Regia 2048

Professional light controller

User's Manual rel. 2.11

SGM LIGHT TECHNOLOGY

GB

Summary

Introduction

System Characteristics

Thank you for having chosen the SGM Regia2048

Regia2048 is a Console dedicated to the control of conventional and automated lighting fixtures of all kinds. By means of its four DMX-512 outputs, it is possible to control the timing and running modes of any fixture on the market, thanks to a comprehensive library that can be updated on an on-going basis. This Manual describes all Regia2048 functions with 2.0 software and later versions.
Software updates will be available in the future (along with the relative documentation) on the web site: www.regia2048.com

Three versions of the Regia-2048 are available for different requirements and applications:

- **Regia-2048 PRO** is the most compact, lightweight version.
- **Regia-2048 LIVE** was designed and built specifically for touring and television applications.
- **Regia-2048 OPERA** is ideal for controlling fixtures in theatrical applications.

Although having the same characteristics, the models differ for the hardware they are supplied with.
Regia2048 can be controlled by external trigger sources via MIDI, SMPTE or DMX, for running the shows programmed on board in sync.

Safety information

To ensure correct use of the unit, follow this manual's instructions closely.

- Connect the mains cable supplied to the console, after ensuring that it's correctly wired and appropriately grounded.
- Make certain that the mains supply is suitable (between 90 and 250 Volts, 50/60 Hz) and protected against overload or earth leak risks
- Do not use the system in adverse weather conditions, such as rain or temperatures of over 40°C
- Always use the unit's case when transporting it
- Handle the unit carefully, avoiding bumps or sudden changes in temperature.
- Console repairs or maintenance must only be carried out by authorized maintenance personnel; the guarantee will be considered null if unauthorized personnel tamper with the console.
- One person must not transport the console by him or herself.
- Do not spill liquids (beverages, etc.) on the front panel.
- Do not use pointed or blunt objects while using the touch-screen (Regia 2048 Live)
- Use only a dry cloth for cleaning. Avoid using solvents or stain/grease removers.

Following these instructions through time will ensure your console a long reliable life!

Using the manual

This manual explains operations for using the console with the software version shown on the frontispiece.
SGM Elettronica reserves the right to make any variations without prior notice.

To facilitate consultation to the utmost according to needs, the manual is divided into various areas.

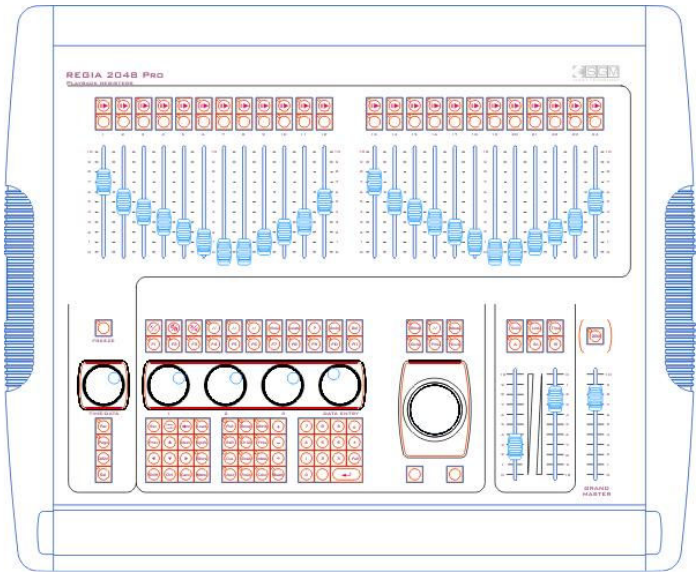
- **Quick start:** describes fundamental operations enabling the console to be used immediately
- **System architecture:** describes main hardware and software components.
- **System setup:** describes how to configure the Regia before starting a show
- **Basic programming:** gives all the necessary explanations for effective programming and playback of relatively simple shows.
- **Shape Engine:** describes all the functions of the effects engine.
- **Advanced programming:** describes all the functions of the console for sophisticated programming – ideal for expert users (not available yet).

Throughout this manual:
This format is used to show a physical key on the console.
This format is used to show a soft (display) key**.**

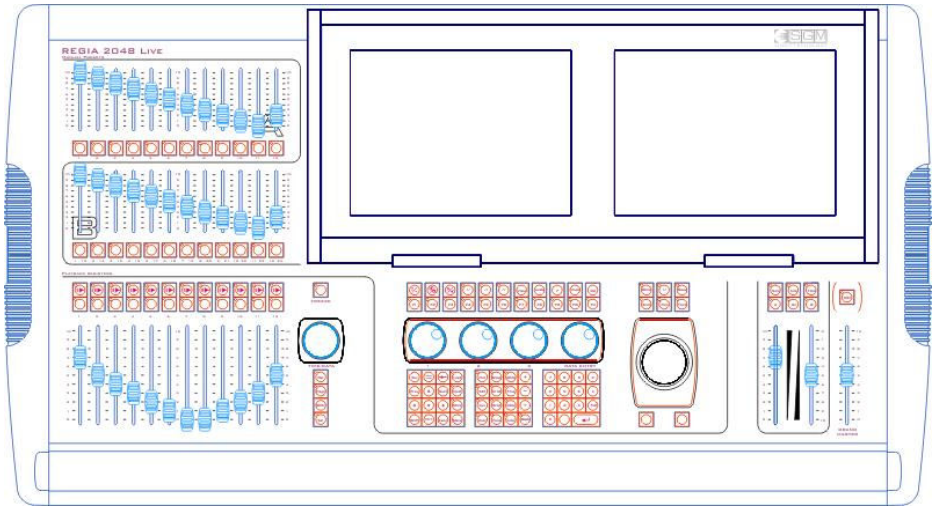
Control Layout

The Regia2048 series consists in three models: PRO, LIVE and OPERA. These differ for the hardware with which they're equipped

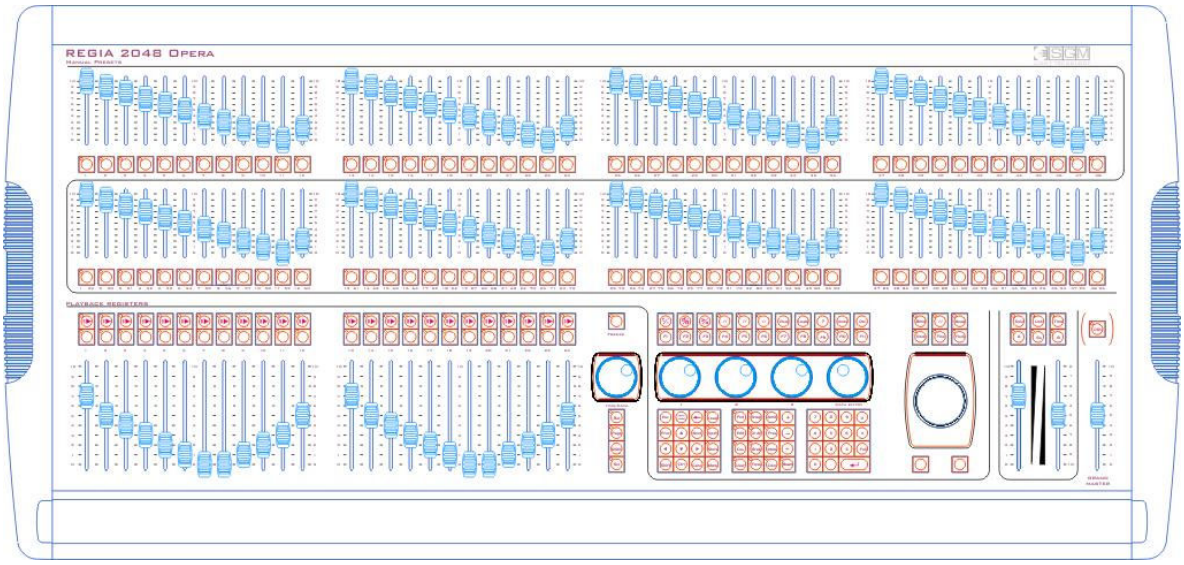
- 4 X 512 DMX output channels
- MIDI IN OUT THRU
- DMX IN
- SMPTE IN OUT
- 2 Ethernet LAN connections
- 2 SuperVGA out
- 2 built-in 12" TFT monitors, of which one is a touch-screen (Live model).
- 24 playback registers (Pro and Opera models)
- 12 playback registers (Live model)
- 12 + 12 manual presets (Live model)
- 48 + 48 manual presets (Opera model)
- 4 attribute control encoders
- 1 speed control encoder
- Trackball or mouse Pan & Tilt control
- Printer Port
- RS 232 Serial port
- Audio In



Regia2048 Pro



Regia2048 LIVE



Regia2048 Opera

Terminology

The following terms are used to indicate Regia2048 console functions

- **Cue:** establishes the times and modes of an attribute status of connected fixtures. The concept of a cue is similar to other frequently used terms such as "Scene" or "Memory"
- **Cue-list:** a group of cues available for playback in a specific order. Cues can be linked together, thus making the Cue-list a "Chase"
- **Page:** various Cue-lists can be assigned to different playback registers. Changing the page enables several Cue-lists to be assigned to different sets of playback registers.
- **Fixture:** generic term indicating any lighting instrument whose functions can be controlled by the console. Regia2048 has a comprehensive fixture library classified by manufacturer.
- **Attribute:** term indicating a characteristic function that the fixture in question has: e.g. Pan, Tilt, Dimmer, etc.
- **Grab:** a function that enables to take a "snapshot" of the DMX values being fed out and save them in any cue.
- **Palette:** particular Attribute status of the fixtures, such as Color, Gobos, etc. Changing a palette automatically changes all the cues "using" that palette. Palettes DO NOT regard the physical channel of the parameter they control, but the attributes of the individual fixtures. The types of palettes are identified according to category: Intensity, Pan/Tilt, Color, Gobo, Prism and Blade.
- **Timing:** set of times that can be assigned to each single Cue (Delay time, Fade IN Time, Stand time, Fade Out time).
- **Bank:** Regia2048 Live and Opera have 12+12 and 48+48 Manual Presets respectively. Each group of Presets is called a "Bank". It's possible to select various Banks in order to enable the required group of Presets.

Switching on and off

Preparing the Console

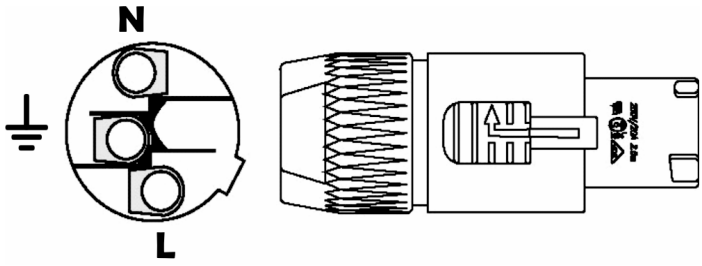
Proceed as indicated in the following instructions to prepare the console for use.

- Position the flight-case on a suitable stand or support
- Raise the top of the case with the aid of an assistant.
- Leave the console on the bottom of the case, which contains the keyboard and mouse supplied with the console.
- Connect the mouse and keyboard to the rear panel

ATTENTION!!
The rear panel has just one PS/2 connector for the mouse and keyboard. A split cable, supplied with the console, enables them to be correctly connected.

- Connect any external monitors to the appropriate SVGA connectors (Pro and Opera models).
- Connect the two desk-lights supplied.
- Connect the DMX signal cables to the appropriate 5-pole XLR connectors
- Connect the mains cable

The mains cable on the Regia2048 has a POWER-CON connector. This connector is supplied with the console.



Carry out the wiring as shown in the diagram, following the symbols in the following table.

Symbol	Pin	EU	US	UK
L	Phase (Live)	Brown	Yellow/Copper	Red
N	Neutral	Blue	Silver	Black
⏚	Ground	Yellow/Green	Green	Green

Switching the system on and off

Regia-2048 consoles do not require any particular procedure for switching on.

To switch on the Regia2048:

- Press the red button on the front panel for approximately 0.5 seconds. Once the Regia-2048 has been switched on, wait for the system to load.

To switch off the console:

- Press the ***EXIT*** key at the bottom right of the main screen.
- Regia2048 then runs the procedure for automatic data backup and switching the system off.

The Regia2048 can also be switched off by pressing the red button on the front panel for approximately 4 seconds. We strongly advise NOT to carry out this procedure when writing data on a disk (when changing settings, Cues, Palettes...). If the console is switched off by pressing the red button on the front panel, data backup procedure is not carried out.

ATTENTION!!
Regia-2048 has a buffer battery able to ensure operation for several minutes in the event of an unexpected power failure.

IMPORTANT!!
Regia 2048 can handle voltages of over 250 Volts. Accidental temporary connection to a 380 Volt power supply doesn't cause any damage to the console.

System reset

IMPORTANT!!
Before being distributed, software installed on the Regia2048 is extensively tested under a wide variety of conditions, in order to ensure that the product is stable and error-free.
In spite of this, the possibility of manual program recovery in the event of a blockage has been provided for:
On the console's keyboard, press the **Shift** **Esc** and **Del** keys simultaneously (press the **Del** key while the **Shift** and **Esc** keys are pressed).
Or:
On the external keyboard, press the **Alt** **Ctrl** and **Del** keys simultaneously. Select '***Task Manager'*** in the window that appears,

N.B. While the former procedure is 'softer' and doesn't affect any cue statuses being played out, the second is more "drastic" and blocks all cue-lists currently being played out, if any.

Quick Start

This chapter is intended for those users wanting a rapid effective approach to the console, in order to learn basic programming procedure in a short time Regia2048 enables to program a virtually unlimited number of Cues. These can be grouped together in Cue-lists, which are then controlled during Playback by any Register.

This chapter explains how to do this by means of the following points:

- Rapid Regia2048 setup
- Programming a Cue
- Preparing a Cue-list
- Playback of a Cue-list

Setup

- Connect the keyboard and mouse.
- Connect the external monitors (for Regia 2048 Pro or Regia 2048 Opera).
- Connect the DMX lines.
- Connect the console to the mains power supply and switch on the system.
- If there's no previous configuration, the Setup area will appear automatically. If a configuration already exists, make certain to save the show being run by pressing the ***Backup show*** key in the ***TOOLS*** menu, where a new show can be started by pressing ***Clear show.***
- Choose the required DMX output via ***DMX 1*** – ***DMX 4 or ALL*** in the "Address Patching" window.
- Choose a fixture brand in the "Brand" window (e.g. SGM).
- Choose the type of fixture to be controlled (e.g. ***Giotto Wash 400****).*
- In the "fixtures to add" field, in the window that appears, key in the number of fixtures connected to the console. In the "Start address" field, key in the numerical value of the first DMX address of the first fixture, using the keypad.
- Repeat the above operations to configure other Fixtures.
- Press ***Close*** to finish setup procedure.

Programming a Cue

1. As soon as Setup procedure is finished, press ***Close*** or ***Edit***, and the "Live Editor" work area will appear automatically, ready for programming. This window can be loaded at any time by pressing the **Edit** key
2. Make certain that the Grand Master is at maximum.
3. Select the required fixtures (e.g. the first 5) using the sequence: **Fixt** **1** **Thru** **5** **Return**, or by pressing the relative selection keys of the fixtures in the "Fixture" window. This window can be loaded at any time by pressing: **Fixt**.
   The selected fixtures will then appear vertically in the "Live Editor" window, with the relative attributes laid out horizontally. The pink grid shows that no Attribute has been changed.
4. Press **Locate** to set the selected fixtures in Home position. Locate enables to locate the fixtures on stage, as this command opens their shutters and sets their luminous intensity at maximum. Automated fixtures also move to the "Home" position (50% Pan 50% Tilt).
   "Locate" also assigns each Attribute in the selection a precise parameter in the "Live Editor". This can be easily seen, due to the fact that all the cells representing Attributes' status become GREEN.

ATTENTION!!
It is extremely important to start programming using the Locate command, since all the Attributes with a parameter (green cells) will be able to be stored in the Cue.

5. Change the required Attributes by using the four colored encoders (Red, Green, Blue and Yellow<<<9. The various sets of Attributes that can be assigned to the encoders can be selected by pressing the **Intens**, **P/T**, **Color**, **Prism**, **Blade** keys. If more than four channels belong to a set of Attributes (e.g.: Cyan-Magenta-Yellow-CTC-ColorW1-ColorW2), press the relative key (the **Color** key in this above case) repeatedly to choose the Attributes to be controlled by the four encoders.
   Parameters assigned to the encoders can be seen by means of the colored bargraph at the bottom left of the main monitor. In the case of motorized fixtures, the Pan and Tilt channels are always enabled on the track-ball for the fixtures selected.
6. To save the parameters assigned to the Attributes and create a Cue, press: **Store** and **Cue**.

Preparing a simple Cue-list

Each Regia2048 register can control an unlimited number of Cues. All the Cues that can be controlled by a register are in a Cue-list.
The **Store** **Cue** command saves the status of the Attributes of "Live Editor" in a Cue. The Cue-list that contains the Cue is automatically created in the selected Playback Register, if this Register does not control a previously prepared Cue-list. In a new show, the default Playback Register enabled is N° 1. This can be easily identified from the secondary monitor, which shows the first register highlighted with a yellow bar.
The **Store** **Cue** command also displays the list of the Cues in the Cue-list it's preparing.
This display can be viewed again whenever necessary by pressing **Cue**.

Once the first Cue has been saved:
1. Press **Edit** to display the "Live Editor" parameters again..
2. Change the existing parameters to create another Cue. The different selection of the fixtures in the "Live Editor" using the mouse (or touch-screen) only allows to change the Attributes of some fixtures and keep the previous data of others, according to the choices.
3. Save the new Attribute status using the **Store** and **Cue** command again.
4. Repeating the above operations in succession saves all the Cues, which are entered and automatically numbered in sequence in the same Cue-list.

If other Cue-lists are to be created in other Playback registers, a new register must be selected before saving the first Cue in the new Cue-list.
To select a new Cue destination register:
1. Press: **Sel**
2. Press the **PLAY** key above the required Playback register.

Or:
1. Press **Sel** repeatedly until the required register is selected, by scrolling the yellow selection bar in the secondary monitor.

It's also possible to save a Cue and select a register simultaneously as follows:
1. Keep the **Store** key pressed.
2. Press the **PLAY** key above the required playback register.

This enables the Playback register in question and saves the Cue in the corresponding new Cue-list, which is automatically created. All the following **Store** **Cue** commands will regard the new Playback register enabled.

Several pages of registers can be created, each able to contain one or more Cue-lists. Each Page can control a maximum of 12 Cue-list simultaneously on the Regia2048 Live and 24 Cue-lists on the Regia2048 Opera and Pro.

To create other pages:
- Press ***Pag.list***.
- Then press the ***Add page*** key for the required number of pages.

To select different pages during playback:
- Press the **Page** key and then key the required numerical value of the page into the appropriate field in the window that appears.
- Press **Enter** to confirm.

There are two methods of rapid page selection.

Rapid access is possible to the first 12 pages (or 24 on the Opera and Pro) by pressing the **Page** key and simultaneously pressing the **PLAY** key above the number of the Playback register corresponding to the page to be recalled.

Alternatively, it's possible to press **Page** repeatedly, scrolling the pages displayed in the "Change page" window. Waiting for two seconds at the required page confirms its selection.

Cue-list playback

Each Cue can be run with preset times.
The times that control a Cue are:
1. Delay time
2. Fade In time
3. Wait time
4. Fade Out time

Allocating or changing times is very easy:
- Press the **Cue** key to display all the Cues in the Cue-list controlled by the selected Register.
- Select the cells containing the times to by changed by double clicking with the mouse.
- Key in the new values using the keyboard or the Console's numerical keypad.
- Press **Enter** on the keyboard or the numerical keypad on the Console to confirm.

IMPORTANT!!
Before running a Cue or Cue-list, make certain the "Live Editor" doesn't still involve any fixtures. Press **Clr all** twice to close the editor

To run a Cue-list:

- Raise the level of the Playback register to 100% to control the brightness of the Cue to be run.
- Press the **Play** key above the register to call up the first Cues in the Cue-list.
- Press the **Play** key repeatedly to run the following Cues in the Cue-list.
- Where a "reverse" Playback is required (i.e. backwards: Cue8, Cue7, Cue6…..) just keep the **Shift** key pressed while pressing **Play** repeatedly.

To prepare any Cue in the Cue-list relative to the selected Register before its Playback:

- Press the **Goto** key and key in the number of the required Cue in the CueID field of the window that appears.
- Press **Enter** to confirm.

Regia2048 controls the Cues being run according to LTP (**L**atest **T**akes **P**recedence) priority. This means that if several Cues that control the same fixture(s) are enabled by several Cue-lists, the fixtures will only run the last Cue recalled.
LTP priority isn't the only one that controls the Attributes of Fixtures enabled by several Playbacks. There's also another type of priority, called HTP (Highest Takes Precedence).
This latter mode will be covered further ahead in the manual.

To "switch off" an enabled register (i.e. one with the Playback of a Cue):

- Keep the **Rel** key pressed.
- Press the **Play** key of the register to be released

All the fixtures under the control of the released register are put in "Stand-by" status – i.e. they remain as they are, apart from their luminous intensity, which is lowered to zero.

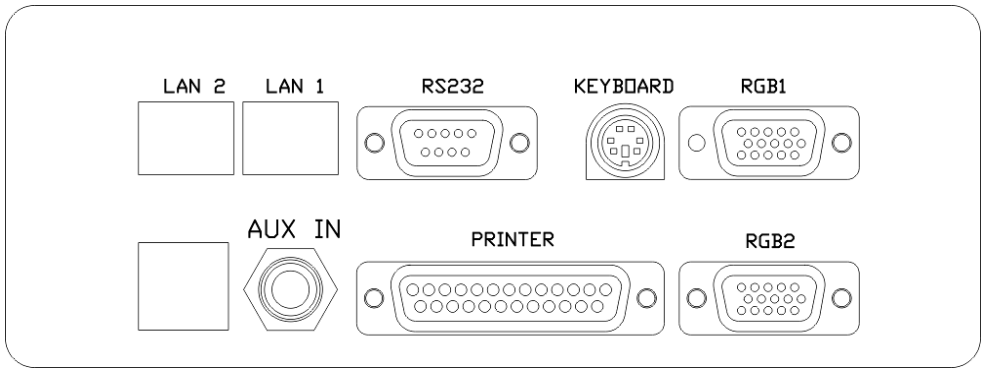
Register pages can be changed during Playback.
All the registers that are enabled remain as such even after having changed Page.
The registers that are still "busy" controlling the Cue-lists of the previous page can only control the Cue-lists of the new page if the control is released, using the **Rel** + **Play** command.

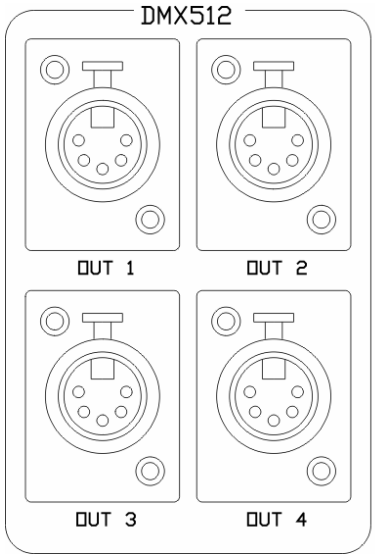
System architecture

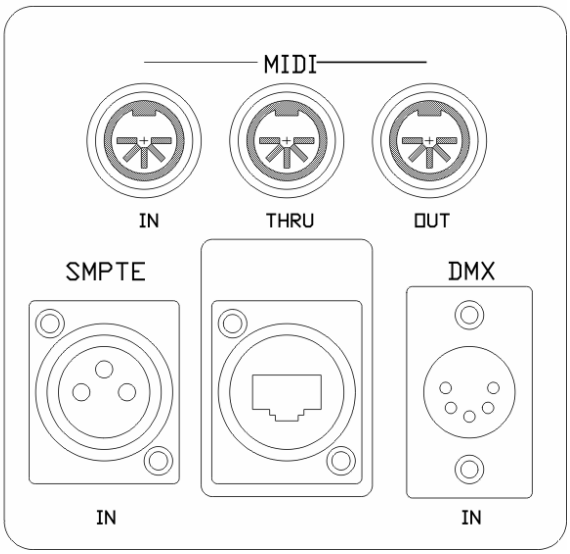
This chapter describes the various parts of the Console: Hardware and Software.

External connections

The first operations to be carried out during set-up are the external connections on the rear panel of the Console.
Connect the mouse and the keyboard to the "KEYBOARD" connector, the DMX lines (indicated as "OUT1- OUT4") and the monitors, if using models PRO or OPERA, to the appropriate "RGB1 and RGB2" connectors.







Lastly, connect the power cable with the appropriate connector, making certain that the ground is the same as that of the fixtures.
Switch on the console by pressing the button on the left of the front panel of the Console.

The console automatically uploads the last show programmed. If no shows have ever been programmed, or the previously programmed show has been cancelled, the Regia automatically goes to the fixture SETUP section, ready for a new configuration.

Software interface

Regia requires two monitors for correct use. On the Regia2048 Live, the two monitors are built-in, whereas the Pro and Opera models require two external SVGA monitors. The main monitor displays the work area in which show configuration, programming and saving is carried out.
The secondary monitor displays all the data useful for Playback.

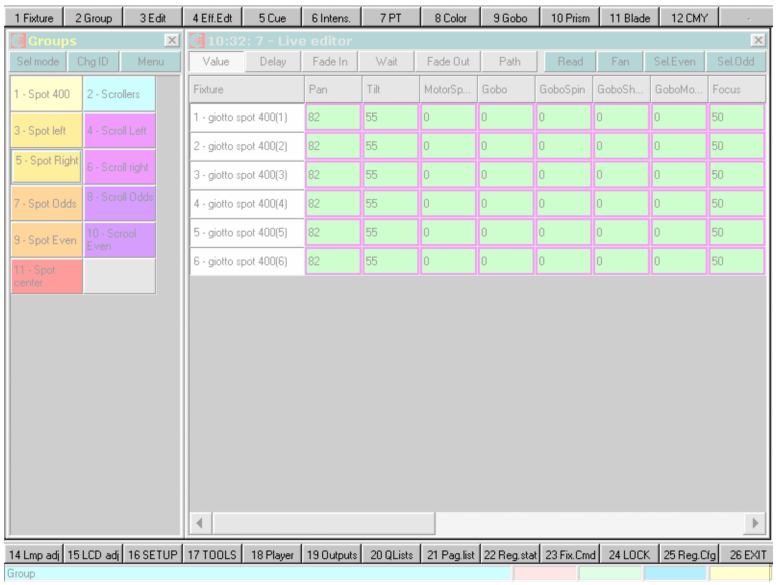
Main interface

Basically, the main interface of the Regia2048 consists in four areas:

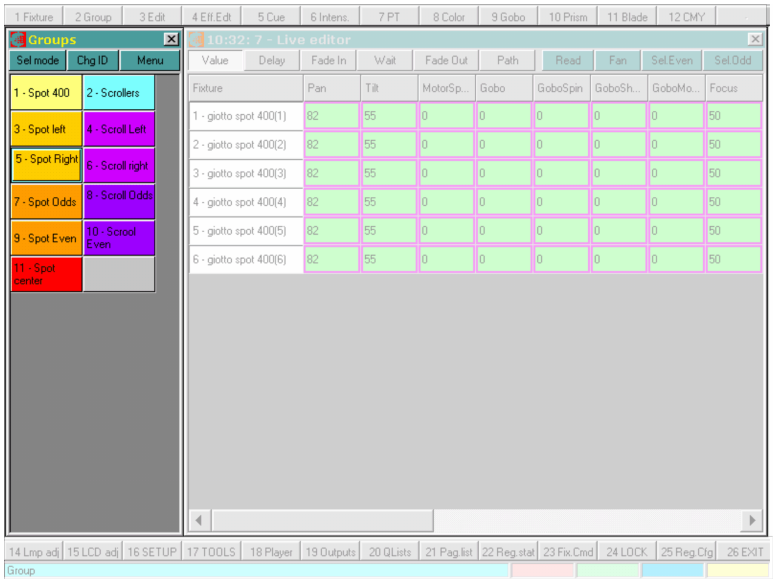
- Toolbars
- Selection window
- Parameter window
- Command Line
-

Let's examine the four areas and their use in detail.

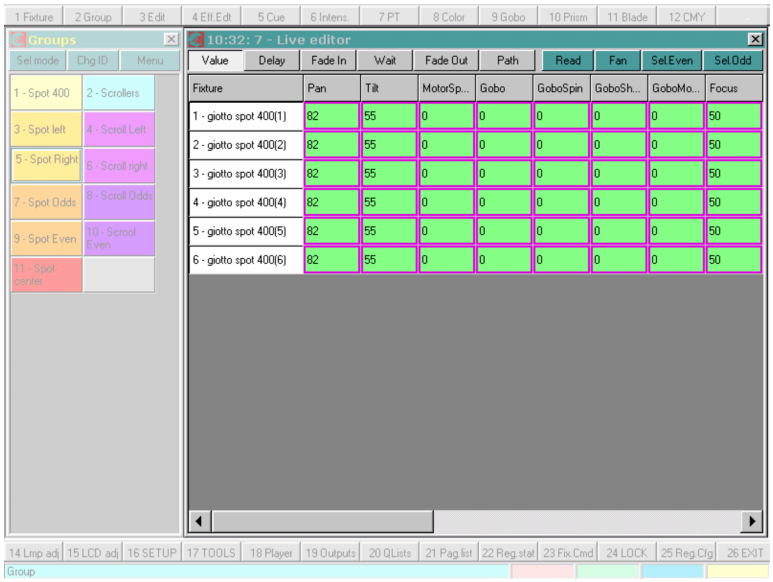
Toolbars
There are two, at the top and bottom of the screen. Each contains 13 buttons, some of which have functions that vary according to the operating environment (Setup or Editor).



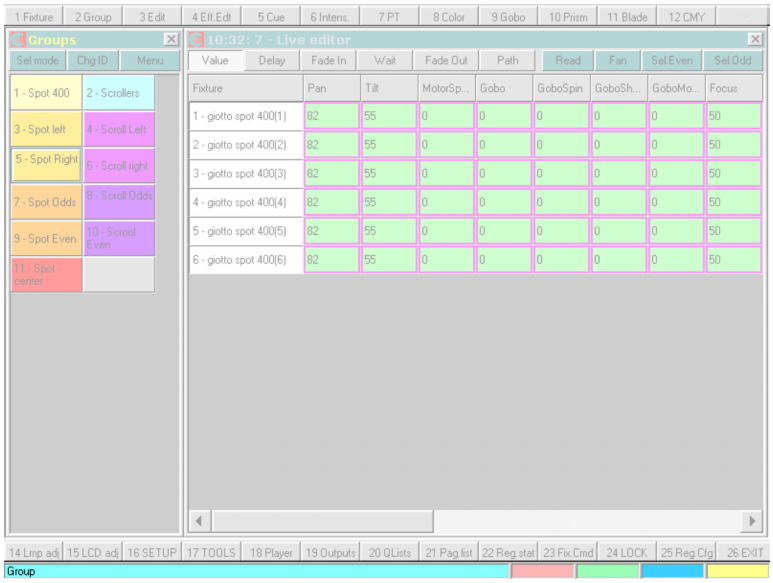
Selection window
On the left of the screen area. this contains all the selection elements: Fixtures, Attributes, Palettes, Groups, Grabs, Effects, which can also be selected according to the environment the operator's working in.



Parameter window This is the main part of the screen, and occupies ¾ of the area of the screen on the right-hand side. Displays all the information regarding Setup, Editor, Effect Engine, Timing and Playback parameters.



Command Line The lowest part of the screen, displaying the Command line and the allocations of the Editor parameters to the encoders, according to Red, Green, Blue and Yellow color codes.



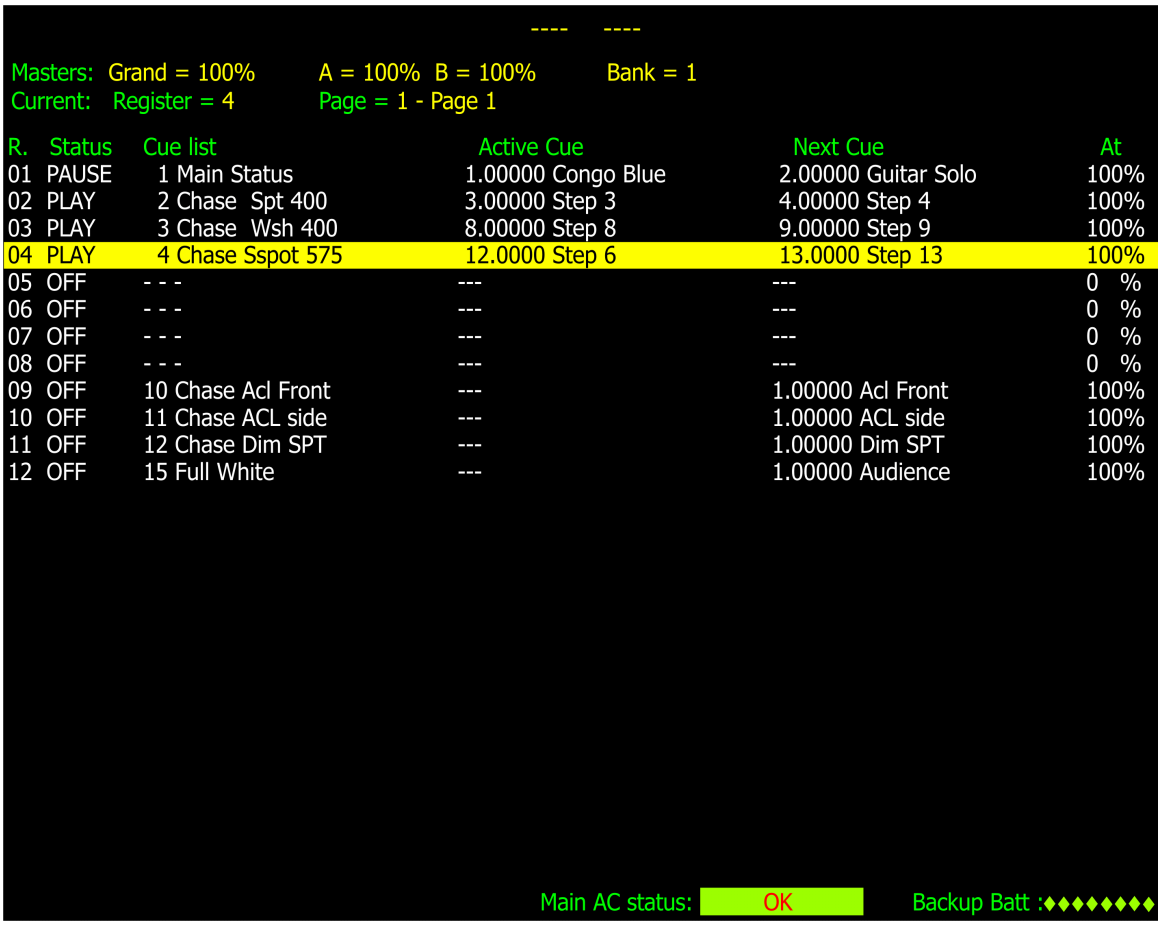
Secondary interface

The interface of the secondary monitor gives information that is indispensable during show Playback.
Pressing the **View** key repeatedly enables to scroll through the displays, which are (in this order):

- Register Status
- Manual Preset Status
- DMX OUT-1 Status
- DMX OUT-2 Status
- DMX OUT-3 Status
- DMX OUT-4 Status
- DMX-IN Status

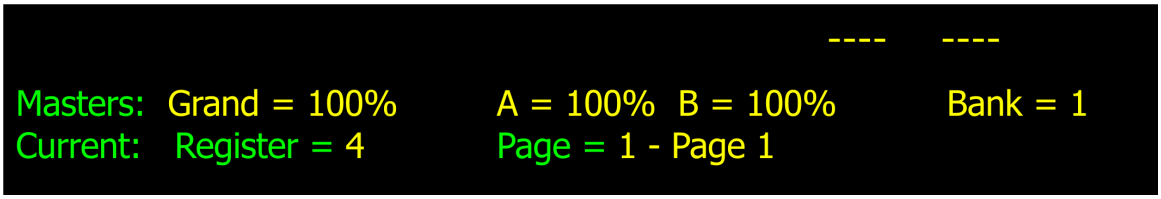
To scroll "backwards" through the windows, hold down the **Shift** key while pressing the **View** key.

The first window appears as default every time Regia2048 is switched on.
It shows the various data regarding the Playback section.
The Console's mains power and Backup Battery status is displayed at the bottom of the screen.



All the data shown in the first (Default) window are divided into three areas.
The first area displays very important data of a general nature, which are (in this order):

- Percentage value of the status of the *Grand Master*
- Percentage values of the two *"A" and "B"* masters
- Current Manual Preset Bank number (*Bank=1*)
- Playback Register selected (*Current: Register=4*)
- Number of the Page of the enabled registers (*Page = 1 - Page1)*



The centre part of the screen shows the Registers' Playback status. For Pro and Opera models, 24 Registers are displayed, whereas for the Live model, 12 registers are displayed (as shown in the diagram).
The display is divided into columns, which show (in this order):

- **R** Register number
- **Status** Register status Can be:
  1. OFF
  2. PLAY
  3. PAUSE
  4. MANUAL
  5. FREEZE
- **Cue-list:** Number and Name of the Cue-list controlled by the register
- **Active Cue** Number and Name of the Cue being run
- **Next Cue** Number and Name of the Cue that will follow in Cue-list Playback
- **At** Percentage status of the slider controlling the Cue-list

R.	Status	Cue list	Active Cue	Next Cue	At
01	PAUSE	1 Main Status	1.00000 Congo Blue	2.00000 Guitar Solo	100%
02	PLAY	2 Chase Spt 400	3.00000 Step 3	4.00000 Step 4	100%
03	PLAY	3 Chase Wsh 400	8.00000 Step 8	9.00000 Step 9	100%
04	PLAY	4 Chase Sspot 575	12.0000 Step 6	13.0000 Step 13	100%
05	OFF	- - -	---	---	0 %
06	OFF	- - -	---	---	0 %
07	OFF	- - -	---	---	0 %
08	OFF	- - -	---	---	0 %
09	OFF	10 Chase Acl Front	---	1.00000 Acl Front	100%
10	OFF	11 Chase ACL side	---	1.00000 ACL side	100%
11	OFF	12 Chase Dim SPT	---	1.00000 Dim SPT	100%
12	OFF	15 Full White	---	1.00000 Audience	100%

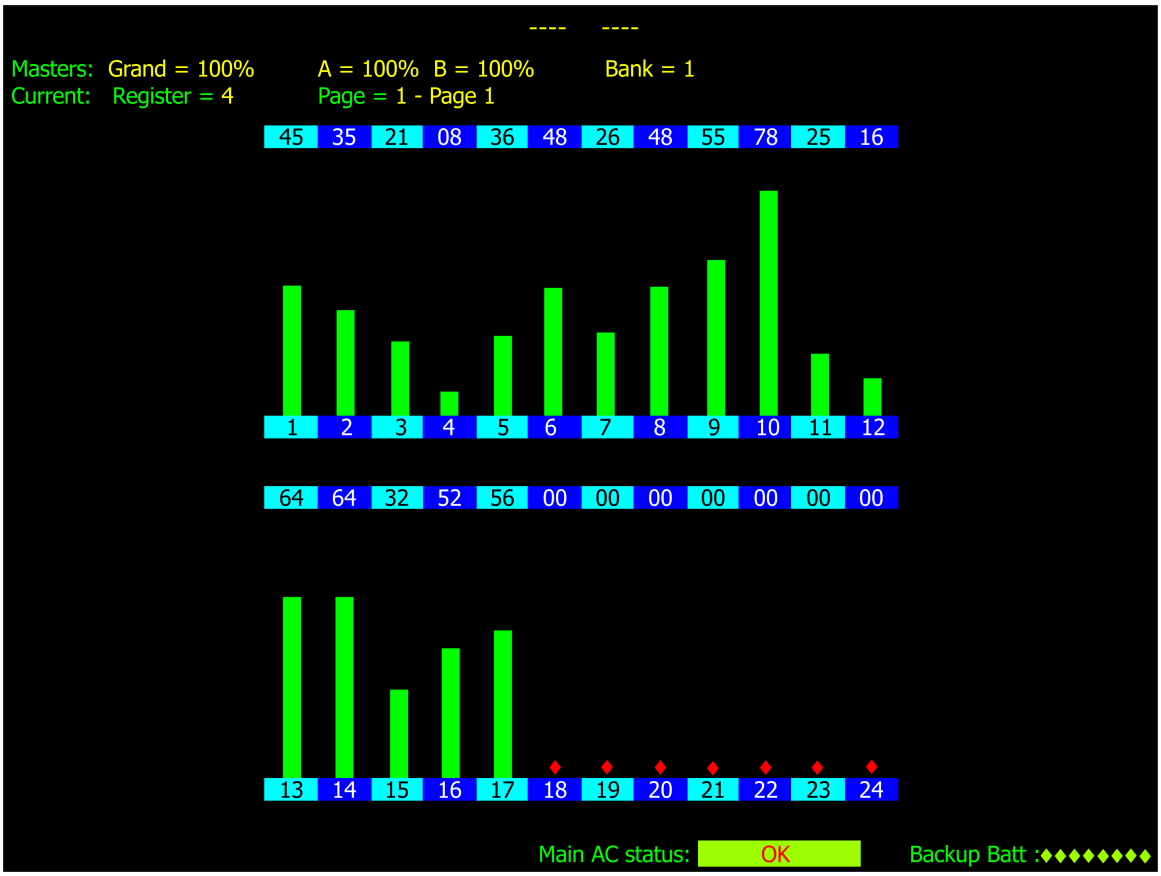
The bottom right-hand part of the screen displays the status of Regia's connection with the mains power supply and the status of the Backup battery.

