Sunlite 2004 Manual

4 Getting start manual

This step-by-step manual has been written especially for you. It describes the main functions and presents the specific features of our product and will be used as a step-by-step guide when implementing the system for the first time. Our goal was to write out a most concise, efficient and clear guide-book, keeping in mind what would be most useful to the new user.

This manual is not an exhaustive description of this software's potentials. It has been designed for you to have all the pre-requisites to implement your creations in light-control. We have selected the main functions and features in order to grant you some autonomy. (i.e. so as not to have one hand on the key-board and the other flipping through the instructions-manual).

To clearly understand this lighting program, you must understand the purpose of each function:

Pages
The page is what defines what fixture is being used. Basically you can have one page for one kind of fixture. A page shows all the function available on your fixture (colors, gobos...) and contains the following buttons:

Scenes
A scene is basically a cue and can be dynamic (movement...) or static. The software creates pre-programmed scenes allowing to control your fixtures without programming. We will see later how to create our own scenes. When you call a scene, the previous one (in the same page) is automatically released.

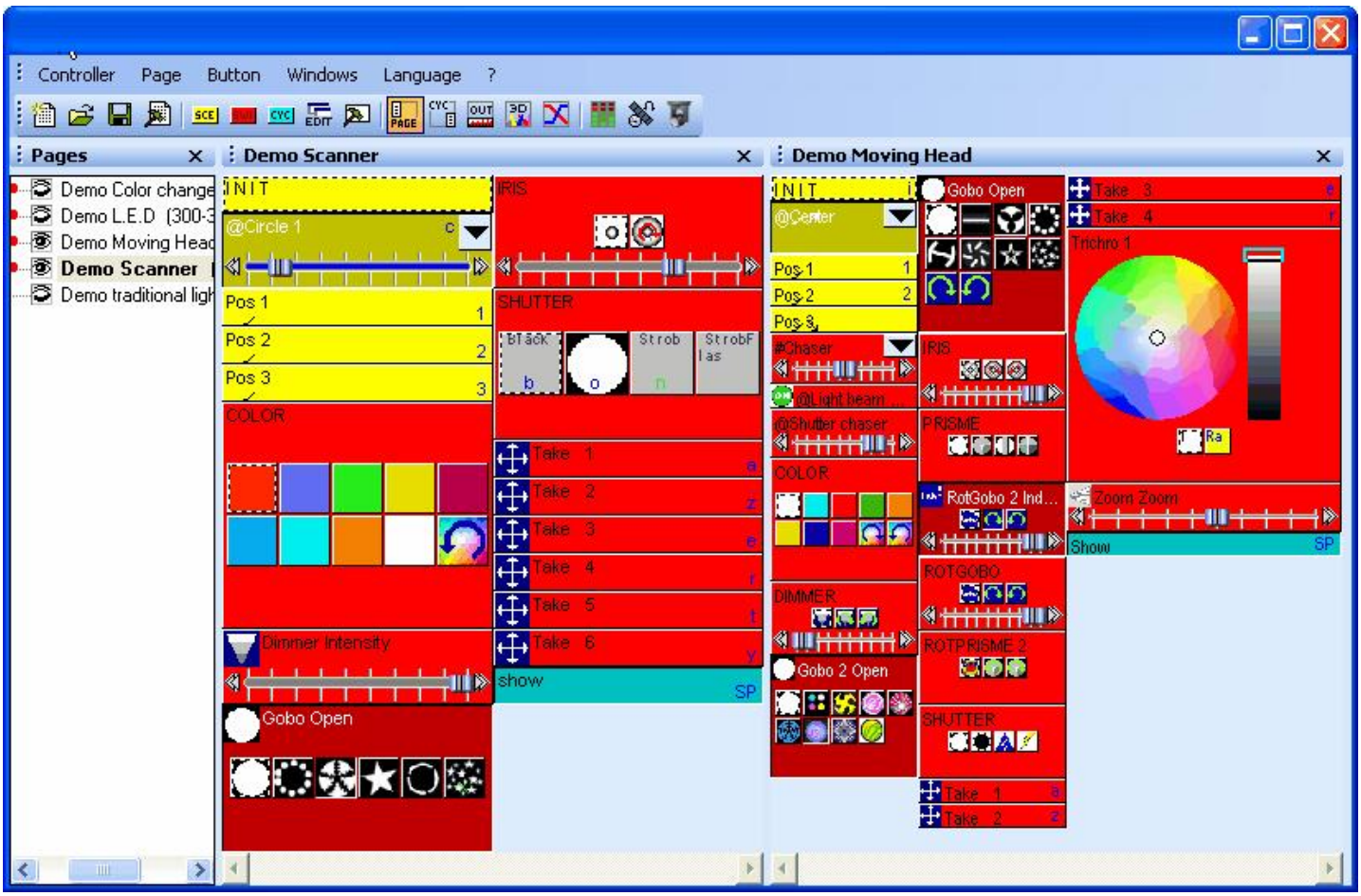
Switches
The switches can be used simultaneously and comprise a click "activates/deactivates" click. Indeed, several of them can be activated at once and you just have to click so as to toggle from active to inactive position and vice versa. They could be compared to contact breakers wired up in parallel. They can be used to change a color, a gobo, reset your fixtures...

Cycles
A cycle is basically a cue list made programmed with switches and scenes. A cycle can also be used to synchronize a sound track (WAV, MP3...) with your lights.

Thanks to this hand-book, we truly hope you will quickly become proficient in the use of the software. Enjoy your reading!

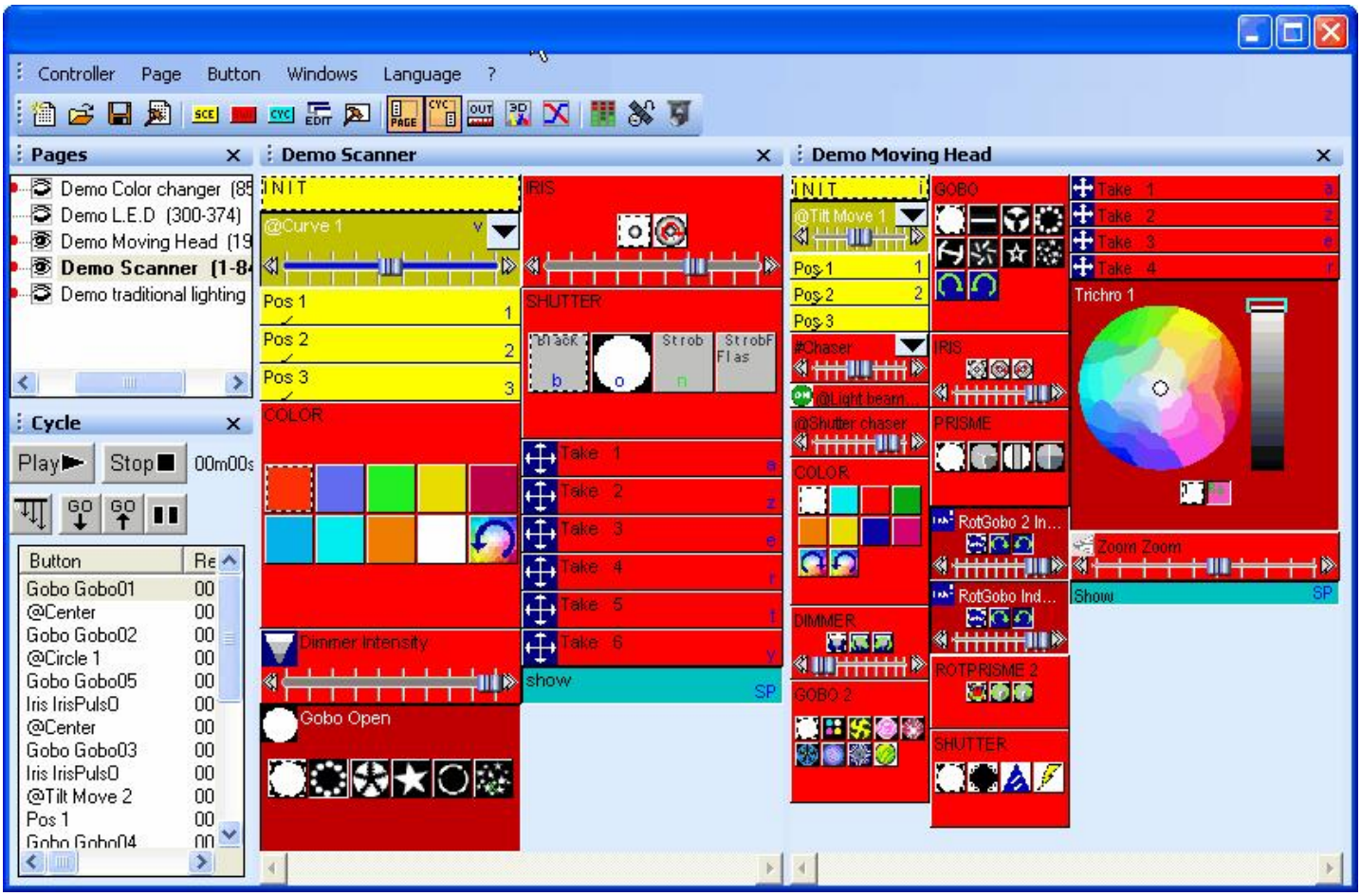
4.1 Customizing the user screen

When used for the first time, the software can be visualized as a button grid.



Utilizing the icons in the toolbar, the screen can be divided in several areas:

	Displays window to visualize "Pages "
	Displays window to visualize "Cycles"
	Displays window to visualize "Outputs"
	Allows visualization of fading windows
	Starts the 3D software
	Starts "Easy Show" software
	Starts "Audio Analysis" plug-in
	Starts "ScanLibrary" editor



These windows can be moved into a re-sizeable and/or hidden floating window.

Such notions as "pages" and "cycles" will be defined later, but first of all, let's have a look at the main area, that is the button grid. Activation of these buttons will allow you to conduct your lighting-control. Some of them are gray, blank and will remain un-activated until they are assigned a specific mode.

You can make a "page" visible or not, but it does not mean that the page is activated (or not). It only means that you can make a page visible as a window or keep it activated but not displayed. In the "Pages" window, visible pages are written in bold. There are several ways to make a page visible or not :

- you can go to the "Page" menu and click on "Display the page"
- from the "Pages" window, right-click on the page name and select "Display the page"
- from the "Pages window", click on the small eye (left of page name, see below).

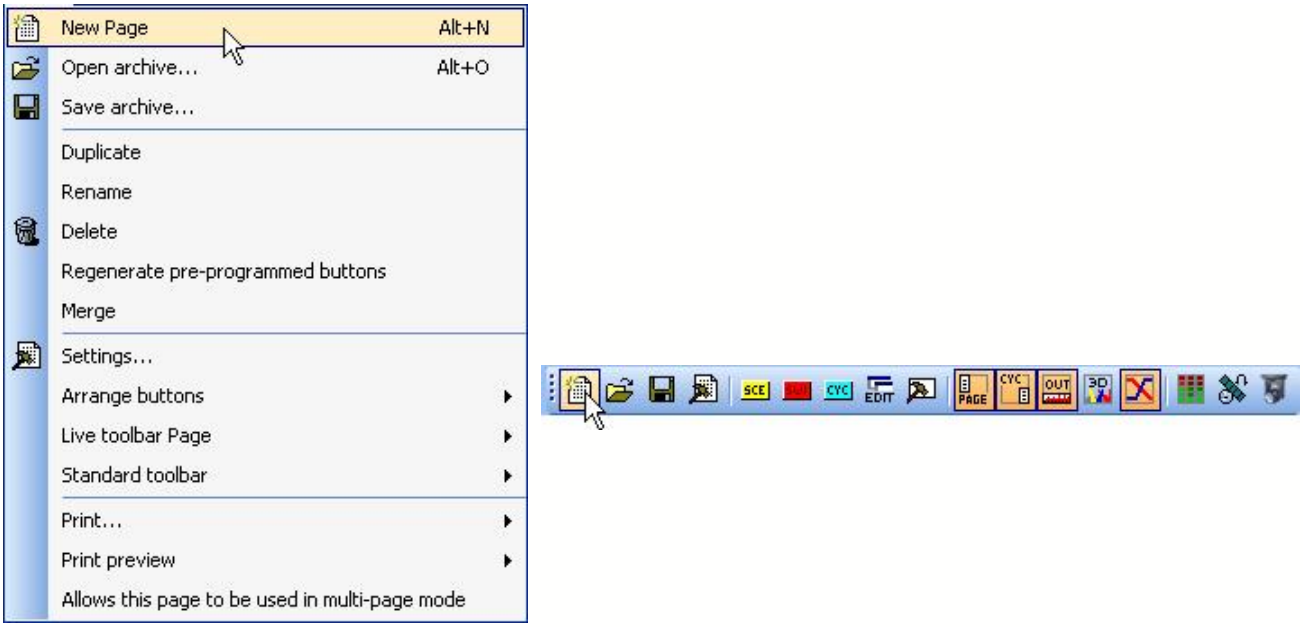
You can restore default positions by selecting the "Reset to default positions" option from the "Windows-Reset positions" menu.

4.2 Creating our first show

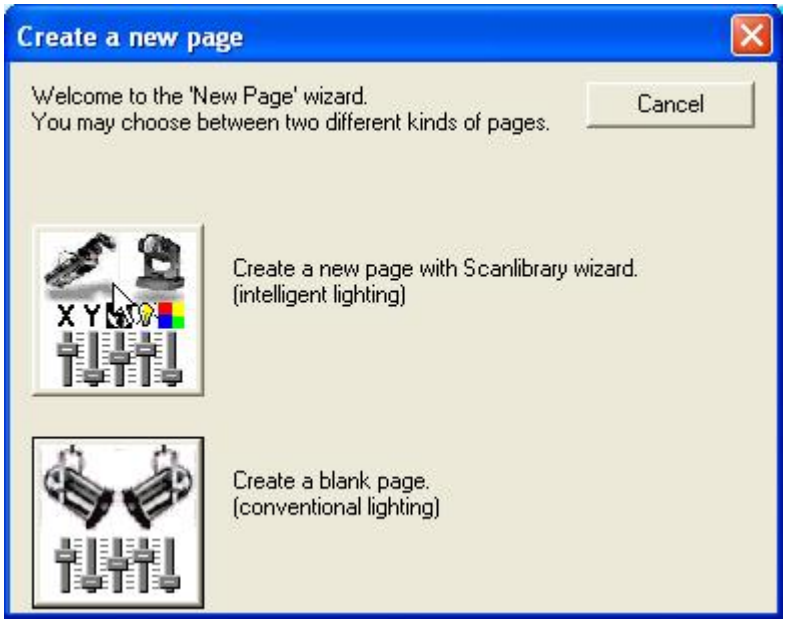
4.2.1 Let us start with 6 SPOT 575

We are about to create our first show with 6 SPOT 575. We just need to know the DMX address of our first fixture and the software will be automatically inserting our 6 moving heads with their correct address. In a few minutes, we will be able to control our fixtures with a real efficiency. Let us start creating our first page now, and see how easy it is to use our fixtures with Sunlite 2004.

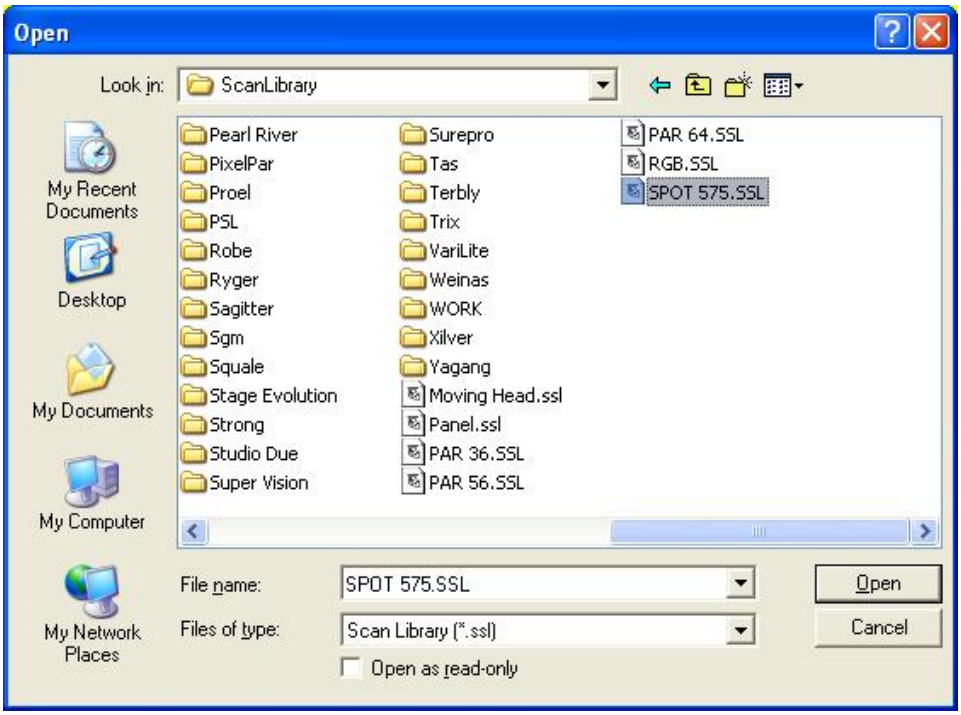
Once the software has been started, we must create a page with our 6 SPOT 575. There is nothing easier. First, we must launch the "New Page" wizard which will guide us during the creation of our page. To do so, we must click on the "Page" menu and select "New page" or click on the "Create a new page" icon from the standard toolbar as shown below.



Then, the following window appears and two choices are possible. We can create a page with the wizard (1st choice) or create a page manually (2nd choice) for conventional lighting. We must select the first choice to create our 6 fixtures.

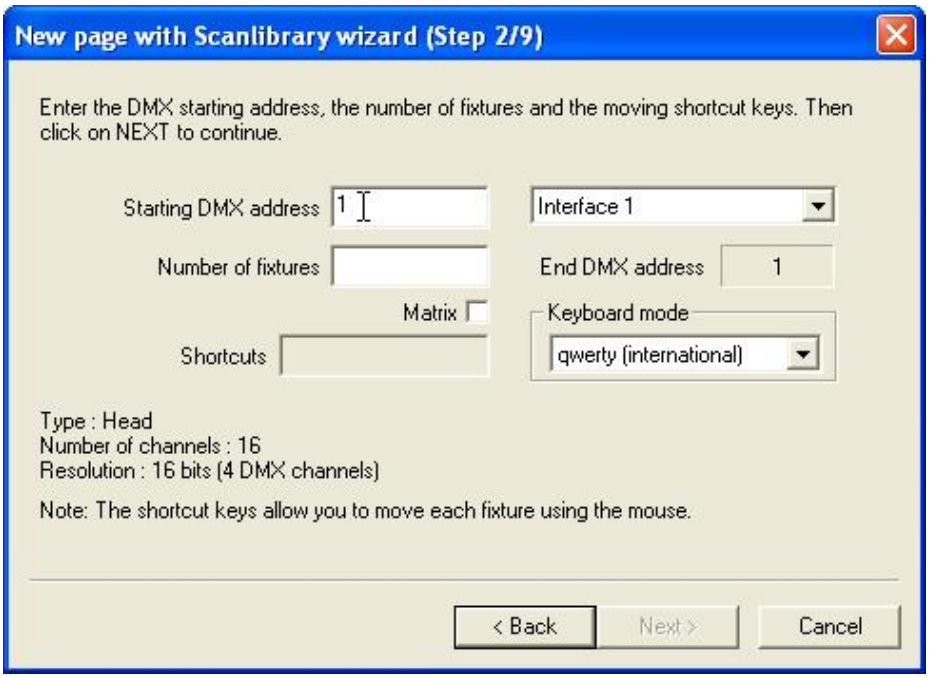


Select the profile of our fixtures from the "ScanLibrary". Click on explore to browse the "ScanLibrary" directory. Browse the "ScanLibrary" to find our SPOT 575 profile.



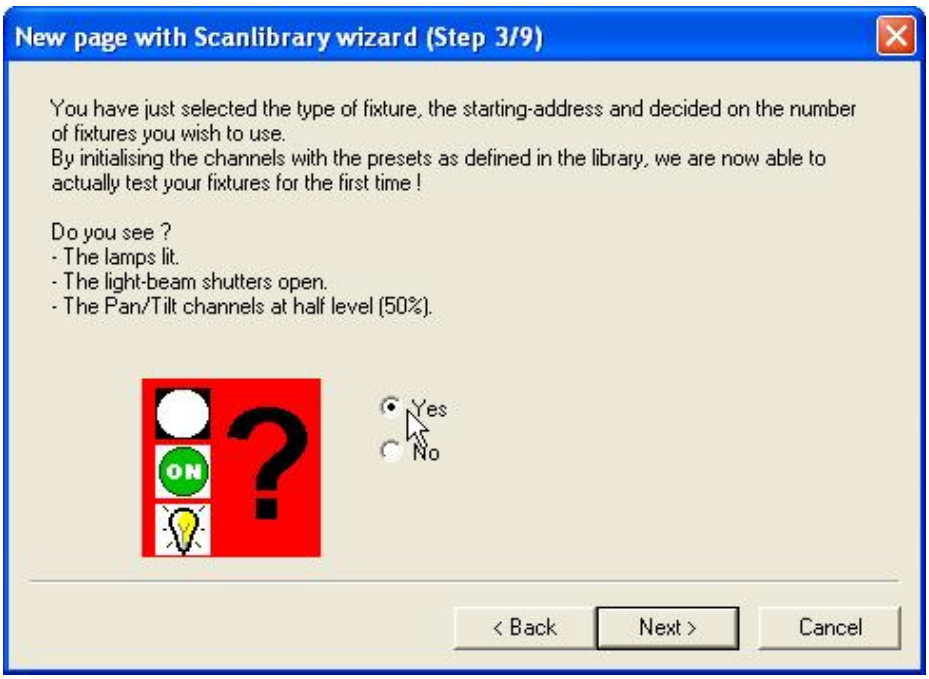
Open the folder of the manufacturer and select the correct library.

