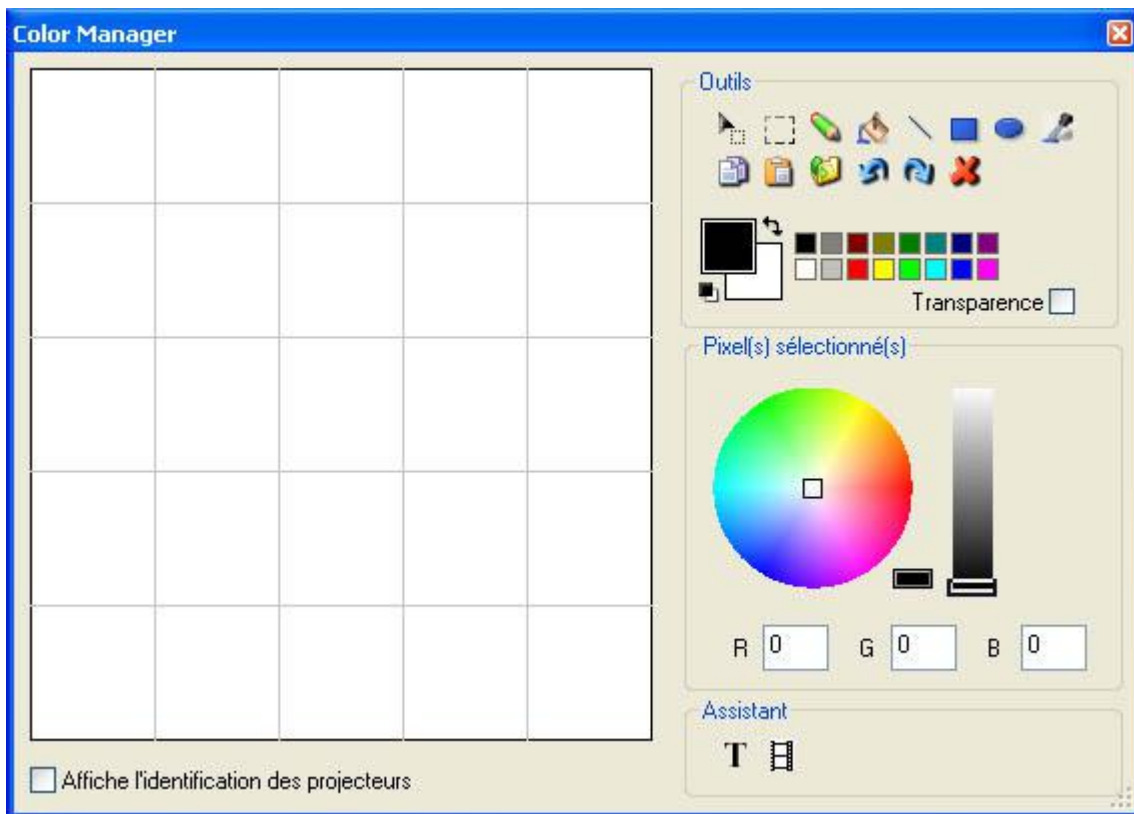
Basic tools

The basic tools are situated in the "Tools" area of the window. You can find the main functions available in a bitmap designer and select a color for each fixture very quickly. Each fixture is represented by a square on the left side. You can display the name of each of them by clicking on "Display fixtures' identification". Several tools are available:

- Select pixel and Select area: the first one allows to select fixtures one by one, the second allows to select several fixtures simultaneously

- Pen and Paint bucket: to paint one or several pixels with the selected colour

- Line, Rectangle, Circle: to draw a line, a rectangle or a circle

- Pipette: to pick a color from the fixtures area

- Copy, Paste: to copy or paste pixels

- Load an image: to draw an image (BMP, JPG...) with your fixtures

You must use the colour picker to change the colour of the selected pixel(s). You can also enter the RGB values manually.

Text wizard

The text wizard allows to write easily a text on your matrix. You can make either static or scrolling text, choose the font, the background color...You must click on the "T" button ("Wizard" area) to open the

following window.
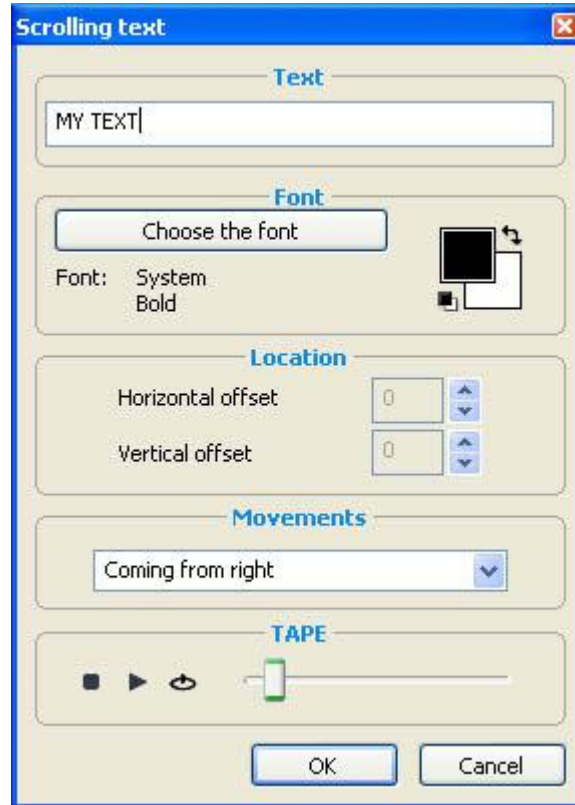
Here we must enter our text and then choose a font and a colour. You can specify a colour for the text and for the background. It is also possible to move your text vertically and/or horizontally with the "Horizontal offset" and "Vertical offset" cursors. Then, if you want your text not to be static, you must select the type of movement from the list situated in the "Movements" area. The cursor in the "TAPE" area makes it possible to change the speed of the scrolling.

4.2.4.Copy/Paste and Phasing

This feature is available with "EasyTime" and "EasyStep" racks, let us see now how to use it. With this new tool, you can quickly copy and paste a sequence to one or several fixtures. When your sequence is ready to be pasted to the other fixtures you must click on the "Copy" button (below the "EasyTime" or "EasyStep" button) and then select the channels you want to copy (like we did before). The following window appear:
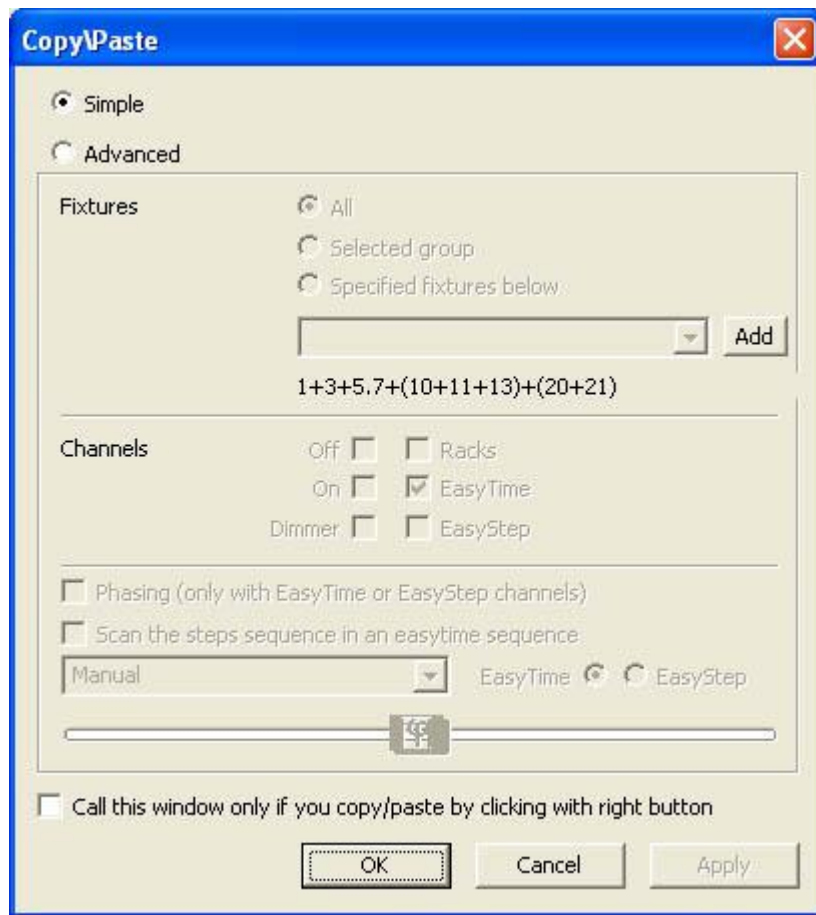
By default, "Simple" is selected. That means that the sequence will be pasted to the selected fixture. If you want to paste the same sequence to more than one fixture you have to select "Advanced" and then select the fixtures. Three options are available:
- All : means that the sequence is pasted to all (same) fixtures

- Selected group : means that the sequence is pasted only to the fixture of the selected group

- Specified fixtures below : you can select the fixtures one by one

The phasing tool allows to easily create a "wave" with your scanners or a rainbow effect with your CMY colour changers. Basically, this new tool allows to copy some channels from a fixture to the other one. However, there is an advanced option which helps you to add a delay between each fixture for the selected sequence.

How to create a "wave" or a rainbow effect
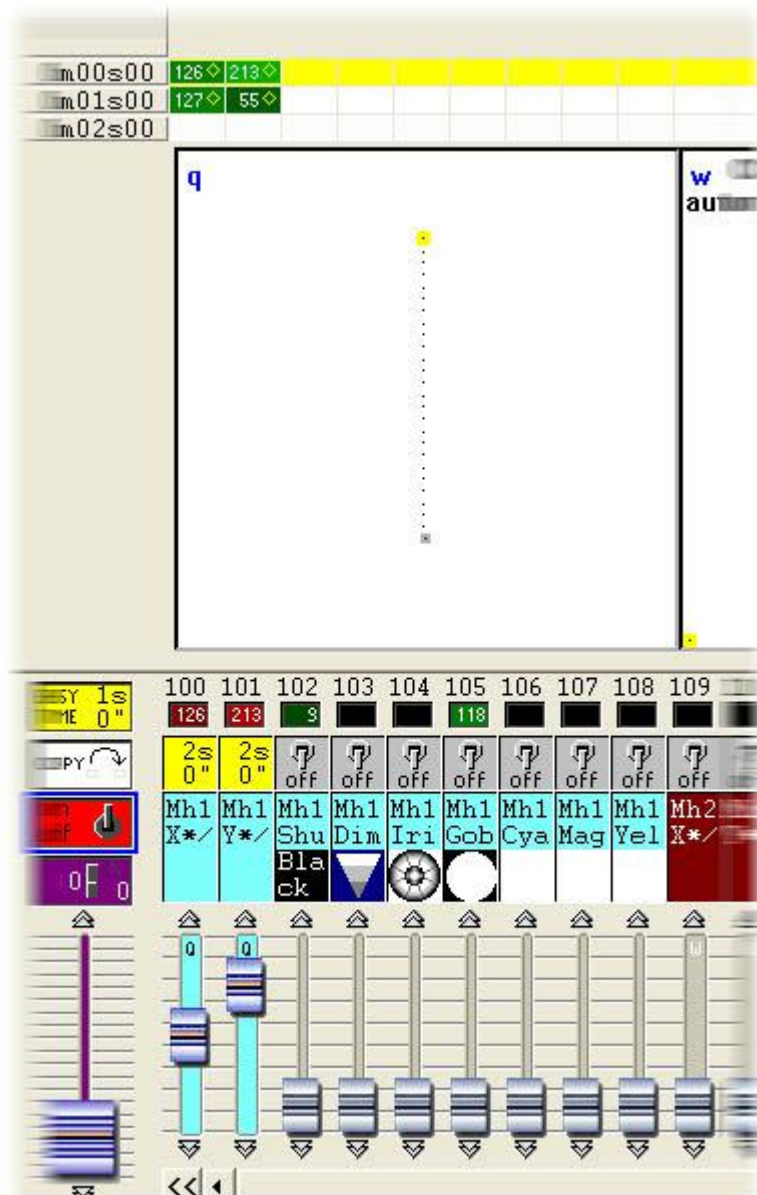
Once we have made this, we can copy the "PAN&TILT" channels and paste to one fixture. The "Copy/Paste" window appears and we must select "Advanced" to access the phasing function. After having selected "Phasing (only with EasyTime or EasyStep channels)", you must specify the type of phasing:
- Manual means you have to specify the delay manually with the cursor

- Other options are pre-programmed delays taking the number of fixtures into account

4.3.Fade between scenes

It is possible to fade from one scene to another one. For instance, this is really useful to go from one position to another one very slowly, to open/close the dimmer of your lights...A few things need to be checked before to start programming our 2 scenes. First of all the "FADE" function must be allowed on the channels we want to use. To do so, we open the "Page Settings..." window from the menu and we go to the "Channels" tab (see below).

🗐	New Page	Alt+N
🗁	Open archive...	Alt+O
🖫	Save archive...	
	Duplicate	
	Rename	
🗑	Delete	
	Regenerate pre-programmed buttons	
	Merge	
🖳	Settings...	
	Arrange buttons	▶
	Live toolbar Page	▶
	Display	▶
	Print...	▶
	Print preview	▶
✓	Display the page	

Page Settings... " SPOT 575 "

General | Channels | Buttons | Synchro | Trigger | Options | Group | Co

◉ Show patch ○ Show Fade/Dimme

1- 16 "SP1"-<a>- SPOT 575.SS
- 1 <a>"SP1X*/"
- 2 <a>"SP1µX*/"
- 3 <a>"SP1Y*/"
- 4 <a>"SP1µY*/"
- 5 "SP1Color"
- 6 "SP1Gobo1"
- 7 "SP1RotGobo"
- 8 "SP1Gobo2"
- 9 "SP1Shutter/*"
- 10 "SP1Dimmer#/*"
- 11 "SP1Focus/"
- 12 "SP1Prism"
- 13 "SP1Special"
- 14 "SP1Movement"
- 15 "SP1Speed"
- 16 "SP1Laser"
- 17- 32 "SP2"-<z>- SPOT 575.S
- 33- 48 "SP3"-<e>- SPOT 575 S

Intelligent lighting

SPOT 575.SSL

Channel name   SP1X*/

☑ Enable FADE function
☑ Enable SPEED function
☐ Enable DIMMER function

Test

Channel patch 1

1= 1   =

1= 1		Straight patch
1= 1/10/80		Straight patch with min/max settings
1= 0		Channel patched to lower output
1= 2		Channel patched to upper output
1= 0+1/40/60		Channels patched to several outputs
1=		Channel not patched to output !

