LIBERTY

Quick Start Guide

Issue 1.0

ADB

Lighting Technologies

TEXT CONVENTIONS

- Panel Keys are under square brackets, e.g. [**RECORD]** is a panel key.
- Keyboard Keys are under brackets, **(CTRL).**
- Software functions in menus are under brackets e.g. **{Browse File}** is a function in the File Menu. In this case the access path will be indicated as **MENU HATHOR>FILE> (Browse File).**
- **[-----]&[-----]** means hold the first key then push the second key.

SOFTWARE PHILOSOPHY

It can be easier to understand HATHOR if you are familiar with the philosophy of this software.

Channels (INSTRUMENTS)

- A Channel (also named instrument) is the control handle used to call anything controlled by LIBERTY. Regardless if it is a dimmer channel, a moving device, a smoke machine or something else it will always correspond to a channel number in the Patch.

Attributes and DEVICE LINKS

- The control of non-intensity parameters, for example a moving device or a scroller, are called attributes. These are patched to the controls of LIBERTY when the Template corresponding to that device is assigned to a control channel in the Patch.
- In a sequence all attribute's values are recorded in a specific area named DEVICE LINK.

Patch (INSTRUMENT SET-UP)

- Patch is where outputs are assigned to channels, either directly in the case of dimmers or using a Template in the case of devices. All settings pertaining to outputs, channels and devices are also adjusted within the patch.

Groups

- Frequently used combinations of channels can be stored in up to 2000 Groups, for quick recall from the keypad, the touch screen or a remote focusing system.

Presets

- This is a specific concept. Frequently used combinations of channels are stored in up to 15000 Presets, for playback in the Main Playback or Virtual Playbacks. The combination of a Preset and a Device Link in a Sequence Step is the equivalent of a "Cue" in many other systems. The advantage here is that Presets can be reused in any Sequence, with different times.

Sequences

- Lists of Presets are called Sequences, that can be cross faded or move faded in consecutive order from a Playback. The system supports up to 1000 Sequences.

Looks

- A look is a cue including channels with their intensity levels and their attributes, like a snapshot, without any time information.
- Looks are primarily useful for "live" performances, when you wish to be able to bring up pre-recorded fixture settings, but in a non-sequential, spontaneous manner, such as for a musical concert.
- Looks can also be useful as building blocks where you can store an idea for future use, but don't want to record it as a Sequence Step/ Preset (Looks are not usable in Sequence).

1. Installation and Overview

Delivery and Unpacking

As soon as you receive your equipment, open the boxes and inspect the items received. If you discover any damage, contact the carrier immediately and make any necessary claim for the problems discovered.

Installing the Desk

The desk and the monitor should be installed on a table or a console.
The surface of your work area should be smooth, level and sturdy.
Make sure that there is enough clearance around the desk to:

- open the desk
- access the rear connections
- allow air circulation around vents to prevent the desk from over-heating

Power Supply

The LIBERTY has a universal power supply that will operate on voltages between 100 volts and 260 volts with a frequency range from 50 to 60 Hz.
Before powering up the desk or any of its peripherals, check that the existing voltages are within the limits defined.
THIS EQUIPMENT MUST BE EARTHED.

Note: all connections should be made with the power turned off; otherwise functioning may be affected and can even damage the equipment under certain conditions.

Electrical Connection

TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT OPEN THE DESK.
THERE ARE NO USER SERVICEABLE PARTS WITHIN. REFER SERVICING TO QUALIFIED ENGINEERS ONLY. LETHAL VOLTAGES ARE PRESENT INSIDE!
ALWAYS DISCONNECT FROM THE POWER SUPPLY BEFORE OPENING FOR INSPECTION.

Note: As all equipment used in computer systems, your system is sensitive to the characteristics of the network and in particular to variations and voltage peaks. **Consequently, we advise you to use an appropriate line conditioner on this equipment.**

Caring for your LIBERTY

The LIBERTY is manufactured from quality components and will give many years of service if you take some basic precautions.

- Do not allow any liquids or foreign objects to enter the LIBERTY.
- Do not apply excessive force to any of the controls. Spare parts and service are available from your ADB distributor, but prevention is better than cure.
- When connecting any devices to the LIBERTY, make sure that all connections are correct before switching on the power.

Connecting your desk to peripherals

1 Plug the power cable

2 Connect your mouse and your monitor usb cable in the USB ports

3 Connect your keyboard in the PS2 port

4 Connect your monitor in DVI or VGA port

5 Connect your DMX 5 cables

6 Switch On the main power

7 Start the desk

Start with your LIBERTY

After 1 min, your LIBERTY will display the default Layout on your monitor.
You will discover the channel grid on the left side, the Group window below and the Sequence window on the right side.
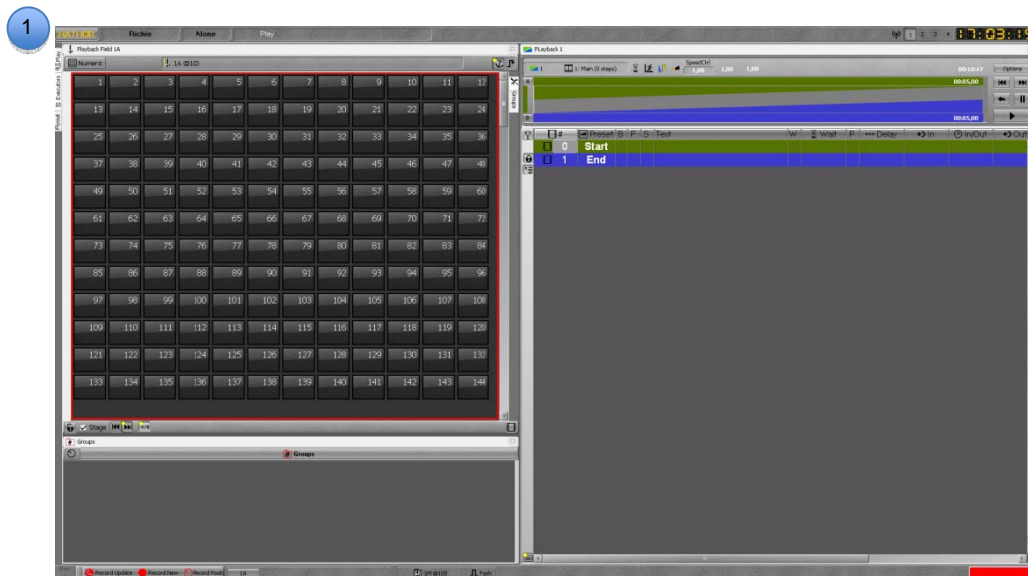
To send a channel on stage, choose a number on the keypad, and simply turn the wheel, your channel will be selected (Red square around the channel box) and you will see its level in yellow.
To record your first memory: **[RECORD] [RECORD]**.
To shutdown the desk: HATHOR Menu>Shutdown: **{YES}**.

1.1 Software

ADB lighting technologies has a policy of continuous improvement of its products. As the LIBERTY is a computerized lighting desk, its software is subject to this policy as new features are added and existing features improved.

The current software version of your LIBERTY is displayed in the HATHOR menu (Upside Left corner) > About.

The latest version can be downloaded from the ADB website.

Whilst every care is taken in the preparation of this manual, ADB Lighting Technologies takes no responsibility for any errors or omissions.

1.2 Front panel Control

1.2.1 Introduction

This section of the manual describes the controls and displays on the front panel of the LIBERTY desk.