Once the library has been selected, click on "Next" button to open the next step.

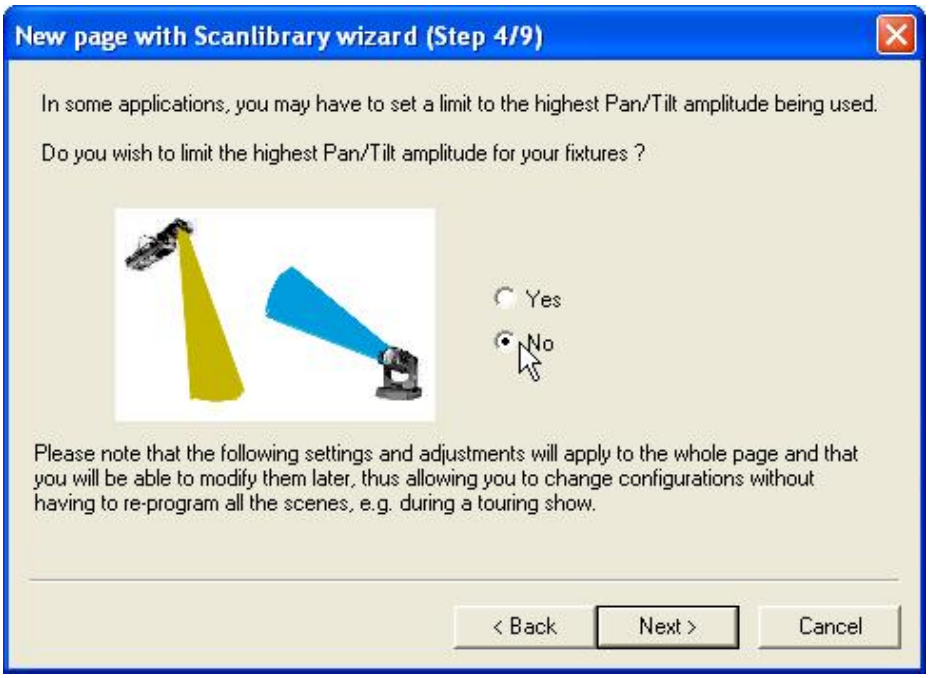


Here, enter the DMX address of our first fixture. So, specify 1 for our first SPOT 575.

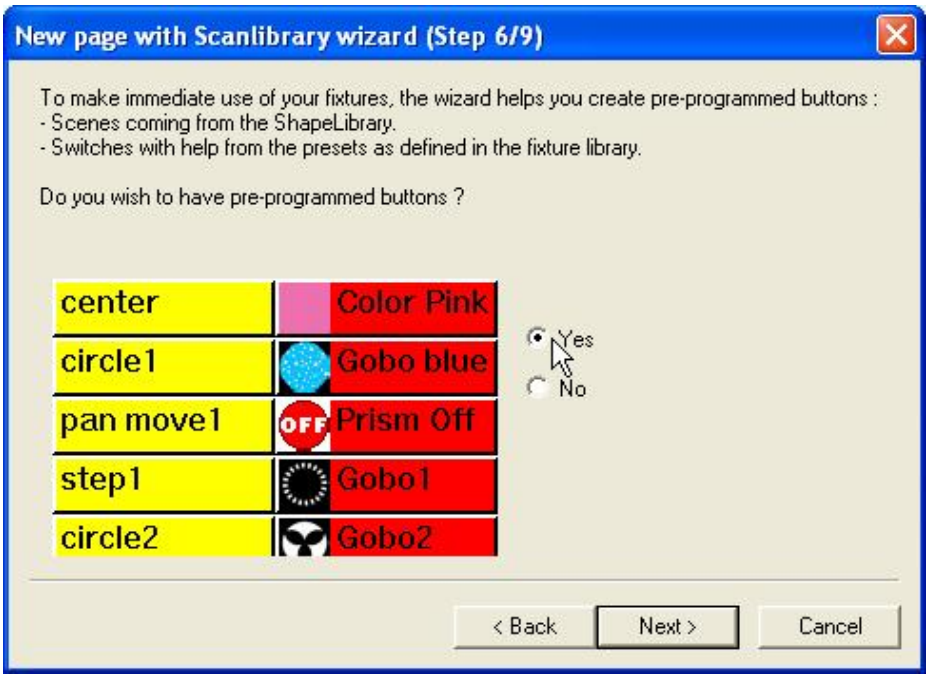
Then, specify the number of fixtures (6 for us) and click on "Next" button to carry on.



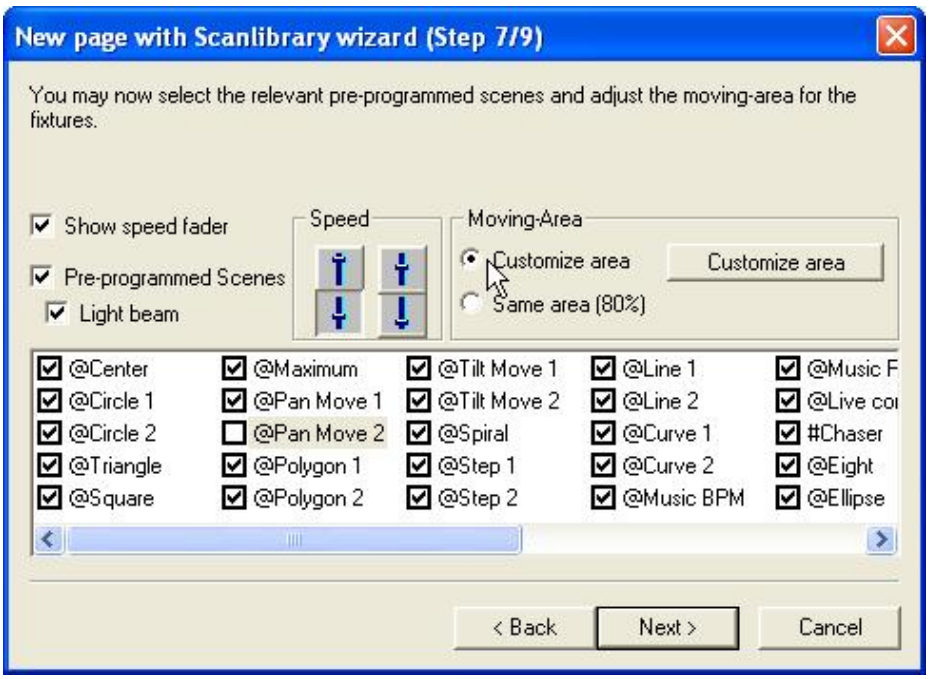
Here we should be able to see the beams of our SPOT 575 and select "Yes" before to click on "Next" button. If we can not see the beams, we must select "No" to check the settings of our fixtures.



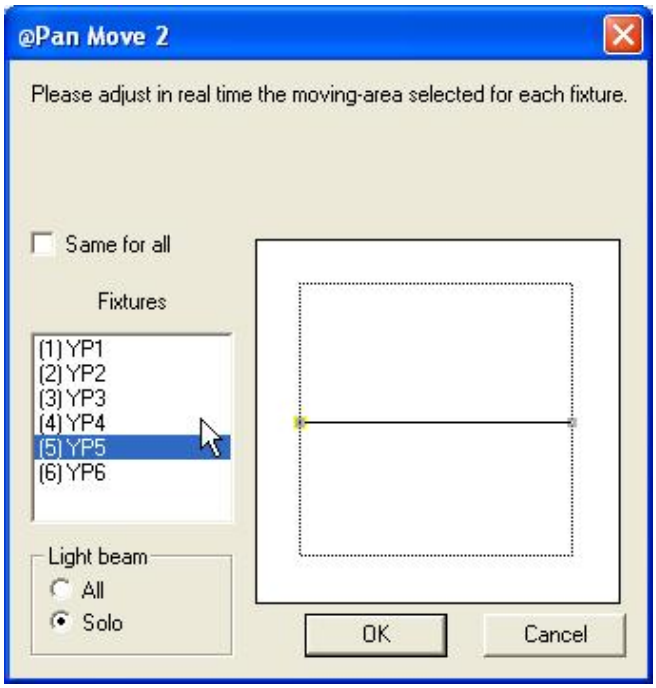
We decide not to change the highest X&Y amplitude for our first page. This means we will use the maximum amplitudes of our SPOT 575. Then, click on "Next" to go to the next step.



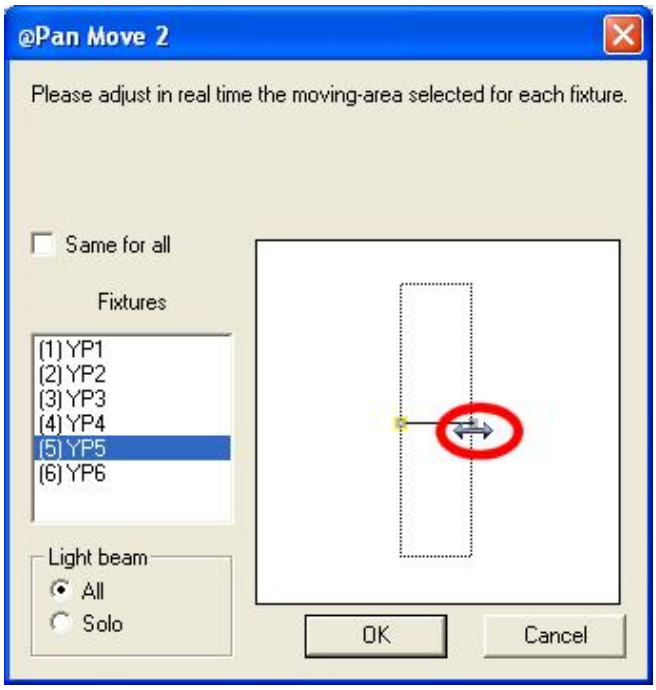
Here is one the most important step. Sunlite 2004 will create pre-programmed buttons (scenes, switches) which will allow us to control our moving heads before programming. So, select "Yes" to be able to use those buttons. Then, click on "Next" to carry on.



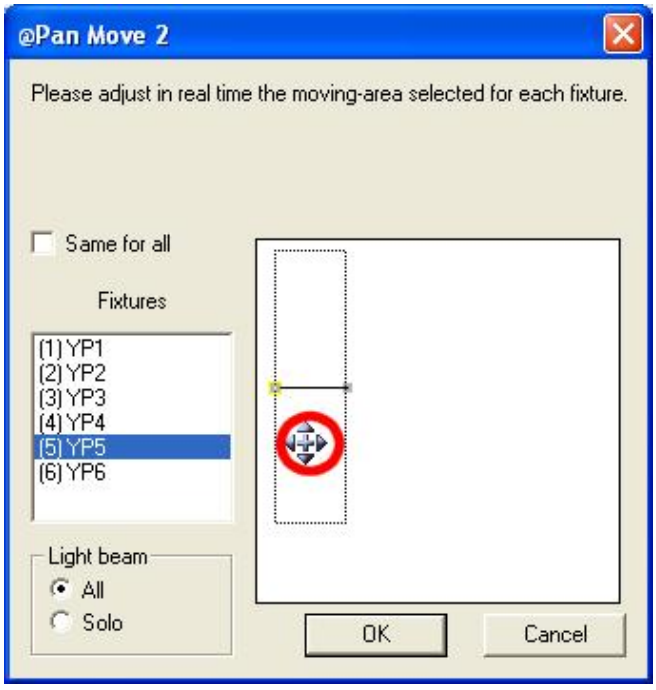
Here we can test each pre-programmed scene with our fixtures and then decide to include it or not in our new page. By default, all the pre-programmed scenes use the same area (80% of their maximum amplitude). However, it might be very important to modify this setting to make our 6 SPOT 575 always move in the wished area (e.g dance-floor...). So, select "Customize area" and click on the associated button to open the following window.



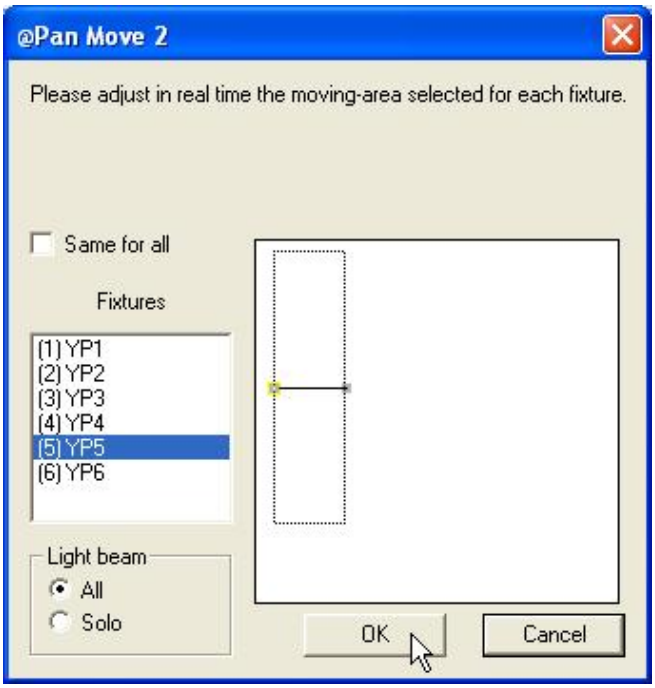
We are now testing the "@Pan Move 2" scene with our moving heads. We can run the scene either independently on each fixture or with all of them by selecting "Same For all". In this example, we will be modifying the moving-area for only one of our SPOT 575.



First of all, we would like to resize the moving-area. We must do as shown above.



Then, we can modify the position of the scene as shown above. Please note that these changes are affected to all the pre-programmed scenes.



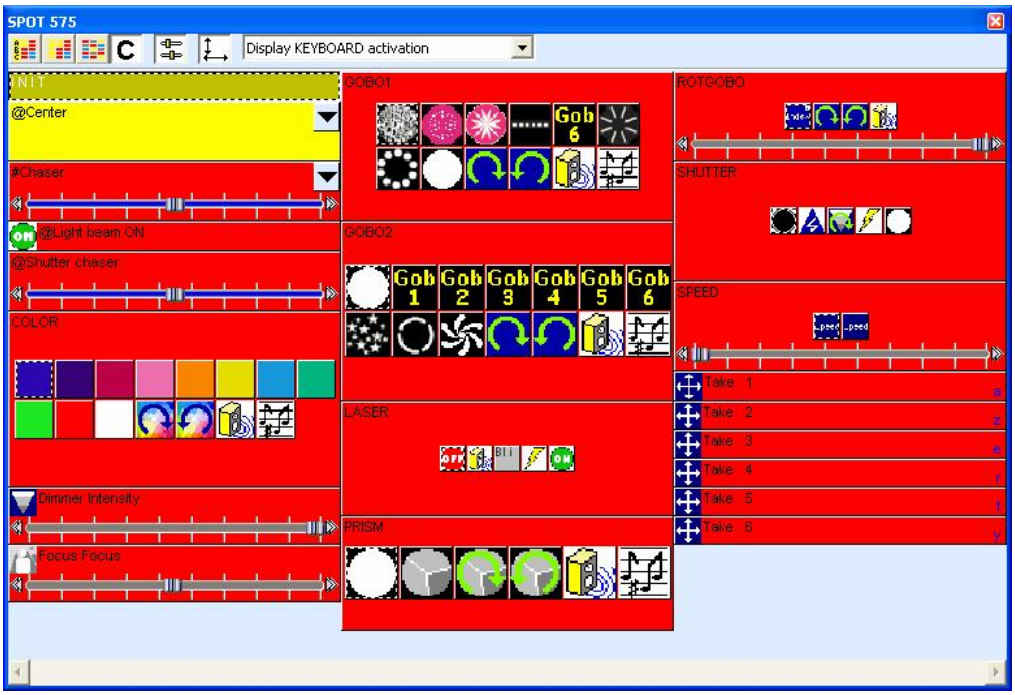
Then, we click on "OK" to save the modifications. You can click on "Cancel" to use the default settings.

Here, we can select the pre-programmed switches we want to add to our page. For each channel of our SPOT 575 (list on the left side) we can check or uncheck the available presets (list on the right side). Then, click on "Next" to go to the last step.

Here we are. We can change the name of our page from this step. By clicking on "Finish", our SPOT 575 page is created and now available in our Sunlite 2004 software.

4.2.2 Using our first page

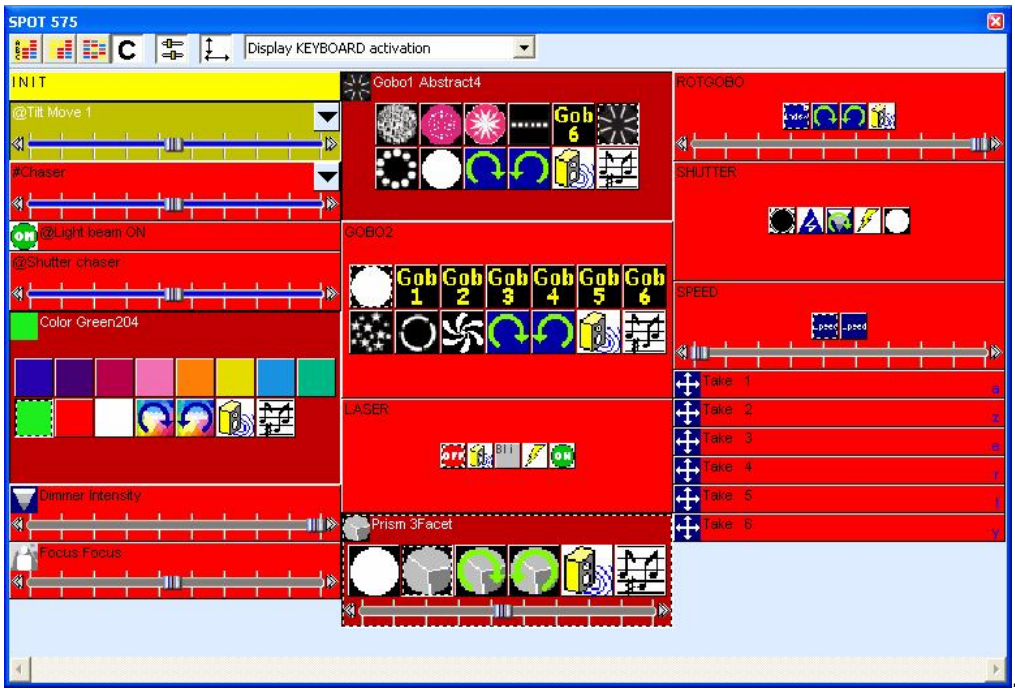
Once created the page appears as follows. All the pre-programmed scenes and switches have been created and our fixtures are now ready to be used.



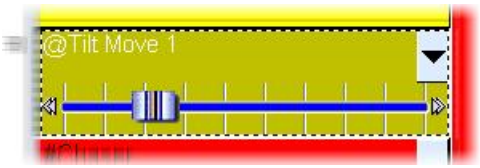
It is now important to give a short description of the page. The page is an independent window that can be moved, resized and/or attached to the software window. Using our fixtures is very easy with all these buttons. All the functions of our fixtures are available and easy to find on the page. In our example, we can find all the colours of the colour wheel (one colour = one button), all gobos...prisms, dimmer...
Let us start playing with our SPOT 575, first of all we can select a scene (yellow). This would open the shutter-beams and select the colour white. To select a scene we must click on the small arrow located on the upper-right corner of the scene button (see below).

All the pre-programmed scenes are now listed and we just have to select one of them. We decide to select the "@Tilt Move 1" scene...and here it goes. Our fixtures are now making a tilt movement. We can also select the "Green204" colour, then a gobo like "Abstract4" and finally a "3Facet" prism and our first effect has been created.

The page appears as follows with a few buttons selected.

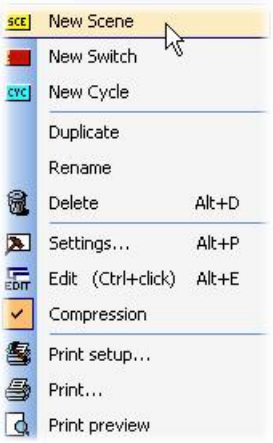


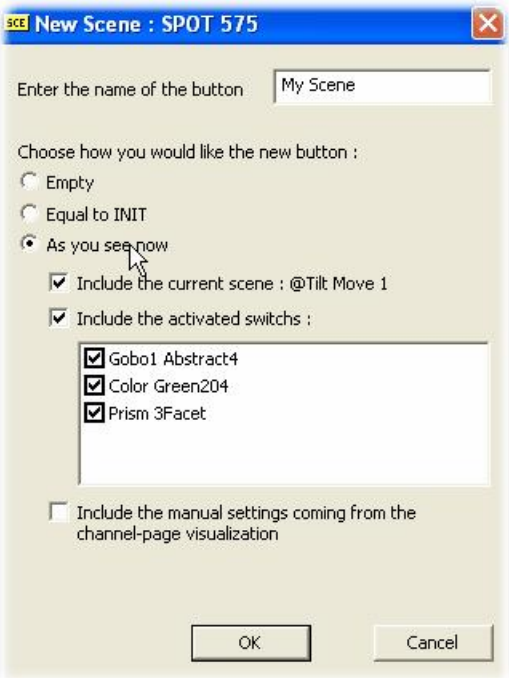
If we think that the movement is too fast, we can decrease the speed by moving the SPEED fader on the button (we can also increase if we want). You can see the fader below. There is one fader per scene, so you can specify a different speed for each of them.