OK   Cancel

All the channels of our page are listed in the list situated on the left side of the window. We want to make a fade between 2 positions, so we must enable the "FADE" function on Pan&Tilt channels for all our fixtures. Please note that the function is already enable on Pan&Tilt channels...however this is good to see how to do it. Now it is time to create our 2 scenes. In the previous chapter we saw how to create a scene "As you see now"...we will use the same function and create the scenes using the TAKE buttons.
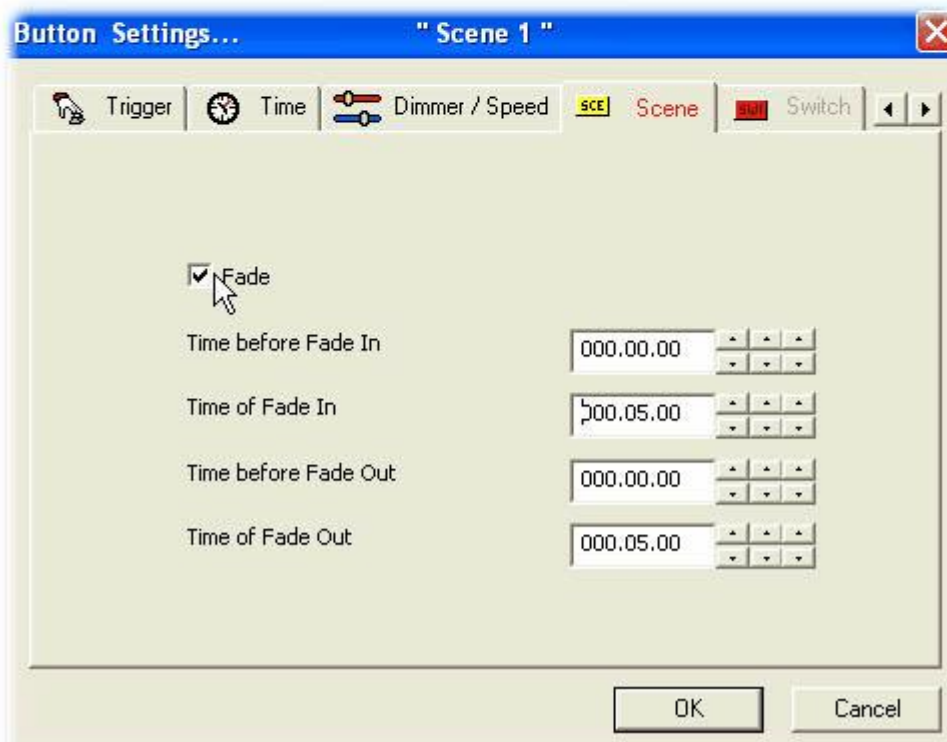
Once the "Fade" function has been selected, we can setup the fade times. Please keep in mind that the channels can have their levels increasing (Fade In) or decreasing (Fade Out):

- Time before fade In : Time between the call of the scene and the beginning of the Fade In

- Time of Fade In : Fade In time

- Time before fade Out : Time between the call of the scene and the beginning of the Fade Out

- Time of Fade Out : Fade Out time

Here, we can leave the default settings which are 5 seconds for the Fade In/Out times and no time before Fade In/Out. We can click on OK when it is finished and our first scene is now ready to be used. Let us create the 2nd one and call it "Scene 2". To do so, we release all the buttons in our page (double click on INIT) and we call the "Scene 1". Then we use the TAKE buttons to setup a different position for each fixture and we save the scene with the "As you see now function". Now we just have to setup the Fade times (as we did with the 1st one) and we are ready to fade from our "Scene 1" to our "Scene 2".
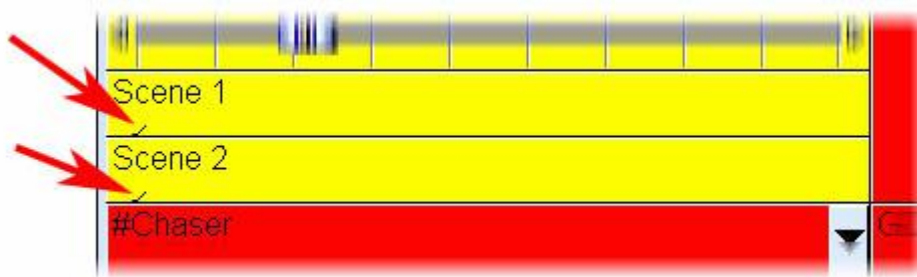
When a fade is running, the following window appears and shows you the FADE IN (left, red) and the FADE OUT (right, blue). This window allows to make a break, to increase the speed of the fade, to jump to the end of the fade or to go back to the beginning. Please note that you can make this window visible or not by clicking on "Fade" from the "Windows" menu.
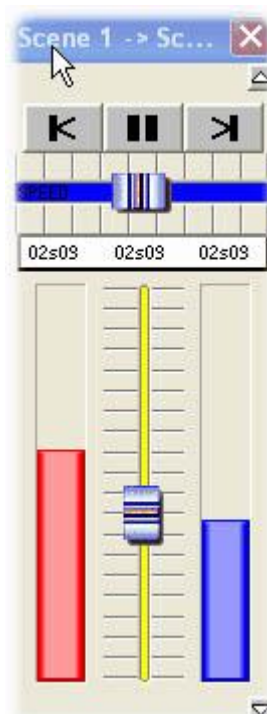
Please keep in mind that the FADE function is not available on channels which have been programmed with the ON/OFF mode. This is very useful to make some channels fading or not in a scene. Imagine you want to fade from one position to another one with your fixtures but you want to change the gobo without fading in the same scene. The gobo channel must be

programmed with the ON/OFF mode, or the FADE function (Page Settings window) must be disable on this channel.

4.4.External trigerring

4.4.1.MIDI - Easy Console

4.4.1.1.EasyConsole, what is it ?

EasyConsole is a new powerful tool for LIVE control. It allows users to connect any MIDI controller to the software and assign numerous features to it. It is possible to control the speed or size of a sequence, jump from page to page, select a particular button, freeze all DMX channels... and many others. Once your show has been programmed with the software, it is very easy to assign it to the MIDI controller's faders and buttons. This is an incredibly powerful tool that will both save users time and allow a more precise control during "Live" applications. The following image is an example of a MIDI controller with rotating buttons and faders, all of which can be perfectly assigned to work with our software.

4.4.1.2.First, setup your controller on screen

The first thing you want to do is draw your MIDI controller on your screen, which will simplify its use within the software. To make this work, a simple white square with faders and buttons can be enough. However, you can make the screen representation of your controller closer to reality by pasting pictures of it. The EasyConsole tool allows you to do that. You will be able to draw your controller and then use it with Sunlite Suite in just a few minutes.
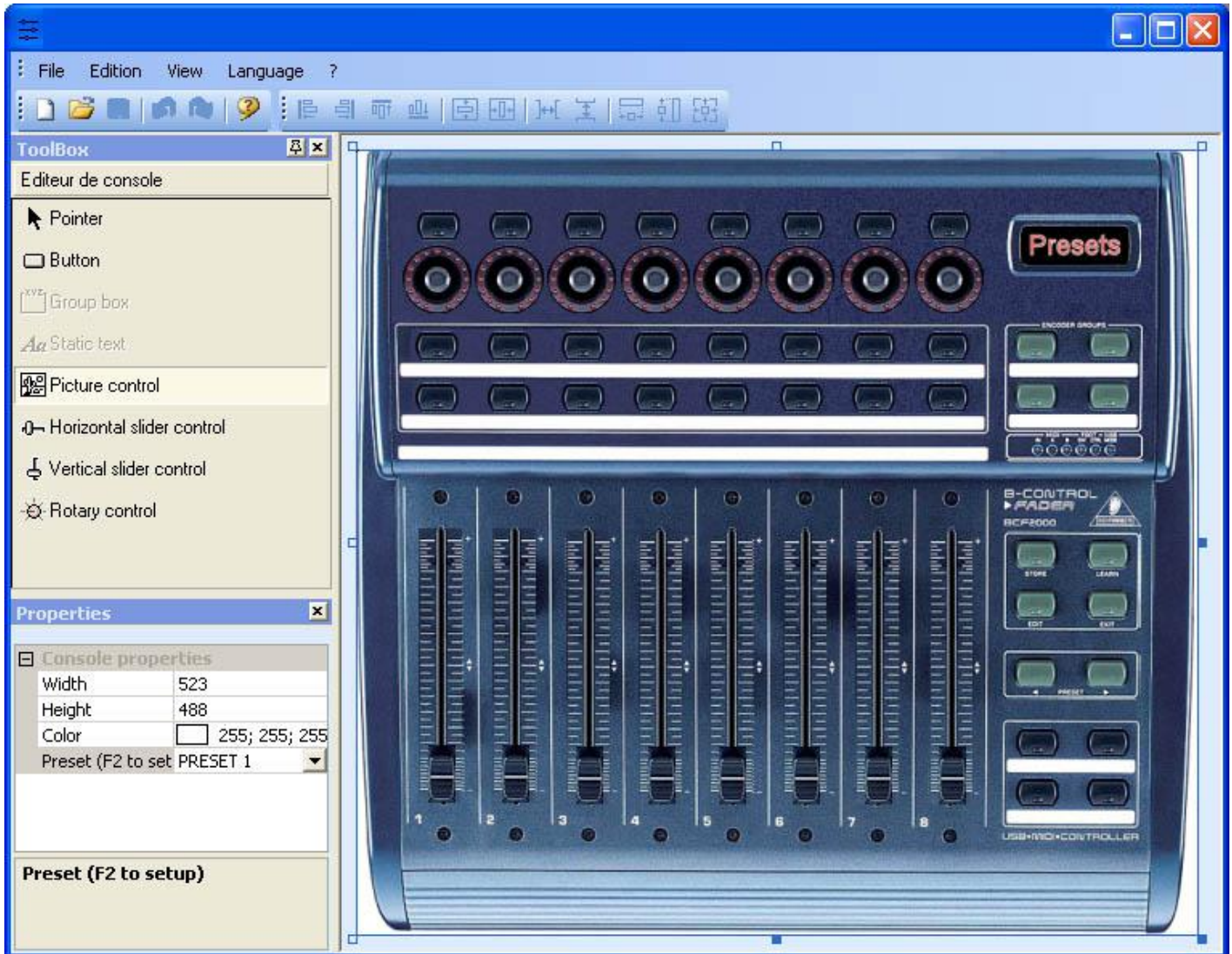
Defining the background and adding images

It is very easy to create an accurate screen controller following a picture of an actual MIDI board. The associated picture must be located in the "CSL" directory of the installation folder, in BMP format. The "Bitmap" section of the "Properties" window allows you to select an image from this "CSL" folder, which you can use as a background to create an accurate representation of your MIDI controller. If you wish to add an image to your controller, select the "Picture control" tool and insert a new picture. Then, you will be able to resize this picture, change its position, or even replace it using the 'Properties" window.

Defining the controls : buttons, faders...

There are 4 types of controls available : horizontal and vertical sliders, rotating and regular buttons.

These controls are available from the "Toolbox" window. Select the desired control from the toolbox and then click on your project to insert a new control. Using the "Properties" window you can, for example, move, resize or change the background image. You can also write labels on any control to clearly see its function within the Sunlite Suite software.

Defining the presets

4.4.1.3.How to use EasyConsole

First of all, make sure that the MIDI function is enabled in the starting parameters window. Open the window from the "Controller" menu and go the the "Audio/Midi" tab to activate the function.

Assigning the MIDI controller to the software is very simple. Each button or fader must be assigned independently. There are two ways to assign to assign a button: the regular and the quick method.

Regular method

Once this window is opened and if the "Auto setup MIDI" option is activated, turn on the corresponding fader or button on your controller and it will be automatically assigned. Repeat the operation for all controls. Do not forget to save the configuration by clicking with the right button of the mouse on the title bar and selecting "Save" from the menu.

```
General output
Page out

Page dimmer
Page speed
Page freeze
Page send DMX
Page send 3D
Page manual fade
Page enable fade
Page select
Page select previouss
Page select nexts

Button dimmer
Button speed
Button size
Button activate
Button selecte
Button select previous
Button select next
Button edit
Button save, close edition

Fade play
Fade go back
Fade go next
Fade progress
Fade speed

Switch windows
Previous Preset
Next Preset
Preset select
```

These are not new functions and are explained in numerous chapters throughout this manual. You can control functions like SPEED, DIMMER or SIZE of your effects. You can also select pages or buttons, freeze the outputs, assign the DMX outputs to one or several faders of your controller in order to have a general master fader, for example. Do not forget to save your modifications. This is not done automatically.

Quick method

This is method is really faster and enables to setup 80% of the available features.

```
Link to MIDI controller                    [X]

Waiting for a MIDI command

       [ Click on console ]  [ Cancel ]
```

Imagine now you want to assign a scene or a switch to a button of the MIDI controller, a blackout button for instance. Use the shift-click function (hold the shift key and click with the right button of the mouse) on the switch and select "Button activation" from the "Link to Midi Controller" option. This will open the

following window, 4 options are available:

- On/Off: the switch is called when the MIDI command is sent
- V>Level: specify the minimum MIDI command level to call the switch
Level: specify the minimum MIDI command level to call the switch
- V- level1

4.4.2.MIDI - Midi Time Code (MTC)

MIDI TIME CODE input is useful to synchronize a cycle with an incoming MIDI TIME CODE signal. In this case the software is said to be "Slave" and the external system "Master". The signal can be generated by a CD/DVD player, an SMPTE generator, a 3rd party software (sound, video, laser...).

For such use, make sure :
- your computer is equipped with a MIDI card (usually included in sound card) or a USB-MIDI interface
- to activate "MIDI IN" function in the "Audio/Midi" section of the "Starting parameters" (from the "Controller" menu)
- to activate "TIME CODE IN" in "Synchro" section of "Page - Settings" window

Once all the settings are over, it will be possible to synchronize with MIDI TIME CODE input all the cycles in the corresponding page (one at a time). A small button "MTC IN" appears in the Cycle windows to disable/enable the function as shown in the picture below.

N.B.
Incoming MIDI TIME CODE can also be activated while creating a cycle. Timing will then be automatically computed on MIDI TIME CODE.
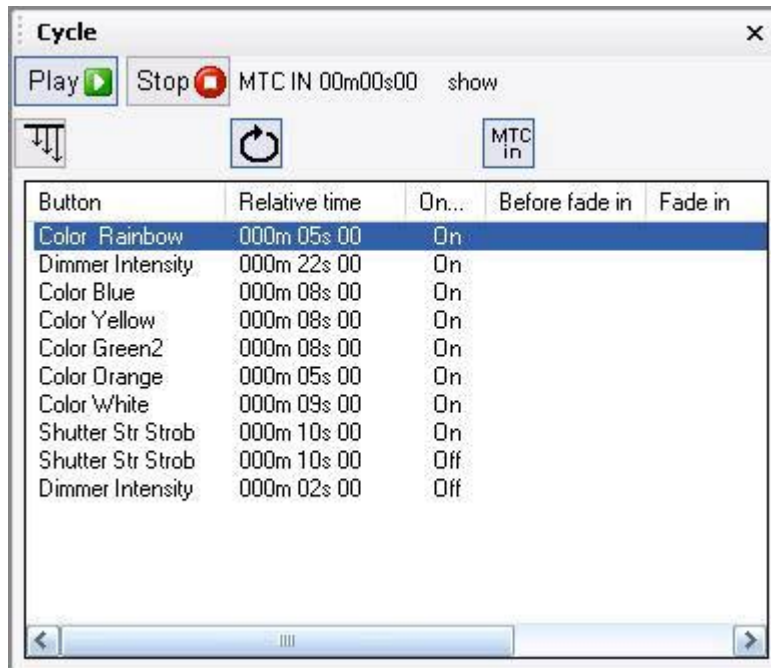
4.4.3.DMX

Several functions can be triggered by DMX input channels on the user screen. You can start a button (scene, switch or cycle), control the SPEED and DIMMER faders...