In the event of an unexpected power failure, the "Main AC status" indicator displays a flashing MISSING warning message.
A WARNING window also appears in the main monitor, indicating power failure and the consequent intervention of the power feed from the backup battery.

The number of "Backup Battery" dots shows the buffer battery's charge level.

The second screen of the secondary monitor shows the status of the Manual Presets. The centre part of the screen displays the number of Manual Presets, according to the type of Regia being used (12+12 for the Live model and 48+48 for the Opera model).

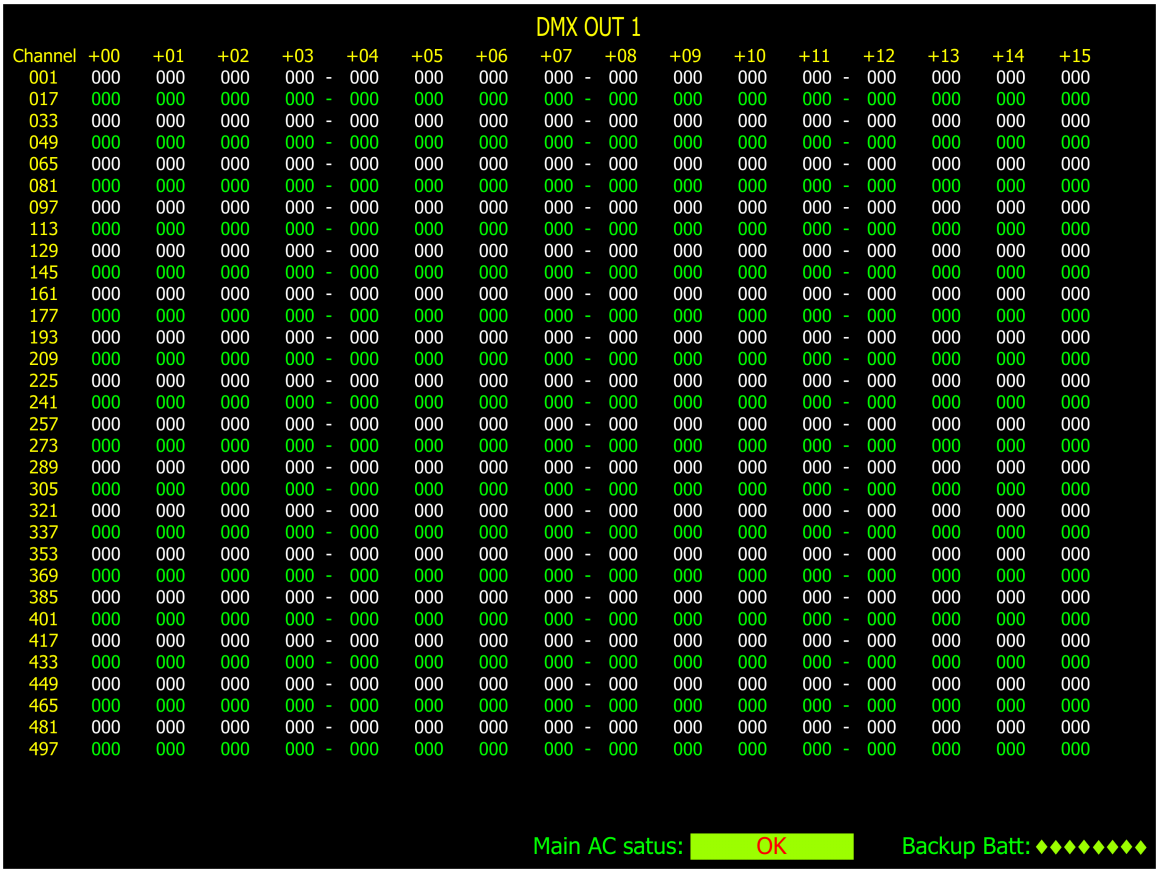
In the example shown in the diagram below, a "Single Preset" configuration can be seen, as the Presets are shown from number 1 to 24. When a Double Preset set-up is used, two groups (A and B) will be shown, numbered from 1 to 12.
The sliders' green position indicators show that the channels controlled by the cursors are enabled and under the control of the cursors themselves.



Disabled sliders are shown with a Red dot. Any level shown (i.e. from 0 to 100%) in red indicates the "physical" position of the Presets' sliders, which don't control the Attributes associated with the sliders themselves (control released). Vice versa, all the levels shown in green indicate the physical position of the Sliders that are at present controlling the Attributes associated with them.

If no Attributes are allocated to the Manual Presets, no Manual Preset status is displayed.

The third, fourth, fifth and sixth windows of the secondary monitor, simply show respectively the status of the DMX channels on the Regia2048's four outputs.



DMX OUT 1

Channel	+00	+01	+02	+03	+04	+05	+06	+07	+08	+09	+10	+11	+12	+13	+14	+15
001	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
017	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
033	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
049	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
065	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
081	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
097	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
113	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
129	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
145	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
161	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
177	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
193	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
209	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
225	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
241	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
257	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
273	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
289	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
305	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
321	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
337	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
353	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
369	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
385	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
401	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
417	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
433	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
449	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
465	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
481	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
497	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

Main AC satus: OK Backup Batt: ♦♦♦♦♦♦♦♦

Every time Cues are run, the Output windows display the status, and any variation, of the channels involved in the Cue (in real time).

The last window that can be displayed in the secondary monitor is almost identical to those already mentioned, and regards the display of the Regia2048's DMX input values.

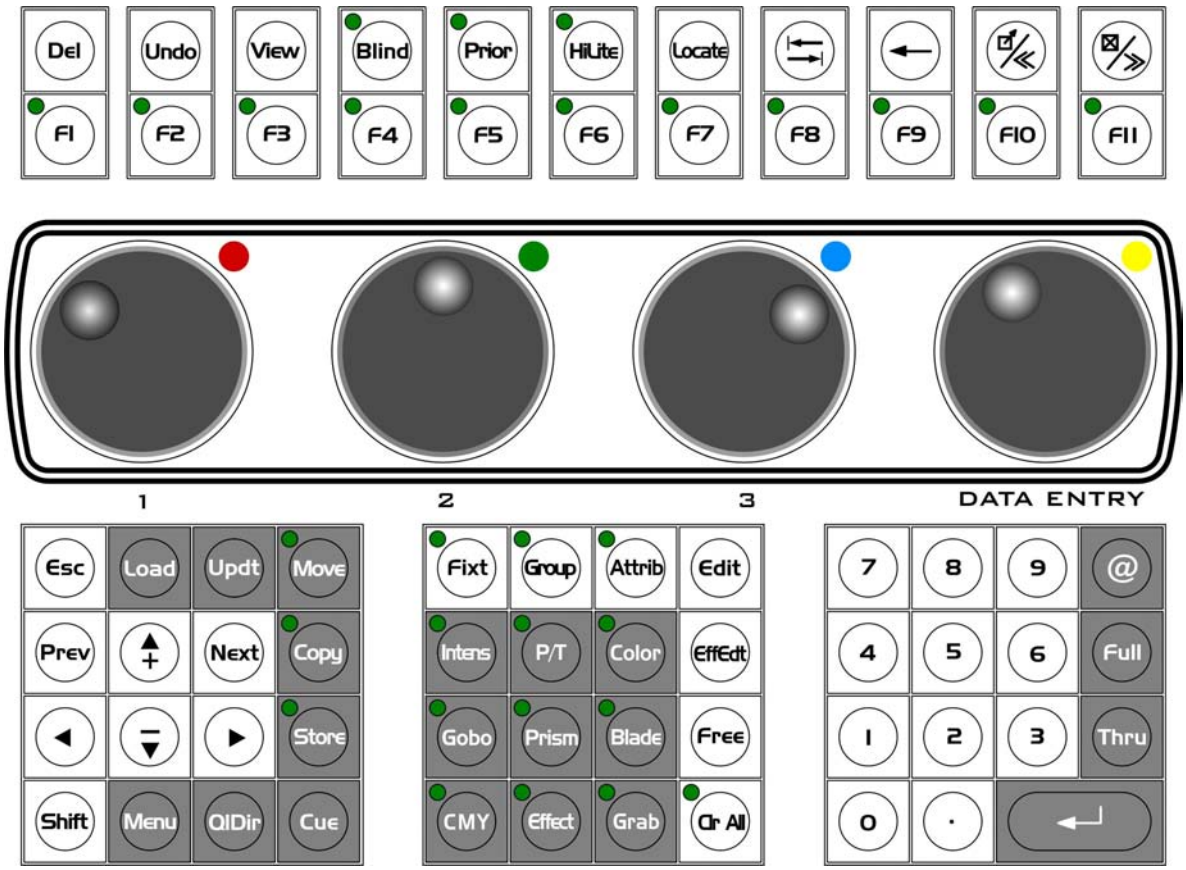
Editor Keyboard

The Regia2048 Editor Keyboard is the area that contains all the keys normally used for programming work. *Selecting*, *changing and saving*, are the "main actions" carried out using the Editor Keyboard.
Selection can be carried out on:

- Fixtures, Groups, Palettes, Grabs and relative windows
- Display windows of Live Editor, Blind Editor, Effect Editor, Cue-list, Cue-list Directory, Attributes and relative Menus.

Changing and saving can be carried out on:

- Groups, Palettes, Attributes in Live and Blind Editor, Effect Editor Parameters.
- Cues.
- Cues via Shape-Engine.
- Cue-lists.
- Cue timing.
- Copy, Move and Update procedure.
- Controlling all fixtures' attributes by means of the Encoders and Trackball.



The group of editor keys is divided into various areas, which are as follows:

1. Function and Service keys
2. Attribute control encoders
3. Navigation keypad
4. Selection and palette keypad
5. Numerical keypad
6. Pan/Tilt control trackball

Function and Service keys

Laid out in two rows. The upper row contains the *Service* keys, whereas the lower one contains the *Function* keys: **F1** - **F11**.

The *Service* keys are:

- **Del** irreversibly cancels "objects" selected in the enabled window
- **Undo** not yet implemented
- **View** switches the set of data displayed to the secondary monitor. The software displays various windows. Pressing this key enables to scroll forward through all the available windows. If it's pressed along with the **Shift** key, it's possible to scroll backwards though all the windows.
- **Blind** Switches the editor's mode from 'Live' to 'Blind' and vice versa. The fixtures' attributes normally influence the DMX output directly. In 'Blind' mode, the editor's contents don't influence the current scene in any way.
- **Prior** When enabled (green LED lit), gives the Manual Presets absolute priority for Attribute control over the Playback Registers with direct action in "Live Editor". When disabled, gives the Manual Presets priority over the Playback Registers when controlling LTP-type Attributes
- **HiLite** Switches the editor in and out of 'HiLite' mode; in this mode, the shutter and dimmer are set at 100% on all the selected fixtures in the "Live Editor", although keeping the corresponding Attributes "Empty". This mode is used to see the light beam of the selected fixtures during the programming of Cues that don't contain dimmer and shutter values, or for changing Palettes that do not contain Intensity values.
- **Locate** Sets all the default values on the attributes of the selected fixtures in the editor. Normally the first operation carried out when creating a Cue. The Locate command enables all the attributes in the editor

- **Tab** Tabulator: normally used instead of the mouse (or touch-screen) to move in the various controls of Windows' screens.

- **Back Space**. When entering numbers or strings with the keyboard, used to delete the digit on the left of the cursor

- **Zoom**/**Window left** Used alone, switches the dimensions of the enabled window between full-screen and normal. When used simultaneously with the **Shift** key, enables the window before the current one.

- **Close**/**Window right** When used alone, closes the enabled window. When used simultaneously with the **Shift** key, enables the window after the current one.

The **F1** – **F11** keys are completely configurable by the operator, for assignment of fixture Attributes to the encoders
For each "F" key, a custom control set of 4 parameters can be assigned to the encoders (e.g.: F1=Dimmer-Shutter-Focus F2=Cyan-Magenta-Yellow-CTC F3=Gobo1-RotGobo1-Gobo2-RotGobo2 F4….. etc.).

To allocate Attribute control to the encoders:

- Press the required **F...** key (the relative green LED lights up).
- Select a fixture (e.g. Giotto Wash400) already configured by the "Live Editor" panel.
- Select the first attribute (e.g.: Dimmer) using the mouse (or touch-screen).
- Keep the **F...** key pressed and move the first (Red) encoder. "Dimmer" will appear in the red field of the prompt line.
- Repeat the above procedure for the other attributes to be assigned to the other encoders.
- Choose a new **F...** key to organize a new set of encoders.

The configurations set are relative to each type of fixture, so it's sufficient to set the configuration for just one fixture of each type.

ATTENTION!
Parameter control customisation is only relative to the current show. It will therefore be lost every time a new show is started.

Attribute control encoder

The encoders control the parameters of the Attributes. The parameters allocated to the encoders are chosen by pressing the Palette keys (**Intens**, **P/T**, **Color**, **Gobo**, **Prism**, **Blade**), or by pressing the **F1** - **F11** keys if they are configured as previously explained.
If used when the **Shift** key is pressed, the yellow encoder changes the contents of the current cell of the enabled window no matter what's displayed in the Command line.

Navigation keypad

Used for navigating in the current selection of the enabled window, using the arrow keys.
Plus:

- **Esc** To de-select the current selection
- The **Load** key allows to upload the parameters of any one of the cues in the selected Cue-list or any Palette into the "Live Editor".
- The **Updt** key updates and saves the edited Cue or Palette after the Load command.
- **Move** Not yet implemented.
- **Copy** Allows to make copies of Cue-lists from the "Qlist Directory" window.
- The **Store** key is used to save Cues, Palettes and Groups.
- Press the **Cue** key to display all the Cues in the Cue-list controlled by the selected Register.
- **Qldir** Opens the "Qlist Directory" window, showing all the Cue-lists prepared.
- **Menu** Enables the menus relative to the current selection.
- **Shift** Enables the second function, where available.
- **Prev** and **Next** Automatically load the Cue before or after the Cue being currently edited into "Live Editor".
- **+** and **-** Allow addition or subtraction work during selections of the prompt line.

Selection and palette keypad

Pressing the keys shown below allows to select:

- **Fixt** Fixtures
- **Group** Groups
- **Attrib** Attributes
- **Edit** Live Editor
- **EFFedt** Effect Editor
- **Free** "Frees" Attributes from parameters
- **CrlAll** Clears the "Live" or "Blind Editor"
- **Intens**, **P/T**, **Color**, **Gobo**, **Prism**, **Blade**, **Effect** Palette
- **CMY** Gel Library (not enabled)
- **Grab** Grabs

Numerical keypad

Used to key numbers into Selection, Editor and Configuration fields
Also used to give a required intensity range or selection by means of the following keys:

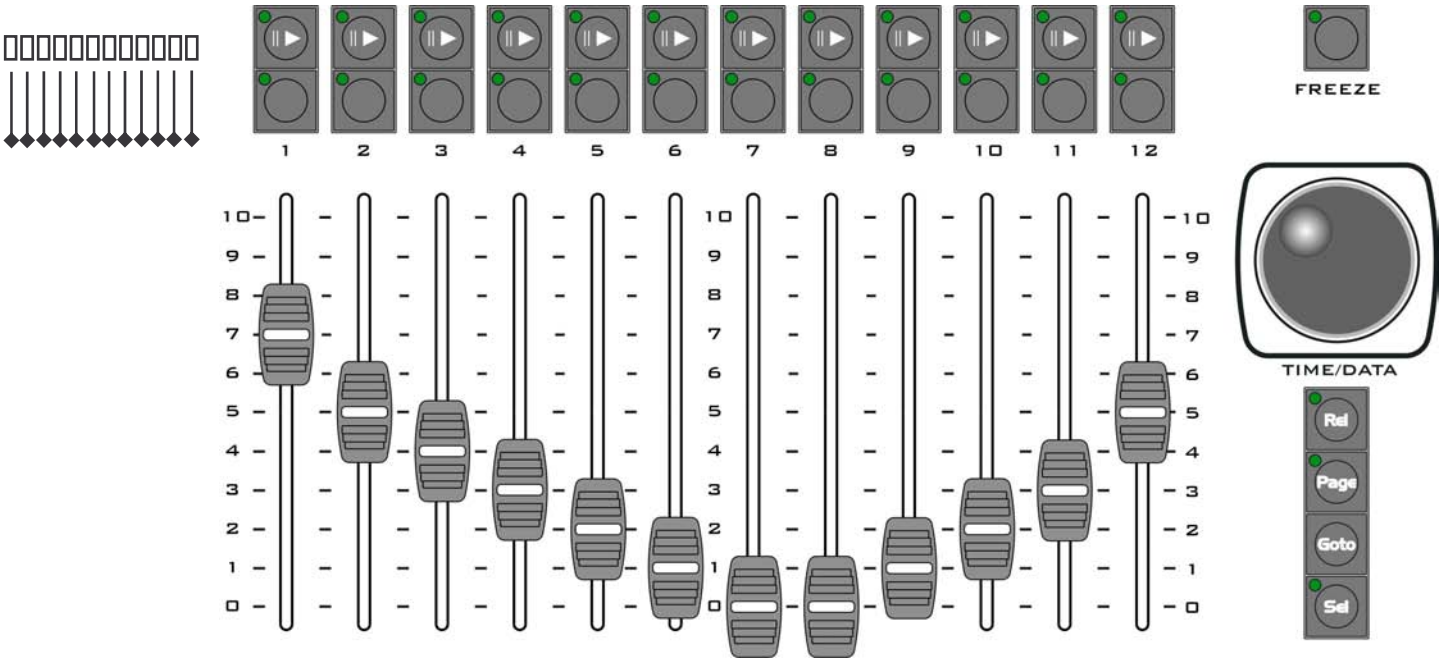
- **@**
- **Thru**

Pan/Tilt control trackball

The Trackball is used to control all selected fixtures' Pan and Tilt.
Pan control can be inhibited using the **Xlock** key and Tilt control using the **Ylock** key.
The **Fine** key is used for more precise (16-bit) control of Pan and Tilt attributes and other Hi-res attributes (Eg. Gobo index)

Playback

The Playback area allows to play out everything that has been previously programmed
The Regia2048 Pro and Opera models are fitted with 24 Playback registers. On the other hand, the diagram below shows the set of 12 registers on the Regia2048 Live.



A Cue-list containing one or more Cues can be assigned to each register of each page. The maximum number of Cues that can be allocated to a Cue-list is therefore virtually unlimited.
The two keys above each playback slider are respectively the **Play** key of the Cues (arrow key) and the **Flash** key.

Once the Cue of a Cue-list has been enabled, by means of the **Play** key of a register, the position of the relative slider sets the luminous intensity.

Playbacks are organized into Pages. Each page can contain 12 Playbacks for the LIVE model and 24 for the OPERA and PRO models. It's thus possible to create a virtually unlimited number of pages.

The TIME/DATA encoder changes the timing of the CUE of the selected register in real time, thus allowing to slow down or speed up the playback of the Cue currently being played back by a certain percentage.

Playback keys

The Playback keys are:

- **Play** (right arrow) to enable the playback of a Cue.

- **Flash** Located exactly under the Play key and used to flash the Cue being played back.

- **FREEZE** Allows to freeze a Cue during its Fade phase.
  Pressing **FREEZE** and the **Play** key of the register to which the Cue to be "frozen" belongs blocks the Cue in its current status. Pressing the **Play** key re-starts the previously frozen Cue.
  Holding the **Shift** key down while the **FREEZE** key is pressed "freezes" all the Cues being faded in all the Playback Registers.
  The same effect is achieved by pressing the **FREEZE** key twice repeatedly.

- **Rel** (Release) 'Releases' (switches off) the Cues of the registers being run.
  Pressing the **Rel** key and then the **PLAY** key of a Playback register, the cue of the register in question is removed from playback and any delay or acceleration set for that register with the TIME/DATA encoder cancelled.
  Pressing the **Rel** key while the **Shift** key is pressed, all the registers are "released" simultaneously. The same effect is achieved by pressing the **Rel** key twice repeatedly.

- **Page** Allows to change Playback register page. There are three ways of changing page.
  Press the **Page** key and key in the number of the required page. Press **Enter** to confirm. This gives direct access to the first 12 pages on a Regia2048 Live, or the first 24 in the case of a Regia2048 Pro or Opera.
  A third method for changing page very rapidly is by repeatedly pressing the **Page** key, scrolling to the number of the page required.

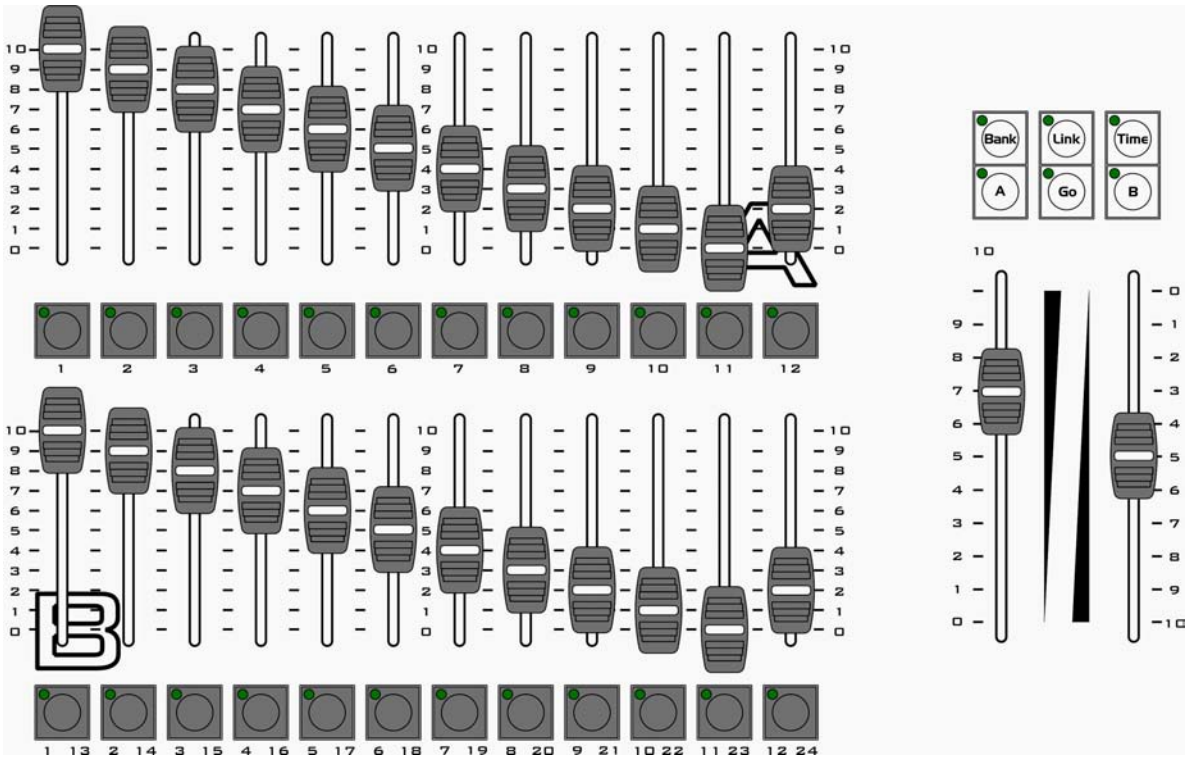
- **Goto** Allows to prepare any Cue in the Cue-list relative to the selected register before it's played out.
  Press the **Goto** key and key in the number of the required Cue. Press **Enter** to confirm.

- **Sel** Allows to choose the enabled register. When this key is pressed, the LEDs of the **Play** keys all go off, except that of the enabled register, allowing it to be immediately identified. To change the enabled register, just press the **Play** key of the required register while the **Sel** key is pressed. Otherwise, it's possible to scroll through the selection of the enabled register by repeatedly pressing the **Sel** key.
  The enabled register is very important, as many functions and/or commands refer explicitly to it (e.g. the TIME/DATA encoder, **Goto** key and **Store** **Cue** command…).

- **Time/Data** is a Wheel that gives a percentage adjustment of the running times of Cues belonging to the Cue-list of the selected register. Turning the encoder shows a window with a field called "Speed Rate". With a Rate= 1, Cue times remain unchanged; with Rate= 0.5, Cue times are doubled; with Rate= 2, Cue times are halved.

Manual Presets

The manual preset section is very useful in the case of typical theatrical programming, or for real time modification of particular Attributes during Playback procedure.
The allocation of the control of the Attributes to the manual Presets is carried out in the following menu path:
SETUP -> ***Fixture Configuration*** –> ***Preset configuration*** (see "Console Setup" Chapter).



There are no manual Presets on the PRO model. There are 12+12 on the LIVE model and 48+48 on the OPERA model. They can be used in two groups (A and B) with the relative master controls, or as a single preset (24 for the LIVE model and 96 for the OPERA model). This choice is carried out following this menu path: ***SETUP*** -> **Option.**
The keys below each Preset are the Flash controls of the Attribute(s) associated with the Preset itself.
Each individual slider can be allocated 1 or more Attributes of the fixtures used for the Show.

ATTENTION!!
An Attribute cannot be allocated to more than one Manual Preset.

"Bank" is word use to define all the Preset sliders. To overcome the limit of the number of physical preset sliders, it's possible to define up to a maximum of 86 banks (see "Preset Configuration" at section: ***Setup*** -> ***Fixture Configuration***).

The Manual Presets can be used in two different modes (high or low). The **Prior** key allows to select these modes.

1. High mode
   When Prior is enabled (LED lit), the Manual Presets have high priority; this means that they enter the parameter of the Attribute controlled by the Preset directly into the "Live Editor". In this work mode, the Attributes controlled by the presets have priority over the Attributes themselves, even if controlled by one or more Playback Register. In this mode, it's also possible to use the Manual Presets to save new Cues very rapidly. In this mode, the action of the Presets is eliminated by pressing the **CrlAll** key twice consecutively. Pressing the **Rel** key simultaneously with the **Flash** key of an enabled Preset, releases the control of the Attribute by the Preset in question, but does not influence the current status of the Attribute in "Live Editor".

2. Low mode
   If Prior isn't enabled (LED off), the Manual Presets operate with LTP priority in relation to the Playback Registers, and don't operate at all at "Live Editor" level, as in the previous case. To release the control of one or more Attributes controlled by a Preset, press the Preset's **Rel** and **Flash** keys simultaneously. Low mode is very useful for live shows on which a set of Attributes has to be controlled rapidly on a temporary basis.

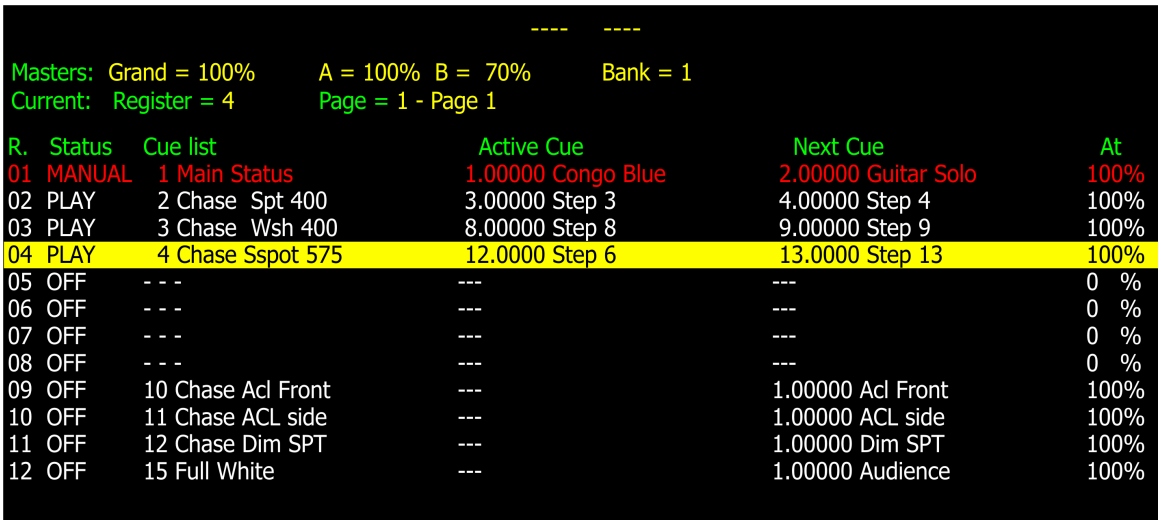
Preset keys

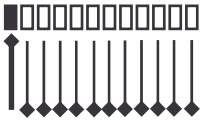
The keys relative to the Preset section are:

- **Bank** Allows to change the current Preset 'bank'. In the same way as described in the Playback section, here too the Bank can be changed in various ways.
  Press the **Bank** key, then key the numerical value of the required bank into the "Bank" window that appears.
  Press **Enter** to confirm.

  Otherwise, it's possible to press the **Bank** key simultaneously to the button of the preset channel corresponding to the required bank, for immediate access to 12 banks for the Live model and 48 banks for the Opera.
  Lastly, it's possible to select the bank by pressing the **Bank** key repeatedly to scroll through the selection to the required number.

- **Link** A very useful instrument, particularly in theatrical applications. The "Link" function can only be enabled if the Manual Presets are configured as "Single Presets" (see: ***SETUP -> Option***). Pressing any **Play** key of any Playback Register while the **Link** key is pressed enables the manual Crossfade control of the Cue-list of the register in question, via the Master B control. An entire page of Registers can be allocated to manual Crossfade control by Master B. The manual Crossfade control of the cue-lists can be easily found by means of the Default screen of the Secondary monitor, as shown.





In the example in the diagram, the Cue-list of the first Playback Register is highlighted in red, as it's manually controlled by Master B via the "Link" function. Pressing the **Play** key of the Register repeatedly (in the example, the first), allows to choose the Next Cue before the crossfade. The Register's slider controls the luminous power of the Cue being run.
To unlatch the Cue-list from manual control, press the Register's **Link** and **Play** keys simultaneously.

- **Time** Allows to enter an automatic fade time between Preset A and B. Press the **Time** key, enter the crossfade time in seconds in the appropriate window and confirm with **Enter**.

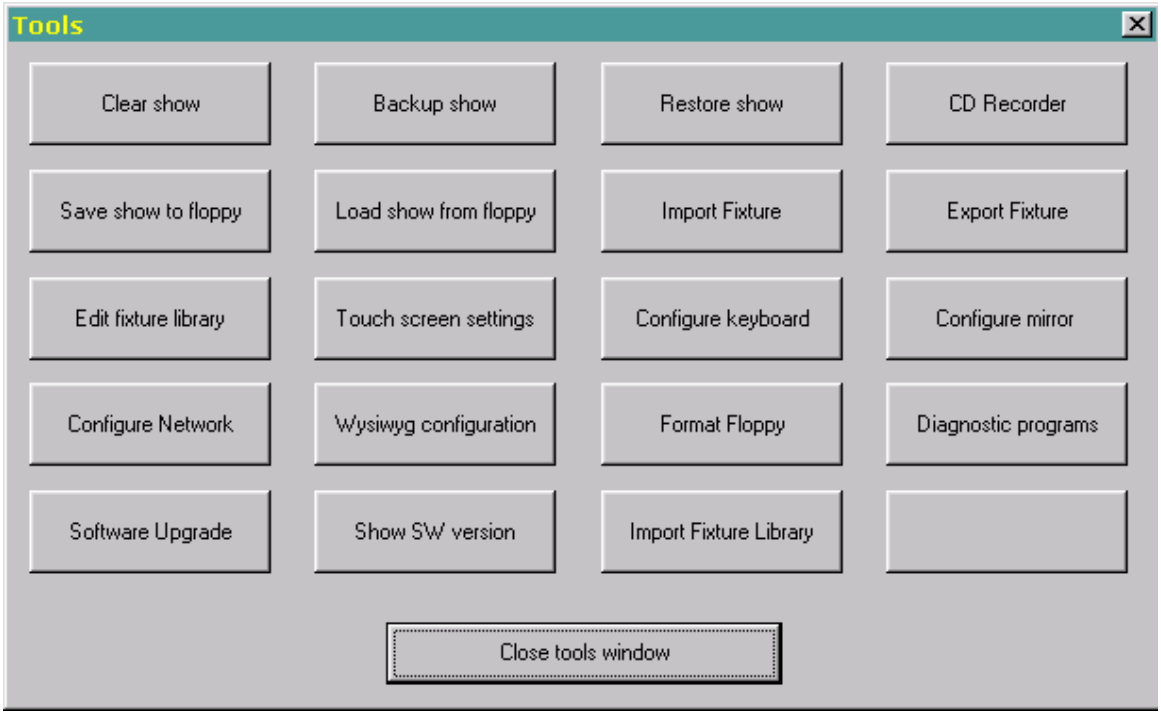
- **A** Begins the automatic crossfade from preset B to preset A with the time programmed using the **Time** key. The lit LED shows that the crossfade is running or that master A is at 100%.

- **B** Begins the automatic crossfade from preset A to preset B with the time programmed using the **Time** key. The lit LED shows that the crossfade is running or that master B is at 100%.

- **Go** not available

Tools

The "Tools" menu gives access to all the Console's service functions, including those for saving and restoring the shows.
It can be disabled at any time by pressing the **TOOLS** key, located in the bottom key toolbar of the main interface.



The following is a brief description of the "action" of each key in the "Tools" menu.

Creating a new Show

The ***Clear Show*** key cancels the current show and prepares Regia for setting the configuration of a new Show. The information contained in the current Show includes all the data that control it: from its configuration to custom settings and the Programming and Playback data.

ATTENTION!!
The "Clear Show" function isn't reversible, so always make certain to store the current show using the "Backup show" function before going ahead with Clear procedure.

To create a new show:

- Press the ***Clear show*** key.
- A WARNING window appears, warning that the current show is about to be lost.
- Press ***Yes*** to continue, or ***No*** to abandon "Clear show" procedure.

Saving Shows on HD

Backup show saves the current Show with the required name in the library of shows already created on the console's Hard Disk.
To save a Show in the library:

- Press the ***Bckup show*** key: the "Save Data" window appears.
- Key the show's name into the appropriate "folder name" field.
- Press the ***Backup*** key to save.
- Press ***Exit*** if you intend abandoning saving procedure in advance.
- If Backup is chosen, wait for the "OK" window, which indicates that saving has been completed, then press the ***OK*** key to continue.

The "Save Data" window displays all the Shows saved on the Regia2048 Hard Disk, with relative saving date and time and it's also possible to cancel one or more Shows from the library.

To delete a Show from the library:

- Click on the Show to be delete, which will automatically appear in the "Folder name" field
- Press the ***Delete folder*** key
- The "Delete Show" window that then appears warns that the Show is about to be definitively deleted
- Press **Yes** to proceed or **No** to abandon this operation

ATTENTION!!
Deleting a folder containing all the information on a Show is an irreversible operation, therefore the data will be definitively lost.

To upload a Show into the Library:

Restore show allows to reload a show previously saved in the library of the Console's Hard Disk

To upload a Show from the library:

- When the ***Restore show*** key is pressed, the "Restore Data" window appears.
- Click on the Show to be reloaded from the list.
- The name of the selected Show will appear in the "Folder name" field.
- Press the ***Restore*** key.
- A WARNING window appears, indicating that while the new Show is being uploaded, the Console will stop all DMX data transmission.
- Press ***OK*** to proceed, or ***Cancel*** to abandon this procedure.
- After pressing ***OK***, wait for the new Show to be uploaded.

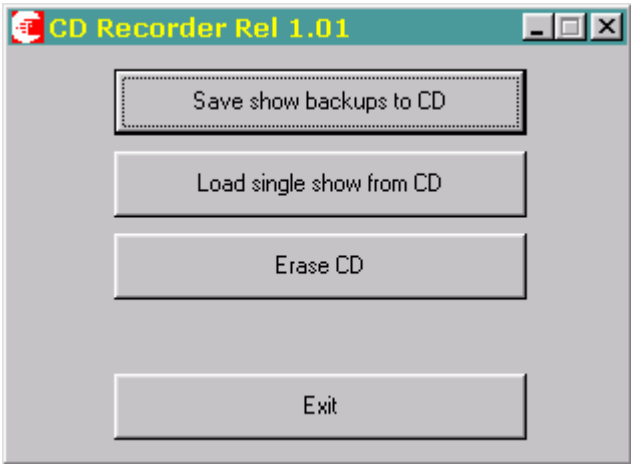
In this case too, by means of the "Restore Data" window, it's possible to delete one or more shows definitively from the list, using the ***Delete folder*** key, with the same procedure as described above.

Saving and uploading shows on/from CDs

CD Recorder gives access to the functions for recording/playing data on/from a CD. Regia2048 is equipped with a CD-RW drive that can be used to save your own Show library contained on the Hard Disk on a rewritable CD. The CD Recorder function also allows to restore your library of shows on the Hard Disk, or upload a required show from a CD.

To save the Show library on a CD:

- Press the ***CD Recorder*** key
- A WARNING window appears, indicating that all the operations carried out on the CD will cause the blockage of DMX data transmission by the Console.
- Press OK to continue.
- The "CD Recorder" window that appears has the following keys: ***Save show Backups to CD***, ***Load single show from CD*** and ***Erase CD***.



- Press the ***Save show Backups*** key
- A WARNING window advises to save the current Show on the HD before continuing this procedure. This is due to the fact that the material saved on CD regards is relative to all the Shows already saved on the Hard Disk. It's therefore advisable to carry out "Backup show" procedure of the current show too, in order to be able to save it on the CD.
- Press Yes in the WARNING window to continue.
- The message "Writing in progress please wait" appears below the "Erase CD". key, indicating that the data are being written on the CD.
- The message **"Written Successfully"** stops saving procedure.

To upload a Show from a CD, proceed as follows:

- Put the CD containing the Shows in the CD-RW drive.
- Press ***CD Recorder*** in the Tools menu.
- Press the ***Load single show from CD*** key in the "CD Recorder" window.
- Select the required Show in the "Select show to load" window that appears.
- Press the ***OK*** key.
- Wait for the "OK" message indicating that uploading is complete, then press the ***OK*** key.
- Press the Exit key in the "CD Recorder" window to start the Show that has just been uploaded.

To erase the contents of a CD using the CD Recorder menu:

- Put the CD containing the Shows in the CD-RW drive.
- Press ***CD Recorder*** in the Tools menu.
- Press the ***Erase CD*** key.
- A WARNING message indicated that all the data contained on the CD are being definitively ereased.
- Press ***Yes*** to proceed.
- The message: "Erasing CDRW: This will take about.." indicates that CD erasing procedure is under way.
- The "OK" window with the message **"Erased successfully"** indicates that the procedure has been completed.
- Press ***OK*** to return to "CD Recorder".
- Press ***Exit*** to return to Regia.

Saving a Show on a floppy disk

Save show to floppy allows to save the current Show on a floppy disk

To save the current Show on a floppy disk:

- Press the ***Save show to floppy*** key in the "Tools" menu.
- Press the ***OK*** key after having put a floppy disk in the appropriate drive.
- Write the name of the Show in the "File" field of the "Select show to save" window.
- Press the ***OK*** key.
- The message "**Show saved to floppy successfully**" indicates that the procedure has been completed.
- Press ***OK*** to return to the Tools menu.

Uploading a Show from a floppy disk

Load show from Floppy: for access to drive A:\ to upload Shows previously saved using the "Save show to floppy" function.

To upload a Show from a floppy disk:

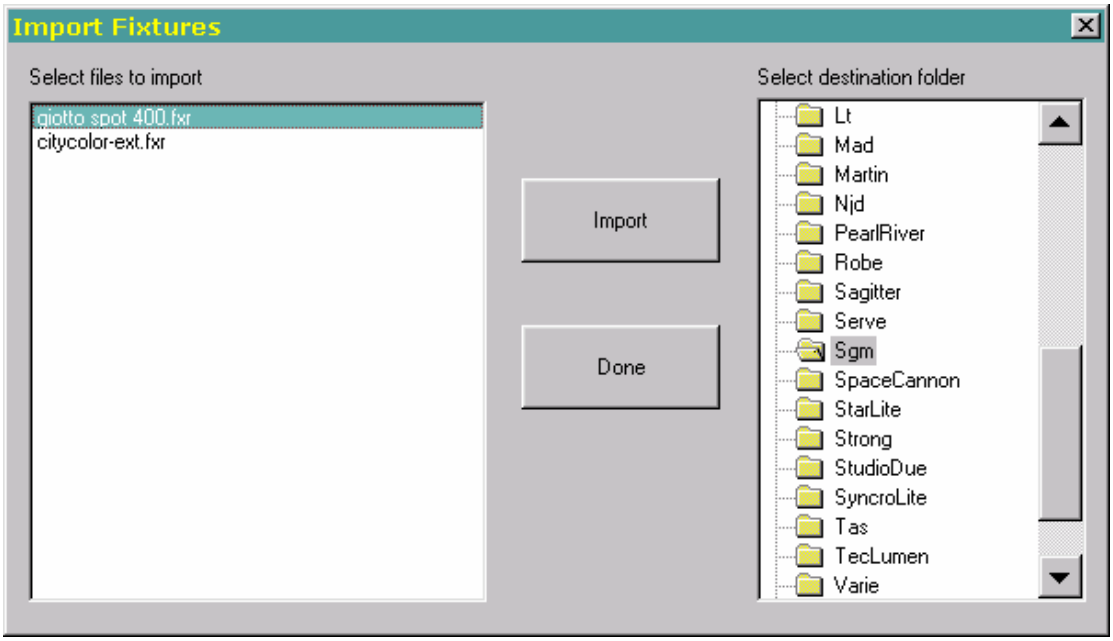
- Press the ***Load show from floppy*** key in the "Tools" menu
- Press the ***OK*** key after having put a floppy disk in the appropriate drive.
- Select the Show to be uploaded from the list in the "Select show to load" window.
- Press the ***OK*** key.
- Wait for uploading procedure to be completed.
- Press ***OK*** in the WARNING window to continue using Regia with the new Show. This operation will stop DMX data transmission.
- Wait for Regia to start operating with the new Show at its disposal.

Importing a Fixture into the Library

Import Fixture is a very important utility, as it allows to import new Fixtures into the Library, for the control of luminaires. Fixture files have an "*.fxr" extension and can be downloaded from: www.regia2048.com
"Import Fixture" enables to keep Regia2048's on-board library constantly updated.