The front panel controls have been divided into the following sections:
- OVERVIEW
- SUBFADERS section
- CONTROL section
- ACCESS section

1.2.2 Overview
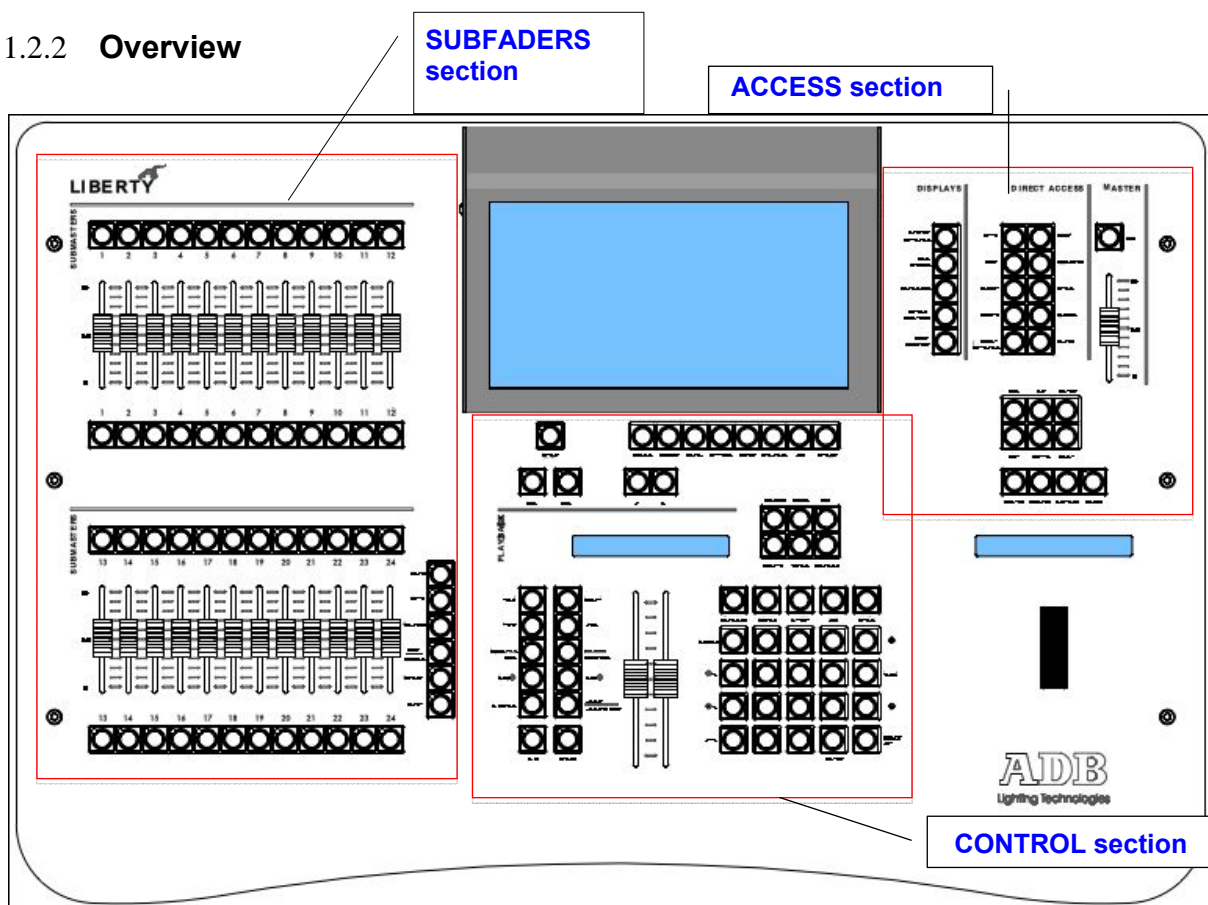
1.2.3 Subfaders section
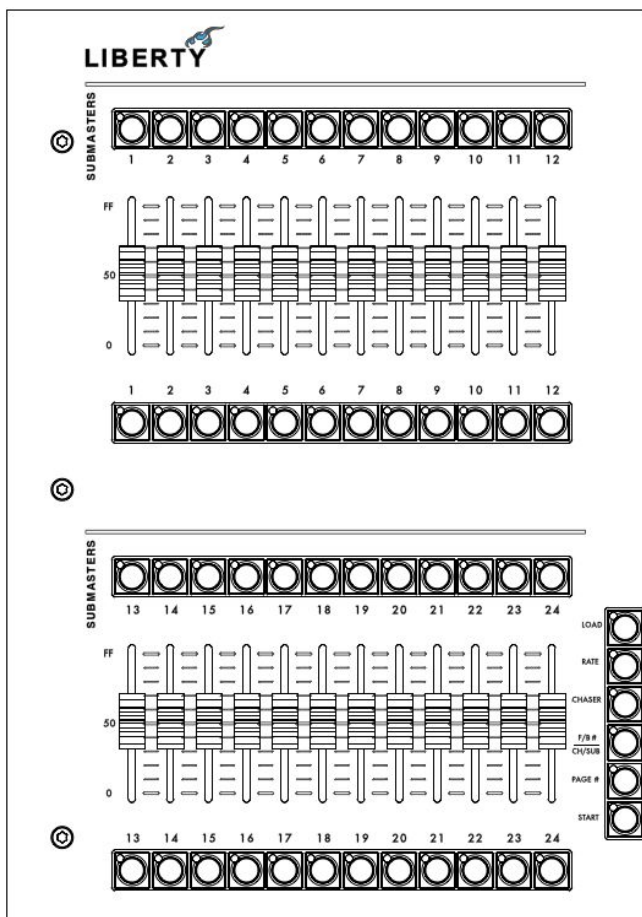
[ASSIGN] keys: <u>upper keys</u>
to load, select or record information or to assign a time to that Subfader
Note: to clear the content of a Subfader, hold the **[CLEAR]** key and use the **[ASSIGN]** key to select the Subfader to clear.

[FLASH] keys: <u>lower keys</u>
to bump the content of the SUBFADERS

[LOAD]: to load selected Channels with levels, Groups, Presets, and Palettes

[RATE]: use these key in combination with the **[ASSIGN]** key (see above) of a Subfader with a running Chaser to adapt the BPM to the current Tempo.

[CHASER]: to load or record a Chaser directly in the selected Subfader.

[F/B# CH/SUB]: under development

[PAGE#]: to load a Subfaders Page

[START]: to execute a Subfader automatically regarding Time settings.

1.2.4 Control section
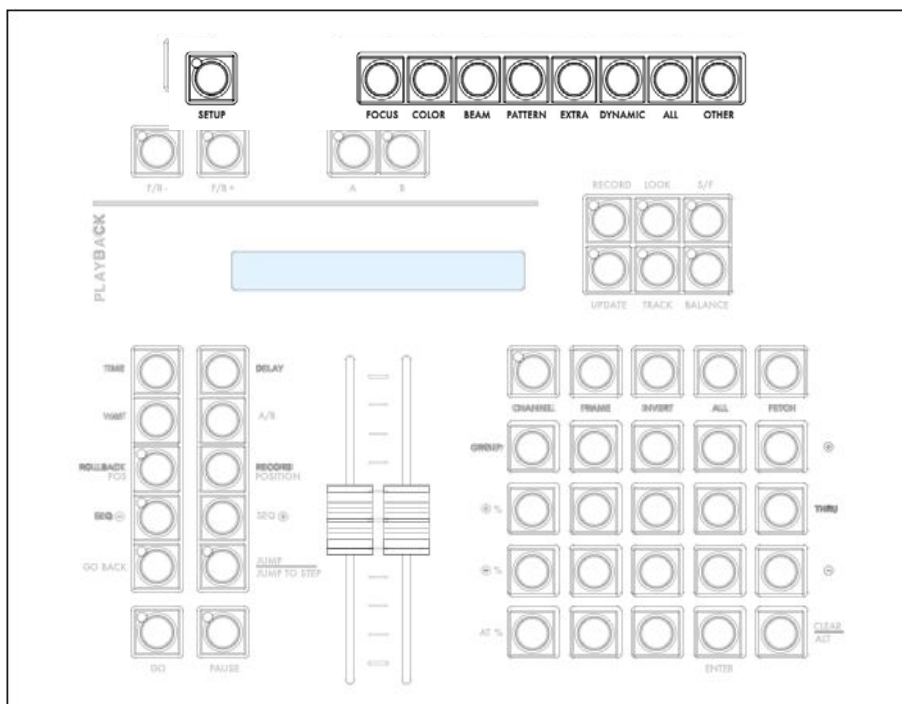
[SETUP]:
Open the Preferences window

<u>ATTRIBUTE GROUP KEYS:</u>
[FOCUS] for Pan & Tilt parameters
[COLOR] for Color parameters
[BEAM] for Beam parameters
[PATTERN] for Gobo and shutters parameters
[EXTRA] for Control parameters
[OTHER]: under development