Buttons triggering
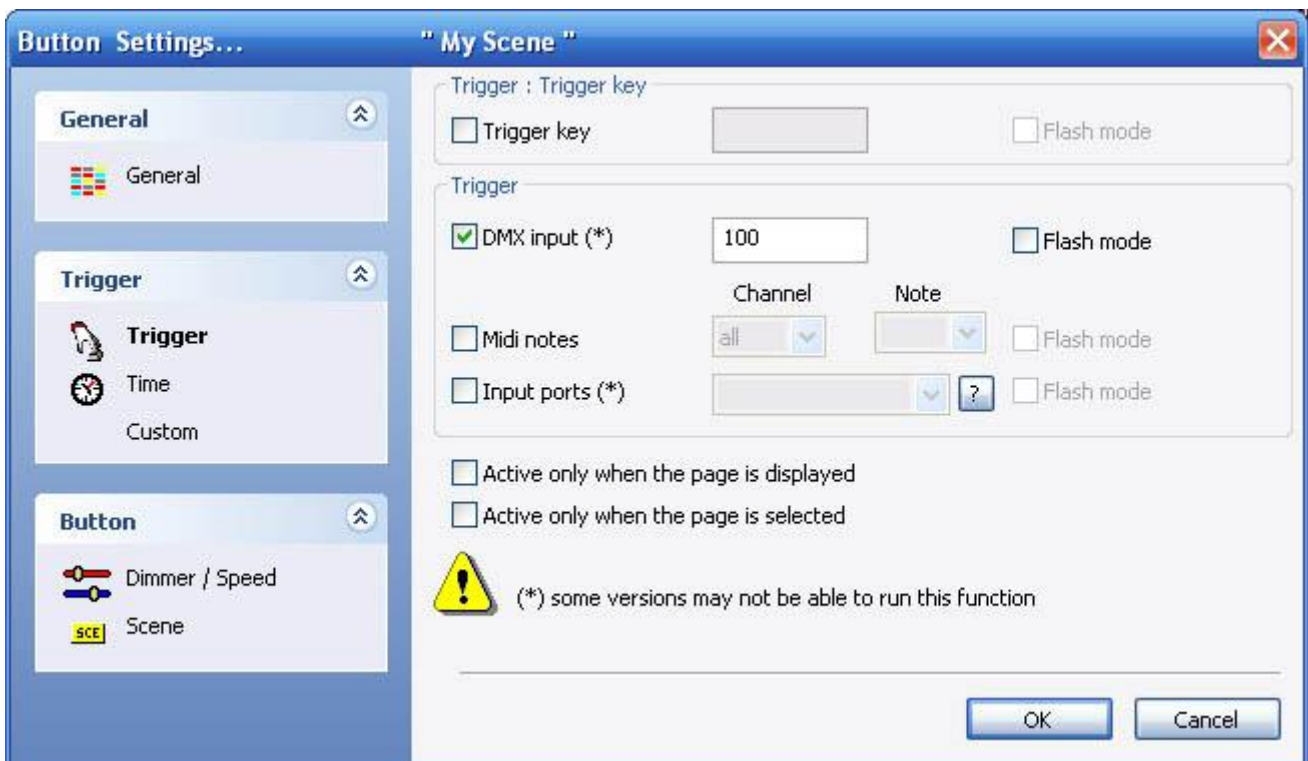
Faders control
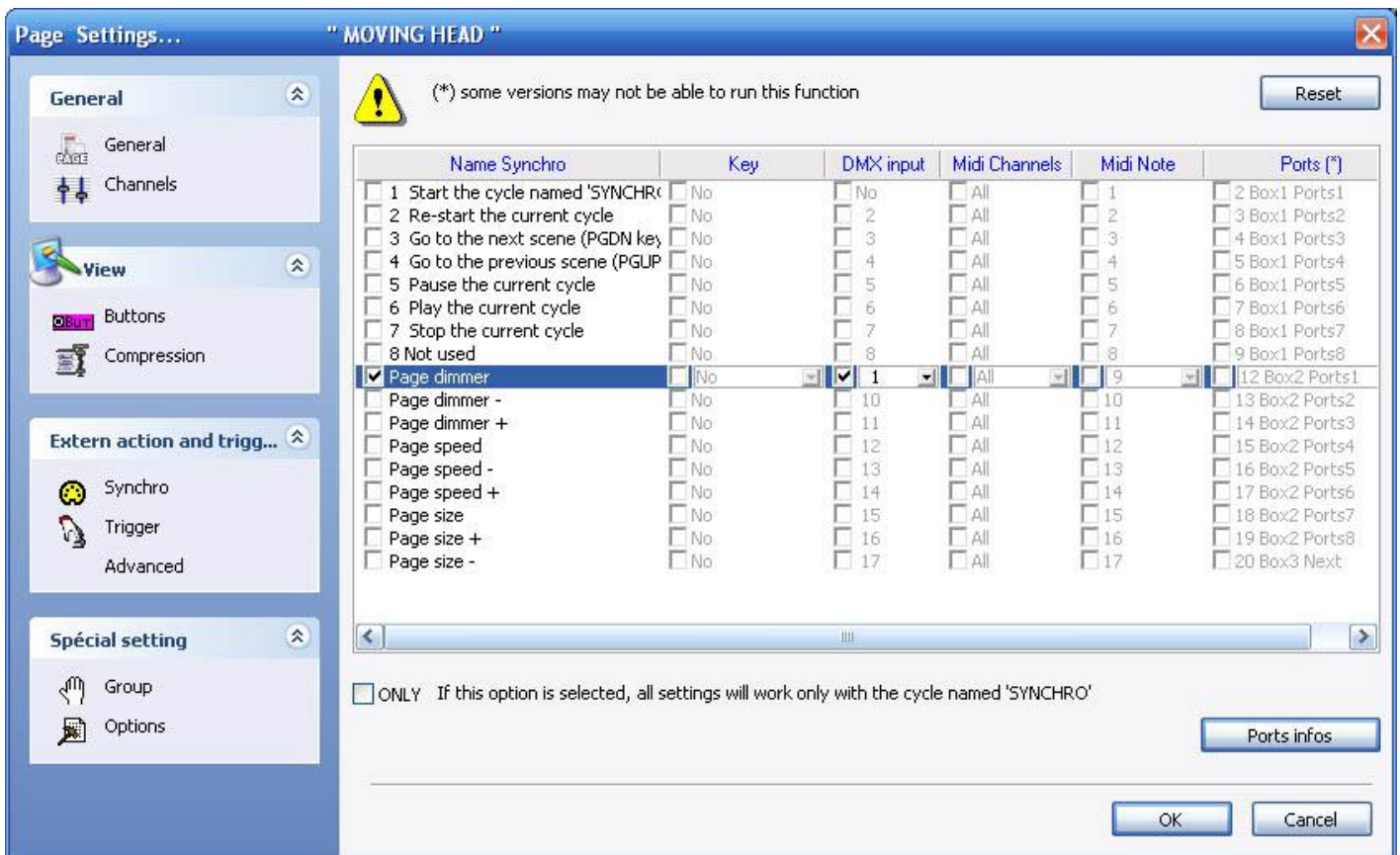
Now, you can modify the dimmer of your page in real time with your external DMX controller.

This option may not be available with your version of the sofware.

4.4.4.Clock and Calendar

The sofware can be triggered by Time (PC clock and calendar). This feature is available only in First Class version and is very useful for architectural lighting. You must open the following window to setup time triggering ("Button" menu, then "Settings"). The button you want to trigger must be selected before to open this window!
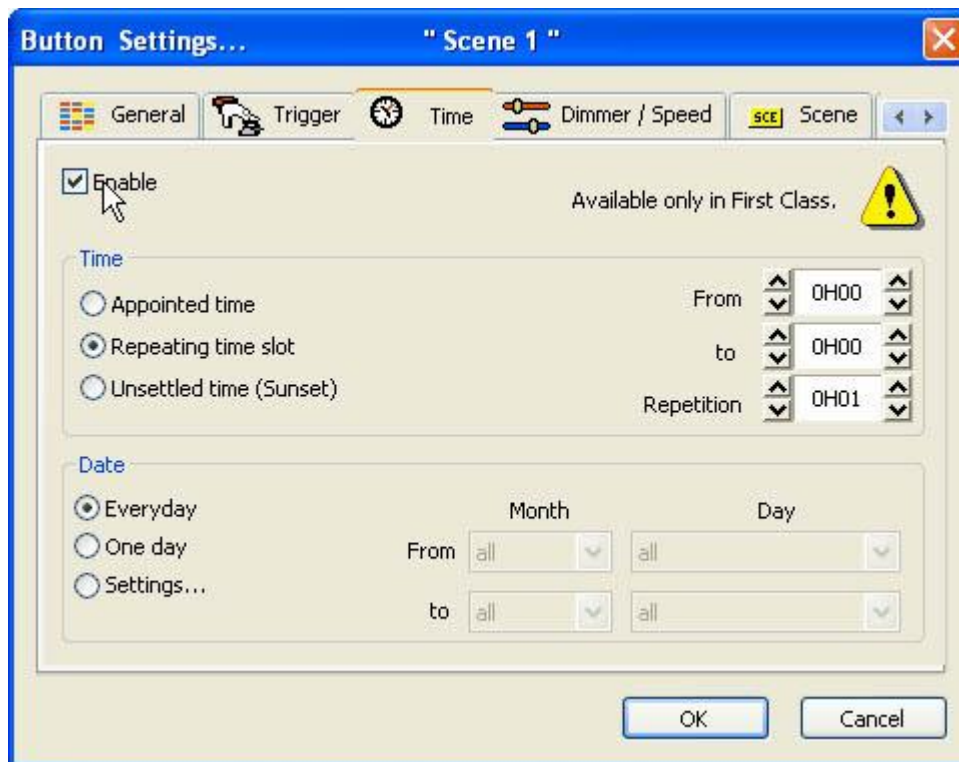
First of all, we must click on "Enable" to modifiy the settings. Several options are available to trigger a button (scene, switch or cycle):

Appointed time

Select what time you want to start your button.

Repeating time slot

Imagine you want to start the same sequence every 30 minutes from 10 am to 3 pm. You must setup 10H00 in the "From" box, then 15H00 in the "to" box and finally 0H30 in the "Repetition" box.

Unsettled time (Sunset)

Imagine you want to start a cycle every day following the sunset. You must use this option to do so. First, select the "Date1" (first day) and the "Date2" (last day). Imagine you want to start your sequence at 15H00 the first day and at 21H00 the last day, you must setup 15H00 in the "Time1" box and 21H00 in the "Time2" box. The software will calculate the time for every day...
Do not forget to specify UP or DOWN. UP means that the triggering time will increase every day (until the "Time2"), DOWN means it will decrease...

4.4.5.Contact closure

A 10-pin connector is available on the USB-DMX interface and makes possible to send 8 different contacts to the software. The reference of the connector is HE 10 (male). You don't need to send any power to the connector. You only have to create a contact between the pin 2 (ground) and the other 8 pins (please note that the pin 10 is not used). Several things can be triggered by ports.

Buttons triggering
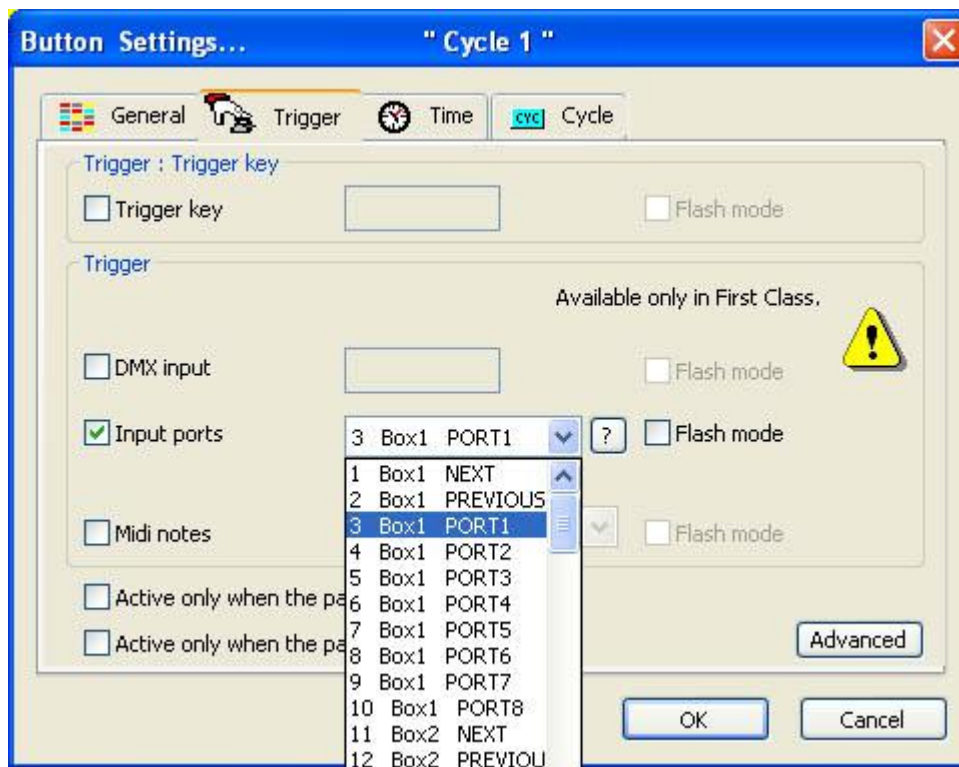
Cycles triggering

It is possible to trigger the playback function of the cycles in a page. To do that we must open the "Page Settings..." window and go to the "Trigger" tab. Several options are available : play and stop the current cycle, jump to previous and next steps...
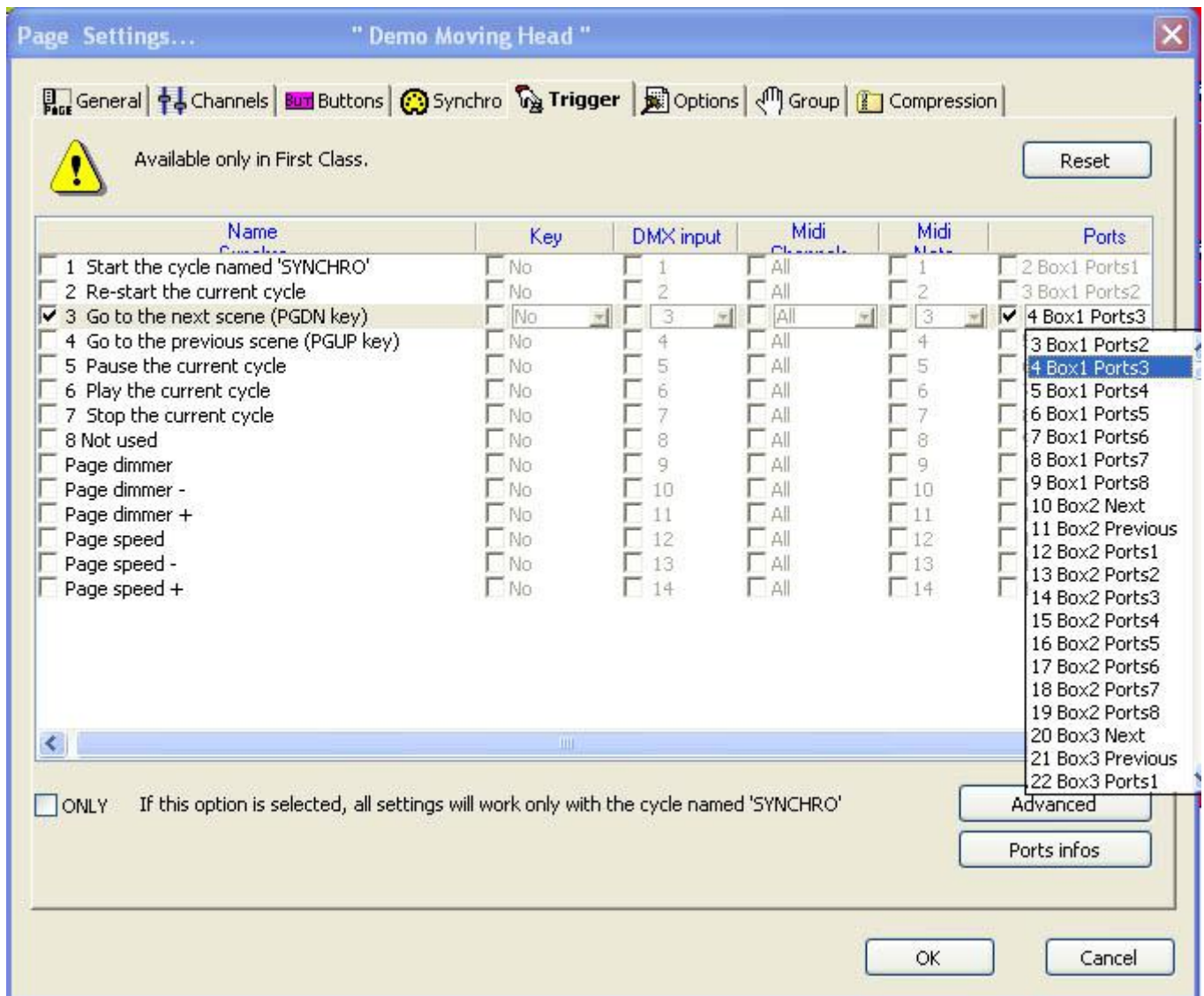
Note: If the "ONLY" option is selected, all settings will work on the cycle called "SYNCHRO".