To import a new Fixture:

- Press the ***Import fixture*** key in the "Tools" menu.
- Put the floppy containing the "*.fxr" file(s) in the drive and press ***OK***.



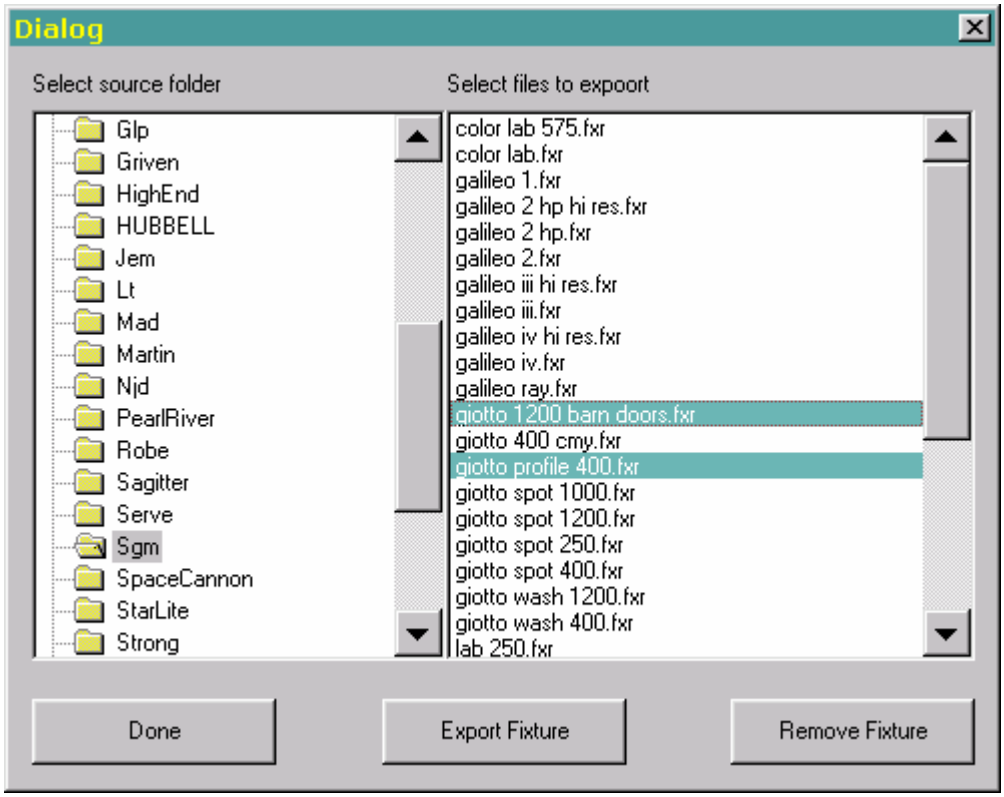
- Select the required "*.fxr" file(s) on the floppy disk in the "Select files to import" field.
- Select the destination of the Library in the "Select destination folder" field.
- Press the ***Import*** key and wait for Import procedure to be completed.
- Press ***OK*** in the "Import fixture" window when the file(s) has/have been copied.
- Press ***Done*** to return to the "Tools" menu.

Exporting a Fixture from the Library

Just like "Import fixture", ***Export fixture*** is also a very important utility, as it enables to save absolutely any Fixture file contained in the Console's Library on a floppy disk.
This allows to "move" Fixture files by means of an outboard editor or between Consoles. By means of the Export Fixture utility, it's also possible to delete unwanted Fixture files from the Library.

To export one or more Fixture files to a floppy disk:

- Press the ***Export Fixture*** key.
- The "Dialog" window for selecting the Fixture(s) to export appears.



- Select a Brand folder in the "Select source folder" field (e.g.: SGM).
- Then select the fixture(s) to be exported in the "Select files to export" field (e.g.: Giotto 1200 barndoo.fxr and Giotto profile400.fxr).
- Press the ***Export Fixture*** key.
- Press ***OK*** to confirm saving on the floppy disk.

The "Dialog" window allows to delete the selected Fixture(s), by means of the "Remove Fixture" key.
To remove one or more fixture(s),

- Select them as described in the above procedure.
- Press the ***Remove Fixture*** key.
- Press the ***Yes*** key in the WARNING window that appears if you decide to continue.
- Press ***DONE*** to return to the "TOOLS" menu.

Editing Fixtures in the Library

Edit fixture library allows to modify or create Fixture files for controlling the fixtures in a library.
In order to be able to use this application, which allows to create any Fixture file for Regia2048 whenever required, it's important to understand exactly the procedure for writing and controlling "*.fxr" files.

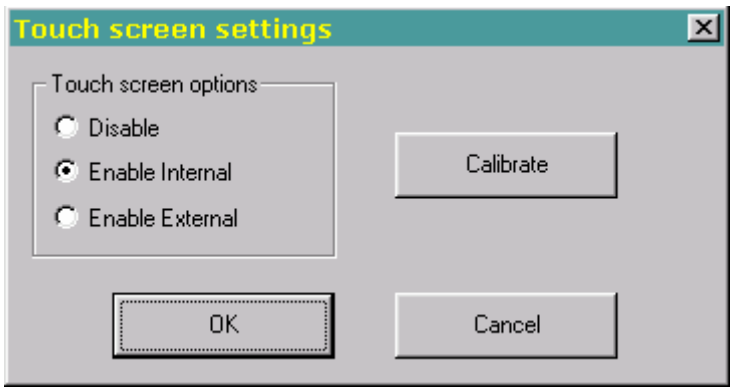
This topic is covered in detail in APPENDIX 1 of this manual, where experienced operators can find all the useful info for writing and compiling Fixture files.

Touch-screen configuration

Touch-screen settings is an option utility for recalibrating the touch-screen.
Regia2048 Live is fitted with a built-in touch-screen, whereas the Pro and Opera models can be equipped with an optional outboard touch-screen, providing software vers. 2.10 or later is installed.
"Touch-screen Setting" therefore gives access to the service functions for controlling and calibrating touch-screens, whether they're on-board or outboard.

To enable and calibrate the touch-screen:

- Press the ***Touch-screen settings*** key.



- The "Touch-screen settings" screen that appears shows the "Touch screen options" field wherever it's possible to disable a touch-screen, enable the built-in touch-screen on the Live model (Enable Internal), or enable an external touch-screen if there is one (Enable External).
- Press the ***Calibrate*** key to start calibration procedure.
- Press ***OK*** in the WARNING window that warns that DMX data transmission will be stopped during calibration procedure.
- Carry out calibration procedure, following the sequence of dots indicated by the pointer icon.
- When calibration is finished, check that the cursor-pointer follows the position of the finger on the screen correctly.
- Press ***Calibrate*** to carry out recalibration procedure.
- Press ***Done*** to save and exit.

The optional outboard touch-screen monitors for the Pro and Opera models must meet specific approval test requisites to be recognized and used by Regia.
The models of touch-screen that are accepted are:

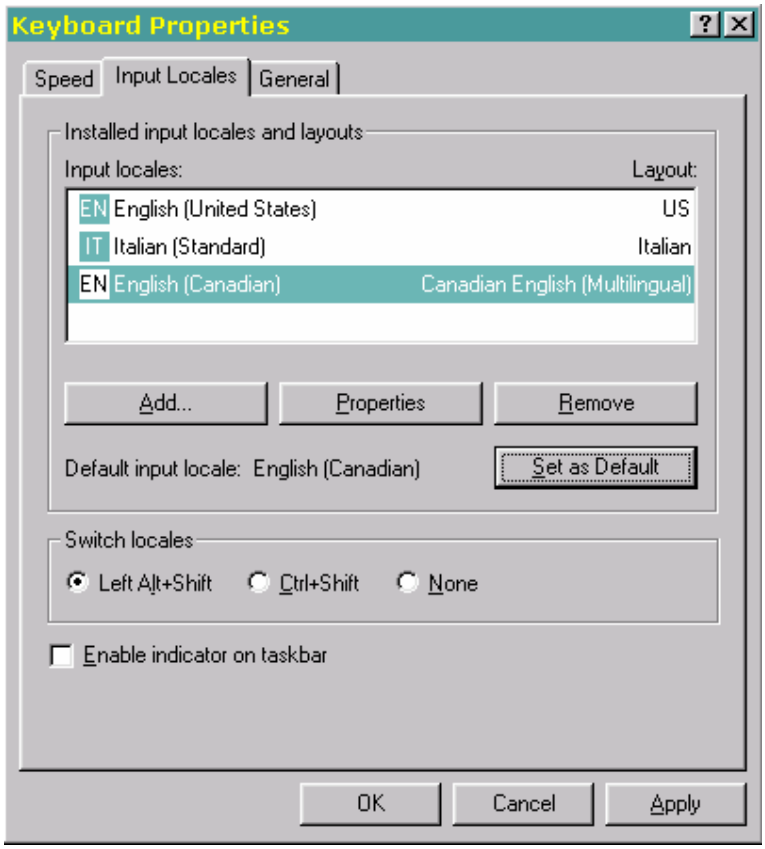
- **3M mod. M150**
- **3M mod. M170**
- **Equivalent**

Keyboard configuration

Configure keyboard is a utility for the configuration of the external Regia2048 keyboard, should it be necessary to install a keyboard of a different nationality.

For access to "Configure Keyboard":

- Press the ***Configure keyboard*** key.
- Press ***OK*** in the WARNING window that warns that the console's DMX data transmission will be stopped during calibration procedure.
- Select "Input Locales" in the "Keyboard properties" window to view the keyboards available.
- In the event of the keyboard not being displayed in the list in the "Input Locales" field, press the ***Add*** and add the required keyboard from all those available.
- Press the ***Set as Default*** key on the selection of the default keyboard.
- Press the ***Apply*** key and then ***OK*** to confirm and return to Regia.

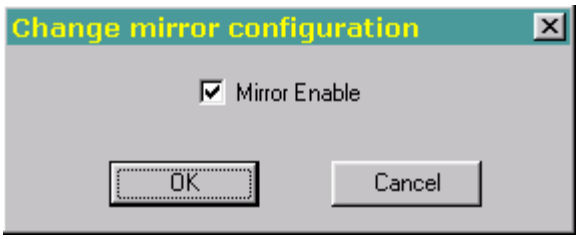


Mirror Configuration

Configure mirror allows to decide if the current Show's "Mirror" is automatically saved on the memory-card every time before the Regia console is switched off. Regia2048 uses a supplementary data backup unit, consisting in a 256 Mb memory card. Every time Regia is switched off, an automatic backup procedure for saving the data on the Memory card is run.
"Configure Mirror" is used to enable-disable backup on the Memory Card according to needs.

To enable-disable data backup on the Memory card (Mirror):

- Press the ***Configure Mirror*** key.
- In the "Change Mirror configuration" window that appears, it's possible to enable or disable the Mirror using the flag in the "Mirror Enable" field.
- Press ***Ok*** to return to the Tools menu and confirm.



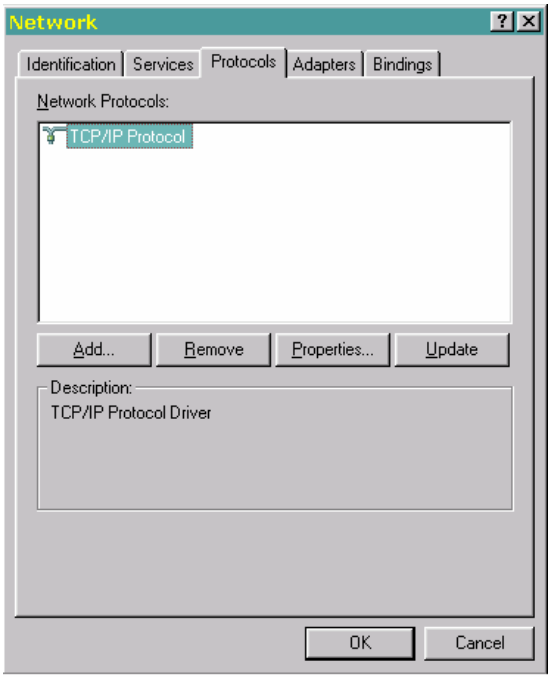
The "Mirror" function is indispensable in the event of any sudden serious Hard Disk problems.
By just disconnecting the faulty Hard Disk, Regia automatically reads the data on the Memory card when it's switched on again, completely restoring the system and the last current show.
It's therefore advisable to leave the flag in the "Mirror Enable" field, in order to kept the Mirror constantly updated.

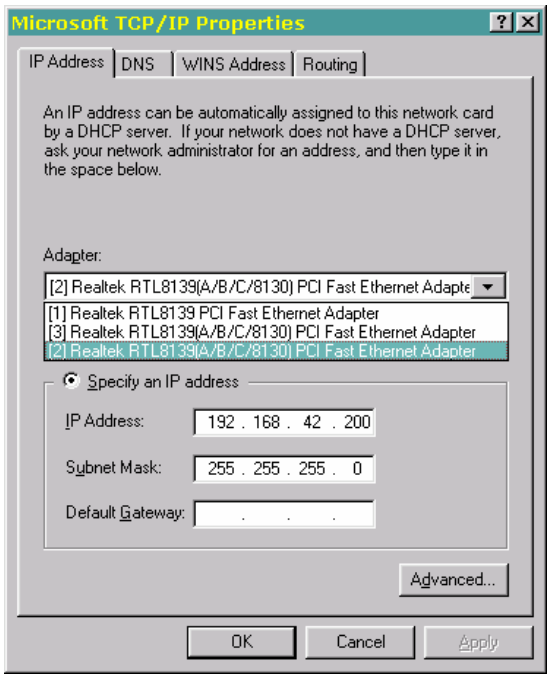
Network configuration

Configure Network gives access to the Regia2048 network configuration program In fact, the Console has two Ethernet ports that enable to Regia to be interconnected with other external units.
Procedure for configuring the network is almost identical to that normally used with modern PCs.

For access to network configuration:

- Press the ***Configure Network*** key.
- Press ***OK*** in the WARNING window that warns that the console's DMX data transmission will be stopped during network configuration procedure.
- In the "Network" window that appears, it is possible to carry out any necessary IP address settings by means of the "Protocols" menu.





- Press the ***Properties*** key to enter the configuration of the IP addresses of the two network cards installed in the Regia.
- Adapters 2 and 3 of in the "Microsoft TCP/IP Properties" window are those installed in the Regia, whose IP addresses can be changed.
- Once the new IP addresses have been configured, press **Apply** and then **OK** in the Network window to return to Regia.

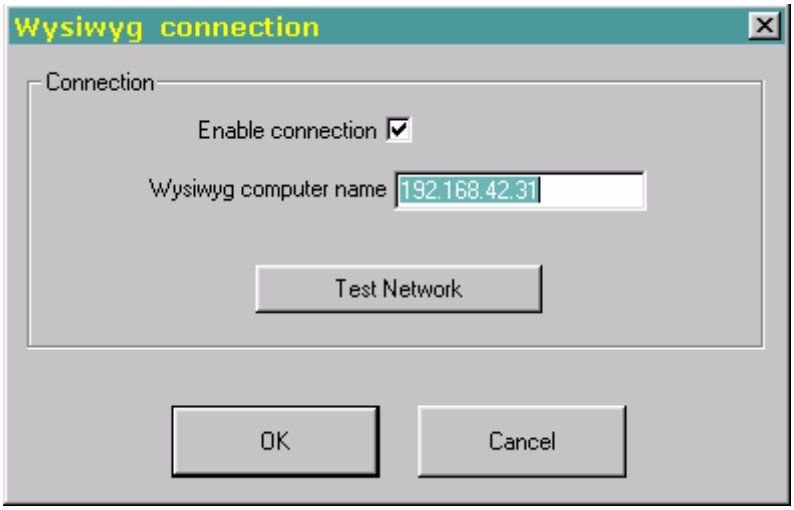
ATTENTION!!
To confirm changes to the IP addresses, the systems must be restarted.

Wysiwyg configuration

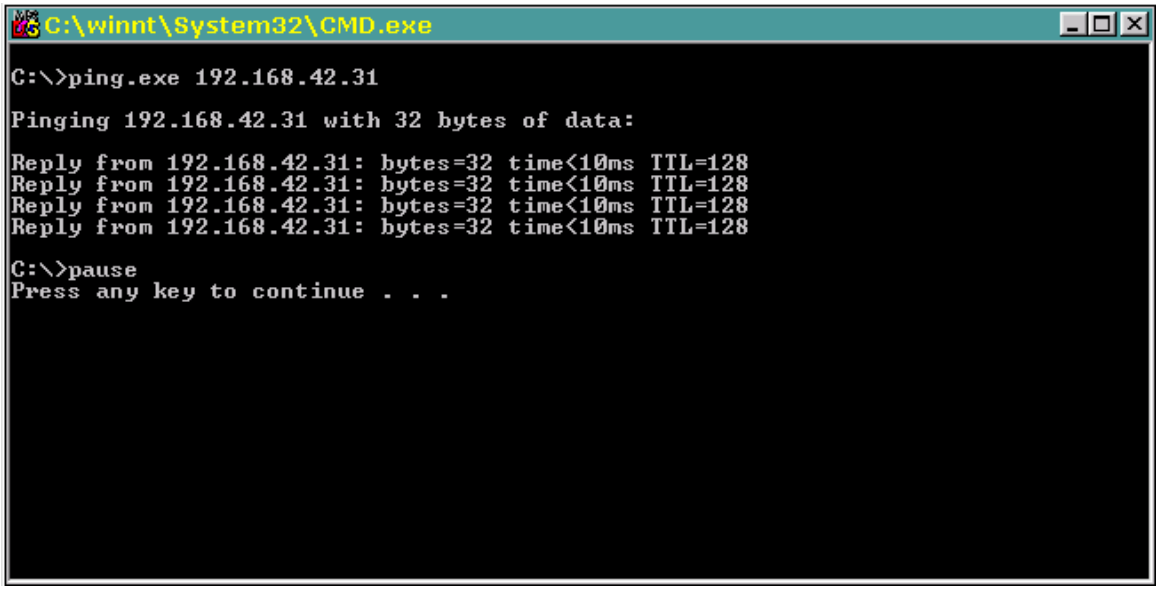
Regia2048 is able to dialogue via Ethernet with Wysiwyg installed on an outboard PC.
The 2-way communication allows to display programming and playback under way on the Regia on Wysiwyg LIVE. Regia also accepts Dimmer, Pan-Tilt and Iris Autofocus functions.
Once the network between the PC and Regia has been configured (see previous paragraph), connection must be enabled and correct operation checked.

To enable the connection with Wysiwyg:

- Press the ***Wysiwyg configuration*** key to open the "Wysiwyg connection" window.
- Enable the connection in the "Enable connection" field with the flag.
- Key the name of the computer connected to the Regia (or its IP address) into the "Wysiwyg computer name" field.



- Check that the connection operates correctly, by pressing the ***Test Network*** key.



- The window that appears certifies correct connection via the multiple message: "Reply from 192.168.42.31…"
- Press any key to abandon the Ping window.
- Press the ***OK*** key in the "Wysiwyg connection" window to return to the "Tools" menu.

If any problems occur during connection test work, carefully re-check the system's network settings.
Appendix 2 of this Manual describes in detail all the network and Wysiwyg configuration procedure.

Formatting floppy disks

This utility is necessary when data has to be saved on a floppy disk that has to be formatted.

To format a floppy disk:

- Press the ***Format floppy*** key.
- Put the floppy disk to be formatted in the appropriate drive.
- Press the ***Start*** key in the "Format A:\" window.
- Press ***OK*** in the WARNING window to proceed.
- Wait for the process to finish.
- Press ***OK*** when formatting is complete.
- Press the Close key to return to the "Tools" menu.

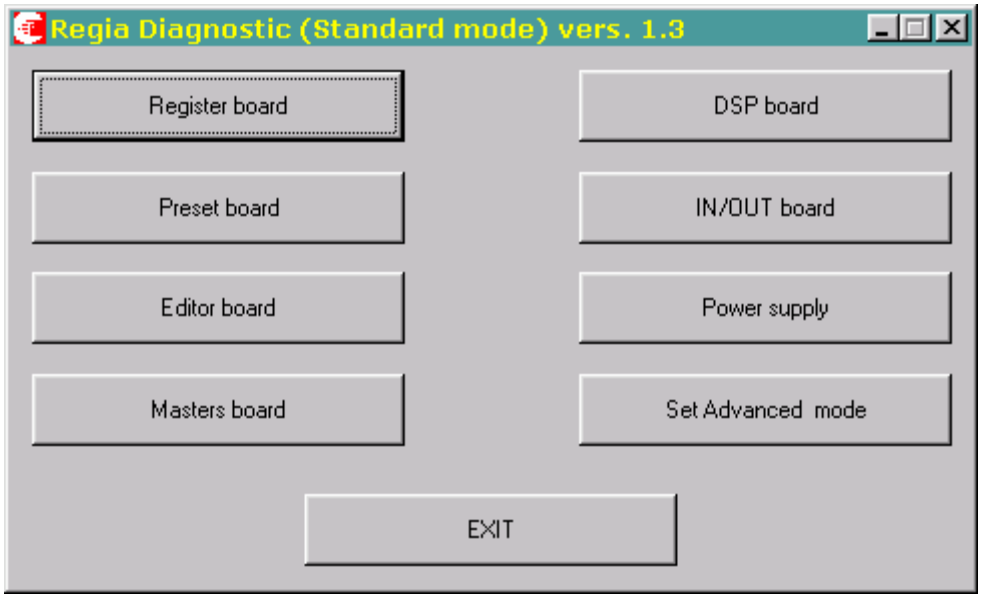
Hardware diagnosis

Diagnostic programs gives access to a series of tests on the various hardware components of the Console. The test areas are:

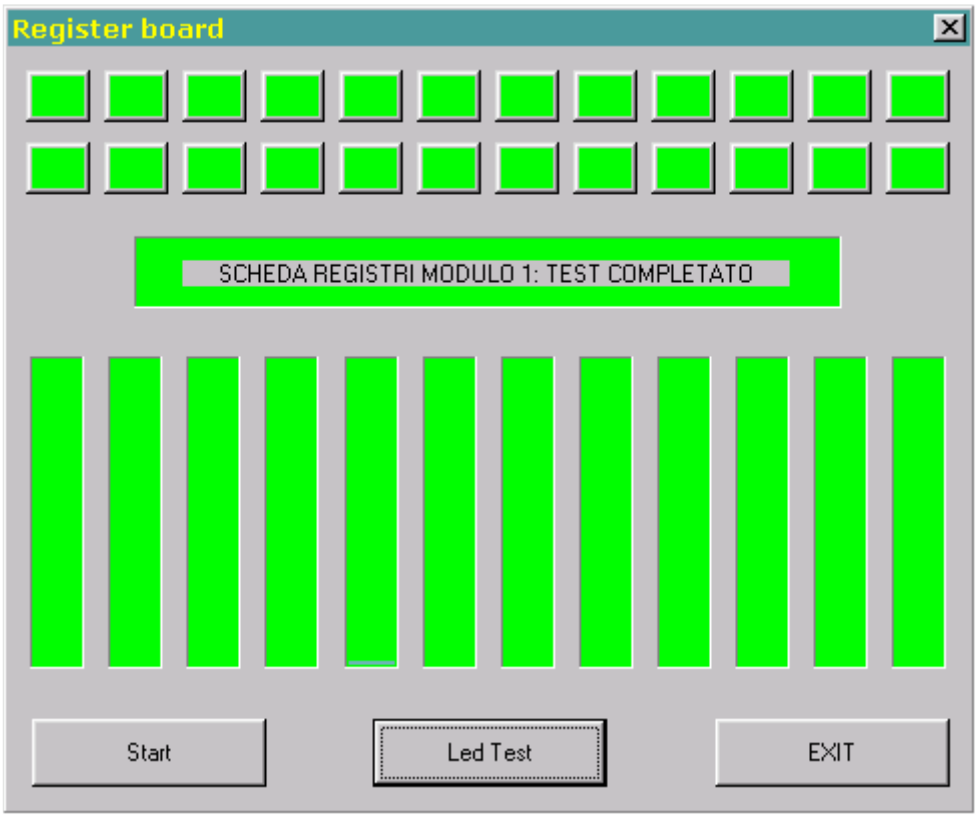
1. Registers board
2. Preset board
3. Editor board
4. Masters board
5. DSP board
6. IN/OUT board
7. Power supply
8. Set advance mode

To start test procedure:

- Press the ***Diagnostic program*** key.
- The WARNING message warns of the cut-off of DMX data transmission. Press the ***OK*** key to continue.
- The "Regia Diagnostic" window that appears gives access to the diagnostics of each of the aforementioned hardware areas.



- Press the ***Register board*** key to test the hardware relative to the Playback section.
- Manually enable all the faders and keys that make up the Playback area, in order to check their correct operation.
- If all the fields in the "Register board" window become green, the test has been successfully completed. On the contrary, hardware parts that don't pass the test correctly, leaving the field red, are faulty.



- Press the ***EXIT*** key to return to the "Regia Diagnostic" window.
- Proceed in the same way if the other parts that make up the Regia2048 are to be tested.
- Once the test has been completed, press the ***EXIT*** key in the "Regia Diagnostic" window to return to Regia.

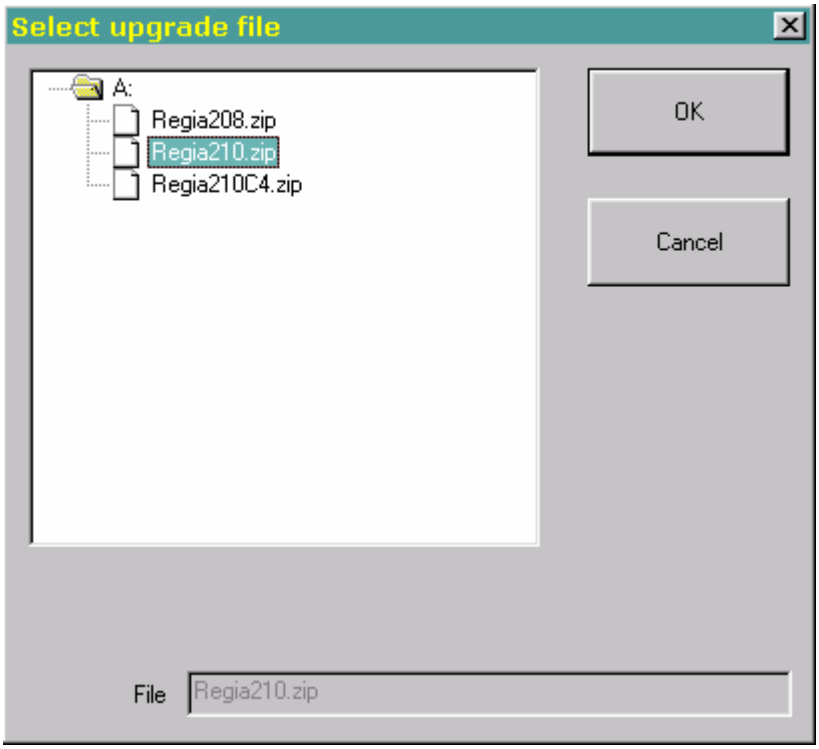
ATTENTION!!
It's advisable to only use the diagnostics tool in serious cases, in the event of major faults being found, which are presumably due to hardware problems.

Software upgrades

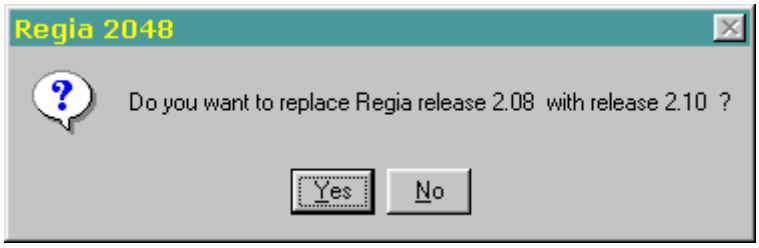
Software Upgrade gives access to the functions for updating Regia2048 software.
This can be downloaded from the following web site: www.regia2048.com
Updated versions of the software are released periodically.
Regia2048 software updates are normally supplied in compressed (*.Zip) files.
Once the zip file of a new version of the software has been downloaded from the site (e.g.: *Regia210.zip*), copy it on to a floppy disk without "unzipping" it.

To install a new version of the software:

- Press the ***Software upgrade*** key.
- The WARNING window that appears suggests saving the current Show before continuing.
- Press the ***Yes*** key if you intend proceeding, or ***No*** if you think it's advisable to create a backup of the current Show.
- If you continue, insert the floppy disk and press ***Yes*** to continue the procedure.
- The "Select upgrade file" window that appears shows the software update zip files available on the floppy for selection if there's more than one.
- Select the required version with the mouse that appears on the "File" field.



- Press ***OK*** to confirm.
- The message on the "Regia2048" window that appears asks if you're sure you want to change from the previous version to the software version that is being installed.



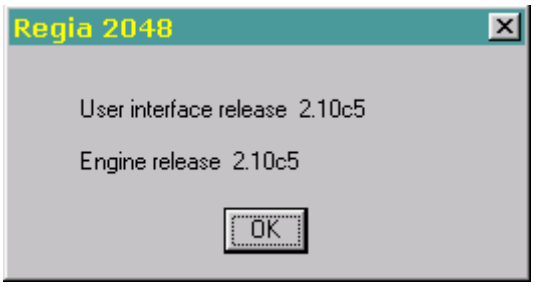
- Press ***Yes*** to proceed with the installation.
- Press ***Yes*** again to proceed from the WARNING message that warns of the cut-off of DMX data transmission.
- Wait for the end of the process and automatic restart of Regia.

ATTENTION!!
It's highly advisable to update the console before programming a new Show, to avoid problems of incompatibility with functions that have been updated or added after previously programmed Shows.

Software version

Show SW version gives the possibility of checking which version of the software is currently installed.

To check the version installed:
Press the ***Show SW version*** key.
View the version of software in the window that appears.
Press the ***OK*** key to return to the "Tools" menu.



Console Setup

The "SETUP" menu leads to the area of the Console that allows to configure the fixtures to be controlled with the relative DMX addresses and all the utilities indispensable for the correct setting of Regia before starting each show.
Correct configuration facilitates console use.
It's extremely important to know all the necessary available settings before carrying out any programming or playback work.
The Setup area automatically appears each time a new show is started, or can by called up at any time by pressing the ***SETUP*** key.

The SETUP menu is divided into three zones:

- Address: where the choice and addressing of the fixtures is carried out.
- Options: where it's possible to choose different work modes
- Fixture configuration: where its possible to choose the fixtures' Attribute control mode according to requirements.
  Fixture configuration is in turn divided into three more sub zones, which are:
  1. *Attributes configuration:* where different modes are chosen for controlling the attributes of configured fixtures.
  2. *Pan Tilt settings*: where it's possible to invert Pan and Tilt movement in an easier way, according to the position of the fixtures on stage
  3. *Preset Configuration*: allows to assign configured Attributes to the Manual presets as required.

The aforementioned areas are chosen by pressing the following keys respectively:
Address - ***Options*** - ***Fix.Cfg.***

Address

Pressing the ***SETUP*** key opens the "Brands" and "Address Patching" windows directly in the first area of the setup itself: Address
Address is where the following are chosen:

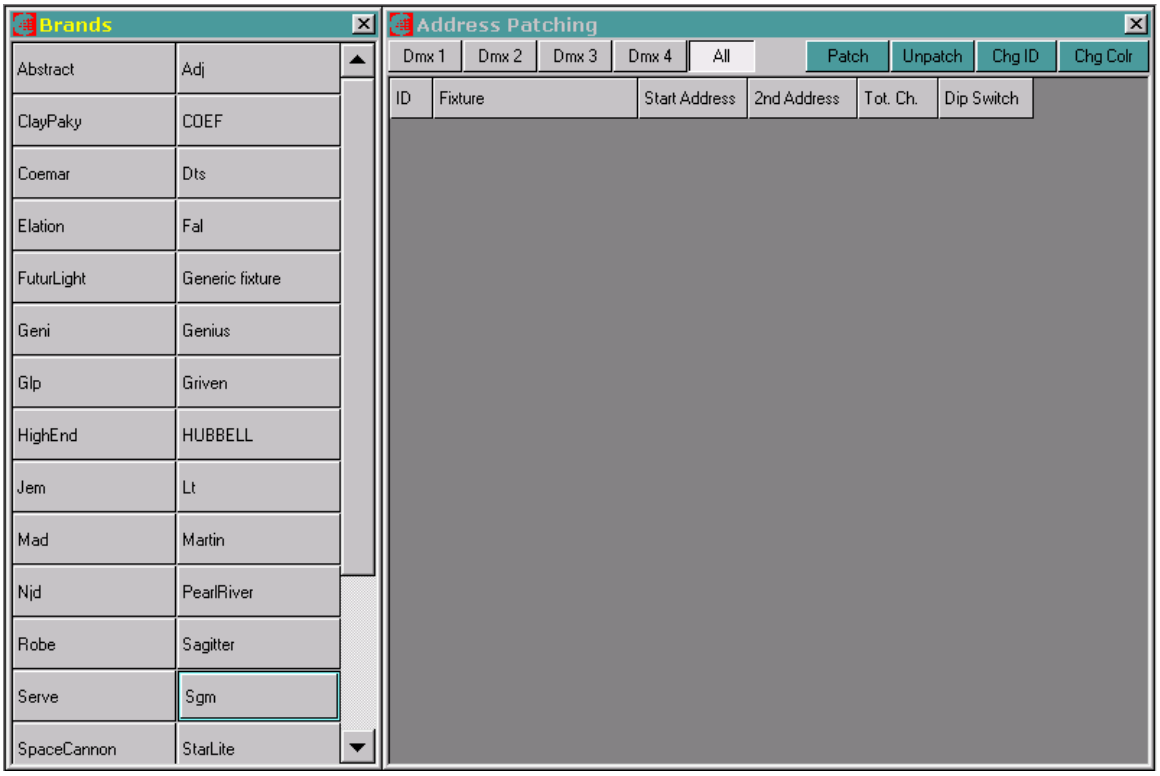
- Which and how many fixtures are to be controlled
- Their DMX address
- To which of the four outputs the fixtures will be physically connected.
- Any re-addressing and re-numbering.

An important aspect to be remembered is that re-addressing or re-numbering fixtures after their programming does not cause any variation to the programming itself.

The "Brands" selection window gives access to the library of Fixture control files available on the Regia, whereas the "Address Patching" window allows Fixture addressing (patching) work.

Regia's on-board fixture library can be updated whenever necessary. This is possible by visiting the Regia2048 Web site: www.regia2048.com and downloading the updates as they're available.

The Console has a small on-board program able to compile Fixture files to add to your library, should it be necessary to control one or more fixtures not included in the library.
This utility is covered in depth in the manual's "Tools" chapter.

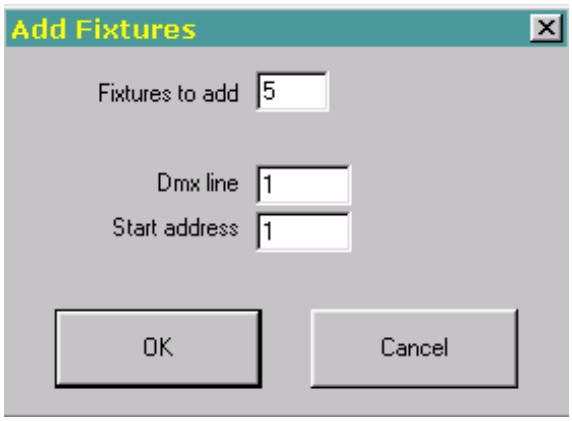


We'll now follow step by step the entire procedure required to patch fixtures.

1. In the "Brands" window, select the category that the fixtures to be patched belong to, by pressing the relative key (e.g.: SGM). The selection window automatically changes, showing all the types of fixtures available belonging to the category just selected.

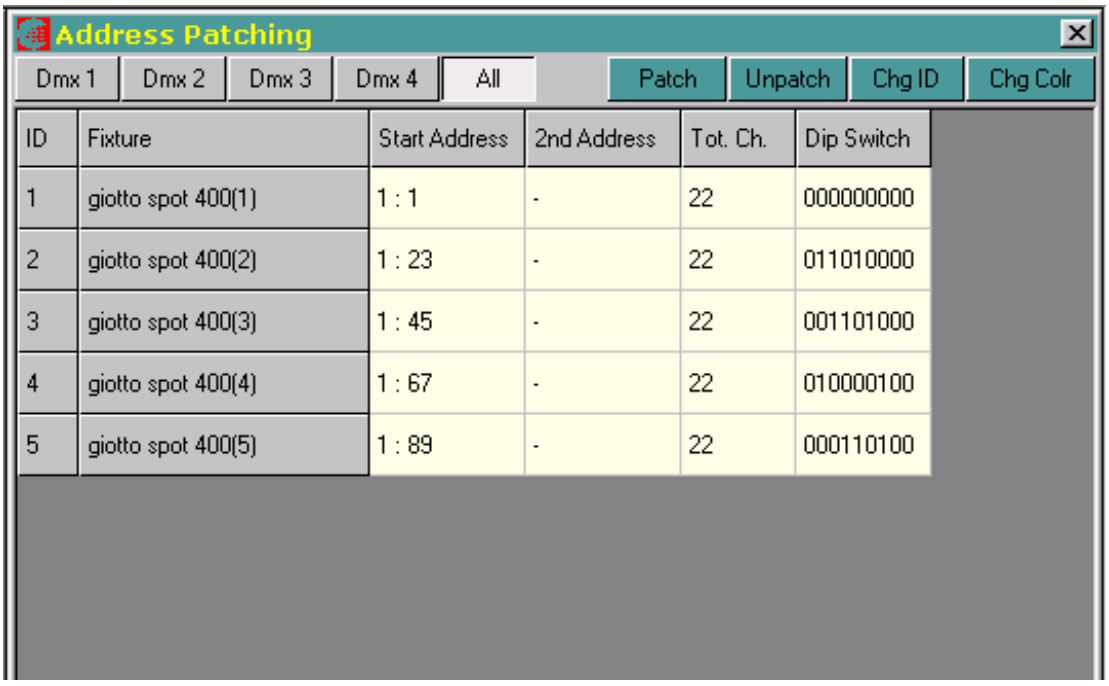
2. Now select the type of fixture to be patched in the "Fixtures" window (e.g.: Giotto Wash 400).

3. The "Add Fixtures" window that automatically appears contains the fields in which to key in the number of fixtures required (Fixtures to add), the DMX output to which they'll be physically connected (DMX line) and the start address of the first fixture.



In the example shown in the diagram, 5 have been chosen, will be connected to the first Output of the Console (DMX line1), and the start DMX address of the first of the five is 1.
Regia will then patch the remaining four fixtures completely automatically, counting the number of channels require by each fixture.

1. After ***OK*** is pressed, the list of fixtures chosen will appear automatically in the "Address Patching" window.



ID	Fixture	Start Address	2nd Address	Tot. Ch.	Dip Switch
1	giotto spot 400(1)	1 : 1	-	22	000000000
2	giotto spot 400(2)	1 : 23	-	22	011010000
3	giotto spot 400(3)	1 : 45	-	22	001101000
4	giotto spot 400(4)	1 : 67	-	22	010000100
5	giotto spot 400(5)	1 : 89	-	22	000110100

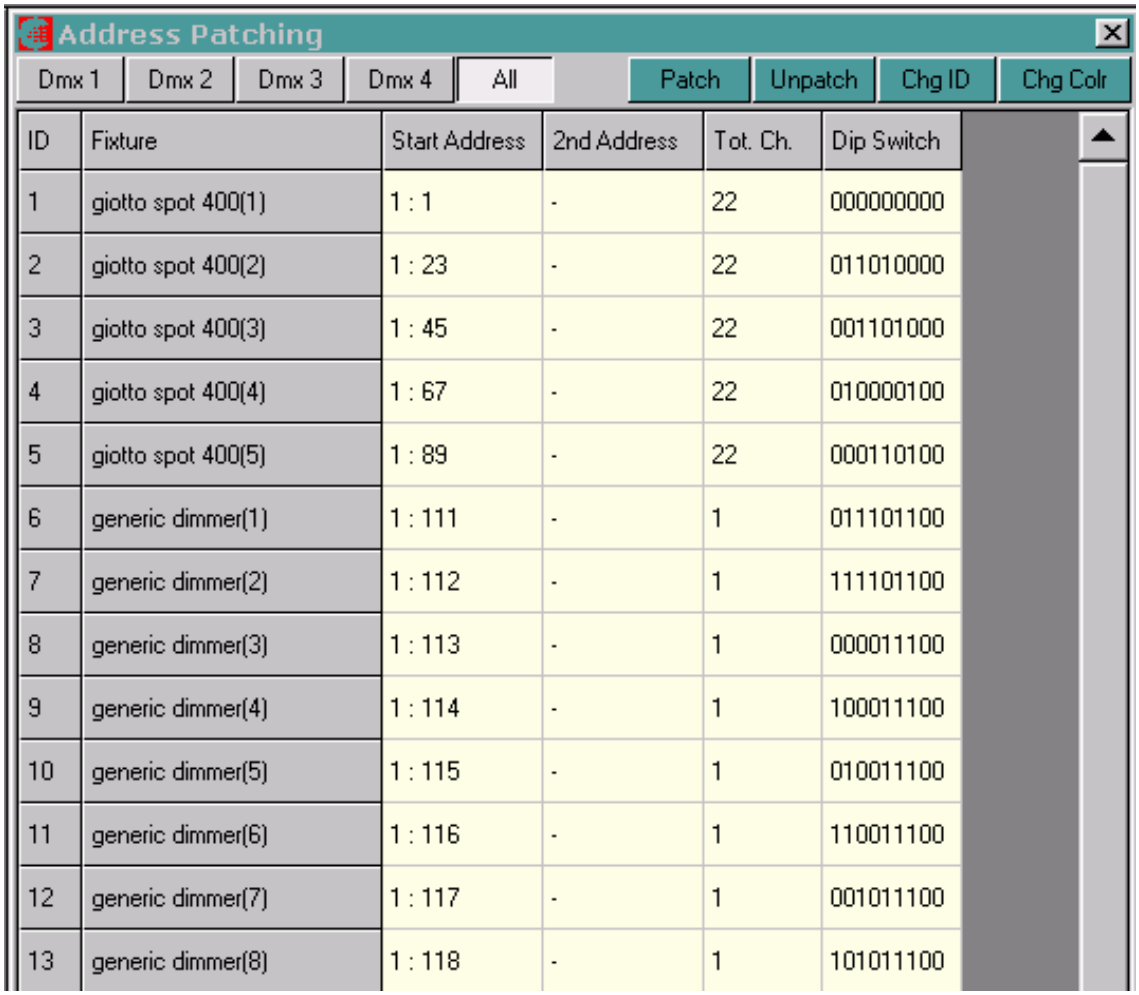
2. To add other types of fixtures, press ***Brands*** to return to the main library. Then repeat the aforementioned procedure.