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1.2.4.1 Fader Bank Keys
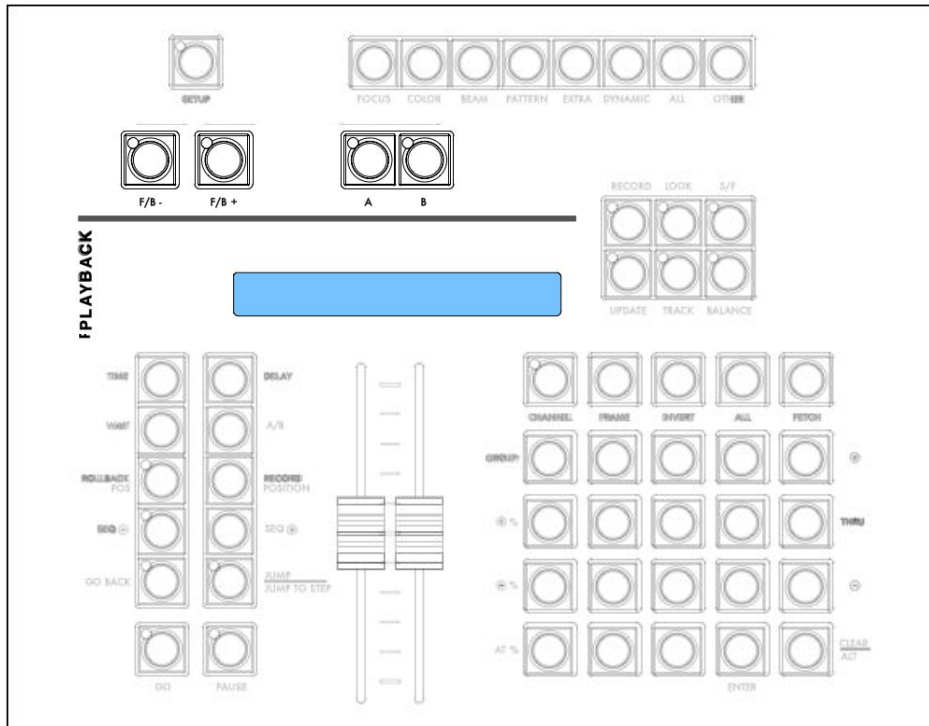
[F/B -] and **[F/B +]:**
Use this key to step thru the 8 banks of 24 submasters.

[A] and **[B]:**
Pushing the both keys together switch between A (stage) and B (Preset) Note: in combination with the **[TIME]** or the **[DELAY]** keys, **[A]** key corresponds to OUT and **[B]** to IN.
e.g.: to input 6 seconds in-Time,
[6] [TIME] & [B].

1.2.4.2 RECORD and UPDATE Key
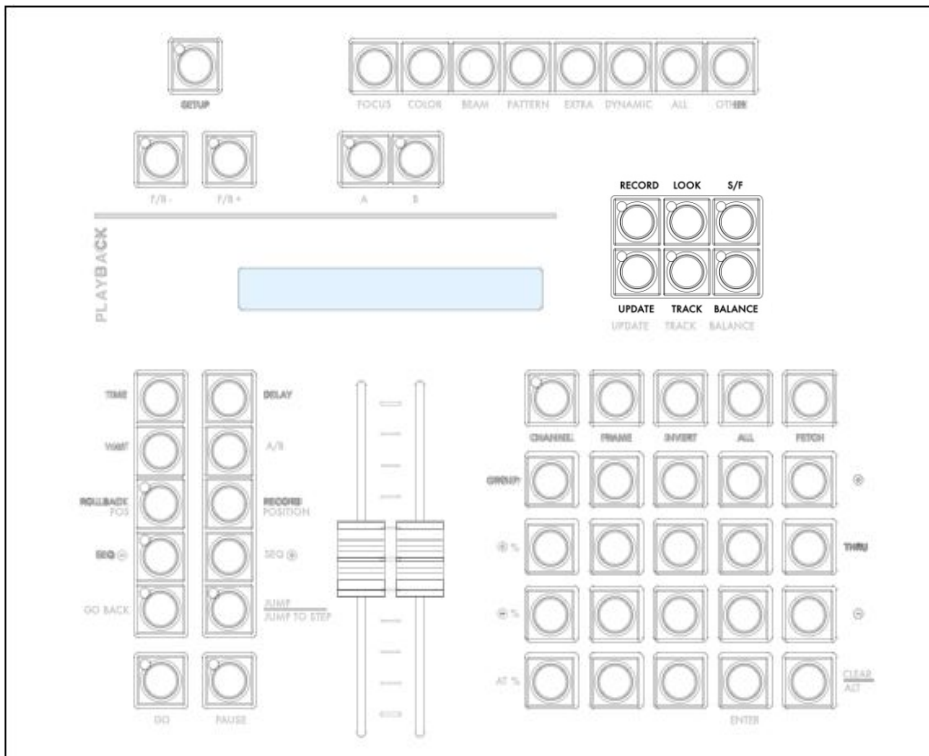
[RECORD]: use these key to record:
Groups: **[#] [RECORD] & [GROUP]**
Presets: **[#] [RECORD]**
Looks: **[#] [RECORD] & [LOOK]**
Palettes: **[#] [RECORD] & [COLOR]** (e.g.)
Page: **[#] [RECORD] & [PAGE]**

[UPDATE]: use these key to update an existing Preset on stage

[LOOK]: use these key in combination with the **[RECORD]** key (see above) or with the assign key of a Submaster to record a Look (levels and parameters).

[TRACK]: opens a track sheet for the selected channels

[S/F]: switch between Stage mode and Field mode in the channel grid (Field Editor)

[BALANCE]: to isolate a selection of channels in the current Field.

1.2.4.3　Master Playback

[TIME]: to assign crossfade times (In/Out) and special channel or attribute times.
[DELAY]: to assign crossfade delays (In/Out) and special channel or attribute delays.
[WAIT]: to assign wait times
[A/B]: to switch between A (Stage) and B (Preset) in the current Editor Field.
[ROLLBACK POS]: to return to the last position attributes values.
[RECORD POSITION]: to force the system to record attribute values filtered if necessary, independently of the history.

[SEQ -], [SEQ +]: to step backwards or forwards in the Sequence without crossfade times.
[GO BACK]: to go back to the precedent step using default times.
[JUMP/ JUMP TO STEP]: to move inside the sequence directly to a selected Step or a selected Preset.
[GO] & [PAUSE] : standard crossfade keys