You can find more informations about the connection of DMX interfaces by reading the hardware manual.

This option may not be available with your version of the sofware.

4.4.6.Audio Analysis

The Audio Analysis program allows to read and analyze a sound data through a sound card or straight through computer files (CD, WAV files...). Tempo and BPM can thus be picked out.
Bass, medium and treble filters are made available in the SOUND TO LIGHT tab.
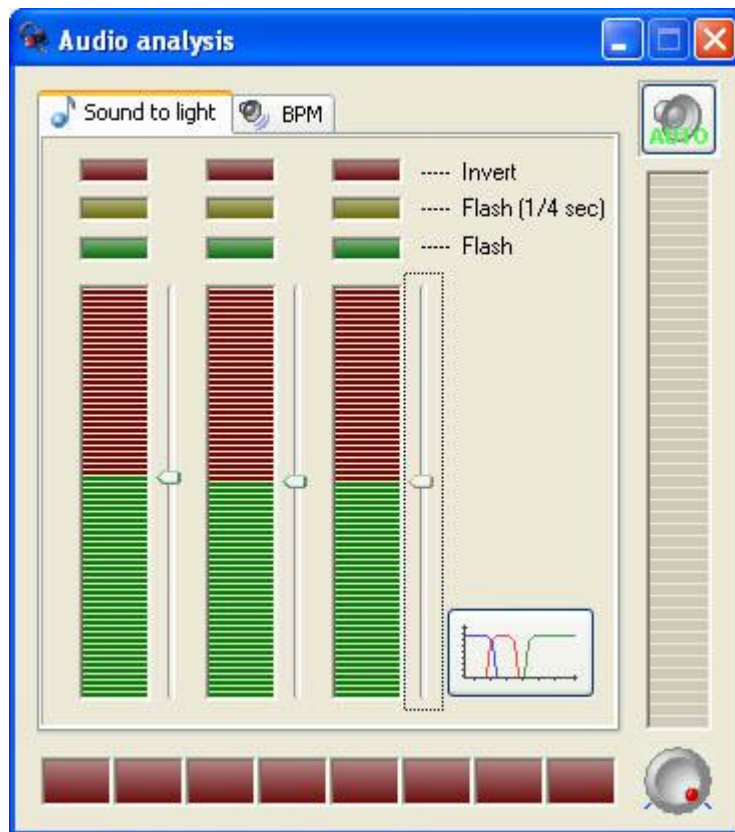
When Audio Analysis program operates as background task, the following icon appears on the Windows toolbar.

By double-clicking this icon you may open the complete window so as to modify parameters included in BPM and SOUND TO LIGHT tabs. Let us have a closer look at both of these features :

BPM
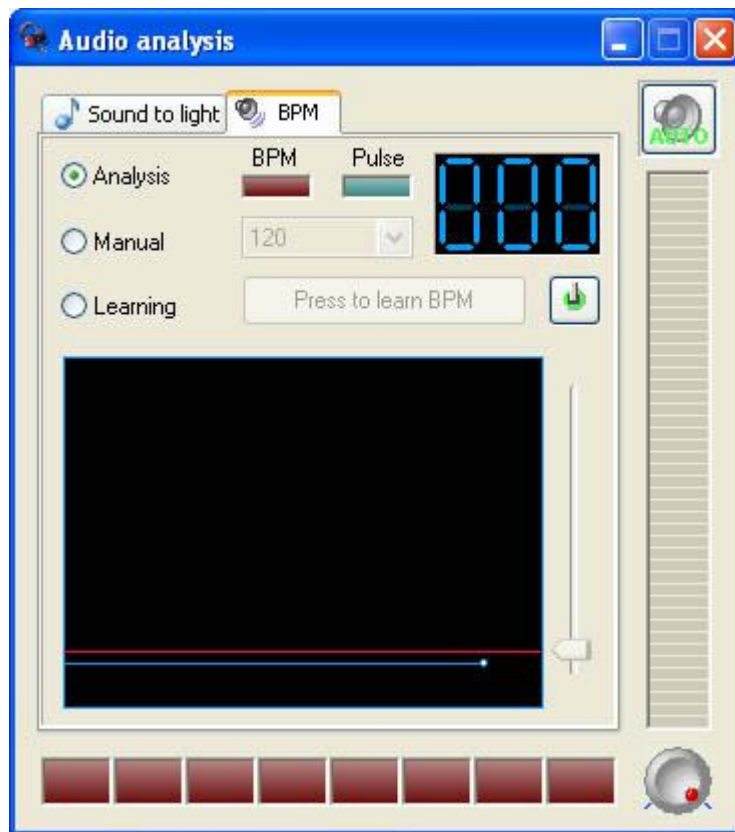
Sound to Light
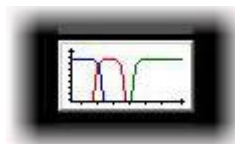
The following window appears on screen:
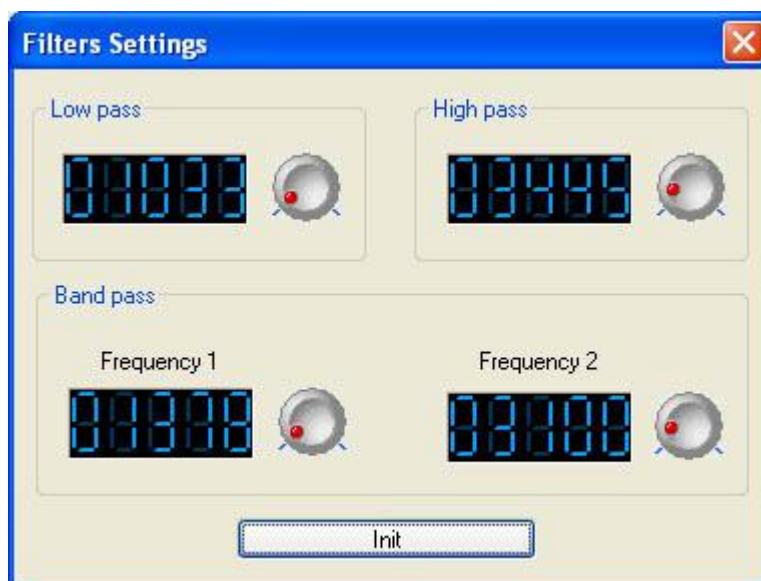
The three filters may be personalized independently.

4.5.Page settings

The PAGE SETTINGS window contains all global options for each page. It is important to understand the different options available. Simple options like buttons size and font can be customized, and advanced otions as well: patch, compression (buttons arrangement), triggering, channels and fixture options, etc...

General

In the "General" section, you can basically do 2 things:
1. Change the DMX Universe for your page, which means shift the addressing by increments of 512 channels
2. Add a Background Image to the Fixture-Group window; this will allow you to take a picture of your real stage and then place the icons for each fixture over the picture in the appropriate place
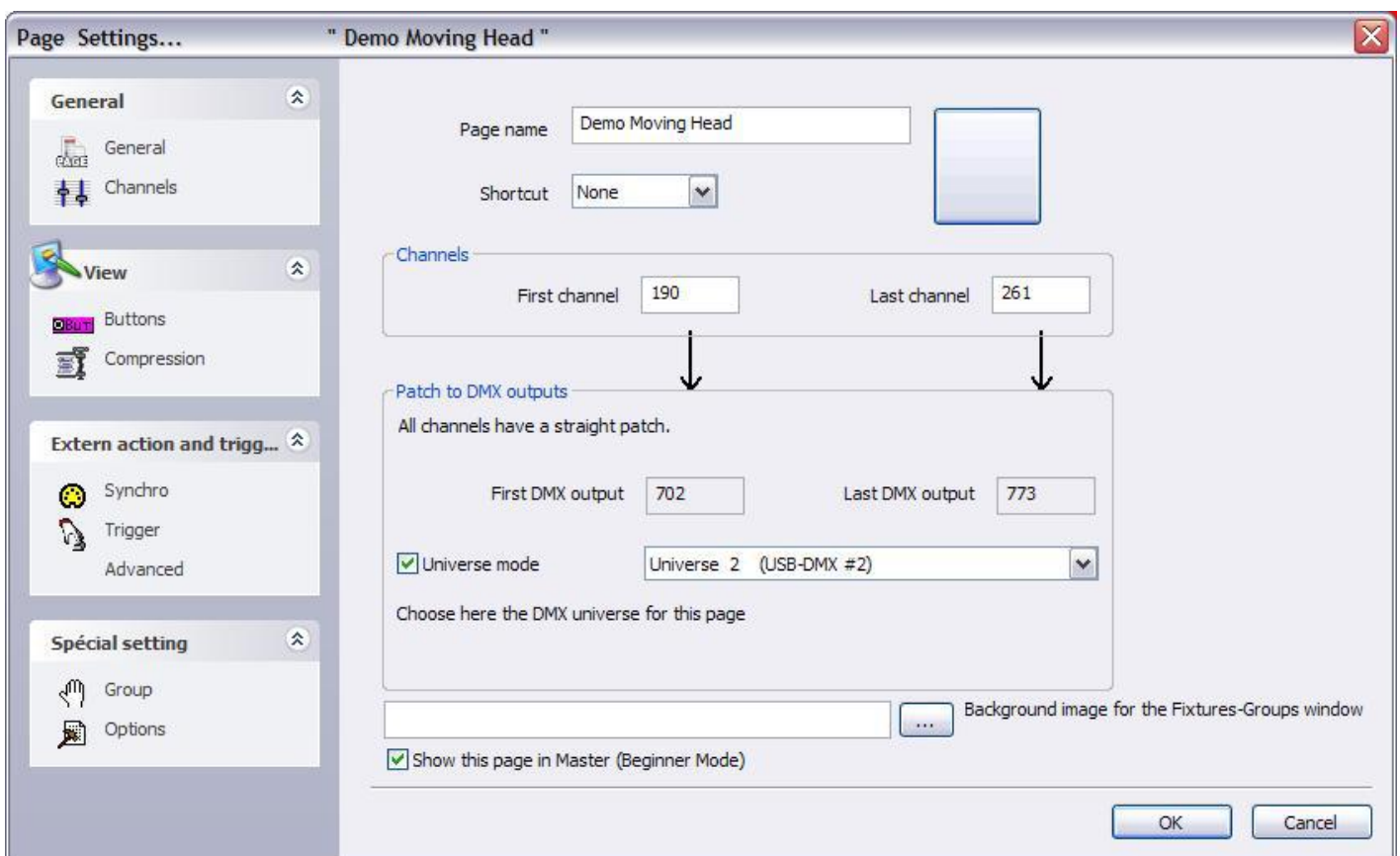
Channels

The "Channels" section allows you to change the properties of individual fixtures using the buttons on the top. Starting from the left:
1. Insert fixture; you can insert a new fixture into a page that has already been created
2. Delete fixture
3. Set shortcuts; these shortcuts allow you to quickly access the channels for each fixture inside the Button Editor
4. Advanced shortcuts; here you can set the same shortcut for different fixtures, as well as invert the mouse's X and Y inside the Button Editor
5. X/Y; you can invert the pan/tilt channels for each fixture (symmetric movement), and you can also limit

the maximum pan/tilt (prevent light from hitting walls, people, etc)
6. Change address; change the patch for a fixture's starting address
7. Update the library/profile of the selected fixture
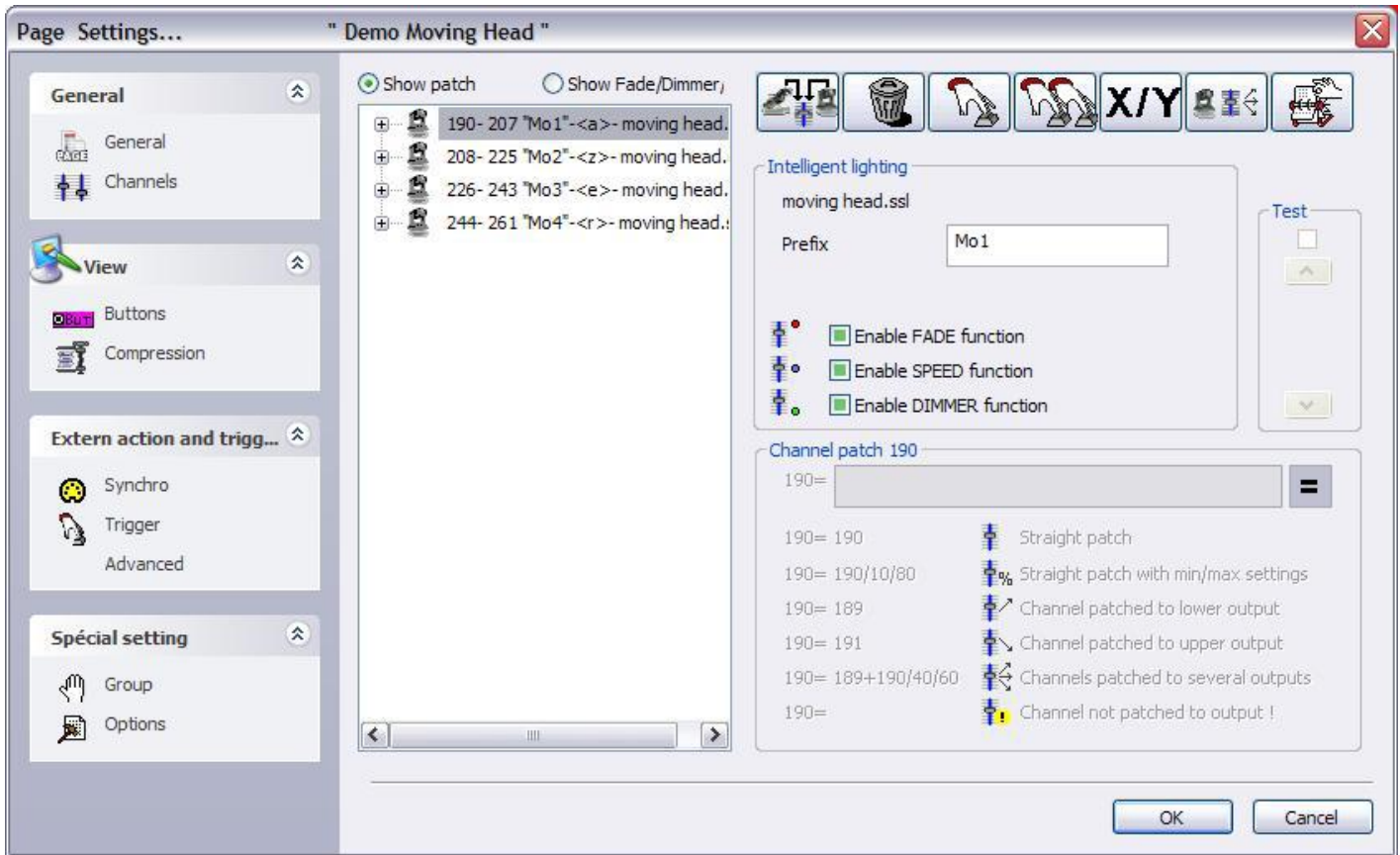
Buttons