The grid containing the "Address Patching" window contains the information of the fixtures already patched and viewable in the left-hand column. The various columns show (in this order):

- Start Address: Output (1-4) where the fixture and its DMX address are configured.
- 2nd Address: Output and secondary DMX address.
- Tot.Ch.: number of channels occupied by the fixture.
- Dip Switch: the position of the dipswitches for addressing the fixtures.

The ***Dmx1*** - ***Dmx2*** - ***Dmx3*** - ***Dmx4*** keys allow to choose the display of the Patch on each Output, whereas the ***All*** key shows all the fixtures configured on all four outputs.

Regia2048 also allows for the possibility of controlling dimmer channels for the control of conventional fixtures, very widespread in theatre applications. In fact, in the "Generic Fixture" brand, there's a fixture called "1Ch Dimmer".
It's therefore sufficient to patch the required number of "1Ch Dimmer" Fixtures in order to be able to control that number of dimmers.

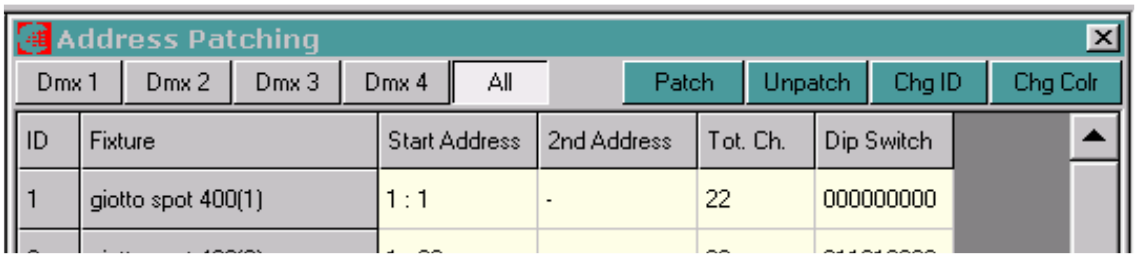


ID	Fixture	Start Address	2nd Address	Tot. Ch.	Dip Switch
1	giotto spot 400(1)	1 : 1	-	22	000000000
2	giotto spot 400(2)	1 : 23	-	22	011010000
3	giotto spot 400(3)	1 : 45	-	22	001101000
4	giotto spot 400(4)	1 : 67	-	22	010000100
5	giotto spot 400(5)	1 : 89	-	22	000110100
6	generic dimmer(1)	1 : 111	-	1	011101100
7	generic dimmer(2)	1 : 112	-	1	111101100
8	generic dimmer(3)	1 : 113	-	1	000011100
9	generic dimmer(4)	1 : 114	-	1	100011100
10	generic dimmer(5)	1 : 115	-	1	010011100
11	generic dimmer(6)	1 : 116	-	1	110011100
12	generic dimmer(7)	1 : 117	-	1	001011100
13	generic dimmer(8)	1 : 118	-	1	101011100

To abandon the SETUP-Address area, press: ***Close.***

Patch Function

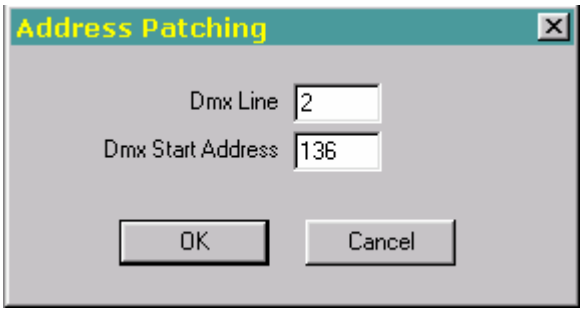
In the Address Patching window, it's possible to change one's configuration using the following keys: "Patch", "UnPatch", "ChgId", "ChgColr".
We'll now examine the use of the "Patch" function.



The DMX addresses already allocated can be changed using the ***Patch*** function***.*** Changing the address of one or more fixtures doesn't alter in any way the programming already carried out on the fixture(s) in question.

To change the address and/or output of one or more previously configured fixtures:

- Select the fixtures whose patching has to be changed in the "Address Patching" window.
- Press ***Patch*** and key the new output and/or new start address into the window that appears.
- Press ***OK***.



To de-select the fixtures that have just been modified, press the "***Fixture***" key in "Address patching" or the **Esc** key.

Regia2048 doesn't allow to *"over-patch"* two or more fixtures. If one or more fixtures is allocated an address that has already been used, by means of the "Patch" function, an error message will appear, as shown below:

If the ***OK*** key is pressed, Regia automatically patches the fixture(s) in question to the next available set of channels.

Unpatch function

The "UnPatch" function allows to cancel the address of a previously configured fixture
This is very useful when, in temporary situations, two or more fixtures that are normally used are not required. Fixture de-patching allows to update the editing and control layout of the fixtures actually used, with a real saving in resources required for playback.

To remove a patch from one or more fixtures:

- Select the fixtures to be unpatched.
- Press ***UnPatch.***
- To de-select the ***Fixture***s that have just been edited, press the "***Fixture***" key in the "Address patching" window.

ATTENTION!!
Unpatched fixtures are no longer displayed in the *Dmx 1 - Dmx 4* lists, but still "exist" in the *All* list. Their IDs cannot be used by any other fixtures.

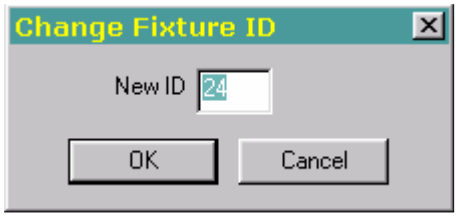
As in the case of re-patch, none of the programming previously carried out on unpatched fixtures is lost, but will be available once again when the fixtures are repatched.
The unpatched fixtures are only accessible from the ***All*** list, where they can be allocated a new address by means of the ***Patch*** function***.***

Change ID function

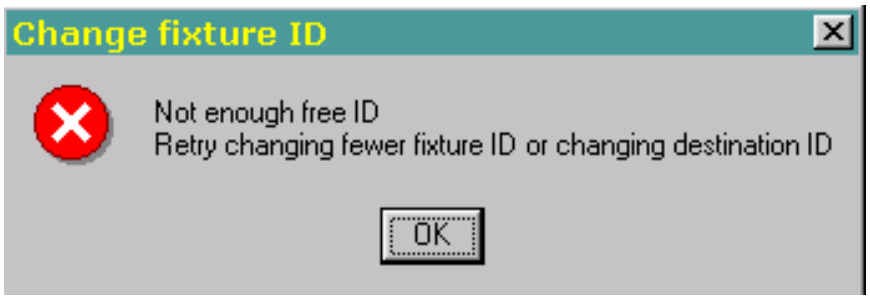
Another very useful function is "Change ID" (changing fixtures' identification numbers).
This may be necessary when numbering has to be changed on a light Rig. "Change ID" doesn't cause any change or loss to the programming of the fixtures whose ID is changed either.

The ID of fixtures that are already configured is changed using the ChgId (Change ID) function.
To change one or more Ids:

- Select the fixtures whose ID is to be changed.
- Press ***Chg Id.***
- Key the required number available in the "Change Fixture ID" window into the "New ID" field.
- Press the ***OK*** key.



As with the Patch function, an ID that is already being used cannot be allocated to other fixtures. Should this occur, an error message will appear as shown below:



When the ***OK*** key is pressed, Regia will leave the ID that you have tried to change in its original position.

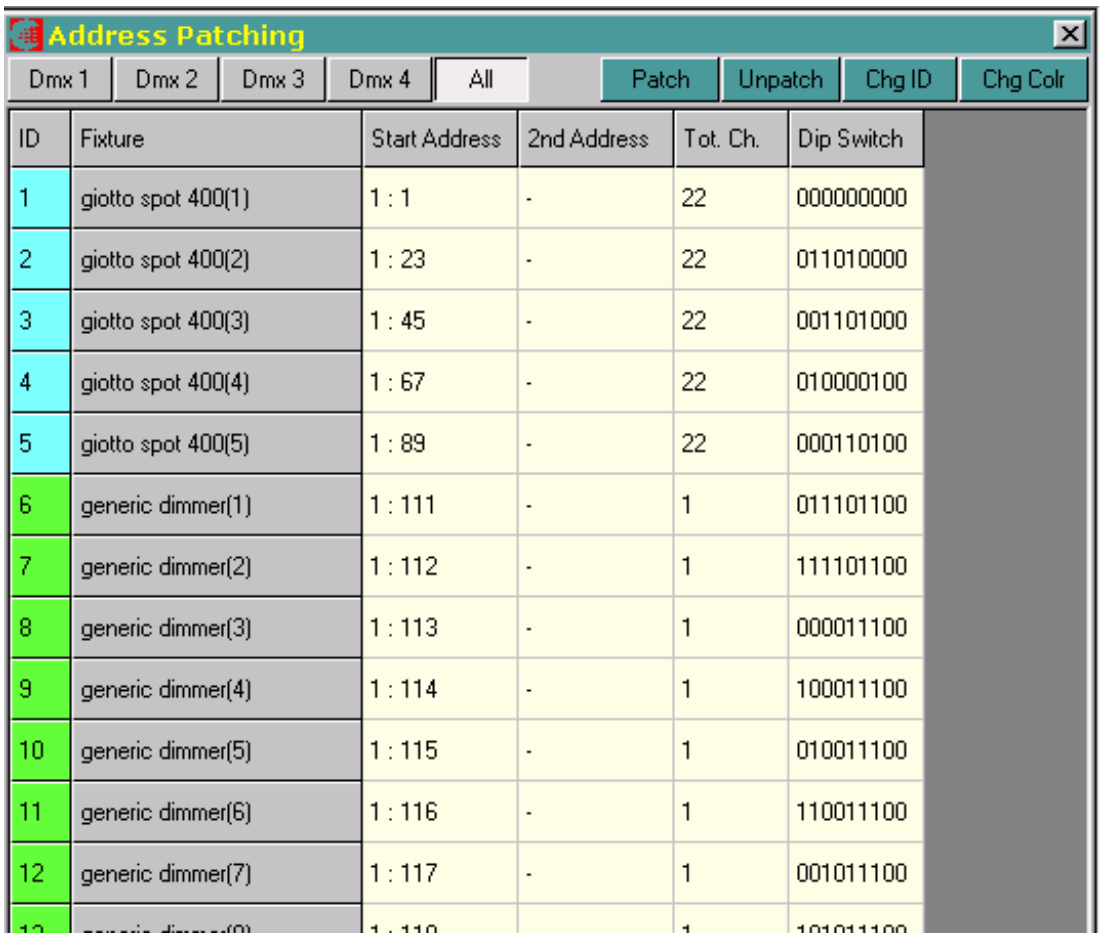
Assigning colors to Fixtures

The "Chg Colr" function allows to assign a color to Fixtures' selection keys. The color of the fixtures' key facilitates their recognition during programming or playback work. Each user can allocate a color to the fixtures at will, according the type of unit, their position on stage, manufacturer, etc.
It's advisable to choose the color of the fixture keys in the "Address Patching" window, as in this area it's possible to select an entire group of fixtures required, and allocate them a color with one operation.
Later, it's possible to change the fixture keys' color in the fixture selection window, but only for one fixture at a time.

To change the color of the fixture keys, proceed as follows:

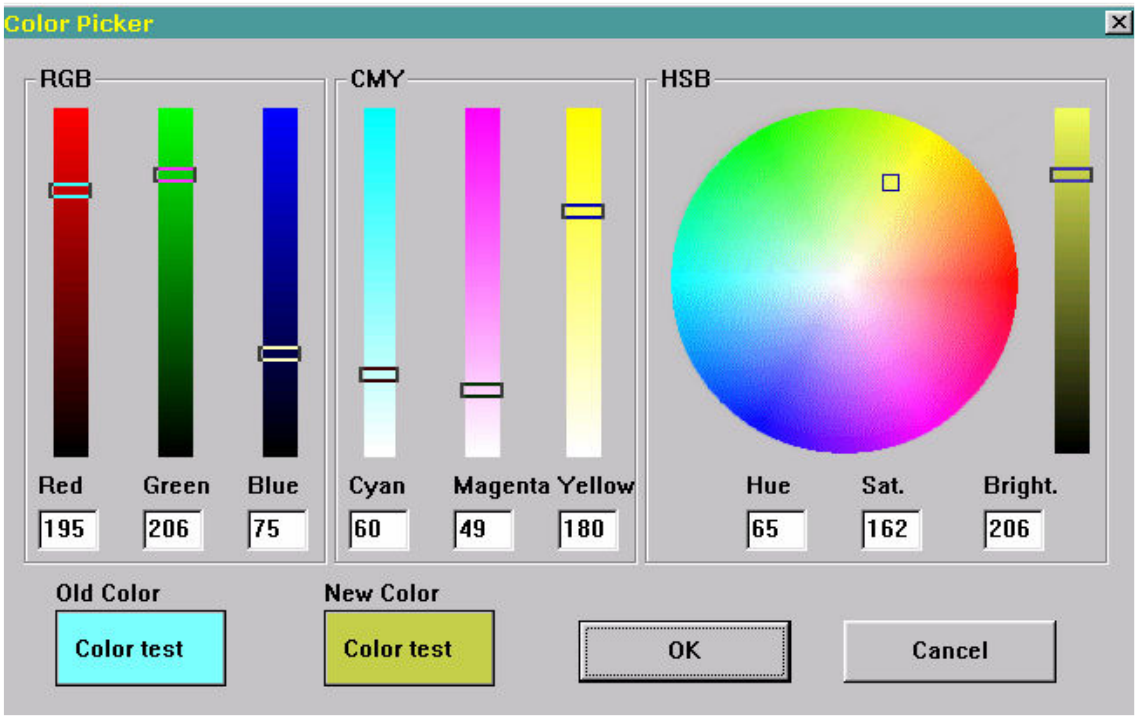
- Select the fixture(s) that are to be allocated a color.
- Press the ***Chg Colr*** key.
- Create the required color using the tools in the "Color Picker" window.
- Press ***OK*** once the required color has been created.

After the required color has been chosen, the "Address Patching" window will display the color allocated to the Fixtures in the "ID" column.



ID	Fixture	Start Address	2nd Address	Tot. Ch.	Dip Switch
1	giotto spot 400(1)	1 : 1	-	22	000000000
2	giotto spot 400(2)	1 : 23	-	22	011010000
3	giotto spot 400(3)	1 : 45	-	22	001101000
4	giotto spot 400(4)	1 : 67	-	22	010000100
5	giotto spot 400(5)	1 : 89	-	22	000110100
6	generic dimmer(1)	1 : 111	-	1	011101100
7	generic dimmer(2)	1 : 112	-	1	111101100
8	generic dimmer(3)	1 : 113	-	1	000011100
9	generic dimmer(4)	1 : 114	-	1	100011100
10	generic dimmer(5)	1 : 115	-	1	010011100
11	generic dimmer(6)	1 : 116	-	1	110011100
12	generic dimmer(7)	1 : 117	-	1	001011100

The "Color Picker" window is used to color other types of keys, not only the "Fixture" keys.
We'll therefore examine its features.



There are three color selection possibilities:

- Via additive color mixing in the "RGB" field.
- Via subtractive color mixing in the "CMY" field.
- Via the color wheel in the HSB field (Tone - Saturation - Brightness).

Colors can therefore be created indistinctly with one of the aforementioned methods. In fact, the three methods interact in real time and the choice of a specific color by means of one of the three also affects the other two methods.

Colors are created with the "RGB" system by mixing the three complementary colors **R**ed, **G**reen and **B**lue.
Positioning the three colors at full intensity gives white, while setting the three cursors at zero gives black. All intermediate positions of the three cursors create different colors.

Colors are created in the opposite way by means of the "CMY" system. Setting the three faders (**C**yan, **M**agenta and **Y**ellow) at full intensity gives black and, vice versa, setting the three cursors at zero gives white. Here again, intermediate settings of the three cursors create any color required.

By means of the color wheel, the HSB system (**H**ue - **S**aturation - **B**rightness) allows to choose the type of color and its saturation in a rapid, user-friendly manner. Just a click with the mouse (or using the touch-screen) on the wheel creates the required color. The cursor alongside the wheel controls the color's brightness.

All three Color Picker's color mixing systems also offer the possibility of creating the required color via RGB, CMY or HSB numerical input.

The "Old Color" and "New Color" fields show respectively the key's original color and the new color that has been chosen.

Deleting Fixtures

The **Del** key definitively eliminates previously configured fixtures.

Deleting fixtures is definitive and no UNDO procedure is possible. Any programming already carried out on the deleted fixtures will therefore be lost.

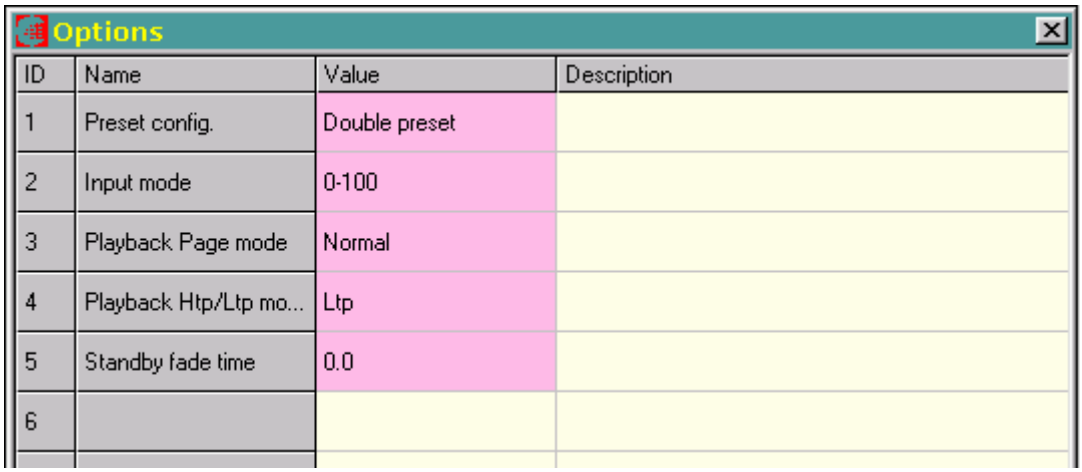
To remove one or more fixture(s):

- Select the fixtures to be eliminated in the "Address Patching" window.
- Press **DEL**
- If you are certain that you want to proceed, press ***Yes*** in the "Delete Items" WARNING window that appears. Press ***No*** if you don't intend continuing.

To abandon the SETUP-Address area, press: ***Close.***

Options

In the set-up environment, the ***Option*** key opens a window in which it's possible to choose between various possibilities.
The following is a description of the various options available and their effects. All variations made in the Option window influence overall console operation.



Preset configuration

Enables to configure the Manual Presets in two (**A** and **B**) 12-channel groups (Double) or a single 24-channel Manual Preset (48+48 ch. or 96 ch. for the OPERA model).
To change Preset configuration from Double to Single:

- Click on the "Double preset" field in the "Value" column.
- Keep the **Shift** key pressed.
- Turn the fourth "Data Entry" Encoder (yellow) to select "Single preset"
- The entry in the Value field of "Preset Configuration" is now "Single preset".

Repeat the above procedure to revert to "Double preset" mode.

Input Mode

Sets the display of DMX values in:
percentage (0-100%) or digital (0-255) form.
As in the previous case, to choose the two modes:

- Click on the "0-100" field in the "Value" column.
- Keep the **Shift** key pressed.
- Turn the fourth "Data Entry" Encoder (yellow) to select "Hard Values".
- The entry in the "Value" field of "Input mode" is now "Hard Values"(0-255).

Repeat the above procedure to revert to "0-100%" mode.

Playback Page Mode

This option allows to choose between two different operating modes for the Playback Registers. The two modes are "Normal" and "Transparent".
To choose the required mode:

- Click on the "Normal" field in the "Value" column.
- Keep the **Shift** key pressed.
- Turn the fourth "Data Entry" Encoder (yellow) to select "Transparent".
- The entry in the "Value" field of "Playback Register Mode" is now "Transparent".

Every time a page is changed to "Normal" mode, only the Cue-lists belonging to the page in question are available.
If on the other hand "Transparent" is chosen from the Option mode, it's possible to organize the Pages in such as way as to always have some Cue-lists on some required registers.

The following table shows the statuses of three pages as an example.
We'll see what happens when these pages are changed in the two different modes - Normal and Transparent.

	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12
Pg 1	Ql 1	Ql 2	Ql 3	-	-	-	-	-	-	-	Ql12	Ql10
Pg 2	Ql 6	Ql 7	Ql 8	-	-	-	-	-	-	-	-	-
Pg 3	Ql 5	Ql 4	Ql 9	-	-	-	-	-	-	-	-	-

Registers 1, 2 and 3 each control various Cue-list for all three pages, whereas only page one contains other Cue-lists with registers 11 and 12.

In "Normal" mode, when changing from the first to the second Page, the first three registers will control respectively Cue-lists 6, 7 and 8, if all the Cue-lists enabled by the previous page are released.

If this same page change is carried out in "Transparent" mode, Cue-lists 12 and 10 in page one at register 11 and 12 continue to be available in the new page, even if they're released, as the two register of the page in question don't control any Cue-lists.

	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12
Pg 2	Ql 6	Ql 7	Ql 8	-	-	-	-	-	-	-	Ql12	Ql10
Pg 3	Ql 5	Ql 4	Ql 9	-	-	-	-	-	-	-	-	-

Also passing from Page two to three, Cue-lists 12 and 10 will continue to be available on registers 11 and 12 for the same reason.

It's therefore possible in "Transparent" mode to position some Cue-lists on certain registers, in order to also have them available in all the other Pages, as long as they don't control other Cue-lists on these same registers.

Playback HTP/LTP Mode

This option is extremely useful for all those who only intend controlling luminous intensity by means of the Registers in HTP or LTP mode.
Here too, the choice is made in the following way:

- Click on the "LTP" field in the "Value" column.
- Keep the **Shift** key pressed.
- Turn the fourth "Data Entry" Encoder (yellow) to select "HTP".
- The entry in the "Value" field of "Playback HTP/LTP Mode" is now "HTP".

The LTP and HTP options change the way in which the Registers control luminous intensity.
The simplest example is regarding two registers that control two different Cues that control the same fixtures.
When the registers are configured in LTP mode, the value of the fixtures' luminous intensity depends on the position of the last of the two registers enabled.

On the other hand, in HTP mode, once the two registers are enabled, the fixtures will assume the status of the Cue of the last register enabled, apart from the luminous intensity, which will be the same as the level of the higher of the two Registers.

Standby fade time

The work that's normally carried out during programming or Playback procedure, such as: **Crlall** (Clear All) or **Rel** (Release) puts the fixtures in a Stand-by status that each operator can set (described in the following chapter). By means of the "Standby fade time" option, it's possible to set any required time for which standby is effective.

To change the time (in seconds) of fade to Standby:

- Click on the "0.0" field in the "Value" column.
- Keep the **Shift** key pressed.
- Turn the fourth "Data Entry" Encoder (yellow) to select the required time. The range is from 0 to 10 seconds.
- The entry in the Value field of "Standby fade time" will now be the time chosen.

Otherwise, it's possible to use the numerical keypad to key in the time, in seconds and tenths of a second.

To abandon the SETUP-Option area, press: ***Close.***

Fixture configuration

Fixture configuration gives access to all the configurable modes with which Regia controls the Attributes of all the fixtures already patched.
Press ***Fix***. ***Cfg***. to enter the "Fixture configuration" area, which in turn is divided into three parts:

- Attributes configuration
- Pan Tilt settings
- Preset configuration

The keys at the top of the screen therefore allow to choose, display and work in the three environments.
Further ahead, we shall analyze all the available options as far as the Attributes of the fixtures already configured are concerned.

ATTENTION!!
It's of fundamental importance to understand the exact meaning and role of each type of Option for the Attributes, as a correct configuration allows to save a lot of time later during programming and avoids fixtures behaving incorrectly.

Attribute configuration:

Fixture configuration

Attributes config. | Pan_Tilt settings | Presets config.

Fixture type	Attribute	Htp/Ltp	P.type	P.inherit	Path	Equal.	Out Min	Out Max	Pre Heat	StandBy	Locate	Full	Patch
giotto spot 400	Pan	Ltp	PT	No	Linear	Linear	0	65535	0	50	50		1 - 2
giotto spot 400	Tilt	Ltp	PT	No	Linear	Linear	0	65535	0	50	50		3 - 4
giotto spot 400	MotorSpeed	Ltp	PT	No	Linear	Linear	0	255	0		0		17
giotto spot 400	Gobo	Ltp	GB	Yes	Snap Start	Linear	0	255	0		0		7
giotto spot 400	GoboSpin	Ltp	GB	Yes	Linear	Linear	0	255	0		0		10
giotto spot 400	GoboShake	Ltp	GB	Yes	Linear	Linear	0	255	0		0		19
giotto spot 400	GoboMode	Ltp	GB	Yes	Linear	Linear	0	255	0		0		21
giotto spot 400	Focus	Ltp	IN	No	Linear	Linear	0	255	0		50		13
giotto spot 400	Iris	Ltp	PR	Yes	Linear	Linear	0	255	0		100	100	5
giotto spot 400	Zoom	Ltp	PR	No	Linear	Linear	0	255	0		50		14
giotto spot 400	Frost	Ltp	PR	Yes	Linear	Linear	0	255	0		0		16
giotto spot 400	Effect	Ltp	GB	Yes	Snap Start	Linear	0	255	0		0		15
giotto spot 400	Macro	Ltp	PR	Yes	Linear	Linear	0	255	0		0		22
giotto spot 400	Color	Ltp	CO	Yes	Snap Start	Linear	0	255	0		0		6
giotto spot 400	ColorMode	Ltp	CO	Yes	Linear	Linear	0	255	0		0		20

As with the "Option" panel, it's possible to modify the modes for controlling the Attributes of the configured fixtures, by entering the various options in the pink cells It's sufficient to choose these options for just one type of fixture that is already patched. Regia automatically applies the same choices to all the other fixtures of the same type that are already patched.
The pink grid in the "Attributes Configuration" window is divided into columns, that represent all the types of options available. In each cell, it's therefore possible to choose the various modes of each option for each Attribute.

The table below shows all the possible choices for each type of Option available for each Attribute.

HTP LTP	P. Type	P. Inherit	Path	Equal	Out Min	Out Max	Pre Heat	Stand By	Locate	Full
HTP	IN	Yes	Linear	Linear	0	0	0%	0%	0%	0%
LTP	PT	No	Snap Start	Eq 1	255	255	100%	100%	100%	100%
	CO		Snap End	Eq 2	65535	65535		-	-	-
	GB			Eq 3						
	PR			Eq 4						
	BL			Eq 5						
				Eq 6						
				On Off						

The options for each column are (in this order):

HTP-LTP column:	LTP - HTP
Type column:	IN(Intensity) - CO(Color) - GB(Gobo) - PT(PanTilt) PR(Prism) - BL(Blade)
Path column:	Linear - SnapStart - SnapEnd
Equal. column:	Linear - Eq.1 - Eq.2 - Eq.3 - Eq.4 - Eq.5 - Eq.6 - On/Off
Out Min column:	0 -> 255 (8-bit Attributes), 0->65535 (16-bit Attributes),
Out Max column:	0 -> 255 (8-bit Attributes), 0->65535 (16-bit Attributes),
Pre-Heat column	0 -> 100(%)
StandBy column:	0 -> 100(%) - Empty (transparent).
Locate column:	0 -> 100(%) - Empty (transparent)
Full column:	0 -> 100(%) - Empty (transparent)

For each type of Option, we'll now see in detail the various choices and their effects on the behaviour of the Attributes.
As in the previous cases, the options can be chosen by pressing the **Shift** key and turning the fourth encoder (yellow) simultaneously.

HTP or **LTP**. The type of priority of each Attribute can be chosen.
HTP (Highest Takes Precedence) is chosen when, after comparing two different levels applied to the same parameter, it's decided to give the priority to the higher of the two values This solution is advisable for all "dimmer" Attributes.
LTP (Latest Takes Precedence) - Chosen when it's necessary to control the attribute in such a way that it always responds to the last status given to it by a command This solution is advisable for all "non-dimmer" Attributes.

P.Type. By means of "P.Type" choices, all the parameters of each fixture can be associated with the required categories of Palettes (Intensity - Color – Gobo – PanTilt – Prism – Blade) as required. This establishes which Attributes will be saved in each type of Palette. It also establishes the set of Attributes allocated to the wheels recalled during editing procedure.

P.Inherit The choice able to be made in this column is: "Yes" or "No".
In fact, it's possible to decide which Attributes will be included in palettes in "Share" mode with YES; and which will be included in palettes in "Own" mode, with NO. You are strongly advised to consider the differences caused by the two methods for saving the Attributes in the Palette, in the appropriate Chapter: "Groups-Palettes-Grabs" at the paragraphs *"Creating new Own-type Palettes"* and *"Creating new Share-type palettes".*
The standard Attribute configuration of the Share or Own Palettes is shown in the following table.

Intensity **IN**	Pan Tilt **P/T**	Color **CO**	Gobos **GB**	Prism **PR**	Blade **BL**
Dimmer	**Pan**	Color wheel	Gobos	Prism	**Blade1**
Shutter	**Tilt**	Cyan	Gobo index	Prism rotation	**Blade1 angle**
	P/T Speed	Magenta	Gobo rotation	**Zoom**	**Blade2**
	Focus	Yellow	**Iris**	Effects	**Blade2 angle**
		Red	Macros		**Blade3**
		Green			**Blade3 angle**
		Blue			**Blade4**
		CTC			**Blade4 angle**
		CTO			**Blade Rotation**

Attributes written in bold type are "Own" type – i.e. with the P.Inherit option set at "No".

Path. Established how the Attribute will behave if it has to change its status, following a required Fade time.
Choosing "Linear" gives proportional linear behaviour of the Attribute regarding its change of status. This choice is advisable for all the attributes able to run a cross-fade between two Cues in a smooth linear manner.
Choosing "Snap start" on the other hand is very useful for the Attributes of fixtures that are able to run a timed proportional status change. For example, Gobo wheels or some color wheels. The choice of "Snap start" option rather than "Linear" for some parameters therefore depends on the type of movement (linear proportional or immediate – i.e. *"snap"*) implemented in the various fixtures.

All attributes configured in "Snap-start" mode ignore the fade time applied to the Cue, "jumping" instantly to the target value, as soon as the Cue is called up by pressing the **PLAY** key.

All attributes configured in "Snap-start" mode ignore the fade time applied to the Cue, "jumping" instantly to the Cue's target value, as soon as the Cue's fade time is finished.

Equalize. Equalize options allow to choose different response curves that the attribute will follow, should it be subject to continuous variation in time (e.g.: Crossfade). The choices are: "Linear" for a proportional procedure through time. "Eq.-1 -> Eq.-6" are other exponential curves.
The last "On-Off" curve is useful in the case of Attributes that control fixtures that can't be controlled continuously through time.

Out min – Out max. Out min and Out max are values that each operator can choose and set the lower and upper limits of any required range of control of the Attribute, other than 0-255 (or 0-65535 for 16-bit channels). It's very useful for those Attributes that normally control the switching on and off of lamps. Reducing the Attribute's range avoids accidentally sending these commands during programming.

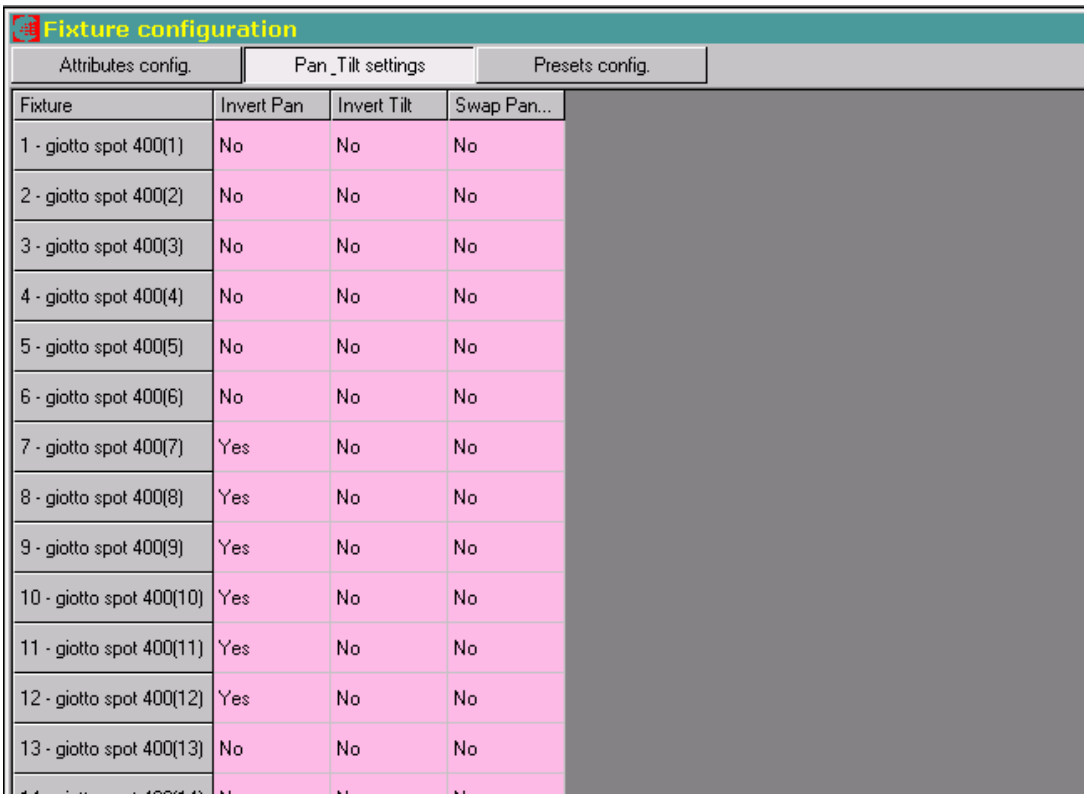
Pre Heat. Sets the level of the constant Attribute to be sent to conventional fixtures that require pre-heating.

Stand By. Stand By is the status the Attributes of fixtures must have every time they're released by the "Live Editor" or by the Playbacks. This is a very important attribute status and can be configured as required. It's enabled every time **ClrAll** is pressed at the end of a programming session, or every time **Rel** **Play** are pressed to release a Cue to be run. Normally Attributes' "Stand By" status only contains the following information: Dimmer=0. This means that, once they're released, all the fixtures involved in a Cue or controlled by "Live Editor" will remain in their position as far as all Attributes are concerned, except the intensity value, which will be set at zero.

Locate. Locate is an Attribute status that can be set by the operator and is enabled by pressing the **Locate** key. It's very useful for picking out fixtures and beginning their programming. The "Locate" command therefore automatically enables all the parameters configured in "Live Editor".

Full. In this case too, all the configured attributes are enabled by pressing the **HiLite** key. Here, on the contrary to "Locate", the attributes configured do not enable the "Live Editor".

Pan Tilt settings:

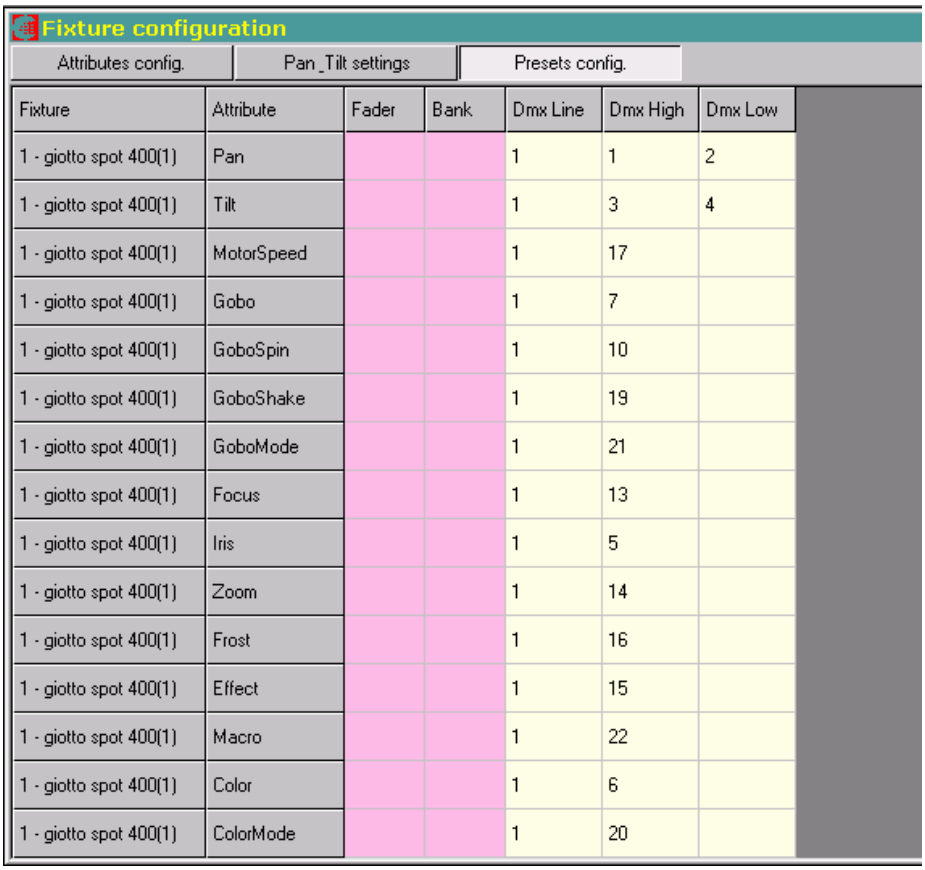


This menu is used to assign the inversion of Pan and Tilt movement to fixtures that are already configured.
To apply an inversion, select the required fixtures and choose the column in which inversion or substitution is required. The procedure previously described is used in these cases too.
Invert Pan column: No - Yes
Invert Tilt column: No - Yes
Swap Pan/Tilt column No - Yes

The "Swap" function replaces Pan with Tilt and vice versa. This means that when it's used, the DMX data intended for the Pan channel will be used by the Tilt channel and vice versa.
Inversions of Pan and Tilt can also be applied with Swap enabled.
A total of eight combinations are possible:

1. No invert
2. Invert Pan
3. Invert Tilt
4. Invert Pan + invert Tilt
5. Swap P/T
6. Swap P/T + invert Pan
7. Swap P/T + invert Tilt
8. Swap P/T + invert Pan + invert Tilt

Preset Configuration:



Fixture	Attribute	Fader	Bank	Dmx Line	Dmx High	Dmx Low
1 - giotto spot 400(1)	Pan			1	1	2
1 - giotto spot 400(1)	Tilt			1	3	4
1 - giotto spot 400(1)	MotorSpeed			1	17	
1 - giotto spot 400(1)	Gobo			1	7	
1 - giotto spot 400(1)	GoboSpin			1	10	
1 - giotto spot 400(1)	GoboShake			1	19	
1 - giotto spot 400(1)	GoboMode			1	21	
1 - giotto spot 400(1)	Focus			1	13	
1 - giotto spot 400(1)	Iris			1	5	
1 - giotto spot 400(1)	Zoom			1	14	
1 - giotto spot 400(1)	Frost			1	16	
1 - giotto spot 400(1)	Effect			1	15	
1 - giotto spot 400(1)	Macro			1	22	
1 - giotto spot 400(1)	Color			1	6	
1 - giotto spot 400(1)	ColorMode			1	20	

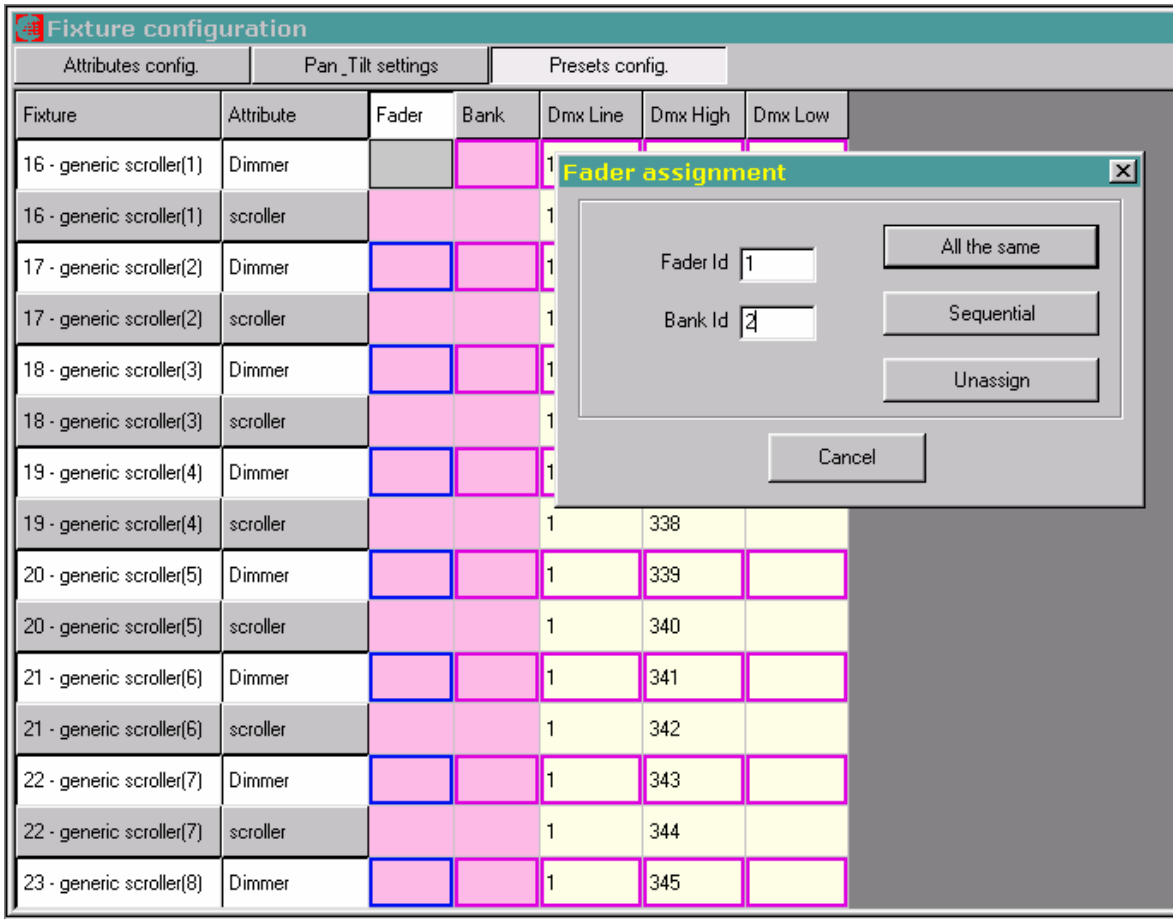
Preset Configuration is the third and last part of the Fixture Configuration area, and allows to assign Attributes of fixtures that are already configured to the Manual presets. (for LIVE and OPERA). Several Attributes can be assigned to the same manual preset. On the contrary, an Attribute cannot be assigned to several Presets. It's possible to configure a variable number of "Banks" of Manual Presets, according to the model and personal setting of Single or Double Preset (see: ***SETUP*** -> ***Options***).