4.2.3 Creating a new scene

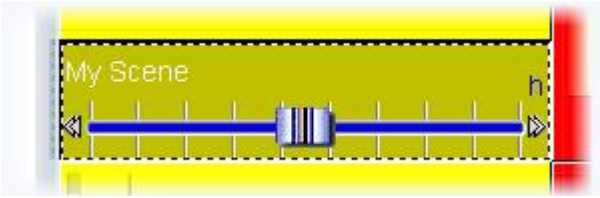
Now we want to save this effect in one scene. To do that, we must go to the "Button" menu and select "New scene". The following window appears. We select the option "As you see now" which means that we want to create a new scene including all activated buttons.



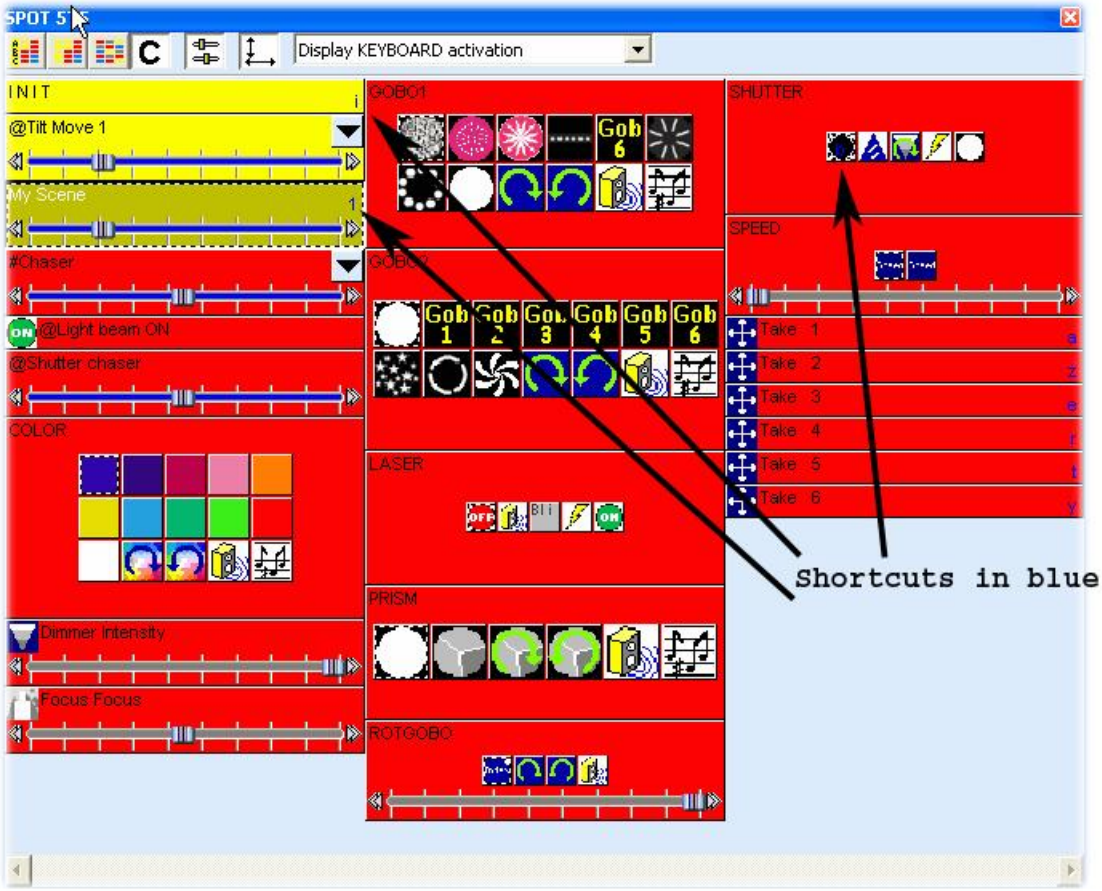


4.2.4 Using the sortcuts

Our new scene is now available in our page. We can test it to check whether everything has been saved. To release all the buttons, we can double-click on the "INIT" scene. However, this should be easier if we had a key shortcut to do so. Imagine we want to use the "i" button to release everything. There is nothing easier, we just need to select the "INIT" scene and press "Ctrl+i" on our keyboard..."Ctrl+h" would mean that we select the "h" key...

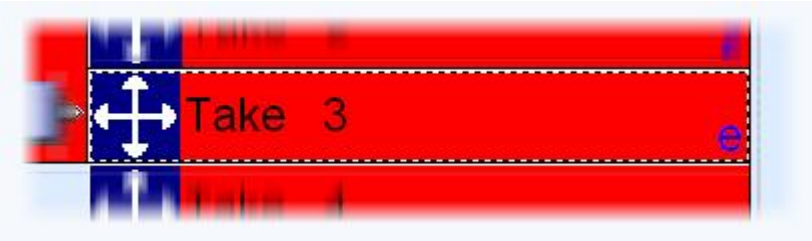


Now we know how to add a shortcut on a button (scene, switch or cycle) by pressing the "Ctrl" plus the key : "i" in our example. We want to add the "b" shortcut to the "Shutter Close" button, we must select the button and then press "Ctrl+b". We can also add a shortcut to our scene, we select the scene and then we press "Ctrl+1". Now we can call our scene with the "1" key of our keyboard. Let us give a look to page now.



4.2.5 Using the "TAKE" buttons

We will now see how to use the "Take" buttons and what we can do with them. They are easy to use and very useful for "Live" applications or to create a new scene without movement. They are made with the "LiveControl" rack which is located in the editor screen. There is one Take switch for each fixture of the page.

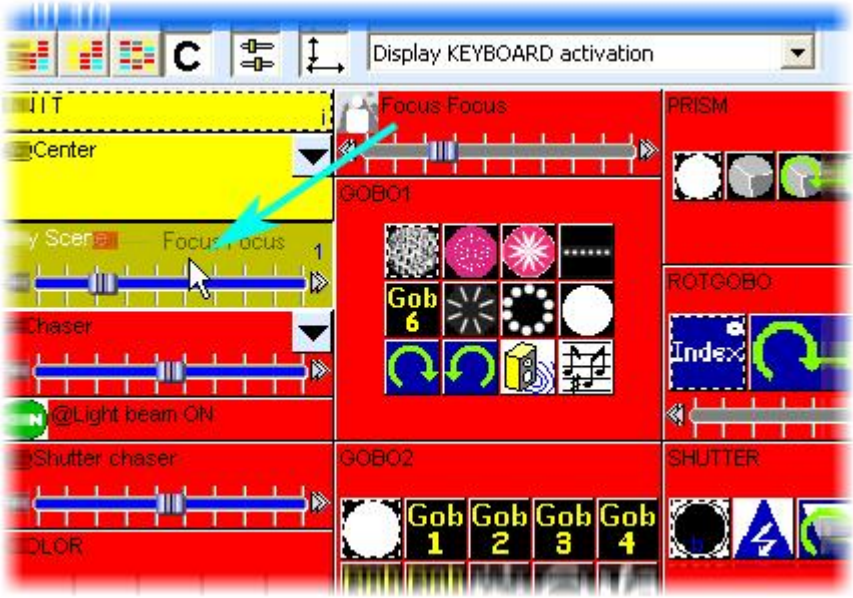


They allow to control the Pan/Tilt channels in real time while a scene is running. Imagine one scene is running with our 6 fixtures and that you want to use one of them as a follow spot. As you can see, each fixture has its own shortcut (a or q for the 1st one, z or w for the 2nd one, e for the 3rd one...depending on the keyboard). So, if we want to call the 3rd fixture we must press and hold the "e" key and move the mouse. The fixture is now following our mouse...You should have an icon like below showing the mouse position while you are moving.

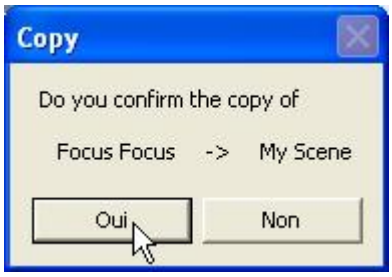
The fixture moves while you are holding the "e" key pressed. When you release the key, the fixture stops moving and stays at its last position. If you press the key again, the take button is released and the fixtures goes back to the scene program.

4.2.6 Using the Drag&Drop

Imagine now that we want to adjust the focus of our fixtures. We click on the "Focus" button and we move the fader until the good position. This means that we keep the same settings for our 6 fixtures, we will see later how to setup a different value for each fixture. Then we can save the changes in our scene...we don't have to open and edit the scene to do that. We just have to drag&drop the switch. Let us see how to do...



First of all, we must click on the "Focus" switch with the right button of the mouse and hold the button while we are moving the switch...Then, we release the mouse button when we are above the scene and the following message box appears. If we click on "Yes", the changes are saved.



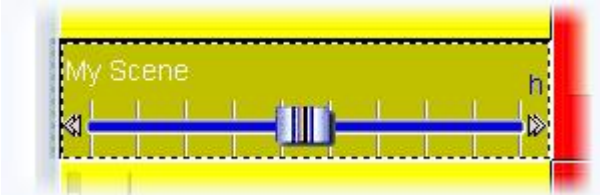
4.3 Continue with the software

4.3.1 What is the difference between a scene and a switch

It is very important to understand the difference between scenes and switches to use the software. Let us see what is the difference.

Scenes

The "scene" buttons belong to an exclusive type (one button at a time). Activating a "scene" button automatically releases the previous button of the same type.
Use the "scene" buttons in order to create lighting environment or control a group of fixtures.
Since a group of fixtures cannot be off and on simultaneously, the latest command has precedence and cancels the previous ones.
Once programmed as a "scene", the button turns yellow.

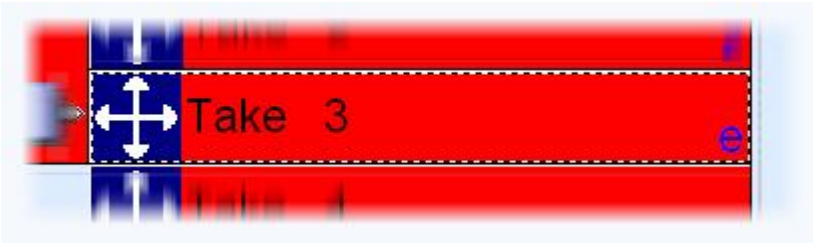


Let us take a chaser for example : Several chasers cannot logically be initiated simultaneously on a whole set of fixtures. On the contrary, it is logical that each chaser should follow one another. Generally speaking, "scene" buttons will enable you to control sets of traditional or, for more sophisticated effects such as moving or light environment, intelligent lighting.

Once again, keep in mind that you have at your disposal an unlimited number of "scenes", "switches" or "cycles". Your work is then optimized without having to pay attention to the amount of buttons available on the "lighting-desk".

Switches

The "Switch" buttons can be used simultaneously and comprise a click "activates/deactivates" click. Indeed, several of them can be activated at once and you just have to click so as to toggle from active to inactive position and vice versa. They could be compared to contact breakers wired up in parallel.



If several "Switch" buttons are activated simultaneously and control the same DMX channel (or several of them) the last one to be triggered takes precedence and releases the others.

Switch priorities

A Selection can be made from a priority-range for a Switch button (in the menu, call "Button, Parameters" and "Switch" index)

- LTP-priority: (default selection) If several switches are activated, the latest one takes priority (This is convenient when using intelligent lighting)
- HTP-priority: If several switches are activated then the highest levels take priority (This is convenient when using conventional lighting)
- ADD-priority: In such a mode, a switch will enable the user to increase current intensity on the channels selected.
- SUB-priority: In such a mode, a switch will enable the user to decrease current intensity on the channels selected.

How to operate LTP switches

LTP-priority is the mots commonly-used mode for Switch buttons it is therefore important to have good command of this mode. The basic principle is: "the latest LTP switch which is activated takes priority."

Caution: this priority can only apply on the channels required. In the case of moving light, the "Gobo" Switches will only operate on the channels corresponding to the Gobos and will have no effect whatsoever on the overs channels. This selection can simply be made via the OFF function. The OFF channels in an LTP switch will not be operational !
Therefore the DIMMER function on 0% and the OFF function produce different results in an LTP switch :
if the channel is on OFF, activating the switch will have no effect on the channel concerned.
if the channel is on DIMMER 0%, activating the switch will force the channel concerned down to 0%.

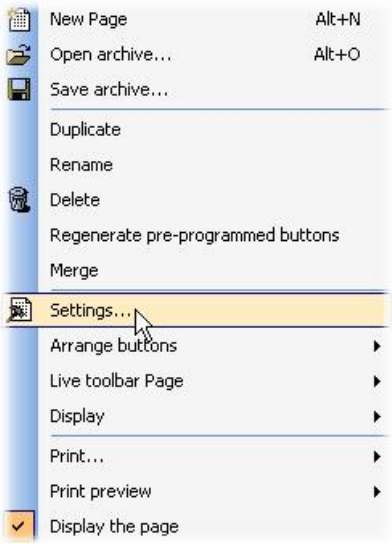
LPT switches also have a "Auto-release" mode.

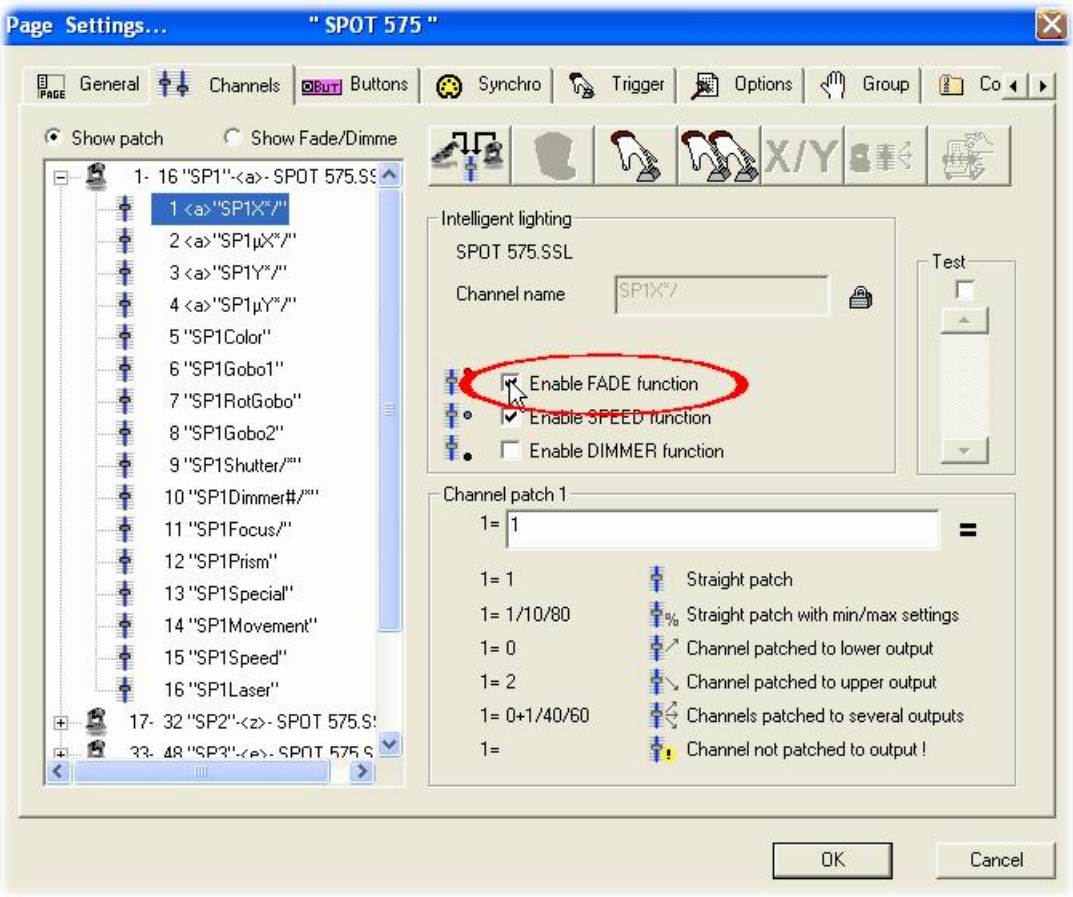
For example, with several switches used for selecting different gobos, if "Auto-release" mode is activated on these switches, clicking on "GOBO-STAR" will automatically release the "GOBO-CIRCLE" switch which was previously pressed.

NB : Auto-releasing among several LTP switches will be fully-operational provided the switches operate on the same channels (i.e. OFF functions on the same channels).

4.3.2 How to make a fade between two scenes

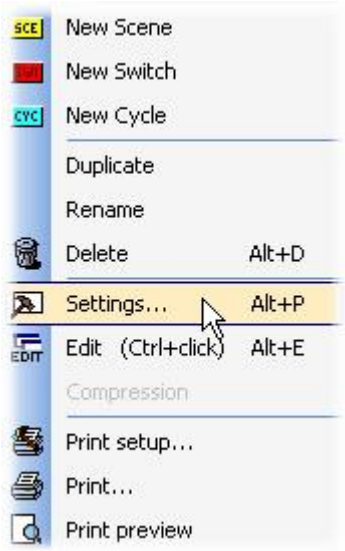
It is possible to fade from one scene to another one. For instance, this is really useful to go from one position to another one very slowly, to open/close the dimmer of your lights...A few things need to be checked before to start programming our 2 scenes. First of all the "FADE" function must be allowed 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).

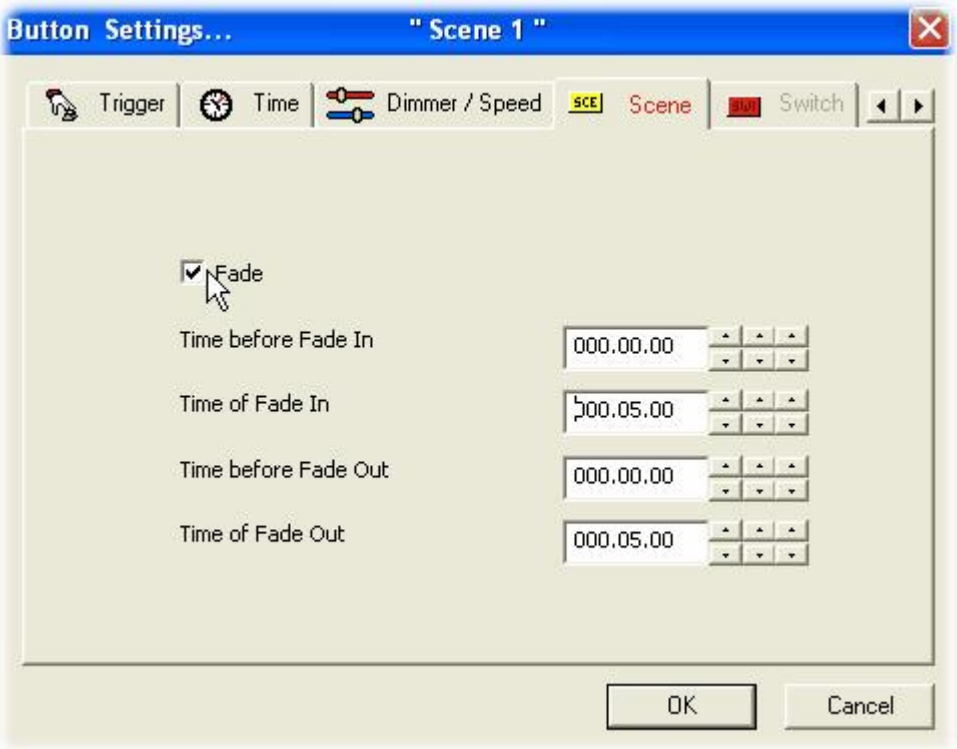




All the channels of our page are listed in the list situated on the left side of the window. We want to make a fade between 2 positions, so we must enable the "FADE" function on Pan&Tilt channels for all our fixtures. Please note that the function is already enable on Pan&Tilt channels...however this 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.

First we start the "@Center" scene to open the beams and to place the fixtures in centre position. After that, we use the TAKE buttons to move our 6 fixtures to the correct positions. When all fixtures are ready, we can save the scene by calling the "New Scene" window from the "Button" menu and selecting "As you see now" like we saw in the previous chapter. Our first scene (Scene 1) is now created and we are ready to enable the Fade function on it. To do that, we must open the "Button Settings" window from the "Button" menu (see below) and go to the "Scene" tab.



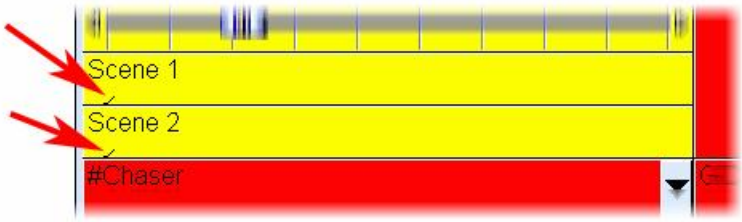


Once the "Fade" function has been selected, we can setup the fade times. Please keep in mind that the channels can have their levels increasing (Fade In) or decreasing (Fade Out):

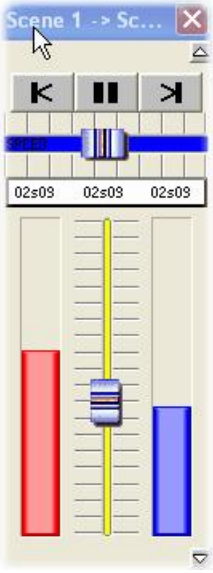
- Time before fade In : Time between the call of the scene and the beginning of the Fade In
- Time of Fade In : Fade In time
- Time before fade Out : Time between the call of the scene and the beginning of the Fade Out
- Time of Fade Out : Fade Out time

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 scene has been programmed to make a fade, we can see a small icon on the bottom left corner as shown below.