The "Button" section allows you to define the font and size of the buttons on your page. This is very useful if you need larger buttons because you have a very small screen, because you are using a touchscreen monitor, etc...
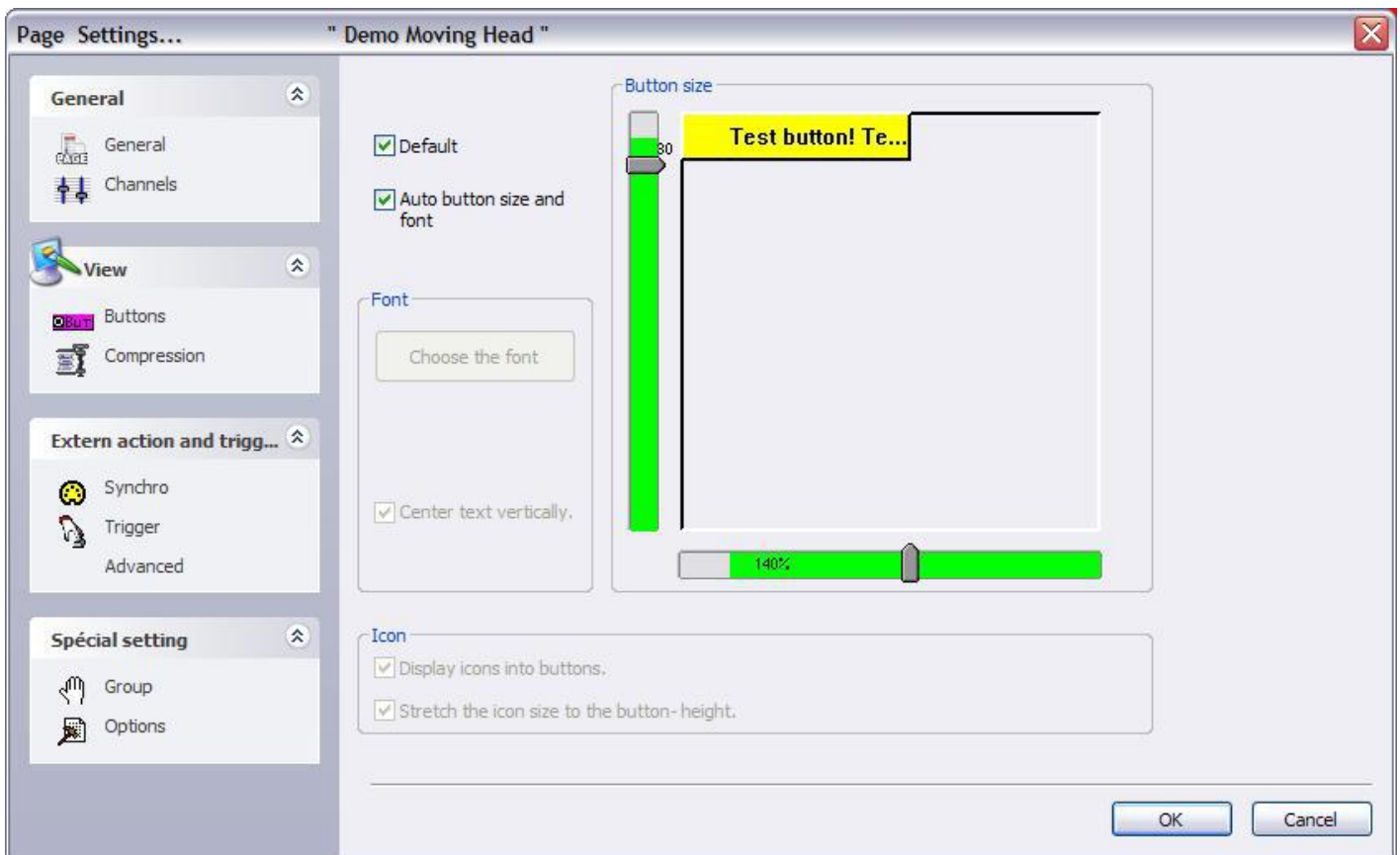
Compression

The "Compression" section allows you to create or modify the groups of buttons within your page. Notice how all COLOR, GOBO, PRISM icons are grouped together in your pages. When you create a new Compression group, all buttons whose name starts with those same letters as the name of the group will be linked together. For example, COLOR RED, COLOR BLUE, COLOR YELLOW, COLOR WHITE can all be compressed under the group named COLOR.

You cannot group Scenes, Switches, and Cycles together, so you must define what type of button the compression group will work with. Finally, you can set the Compression type.
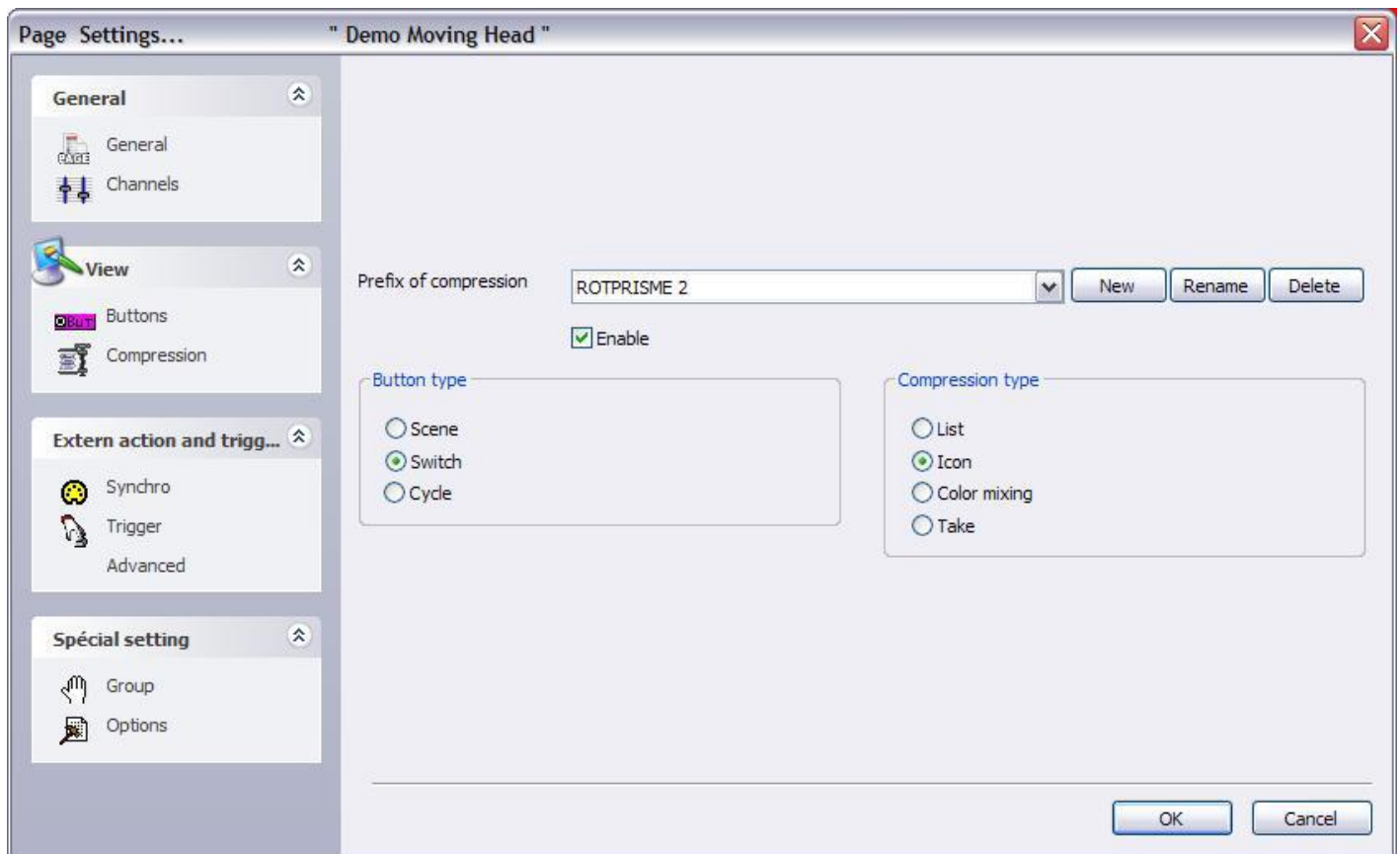
Synchro

The "Synchro" section allows you to synchronize your Cycle buttons within the page in a number of different ways.
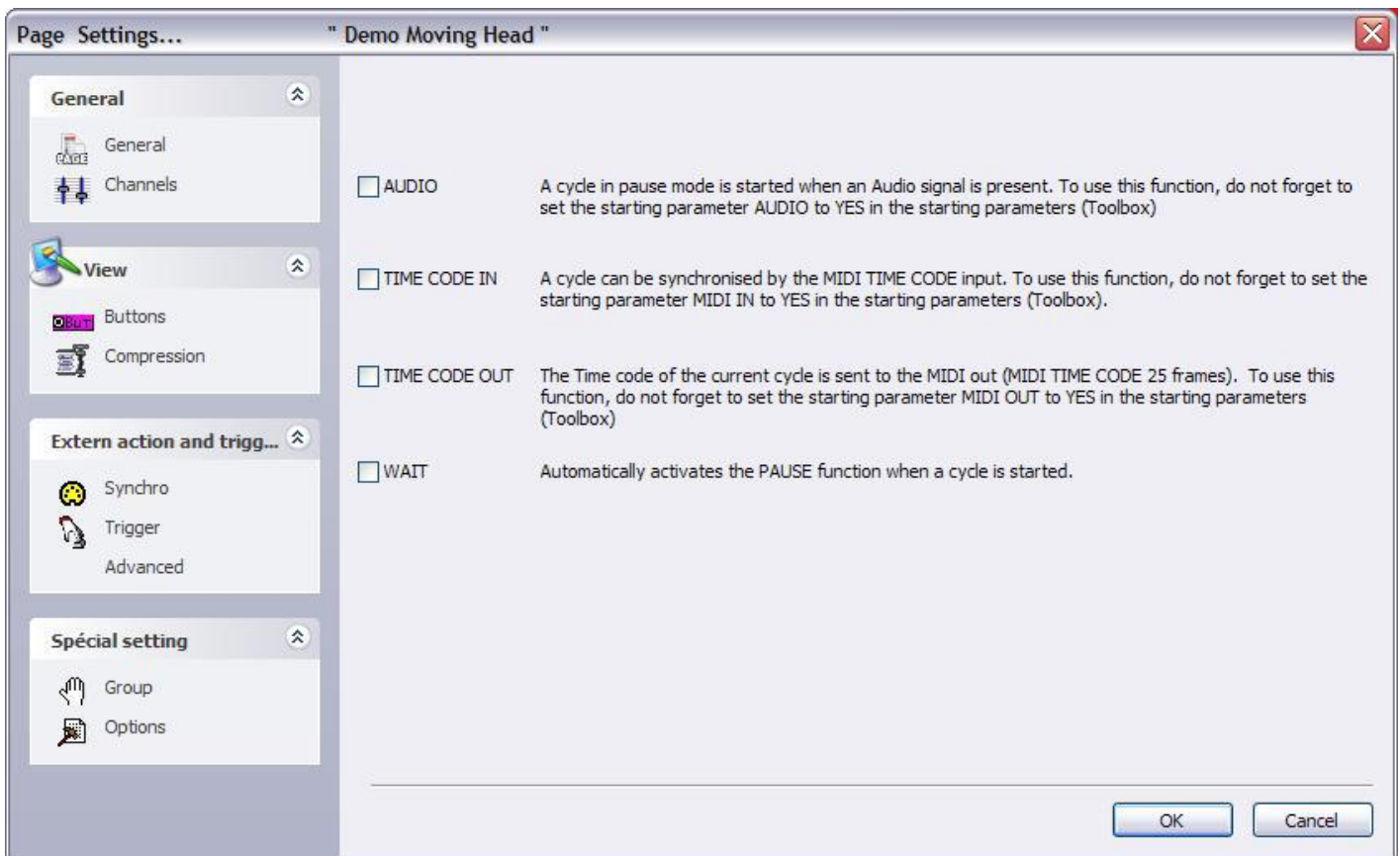
Trigger

Keep in mind that these features act on he current page only and can be assigned differently in other pages.

Some specific features can be triggered either by the computer mouse, shortcut keys, DMX input channels...

For instance, it is possible to start a cycle, stop it, go to the next scene...this is a very important feature for theatre applications. There is always the possibility to play/pause/stop a cycle with a simple action and makes it very powerful and easy to use.

For example, if we wanted to play the selected cycle with the SPACE bar, we would have to select "[6] Play the current cycle" feature and activate the "Key" control before selecting the SPACE bar from the pull-down menu, as shown in the picture above.
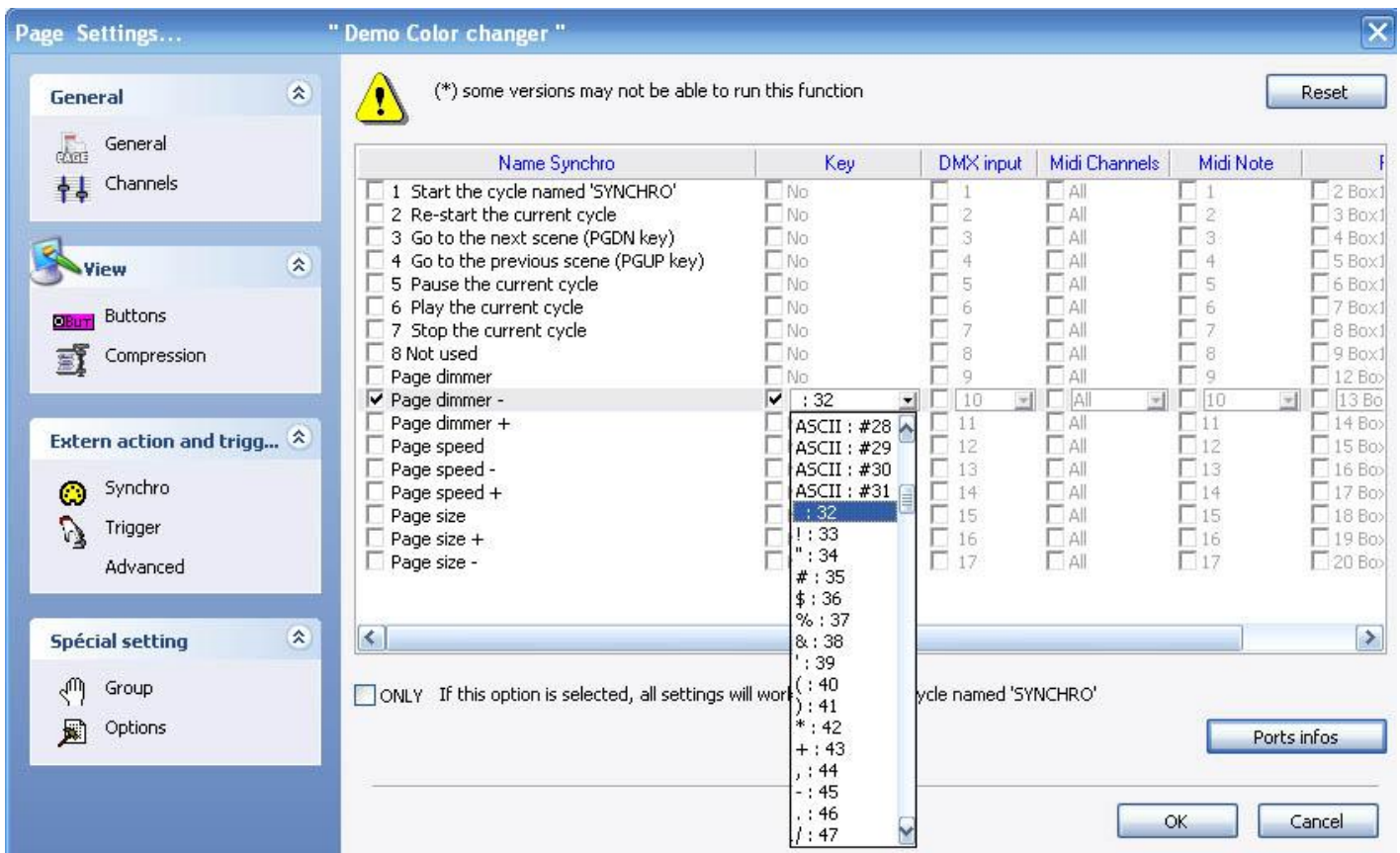
Advanced