The table below shows the various configurations of banks available, according to the models and personal settings.

	Regia2048 LIVE	**Regia2048 Opera**
Double Preset	171 Banks	43 Banks
Single Preset	86 Banks	22 Banks

To assign one or more Attributes to the Presets on the required Bank:

- Select the Attribute(s) required from the "Fixture" column.
- Double click on a cell of the "fader" column of one of the selected Attributes.
- A window appears in which to key the required fader number (e.g. N°1) and the required Bank (e.g. N° 2) into the appropriate fields – "Fader Id" and "Bank" respectively.



- Press the ***All the same*** key if it's necessary to allocate all the attributes selected only to the Preset chosen (N° 1 in the example). By doing this, from then on, all the selected Attributes will be controlled simultaneously by the same Manual Preset Fader.
- Press the ***Sequential*** key if it's necessary to allocate the Attributes selected in progressive order of Preset, starting from the Fader chosen (N°1 in the example). This choice means that, from then on each, Attribute will be individually controlled by each Fader.

If it's intended to free one or more Attributes from the control of the Manual Presets, proceed as follows:

- Select the Attribute that is to be freed from the "Fixture" column.
- Double click on one of the cells in the "fader" column of one of the selected Attributes, in order to display the "Fader Assignment" window.
- Press the ***Unassign*** key.

Programming Cues

This chapter gives users all the necessary elements for programming Regia2048 in a simple effective manner.
Before being programmed, it's indispensable that the Console is correctly configured, as explained in the previous chapters.

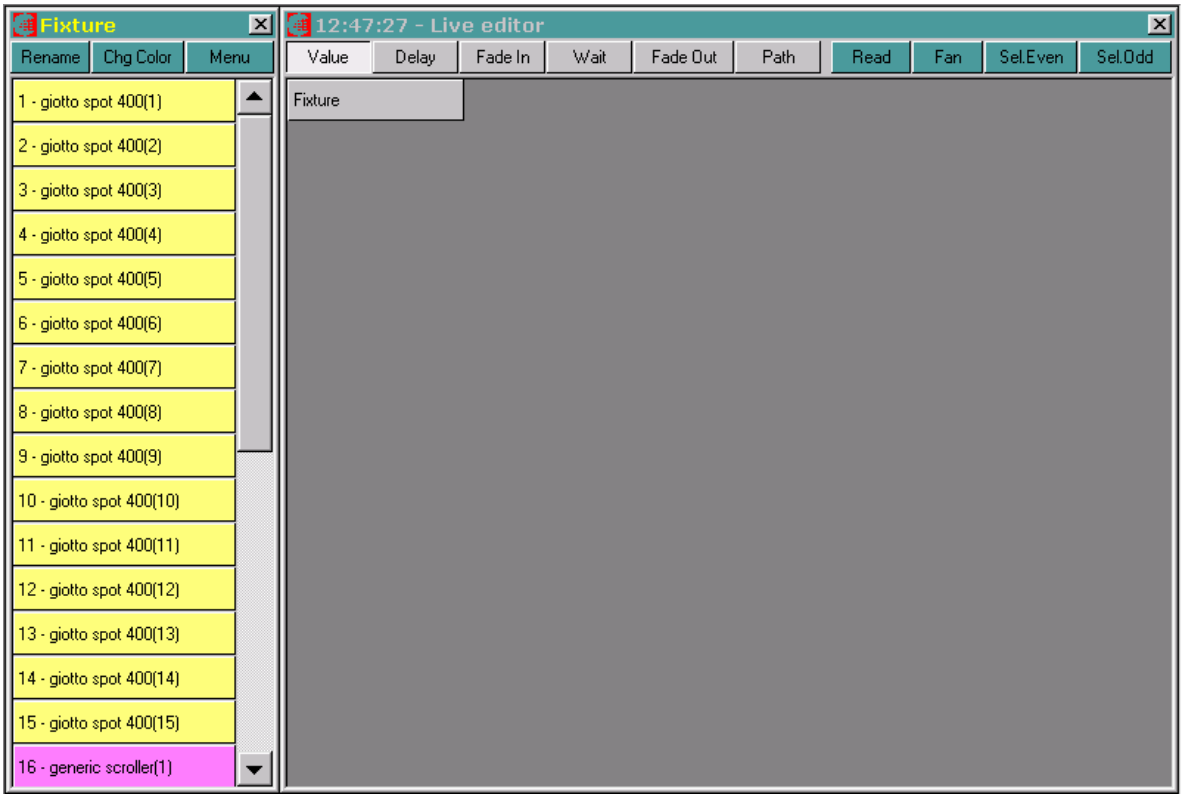
Regia2048 can be programmed in a very flexible personal manner.
If the Console's being used for the first time, it's advisable to follow this procedure and then, once basic ability has been achieved, each operator will be able to use his or her own programming style according to requirements.

All programming work is carried out using the "editor" area of the keyboard and main software interface.
The three fundamental programming tasks are:

1. *Selecting the Fixtures.*
2. *Editing parameters top obtain the required scene is obtained.*
3. *Saving Attribute status in a Cue.*

Selecting the Fixtures

After the Console has been configured, the main interface automatically displays the "Fixture" selection area, with the list of configured fixtures, and the "Live Editor" area of the Attributes' parameters.



Selection can be carried out by using the main interface (mouse or touch-screen) directly or manually, by means of the selection keypad and numerical keypad.
For example, the first four fixtures can be selected by proceeding as follows:

- Click with the mouse on each key of the fixtures in the Fixture list.
- Hold down the left key of the mouse "dragging it" from fixture one to four in the "Fixture" list.
- Using the Touch-screen.

Using the keyboard, more complicated selections can be made by means of the **Fixt**, **Thru**, **+** and **–** keys
Here are some valid selections:

- **Fixt** **1** **+** **3** **Enter** (Selects Fixtures 1 and 3)
- **Fixt** **1** **Fixt** **3** **Fixt** **6** **Enter** (Selects Fixtures 1, 3 and 6)
- **Fixt** **1** **+** **5** **Thru** **9** **-** **8** **Enter** (selects Fixture 1 and from 5 to 9, excluding 8).

The toolbar of the Fixture window has three keys:

- *Rename*
- *Chg Color*
- *Menu*

The *Rename* key
Using the ***Rename*** key, it's possible to change the representative name of the Fixture according to requirements for each selection key.

The *Chg Color* key
The ***Chg Color*** key enables the utility for customizing the color of the Fixture selection key.

The *Menu* key
Pressing the ***Menu*** key enables the selection window in question, which gives access to the following functions relative to the fixtures:

- Change name & description
- Change Color

Complete de-selection of the fixtures in the editor can be done in various ways: by pressing the **Esc** or ***Fixture*** key in the "Live Editor" window.

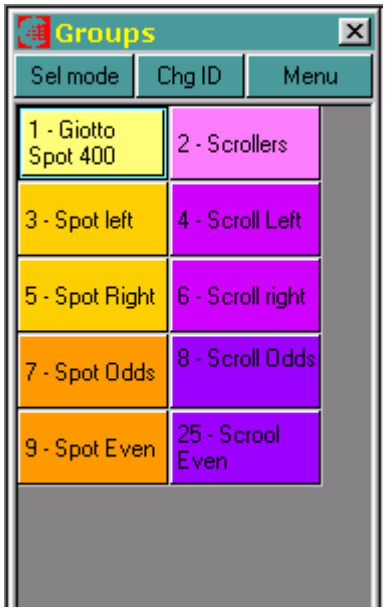
Selecting Fixture by means of Groups

A rapid easy method for selecting fixtures is by using the Groups
In fact, Programming can be speeded up by directly selecting previously created Groups of fixtures.

To create a Group:

- Select the fixtures to be included in the group as described above
- Press **Store** and then **Group**

When this is done, the selection window displays the list of Groups, which will also include the new Group that has just been created.



To change a Group's name:

- Select the Group.
- Rght click on the group or press the ***Menu*** key in the toolbar of the "Groups" window.
- Choose "Change name & description".
- Write the Group's new name.
- Press ***OK*** to confirm.

A virtually unlimited number of Groups can be created with Regia2048.

The toolbar of the Group window has three keys:

- *Sel mode*
- *Chg ID*
- *Menu*

The *Sel Mode key*

The ***Sel Mode*** key sets one of the two modes in which the Groups are selected:

1. Selective
2. Additive

The effect of the two modes can be seen when selecting two or more Groups.

Selective Mode

With Selective mode, when several Groups are chosen, in "Live Editor", only the Fixtures belonging to the last Group chosen will be selected.

Additive Mode

Pressing the "Sel Mode" key changes to ***Add mode.***

By doing this, when several Groups are chosen, all the Fixtures in the "Live Editor" are selected.

The *ChgID* key
By means of the ***ChgID*** key, the numbering of the Groups can be updated, in order to re-organize them as required.
The **Move** key can also be use for the same purpose.

The *Menu* key
Pressing the Menu key enable the selection window in question, which gives access to the following functions relative to the Groups:

- Change name & description
- Change ID
- Change Color
- Group detail
- Add to current group
- Delete Group

All the information for creating and editing Groups is described in detail in the following chapter: *"Groups-Palettes-Grabs"*.

Selection of fixtures by means of the Groups is done with the same procedure described previously for Fixtures.
One or more Groups of fixtures are chosen as follows:

- Click with the mouse or the Touch-screen on the required Groups.
- Keep the left key of the mouse pressed and "drag" it from the first group to the last for multiple selections.

As with the Fixtures, the keyboard can be used for more complicated selections, with the **Group**, **Thru**, **+** and **–** keys.
Here are some valid selections:

- **Group** **1** **Thru** **3** **Enter** (Selects the fixtures in groups 1,2 and 3).
- **Group** **1** **Thru** **3** **-** **Fixt** **12** **Thru** **18** **Enter** (Selects the Fixtures in Groups 1,2 and 3, excluding Fixtures12, 13, 14, 15 and 16).

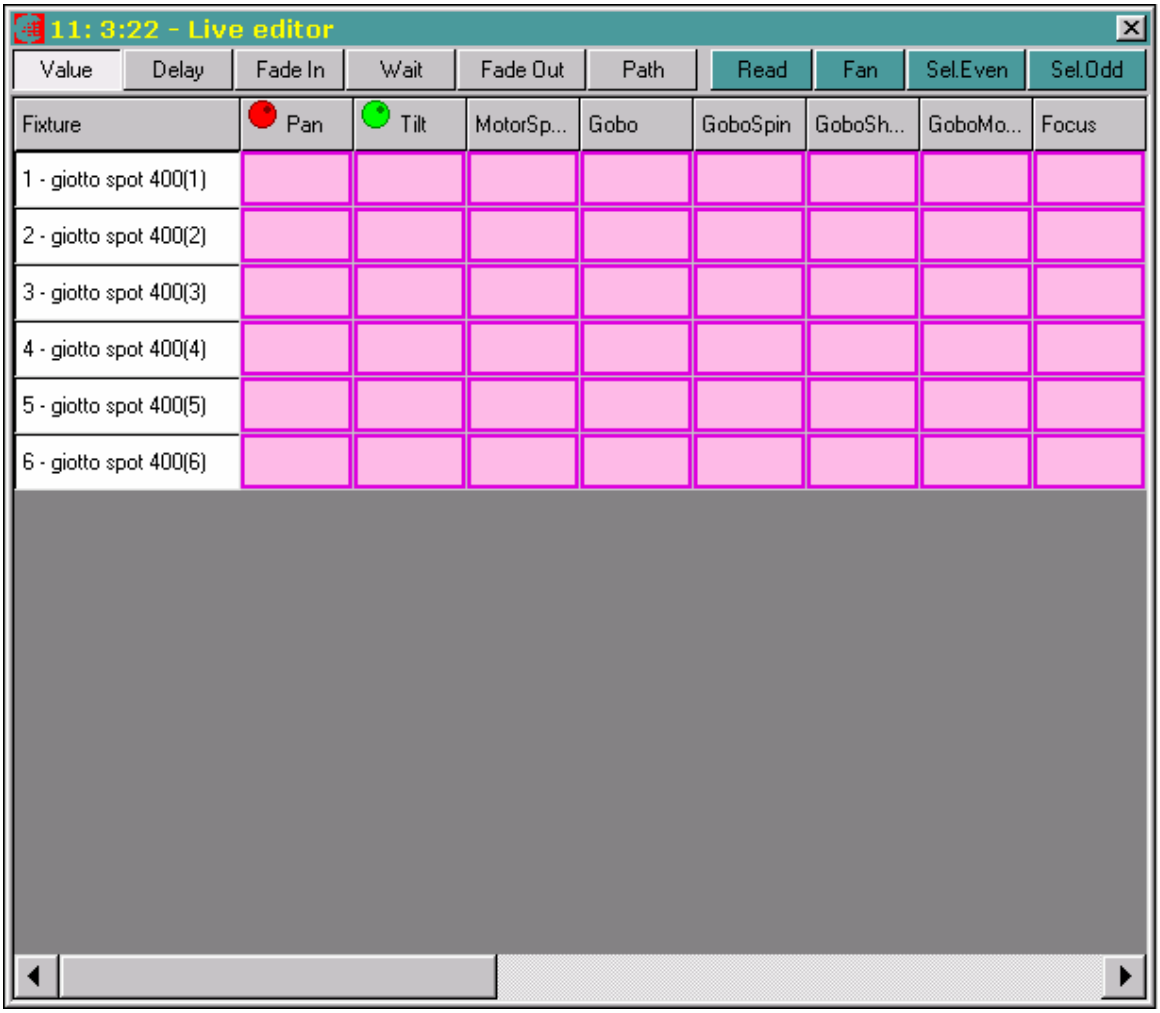
Complete de-selection of the fixtures in the editor can be done in various ways: by pressing the **Esc** or ***Fixture*** key in the "Live Editor" window.

Attention!!
It's of fundamental importance to organize all the fixture selection Groups according to an appropriate logic, as this will ensure rapid intuitive programming, particularly when controlling very large rigs.

Editing Attributes

The "Live Editor" window is one of the most important areas on Regia2048.
It's enabled every time the ***Edit*** key is pressed, and gives access to all the programming and editing functions of the selected fixtures' Attributes, to create the required Cues.

Once they're selected, the fixtures appear in the "Fixture" column of the "Live Editor" window, which shows the Attributes in the first line (Pan-Tilt-Color-Cyan.. etc).



When pressed, each Fixture's keys (colored white) show its "Enabled" status for programming. While preparing a Cue, it's possible to enable/disable some Fixtures which mustn't be effected by the Cue being prepared.
The line of the Attributes (Pan-Tilt-Color-Cyan, etc.) always shows the set of the last Fixture selected, in cases in which Fixtures of various types are chosen.

ATTENTION!!
Even when fixtures of different types are selected, the "common" Attributes (e.g.: Dimmer - Pan - Tilt..) are controlled by Regia in a univocal simultaneous manner.

The Locate command

As a first step, we suggest that all those who are programming the Regia2048 for the first time begin by attributing a defined parameter to all the Attributes of the selected fixtures.

This is all done completely automatically by the "Locate" function.
Locate is a special "status" of the Attributes of automated and conventional fixtures that can be called up whenever required by pressing the **Locate** key. For convenience, Locate status has all the selection's attributes set at zero, apart from shutter and dimmer, which are set at "full", and (if they exist) Pan and Tilt attributes, which are both set at a value of 50% (Home position).
As a first Programming operation, this allows to pick out the selected fixtures (also visually) and then change the Attributes in order to create the required Cue.

Locate meets two important requirements:

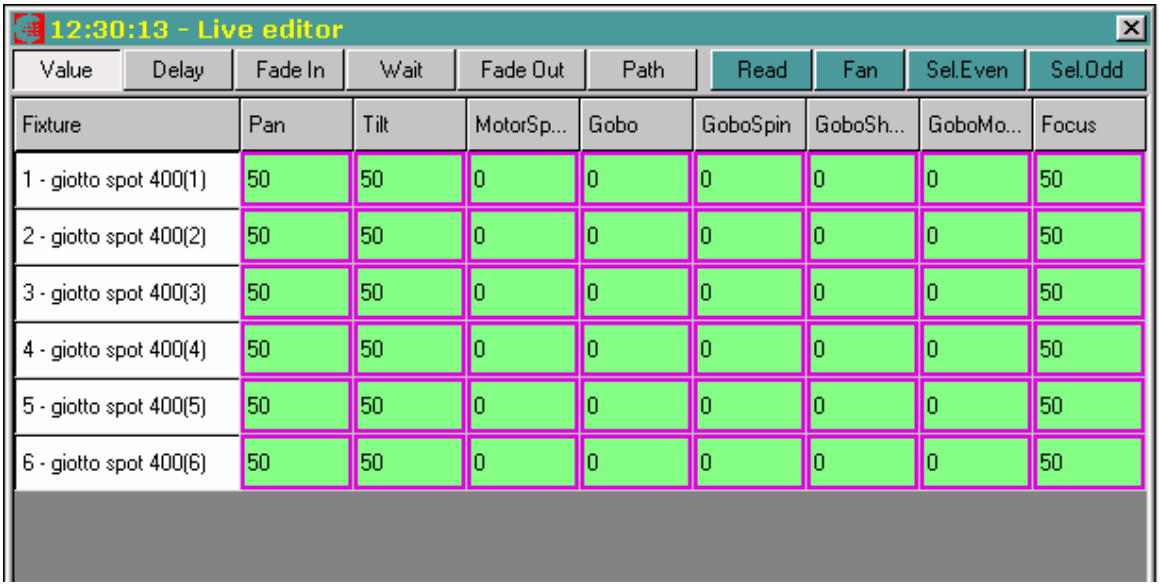
1. To create a "start" light status for programming, where all the fixtures go to Home position at maximum power and with no colors, gobos, etc…
2. To allocate a DMX value to all the attributes of the selected fixtures.

All the Attributes in "Live editor" that contain an allocated parameter (cell status: green) are Attributes that will later be saved in the Cue.
Vice versa, all the pink Attributes (Empty), will be ignored during Cue saving procedure, and will consequently be ignored by the Cue itself during Playback.

Press **Locate** as a first Programming operation.
Live Editor will display the DMX values allocated to all the attributes, as shown in the following diagram.
As can be seen, all the previously empty cells (Pink colored) become green, assuming the parameter given by the "Locate" command.

Once the **Locate** key has been pressed, the first Cue can be prepared, by changing the Attribute parameters of the selected fixtures (Color, Gobos, Pan, Tilt, etc.).

We'll now see how the Attribute parameters can be changed in order to obtain the required scene.

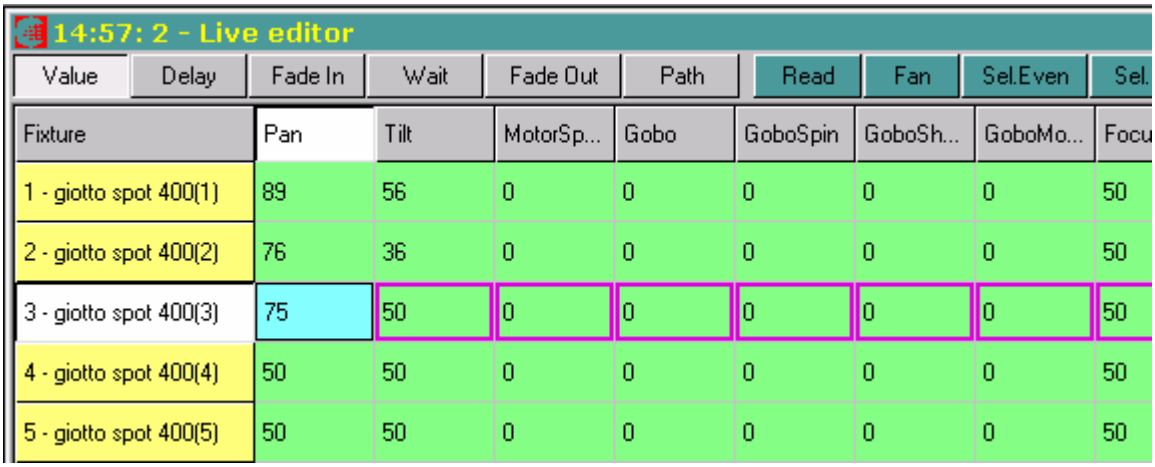


Positioning Fixture beams

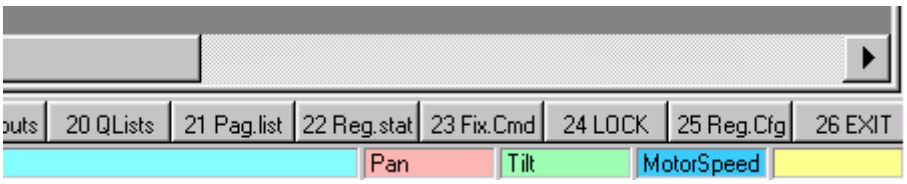
To assign a Pan and Tilt position to the enabled "Live Editor" Fixtures, just move the track-ball. All the enabled fixture will take up position in the same way.
If on the other hand each Fixture has to be positioned individually, proceed as follows:

- Press the ***Fixture*** or **Esc** key to disable all the Fixtures.
- Then enable the first Fixture to be positioned, by pressing the relative key.
- Set the light beam in the required point, by means of the Track-ball.
- Press the **-** key (down arrow) to enable the next Fixture and disable the previous one.
- Position the beam using the Track-ball.
- Repeat the same procedure for all the Fixtures.

The **-** **+** keys (down arrow – up arrow) allow to scroll through the enabling of the Fixtures in "Live Editor". It's also possible to use the two keys below the Track ball.

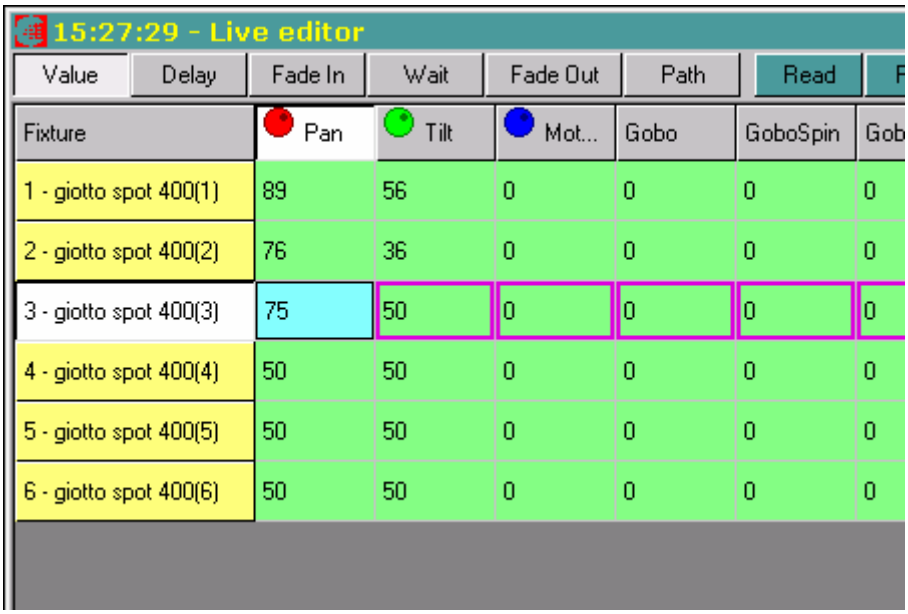


Pan-Tilt positioning of the Fixtures can also be done in another manner.
Pressing the **P/T** key enables the encoders' control of Pan and Tilt Attributes. This allows to position the light beam(s) of the enabled fixture(s) by means of the Attributes' control wheel.
The allocation of P/T Attributes to the encoders can be viewed in the command bar of the main interface, as is shown in the diagram.



The four color fields (Red, Green, Blue and Yellow) represent respectively the control of the four wheels. Pressing the **P/T** key assigns the control of the Attributes relative to the "P/T" category to the four encoders, which control their parameters.
Therefore, turning the "Red" Encoder changes the Pan position and, in the same way, the Tilt position is changed with the second (Green) Encoder.

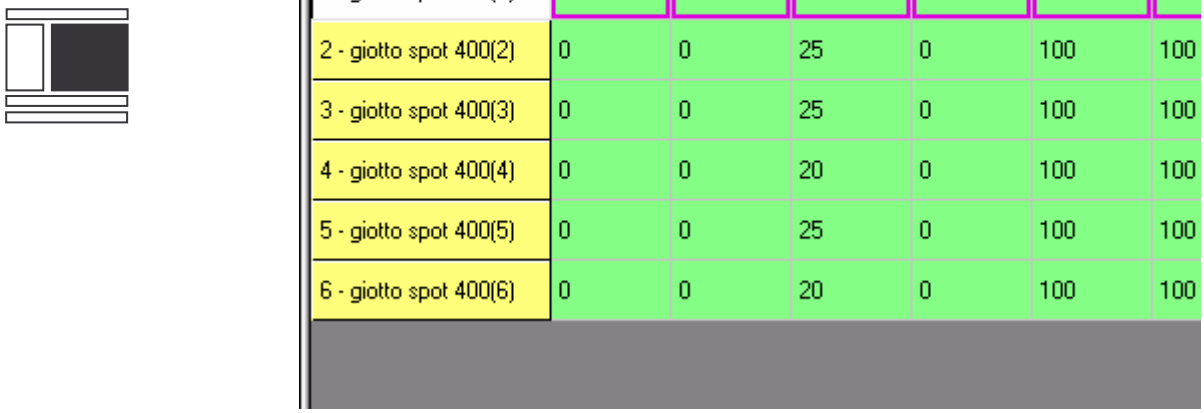
The Encoder – Attribute assignment is also displayed in the Attribute line of the enabled Fixtures in "Live Editor"



Choosing a Color

As described for Pan and Tilt, choosing the Color of automated fixtures is done by means of the control Wheel, after having assigned them all the Attributes regarding the "Color" category.
To choose a color:

- Press the **Color** key. The Command line then displays to which Encoders (Red, Green, Blue and Yellow) color control is assigned.
- Turn the appropriate Encoder until the required color is obtained.

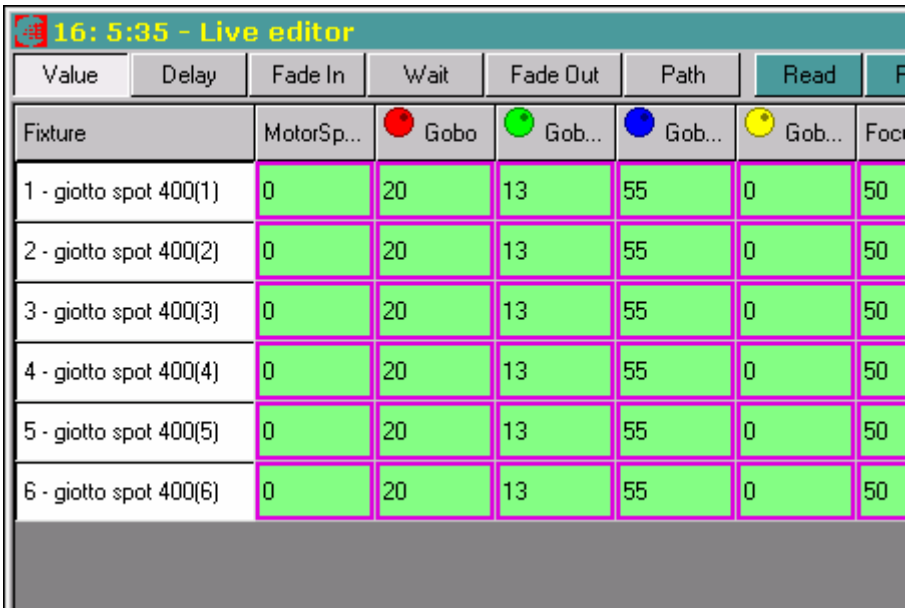


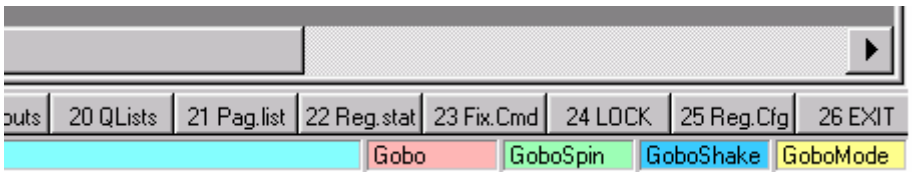
Choosing Gobos

To choose a Gobo, proceed as explained for the Colors.
In modern Fixtures, the Gobo category often has more than four Attributes (e.g.: Gobo - GoboSpin - GoboShake - GoboMode - Iris - Frost - Effect - Macro).
Therefore, to assign the control of all the Gobo Attributes to the encoders, the **Gobo** key must be pressed repeatedly in order to scroll the assignment of the sets of four Attributes to the encoders.

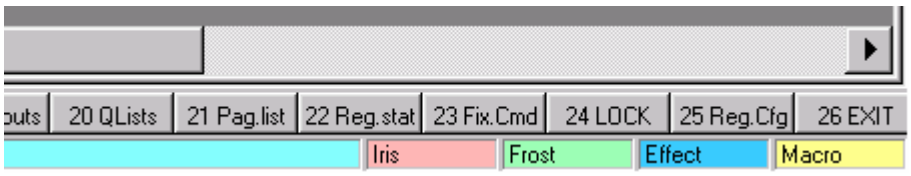
To choose a Gobo:

- Press the **Gobo** key. The prompt line then displays to which encoder (Red, Green, Blue or Yellow) Gobo Wheel control is assigned.
- Turn the encoder in question until the required Gobo is obtained.





If the value of the Iris is to be changed, simply press the **Gobo** key again, in order to assign the next set of Gobo Attributes that includes Iris control to the Encoders.



Now, by turning the first (Red) Encoder, the light beam's Iris aperture can be chosen.

Editing all types of Attributes

As can be easily imagined, working on the Attributes involved is a very easy procedure.
Just call up the category the Attribute belongs to, to be able to control its encoders and change its parameter as required.

Then press:

- **Intens** for control of: Dimmer – Shutter - Focus - Zoom
- **P/T** for control of: Pan and Tilt (still controllable using the Trackball)
- **Color** for control of: Color wheels - Cyan - Magenta - Yellow - CTC- CTO
- **Gobo** for control of: Gobo wheels, gobo indexing and Iris – Frost - Effects
- **Prism** for control of: Prisms, prism rotation and any related Attributes
- **Blade**

In fact, the assignment of a Fixture's Attributes to the six categories is set by the Fixture description file (fixture library); some fixtures' assignment may therefore be different from that described above.
The connection between Attributes and categories can be changed by means of the menu path ***SETUP*** -> ***Fixture Configuration*** -> ***Attributes configuration*** (see Chapter: Console Setup -> Fixture Configuration –> Attribute configuration).

Attention!!
All the operations carried out using "Live Editor" have priority over anything else the console is running (e.g.: Cues or Manual Presets), except Grand Master and DBO.

Saving a Cue

Once the required scene has been programmed, by means of "Live Editor", it's necessary to be able to save it in a certain point of Regia, in order to be able to run it when required.
Regia defines a "Cue" as being a saved status of Attributes that can be recalled with its times and modes when required for Playback.

Regia2048 controls all saved Cues by means of Playback Registers.
The Console's number of Registers varies from model to model.
The Live model has 12 Playback Registers, while the Pro and Opera have 24 Playback Registers.

Before saving an Attribute status in a Cue, it's therefore necessary to choose the Register that in the future will control the Cue about to be saved.
Once the Register has been chosen, saving the Cue automatically creates a sort of container, associated with the Register in question, called "Cue-list", which will in turn contain the first Cue that has just been saved.
In a Cue-list, it's therefore possible to add a virtually unlimited number of Cues one after another.
All the Cues of a Cue-list will later be controlled by the Register to which the Cue-list in question belongs.

It must be remembered that the set of Registers available (12 Registers for Live - 24 for Opera and Pro) is not unique, but a virtually unlimited number of "Pages" can be created, each of which controls a set of Registers organized as best suits the user.

Choosing the Register

The choice of the Register in which to save a Cue can be made in various ways, by using the **Sel** key.
The Register selected is displayed by means of the secondary interface, via the Yellow bar highlighting the current Cue-list.

R.	Status	Cue list	Active Cue	Next Cue	At
01	PAUSE	1 Main Status	1.00000 Congo Blue	2.00000 Guitar Solo	100%
02	PLAY	2 Chase Spt 400	3.00000 Step 3	4.00000 Step 4	100%
03	PLAY	3 Chase Wsh 400	8.00000 Step 8	9.00000 Step 9	100%
04	PLAY	4 Chase Sspot 575	12.0000 Step 6	13.0000 Step 13	100%
05	OFF	- - -	---	---	0 %
06	OFF	- - -	---	---	0 %
07	OFF	- - -	---	---	0 %
08	OFF	- - -	---	---	0 %
09	OFF	10 Chase Acl Front	---	1.00000 Acl Front	100%
10	OFF	11 Chase ACL side	---	1.00000 ACL side	100%
11	OFF	12 Chase Dim SPT	---	1.00000 Dim SPT	100%
12	OFF	15 Full White	---	1.00000 Audience	100%

As can be seen in the previous diagram, the selected Register is the fourth, which controls Cue-list N° 4, named "*Chase Spot 575*".

The various methods for selecting a Register are:

1. Press the **Sel** key and then the **Play** key (right arrow) of the Register to be selected.

2. Press the **Play** key of the required register while the **Sel** key is pressed.

3. Press the **Sel** key and keying in the number of the required Register using the numerical keypad.
   Then press **Enter**

4. Press the **Sel** key repeatedly to scroll through the selection along the set of Registers.
   Wait for the time-out confirming the selection

Saving Cues

If a Register that doesn't control any Cue-list (empty) is chosen, the **Store** **Cue** command saves the "Live editor" status in the first Cue, which will be put in a new Cue-list, automatically created by Regia.

If, on the other hand, a Cue is saved on a Register where there is already a Cue-list, the Cue in question will be "queued" at the end of those already existing.

Every time a new Cue is saved, the "Cue-list" window appears, showing all the characteristics of the Cue-list that is being worked on, as shown it the diagram.

Pag 1 Reg. 10 - Cue List 5 (5)

Autoprepare OFF	Rename	Change ID	Load	Update

ID	Trig Mode	Delay	Fade In	Wait	Fade Out	Name
1.00000	Go	0.00	2.00	-	-	
2.00000	Go	0.00	2.00	-	-	
3.00000	Go	0.00	2.00	-	-	
4.00000	Go	0.00	2.00	-	-	
5.00000	Go	0.00	2.00	-	-	

There's a short-cut for selecting a Register and saving a Cue in it.
Holding down the **Store** key while selecting the **Play** key of the Register chosen allows, with just one operation, to save the Attribute status in a Cue, which will be put directly into a Cue-list (created automatically if the Register is empty) without having to select it beforehand.
The Register is selected automatically and simultaneously; this allows to save other Cues in the same Cue-list, with the customary **Store** **Cue** command.

Changing the parameters of a Cue-list

The example shown in the diagram shows the make-up of Cue-list 5, controlled by Register 10 of the first page.
The "ID" column shows the number of Cues that make up the Cue-list.
The "TrigMode" column shows the mode with which the Cues will be enabled.
The Delay, FadeIn, Wait and FadeOut columns show the timing of each Cue.

All the parameters described can be changed as required.
The Cue-list window can be called up at any time by pressing the **Cue** key. The Cue-List displayed is always that associated with the currently selected Register.

Changing Cues *ID*
Changing Cues' ID is very useful when it's necessary to change the Playback order of the Cues in a Cue-list, or when a long Cue has to be entered in a Cue-list that is already ordered.

To change the ID of one or more Cues:
- Select the Cue in question
- Right click with the mouse and choose "Change ID". Otherwise, press the **Move** key, or press the ***Change ID*** key directly in the "Cue-list" window.
- Key the new ID number into the "Change Cue ID" window that appears.
- Press ***OK*** or **Enter** to confirm.

As always, it's impossible to assign a Cue an ID that's already used by another Cue. There is however the possibility of using Point-Cues. If a cue must be entered between Cue 1 and Cue 2, it's sufficient to change its ID to 1.50000 (Point-cue).

Changing Cues' *TrigMode*
In order to be enabled, each Cue must receive a "*Trig"* command.
The Trigger's "Go" mode shows that the Cues will be able to be enabled by pressing the **Play** key relative to the Register (right arrow).
Trig modes are:
- Go
- Absolute
- Delay end
- Follow

"Absolute" and "Delay end" modes are not yet available.
"Follow" mode is very important, as it allows to *link* all the Cues in order to obtain an automatic sequence.
The Follow function can also be applied to a sector of the list of Cues, in order to obtain a Triggering that's a combination of manual (Go) and automatic (Follow).

To change the Trig Mode:

- In the "TrigMode" column, select the Cues whose Triggering has to be changed.
- Hold down the **Shift** key and turn the yellow Encoder to choose from the various modes.

Changing Cue *Timing*
Every Cue on the Regia 2048 can be run with the required times. Cue's *Timing* is made up of four times:

1. Delay
2. Fade in
3. Wait
4. Fade Out

By means of the "Cue-list" window, it's possible to change each of the 4 times individually for every Cue in each Cue-list.
To change Cue timing:

- Select the Cues whose timing has to be changed.
- Select the column corresponding to the type of time to be changed (Delay - Fade in - Wait - Fade Out).
- Double click on one of the corresponding time cell.s
- Cancel the current time using the **Backspace** key.
- Key in the new time (in seconds) using the numerical keypad.
- Press **Enter** to confirm.

In the Chapter dedicated to Playback we'll cover the meaning and various "actions" of Regia2048's Timing in detail.

Naming a Cue
Cues can be assigned names to facilitate recognition.
To do this by means of the Cue-list window:

- Select the Cue to be renamed
- Press the ***Rename*** key or right click with the mouse and choose "Change name & description".
- Key the required name into the "Name" field.
- Press ***Ok*** to confirm.

The name of the Cue will appear on the secondary display, alongside its ID for the enabled Cues and for the Next Cues.

Editing Cues

There are several methods for editing Cues.
During Cue editing work, it's important to have a clear idea of the procedure, in order to avoid undesired consequences.

Load and Update functions

The "Load" e "Update" commands are use respectively for reloading the Cues to be edited into the Live Editor, and saving the cue in question, once it has been edited.

To edit a Cue proceed as follows:

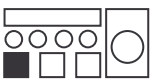
- Select the Cue-list the Cue belongs to by means of the **Sel** key as previously described.
- Press the **Cue** key to display the Cue-list controlled by the selected Register.
- Press the **Load** key and then the **Cue** key.
- Key in the ID number of the Cue to be edited (e.g.: 1).
- Press **Enter** to confirm

With this series of operations, the situation prior to saving the Cue that has just been reloaded is restored in the "Live editor".
This is visually shown in the title bar of the "Live Editor" window.

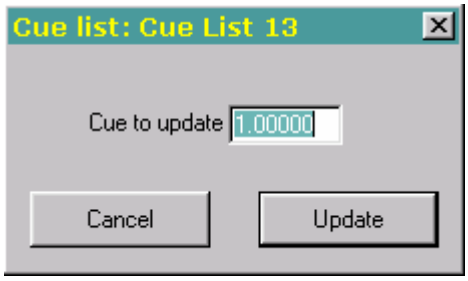
18:36: 2 - Editor: QList 13 "Cue List 13" - cue 1.00000 ""

Value	Delay	Fade In	Wait	Fade Out	Path	Read	F

Fixture	Pan	Tilt	MotorSp...	Gobo	GoboSpin	Gob
1 - giotto spot 400(1)	73	48	0	0	0	0
2 - giotto spot 400(2)	73	48	0	0	0	0
3 - giotto spot 400(3)	73	48	0	0	0	0
4 - giotto spot 400(4)	73	48	0	0	0	0
5 - giotto spot 400(5)	73	48	0	0	0	0

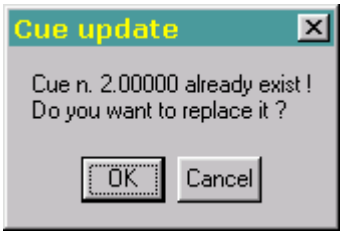


- Edit the Cue with the same procedure used for programming.
- Press the **Updt** (Update) key and then the **Cue** key.