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.



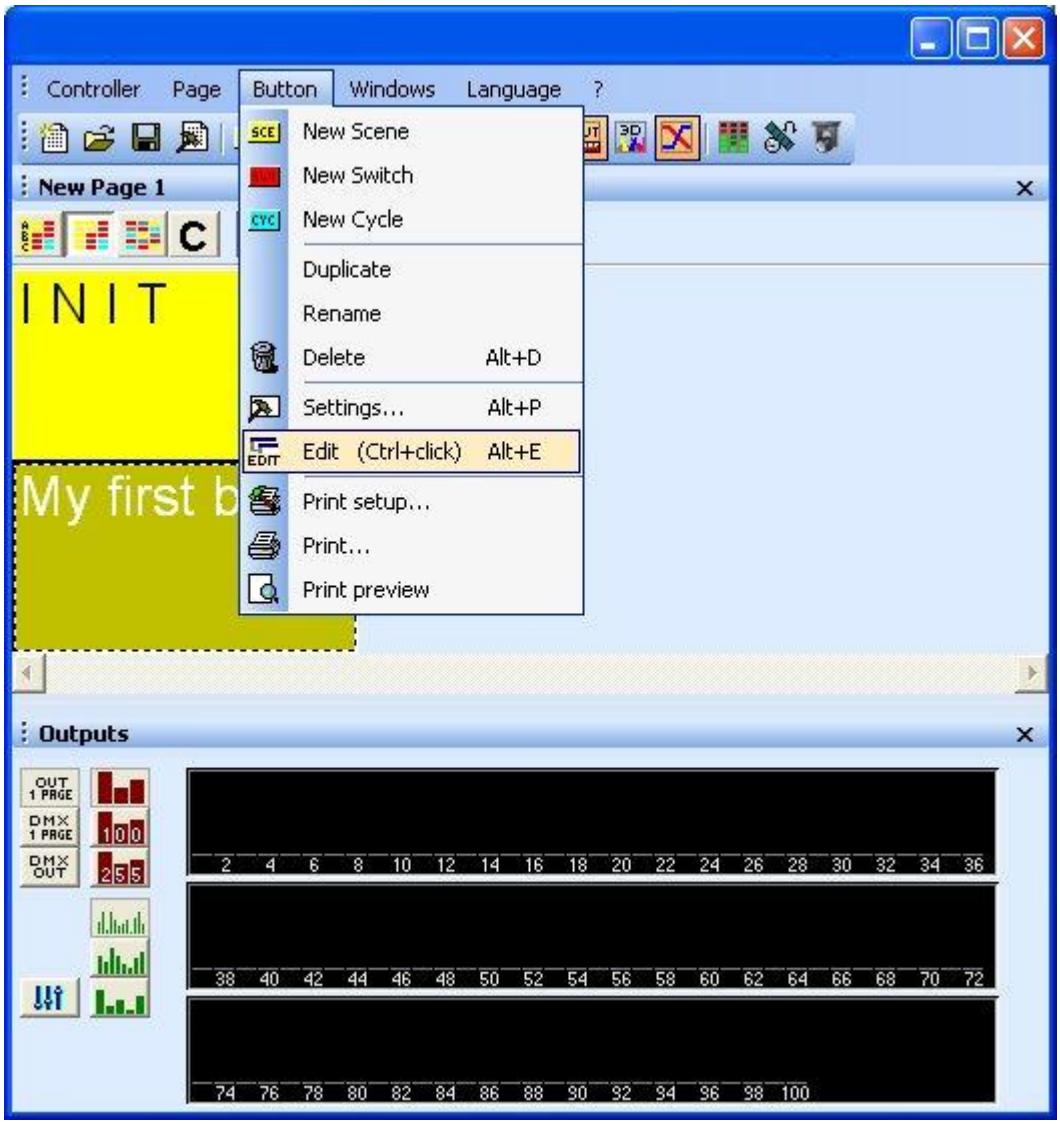
Please keep in mind that the FADE function is not available on channels which have been programmed with the ON/OFF mode. This is very useful to make some channels fading or not in a scene. Imagine you want to fade from one position to another one with your fixtures but you want to change the gobo without 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.

Summary:

A "Scene" in "transfer" mode can be recognized by a small icon	
The fade-out scene	
The new fade-in scene	

4.3.3 How to program a "Scene" or a "Switch"

Now that we have defined the role of different buttons, let's turn to important matters. To program a button, just click it (1) then select "Edit" (2) (from the button-menu). An icon from the tool-bar or shortcut keys can also be used.



Now you can access the programming-window for your button called the "Editor".
The "Editor" features a number of tools. These tools work as independent racks you can access by clicking tabs in the upper part of the Editor.

NB : "Blind" or "Live" Editing ?
If a button is activated on the page (button is pressed) edition is in "Live" mode. Then, you can master the fixtures. In such a situation, the edition icon is displayed as a "Green Light".

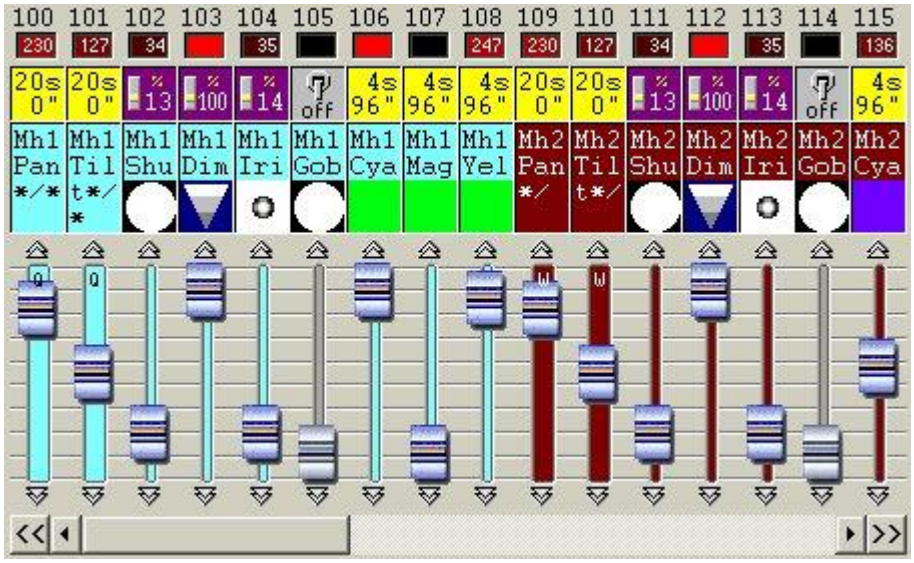
If you wish to modify any programming in "Blind" mode, the button should not be activated on the page. (button released) In such a mode, the Editor icon is displayed as a "Red Light".

Shift-Click enables you to select a button without actually activating it if you wish to start editing immediately in "Blind" mode. (Shift-Click means Keeping shift key pressed while clicking on the button)
Transition from "Live" to "Blind" or inversely can be carried out directly from the Editor by clicking "Live --> Blind" or "Blind --> Live"

4.3.3.1 The "Editor" screen

In the upper part of "Editor" you will find a number of modules which you can use. The "EasyTime" module is the most important one and is the best tool to control your channels in step time. It is displayed first and should be mastered first for convenience. The other racks make it possible for example to program chasers, to create a "follow spot" or to use "MIDI" functions for instance.

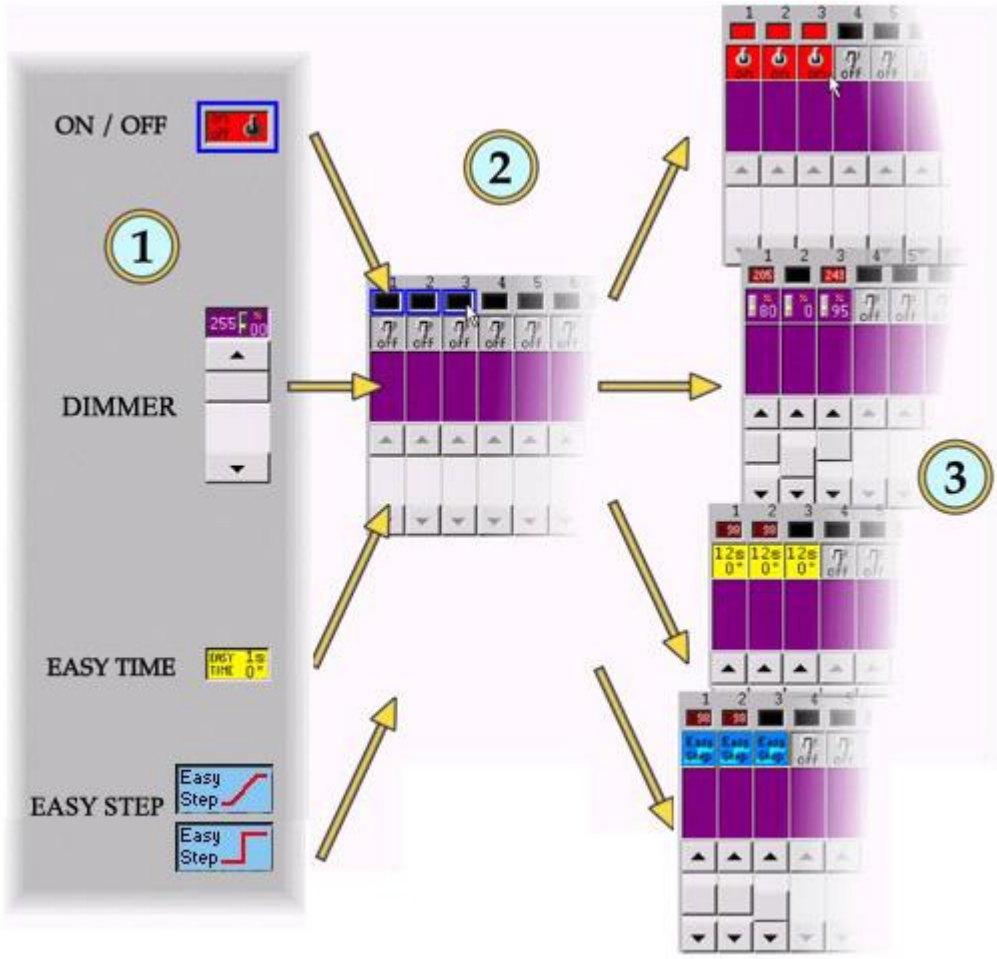
The lower part of the "Editor" displayed as a horizontal-scrolling window, you will find all the channels accessible on the active page, (i.e. the page which the button comes from). These channels are those allocated (and assigned) in the patch of this page…
Therefore, it is no use trying to find "Spot 575" channels when editing a scene from page "Spot 250". In extreme cases, it can be said that a page can store from one channel up to a maximum 2048!



Each channel is therefore represented as a fader whose position adjusts the DMX value. Above the fader, there are three indicators. For instance, the largest area will directly show you the active gobo or the color being used in the shape of a mini-icon.

4.3.3.2 How to use the "Editor"

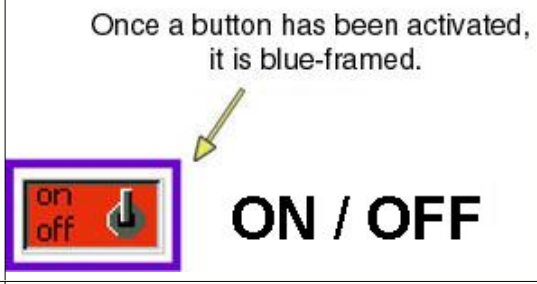
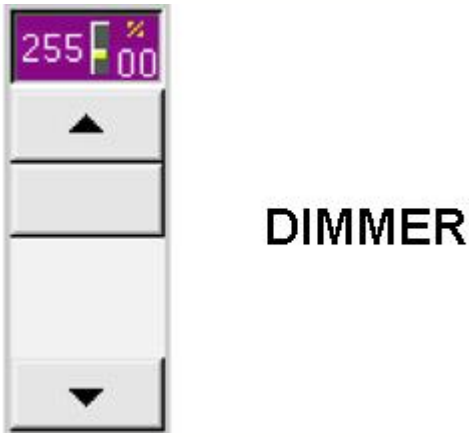
To use the "Editor", select the mode (1) then assign it to the leds of the channels you wish to program (2). There you are ! (3).
Each channel displays a specific icon which clearly shows its programming-type.



The following icons may be found:

	"ON" mode
	"OFF" mode
	"DIMMER" mode
	"EASY STEP" with fade mode
	"EASY STEP" without fade mode
	"EASY TIME" mode

The "EasyTime"function is only available from the "EasyTime" tab, and the "EasyStep" function only from the "EasyStep" tab.

On/Off mode It is used to program a channel in set "On" mode as long as the scene is activated. "On" mode is activated (set position : 100%) by clicking left-clicking. "Off" mode is activated (set position : 0%) by clicking right-clicking.	
Dimmer mode It is used to program a channel by setting its DMX value as long the scene is activated. By default this value is on a minimum 0% level but may be modified. For instance, to program several channels on 50%, the easiest way is to set Dimmer-mode on 50% then to click on the leds of the channels.	
EasyStep mode The Easy Step rack allows to create simple steps scenes. These steps can fade or not between each of them. To use the rack, you must select the appropriate function (fade or not) and then link it up to the outputs. Using fade and wait time is really simple, you only have to setup both of them in the appropriate control.	
EasyTime mode It is used to program a sequence of steps for a channel which will play automatically once the button has been activated. The EasyTime module enables you to program (and visualize) each step for all the channels programmed in "EasyTime" mode.	
Copy/Paste mode It is used to copy one or more channels from other channels. For instance, if you have carefully set a color-type or a stroboscope-value, you just have to copy then to apply it to other fixtures.	

NB:

- You can assign channels one by one or else assign a whole series in one operation by "dragging & dropping" channel-leds.
- "On/Off" modes and "faders" make it possible to program set positions. To program variable intensity, position, colour or focus on the button it is essential to assign "EasyTime" mode and to use the "EasyTime" rack.
- To assign the modes available within the racks, proceed in a similar way. First select what you wish to assign then click the channel led(s).

4.3.3.3 What is the difference between dimmer and On/Off modes

By default, when programming a "Scene" or a "Switch" for the first time, all the channels are in "off" mode.
A channel in "On" mode is very similar to a channel in 100% "Dimmer" mode. Likewise, a channel in "Off" mode is very similar to a channel in 0% "Dimmer", but not entirely so...

In the event of a fade between two "Scenes", intensity of channels in "On" and "Off" mode will change abruptly whereas other channels will gradually adjust to the new preset value.

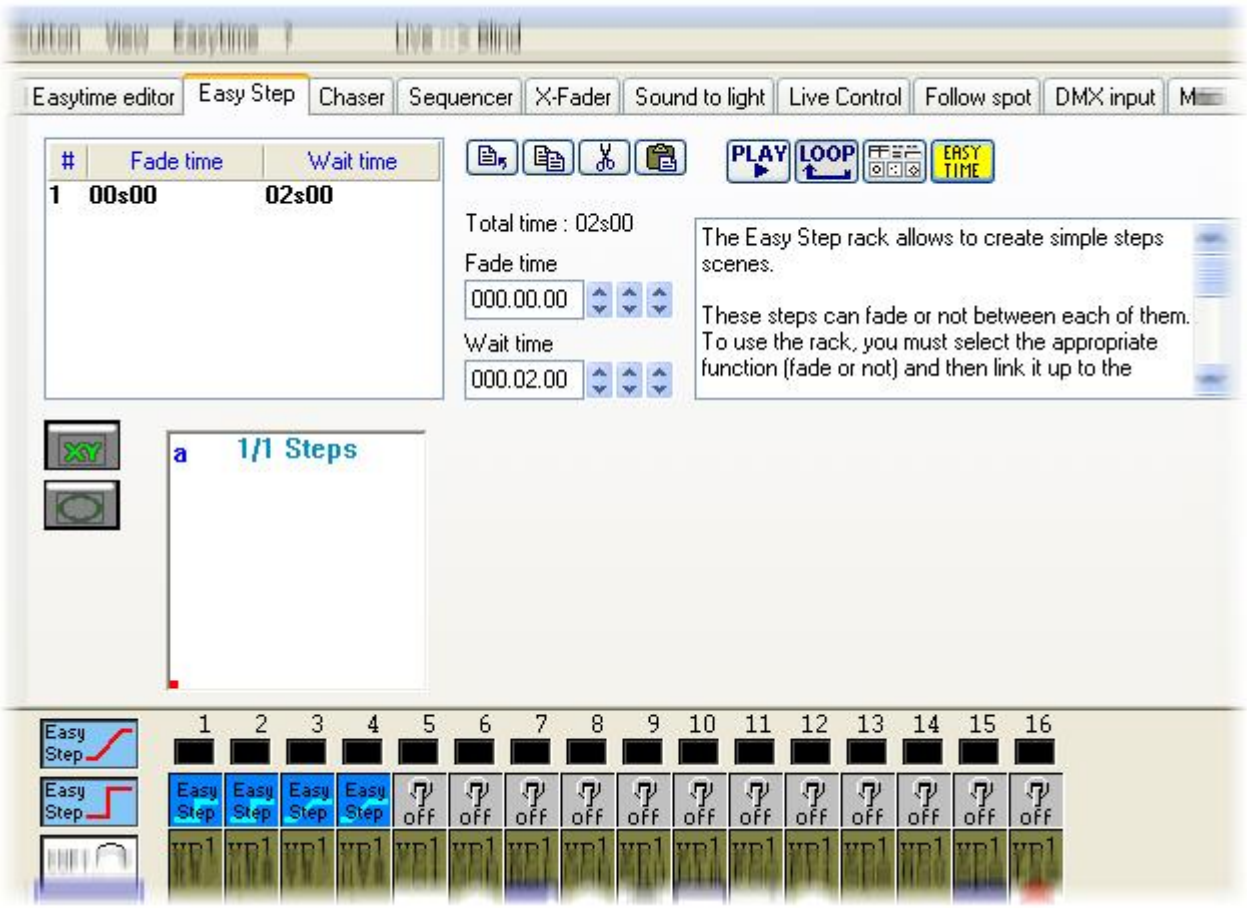
In the case of a "Switch", channels in "Off" mode will be ignored and will therefore remain unchanged.

Ex : if you want to create a magnificent rocket-takeoff effect for a show or on a dance-floor, it is easy : just use channels in "On" mode to activate DMX-controlled smoke-generator(s) and DMX-operated fans while activating dimmers to intensify light to symbolize flames (via a fade). The whole process will be programmed on a "Scene" called "Take off"...

	In a "Scene"	**In a "Switch"**
"Dimmer" mode	The channel is adjusted to appropriate level with a possible transfer (fade)	The channel is adjusted to appropriate level
"On" mode	The channel is immediately switched on 100% (no transfer)	The channel is on 100%
"Off" mode	The channel is immediately switched on 0% (no transfer)	The channel is ignored

4.3.3.4 Programming a scene with Easy Step

The Easy Step rack allows to create simple steps scenes.



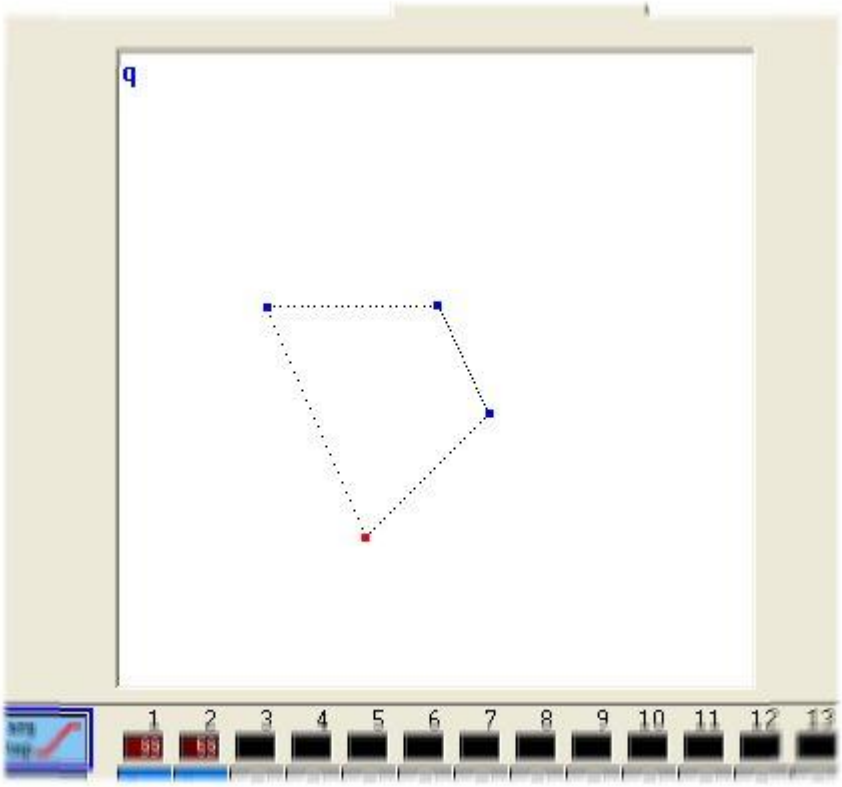
These steps can fade or not between each of them. To use the rack, you must select the appropriate function (fade or not) and then link it up to the outputs.