The "Advanced" section allows you to assign MIDI commands to a different properties within the page. Notice that the 2006 software allows right-clicking from the controller page and do a simple LINK TO MIDI devices (see "Console" section in Advanced Programming).
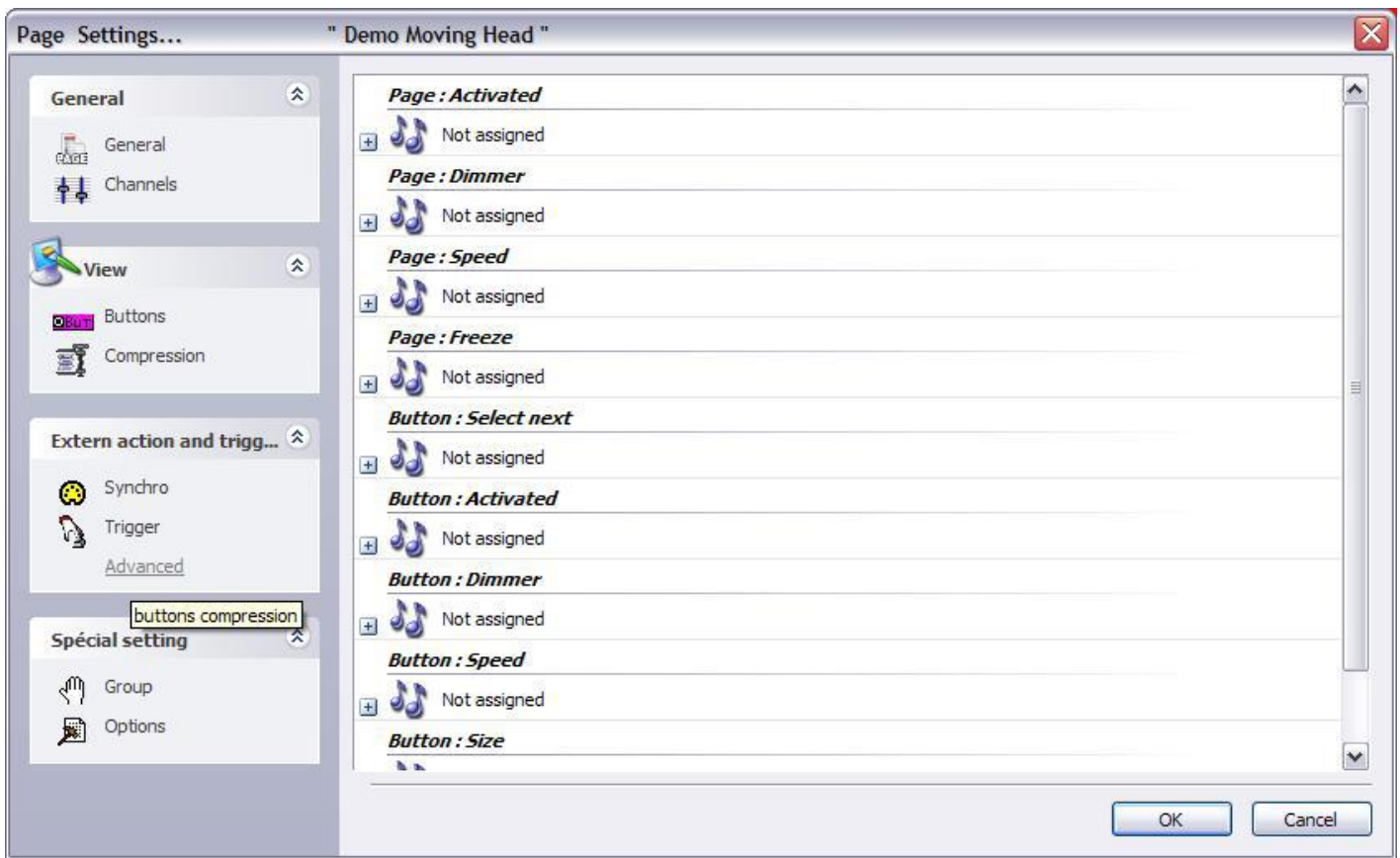
Groups

The "Groups" section allows you to see a table with all your fixture groups within the page and their assigned shortcut keys. You can modify or add groups from this window by right-clicking on it.
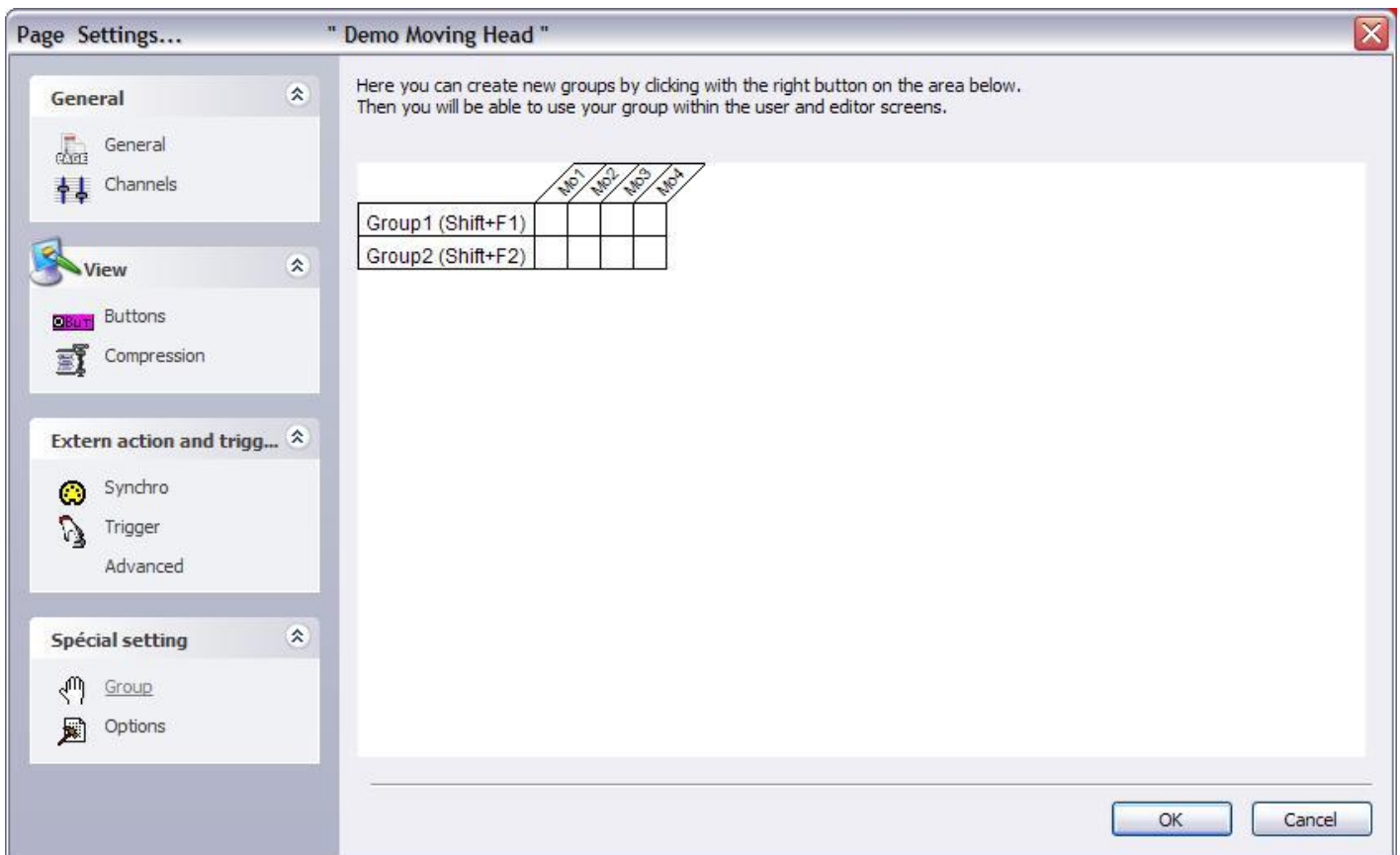
Options

Finally, the "Options" section provides a couple more properties that can be modified within each page.
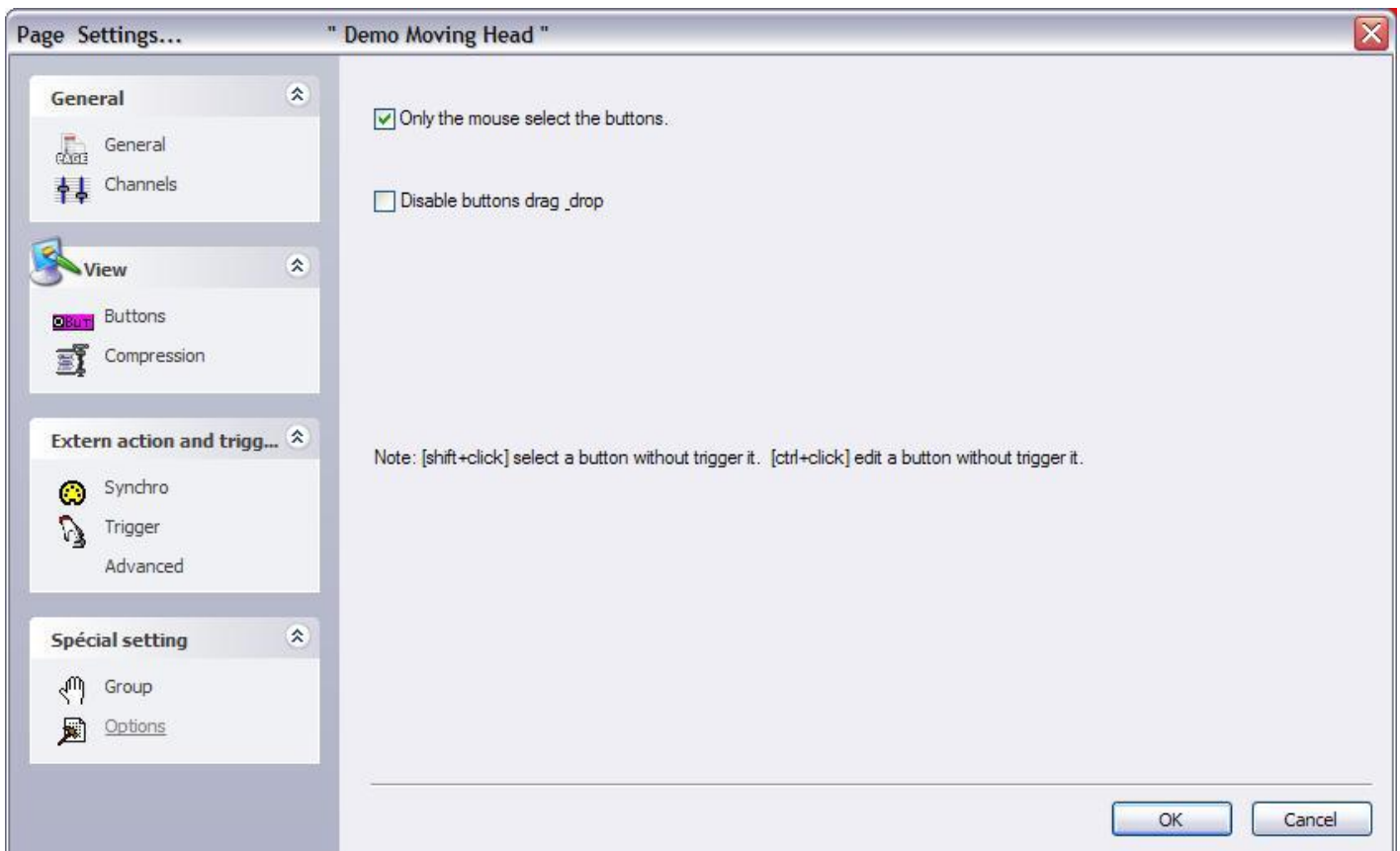
5.General settings

5.1.Starting parameters

The software has several global parameters (ethernet, audio, midi, outputs...) that are loaded at startup. These settings can be modified by the user with the "Starting parameters" window. To open it, go to the "Controller" menu and select "Starting parameters".

3 sections are available: Hardware, Options and Other. Here is a description of the different settings available:

Outputs
The sofware can control up to 50 universes simultaneously depending on the version. This section enables you to patch these universes to the outputs (USB-DMX interface, IP_DMX or ethernet). Every universe has to be linked to a single output. If you want to control your lights (2048 channels) with the Art-Net protocol, you should specify universe #1 on PC-Ethernet 1 output, universe #2 on PC-Ethernet 2 and so on...

DMX inputs
It is possible to connect any DMX controller to the software (depening on the version) to control some features like SPEED, DIMMER, to start buttons or to record a sequence. 10 universes can be linked to the sofware and must be patched in this section.

Ethernet network
The SLNETWORK feature enables you to control DMX interfaces that are connected to another computer in the same network. This function must be enabled in this section by selecting the "Activate Network facility" option. There is also the option of setting up the IP address of the "slave" computer.

Protections
Here you can password protect certian program features, disabling them without the proper password. For instance, this can be used in a club to have the light jockey only use the program without deleting or programming anything. Several levels are available but you can also select the custom level and specify which are the available functions.

Beginner mode
The sofware can be run in 2 modes: advanced and beginner. In this section, sofware restrictions can be setup for the beginner mode. Many options (windows management, menus...) or functions (buttons editing, cycle recording...) can be disabled for the beginner mode.

Audio/Midi
To use the audio (audio analysis) and midi triggering (Easy Console, MTC...), several options must be selected in this section. The 1st option enables you to read the audio signal from the sound card, the 2nd one enables you to read MIDI informations and the last one to send MIDI information to another device.

Pages priority
Here we can setup the priority level between the MASTER page and the sub pages. There are 3 levels:
- LTP (the last action takes the priority)

- MASTER (the MASTER page has always the priority)
- Sub pages (the sub pages always have the priority)

Color settings
Here we can define the colors for the buttons (scenes, switches, cycles).

Follow spot
The follow spot function enables to create a follow spot with moving heads or scanners. A master must be selected and the slaves will follow the same point while it is moving. The sofware must learn the stahe dimension and the fixtures positions for this function. This is possible by recording points on the stage. The more points you record the more efficient is the follow spot. Here we can define how many points have to be recorded, the default value is 25 (5*5).

Reset 3D - Reset SLMM

5.2.Windows management

The sofware offers the possibility to split the screen in several windows: pages, outputs, cycles, groups...Every user can customize the positions and make it easier to use or understand. It is possible to display or not some windows, to change their positions (tabs, splitted...) or to resize them.
One important thing is the "Reset positions" function (Windows menu), that enables to get back to default positions if you can not find a window any more. Two options are available: reset to default or to tab positions. There is also the possibility to lock the screen. We recommend to use this function to avoid unattended "bad actions"...

Let us see how to arrange the windows and customize the screen.