- Press the ***Update*** key to update the Cue that has just been edited

If the "Live editor" status of an edited Cue is to be saved as a new Cue, just key the new ID into the "Cue to update" field.
If, on the other hand, the ID of an existing Cue is keyed in, it will be necessary to confirm by means of the WARNING window that appears.



The "Load" command can be given even more rapidly, by means of the ***Load*** key in the Cue-list window.

In simpler terms:
- Click on the Cue to be edited, in the "Cue-list" window.
- Press the ***Load*** key
- Edit the Cue
- Press **Updt** and then **Enter**, or ***Update*** as mentioned above, to confirm the update.

The Load-load command

There are faster ways of editing Cues. One of these is the "Load-Load" command. This command doesn't require the Cue-list to be selected previously, but loads *the last Cue enabled* from any one of the Playback Registers into the "Live editor".

To edit any Cue during Playback of a Cue-list:
- Enable the Cue required by means of the **Play** key.
- Press the **Load** key twice consecutively.
- Edit the Cue
- Press the **Updt** key.
- Press **Enter** to update the Cue.

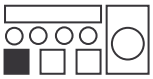
Direct update

Another system for editing a Cue during Playback is via direct Update.
In this case, there's no need for the "Sel" command or the "Load" command.
It's simply sufficient to edit the last Cue enabled by Playback, press the Update key and Regia will automatically assign the update to the Cue in question.

Therefore, to carry out direct Update:

- With the Cue enabled, select the fixtures to be edited or added.
- Only edit the required Attribute (e.g. Color, Pan Tilt, etc.).
- Press the **Updt** key and then the **Cue** key.
- Confirm the update by means of the **Enter** key or ***Update.***

The Prev and Next commands



For a faster edit of the Cues of a Cue-list, the "Prev" e "Next" commands can be used in order to speed up the loading of the Cues into the Editor to make any changes required.
Once a Cue is loaded into Live Editor for the required change,
it's possible to rapidly load the next or previous Cue in the Cue-list,
by means of the **Next** or **Prev** commands respectively.
This allows to edit a Cue-list more rapidly, without having to use the "Load" command for each Cue.

The title bar of the "Live-Editor" window displays in real time, the Cue and Cue-list currently loaded to be edited.

Cue Playback

The playback of Cues is the last job when running a Show.
Here again, it's advisable to have in-depth knowledge of all the various solutions and methods for organizing the Playback systems, since Regia offers various solutions, which can be used according to requirements or habits.
Therefore, knowing in advance how one intends organizing Playback methods, means taking the correct choices right from the programming stage.

Playback architecture:

As already mentioned in the previous chapters, the Regia Playback structure consists in a number of Registers (12 on the Live model and 24 on the Pro model), each able to control a Cue-list containing a virtually unlimited number of Cues.
The set of Registers, called Page, isn't unique; in fact, a virtually unlimited number of Pages can be created, each containing the required Cue-lists.
Each register is made up of three elements:

1. Attenuation fader
2. Play button
3. Flash button

The "effect" that the fader and buttons have on enabling a Cue-list is by default:

1. Fader
   Only attenuates the intensity Attributes of the enabled Cue.

2. **Play** button
   Enables the Cue-list associated with the Register when it is off and plays out the first Cue. Pressing the Play key repeatedly plays out the next Cues in the Cue-list.

3. The **Flash** button
   Allows to manually flash the Dimmer Attributes of the enabled Cue. This is visible when the Fader is set in positions lower than 100% or at 0%.

The activities of the Registers can be changed according to the other Options available, which will be analyzed later in this Chapter.

The Registers' status is displayed in the secondary interface.

R.	Status	Cue list	Active Cue	Next Cue	At
01	PAUSE	1 Main Status	1.00000 Congo Blue	2.00000 Guitar Solo	100%
02	PLAY	2 Chase Spt 400	3.00000 Step 3	4.00000 Step 4	100%
03	PLAY	3 Chase Wsh 400	8.00000 Step 8	9.00000 Step 9	100%
04	PLAY	4 Chase Sspot 575	12.0000 Step 6	13.0000 Step 13	100%
05	OFF	- - -	---	---	0 %
06	OFF	- - -	---	---	0 %
07	OFF	- - -	---	---	0 %
08	OFF	- - -	---	---	0 %
09	OFF	10 Chase Acl Front	---	1.00000 Acl Front	100%
10	OFF	11 Chase ACL side	---	1.00000 ACL side	100%
11	OFF	12 Chase Dim SPT	---	1.00000 Dim SPT	100%
12	OFF	15 Full White	---	1.00000 Audience	100%

The data columns shown indicate respectively:

R	Status	Cue-list:	Active Cue	Next Cue	At
Register number	Register status	Number & name of the Cue-list controlled	Number & name of the Cue being run	Number & name of the next Cue that can be enabled	Percentage status of the Fader

Let's now examine the possible variables offered by each column.

R
Indicates the Register number. In the example shown in the diagram on the previous page, it can be seen that there are 12 registers. In the case of Regia Pro and Opera, there are 24 "R" lines.

Status
Shows the current status of the Register. The statuses a Register can have are:

- "OFF" appears when the Register is off, and none of the Cues belonging to the controlled Cue-list are being played out.
- "PLAY" appears every time the **Play** key is pressed, and remains enabled until the Cue Timing finishes.
- "PAUSE" appears when the Timing of the enabled Cue is finished, and it has therefore been completely run with the programmed times and modes. PAUSE is the status regarding the wait for the next Cue to be enabled.
- "FREEZE" is a status that is enabled when the **Freeze** key is pressed and "freezes" the PLAY status being run of a Cue for the required time.
- "MANUAL" represents the status of a Register, whose Cues are controlled manually by Master B.

Cue-list:
Indicates the Cue-list controlled by the Register. Each Cue-list has an ID number, and can later be given a name, assigned to ensure immediate recognition.

Active Cue
Indicates the Cue currently being played out by the Register. Each Cue is characterized by an ID number relative to the sequential position of the Cue in question in the Cue-list and (if required) an assignable name. If the Register is in OFF status, the Active Cue field contains a series of lines, showing that there are no Active Cues.

Next Cue
Indicates the ID number and any name, of the Cue that will be enabled after the current Cue. The Next Cue field is important in the event of the use of the GOTO function, as it confirms the correct choice of a Cue not in sequence in the Cue-list.

At
Indicates the status of attenuation of the Register fader. Pressing the **Flash** key changes the "At" value to that of the *Grand Master.*

Enabling one or more Cues

Pressing the **Play** keys is the main action for enabling Cues.
Pressing the keys repeatedly enables the next Cues in the Cue-list

In the event of several Cues of Cue-lists controlling the same fixtures being enabled, Regia follows LTP (Last Takes Precedence) control logic. This means that the last Cue enabled, in chronological order, will take control of any Fixtures already controlled by other previously enabled Cues.

It's therefore possible to enable a maximum of 12 Cue-lists per Page if the Live model is being used, or 24 if the Pro or Opera models are used.

It's also possible to enable Cues in reverse order, compared to their sequential order in a Cue-list. This can be useful in the event of accidentally enabling a Cue ahead of the one to be run.
To enable Cues "in reverse":

- Hold the **Shift** key down
- Press the **Play** key of the Cue-list to be run backwards

Releasing a Register

Pressing the **Play** key enables a Cue-list and its consequent playout of the first Cue in the Cue-list in question. In the event of it being necessary to disable the PLAY or PAUSE status of a Register, it's necessary to use the "Release" command.
The effect of the Release function on a Register switches off the Cue held actively by the Register.
Practically, all the fixtures controlled by the Cue of a disabled Register pass to Stand-by status (see: Setup -> Fix.Cfg -> Attributes config.).

There are three different methods for releasing an enabled Register:

Method 1
- Press the **Rel** key.
- Press the **Play** key of the Register to be released.

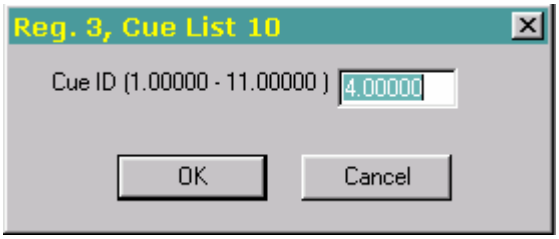
Method 2
- Hold the **Rel** key down.
- Press the **Play** key of the Registers to be released.

Method 3
- Press twice consecutively the **Rel** key to Release all the enabled Registers.

The Goto function

"Goto" is a very useful function.
During Playback, it's very often necessary to jump from the current Cue to one that isn't the next in the Cue-list (e.g.: from Cue 8.00000 to 12.00000).
This is possible by means of the Goto function.

To jump a Cue (or a set of Cues) during Playback:
- Select the Register the enabled Cue-list belongs to by means of the **Sel** key, as previously described.
- Press the **Goto** key. The window that appears shows the selected Cue-list and relative Register in the title bar, the number of Cues in the Cue-list (1-11) and the next Cue in the ID field.



- Key in the new ID number of the next Cue to be enabled. The new ID obviously can't be higher than the number of Cues in the Cue-list.
- Press **Enter** to confirm.

The confirmation of a different Cue to be enabled next is given by the secondary interface in the "Next Cue" column.

Pressing the **Play** key will therefore enable the next Cue previously chosen by means of "Goto".

07	OFF	- - -	---	---	0 %
08	OFF	- - -	---	---	0 %
09	OFF	10 Chase Acl Front	---	1.00000 Acl Front	100%
10	OFF	11 Chase ACL side	---	1.00000 ACL side	100%
11	PAUSE	12 Chase Dim SPT	3.00000 Spt Even	8.00000 Spt Front	100%
12	OFF	15 Full White	---	1.00000 Audience	100%

The FREEZE function

The Freeze function allows to instantly "freeze" a Cue during PLAY. It's therefore possible to block (for any length of time) any Cue during "Fade In" or "Fade out", sequences or effects by the Shape Engine.
Pressing the **Play** key again, the "frozen" Cue will start again from the status it was in when the "Freeze" function was used.

Here too, there are three methods for enabling Freeze status:

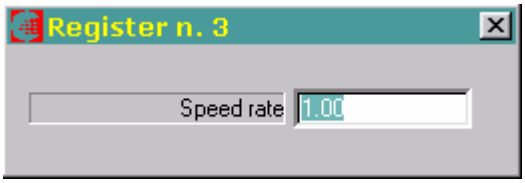
Method 1
Press the **FREEZE** key.
Press the **Play** key of the Cue-list to be frozen.

Method 2
Hold down the **FREEZE** key.
Press the **Play** key of the Registers to be frozen.

Method 3
Press the **FREEZE** key repeatedly twice to freeze all the enabled Cues.

The TIME/DATA function

The TIME/DATA encoder offers the possibility of accelerating or decelerating (by a given percentage) the "PLAY" status of a Cue belonging to the Cue-list of a selected Register. The control is real-time and effect can be seen by turning the encoder.
It's therefore possible to control the times of Fade, sequence speed, and speed of effects from the Shape Engine.



To change speed-rate during Playback:

- Select the Register that controls the Cue to be changed.
- Turn the TIME/DATA encoder clockwise to increase the speed and counter-clockwise to reduce it.

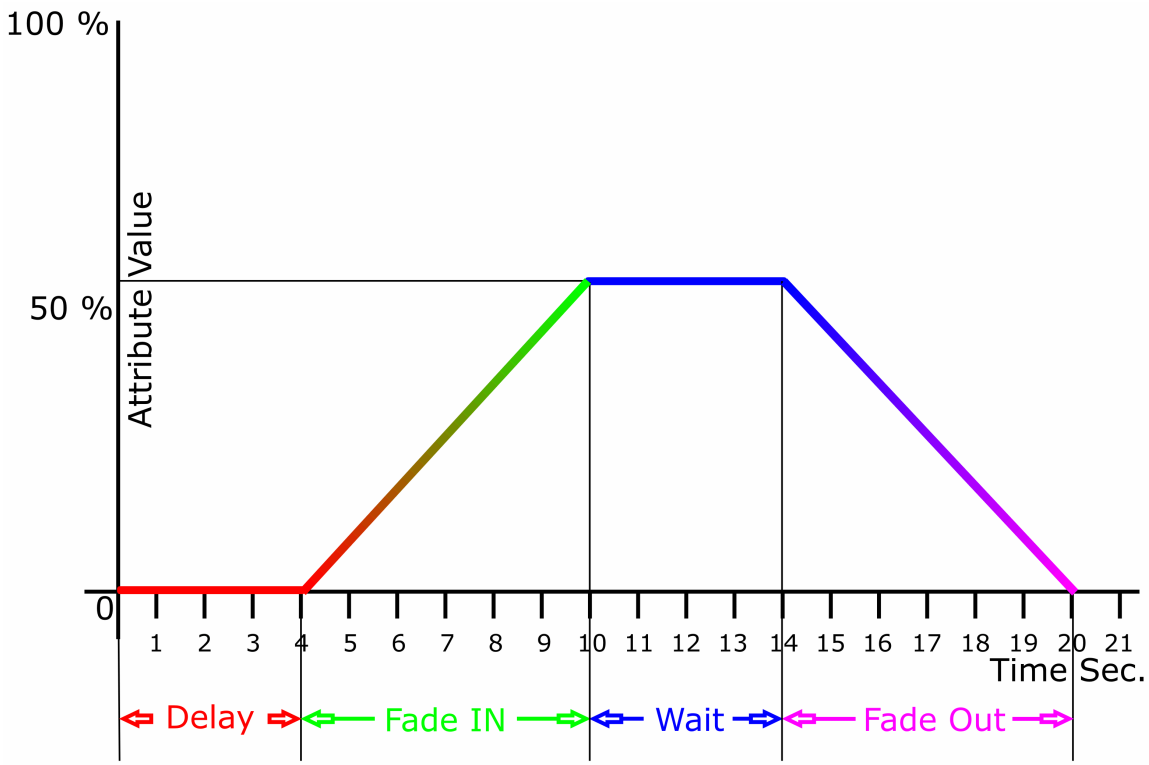
Speed Rate in fact effects the times that regulate the enabled Cue of the selected register.
With Speed Rate = 1 the speed will remain unchanged (*Timing* remains changed).
With Speed Rate = 2, the speed will be doubled (*Timing* is halved).
With Speed Rate = 0.5, the speed will be halved (*Timing* is doubled).

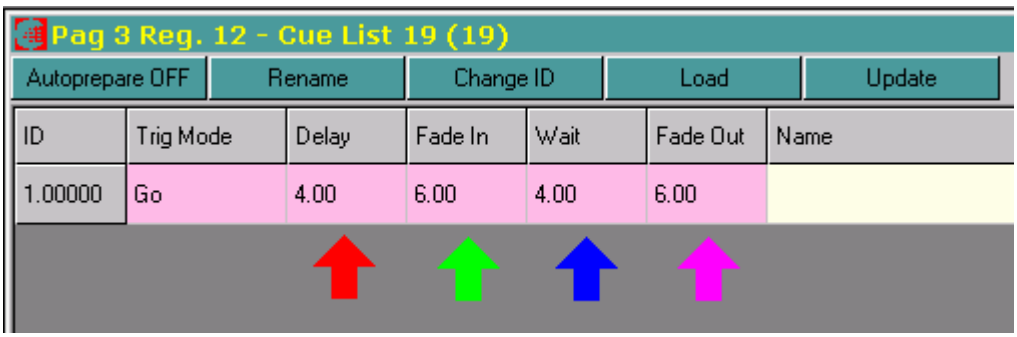
When the Speed Rate is changed, to restore the original speed:

- Move the TIME/DATA encoder until the Rate window appears.
- Key in 1 with the numerical keypad.
- Press **Enter** to confirm,

Cue timing

Each Cue can be controlled by four different times, according to requirements.





By default, every time that a Cue is saved, Regia automatically assigns a "Delay" time and a "Fade IN" time to *ALL* the Attributes involved in this Cue. These can be changed in different ways, according to requirements for each Cue.

"Wait" and "Fade-OUT" times are normally not assigned and, if they are to be introduced, they will consequently change the behaviour of the Cue during the Trigger.
Introducing Wait and Fade-OUT times means "moving" the end of the Cue Trigger until the completion of the Fade-Out in question.
It's also important to remember that Fade-OUT time only effects the Cue's Dimmer Attributes, not any others present (Pan, Tilt, Gobos, Color, etc..).

The table below shows the behaviour of a Cue in some typical cases of Timing.

Delay	Fade in	Wait	Fade Out	Trigger
0.00	2.00	-	-	Cue Fade in 2 sec. Pause until the next trig.
3.00	2.00	-	-	Cue Fade of 2 sec after a delay of 3 sec. Pause until the next trig.
3.00	0.00	-	-	Cue Fade of 0 sec after a delay of 3 sec. Pause until the next trig.
0.00	0.00	-	-	Cue Fade in 0 sec. Pause until the next trig.
0.00	2.00	4.00	-	Cue Fade in 2 sec. Pause until the next trig. Cue wait of 4 sec. in the case of trig follow.
3.00	2.00	4.00	-	Cue Fade of 2 sec after a delay of 3 sec. Pause until the next trig. Cue wait of 4 sec. in the case of trig follow.
3.00	0.00	4.00	-	Cue Fade of 0 sec after a delay of 3 sec. Pause until the next trig. Cue wait of 4 sec. in the case of trig follow.
0.00	0.00	4.00	-	Cue Fade in 0 sec. Pause until the next trig. Cue wait of 4 sec. in the case of trig follow.
0.00	2.00	4.00	8.00	Cue Fade in 2 sec. Cue wait of 4 sec. Output of the Cue Dimmers in 8 sec.
3.00	2.00	-	8.00	Cue Fade of 2 sec after a delay of 3 sec. Cue wait of 0 sec. Output of the Cue Dimmers in 8 sec.

In the session of this Manual regarding the advanced functions, we'll see in detail, how to differentiate Timing of single Attributes in the Cue in question.

In the graphic example, the Timing of a Cue is shown, which (to simplify matters) only controls the Dimmer Attribute.

Delay time

Delay time, is the time with which the start of the Cue input is delayed (Fade-IN). Once started, by means of a Triggering command (e.g.: GO), a Cue with a Delay time will start to run once the Delay time is finished.

As can be seen from the diagram on the previous page, the Dimmer Attribute controlled by a Cue, having a Delay time (colored Red), remains at its current value (in the example =0%), for four seconds before beginning its Fade IN.

Every time a new Cue is created, Regia assigns Delay time a value of zero seconds by default.

Fade-IN time

Is probably the Cues' most important time.
It's the time with which all the Attributes controlled by the Cue reach setting, as programmed in "Live Editor", when the Cue in question was saved (input time).

In the previous table, the Dimmer Attribute controlled by the Cue reaches its setting of 55% in six seconds (colored Green).

Every time a new Cue is created, Regia assigns the Fade-IN time a value of four seconds by default.

Wait time

The Wait time has effect after Fade-IN.
In other words, a Cue already being played out, that has a Wait time, will hold its status for this time, until other "events" arrive, such as the intervention of "Fade-Out", or the start of another Cue.
A Cue with a Wait time doesn't change its status during this time, when there are neither of the two events mentioned.

Wait time is very useful if it's necessary to realize an automatic Cue sequence (Trig.Mode: *Follow*), and it's necessary to introduce a wait time between one step and the next.

In the table, the Dimmer Attribute controlled by the Cue remains at 55% for four seconds (colored Blue).

Every time a new Cue is created, Regia does not assign a value to the Wait time.

Fade-OUT time

Where included, Fade-OUT time only effects the Dimmer Attributes controlled by the Cue.
The Attributes of a Cue that are not Dimmers (e.g.: Gobo, Color, Pan/Tilt, etc…) will not be influenced by any action in the event of the Cue in question having a Fade-OUT time.

The effect Fade-OUT will be that of reducing the value of all the Dimmer Attributes of the Cue to Zero, in the time set.

In the previous table, Fade-OUT lowers the value of the Dimmer Attribute to Zero (colored Magenta) in a time of six seconds.

Every time a new Cue is created, Regia does not assign a value to the Fade-OUT time.

Attention!!
If Wait and Fade-OUT times are changed, and it's decided to restore their null default status, it will be necessary to press the . key of the numerical keypad, once selected from the Cue-list window.

Register Playback Pages

As already mentioned, each operator can choose his or her own method of Cue Playback by means of the creation of various Cue-lists controlled by the same number of Registers, divided into various Pages.
In this paragraph, we'll see how to create Pages of Registers, organize the control of Cue-lists on them, and pass from one page to another during the Playback of a show.

Creating new Pages

BY default, the start of a new Show creates a Page of registers (the first).
To create new Pages, it's necessary to press the ***Pag.list*** key.

The ***Pag.List*** key enables the "Page list" window, which shows how many and which pages have already been created. It's also possible to view the Cue-lists controlled by each Register of each Page.

To add new Pages, just press the ***Add page*** key in the Tool-bar of the "Page list" window. It's possible to create a virtually unlimited number of pages.

The Rename key allows to give a different name to each page, facilitating recognition during Playback.
To change a Page's name:

- Select the Page from the list.
- Press ***Rename*** key or right-click with the mouse.
- Key the name of the Page into the "Name" field of the "Edit name & description" window.
- Press ***OK*** or **Enter** to confirm.

Another very important function is "Change ID".
Reorganizing the order of the Pages can be extremely useful, particularly for tours or travelling shows, on which Playback sequences can very often change.

To put the pages in a new order:

- Select the Page whose ID has to be changed
- Press the ***Change ID*** or **Move** key.
- Assign a new ID, available in the New ID field of the window that appears.
- Press ***OK*** or **Enter** to confirm.

To delete a Page:

- Select the Page to be deleted from the Page list window
- Press the Del key.
- Confirm by pressing ***Ok*** in the WARNING window, or **Enter**.

Attention!!
The cancellation of a Page does NOT mean that any Cue-lists contained in the page in question will be lost.

Register configuration

Each Register of each Page can be configured using various work modes available.
Pressing the ***Reg.Cfg*** key gives access to all the options available for each Register.

Page 1 - "Page 1"

Previous page | Next page | New page | Chg page name

Reg.	Cue List	QL mode	Hi.prior	Flash/Solo	Slider Autoplay
1	1. Drum	Normal	No	Flash	OFF
2	2. ACL only	Normal	No	Flash	OFF
3					
4					
5	7. Guitar NIC	Normal	No	Flash	OFF
6	6. Strobe random	Normal	No	Flash	OFF
7					
8					
9					
10	5. Chase Dimm	Normal	No	Flash	OFF
11	4. Chase Spot	Normal	No	Flash	OFF
12	3. Lead volcal	Normal	No	Flash	OFF

The window shows the Cue-lists assigned to the Registers of the Page in the title bar.
Each column represents one type of Option available for each Register. As already mentioned on the "Console Setup" chapter, the choice between the various Options is always made by turning the (yellow) "Data Entry" encoder, holding the **Shift** key down.

QL mode
The options are: Normal or Random.
In "Normal" conditions, Triggering enables the Cues in a sequential manner, according to their ID order in the Cue-list.
In "Random" conditions, Triggering enables the Cues in a random manner, not according to the ID order in the Cue-list. The Random option can be useful in the event of automatic-sequential Cue-lists (trigMode on: Follow).

HI Prior
"Hi Prior" conditions can be "Yes" or "No"
The No condition sets the Register in traditional LTP mode as far as priority in relation to the other Registers is concerned.

Yes condition sets the Register at a priority higher than LTP. This means that the Fixtures controlled by Cue of a Hi Prior Register will never be disturbed by any enabled Cues that involve the same Fixtures.

This is very useful in cases in which it's necessary at any time to have Cues that have to run without being disturbed.

Flash/Solo
"Flash" and "Solo" options are two types of "behaviour" that can be assigned to the Flash keys of the Registers.

Flash is the default condition, for which pressing the **Flash** key immediately enables Dimmer channels of the enabled Cue at the value of the Grand Master.

"Solo" condition has the same effect as the Flash condition, with the only difference that all the Dimmer Attributes of any other enabled Cue are immediately set at zero (Killed).

Autoplay fader
Allows to assign two different methods for enabling the Cue via Register fader movement.

In (default) OFF mode, enabling is not via the fader, but only by means of the **Play** key.

In "ON/Pausa" mode, Cue-lists are enabled by the slightest movement of the Register fader from Zero. Every time the fader returns to zero, it will enable the Cue after the current Cue.

"On/Off" is similar to the previous mode, with the only difference being that when the Register returns to zero, the Cue-list is disabled (AutoRelease). The next fader movement will automatically re-enable the Cue-list, again from the first Cue.

This mode can be useful in situations in which the Cue-list controlled by the Register only contains one Cue. This facilitates the procedure for changing pages, as the Register fader's zero position sets its at OFF, therefore it's immediately available on the new page as soon as its loaded (see next paragraph).

Page change during Playback

Regia2048 Live can control a maximum of 12 Cue-list simultaneously, each with an unlimited number of Cues. The Pro e Opera models can control a maximum of 24 per Page.
Each page doesn't necessarily have to contain the maximum number of controllable Cue-lists. It can however be useful to divide the programmed Cue-lists into various Pages, according to a required order. This means that the Pages will have to be changed during the Show.

Regia 2048 does not disturb the Playback status of one or more Cue-lists when the Pages are changed.

This means that all the enabled Registers will continue to run Playback function after Page changes. All the Cue-lists being played out therefore also remain available in the new page.

It's necessary to release the control of a Cue-list by a Register of the previous Page, if this Page has to control a new Cue-list, assigned by the Page that has just been selected.

The Release (**Rel**) command effects the Register as described in the previous paragraph on Register release.

The Register status for various Pages is displayed on the "Reg.stat" (Register Status) Page.
The "Register Status" window is enabled by means of the following key: ***Reg.stat.***

Current page: Page 3 (3)

Regi...	Next Qlist	Status	Running Qlist
1	16 - Cue List 16	PAUSE	16 - Cue List 16
2	17 - Cue List 17	PAUSE	17 - Cue List 17
3		OFF	OFF
4		OFF	OFF
5		OFF	OFF
6		OFF	OFF
7		OFF	OFF
8		OFF	OFF
9		OFF	OFF
10		OFF	OFF
11	20 - Cue List 20	PLAY	20 - Cue List 20
12	19 - Cue List 19	PLAY	19 - Cue List 19

As is shown by the diagram, the left-hand column shows the Cue-list belonging to the Registers of the current Page (number three in this example), whereas the right-hand column shows the enabled Cue-lists (Running Qlist) that can be running from previous Pages. The window in the diagram shows a case in which all the enabled Cue-lists belong to the current Page.

Current page: Page 2 (2)

Regi...	Next Qlist	Status	Running Qlist
1	8 - Wave wash	PAUSE	16 - Cue List 16
2	9 - Piano solo	PAUSE	17 - Cue List 17
3	10 - Bass guitar solo	OFF	OFF
4	11 - PT wave effect	OFF	OFF
5	12 - Podium	OFF	OFF
6	13 - Cue List 13	OFF	OFF
7		OFF	OFF
8		OFF	OFF
9		OFF	OFF
10		OFF	OFF
11	15 - Cue List 15	PLAY	20 - Cue List 20
12	14 - Cue List 14	PLAY	19 - Cue List 19

After the Page is changed, in the right-hand column (in Red), the Register Status window shows the Cue-lists that are still enabled, which don't belong to the current Page, whereas the right-hand page shows (also in red), the Cue-lists that will be available after the enabled ones are released.

There are various methods for changing Page:

Method 1
- Press the **Page** key.
- Key the number of the required Page into the "NewPage" field of the window that appears.
- Press **Enter** to confirm.

Method 2
- Hold the **Page** key down
- Press the **Play** key of the number of the Register corresponding to the number of the Page to be chosen. This method allows immediate access to the first 12 Pages on Regia Live and the first 24 on Opera and Pro.

Method 3
- Press the **Page** key.
- Press the **Play** key of the number of the Register corresponding to the number of the Page to be chosen.

Method 4
- Press the **Page** key repeatedly to scroll to the required Page number.

Method 5
- Press the ***Pag.List*** key to enable the "Page list" window.
- Choose the new Page from the list.
- Press the ***Change page*** key.

Changing the assignment of Cue-lists to Pages

The assignment of Cue-list to the Page takes place during the Programming of the Cue-lists in question.
The assignment of the Cue-lists to the Registers can be changed at any time. It's also possible to assign a Cue-list to several Registers, or remove a Cue-list from a Register's control

To assign a Cue-list to a Register:

- Press ***Pag.List*** key.
- Click on the empty cell corresponding to the Register and the Page to which the required Cue-list is to be assigned.
- Just key in the Cue-list's ID number.
- Press **Enter** to confirm.

In the event of the Cue-list's ID number having been forgotten, press the ***Qlists*** key.
A window will appear with a complete list of all the Cue-lists Programmed so far.

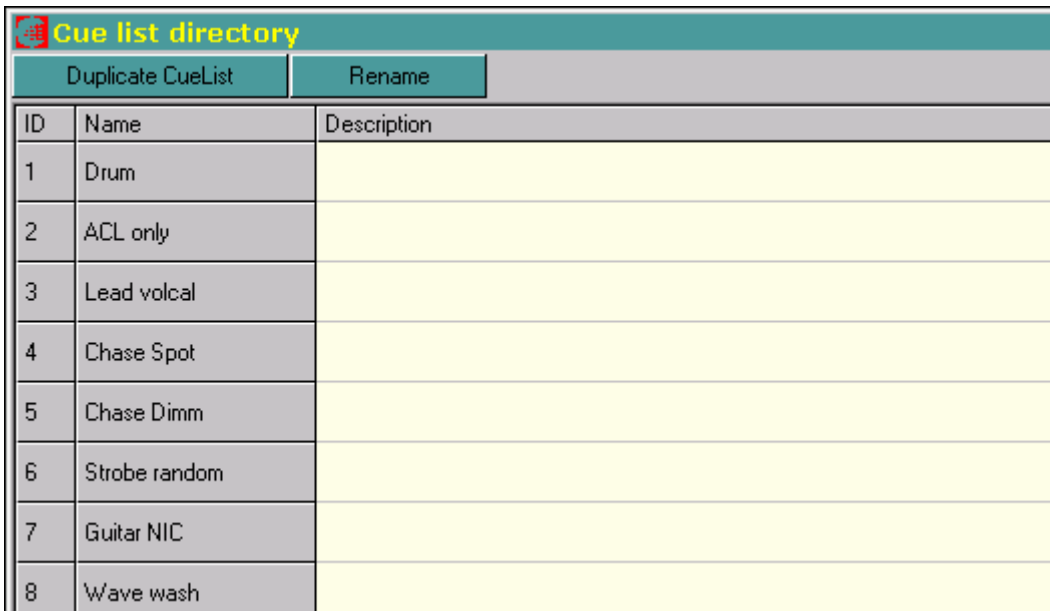
With the above method, it's possible to assign one or more Cue-lists to all the Pages on the same Registers.
This can be very useful if it's necessary to always have these Cue-lists available in the same Registers for all the Pages.
It's worth mentioning that is a Cue-list is assigned to several Registers, any changes made to it will effect all the Registers that control this changed Cue-list.

To remove the assignment of a Cue-list to a Register:

- Press the ***Pag.List*** key
- Click on the cell containing the Cue-list to be removed
- Press the . key.
- Press **Enter** to confirm.

Cue-list Directory

This is the "store" containing all the programmed Cue-lists.
It's enabled by pressing the ***Qlists*** key.



The window is used to assign a name to each Cue-list, to facilitate their recognition during Playback.
It's also possible to duplicate or cancel Cue-lists

To duplicate a Cue-list:

- Selection the Cue-list to duplicate from the list.
- Press the ***Duplicate CueList*** or **Copy** key.

Regia automatically names the copy of a Cue-list as "Copy of……..".
Use the ***Rename*** key to assign a new Name

To delete a Cue-list:

- Selection the Cue-list to delete
- Press the **Del** key.
- Press **Yes** or **Enter** to confirm deletion.

Attention!!
Cue-list deletion is irreversible - all Cues contained will be definitively lost!

Groups - Palettes - Grabs

Groups, Palettes and Grabs are very important instruments for streamlining the programming and modification of Cues and Cue-lists.

Groups

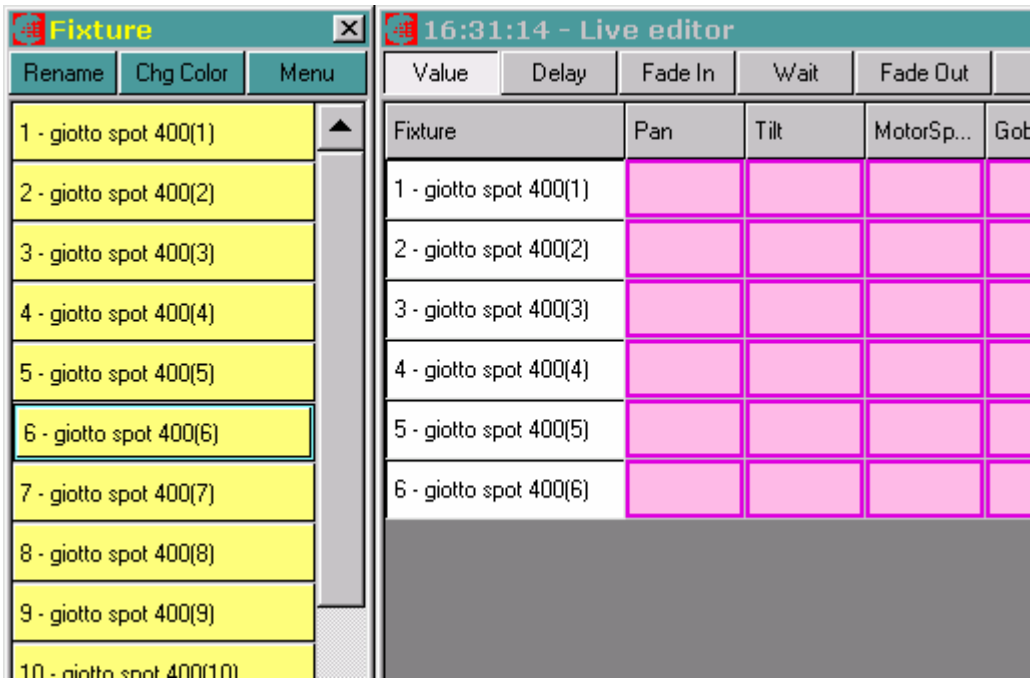
It's possible to create several groups of fixtures in order to streamline fixture recognition and selection during programming and modification.
Groups can in turn contain other groups. It's therefore possible to create "main" groups containing just fixtures, or composite groups made up of main groups.
At any time, by changing the main groups, the composite groups are automatically updated.

Creating Groups

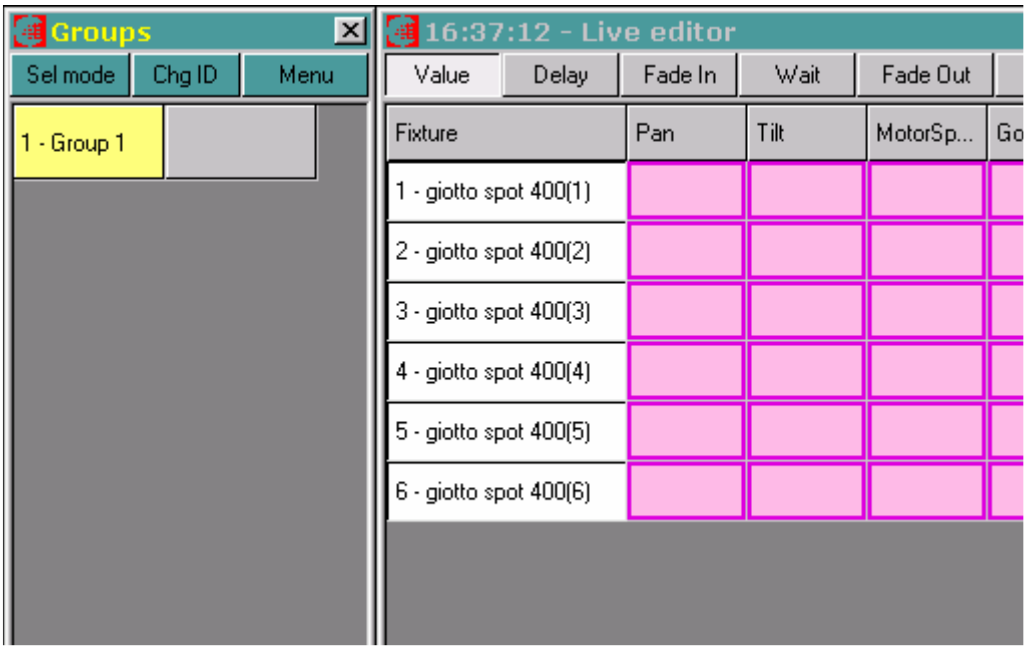
Selection groups are created using the editor. Fixtures selected in the "Live Editor" window can, at any time, be saved in a selection group.

To create a group, proceed as follows:

- Select the required fixtures belonging to the first group using the following keys: **Fixt** **1** **Thru** **6** (e.g.: the first 6 fixtures)
- Press: **Enter**



- Press: **Store** and then **Group** . This creates the first group. When the Store Group command is given, the selection window changes from "Fixture" to "Groups", showing the recall key of the group that has just been created (Group 1).



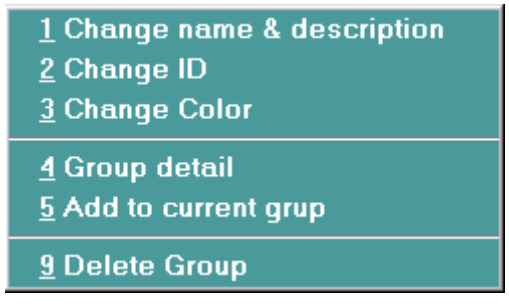
Repeat the above procedure to add new groups with other fixtures.

The Store-Group command is used to create Groups containing only the Fixtures selected in the "Live Editor"

Changing Groups

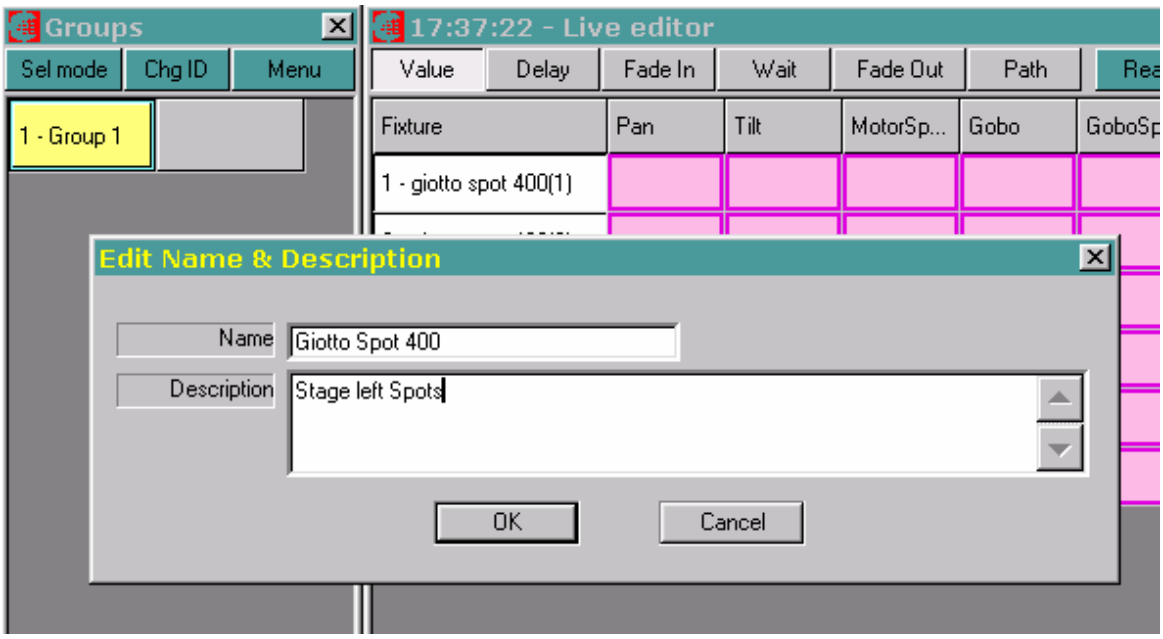
Numerous changes can be made to any Group, and are listed in the relative menu of the Group window. With the menu enabled, it's therefore possible to choose the type of change to be made to the selected Group.
The relative menu can be enabled in three different ways:

1. by right-clicking with mouse on the key of the selected Group.
2. By pressing the ***Menu*** key in the toolbar of the "Groups" window.
3. By pressing the **Menu** key on the Console once the Group is selected



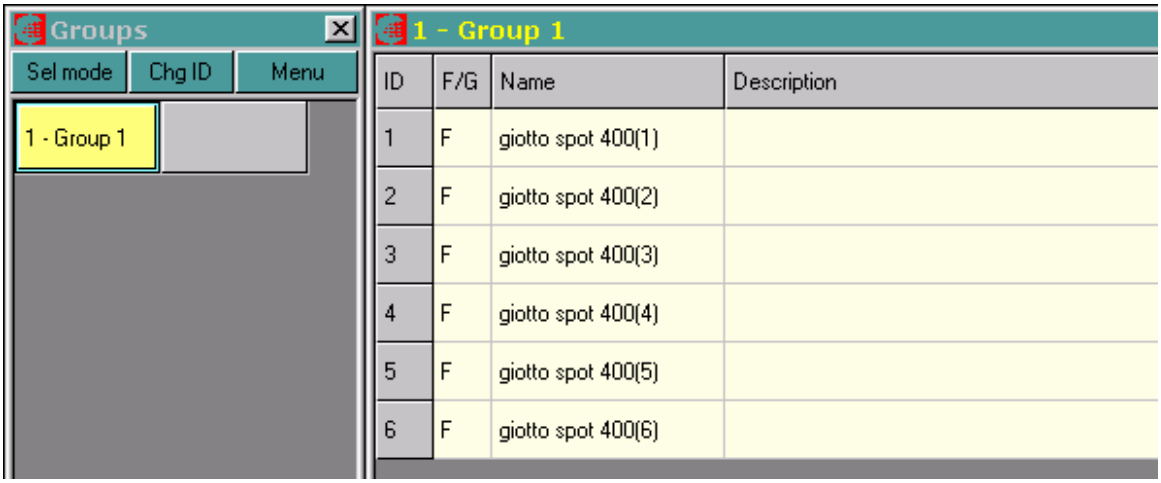
To change a groups' name:

- Select the required group from the "Groups" window
- Press the right-hand key of the mouse (or press the **Menu** key) and choose "Change name & description"
- Key the required name into the "Name" field of the "Edit name & Description" window that appears.
- Key any notes that are useful for recognizing the group into the Description field.
- Press **Enter** to confirm.