1.2.4.4 Keypad
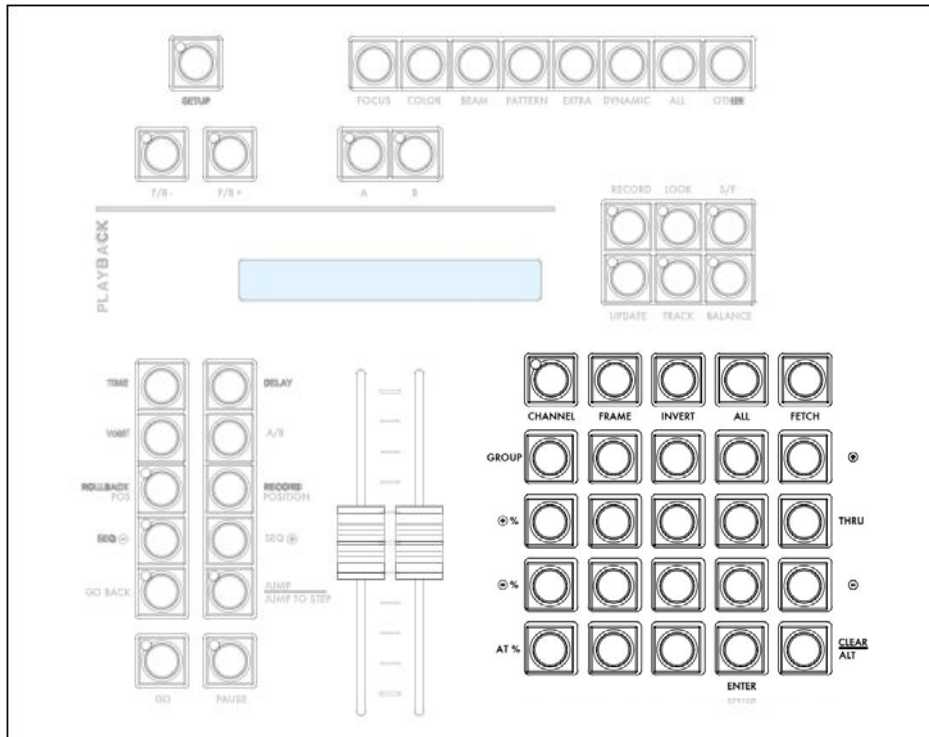
[CHANNEL]: to select channels

[FRAME]: to select a color changer Frame

[INVERT]: to switch between selection of channels and other channels with level above zero (this channels become selected).

[ALL]: to select all channels with level above zero

[FETCH]: to copy intensity or parameter values for a selection of channels from a selected Preset, to stage.

[GROUP]: to record or select a selection of channels with levels.

[+], [THRU] & [-]: channel selection tools

[+%], [-%]: to increase or decrease level (absolute or proportional) of selected channels by a percentage.

[AT%]: to set a level to selected channels.

[CLEAR]/[ALT]: to clear the selection **[CLEAR] [CHANNEL]** or to clear the current field **[CLEAR]&[CHANNEL]**.

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1.2.5 **Access section**
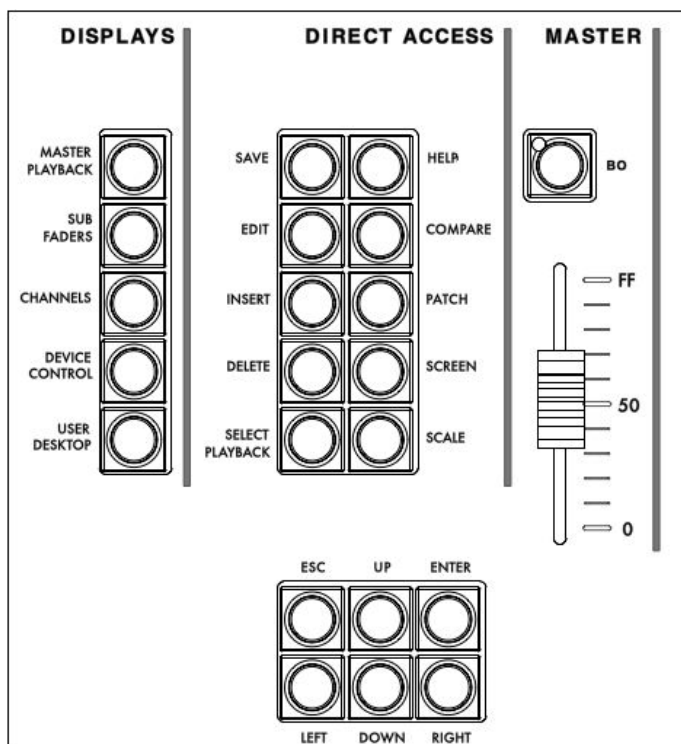
TOUCH SCREEN DISPLAYS:
The first four keys are direct access to specific screens as labeled.
With the **[USER DESKTOP]** key, the internal screen becomes a standard screen, exactly as external screens.

DIRECT ACCESS:
[SAVE]: to save modifications in the current play.
[EDIT]: to open objects Edit windows.
[INSERT] & **[DELETE]**: to use while editing or browsing.
[SELECT PLAYBACK]: to load a Playback in the Master Playback which is always the physical Master Playback.
[HELP]: under development.
[COMPARE]: to compare stage levels with another Preset.
e.g.: [1] [COMPARE] will open a window displaying stage levels and levels from Preset 1.
[PATCH]: shortcut to open the Instrument Setup.
[SCREEN]:
- use directly the **[SCREEN]** key to identify connected screens.
- Enter Screen number, and subscreen number to display directly the subscreen of your choice in the dedicated screen.
[SCALE]: Sets a proportional level between 0 and 200% for a channel without affecting recorded presets etc…
Note: this function is very useful to quickly set a channel to zero%.

MASTER:
[BO]: Blackout Key

NAVIGATION KEYS:
[ESC]: To close any opened window.
[UP] / [DOWN] / [LEFT] / [RIGHT]: navigation keys.
[ENTER]: To valid any kind of action.

2. Setting Up the desk / [SETUP]

HATHOR menu > Setup > **Preferences (or [SETUP])**

Channels
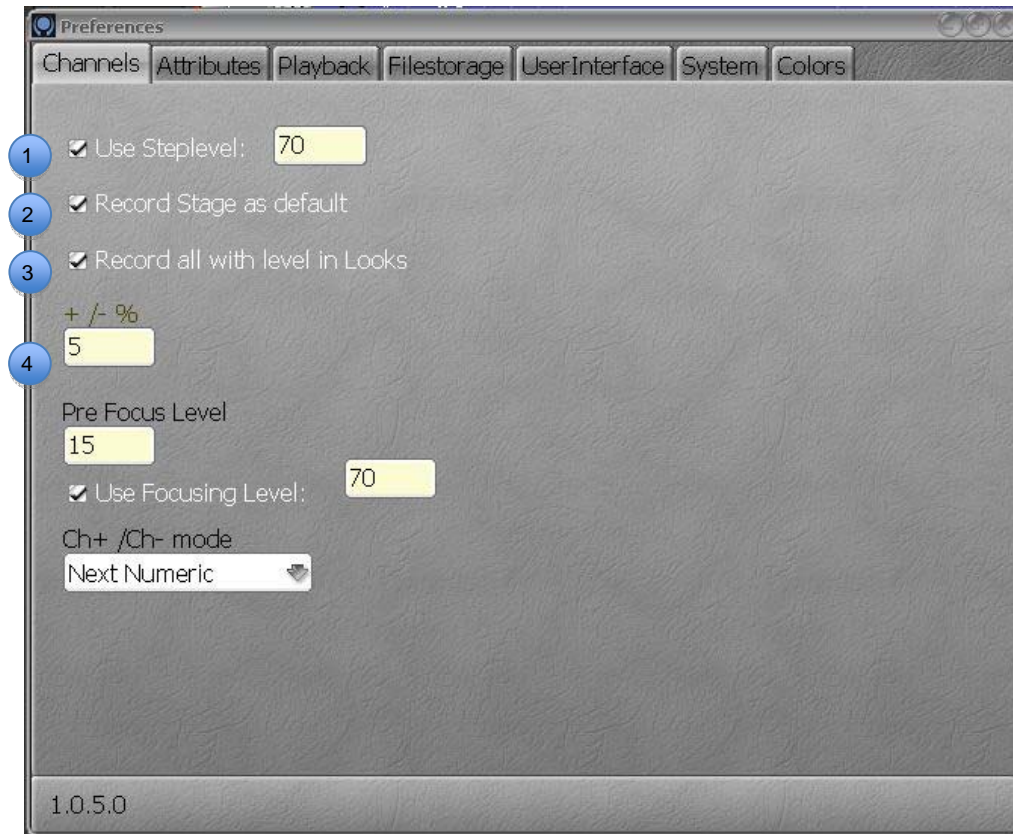
1   Checked:
     [At Level] will bring selected Instruments to the level set here. E.g.: 70%
     Note: [At Level] [At Level] will bring selected Instruments to the **Full**.
     [At Level] three times will bring selected Instruments to **zero**.