Tabs positionning enables to save place on the screen. It allows to have a quick access to several windows and have them displayed in a larger size than if the screen was splitted. The picture below shows how to modify the position of a window.
Moving a window requires to click on the title bar of the window and hold the button pressed while moving the window. The sofware shows a blue area that represents the actual position and size of the window.
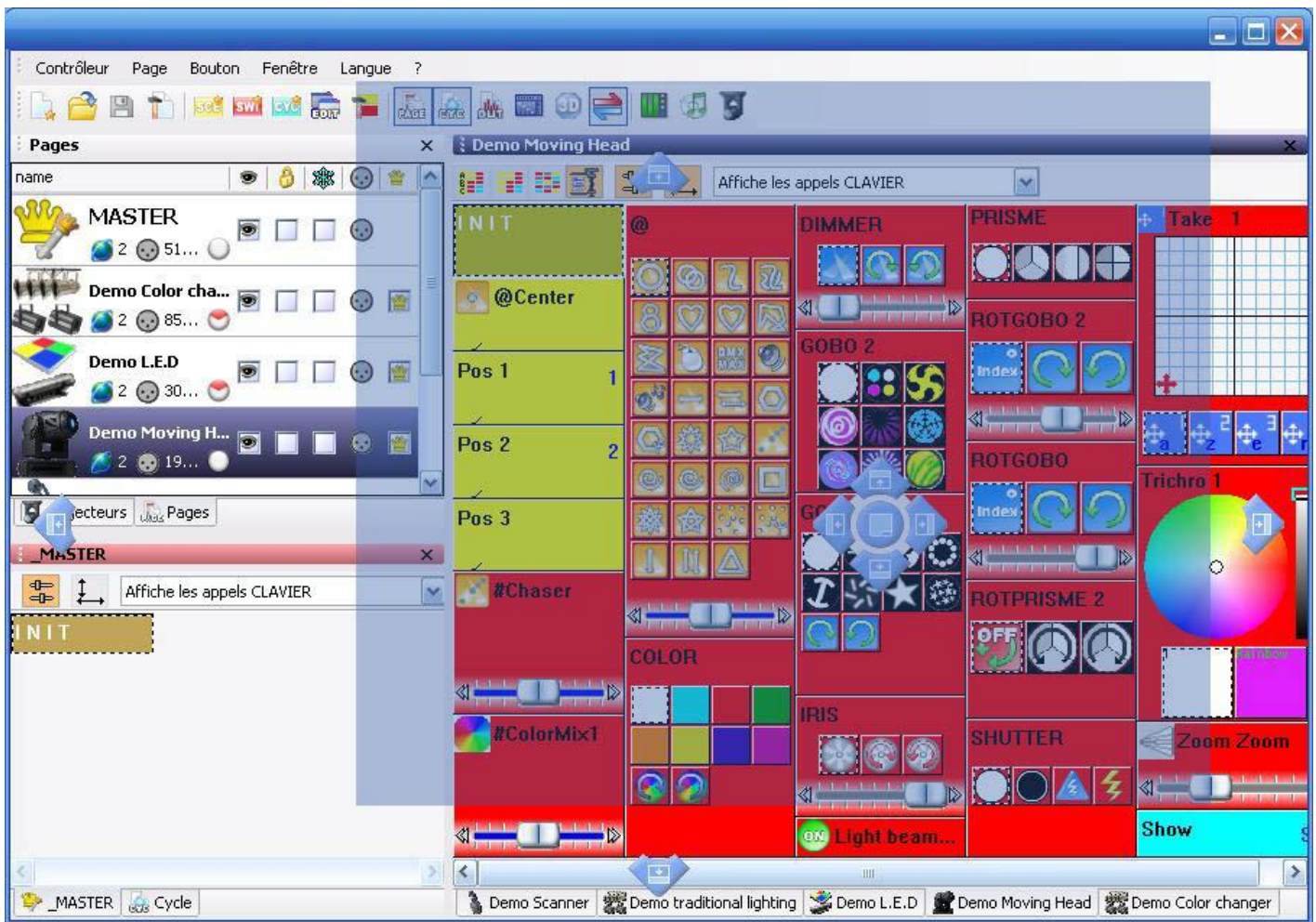
To software helps to find the correct position with the following tool. Moving the mouse on it enales to create to create a new tab or split the screen vertically or horizontally. The icon in the centre creates the tab and the other 4 icons split the window.

5.3.Backup /Technical support

If you ever experience any difficulties with the sofware, there is the possibility to send a complte backup to our technical support. Select full backup from the "?" menu and it opens the following window.
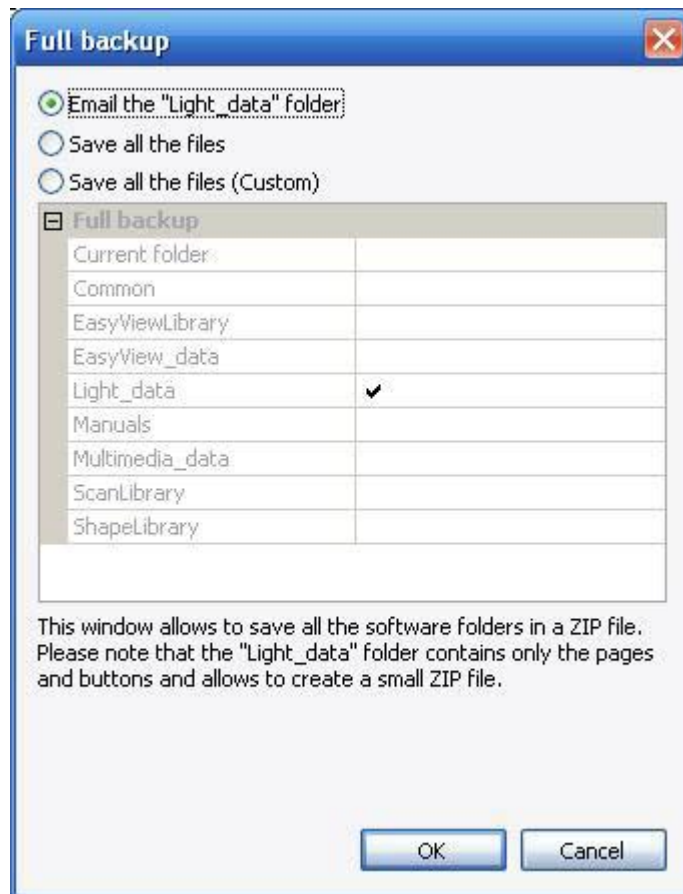
There is also the possibility to send an email to the technical support by clicking on "Email" from the "?" menu or to post a message on our Internet forum at www.nicolaudie.com/forum

5.4.Setting up multiple DMX universes

The software can control up to 50 DMX universes simultaneously. The different universes can be sent with our electronic interfaces (USB or IP) or with the ethernet connector of the computer (Art-Net protocol). It is important to understand how to setup the multiple universes in order to send the DMX information to the correct output. We will see in the following chapter how to setup and use multiple DMX universes with your software.

5.4.1.Using the USB interfaces

Sunlite can operate up to 10 USB-DMX interfaces simultaneously. Then, it is possible to run 10 DMX universes with single output interfaces and 20 universes with new IN/OUT interfaces. We will see later how to convert the DMX IN connector of your interface in a second DMX output.

You must open the "Starting parameters" window and the "Output" tab to setup the universes. You will have to select "USB-DMX" for all universes you want to control with your interfaces.

Do not forget that if a universe is not correctly assigned to a output hardware, you might not be able to control your lights with it.

Use of the DMX IN connector as a second output

It is possible to convert the Input connector of your interface in a second output. To do that, you must open the "Starting parameters" window and the "Output" tab. Then, imagine you want to use the software universes #1 and #2 with your USB interface, you will have to select "USB-DMX" for the 1st universe and then check the box located on the right side of the list. You can now select "USB-DMX (-Out2)" for the universe #2.

Do not forget to purchase or make a female to female XLR converter to connect your lights.
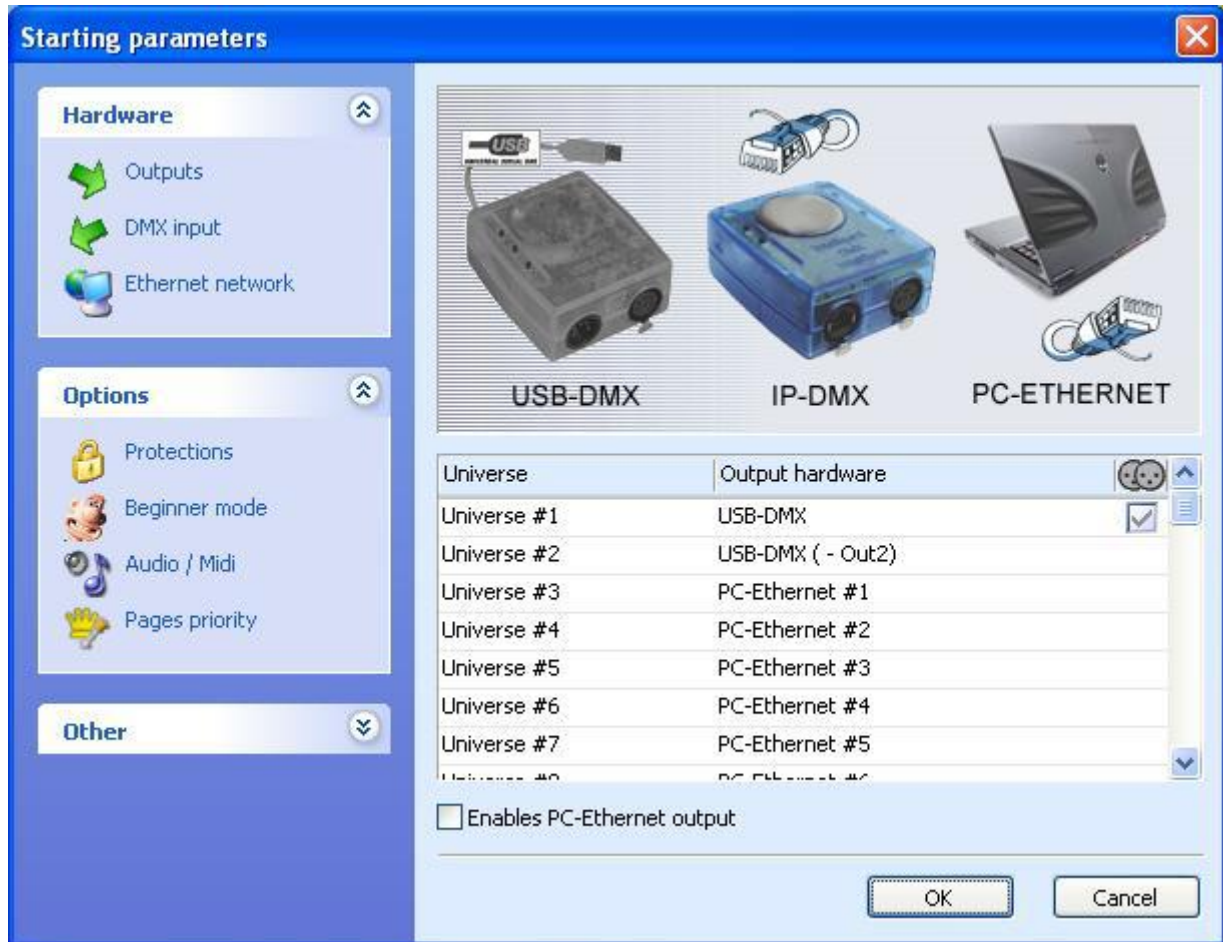
5.4.2.Using the IP interfaces

To use the IP interface you must first make sure that your IP interface is connected and configured correctly, and recognized by the network and the computer which will control your lights. Refer to the Appendix "IP/Ethernet configuration" for detailed instructions on how to do this. Then, in Sunlite, under the "controller" tab, open the "Starting parameters"; then under "hardware" select "output." Here you can select each DMX universe and assign it to a particular interface output. For the IP interface, you must select your universe, then click next to "PC-Ethernet" and a drop-down menu will appear. Scroll to IP_DMX(***.***.*.**) to select this particular IP interface. [Note-Each IP interface will have a unique IP addres that will apear in the parentheses). Click OK, now your universe is assigned to the IP interface

5.4.3.Using the Art-Net protocol

To use the Art-Net protocol first make sure that you have an interface connected to your computer. Art-Net protocol will not work unless you have an interface connected which will unlock this feature. Connect your fixture using your computers ethernet port. Now, in Sunlite, under the "control" tab select "starting parameters" and then under hardware select "outputs." Now simply select the universe and assign it to PC-Ethernet. Make sure to check "Enable PC-Ethernet."
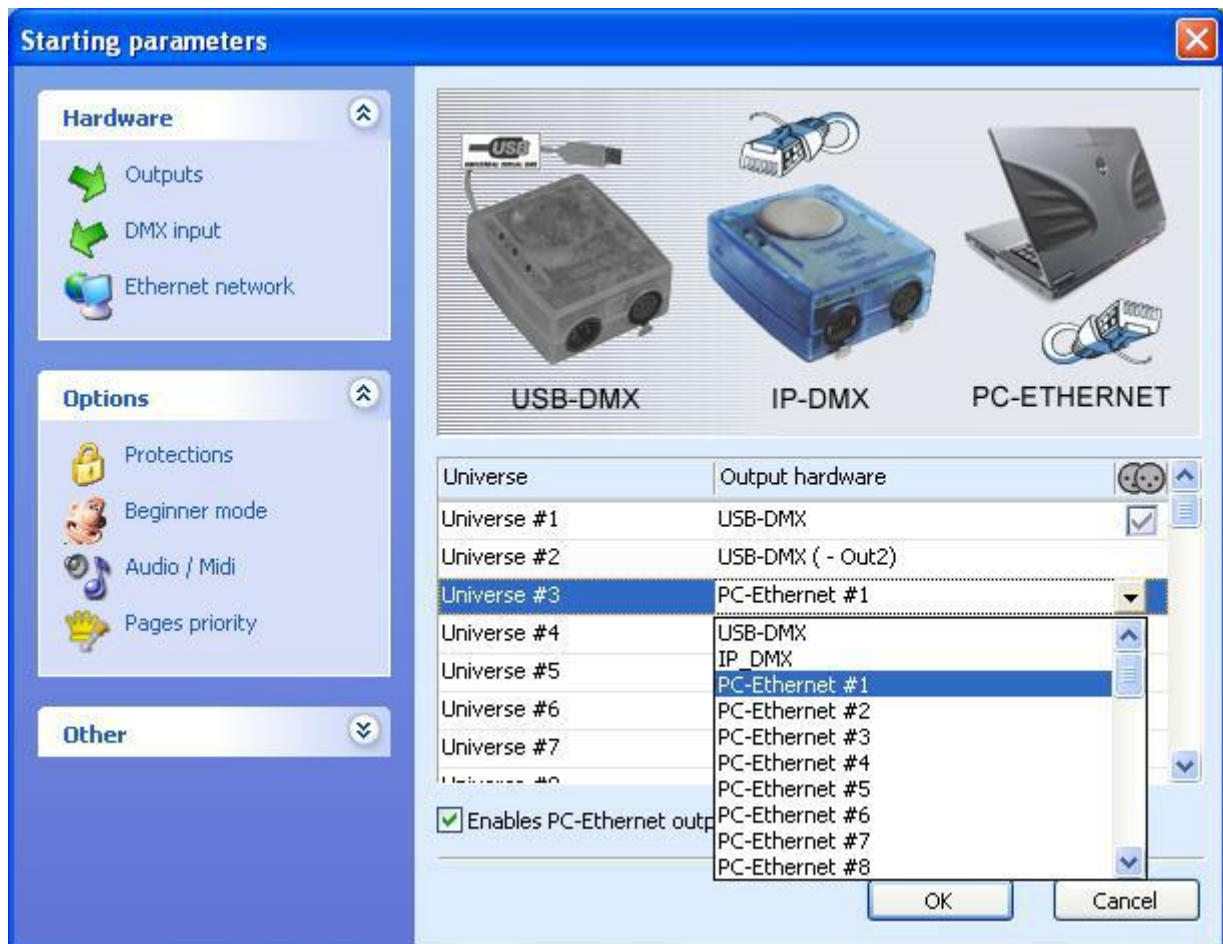
Most of the time, your fixtures won't be able to read the Art-Net protocol and you will have to convert it to DMX using an Art-Net to DMX converter. They ususally convert multiple universes (2, 4, 6, 8...). We can also provide a single universe converter with our IP interface.

Then, do not forget to setup the IP address of your computer on the 2.X.X.X range to talk with the converter. The Art-Net protocol uses this range and both converter and controller must be setup with a 2.X.X.X IP address.

6.Appendix

6.1.DMX512 brief description

By the time you are done reading this section, you will understand how DMX works and why the lighting world uses this standard communication protocol. For a more technical and detailed description, please visit www.dmx512-online.com

1. The need for a standard

About 20 years ago, most lighting and console manufacturers had their own proprietary communication protocols. During installations, it was necessary to use all lighting fixtures from the same manufacturer, of course with their own controller board. If you wanted to use lighting fixtures from different manufacturers (even simple dimmers), each group required their own lighting desk. It is clear that a standard form of communication between controllers and the fixtures was necessary.