To view the details of a group:

- Select the required Group from the Group window.
- Press the right-hand key of the mouse (or press the **Menu** key) and choose "Group detail"
- A window will appear with the list of fixtures in the group in question

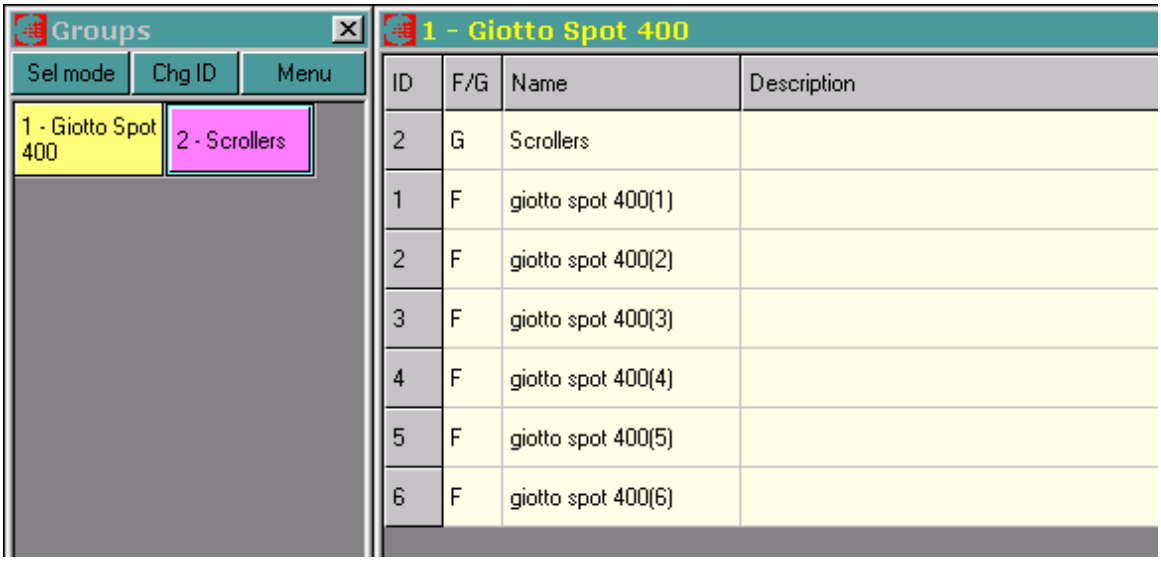


To add fixtures to a group:

- Display the details of the group
- Go back to the editor and select the fixtures to add
- Press the right-hand key of the mouse (or the **Menu** key) and choose "Add to group": the window with the appropriately updated details of the group will automatically be called up.

To add a group to a group:

- Display the details of the group to which the group is to be added
- Select the group to be added
- Press the right-hand key of the mouse (or press the **Menu** key) and choose "Add to current group"



It's possible to change the ID of individual groups in order to re-organize the required order of the Group, if, once a series has been created, some of them have been removed.
To change Groups' IDs:

1. Select the group to be assigned a new ID.
2. Press the right-hand key of the mouse (or press the **Menu** key) and choose "Change ID", or press ***ChgID*** directly in the toolbar of the Groups window.
3. Assign the new ID from the "Group ID" window in the NewID field.
4. Press **Enter** to confirm

Cancelling Groups

To cancel some fixtures from a group:

- Display the details of the group as previously shown
- Select the fixtures (lines) to delete
- Press the **Del** key.
- Press **Enter** to confirm

This procedure can also be use to delete a group belonging to another group.

To cancel an entire group:

- Select the group to be deleted
- Press the **Del** key.
- Press **Enter** to confirm

Palettes

Regia2048 Palettes are particular Attribute statuses that can be used to "build" custom Cues. Every time a palette used by one or more Cues is deleted, the Cues in question will also be automatically affected by the deletion(s). It's very important to use Palettes during programming, in order to make all-round changes when necessary, by making just a few rapid changes to the Palettes themselves

Regia2048 has six types of Palettes:

INTENSITY	(**IN**)
PAN TILT	(**P/T**)
COLOR	(**CO**)
GOBO	(**GB**)
PRISM	(**PR**)
BLADE	(**BL**)

Each type of Palette is use to save and later control Attributes relative to the specific type of Palette
For example, the P/T (Pan and Tilt) palettes only contain the data of the Pan AN Tilt Attributes of the required fixtures.
The use of these Palettes to create Cues during Editing is fundamental to be able to modify later all the cues that use them when required.

Every time a Palette is created, the values of all or part of the Attributes that belong to the specific type of palette are saved in it.
The association between type of Palettes and controlled Attributes, is set a priori by the fixture library, but can be changed according to personal requirements (see sect: ***SETUP*** -> ***Fix.Cfg*** -> "P.type" Column). For example, for some users it may be more useful to assign the Attribute for controlling Focus to the Pan and Tilt palettes, in order that every Pan and Tilt Palette used also contains the relative focussing data. Vice versa, it may be useful on the other hand for other users to assign the data of the Focus Attribute to the Gobo type of Palette. Each Palette contains the Gobo data, so will therefore also contain the data of the correct focussing of the gobo controlled by the Palette.

Saving parameters in a Palette can be referred to the TYPE OF FIXTURE (e.g. Giotto Spot Profile), or A SPECIFIC FIXTURE or group of fixtures (e.g. Fixtures N° 3,5,7 and9). In the first case, this allows to create Palettes with parameters that can be applied to any fixture, providing it is of the same type, whereas in the second case, the palette will only effect the required parameters of the specific fixtures.
The parameters of a Palette that control the same type of fixture are saved with a method known as:
Share
The parameters of a Palette that control fixtures individually are saved with a method known as:
Own

The most easily understood example could be that regarding Pan and Tilt Palettes, where it's indispensable to save the parameters in a completely *individual* way (i.e. Pan and Tilt parameters of each selected fixture). This allows to realize Palettes that control different positions of the Fixtures involved (e.g.: Palette focussed on the members of a band).

Color Palettes, on the other hand, are more easily controlled if the saved parameters are assigned to the *type* of Fixture. For example, it's sufficient to create the Color Palettes of just one fixture, in order to be able to assign them to any number of fixtures of the same type.

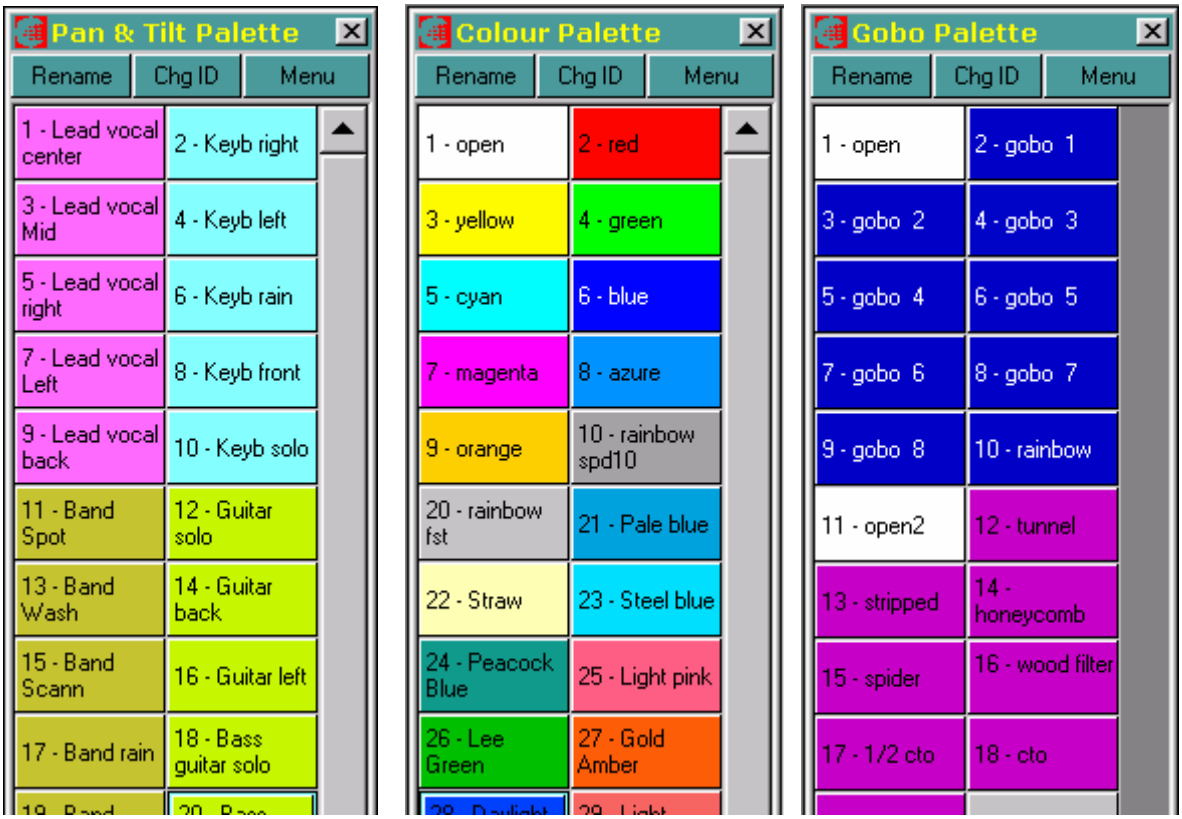
Share and *Own* modes, with which the parameters are saved in a Palette, are set by default by the Fixture Library. Here again the operator can change the method with which the parameters are saved, according to one's requirements or tastes (see sect: ***SETUP*** -> ***Fix.Cfg*** -> "P.inherit" Column).

The following table is a summary of the default control of the Attributes of the Palettes by Regia2048

Intensity **IN**	Pan Tilt **P/T**	Color **CO**	Gobo **GB**	Prism **PR**	Blade **BL**
Dimmer *	Pan *	Color wheel	Gobo	Prism	Blade1 *
Shutter	Tilt *	Cyan	Gobo index	Prism rotation	Blade1 angle *
Focus *	P/T Speed	Magenta	Gobo rotation	Effects	Blade2 *
Zoom *		Yellow	Iris *		Blade2 angle *
		Red	Macros		Blade3 *
		Green			Blade3 angle *
		Blue			Blade4 *
		CTC			Blade4 angle *
		CTO			Blade rotation *

All the parameters shown in the table with an asterisk are saved in the relative Palette, in *Own* mode.

Pressing the **Intens** – **P/T** - **Color** - **Gobo** - **Prism** or **Blade** keys calls up the control of the corresponding required type of palette, opening the relative selection windows.

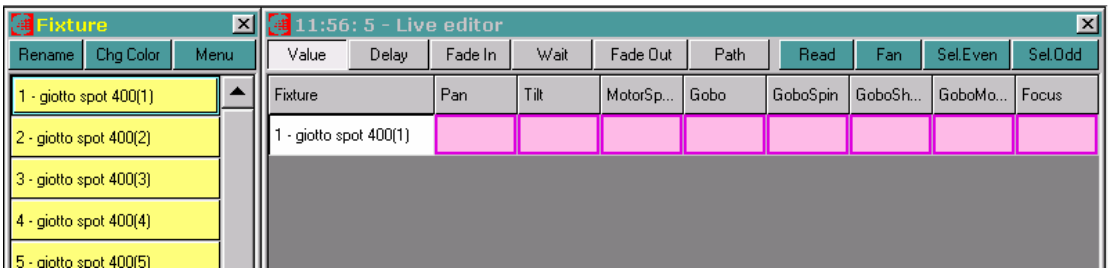


Creating new Share Palettes

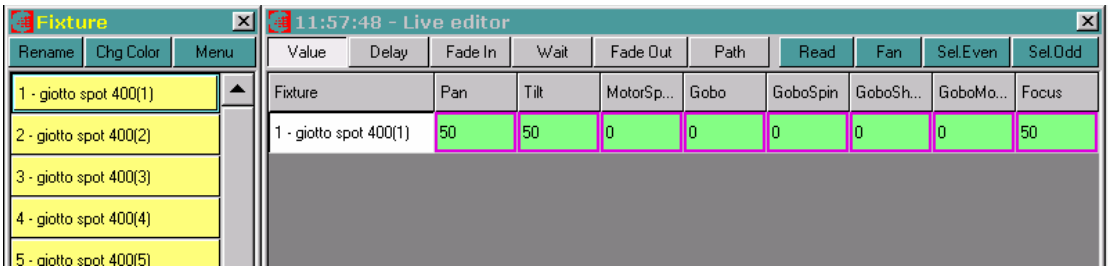
Once it has been configured, Regia2048 "suggests" a series of preset Color, Gobo, Intensity, Blade and Prism Palettes.
These Palettes can obviously be changed, or other new Palettes added.
All the changes only effect the current show; if a new show is begun, once again only the default palettes will be available.
A simple step by step example will follow of how to create a Color Palette for Giotto Spot 400 fixtures.
The Palette will only effect the Color Attributes of the Giotto Spot 400, configured by default in *Share* mode.
So it will be sufficient to choose just one fixture to create a Palette that can then be used by all the Giotto Spots.

To create a Color Palette:

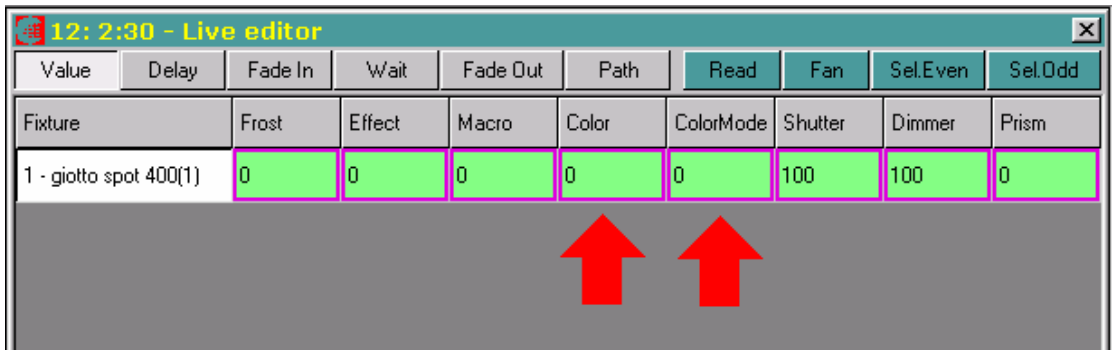
- Select the required fixture (e.g. **Fixt** **1** **Enter** Giotto Spot400).



- Press the **Locate** key

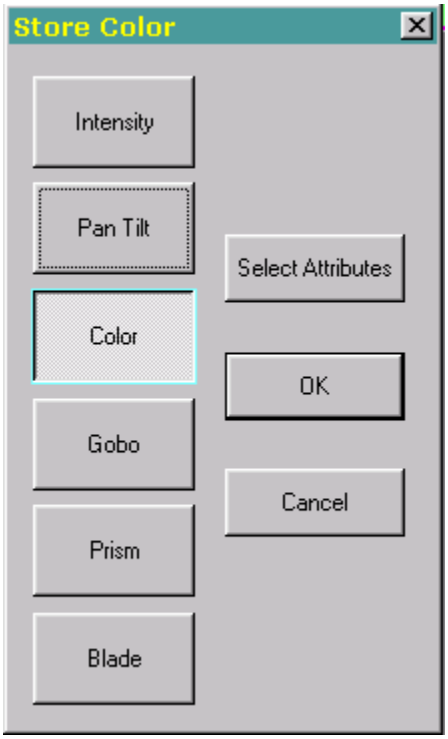


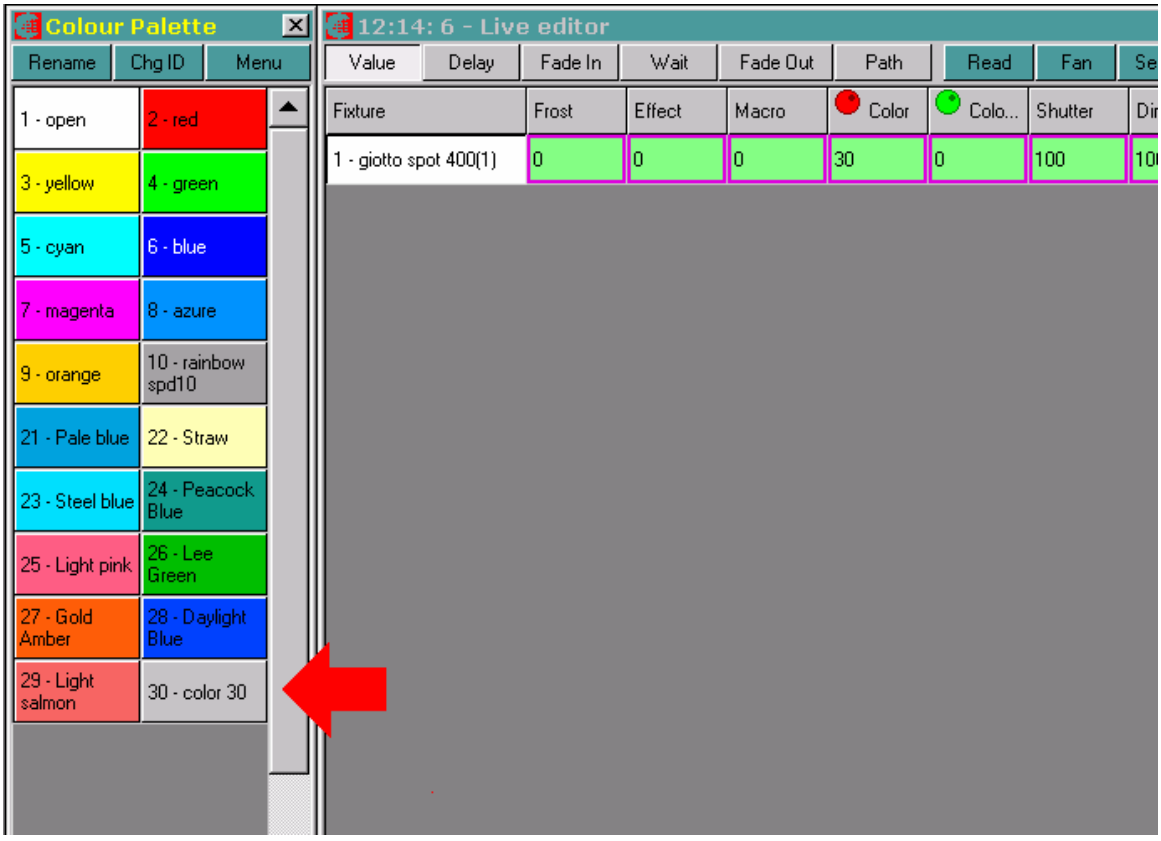
The "Locate" command moves the selected fixture to the Home position, without Gobo, Colors or Prisms, with the shutter open and the intensity at maximum. This allows to pick out the fixture and then choose the required color to create the new Palette.



- Press the **Color** key in order to enable the encoders for controlling the channels belonging to the category of the Color Attributes.
- Move the two encoders (Red and Green) in order to obtain the required color (e.g.: Amber).
- Press **Store** and then **Color**

- The window that appears shows the type of Palette that is about to be saved and therefore all the Attributes it contains. Press ***OK*** to confirm.

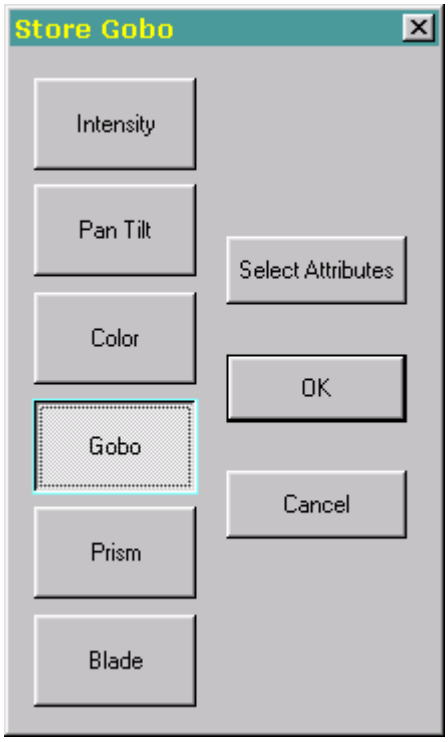




The Store-Color command generates the new Palette in the Color Palette selection window that is automatically named by Regia.
It's sufficient to press the ***Rename*** key to apply the label: "Amber".
The new Amber Palette can then be applied to all the fixtures of the same type as the origin fixture (Giotto Spot 4000).

The same procedure can be used for saving *Share* Palettes of other types.
Example of how to create a Gobo Palette:

- Select the required fixture (e.g.: **Fixt** **10** **Enter**).
- Press the **Locate** key
- Press the **Gobo** key in order to enable the encoders for controlling the channels belonging to the category of the Gobo Attributes.
- Move the two appropriate encoders, in order to obtain the required Gobo.
- Press **Store** and then **Gobo**



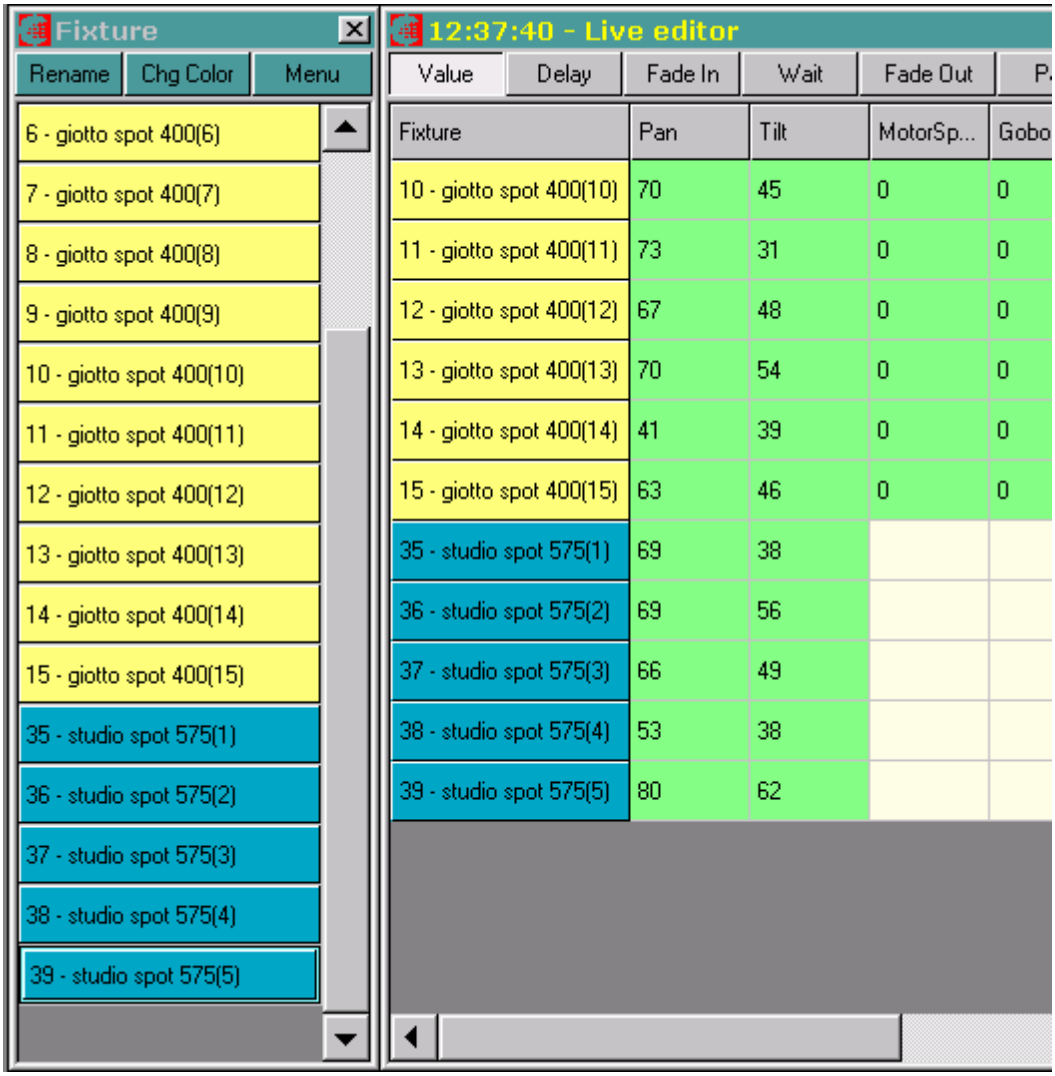
- Press ***Ok*** to confirm saving of the Palette in the Palette selection window

Creating new Own Palettes

The procedure for creating Palettes in which the parameters contained are of the *"Own"* type is slightly different.
While in the previous case it was sufficient to just select one fixture, now all the fixtures that will be controlled later by the Palette that is to be created must be selected.
The most common example regards the creation of Pan and Tilt Palettes.
Attributes are normally treated in *Own* mode

To create a Pan and Tilt Palette:

- Select the required fixtures (e.g.: **Fixt** **1** **Thru** **12** **Enter** the first 12 Fixtures)
- Press the **Locate** key



- By means of the **+** and **-** keys, select the fixtures individually, in order to be able to position each one in the required point, using the trackball
- Press **Store** and then **P/T**
- Confirm by means of the ***OK*** key of the Palette selection window

Proceed in the same way to create other Own type Palettes, such as: Intensity, Zoom, Iris and Focus

Creating Partialized Palettes

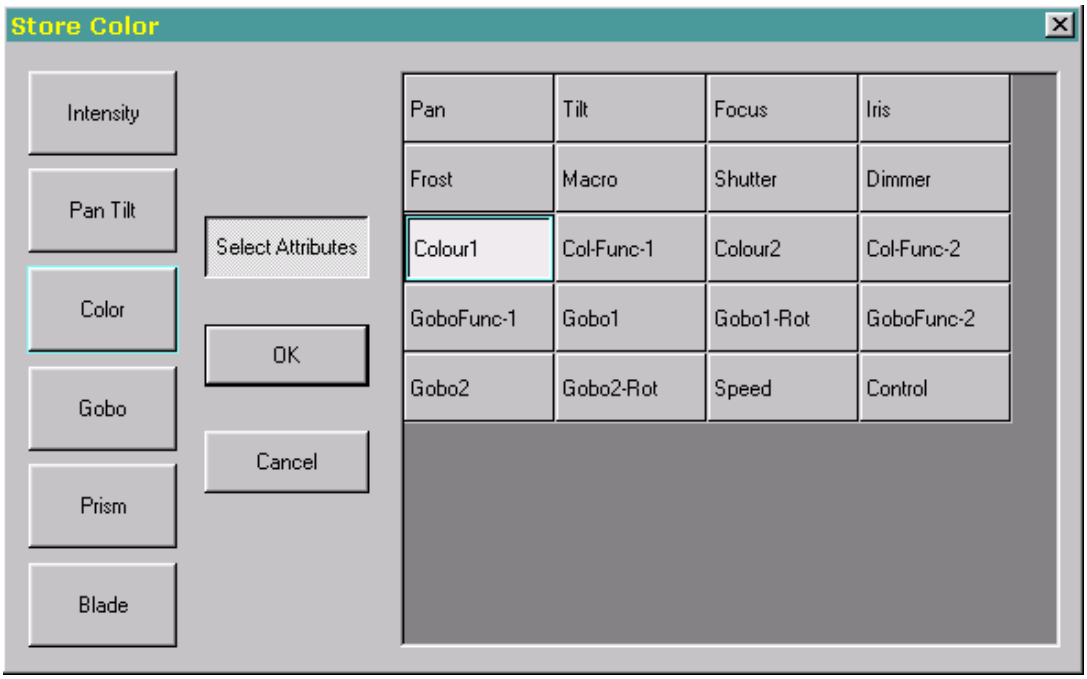
The **Store** **P/T** command creates a Palette with the values of *all* the Attributes of the Pan and Tilt category for the selected fixtures, if these Attributes all have a set value (e.g.: Pan= 20%, Tilt=43%, P/T Speed=0%, Focus=35%).
The **Locate** command attributes all the Attributes of the selected fixtures a precise value.
This ensures that saving the Palette will include all the Attributes belonging to the Palette in question (modified or not).

It's possible to create Palettes that do not contain information of all the Attributes relative to the type of Palette, but only part of them.
This can be very useful in the cases in which it's necessary to create Palettes that only effect specific Attributes and not all of them, in the same category.

The most simple example regards the creation of Color Palettes for Fixtures with two Color-wheels.
In fact, it can be helpful to realize Color Palettes than only involve the first Color-Wheel, without interfering with the Palettes relative to the second Color-Wheel.
In this way, it's possible to mix the various Palettes of each Color-wheel, creating all possible combinations.

We'll try to realize a Color Palette involving only the first Color-wheel of a fixture with two Color-wheels:

- Select the required fixture (e.g. **Fixt** **35** **Enter** StudioSpot 575).
- Press the **Locate** key
- Press the **Color** key in order to enable the encoders for controlling the channels belonging to the category of the Color Attributes.
- Move the two encoders, in order to obtain the required Color.
- Press **Store** and then **Color**
- Press the ***Select Attributes*** key in the Palette ***Select***ion window



"Select Attributes" extends the Palette selection window, allowing to choose the Attributes that will be saved in the Color Palette being created.
The Attributes shown are relative to the type of Fixture selected, if these contain a set parameter (Pan 30%, Tilt 64%, Color 10%, etc…).

- Then press the keys of the Color Attributes to be saved (e.g.: ***Color1***)
- Press the ***OK*** key to continue

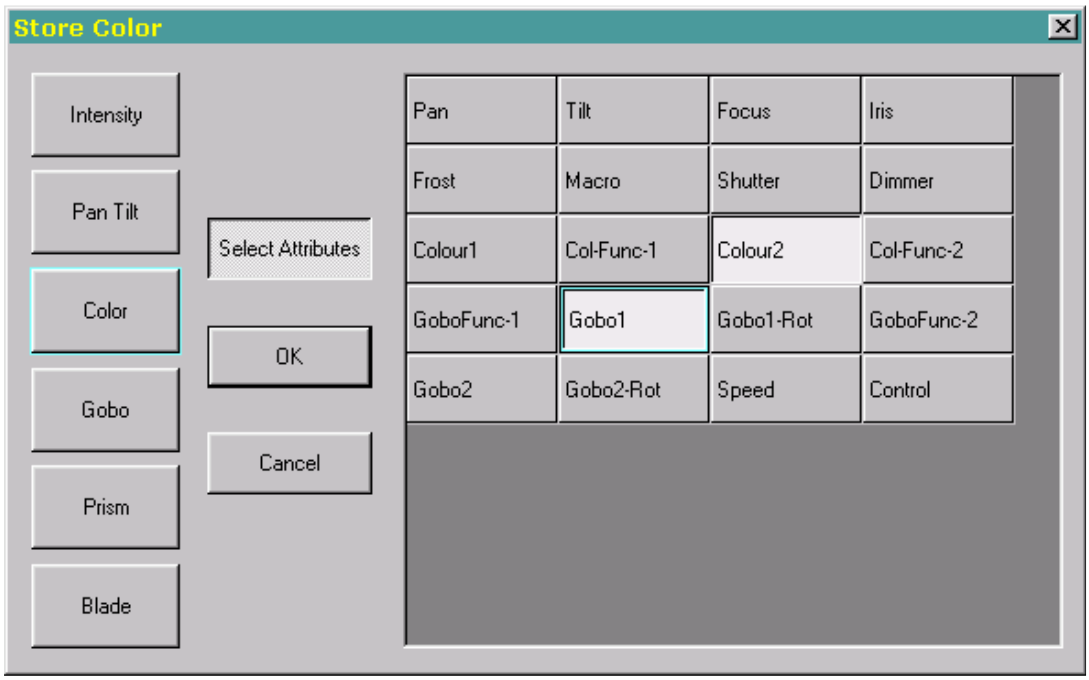
Creating mixed Palettes

It's possible to create Palettes able to control Attributes that don't belong to the category of the Palettes in question. For example, it's possible to save a Position Palette (i.e. a P/T palette) that also contains data on Zoom or on a Gobo

The method with which this can be achieved is exactly as that described above as far as partial Palettes are concerned.

To create a Color Palette also containing a Gobo:

- Select the required fixture
- Press **Locate**
- Press the **Color** key
- Change the Color Attribute (e.g.: Magenta).
- Press the **Gobo** key
- Change the Gobo Attribute (e.g.: Gobo Cone).
- Press **Store** and then **Gobo**
- Press the ***Select Attributes*** key.



- Then choose the Attributes that are part of the Color Palette (e.g.: ***Color2*** and ***Gobo1***).
- Press ***OK*** to confirm.

Unified Palettes

Regia2048 has a Fixture Library, with preset Palettes.
It may therefore easily happen that Palettes with the same name (e.g.: "Red" or "Gobo1") are to be found in several configured Fixtures.
In this case, Regia will automatically show just one "common" Palette", able to control two or more fixtures of a different type simultaneously.
Unified Palettes can also be created by operators.

The procedure is the same as that described in the previous paragraphs. It will only be necessary to select the different types of fixtures before saving the Palette.

Let's consider an example of how to create a unified palette:

- Select two or more fixtures of two different types (e.g.: **Fixt** **1** **Thru** **1** **2** **Enter**)
- Press **Locate**
- Select the fixtures of the first type in Live Editor (e.g.: Giotto Wash 400).
- Press **Color** and choose the required color by means of the dedicated encoder.
- De-select the previous fixtures, then select those of the second type in Live Editor (e.g.: StudioSpot 575)
- Choose the required Color by means of the dedicated encoder.
- Press **Store** **Color**
- Confirm by means of the ***OK*** key of the Palette selection window

In this way, it's possible to create Palettes that involve several fixtures in a macroscopic manner, or create univocal Palettes for all the fixtures (e.g.: only Yellow or only Red, etc…)

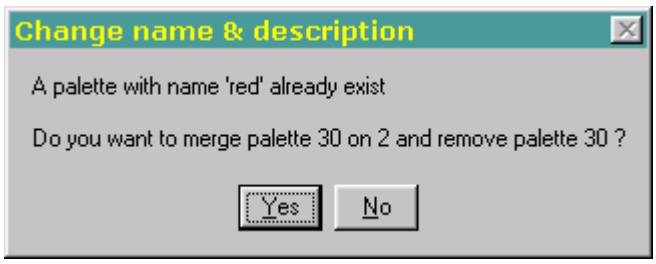
Where there are pre-existing Palettes and it's necessary to add the data of other fixtures of a different type, to obtain unified Palettes, a Palette *with the same name* as the existing Palette must be created for the new fixtures, in order to enable Regia to merge the data of the two.

In the example, let's presume that there is a Palette Color for the Giotto Spot 400 called "Red", and the control of the color-wheel of a Studio Spot 575 for the same color has to be combined with this Palette, in order to obtain a unified palette.

Proceed as follows:

- Select Studio Spot 575
- Press **Locate**
- Press the **Color** key
- Select the color Red with the appropriate encoder
- Press **Store** and then **Color**
- Confirm by pressing the ***OK*** key of the Palette selection window

- Change the name of this last Palette created, assigning it the same name as the pre-existing one (Red).



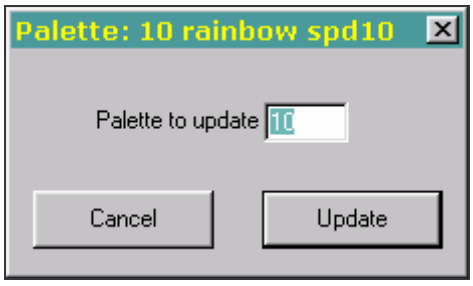
A small window automatically appears, asking if you intend merging the data of the Palette that is being renamed with the pre-existing one, making it univocal.

- Choose ***Yes*** so that the Red Palette is able to control the different fixtures simultaneously, creating the same identical color.

Changing Palettes

To change a Palette, it must be loaded using the Load command and then saved again using the Update command.
Changing a Color Palette:

- Press the **Load** key and then the **Color** key.
- Choose the number of the Palette to be changed using the numerical keypad (e.g.: 10) and press **Enter**
- Change the parameters of the Color Attributes.
- Press **Update** and then **Color**.



- Press ***Update*** or **Enter** to confirm.

The Update window automatically displays the number of the Palette that is being updated. The ID number can be changed in the "Palette to update" field.
This offers two choices:

1. Assigning an existing ID of another Palette
2. Assigning an ID number of a Palette that doesn't exist

If an existing ID number is chosen, Regia automatically opens a WARNING window, asking if one intends overwriting the target Palette (and therefore loosing it) or abandoning.

If on the other hand, a new ID is chosen, the ***Update*** command will create a new Palette, leaving the original Palette unchanged

To change a Palette's name:
- Select the Palette
- Press the mouse's right-hand key and choose "Change name e description".
- Key the required name into the "Name" field
- Press **Enter**.

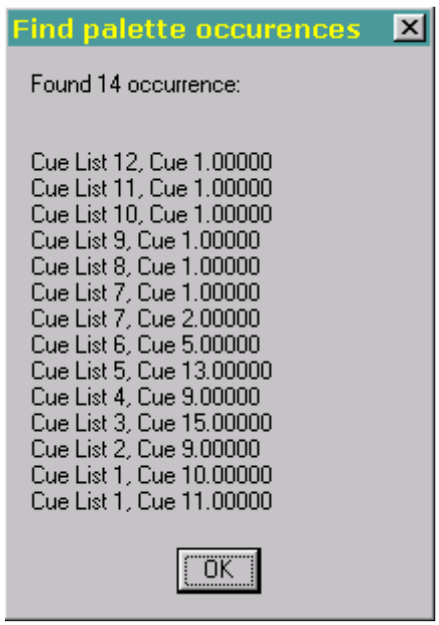
Otherwise, a more rapid method is to use the ***Rename*** key, located in the Tool-bar of each Palette selection window.

Cancelling Palettes

To cancel a Palette:
- Select the Palette to delete in the Palette selection window
- Press the **Del** key.
- Press the ***Yes*** key in the WARNING window to proceed

Every time a Palette is cancelled, all the Cues that use it loose the data "linking" them to the Palette in question.
If a Palette is removed, Regia2048 automatically replaces each Attribute's DMX hard value, previously controlled by the deleted Palette.

By means of the "Menu" key, it's possible to pick out in how many and which Cues and relative Cue-lists the Palette was used.
To know where a Palette has been used:
- Select the Palette
- Press the **Menu** key on the keyboard or the screen's Toolbar.
- Select "Find occurrences"



Grabs:

Grabs are particularly useful Palettes when it's necessary during programming or Play-back, to take a "snapshot" of channels' status and save it, in order to be able to use it later.

To create a Grab during programming or Play-Back:

- Press **Store** and then **Grab**

Once several Grabs have been saved, they can be applied partially or completely in a later phase of programming to one for more fixtures in the same mode as the Palettes.

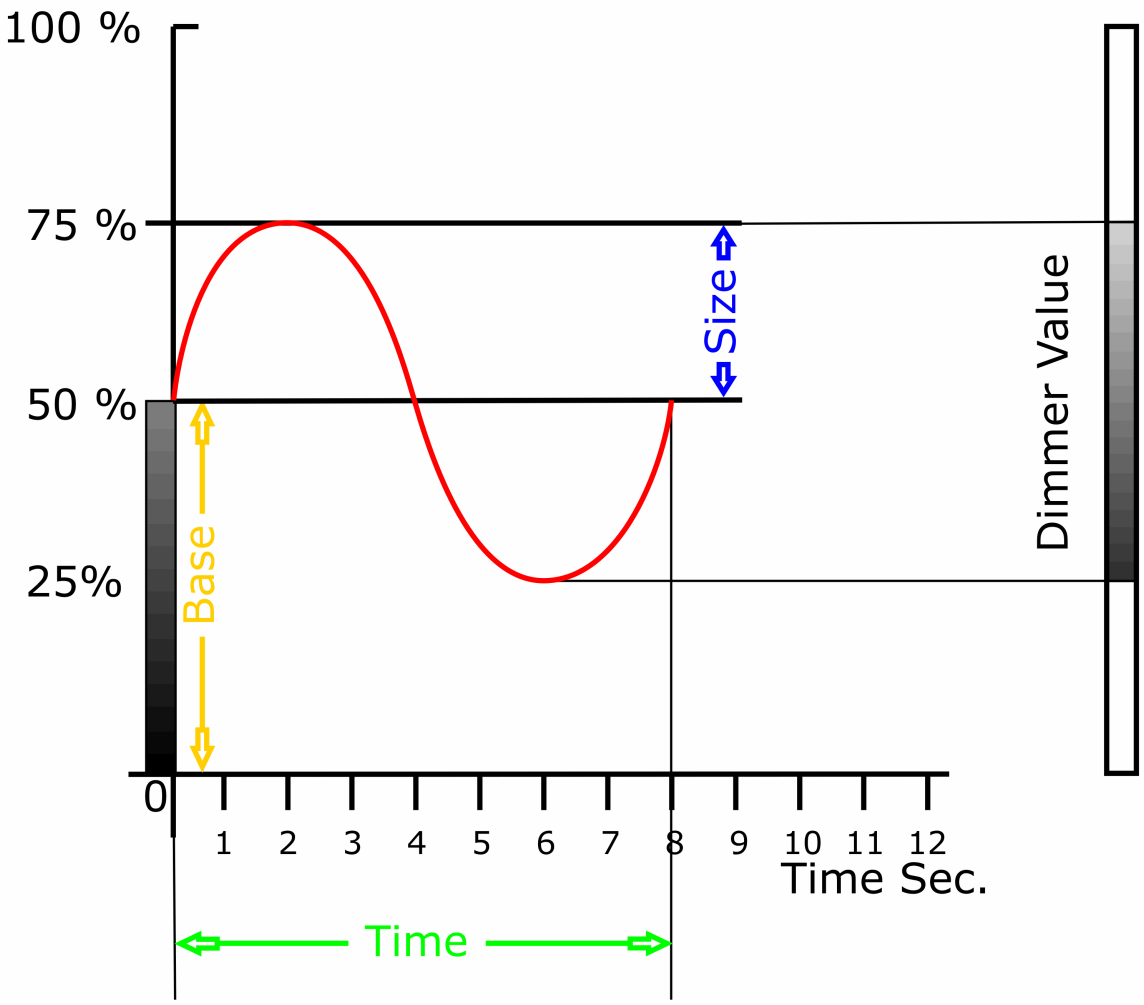
ATTENTION!!
A Grab contains all the DMX values of all the fixtures' attributes.