2   Checked:
     When **[Record]** or **[Update]** are used, all the levels currently coming out of the
     system will be recorded.
     Unchecked:
     [Record] or **[Update]** will record the levels from the currently active Playback Filed only.
     Note: Stage mode in a Field Editor in HATHOR is just a view mode that doesn't
     influence what is recorded. This means that you can activate Stage mode and still
     use Field mode when recording. If the user only works in the Playback and not with
     masters, it's more convenient to leave Record Stage as default unchecked.

3   Checked:
     When **[RECORD]&[LOOK]** is used, it will automatically record all instruments that
     have a level greater than zero.
     Note: if "Record Look" is used by dragging channels, this setting is irrelevant, as it
     will default to recording the **selected** instruments.

4   Sets the percentage that levels will be changed up or down by the **[+%]** and **[-%]**
     keys.

Attributes
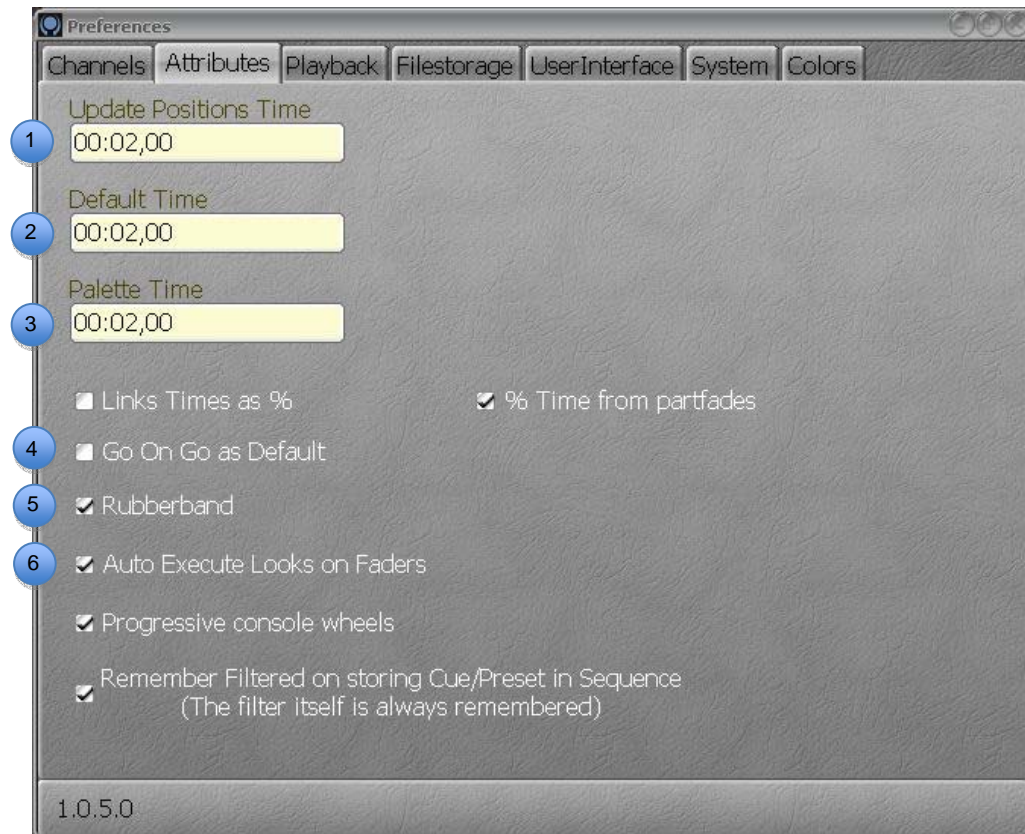
1   Time used with **[ROLLBACK POS]** key.

2   Attributes Time. These time value will be recorded in Device Links by default for every parameters.

3   Time used when executing a palette, not when recording a Preset/Device Link using these palette.

4   Go On Go:
     Unchecked: MOVE in DARK active.
     Checked: MOVE in DARK unactive.

5   Rubberband:
     Unchecked: when the subfader is lowered, only the intensities will restore to their previous values.
     Checked: when the subfader is lowered, the intensity AND attributes will restore to their previous values.

6   Auto Execute Looks on Faders.
     Unchecked: the attributes and Intensity will follow the movement of the fader.
     Checked: as soon as the fader moves above zero, the attributes will move to their positions- they will not fade with the movement of the fader.

Playback
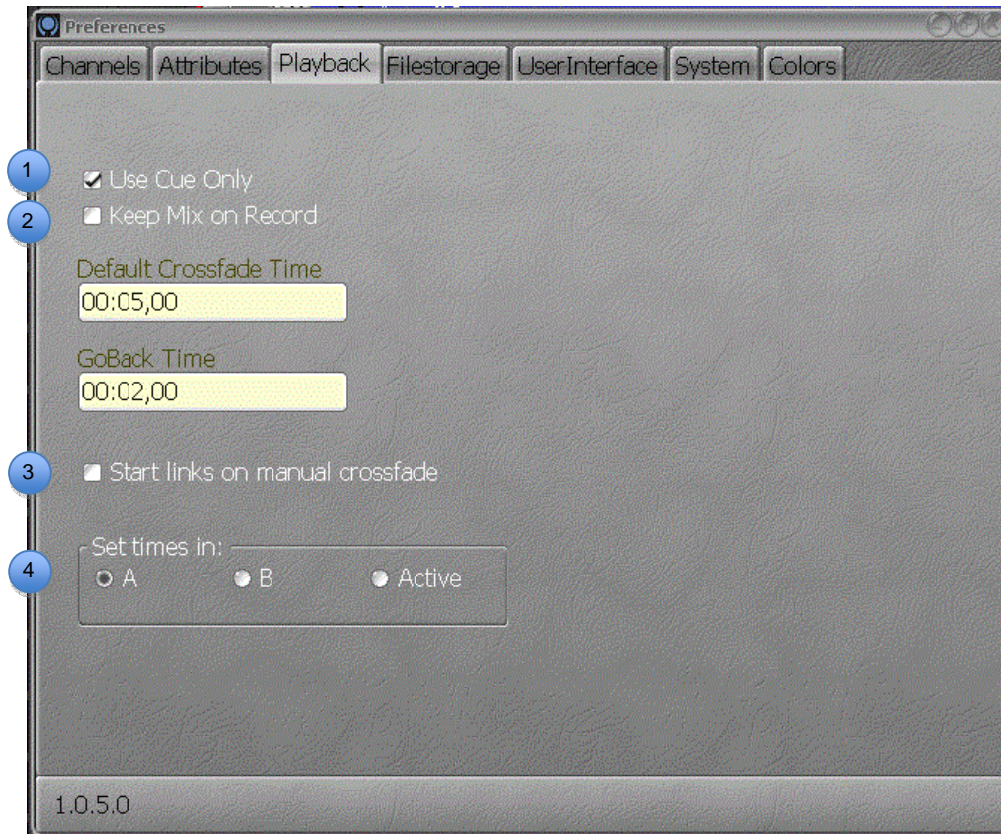
	Cue Only
1	This function appears in the Record window when it is appropriate. This setting box does not affect whether or not "Cue only" will appear.
Unchecked*:* the "Cue only" button will appear disabled. The user can then manually turn it ON if required*.*
Checked*:* the "Cue only" button will appear already activated. The user can then manually turn it OFF if required*.*

	Keep Mix on Record
2	Unchecked: the content of on the newly recorded preset is loaded into the active field. In this way Subfaders have not priority over the active Field.
Checked: if checked, this prevents the software from loading the content on the newly recorded preset into the active field. In this way one can keep on using Subfaders for mixing the output for the next Preset.
Tip: Checked Keep Mix on Record if you want to work with subfaders as single channels

3	Unchecked: links (parameters) only execute when a step is executed with [GO].
Checked: links (parameters) in Sequence steps will execute when a Playback is **manually** crossfaded.