	"EASY STEP" function with fade
	"EASY STEP" function without fade

You might have to create a scene fading between two positions of beam and keep the color changing quickly between each step. To do so, you must use the "EasyStep with fade" function on Pan/Tilt channels and "EasyStep without fade" function on color channels for example.

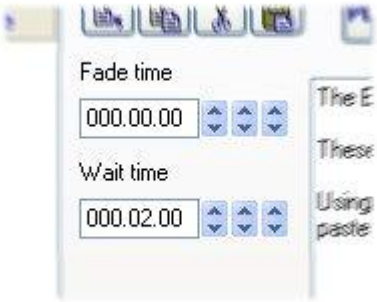
Like with "EasyTime", we can find a movement area for each fixture. It helps us to create a shape rapidly but we can not use pre-programmed shapes (circle, polygon...) unlike with "EasyTime".

If you are using "Easy Step" on Pan&Tilt channels you can see the following area below the list of steps.



Each step can be moved individually with the mouse. A step can be selected by clicking on the corresponding point (shape area) or directly from the list of steps.

Each step has its own wait and fade time. Using fade and wait time is really simple, you only have to setup both of them in the appropriate control (see bellow).



Various function are available : copy, cut, paste and insert a step. You can also choose to make your scene loop or not as well as scannerized your step to make then work with Easy Time.

4.3.3.5 "EasyTime"

4.3.3.5.1 How to use "EasyTime"

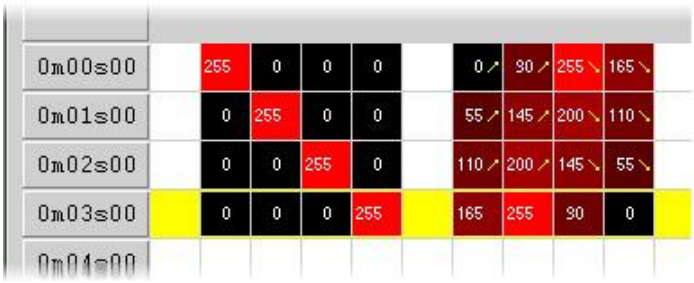
Easy Time is an advanced tool which must be used to program movements (circle, curve...). If you want to simply create steps, it is easier to use Easy Step.

"EasyTime" 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".

"EasyTime" 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.

Even though each "Scene" or "Switch" has access to the "Editor" and therefore to "EasyTime", it is essential to know that each button has its own "time sheet".



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.

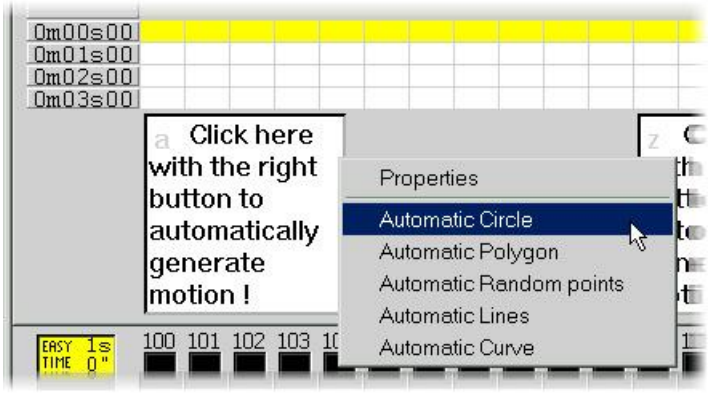
In case there are blank cells in between the latest time programmed and current time, you will be prompted to answer the following questions :

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

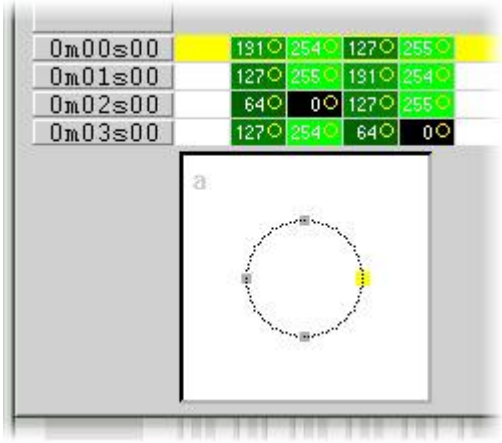
Type, click on an Easy Time column figure to open the following menu :

This menu allows to change the way steps are linked together. "Linking" may be set according to tempo or programmed on step-by-step mode.

If you use moving lights, this software contains extremely quick basic functions to create sophisticated vectorial motion-effects.
The first interesting figure you may wish to create is a circle. To do so, right-click anywhere in X/Y area then select "Generate a Circle" from menu.



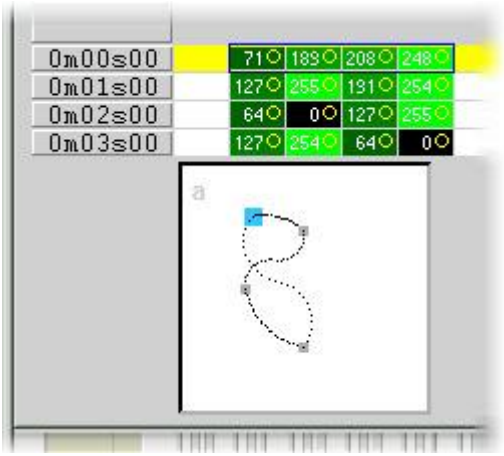
A circle will then automatically appear and EasyTime will display green cells including X/Y values as referential points.



By default, a circle is drawn from 4 points. To move any of these, several methods can be used :

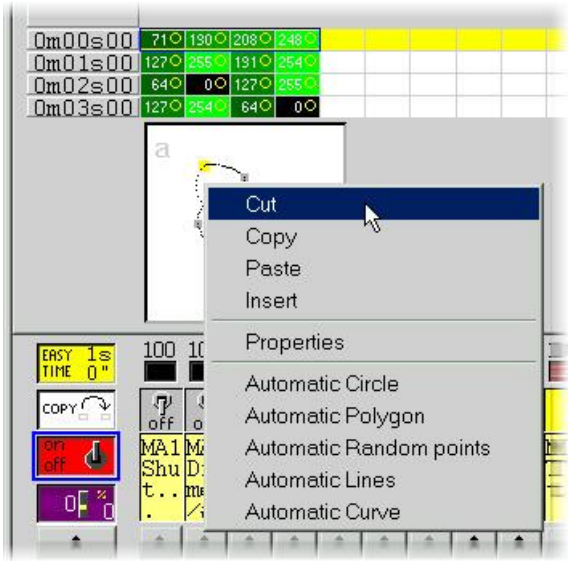
- Adjust the X/Y channels with one of the faders. Yet, this method is not very convenient.
- Press the shortcut key while moving the mouse.
- Click on the point and move it with the mouse.

As you can see, moving a point is carried out in real time on the fixture !
Secondly, you will notice that the best curve has been made by the software from these points in real time.



To add or delete a point, several methods can be used :

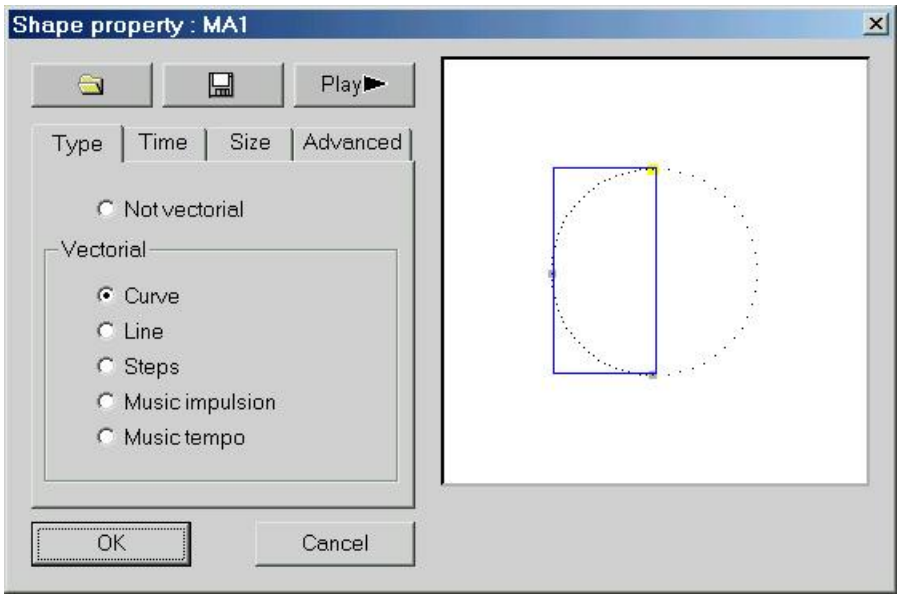
- Select the cells corresponding to the referential point (2,or 4 cells if the fixture has micro-steps) then use "Cut,Copy or Insert" from toolbar.
- Click right on the point and select "Cut","Copy" or "Insert " from menu.



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)

These settings are carried out on the "Properties" windows where many other functions are available (setting size in real time, selecting time-scale, saving and opening shape-files).



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.

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.

4.3.3.6 "Racks"

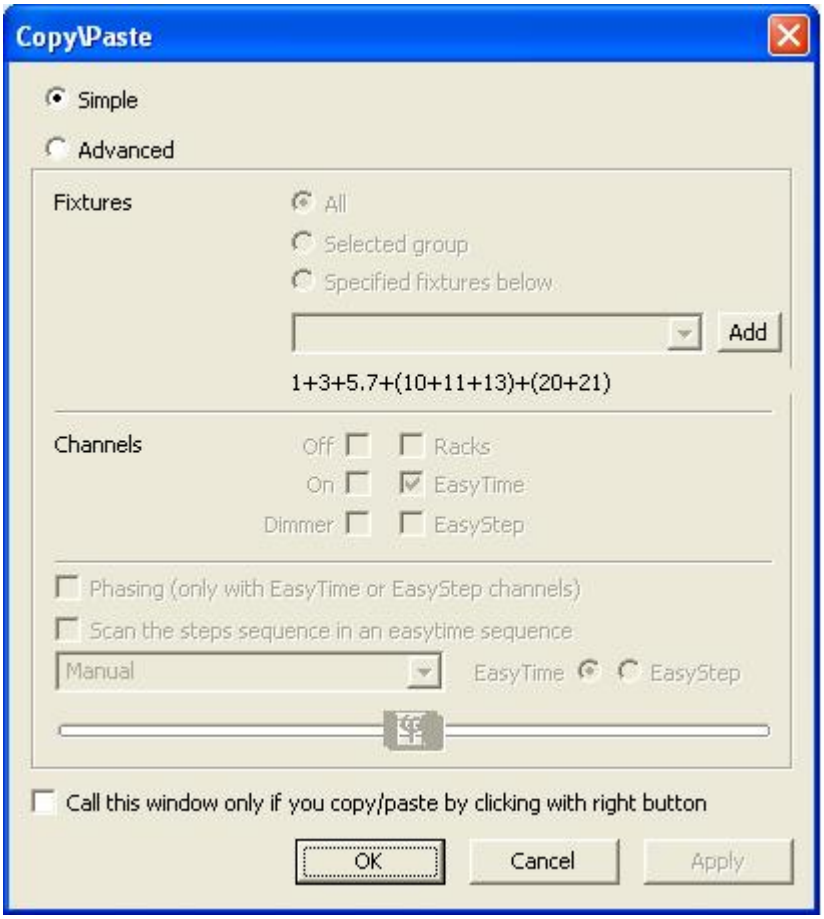
The 2004 software advanced features for "Scene" and "Switches" editing - called "racks" - enable the creation of a wide range of effects in no time :

- CHASER : enables you to work out an adjustable speed chaser with a maximum of 16 channels.
- SEQUENCER : Choose among a large range of preset sequences assignable to up to 16 channels.
- X-FADER : enables to make a fading (from 2 to 16 channels) with speed and fade adjustment from one channel to another.
- SOUND TO LIGHT : allows to control light according to sound (treble, medium, bass).
- LIVE CONTROL : channels are piloted with mouse or joystick and the sequence may be recorded.
- FOLLOW SPOT : synchronizes slave with master fixture movements (very handy when using follow spot with several lights).
- DMX input : makes it possible to control channels with an external DMX controller.
- MIDI : allows to control channels with external MIDI controller.

The DMX input features require a DMX input interface.

4.3.3.7 Copy/Paste

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:



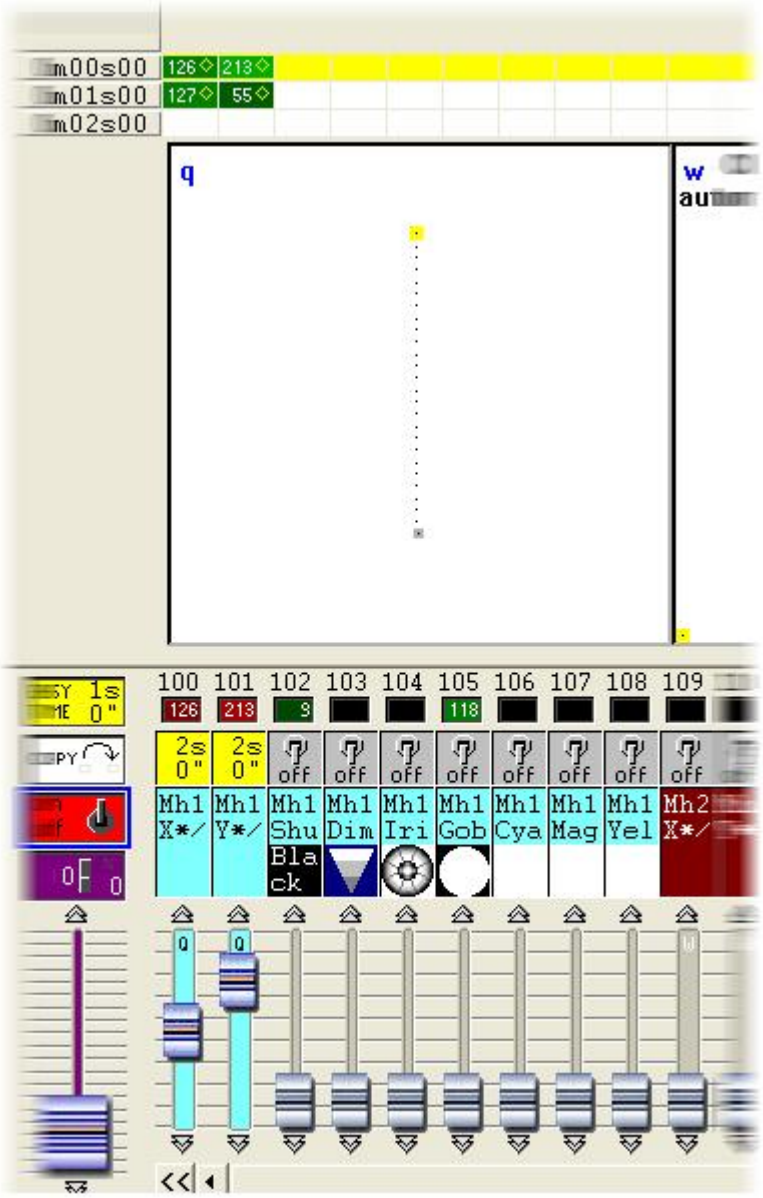
By default, "Simple" is selected. That means that the sequence will be pasted to the selected fixture. If you want to paste the same sequence to more than one fixture you have to select "Advanced" and then select the fixtures. Three options are available:

- 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

In this part we will learn how to make a wave with your fixtures. We must create a tilt movement with our first fixture. So, we click with the right button in the shape area and we select "Automatic Lines" with 2 points. We must move those 2 points to get a tilt movement (50% on pan channels) as shown below :

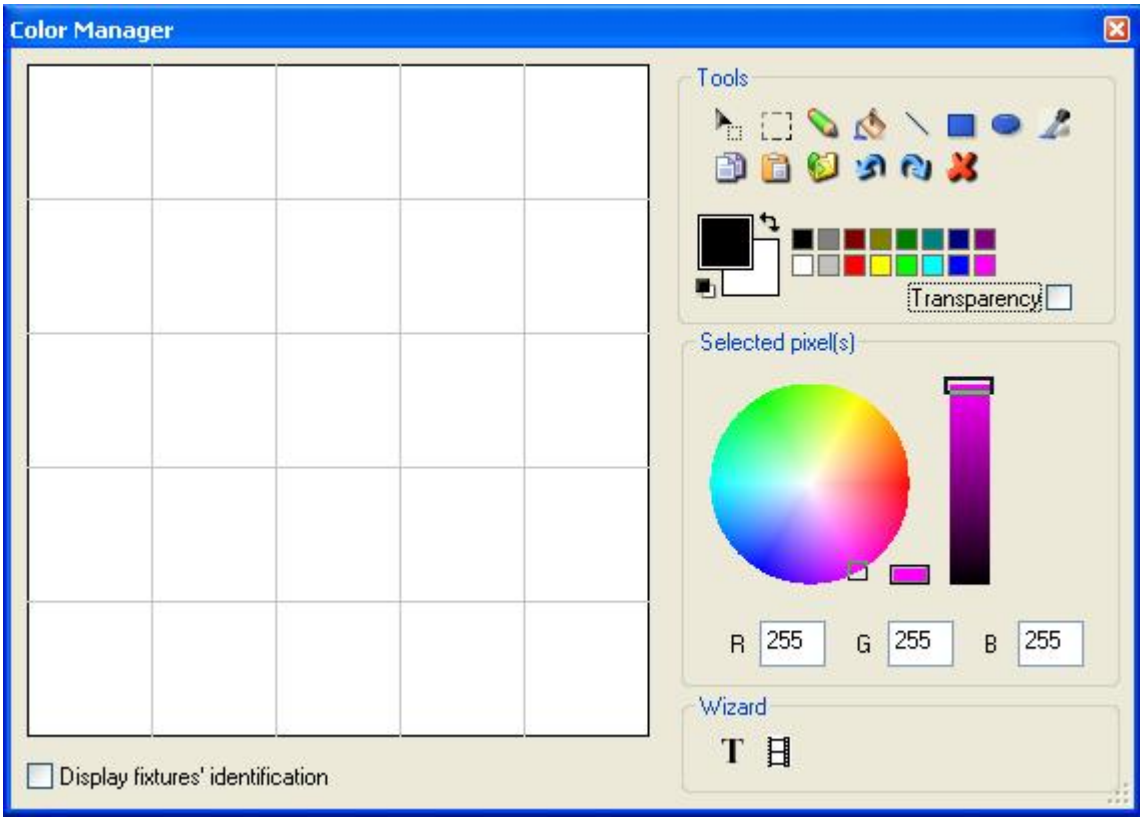


Once we have made this, we can copy the "PAN&TILT" channels and paste to one fixture. The "Copy/Paste" window appears and we must select "Advanced" to access the phasing function. After having selected "Phasing (only with EasyTime or EasyStep channels)", you must specify the type of phasing:

- 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

4.3.3.8 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

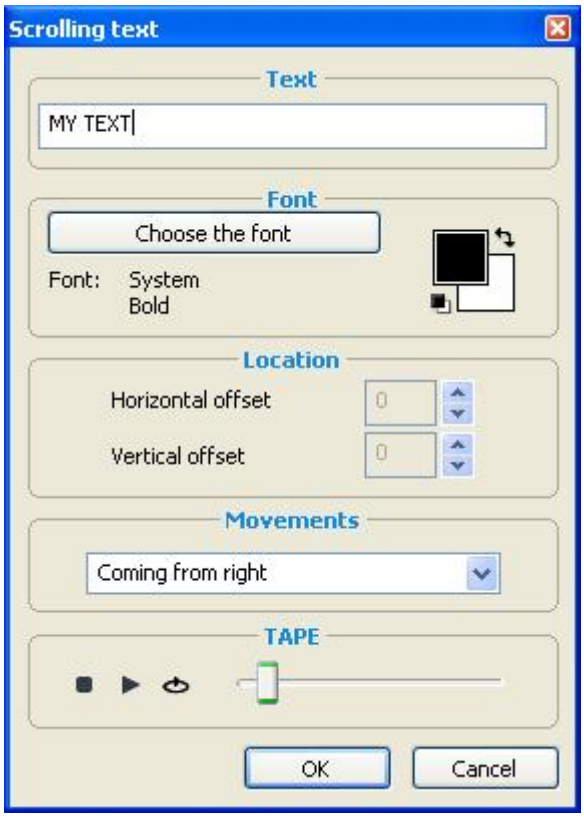
The basic tools are situated in the "Tools" area of the window. You can find the main functions available in a bitmap designer and select a color for each fixture very quickly. Each fixture is represented by a square on the left side. You can display the name of each of them by clicking on "Display fixtures'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