Shape Engines

The Regia2048 Shape Engine allows to rapidly create dynamic effects (movement, color, gobo or other types).
Each Cue can therefore contain one or more different effects applied to the same number of Attributes, each of which is able to operate simultaneously with its assigned parameters.
Regia 2048 has a large series of effects that make programming fast and easy.

Shape Engine set-up

During Cue preparation, one or more Attributes with a given parameter can be assigned a "*Wave form*" able to oscillate the Attribute in question, according to the required amplitude and velocity.
There are various types of waveforms and can be chosen from a set library which cannot be modified. Each Cue can therefore contain various effects, controlled by different waveforms, each applied to various Attributes.



The diagram on the previous page shows a case in which it was decided to apply a sine wave form to a Dimmer Attribute.
Due to its characteristics, this waveform will apply an oscillating movement through time to the Dimmer Attribute.

Base - Size - Time

The three main characteristics of an applied waveform are:

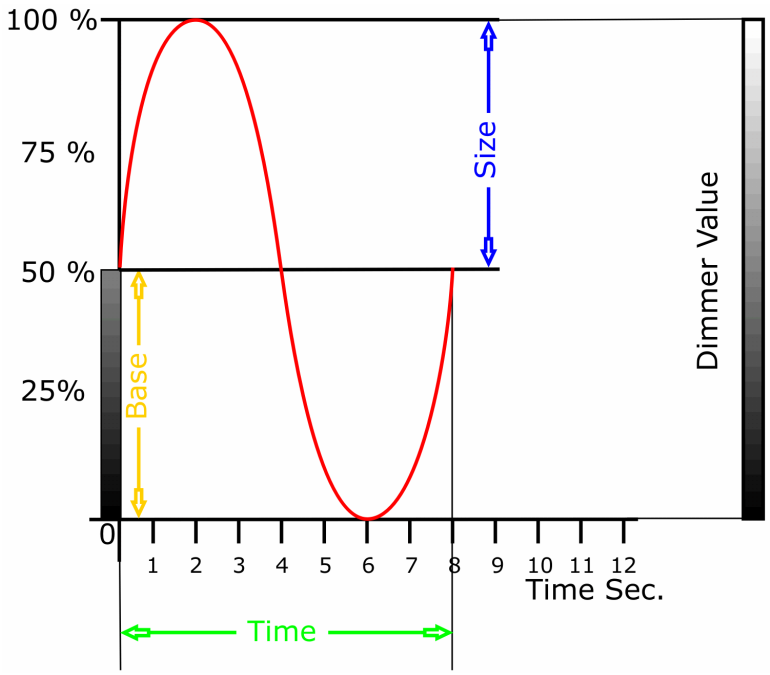
- Base The value of the Attribute, from which the wave form originate and begins to have effect.
- Size The amplitude of the wave form. The higher the amplitude, the greater will be the oscillation of the Attribute round the Base value.
- Time The time the effect created by the waveform takes to complete a cycle (*Period*).

The parameter applied in the case of the example are:

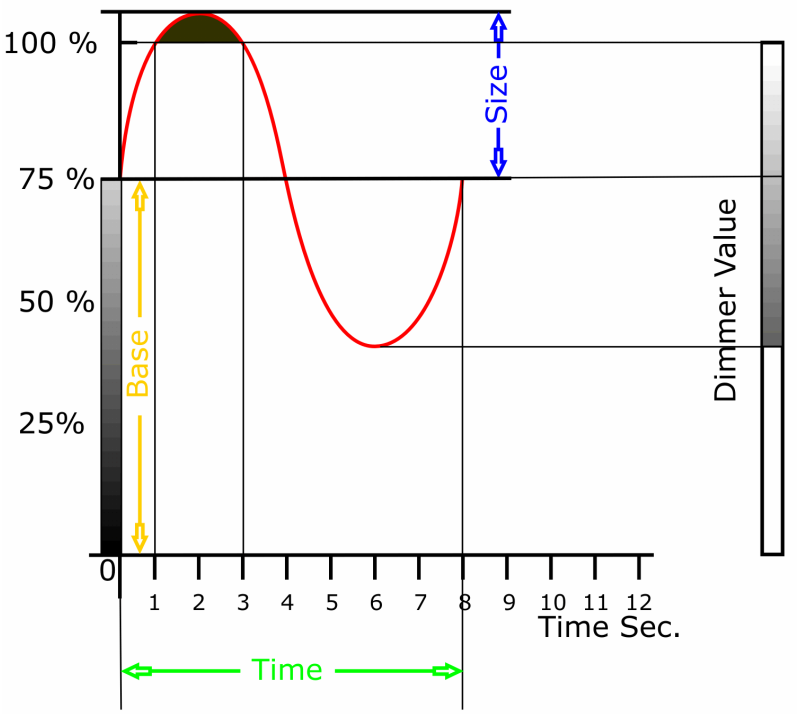
- Base=50% This is the value normally set by "Live Editor"
- Size =25% This value can vary from 0 to 100%
- Time =8 Sec. This time value can vary from 0.4 to 1695 Sec.

In fact, an effect of this type, applied to the Dimmer channel with the parameters shown, causes a repetitive oscillation to the Dimmer channel through time, from the value of 25% to the value of 75%, which completes a cycle every 8 seconds.

All the parameters that regulate an effect can be chosen at will by the operator, in order to create the desired effect.



In the example above, by just increasing the oscillation cross-section to 50%, the repetitive effect obtained switches the dimmer on and off (**full range**) in a period of eight seconds, always maintaining a base of 50%.



The diagram above is an example of another effect that can be applied to the Dimmer Attribute. As can be seen, the amplitude of the effect is approximately 30%, whereas the Base is 75%.
The resulting oscillation varies from 45% to 100% of the Dimmer Attribute, with a 2-second pause at maximum value, due to the fact that in that period of time the waveform exceeds the maximum value the Attribute can reach.

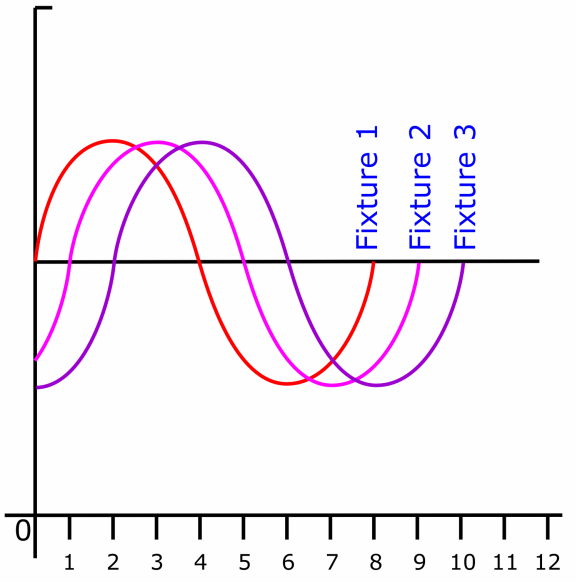
Offset Wait Direction

As described in the previous paragraph, it's possible to apply an oscillation to one or more Attributes of the same type for a group of Fixtures.
Where it's applied, the effect creates an oscillating movement of the Attribute in question, which runs in sync on all the Fixtures chosen.
There are other parameters that control an effect applied to several fixtures, which can offset the effects through time, according to various sequential logics. .

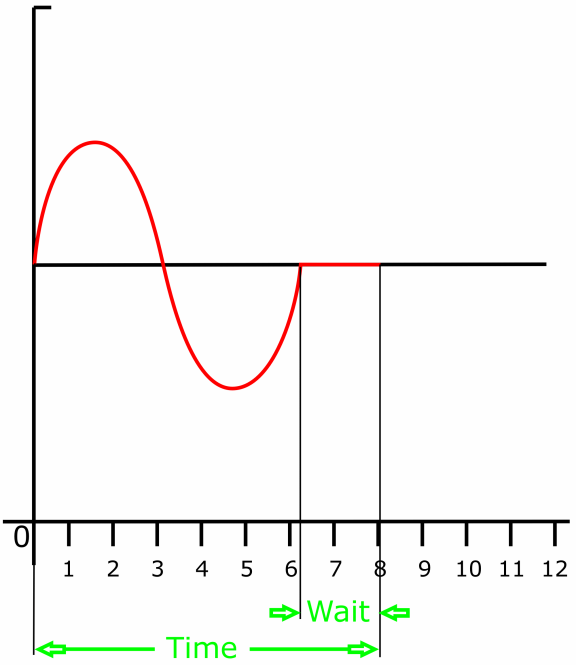
Offset Causes precisely an offset the oscillation applied to several fixtures, in order to create chase effects with the fixtures.

Wait Includes an adjustable pause in the oscillation, without altering the time parameter

Direction Allows to invert the direction the effect runs in or to **"flip"** the waveform.



The example in the diagram shows the offset of the same effect on three different fixtures.

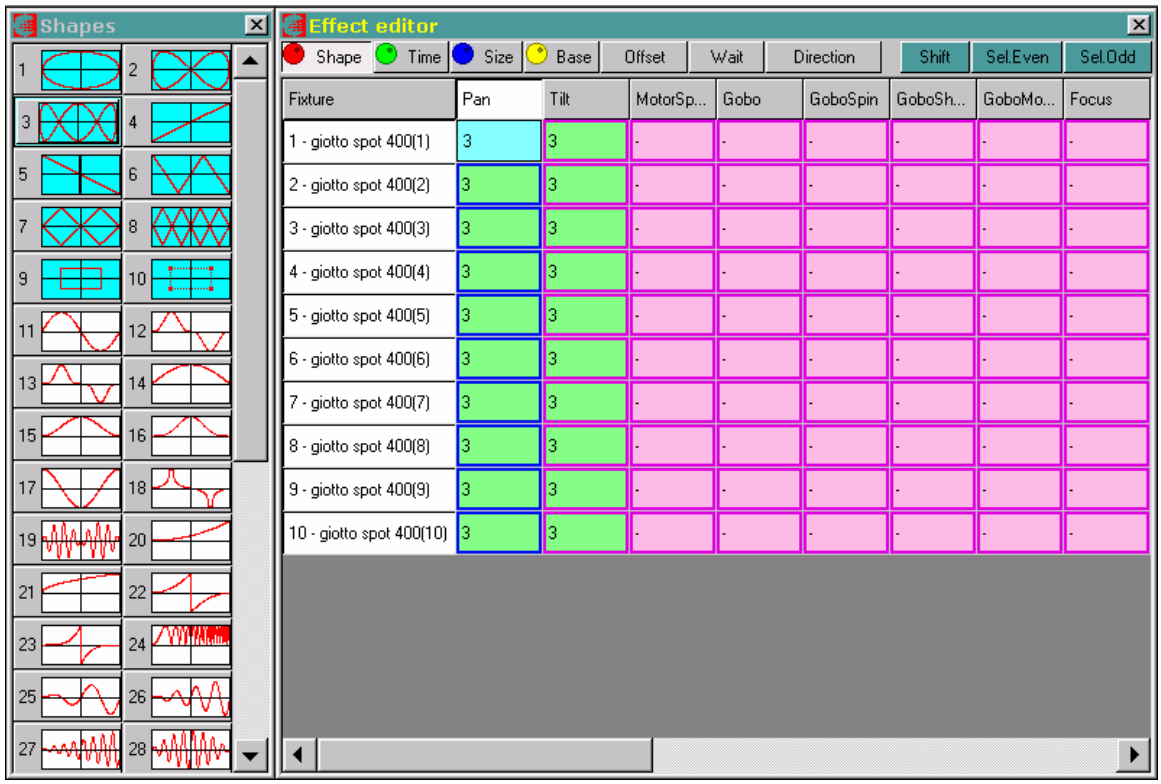


This diagram on the other hand, shows how the waveform chosen is changed in the event of a "Wait" time being introduced

Effect editor

The area that allows to apply one or more effects to the Attributes is called "Effect Editor". The Effect Editor is enabled by pressing the **EffEdt** key on the Palette selection keypad or by means of the ***Eff.Edit*** key on the Touch-screen.

The area consists in two Windows. The window for selecting the Waveforms, called "Shapes", and the effect parameter editing window, called precisely "Effect editor".



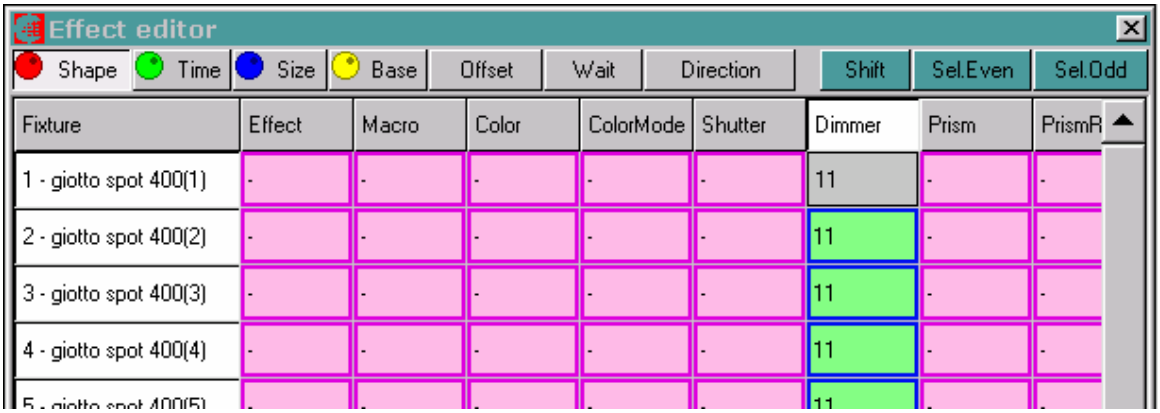
The Effect editor window's top toolbar shows all the parameters described in the previous chapter for creating the required effect. When these keys are pressed, the values of the relative parameters are displayed in the columns below, corresponding to the Attributes that it has been decided to apply the effect to.

As can be seen in the diagram, the parameters: Shape, Time, Size and Base can be controlled respectively by the Red, Green, Blue and Yellow encoders.
To assign the control of the Offset, Wait and Direction parameters to the Encoders, press the **F2** key and vice versa, to return to the control of the previous parameters, press **F1** .

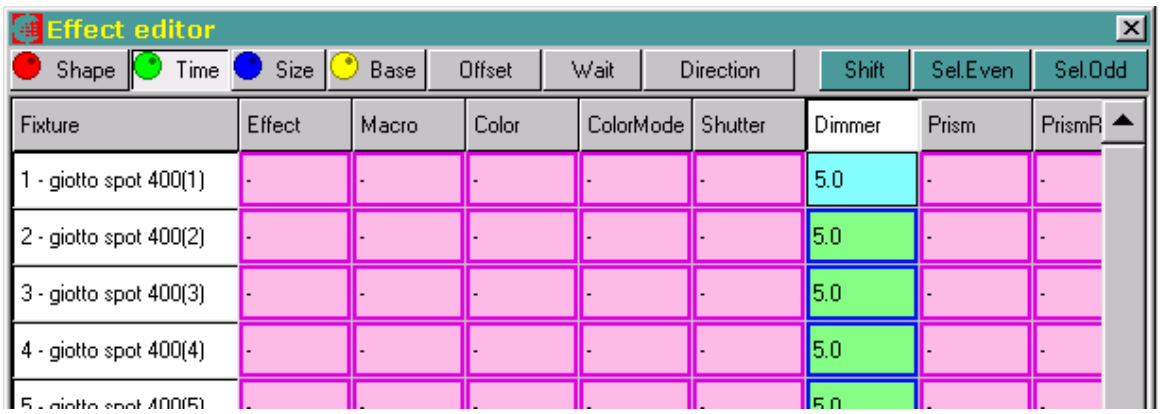
Creating a simple Effect

We'll now see step by step how to create a sequential Dimmer effect
In our example, we'll apply the effect to fifteen Giotto spot 400 fixtures.

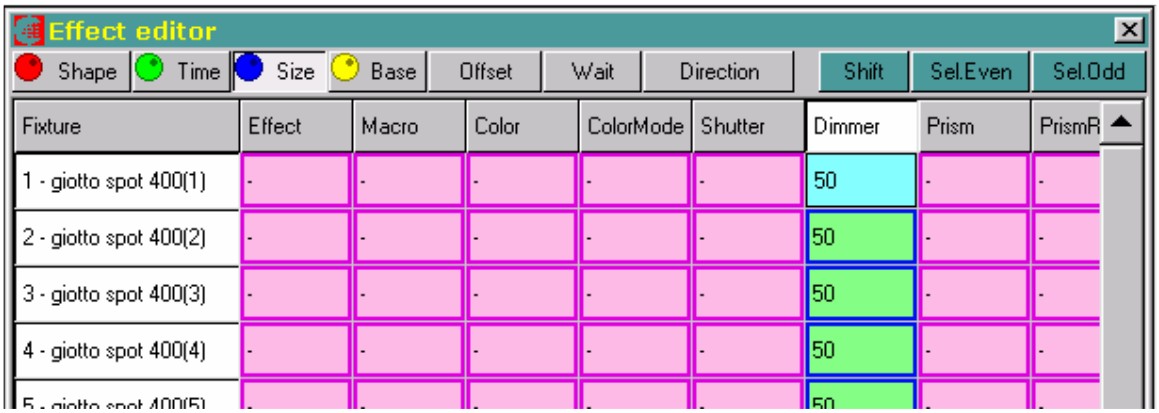
- Select the fixtures in "Live Editor"
- Press **Locate** to enable them.
- Position the fixtures using the Trackball.
- Now press the **EffEdt** key to display the Effect Editor window.
- Make certain that all the fixtures are selected.
- Choose the "Dimmer" Attribute to which the effect has to be applied for all the Fixtures.
- Chose the required waveform from the "Shapes" window (e.g.: N°11 Sinusoidal). The waveform can also be chosen by turning the red Encoder.



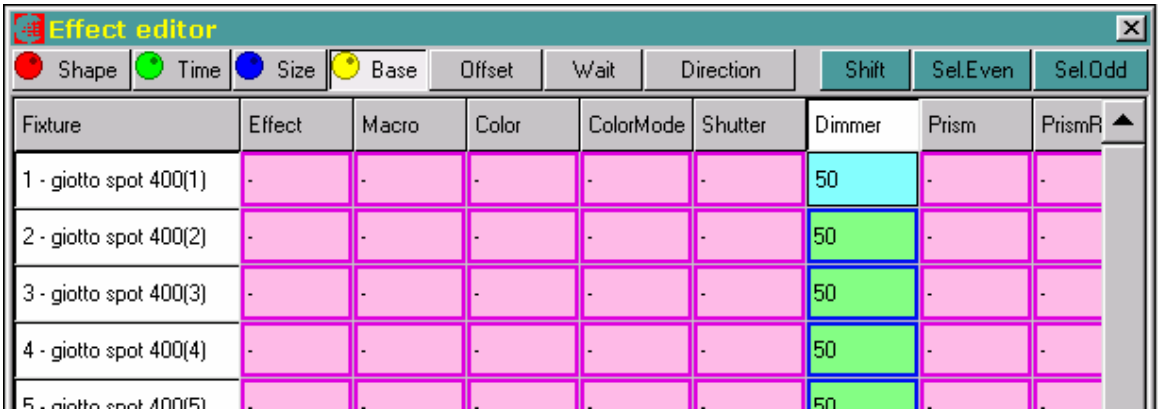
- Turning the Green Encoder changes the display of the Dimmer column from Shapes to Time. The ***Time*** key in the toolbar is also pressed automatically. Set the time according to the oscillation speed that has to be obtained (e.g.: 5.0 Sec).



- Turn the Blue Encoder to adjust the effect amplitude. Here too, the change of display from "Time" to "Size" is automatic. Set the amplitude at a value of 50%.

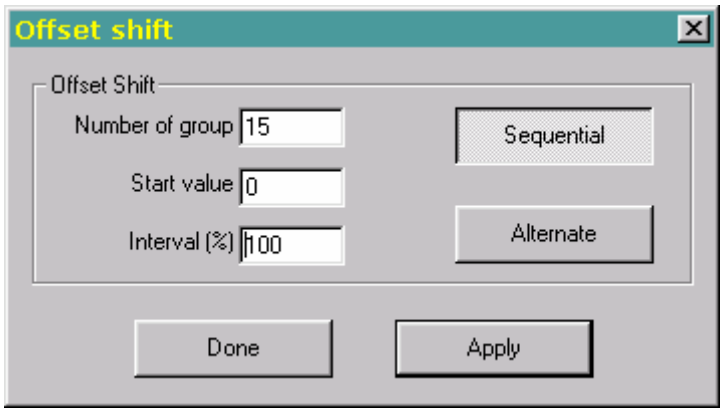


- Move the Yellow Encoder to enter Base control. This takes place as in the previous cases. Position Base at a value of 50%. The value of Base is by definition the same value as the Attribute previously assigned in "Live editor". This means that changes to the "Base" value also directly influences Live Editor.



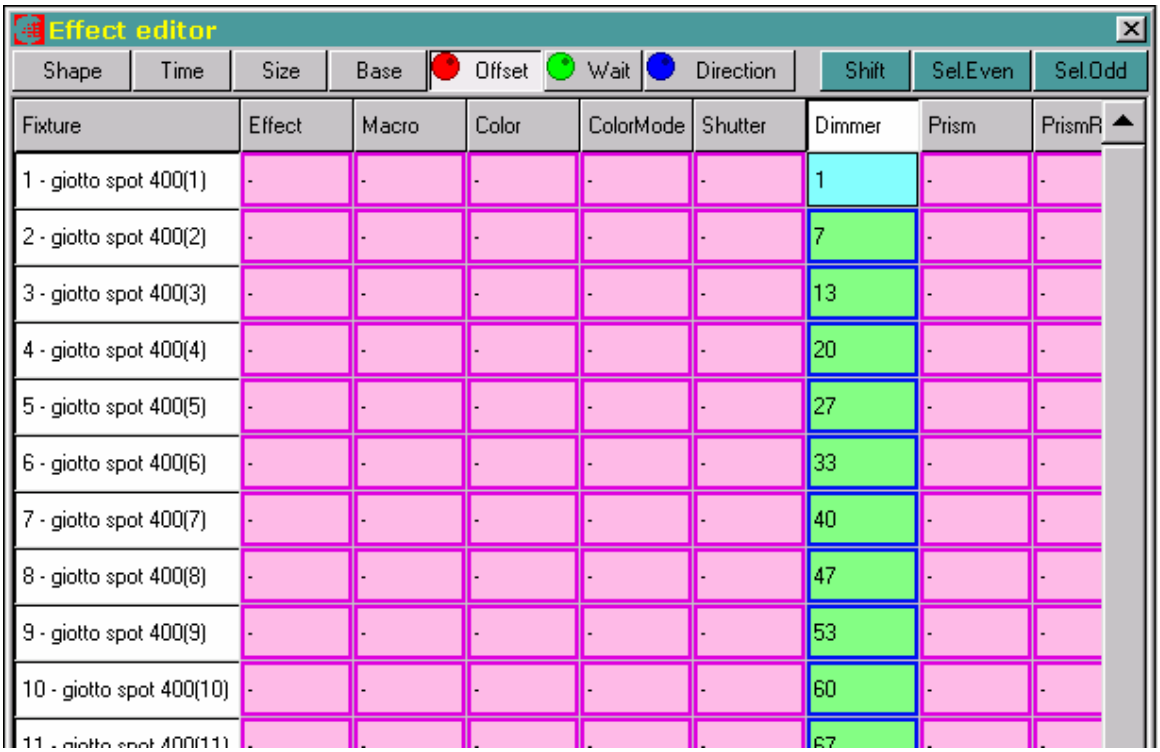
At this point, all the fixtures, in perfect sync, will run a repeated on-off (0-100%) effect.
In order for this effect to run in sequence, a progressive "Offset" value must be applied to each fixture, to offset the waveform from one to another.
Theoretically, this would be a long tedious job, since it would be necessary to calculate the offset value for each Fixture and then apply this value to each Fixture individually. Regia offers a facility that automatically calculates and assigns the Offset values according to the type of sequence to be applied to the effect.

- Press **F2** to change the control of the Encoders to the second set of parameters (Offset, Wait and Direction).
- Turn the Red Offset control encoder to display the column of Offset values.
- Press the ***Shift*** key located in the toolbar of the Effect editor window



The window that appears ("Offset shift") has a series of fields, in which it's possible to key in the values of various parameters, in order to obtain various types of Offset between the waveforms applied to each Fixture selected in Effect editor. These parameters will be examined in depth later in this chapter. The Default parameters allow to apply a sequential offset of the effect along the group of selected fixtures.

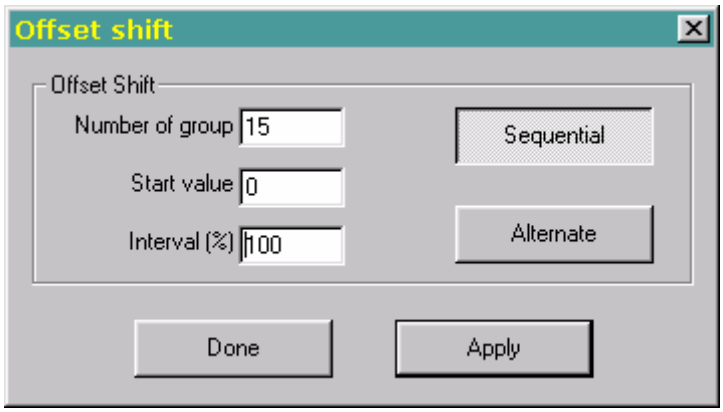
- Press the ***Apply*** key to apply the sequential offset over the 15 fixtures.
- Press ***Done*** to confirm.



At this point, the effect has been created and the **Store** **Cue** command is sufficient to save it.
On the contrary, follow the procedure described again to apply another different effect to another Attribute (e.g.: Color) that has to be saved in the same Cue.

Offset Shift

The "Offset shift" allows to calculate, according to various logics, the offset between an effect applied to several fixtures.
In fact, it's possible to choose over how many fixtures the offset has to be divided; if the offset is sequential or alternated and, lastly, if it will be run along the entire period of the wave form or only partially.
We'll now analyze the meaning of the parameters available in the Offset window.



Number of group
A group is a number of fixtures to which the same offset is applied. In the event of the number of groups corresponds to the number of fixtures selected, the offset will be run in a sequential manner for each fixture.
Vice versa, the division of the selected fixtures, for a chosen number of groups, creates a sub-group of fixtures for each group, to which the same offset will be applied.
This allows to create effect offsets for fixture groups and not between fixtures, as in the previous case.

We'll try to give some examples of Offset, changing the number of groups, bearing in mind the fact that there are 15 selected Fixtures.
The Offset values represent the percentage offset of the effect between fixtures.

Number of group =15

Offset	0	7	13	20	27	33	40	47	53	60	67	73	80	87	93
Number of group	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Number of group =5

Offset	0	0	0	20	20	20	40	40	40	60	60	60	80	80	80
Number of group	1			2			3			4			5		

Number of group =3

Offset	0	0	0	0	0	33	33	33	33	33	67	67	67	67	67
Number of group	1					2					3				

In the examples shown, the Offset is sequential, which means that the offset takes place in a sequential manner between the various groups.

If the ***Alternate*** key is pressed, it's possible to obtain the offset according to the groups set in an alternate (not sequential) manner.
To understand better what happens, the same examples mentioned before are shown below with alternate instead of sequential offset.

Number of group =5

Offset	0	20	40	60	80	0	20	40	60	80	0	20	40	60	80
Number of group	1	2	3	4	5	1	2	3	4	5	1	2	3	5	5

Number of group =3

Offset	0	33	67	0	33	67	0	33	67	0	33	67	0	33	67
Number of group	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3

Start value
The Start value allows to apply a starting point (other than zero) to the waveforms. All the waveforms to which an Offset has been applied will also have their starting point moved to the Start Value.

The Start value is very useful in the even of having to "synchronize" several effects applied to several Attributes in the same Cue.
In fact, changing the Start value it's possible to move the starting point of an effect in order for it to be superimposed on (or exactly the contrary of) the effect to be synchronized.
In the next page, we'll se an example of an effect with Start Value=0 and the same one with a value of 50%.

Number of group =15
Start value =0

Offset	0	7	13	20	27	33	40	47	53	60	67	73	80	87	93
Number of group	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Number of group =15
Start value =50

Offset	50	57	63	70	77	83	90	97	3	10	17	23	30	37	43
Number of group	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Interval (%)

The waveform offset is applied taking into consideration an entire Period.
The period is the time the effect created by the waveform takes to complete a cycle. This means that in the case of a sequential offset (with Groups equal to the number of Fixtures selected and an Interval of 100%), the effect applied to the last fixture begins while the first fixture is finishing.

The variation of the Interval value therefore allows to "compress" the offset between the effects, in order that it occurs before the end of a period.

The following example shows the difference in the offset between an Interval of 100% (i.e. over the entire period) and an Interval of 50% (i.e. over held a period).

Number of group =15
Start value =0
Interval= 100%

Offset	0	7	13	20	27	33	40	47	53	60	67	73	80	87	93
Number of group	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Number of group =15
Start value =0
Interval= 50%

Offset	0	3	7	10	13	17	20	23	27	30	33	37	40	43	47
Number of group	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Creating a Color Effect

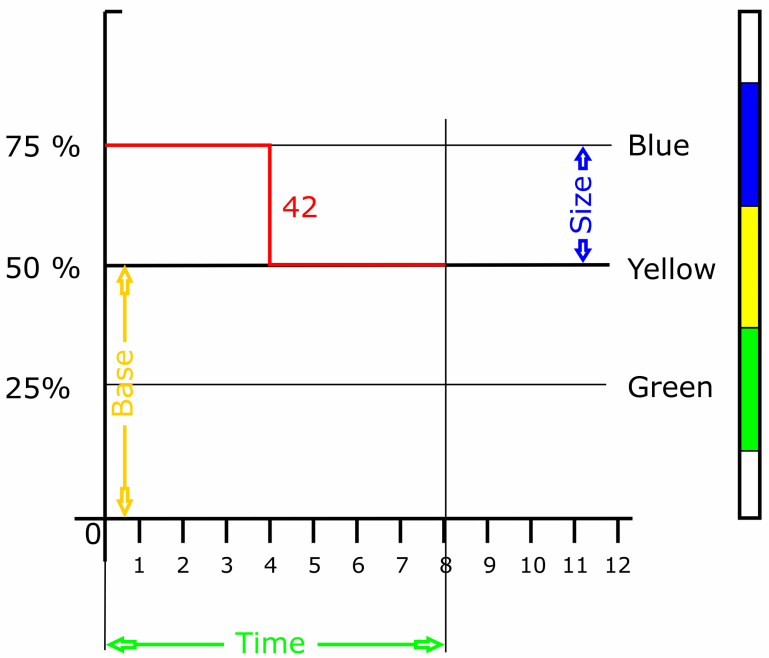
With the same set of fixtures used previously, we'll now create an effect applied to the color-wheel.
Applying an effect to a color-wheel fundamentally means establishing the "start" color (base value) and the target color.
The effect has considerable visual impact if there's an oscillation in which the target Color is in the slot immediately after or before that of the start color.

- Select the fixtures in "Live Editor"
- Press **Locate** to enable them.
- Position the fixtures using the Trackball.
- Now press the **EffEdt** key to display the Effect Editor window.
- Make certain that all the fixtures are selected.
- Choose the "Color" Attribute to which the effect has to be applied for all the Fixtures.
- Chose the required waveform from the "Shapes" window (e.g.:
  It's advisable to choose this waveform in the case in which the color wheel doesn't move continuously, but in an immediate manner (a *"snap"* change).
  It is however also possible to choose the waveform by turning the red Encoder.
- Turning the Green Encoder changes the display of the Color column from Shapes to Time. The ***Time*** key in the toolbar is also pressed automatically. Adjust the time according to the oscillation speed that has to be obtained (e.g.: 1.0 Sec).

The color oscillation already appears in the fixtures at this stage. We'll therefore proceed, establishing the basic color and target color.

- Turn the Blue encoder that adjusts the amplitude of the effect to set it at minimum (value =1) in order to annul the effect, and once again see white as the base color (the value set Live editor by the "Locate" command)
  Here too, the change in display from "Time" to "Size" takes place automatically when the Blue encoder is moved.
- Move the Yellow Encoder to access Base control. Now choose the start color. Turn the Encoder until the required color is seen. The Base value is by definition the same value as the Attribute previously assigned in "Live editor". This means that changes to the "Base" value also directly influence Live Editor.
- Return to Size control (Blue Encoder) and slowly increase the amplitude again, until correct oscillation to the color alongside Base color is seen.

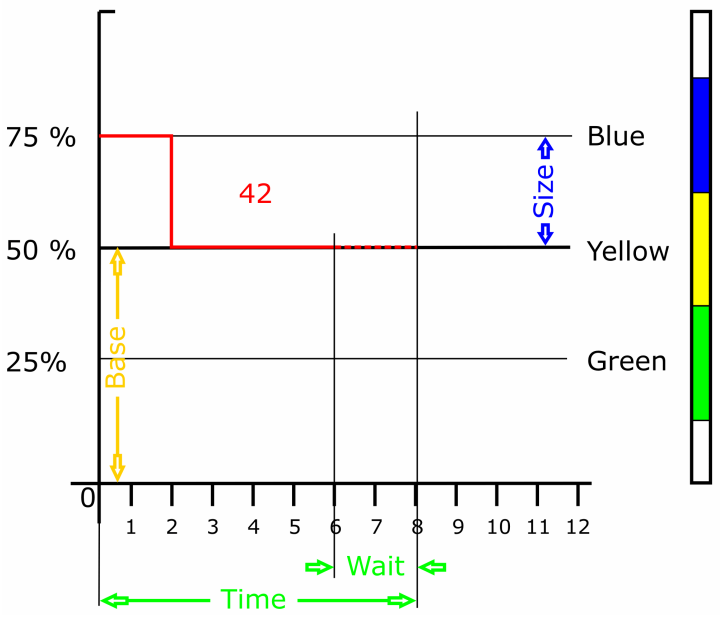
Fundamentally, the procedure used was that of establishing the start color, reducing the cross section of the waveform to zero, then gradually increasing its value again, in order that the oscillation of the Attribute could correctly reach the next slot of the color wheel.
It's worth remembering that this technique is applicable where the chosen wave doesn't act "around" the base (e.g.: sinusoid), but from the base value to a required amplitude value.



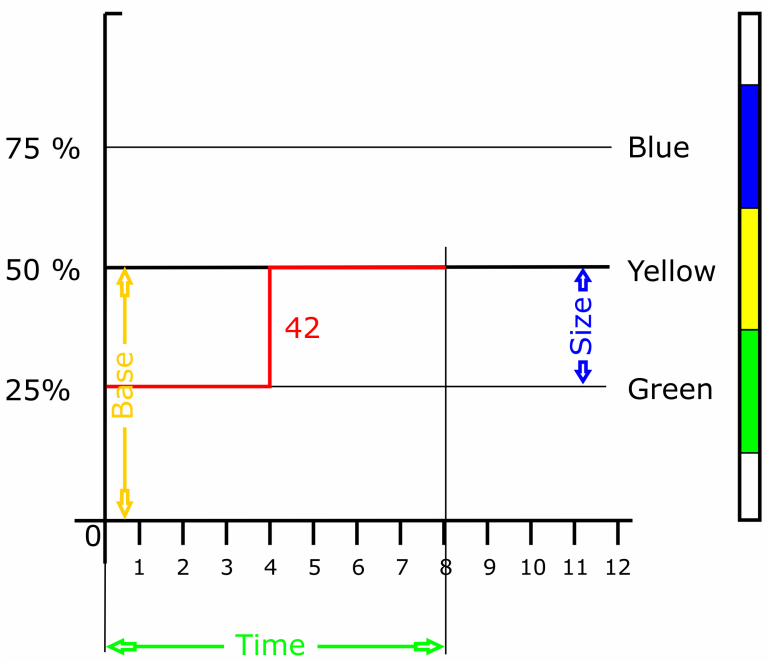
- Press **F2** to change the control of the encoders on the second set of parameters (Offset, Wait, Direction).
- Turn the Red Offset control encoder to display the column of offset values.
- Press the ***Shift*** key in the toolbar of the Effect Editor window and select a Sequential Offset of 15 Groups (default).

The sequential color effect obtained can be changed further by means of the *Wait* and *Direction* parameter controls.

- Gradually turn the Green Encoder to add a Wait time to the waveform applied to the color-wheel. It will in fact be seen that the effect "shrinks" in such a way as to adjust as required the quantity of fixtures that appear in the sequence that the offset effect creates.



On the other hand, changing the "Direction" parameters basically means inverting the waveform vertically, horizontally or in both directions.
This can be very useful once again in the case of an effect applied to a color-wheel.



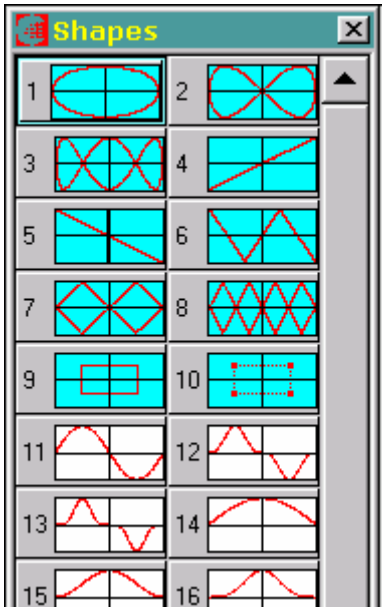
As can be seen from the above diagram, if the wave form is inverted, it's possible to "convert" the effect previously created for a pair of colors, to another, i.e. from Yellow (Base color) to green, i.e. the previous color.

- So turn the Blue "Direction" Encoder. The options can be scrolled:
  - *Forward*
  - *Reverse*
  - *Invert*
  - *Reverse+Invert*

  To "flip" the wave form 42 created, the Invert option will have to be applied.

Pan and Tilt effects

Particular attention must be paid to all the effects that are to be applied to the Pan and Tilt Attributes.
There is in fact a series of Shapes dedicated to the creation of Pan and Tilt effects and only available for these Attributes.
The Pan and Tilt shapes were specifically created to facilitate the combined use of the two Attributes, in order to rapidly create movement effects such as: circles, waves, Lissajous, etc.
Creating effects of this type, by means of a combination of simple waveforms would definitely not have been easy.
Therefore, the basic difference between normal wave forms, applicable to any Attribute, and Pan/Tilt Shapes, is that the latter are the effective "route" that the combined Pan and Tilt movement will carry out during the effect.
It's also important to remember that there is however the possibility of applying normal waveforms to the individual Pan and Tilt Attributes, as described in the previous paragraphs.



The first ten Shapes, shown in Blue, are dedicated to the creation of Pan and Tilt effects and represent the movement the fixtures will carry out during their effect.
These Shapes only appear in the "Shapes" window when the Pan and Tilt Attributes have been selected in the Effect Editor window.

To create a simple circular Pan and Tilt effect:

- Select the fixtures in "Live Editor"
- Press **Locate** to enable them.
- Position the fixtures using the Trackball.
- Now press the **EffEdt** key to display the Effect Editor window.
- Make certain that all the fixtures are selected.
- Choose the "Pan" Attribute to which the effect has to be applied for all the Fixtures.
- Chose waveform N°1 (circle) from the "Shapes" window.

- Turning the green encoder changes the display of the Pan and Tilt column from "Shapes" to "Time". The ***Time*** key in the toolbar is also pressed automatically.
  Adjust the time according to the rotation speed that has to be obtained (e.g.: 12 sec.). As can be seen, the times can be controlled simultaneously in order to keep the circular movement coherent.
- Turn the blue encoder to adjust the effect's amplitude. Here too, the display changes over from "Time" to "Size" automatically. In this case, Pan and Tilt parameters are "independent", as it could be useful to be able to adjust Pan and Tilt angle separately, in order to obtain movements that aren't perfectly circular, but (for example) oval.
- Press **F2** to change the control of the encoders to the second set of parameters (Offset, Wait, Direction).
- Now press the ***Shift*** key to apply the required offset to the effect applied to the fixtures.
- Press **Store** **Cue** to save the effect created in a Cue.

Deleting Effects

Effects must be deleted in the "Effect Editor" window.

To delete an effect:

- Select the Attribute to which the effect to be deleted is applied.
- Press the **Free** key.

Deleting an effect removes all the parameters of the effect in question in from the Effect Editor, and doesn't have any direct influence on the Attributes in Live Editor. If the Base of an Attribute has been manipulated during the creation of an effect, the removal of the effect in question doesn't restore the initial Base values in Live Editor.

Regia2048 - User Manual
Preliminary Version – 20-10-2004
Software Release: 2.1x

SGM Elettronica declines all responsibility for any damage caused by incorrect use of the Regia-2048 consoles due to any misunderstanding of this manual or incorrect description of the procedure or operations to be carried out.