	A:
4	**[x] [Time]** (or **[Delay]**) will set time values on the Sequence Step currently in the A playback (the active step on stage).
B:
[x] [Time] (or **[Delay]**) will set time values on the Sequence Step currently in the B playback (the next step to be loaded on stage).

Active:

[x] [Time] (or **[Delay]**) will set time values on the Sequence Step currently in the A or the B playback, depending on which Playback is active : [A/B] key switches between A and B playback.

Filestorage

1.0.5.0
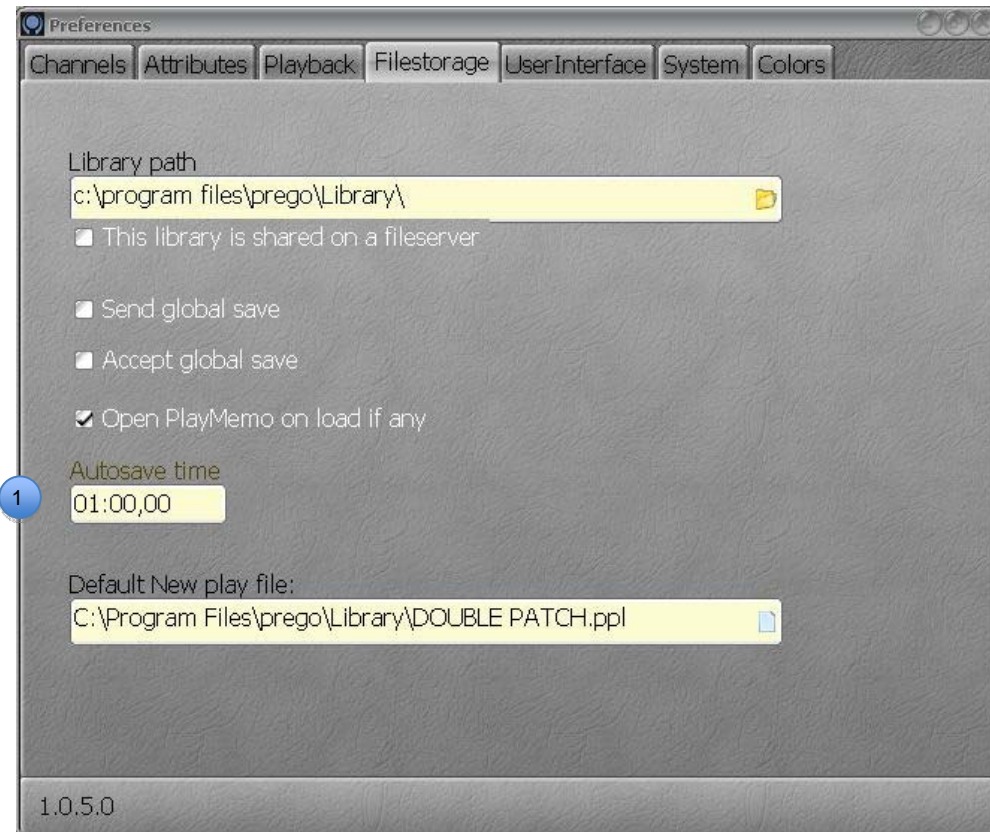
① Autosave time

Time between two automatic « Autosave » File recording.

Note: to use autosave file, go to MENU HATHOR/File/Open Library, open AutoSave menu, open corresponding play menu then Right Click and choose option LOAD or BROWSE.

User Interface
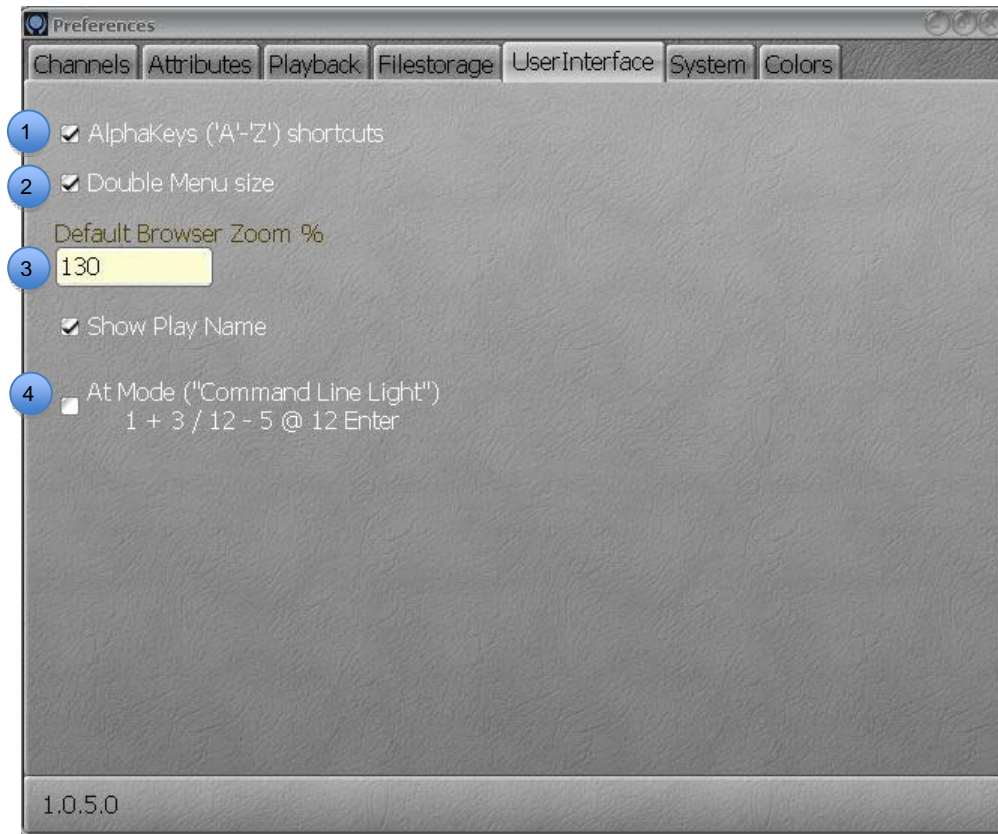
1   Tick the box to enable the KEYBOARD shortcuts.