4.3.4 Changing the SPEED, SIZE or the DIMMER of my scene

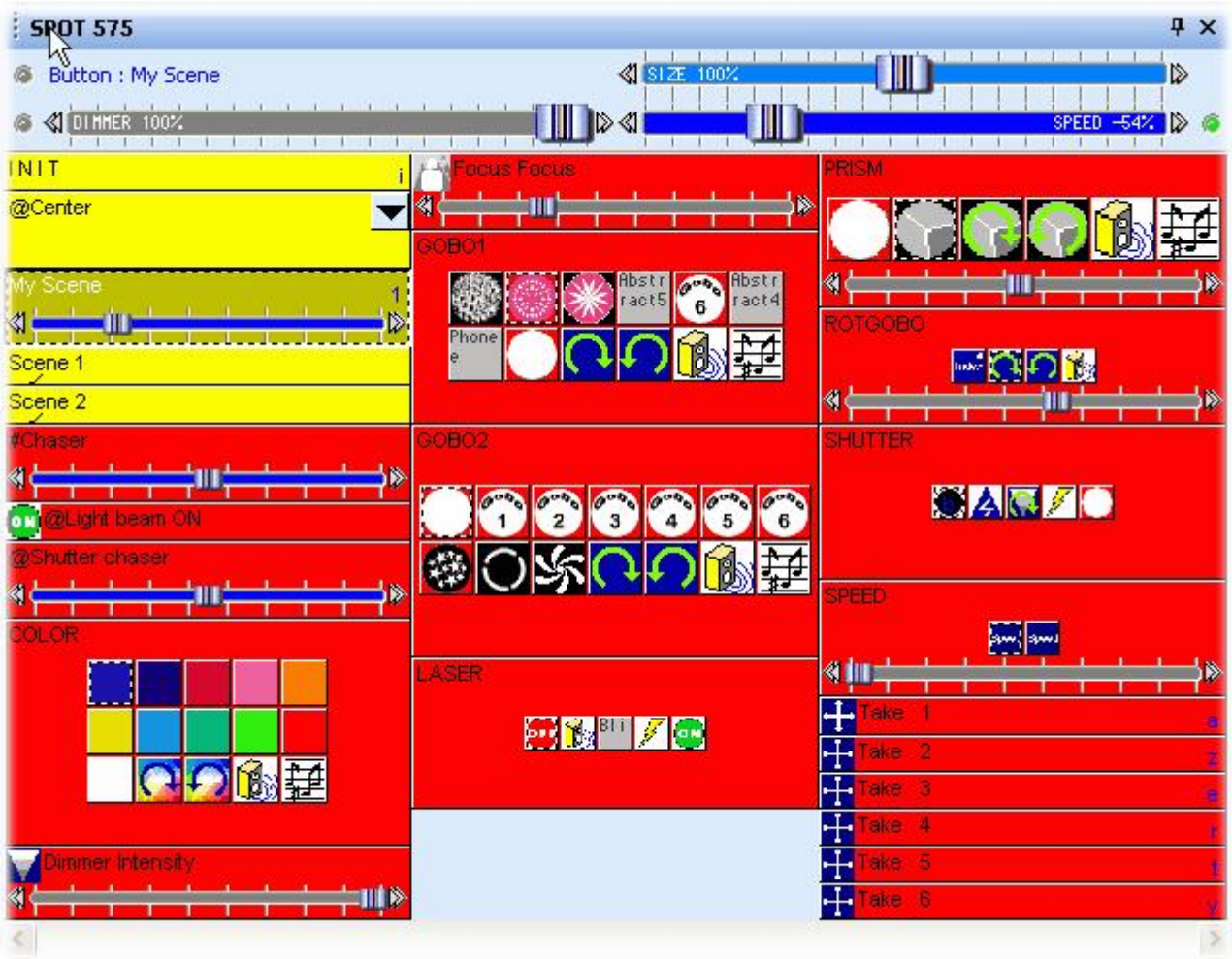
As we saw in the previous chapter, it is possible to have a "FADER" on a button : scene or switch. These faders can have 3 different functions, SPEED, DIMMER and SIZE. Each button can have its own faders. DIMMER and SPEED functions can also work as global parameters for a page. Let us see now how to use these 3 functions.

First of all, it is important to see how to enable these functions. If we want to use DIMMER and SPEED functions we must allow the channels of our page to be controlled by these faders. To do so, we must go to the "Page Settings..." window and select the "Channels" tab. We can call the window from the "Page" menu by clicking on "Settings...".

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. The main interest is that you don't have to modify your program to change the speed. All the changes made with the SPEED faders are not saved. Of course the position of the SPEED fader is saved, but you can go back to the programmed speed at any time by resetting the fader position.

You can display the faders on the buttons or use the toolbar : "Live toolbar Button". Using the toolbar enables to save space. Drawing the fader makes the button bigger and even if it is possible to group the buttons it can be difficult to visualize all of, them on a small resolution screen. The toolbar allows to use the 3 functions : SPEED, DIMMER and SIZE so it could be very helpful to save a lot of space. You must go to the "Page-Display" menu and then select "Live toolbar Button" to show the window. It is also possible to call the toolbar by clicking with the right button of your mouse on the page title bar. Please see the toolbar below.

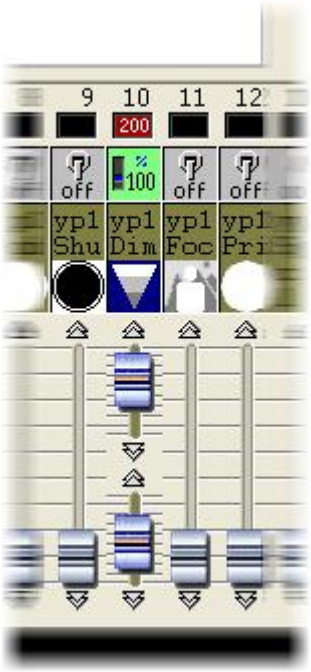


The Dimmer function

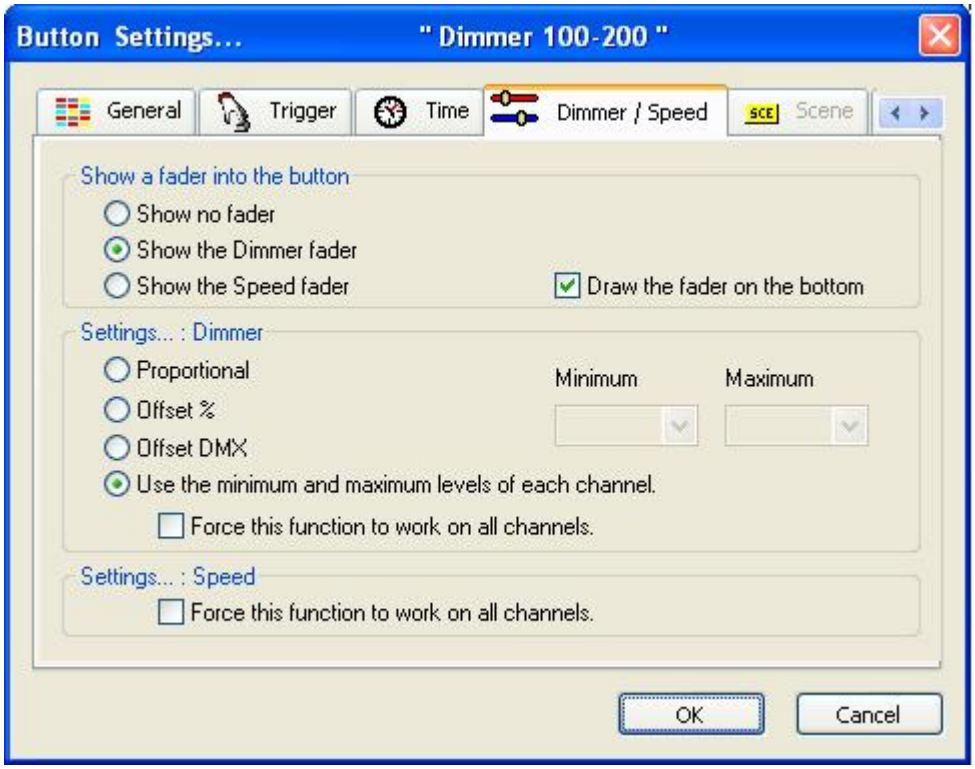
This function allows to modify easily the DMX level of some channels in a button in real-time. If the library of your fixture has been made correctly you should have a DIMMER fader on Dimmer, Zoom, Iris, Focus...channels. This helps you to modify the channels intensity without editing the buttons.

It can also be very useful to use this function for conventional lighting (PAR...), this make a button allowing to modify the beam intensity in real-time.

Let us see now how to use this function on a dimmer channel. We will see how to create a switch which allows to control the dimmer from 100 to 200 (DMX values) with the fader. This can be very useful to know how to do that when the dimmer is located on the shutter channel (e.g. Blackout from 0 to 99, Dimmer from 100 to 200 and Strobe from 201 to 255%). First of all, we must create a new switch ("Button" - "New Switch"), we can call it "Dimmer 100-200". Then we must edit this button by clicking on "Edit" from the "Button" menu. Then, select the "Dimmer" function and link it to the channels using the mouse right button to affect 2 levels (minimum and maximum). Once the 2 levels have been programmed, the channel appears as below:



Close the editor screen (do not forget to save the modifications). The switch is now ready to be used and we will add a DIMMER fader on it. To do so, open the "Button settings..." window and go to the "Dimmer/Speed" tab. First of all, click on "Show the Dimmer fader" to enable the function. Select "Draw the fader on the bottom" if you want to have the fader under the button name. Then, select "Use the minimum and maximum levels of each channel" to make the fader working between 100 (minimum programmed) and 200 (maximum) on the channel. See the window below:



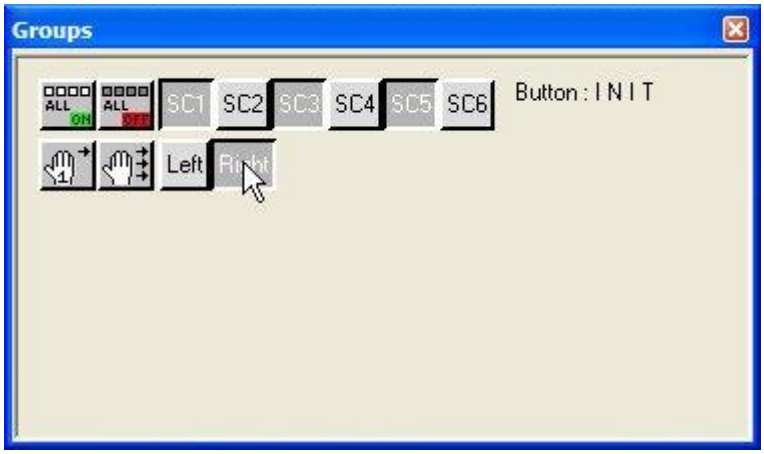
The Size function

This function allows to modify easily the size of a movement. Imagine that a scene doing a tilt movement with your fixture is running. For any reason, you want to reduce the amplitude of the movement without editing your scene. You must use the SIZE function to do so. You just have to move the fader on the toolbar while the scene is running and you will see the changes in real-time on your fixtures.

It is important to know that we can also use the DIMMER and SPEED functions as global parameters for our page. To do that we must call the "Live toolbar Page" from the "Page" menu or by clicking with the right button of your mouse on the page title bar. Make sure that you do not forget the changes you have made from this toolbar because they have the priority on all the buttons of your page.

4.3.5 How to use our fixtures independently

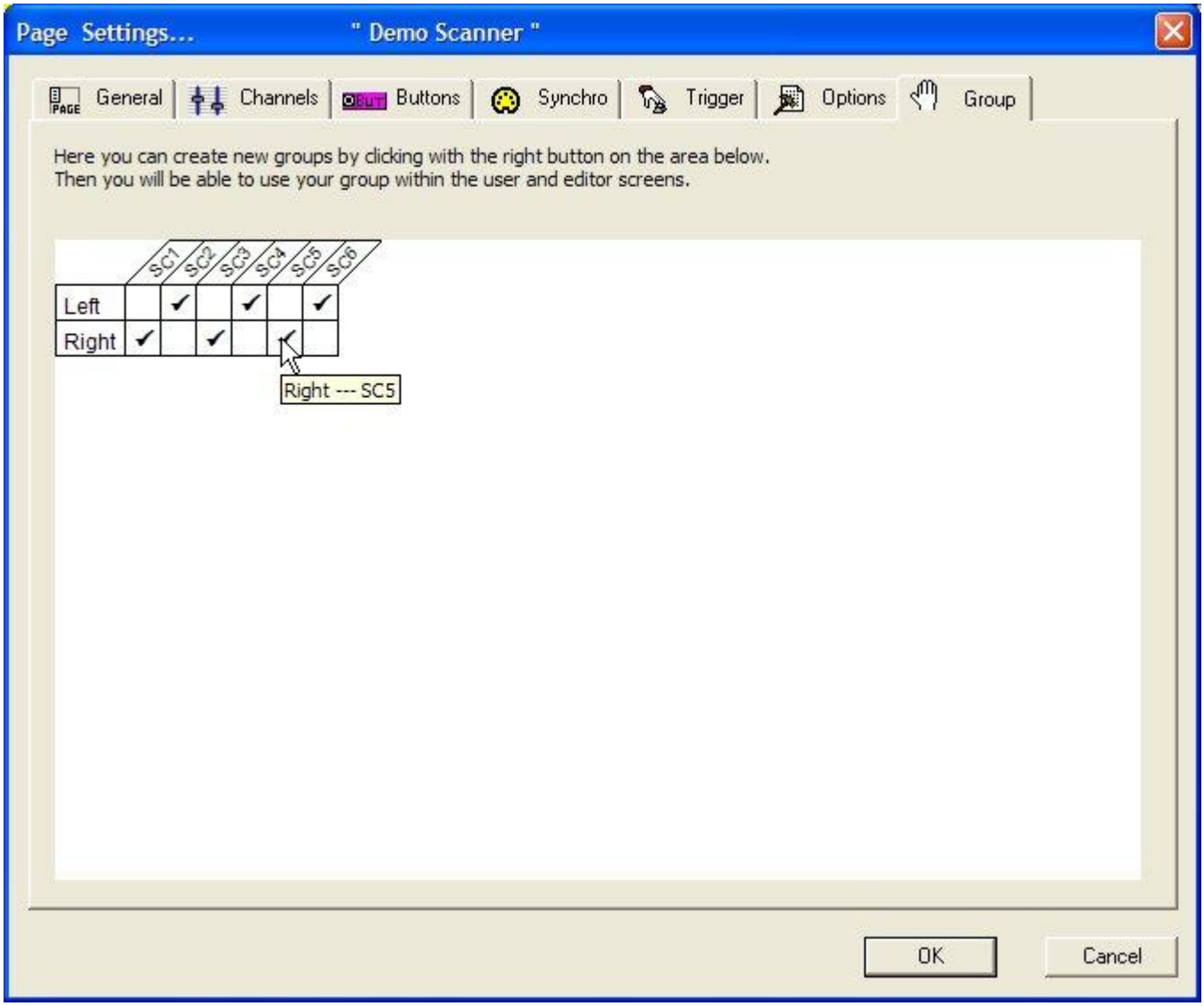
Thanks to this tool, it is possible to create groups of fixtures in a single page. Programming time will be significantly reduced as well as access time to the various functions of each fixture for a LIVE use.
Fixture groups can also be programmed for a better user-friendliness. For example, two groups of fixtures have been created in the following case : stage left and stage right. A special effect (colour, gobo, movement...) is then attributed to each group in no time at all.



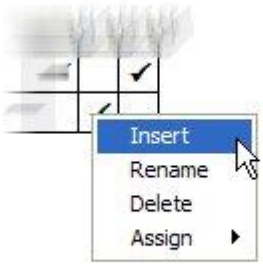
The first stage is then to program groups. You will see how to proceed in the next chapter.

4.3.5.1 How to program groups

Group programming is run from the below window. To have access to it, you should first go in the page parameters and then click on group tab. Just remember that the page parameters are accessed through the "Page" menu from the 2004 software version.



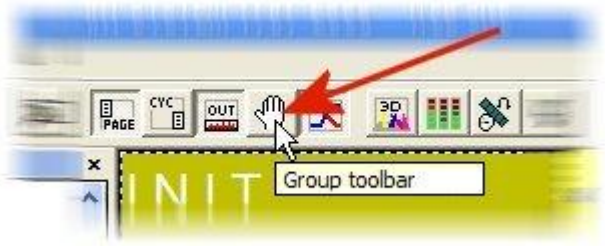
To create, suppress or change a group, you should click on the right mouse button in the white area above so that the following menu appears on the screen:



You will then be able to create a new group, rename it or destroy it and also allocate it a keyboard shortcut to make it even easier to use later on.

4.3.5.2 How to use groups

The choice is yours to display or not the "Group" toolbar on the main screen. If you choose to do so, all you have to do is select "Groups" in the "Window" menu of the 2004 software version or click on the following button in the standard toolbar:



You can also choose to display or not the "Groups" toolbar in the Editor screen: click on "Display" menu and then "Groups" toolbar...

Main Screen Mode

There are three different modes existing for using groups. You can switch from one mode to the other by resorting to the two buttons below. If these two buttons are released, you will have access to the third mode (default mode).

Default Mode	Any group using will be effective for the selected button (scenes or switches). For example, if the "Color red switch) is pressed and that the "stage left" group is activated, only fixtures belonging to this group will be allocated the red color.
	In similar case, the "group" function will be only applied to this one and only action.
	The "group" function will be applied from now on to each new action until complete release of the button.

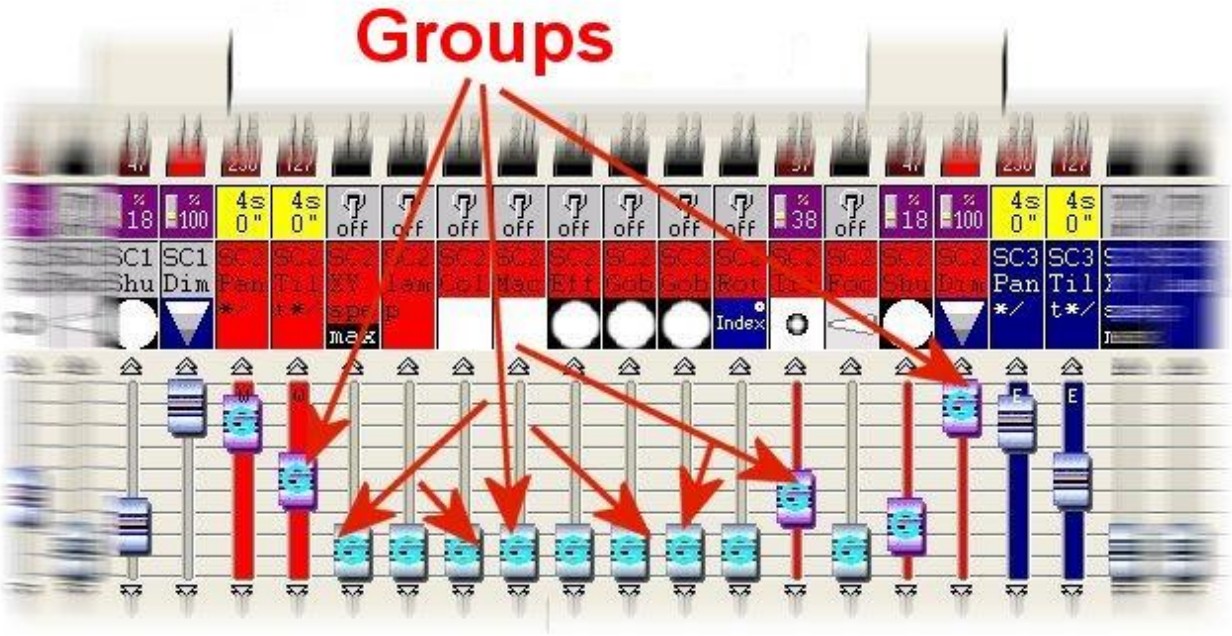
A button (scene or switch) to which the group function is applied will immediately take on the following aspect:

The button font becomes blue and a small "G" appears at the bottom.

Editor Mode

Here, only the two previous modes are present. Before using the group function, you should first select one of the two options. Once you have pressed the selected button, you only have to run the programming on one of the fixtures. The same programming will be allocated to the whole set of fixtures belonging to the same group.

One fixture belonging the selected group can be visualized by the following way:



4.3.6 How to create a cycle (cue list)?

Considering you have managed to read this manual so far, you have now acquired some skill in programming your own light-effects. You know that this software works with buttons, under each of which there is a time-sheet that can be programmed individually.
The "Scene" buttons are exclusive (only one type can be activated at a time) whereas the "Switch" buttons are simultaneous. Now you are therefore able to program lamp-lighting, motions, scans, static lighting and much more...
Theoretically-speaking, you can even program a whole show by just using one button! Even though it is not the best way, it is possible but it comes up to building up a wall with one big single brick instead of laying smaller ones. It is advisable to use a maximum of buttons so as to split complex actions into a sequence of simpler ones.

The "ONE action -> ONE button" principle should be kept in mind !

Of course, you may wish to save a sequence of actions such as PAR fading on the back wall, beams focusing on the middle of the stage, a change in gobos or colors. It is easy : just use a "Cycle".Imagine that to your favourite track, you would like to have scans sweeping across the dance-floor from right to left, then from foreground to background, then from right to left, then again from foreground to background and so on and so forth...

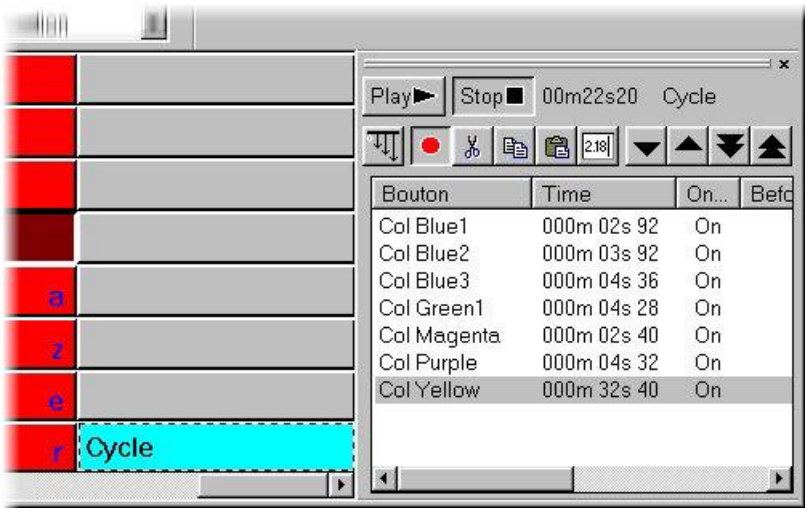
Of course you can program the whole sequence into one single time-sheet only. It will take a considerable amount of time but you will make it ... Now, how will you manage to change the sequence duration ? Will you start all over again ? Somehow you will try to change the rhythm, even though the beams are no longer tuned up to the beat...