2. Understanding DMX

To understand the DMX512 communication protocol (commonly referred to as 【DMX】), we will use the 【Cable TV】 analogy.

Imagine a simplistic cable TV system, with only 4 relevant parts:
a. TV station
b. cable
c. decoder
d. TV set

The TV station broadcasts a signal that travels through a cable network until it reaches a decoder. The decoder receives information on hundreds of channels, but only displays on the TV set the information (in this case video and audio) from that single channel that we select. The TV set ignores the information from any channel that is not selected. It only displays the information from the channel selected in the decoder.

DMX can be related to this cable TV system, where:
a. the TV station is the controller (Sunlite)
b. the cable is a DMX cable
c. the cable decoder is the DMX decoder (which usually is inside each lighting fixture)
d. the TV set is the lighting fixture

In DMX, the number of channels that are broadcasted is always 512. Maybe some of them will be empty or unused, but they are still broadcasted because it is a necessary component of the standard.

So, the controller sends out a signal (512 channels of information), which travels through a DMX cable until it reaches the decoder inside the lighting fixture. In the same way you set the channel you want to watch on your TV, in a lighting fixture you set the channel that you want your fixture to display the information for. This is known as the DMX address.

In other words, if I set my lighting fixture to channel 21, then my fixture⬚s DMX address is 21. Both expressions are common in the lighting world.

Example
Imagine we have a DMX dimmer that controls a simple light bulb. This dimmer is set to DMX address 21, so the lighting fixture will only receive the information from channel 21 and ignore the rest.
We have a controller that sends a signal through a DMX cable and this cable goes into a decoder (the DMX dimmer) that receives the signal. So if the controller sends the ⬚turn on⬚ information on channel 21, the dimmer will turn on the light bulb.

Conventional lighting fixtures (simple dimmers) require 1 channel of information only. However, intelligent lighting fixtures require more than 1 channel to work. For example, if I have a lighting fixture that requires 5 channels of information, and its DMX address is 21 (again, address is the first channel used by the fixture), then this fixture will use channels 21, 22, 23, 24, 25. The decoder knows that the fixture needs 5 channels of information, so it will decode 5 channels only and ignore the rest. The controller knows the fixture uses 5 channels also, so it will send 5 channels of information.

Example
Imagine you have a very simple robotic moving head that uses 5 channels:
1. pan
2. tilt
3. color wheel
4. gobo wheel
5. dimmer
You set your moving head to address 21 and you tell the controller that you have this particular moving head on address 21. The controller then knows that channel 23 corresponds to color wheel, for example. If you want to change the color of the light beam, you tell the controller what color you want, the controller automatically sends this information through channel 23, and the lighting fixture reacts accordingly.

Typically, intelligent lighting fixtures use 1 channel (sometimes more) for every function they can perform (color, gobo, prism, dimmer, etc). Some robotic moving heads use over 20 channels, some simple scanners only 4 channels, etc.

3. The protocol

So far, we⬚ve been referring to ⬚information⬚ traveling through DMX cables from the controller into the fixture⬚s decoder. This ⬚information⬚ is nothing but a number between 0 and 255. This number is called the DMX value for a particular channel. Then, the DMX signal is nothing but a series of DMX values along 512 DMX channels.

Example
Back to our 5 channel simple robotic moving head; channel 3 controls the color wheel, which has 25 different color combinations. The color displayed will depend on the DMX value on channel 3 (as it is being sent by the controller) as follows:
0-10 White
11-20 Red
21-30 Purple
⬚

241-255 ⊓whatever color⊓
So, if the lighting fixture receives a DMX value of 25 for Channel 3, it will display the Purple color. If that DMX value changes to 15, it will automatically change to Red, and so on.

Luckily for us, the Sunlite software (and most controllers) includes profiles for these lighting fixtures. These profiles contain all the DMX values and channel information required to have full control of the lighting fixture. Typically, all you will need to do is set the DMX addresses right, and the controller will make everything else easy (some controllers are easier to use and learn than others, but that is the overall idea).

When a lighting fixture is manufactured, a DMX chart is provided in the user⊓s manual. This DMX chart contains all the information that controller manufacturers need to create these profiles. Most controllers include only the most popular fixtures in their particular market. We can proudly say that Sunlite (and our OEM partners) are the only controllers with over 2,000 different profiles from manufacturers from all around the world, so no matter where you purchased your lighting equipment, chances are we will have profiles for it, which will allow you to control them without a problem.

4. Sunlite Importance

Summarizing, most lighting fixtures and their controllers communicate using a protocol called DMX-512 (for a very detailed description of DMX history and technical specs, please visit www.dmx512-online.com).

Important about DMX and lighting fixtures:
1. Lighting fixtures use 1 separate channel to control every function they can perform (one channel to control colors, another for gobos, another for dimmer, another for shutter, etc)
2. You can use a maximum of 512 channels for every DMX line
3. There is a value from 0 to 255 assigned to every DMX channel

Important about Sunlite and lighting fixtures:
1. When you tell your Sunlite controller what kind of lighting fixtures you are using, Sunlite will know exactly how your fixtures work and what DMX distribution they have.
2. This allows Sunlite to show preprogrammed buttons on the screen corresponding to every function that the lighting fixture can perform (1 button for white color, a different button for red, 1 button for every gobo, for every macro, etc).
3. To begin programming lighting effects using Sunlite, all you need to do is click on preprogrammed buttons!
4. Because of its visual interface and simplicity to program, thousands of users worldwide have chosen Sunlite as their preferred lighting controller

6.2.Accessories

The following is a list of accessories that can be used along with our software and interfaces. It is not a comprehensive list, but it should give you a good idea of where to start looking.

IO Ports and Power Supplies

[Jameco (USA)](#)
639671 Ribbon Cable, 10 conductor, Rainbow
32492 Connector, IDC Socket, 10 contacts
252794 Power Supply 12V/0.25A, 2.1mm

Keypads

Search online for 8 key common or 12 key common. You can use any custom built switch, given that you only need to make simple contact closures even a paper clip could do the trick, if you wanted.

www.designnotes.com
www.allelectronics.com

Relay boards

The IO ports can be closed manually using keypads and switches, or remotely using relays. The advantage of using relays is that you can have any human interface with the Sunlite software working in the background. Some of these relays can be activated via InfraRed remote controls, for instance.

www.rentron.com
www.dataprobe.com
www.quasarelectronics.com

MIDI controllers

The Sunlite software can work with ANY MIDI device. Here is a list of the most popular:

- Evolution UC-33
- Behringer BCF2000

You can search online for these names and compare pricing and features.

DMX Boards

The Sunlite software can take input commands from DMX boards. Any button on the Sunlite screen can be triggered through DMX, and also any fader can be linked to a DMX fader on a board. The following sites will give you an idea of where to start looking:

www.proformance.net

DMX Dimmer Packs

Conventional lighting can be controlled through DMX if these fixtures are connected to what are known as Dimmer Packs. There are many manufacturers out there.

www.proformance.net

6.3.IP/Ethernet configuration

Our Ethernet interfaces come with a factory IP address 192.168.1.20. An IP address is a number that is unique to any particular device within a network. In order to communicate with your interface, you need to manually set your computer⬚s IP address to 192.168.1.xx, where ⬚xx⬚ is any number other than 20. You cannot have both devices (interface and computer) with the exact same IP address, but both need to be within the same subnet (192.168.1.xx).

To configure your computer to work with our Ethernet interface:

1. Connect your IP/Ethernet interface to your computer and to its power supply (9-12V DC).

2. Change your computer⬚s IP address to match the interface's subnet mask. Start from Window⬚s Control Panel, then Network Connections. Double-click on the Local Area Network connection, then click on TCP/IP, then Properties. Change from ⬚Automatic⬚ to ⬚Use the following⬚ IP address, and type:

IP 192.168.1.xx (xx is any number larger than 10, different from 20)
Subnet mask 255.255.255.0

Leave all other fields blank, then click OK. Wait a few moments while the connection is reset between the interface and computer. Close the Local Area Network properties window.

3. Start the Sunlite software.

Once the software is open, go to the ⬚?⬚ menu, then About. A circular popup with the logo will be shown with a white box underneath. In this box, you should read something like this:
Sunlite Suite
June 13 2006(Release date)
***1 SLESA-IP* (interface description in red letters)**

If you can read this interface description, this means that there is good communication between the software and the interface... you are done!
If you cannot read the interface description, this means you probably purchased a simple IP-DMX converter and forgot to also connect the USB interface for the software.

If you go into the CONTROLLER menu, then STARTING PARAMETERS, you will be able to set the universe for each USB-DMX or IP-DMX interface.

Changing the IP address of the interface

If you wish to change the IP address for the Ethernet interface (default 192.168.1.20), you need to do this from the **Stand Alone** software (included in the installation CD). Connect the interface directly to your computer using the cross-over Ethernet cable provided, and set your computer's IP interface within the same subnet as the interface (192.168.1.xx).

Start the Stand Alone software. Go to the TOOLS menu, then IP/ETHERNET OPTIONS. The password is

JULS

In that window you will find LAN settings. Make all desired changes and close the Stand Alone software. Disconnect the interface from your computer and using a regular Ethernet cable (not provided) connect the interface to your network router. When you start the Sunlite software, you should see the same red description for the interface as you did when they were connected directly.

6.4.Troubleshooting

Software and/or interface do not work

1. Check the USB interface
Connect the interface to the computer. You should see 3 LEDs turn on, green, yellow, and red. Green should be blinking slowly. Yellow should be completely on. Red should be blinking fast.
If none of the LEDs are on, check the back of the interface, there is a small switch that turns power ON/OFF. If only the yellow LED is on, then your interface is broken, please contact your retailer to have it replaced.

2. Check software/interface communication
Connect the interface to the computer BEFORE you start the software. After you open the software, the green LED should start blinking fast. If you go to the []?[] menu, then []About[], a popup window will appear with our logo in it. You should be able to read software name and a release date for the software.
If there is good communication between the software and the interface, you should see a description of your interface inside this box as well.
If the green LED is not blinking fast, or you do not see the red letter description, there is no communication between the software and the interface. You probably did not install the drivers correctly.

3. Check the interface drivers
If you are using Windows XP, reconnect your interface to any USB port (a different one, if possible).
Windows will tell you whether the hardware found is new or already installed in your computer.
If it is new, the NEW HARDWARE WIZARD window will appear. Insert the installation CD in your computer, and select Automatic Search (if you do not have the installation CD, go to the Support/Downloads section in our website). Click []Continue Anyway[] when Windows asks you about verification.
After this, Windows should tell you that your device is ready to be used. Restart the software and check

communication (previous step).

4. Double-check interface drivers
If during the installation of the drivers, when asked about Windows verification and compatibility, you selected "Stop installation" instead of "Continue anyway", the drivers will not be installed correctly.
To check if the drivers were installed correctly, you should go into
- Windows Control Panel - System - Hardware - Device Manager
You will see a list that includes all USB devices. If the interface is connected and the drivers are installed correctly, the name of the device will be "Intelligent Usb Dmx Interface". If, on the contrary, you read "Unknown device" with a yellow exclamation point next to it, the drivers are not installed correctly.
To fix this:
- Uninstall unknown device
- Disconnect USB interface, wait a couple seconds, and reconnect
- The "Add New Hardware Wizard" will appear, just follow the instructions (previous step)
- Make sure you select "Continue anyway" when asked about Windows verification and compatibility

5. Test on a different computer
If nothing seems to work, please try testing on a different PC before contacting your retailer to get an exchange. Typically, you should only ask for an exchange if:
- No LEDs turn on, even when you have moved the power switch in the back of the interface
- Only the yellow LED turns on
- The drivers seem to be installed correctly, but the interface/software does not work, and the Device Manager name for the USB device is "SUIDI-OUT" instead of "Intelligent Usb Dmx Interface"

Scenes/Switches do not work

If you find problems using your scene and switch buttons, check for the following common solutions:

1. Deactivate all buttons
Double-click on the [INIT] scene in each page, all buttons should be deactivated. Then start using your buttons from zero and find which button brings the problem at hand.

2. Disable LIVE mode
If you are using the LIVE mode in the FIXTURES-GROUP tool to control fixtures individually within each page, you will not be able to deactivate switches. This could seem like the actual Switches are not working. All you need to do is make sure the LIVE mode feature is disabled, then everything will be back to normal.

3. [AUTO] DMX output window
At the bottom of your screen, you can see the DMX output for the controller. You can force a channel to have a particular output from this window, apart from the signal coming from your scenes and switches. If your buttons don't seem to work, make sure all channels have the AUTO property assigned (right-click at the base of the channel to change this property).

I cannot find my pages

If some of your page windows "disappeared" from your screen, simply go to
- Windows menu - Reset Positions - Reset to tabs
You can also read "Windows Positioning" under the General Settings chapter for more information.

Fixtures going crazy

1. DMX addresses
Make sure the addresses for your lighting fixtures are the same as those defined within the software controller. You can check the addresses from the control software.
2. Fixture profiles/libraries
Sometimes fixtures have different "modes" that increase the number of channels or swap them around. Make sure you are using the right profile for your fixtures.

3. DMX cable
If you are still having problems, try using a different cable (make sure it is a good one).

6.5.Commands summary

User's screen

FEATURES	EQUIVALENT MENUS	SHORTCUTS
Creating a new page	"Page" "New page"	Alt+N
Open archive	"Page" "Open archive..."	Alt+O
Save archive	"Page" "Save archive..."	Alt+S
Freeze channel	"Page" "'Live' Page toolbar" "Freeze"	F12
Short channel level setting	"Page" "'Live' Page toolbar""Set levels"	F11
Enable a manual fading	"Page" "'Live' Page toolbar""Manual fading"	F10
Activate or de-activate fixtures 3D representation (3D software)	"Page" "'Live' Page toolbar""Show fixtures in the 3D software"	F9
SPEED (-) (master)	'Live' button toolbar	F3
SPEED (+) (master)	'Live' button toolbar	F4
DIMMER (-) (master)	'Live' button toolbar	F1
DIMMER (+) (master)	'Live' button toolbar	F2
Master SPEED reset		F1+F2
Master DIMMER reset		F3+F4
Select button		Shift+click
Delete button	"Button" "Delete"	Alt+D
Button settings	"Button" "Settings..."	Alt+P
Edit	"Button" "Edit"	Alt+E ou Ctrl+click
Delete shortcut		Ctrl+Del
Implement new shortcut		Ctrl+key
Assign a MIDI shortcut (display MIDI activation)		Ctrl+Note MIDI
Assign a PORT shortcut (display PORT activation)		Ctrl+Port
Assign a DMX shortcut (display DMX activation)		Ctrl+DMX

Move a button (if enabled on "button" toolbar)		Shift+ right click
SPEED (-) (of selected button)	'Live' button toolbar	F7
SPEED (+) (of selected button)	'Live' button toolbar	F8
DIMMER (-) (of selected button)	'Live' button toolbar	F5
DIMMER (+) (of selected button)	'Live' button toolbar	F6
Display a scroll menu	"Button"	Shift+ right click

Editor screen

FEATURES	EQUIVALENT MENUS	SHORTCUTS
Close and save		Alt+S
Close without saving		Alt+Q
Channel-level display in DMX value		Ctrl+D
Channel-level display in %		Ctrl+P
No channel-level display		Ctrl+N
Visualize right hand part of the channel-list		RIGHT (pointer)
Visualize left hand part of the channels list		LEFT (pointer)
Display preset-list		Right click on channel name
Adjust several similar type of channels to the same value (e.g Pan, Shutter,...)		Shift+click

Cycles

FEATURES	EQUIVALENT MENUS	SHORTCUTS
GO forward		Page Down
GO backward		Page Up
Saving relative time in LIVE mode(if cycle in PLAY mode)		END
Select next recording (if cycle in STOP mode)		DOWN (pointer)
Select previous recording (if cycle in STOP mode)		UP (pointer)