2   Tick the box to enable the Double Menu size. Menus: HATHOR and Setup windows right click menus.

3   Enter the value concerning the size of Browser and Object Edit windows.

4   Unchecked:
Syntax is RPN
Checked:
Syntax is AT MODE

System
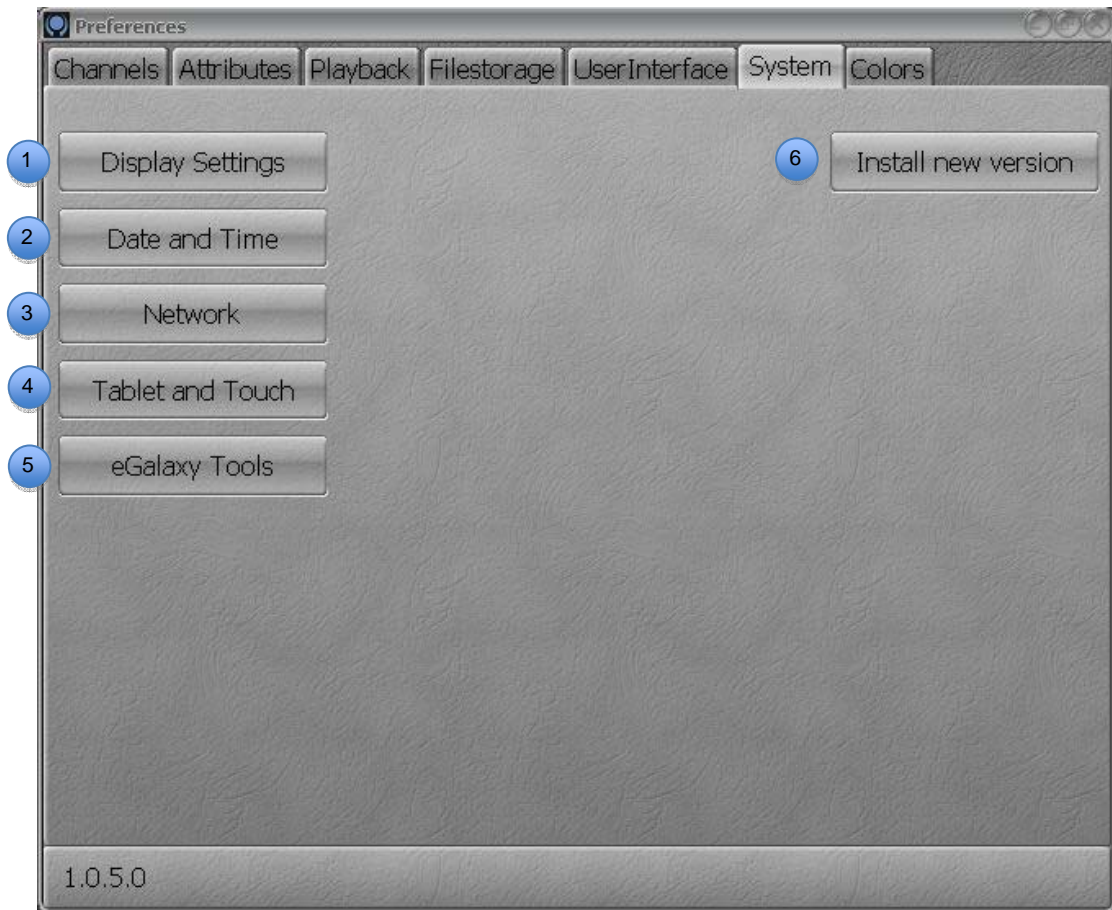
①	See chapter 13 for details
②	See chapter 13 for details
③	See chapter 13 for details
④	See chapter 13 for details
⑤	See chapter 13 for details
⑥	See chapter 13 for details

3. Starting a new show (Play) and patching

3.1 Starting a new Show : HATHOR menu > File > New / Clear Play
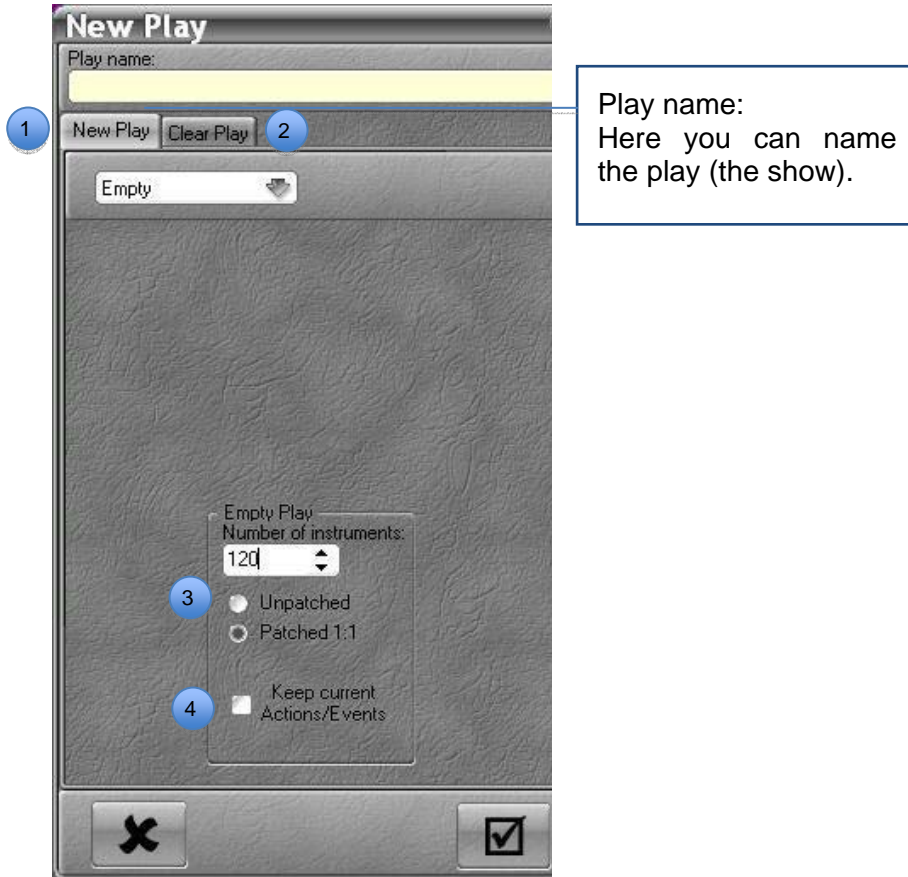
Play name:
Here you can name the play (the show).

1.   Choose new play to start with an empty play.

2.   Choose Clear play to start from your current play and select objects to clear in the menu.

3.   Choose Unpatched to start with a empty Patch or Patched 1:1 to start with a 1:1 patch.

Please note: if you have Instruments with levels in a Play due to Action Lists, when you create a "new Play" those levels will remain active. If you do not wish to have these levels, you must turn them off from the initial Play before creating a New Play.

Alternatively you can import these Actions into the new play. (4)

3.2 Patching: [Patch] key or [1] [.] [4] [Screen] to open Instrument Setup

3.2.1 Introduction

Instrument Setup
To open Instrument Setup Open Play menu, RIGHT click on "Instrument Setup" and open "Edit Instrument Setup". You can dock the "Instrument Setup" window in a Subscreen if you want it always available.

Methods
There are different methods to patch channels:
1. Keypad
2. Mouse
3. Keyboard
4. Touch Screen
5. Wizard
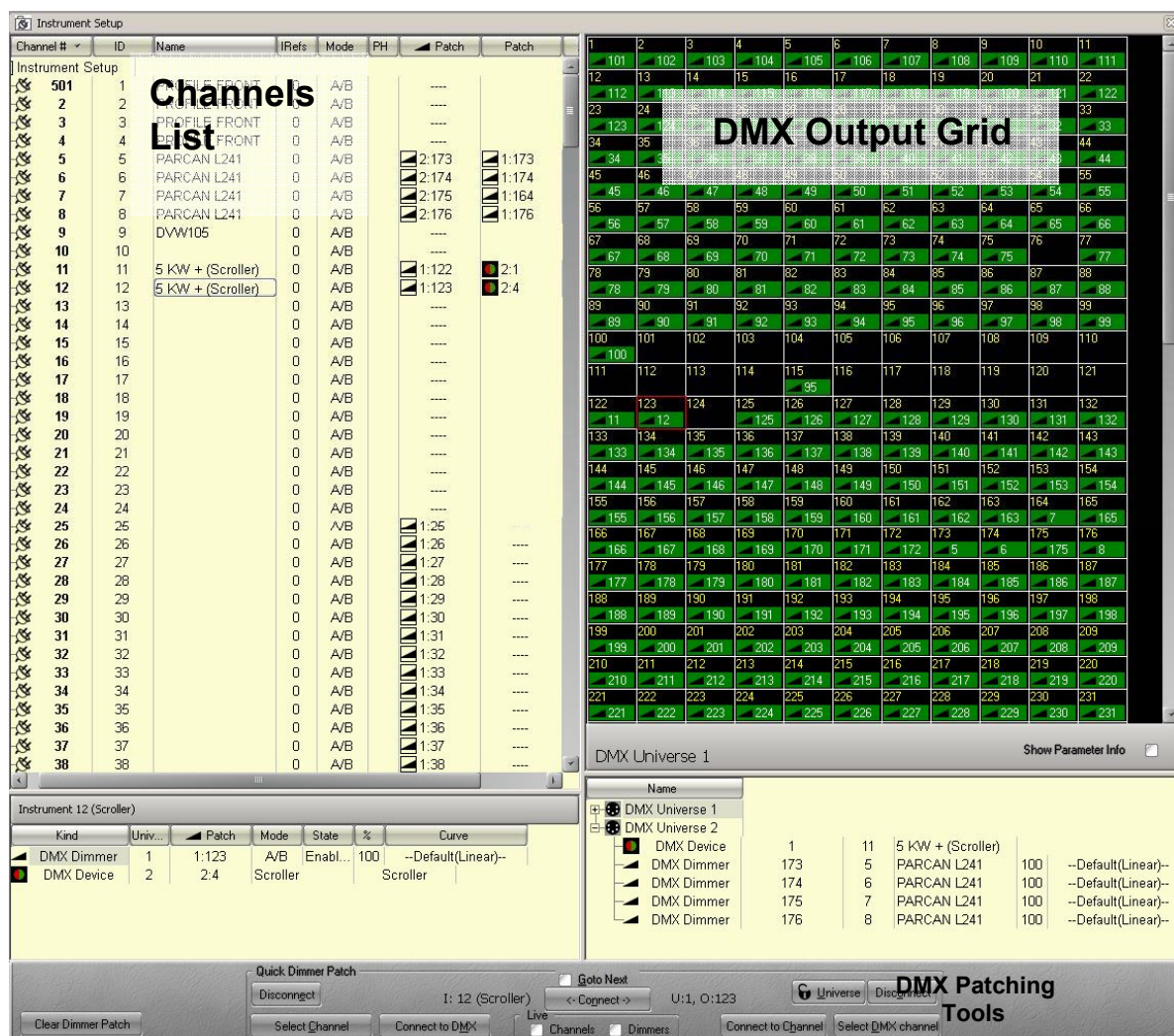
3.2.2 Using the keypad Channels > Dimmers mode only