Actually, the best way is to program two distinct scenes : one for the moves from right to left and a second one for back and forth moves. Each of them will be programmed in a very short time. Then you will just have to press a "Cycle" button to trigger off a sequence that alternately combines both scenes.

Recording a cycle

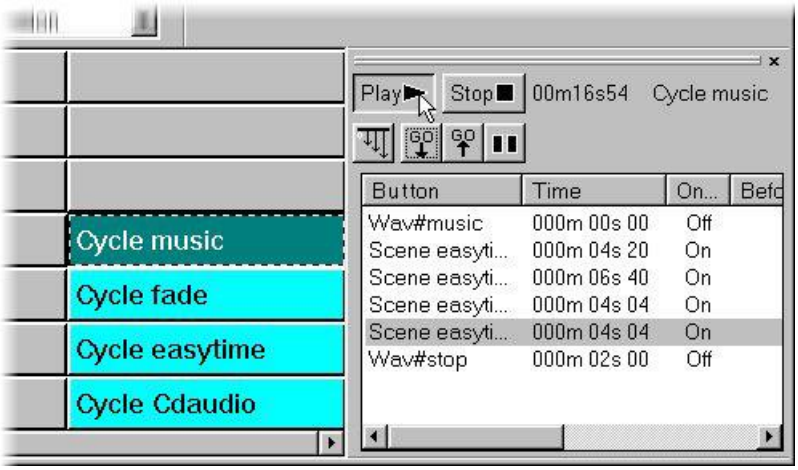
A cycle can be recorded immediately in real time. All you have to do is click on "New Cycle", to name it and record it.

While recording, a cycle memorizes the button activated and duration in between two (button)-activations. Once the last button has been activated, do not forget to stop recording-process.



Playing back a cycle

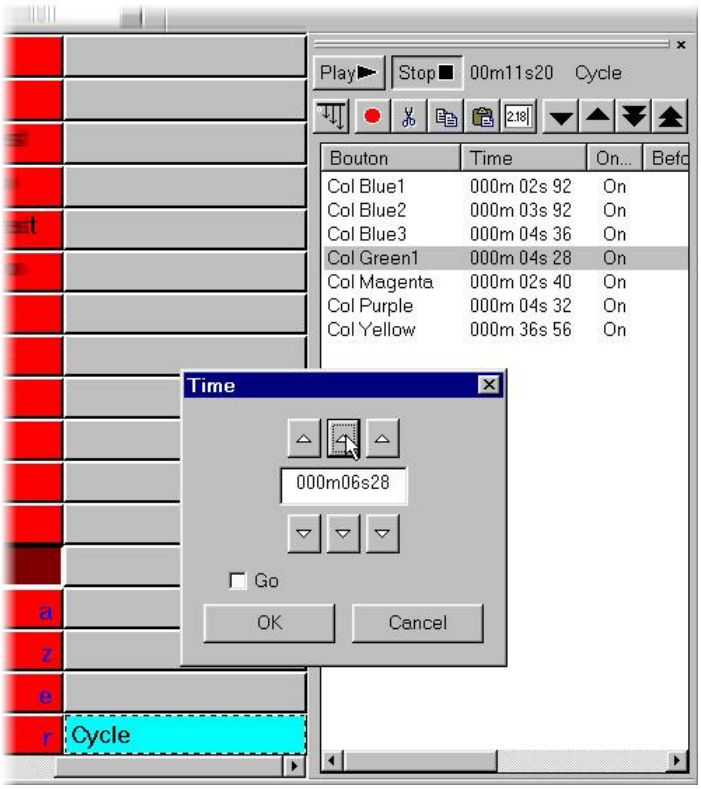
Unbelievably enough, to play back a "Cycle", all you have to do is click on the corresponding button. A "Cycle" can record any button-triggering such as "Scene", "Switch" but also another "Cycle". Programming a "Cycle"-sequence is therefore made possible.



These software-potentialities are virtually unlimited unlike, of course, your PC's hardware and memory are limited.

Modifying a cycle

Once they have been saved, cycles can still be modified, which is convenient to adjust effects. For instance, you may very well let your inspiration pervade and guide you while listening to a CD-track and create your effects immediately. It will be possible to modify timing sequentially later in order to synchronize your effects and tune them to the music-beat. To change timing, simply modify it in the cycle-window.



"Cut/Copy/Paste" functions are available from the tool-bar. If you wish to insert a new button, switch back to record mode (red indicator) then click the button selected. If this button is on a different page, then look it up in the page-window.

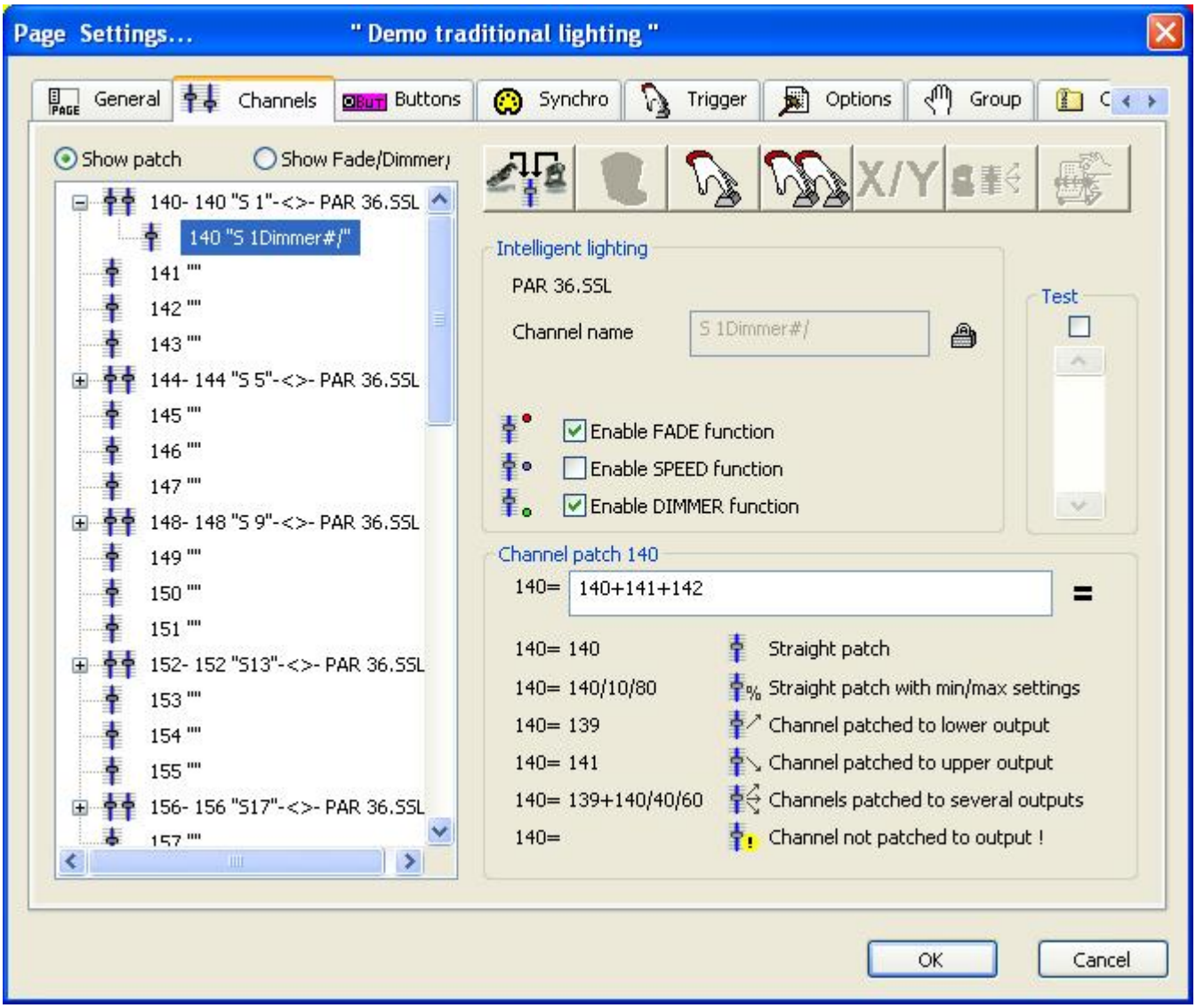
5 Advanced software features

5.1 Using the "patch"

It is very important to know the difference between channels and outputs. The outputs are the DMX channels. The patch can be straight or not. This means that the channel 1 of a page can be linked to the DMX channel 1 or not. This is very useful to link several DMX outputs on the same channel. It also enables to choose the DMX universe. Imagine that you want to use the second DMX universe (512 to 1024) for your page, you will have to use the "offset" option which enables to offset the outputs.

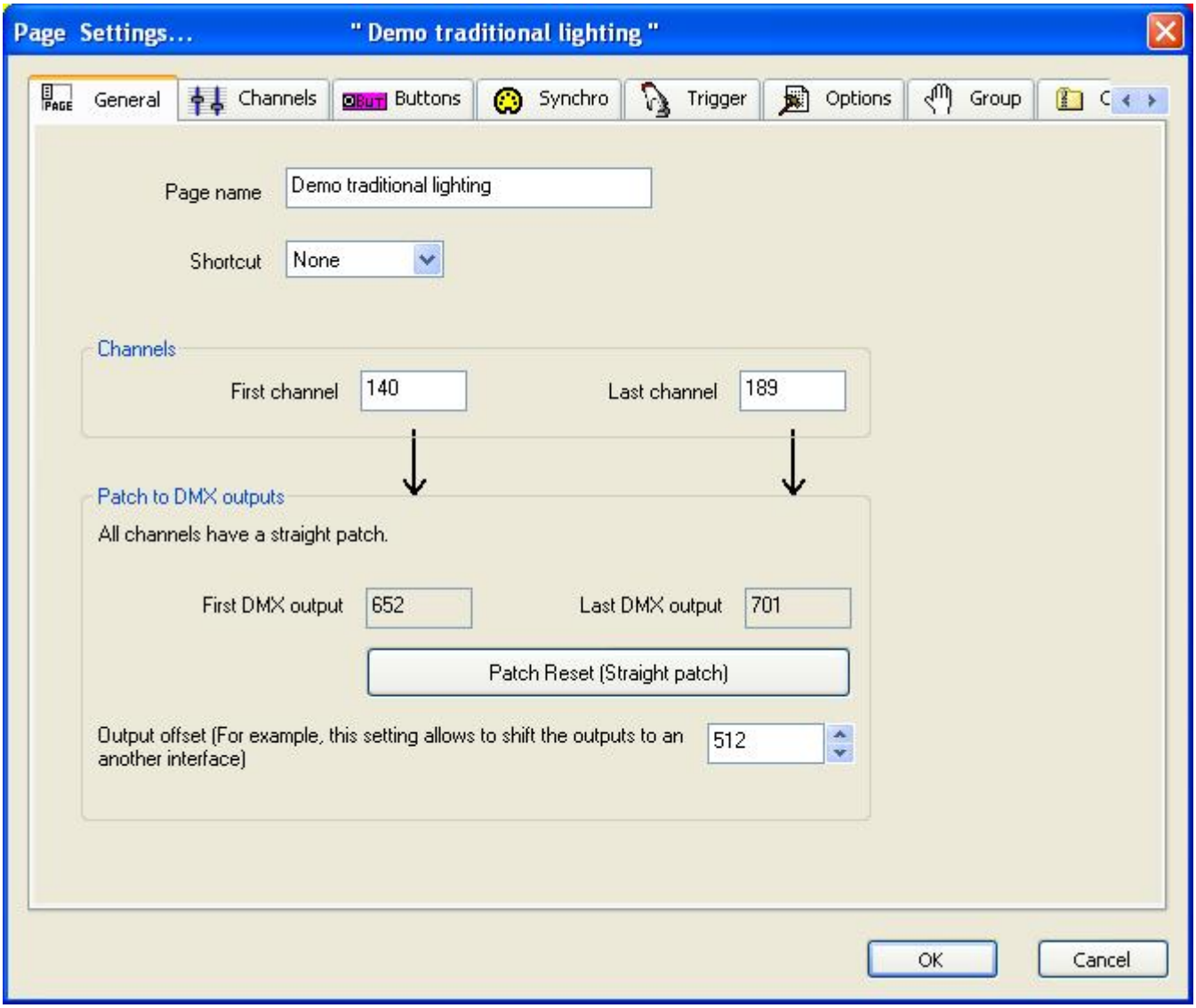
Modifying the patch

Open the "Page Settings..." window and go to the "Channels" tab to modify the patch. Imagine you want to use the same channel (140) to control several DMX outputs (140, 141 and 142). Select the channel from the list on the left-side and then go to the "Channel patch" area and enter: **140+141+142** as shown below.



Modifying the offset

Open the "Page Settings..." window and go to the "General" tab to modify the offset. Imagine you want to send the DMX information on the second universe, you will have to specify an offset to shift the outputs to the second DMX interface. To do so, enter 512 in the "Patch to DMX outputs" area as shown below.



An offset of 0 means that the software uses the first interface, 512 means the second one, 1024 the third one...

5.2 Playing with the outputs window

The outputs window makes it possible to visualize in real time the channels level of one page or of all DMX outputs. Moreover, you will be able to directly change channels settings in most of the available modes thanks to this same menu.
All channels may be straightly reached "LIVE", as if you were piloting a real lighting desk ! Enjoy !

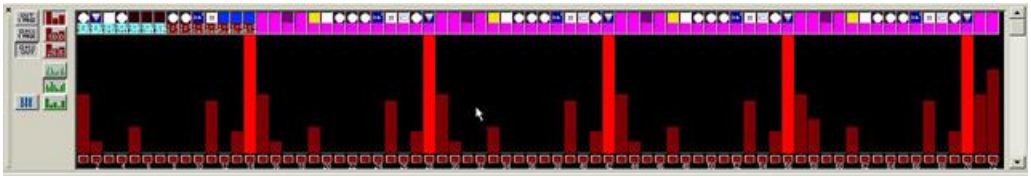
5.2.1 Display modes

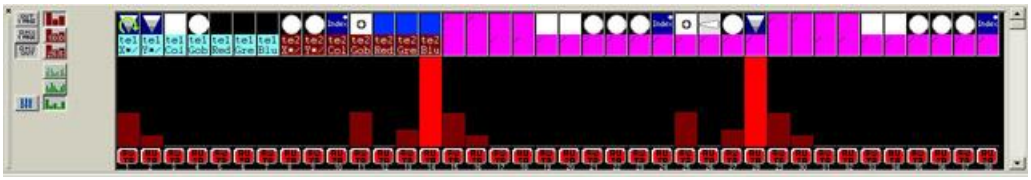
To switch between each display mode you must use the three buttons below :

OUT 1 PAGE : display the levels of the current page channels (before the patch)
DMX 1 PAGE : display the levels of the current page DMX outputs (after the patch)
DMX OUT : display the real levels of all DMX outputs

Three other modes are available :

The first one allows to see only the DMX levels : we can not take the priority. To modify a channel, we must use one of the following modes. In those cases, we are allowed to modify all channels in "LIVE".





The first mode allows to see more channels but is less comfortable to use. In case of exceptional use of this window we recommend to use the first mode but if you frequently use the window it is easier to do it with the second one.

These two last display modes require more CPU time. This is why we recommend to stay in normal mode if you do not control channels manually.

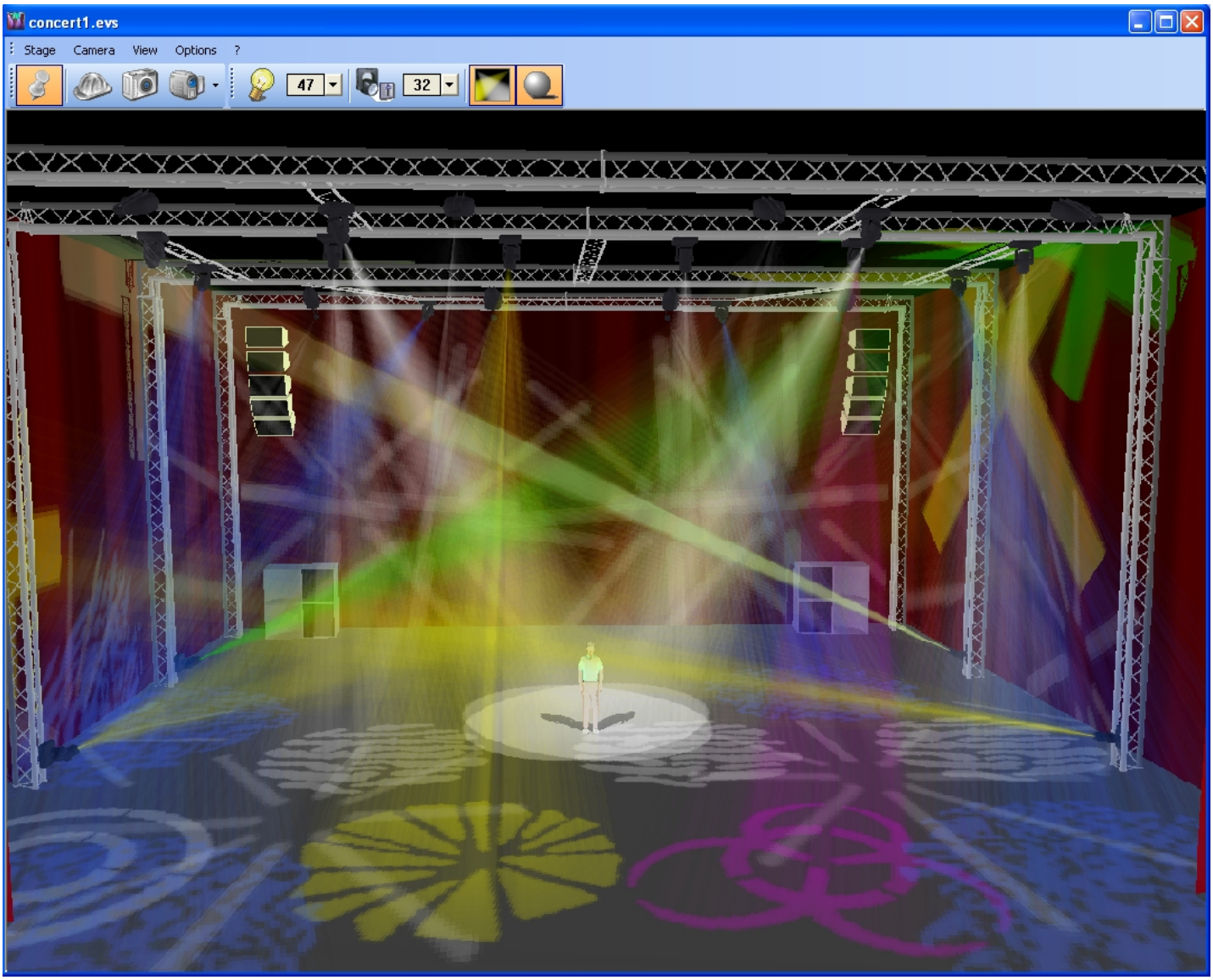
Easy View Manual

Table of Contents

1 Preface

The 3D Visualizer provides a 3D real-time visualization of a stage. It makes it possible to follow light movements, colours as well as the main effects available in the latest intelligent lights (iris, strobe, dimmer, shutter...). The beam of any traditional fixture (PAR...) may also be visualized .

You can insert objects such as trusses or pieces of furniture from a library and re-construct your stage or club environment in a most realistic way.



N.B. : The more carefully you build up the associated libraries of fixtures, the better result you get about their effective 3D representation.

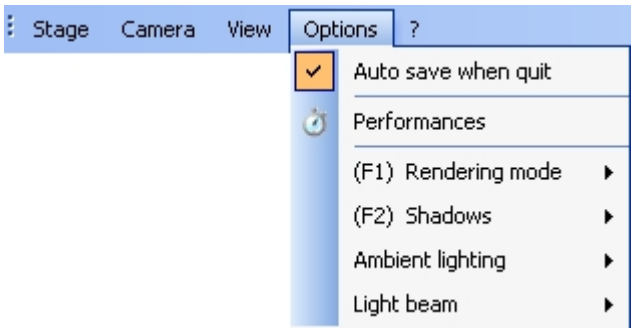
2 3D Visualizer

2.1 First steps

This chapter is dedicated to basic functions of the software. It includes what you should know to start working with the 3D Visualizer : menus, toolbars...

2.1.1 Menu

All functions can be used from the main menu of the software which contains 5 sub-menus.



1. The "Stage" menu enables to create a new stage or open an existing one, to save the current stage (.evs format) and also to open the stage editor.

2. The "Camera" menu enables to change the view (right, top...), to move the camera with the mouse, to zoom in or out, and also to make the camera rotate automatically around the stage. It is also possible to take a picture of your stage (BMP format). It also allows to save up to 4 customized camera for your stage and to use them at any time from the menu.

3. The "Window" menu enables to make the window always on top and to display or not the toolbars.

4. The "Options" menu enables to select the autosaving (save automatically the modifications when you quit the software) and to open the "Performances" window. You can also setup the following rendering options:
   - rendering mode (normal or advanced)
   - shadows
   - ambient lighting
   - "fog" density

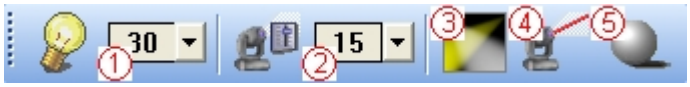
5. The "help" menu enables to check the software date and to open the online help.

2.1.2 Toolbar

There are 2 toolbars which give a quick access to several functions of the software. The standard toolbar:

1. Always on top
2. Open the stage editor
3. To take a picture
4. Front view + "Camera" menu

and the options toolbar:



1. Ambient lighting
2. Fog density
3. Advanced rendering mode
4. Wire rendering mode
5. Shadows

2.1.3 Mouse move

The mouse allows to do several things.

First, on the main view:

- If the "Move" option is activated from the "Camera" menu, the mouse enables to move the camera around the stage. To do so, you must click and hold the left button of your mouse while you are moving it
- You can zoom (in and out) with mouse wheel (it is also possible to zoom by moving the mouse (up and down) while you are holding the mouse wheel pressed
- You can move the camera (direction) by moving the mouse while you are holding the mouse right button pressed

When the "Object properties" tab is displayed in the stage editor:

- You can move the objects in your stage (X and Y axis) with the mouse. To do so, select the object with the right button of your mouse and hold the button while moving your mouse
- You can move the objects on the Z axis with the mouse wheel

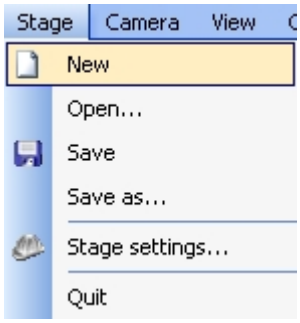
2.2 3D stage

The 3D stages you are building up are saved in "evs" files and can be open at anytime. All the inserted objects will then be saved with the dimensions of your stage. However, the positions of your fixtures are managed by the DMX controller. If your fixtures are not displayed in your stage, it comes from the DMX controller and not from the 3D Visualizer.
Also, if you use your fixtures from stage to stage with different positions, only the latest ones are saved.

2.2.1 Your first stage

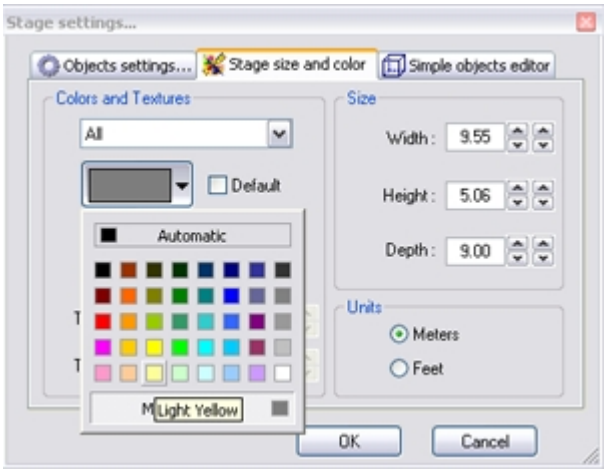
This chapter describes how to create your first stage.

- From the "Stage" menu, select "New" to create a new stage.



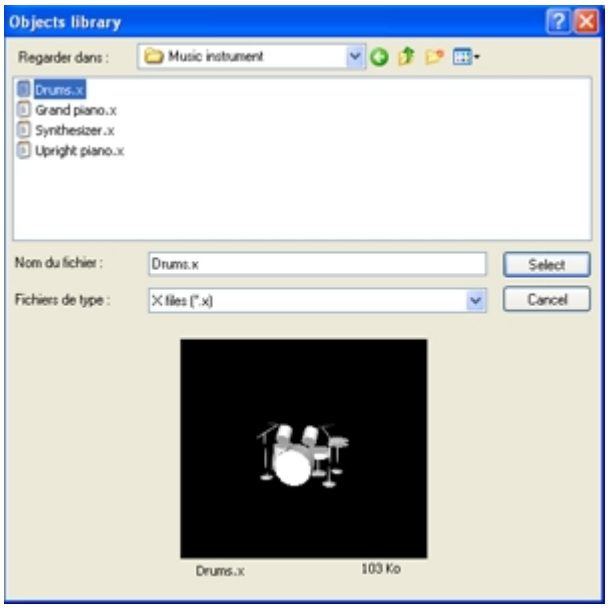
- Then select "Stage settings..." from the "Stage" menu to open the stage editor

- The "Stage size and color" tab allows to setup the stage dimensions and the colour of walls(*)

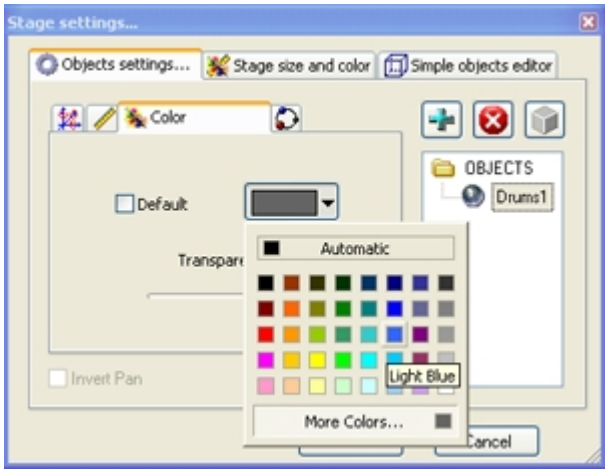


You can now add your first 3D object from the "Objects settings..." tab

- Click on the "Add" button and select the object from the library (e.g. Music Instrument\Drums.x)



- You can now modify the position, the size, the colour of your object (you must select your object from the list first)



- Repeat the operation for any new object

Note: You can insert several objects simultaneously by selecting the objects with the "Ctrl" key pressed

(*)You can also add a texture (bitmap) on each wall (see **Simple objects editor**)

2.3 Stage settings

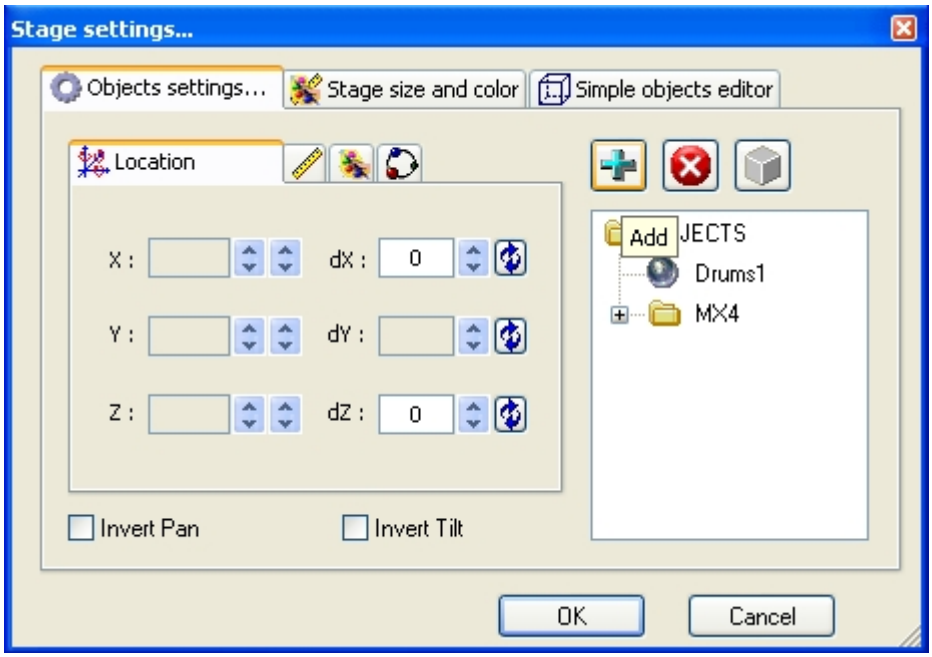
Stage settings may be reached by clicking on the button hereunder. You can find it either on the toolbar or by clicking on "Stage" "Stage settings..." in the menu.

Load and save as many different stage settings as you wish.

This enables you to store stage dimensions and layout of furniture in order to find them rapidly for further use.

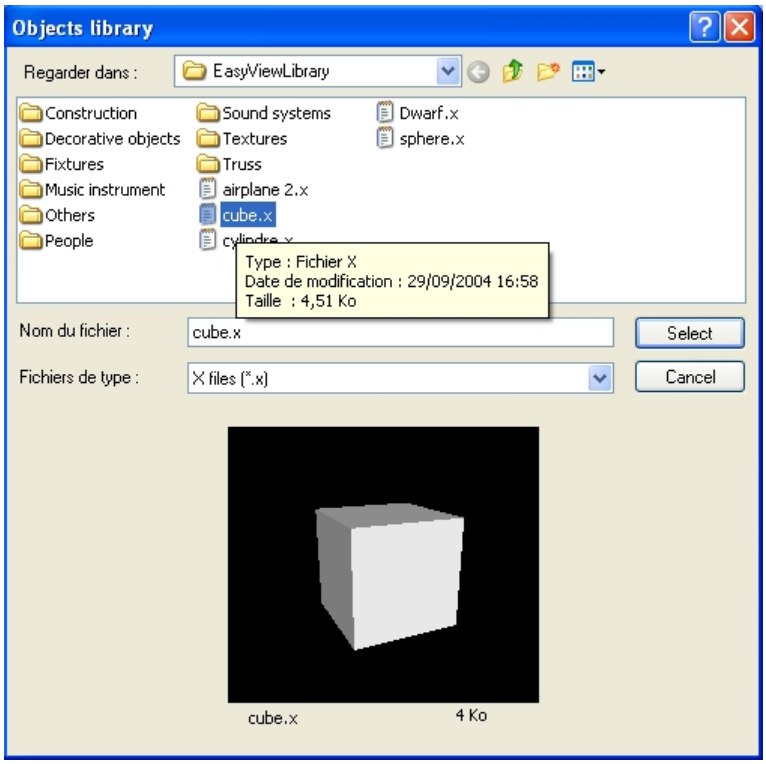
2.3.1 Objects settings

This window allows to move objects and fixtures in our stage, to change their size and colour. We can also add and remove objects.



Inserting an object

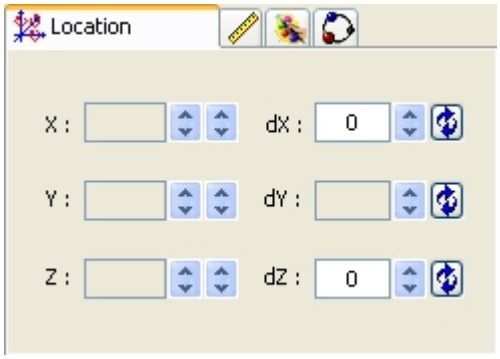
The software gives opportunity to insert objects from a library. Trusses, furniture and sound system can be found there. Objects may be removed from stage at any time. To reach this library, you need to open the following window by clicking on the "Add" button :



The library on the left side displays the available objects to be inserted. Once selected, the object automatically appears in the visualization window. The object selected may be previewed before it is inserted. Click on "Select" to insert the object in your stage.

Moving objects or fixtures

In this window, objects and fixtures can be shifted individually or in a group using the multi-selection mode. There are six different settings available: three movements on the X, Y, Z axis (width, height and depth of the stage) and also three rotating movements around these very axis. Thus, objects can be positioned as they actually are on your stage. You must open the "Location" tab to fo so and select objects and fixtures from the list (see below).

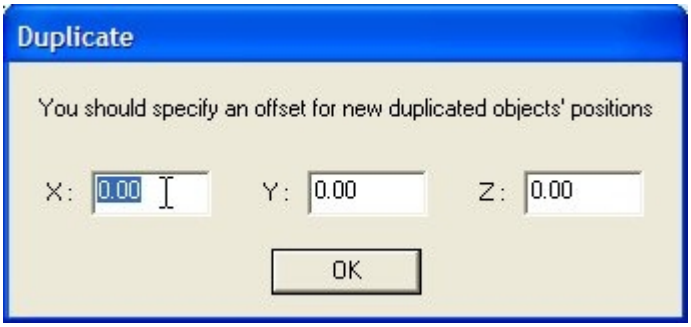


Changing size and colour of objects

We must go to the "Size" and "Color" tabs to change these settings. It is possible to modify the transparency of a 3D objects, this can be very useful to create a window...

Duplicate objects

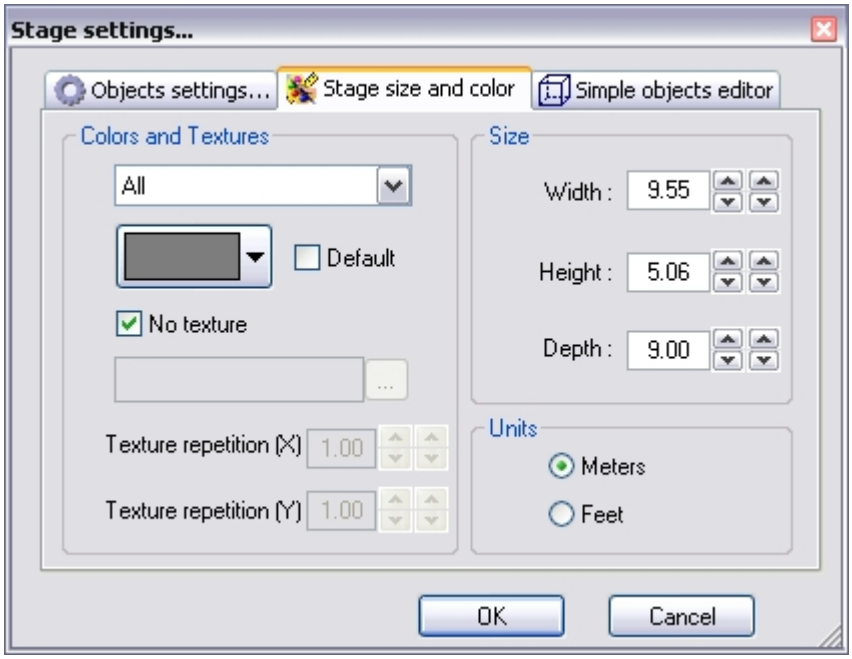
By resorting to the "Duplicate" function, you can edit in and quickly position one or several objects. For example, imagine that you have designed a set of truss elements in circle and that you would like to carry out the same layout at 4 meters away on the left side... The "Duplicate" function enables you to reinsert the whole set of objects and to move them proportionally in order to get a similar layout. Now, you can select your first group of objects (referred to as "circle 1") and by a simple mouse click, make the following "Duplicate" menu appear on the screen:



Duplicated objects will then be moved from their original position according to the offsets specified beforehand.

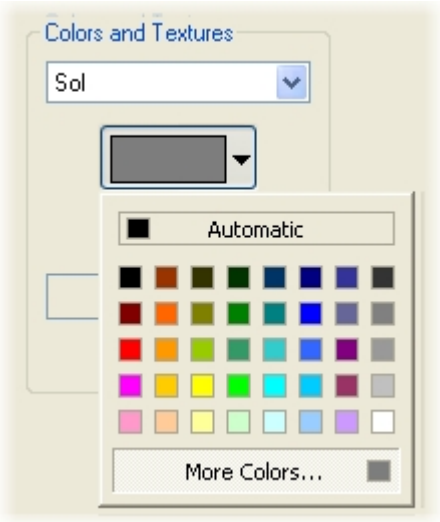
2.3.2 Stage size and color

Colour and dimensions of stage (width, height and depth) can be defined within this menu.



Colour

First you must select the face or select all faces to make your stage unicolored. To change colour, remove "x" from the "default" checkbox, then select the colour from the following window :



If suitable colour cannot be found, click "More Colors..." to get a wider selection.

Textures

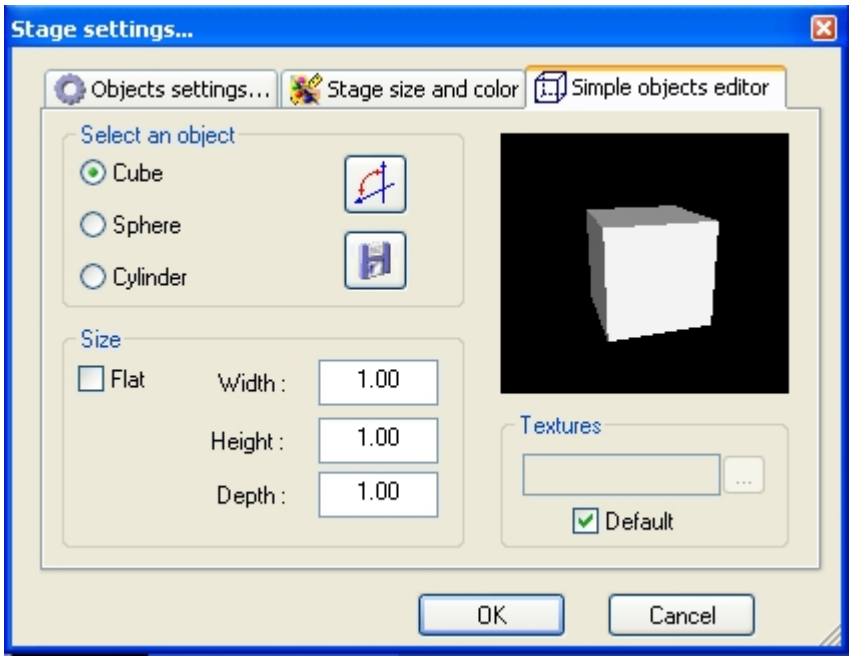
As for the colour, you must unselect the "Default" option to choose a texture for the walls. Select the image (BMP or JPG) by clicking on the "..." button. You can also make your texture repeating (horizontally and vertically) by using the "Texture repetition (X and Y)" controls.

Units

You can choose either to work in meters or in feet by selecting the unit from the corresponding control.

2.3.3 Simple objects editor

This new tool enables you to create your own objects and reuse them later on:



3 different types of objects can be created:

- Cube
- Sphere
- Cylinder

You can modify dimensions and then save them under the Microsoft X format. The "Flat" option enables you to add 2 cm in height and to quickly create a rectangular or circular screen in shape and reuse it over and over again in your future stages.

Textures

You can also add a texture to an object. You must unselect the "No" option to do so. Then, you just have to select an image by clicking on the "..." button.

2.4 Advanced functions

2.4.1 Rendering options

Several options are available to customize your stage and the rendering. All of then are in "Options" menu.

Shadows

It is possible to switch off shadow visualization. This option can be very useful if your graphic card is not powerful enough to get a correct rendering. The "F2" key enables to switch between the two modes.

Rendering mode

It is possible to switch between "Normal" and "Powerful" rendering mode. The software starts automatically in "Powerful" mode if your graphic card is compatible. However you can switch to the "Normal" mode if you think that it runs too slowly. The "F3" key enables to switch between the two modes.

Ambient lighting

It is possible to modify the intensity of Ambient lighting. To do so, we must open the "Options" menu, then "Ambient Lighting" and use the UP and DOWN options. The faders located on the "Options toolbar" ("View" menu, "Options toolbar") can also be used.

Fog density

You can adjust the fog density on your stage. To do so, you must go to the "Light beam" menu ("Options" menu) and select "UP" or "DOWN". You can also modify the density from the "Options toolbar" or using the keyboard shortcuts LEFT and RIGHT.

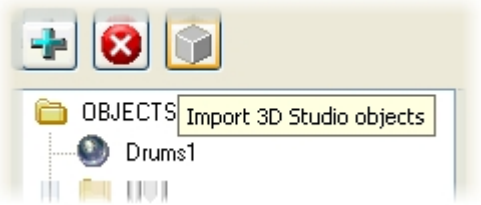
2.4.2 Groups

Groups are very useful to move several objects simultaneously (e.g. fixtures and trusses). You must open the "Objects settings..." tab to create a group. To do so, you must move all your objects in the same folder and then lock the folder by clicking on it with the right button of your mouse and select "Lock" from the menu.

Once the folder is locked, you can select the group by clicking on one of the objects (in your stage) or directly on the folder. It is now very easy to move your objects with the mouse. You can also rotate a group of objects, they will turn around the centre of the group.
To unlock a folder, you must right click and select "Unlock" from the menu. The rotations of your group will then be lost.

2.4.3 Import 3DS objects

You can import a 3D Studio Max (3DS) object into your stage thanks to the converter situated in the "Objects Settings..." tab. The converted objects are placed in the "Others" folder of the object library.



2.4.4 Library

All the 3D objects available in the software are situated in the objects library. However you can use your own objects (X format). It is better to use simple objects because it is a real-time application and big objects can make the program running slowly.
If you want to insert objects coming from another library, you will have to choose whether you want to copy the object in the library.

2.4.5 Shortcuts

Shortcut keys

0	Automatic rotation
1	Front view
2	Right view
3	Left view
4	Top view
5	Rear view
6	Camera 1 (personal)
7	Camera 2 (personal)
8	Camera 3 (personal)
9	Camera 4 (personal)
*	Move camera
+	Zoom In
-	Zoom Out
UP	Increase ambient lighting
DOWN	Decrease ambient lighting
LEFT	Decrease the fog
RIGHT	Increase the fog
F1	Help
F2	Enable/Disable shadows
F3	Jump between rendering modes

While you are moving an object with the mouse:

x	Move horizontally only
y	Move vertically only
z	Move on the depth only