Replace feature: **[#] [Ch][->] [->]** (to the first Patch Column) **[#] [Enter]** > Channel # connected to dimmer # (existing dimmer replaced).

Add feature: **[#] [Ch][->] [->] [->]** (to the next free Patch Column) **[#] [Enter]** > Channel # connected to dimmer # in addition of existing dimmer.
To patch a channel range to a range of dimmers (e.g. Channels 101 thru 124 with dimmers 1 thru 24).
[101] [Ch] [124] [THRU] [ENTER] a popup will open, confirm with **[ENTER]**.
To unpatch a dimmer: select a dimmer with arrows, then **[0] [ENTER].**

3.2.3 Using the mouse

Note: to check directly dimmers Live, check the dimmers box in the Live area of Dimmer Patching Tools.

To connect a dimmer to a channel:
Select a dimmer in the dimmers window (right side of the screen) then drag and drop it to the channel of your choice.

To move a dimmer from one channel to another:
Select a dimmer in the Channel List (left side of the screen) then drag and drop it to the target channel.

To unpatch a dimmer:
Select a dimmer in the dimmers window or in the Channel List then Right Click on this dimmer, choose **{UnPatch}**.

To Name a Channel:
Go to the Name Column (Channel List), on the correct channel line then DOUBLE Click on cell, enter the name and **[ENTER]**.

To give a proportional level to a dimmer:
Select a dimmer in the dimmers window or in the Channel List then Right Click on this dimmer, choose **{UnPatch}**.

To Rename Channels:
You can change the number used to access your instruments, without altering your Patch. This is useful when you want to keep your addresses and dimmer assignments as they are, but you want to change the numbering to fit the numbering of a Plot. Renaming is done in the Name column of the Channel window.

Go to the Channel # Column (Channel List), on the correct channel line then DOUBLE Click on cell, enter the name and **[ENTER]**.

To Clear all dimmers:
Go to the Dimmer Patching Tools area, choose Clear Dimmer Patch, a popup will open, confirm with **[ENTER]**.

3.2.4 Using the keyboard and the Dimmer Patching Tools

Note: please check first that Alpha keys Shortcuts are enabled (MENU HATHOR/Preferences/User Interface).

Every times after an action a popup will open, confirm with **(ENTER)**, or cancel with **(ESC)**.

3.2.4.1   DIMMER TO CHANNEL MODE
To connect a Dimmer to a Channel
(#) (D) (#) (H)
To connect a selection of Dimmers to a Channel
(#) (D) (#) (*) (#) (*) (#) (H)
To connect a range of Dimmers to a Channel
(#) (D) (#) (T) (#) (H)
e.g.: dimmer 1 thru 4 connect to Channel 1:
(D) (4) (T) (1) (H)
e.g.: dimmer 1 thru 4 + 7 and 11 connect to Channel 1:
(D) (4) (T) (7) (*) (11) (*) (1) (H)
e.g.: dimmer 1 thru 7 - 5 connect to Channel 1:
(D) (7) (T) (5) (Shift) (*) (1) (H)
To disconnect (Unpatch) a Dimmer
(#) (D) (O)
To disconnect (Unpatch) a selection of Dimmers
(#) (D) (#) (*) (#) (*) (O)
To disconnect (Unpatch) a range of Dimmers
(#) (D) (#) (T) (O)

3.2.4.2   CHANNEL TO DIMMER MODE
To connect a Channel to a Dimmer
(#) (C) (#) (M)
To connect a Channel to a Dimmer
(#) (D) (#) (T) (#) (H)
To disconnect (Unpatch) a Channel (Unpatch all dimmers connected to this channel)
(#) (C) (E)
To patch a channel range to a range of dimmers (e.g. Channels 101 thru 124 with dimmers 1 thru 24)
(101) (C) (124) (T) (ENTER)

3.2.5   Using the touch screen and the Dimmer Patching Tools

TIP: first dock the Instrument setup window into the internal Touch screen and check the dimmers box in the live area of Dimmer Patching Tools.

3.2.5.1   DIMMER TO CHANNEL MODE
Select a Dimmer by touch in the DMX Output Grid
Select a Channel by touch in the Channel List
Choose **Connect** in the Dimmer Patching Tools area

3.2.5.2   DIMMER TO CHANNEL MODE GOTO NEXT METHOD
Check the **Goto Next** mode in the Dimmer Patching Tools area
Select a Dimmer by touch in the DMX Output Grid
Select a Channel by touch in the Channel List
Choose **Connect** in the Dimmer Patching Tools area
The next channel and the next dimmer in the list will be automatically prepared.

3.2.6   Using the wizard

3.2.6.1   PATCHING DIMMER(S)
Go to the Channel # Column (Channel List), RIGHT Click and choose {Instrument wizard} in the list.
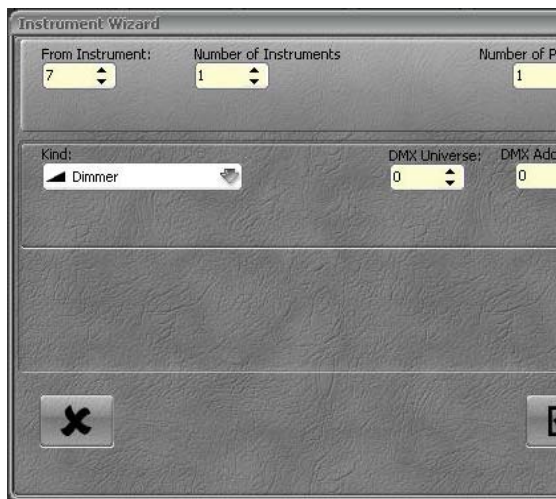
From instrument: to set the first channel of the range.
Number of Instruments: how many channels do you want to patch.
Kind: Dimmer.
DMX Universe: choose the Universe means select the output (1 or 2 for the LIBERTY, 1, 2, 3 or 4 for the FREEDOM)

To validate, click on the check box.

3.2.6.2 GEL STRINGS
In HATHOR a Scroller is always linked to a GEL STRING.
Before patching a Scroller with the Wizard you have to create a GEL STRING.
<u>PLAY MENU</u>/Gel Strings

PLAY MENU

Gel Strings:
single click to open the menu.

Right click to insert a new Gel String
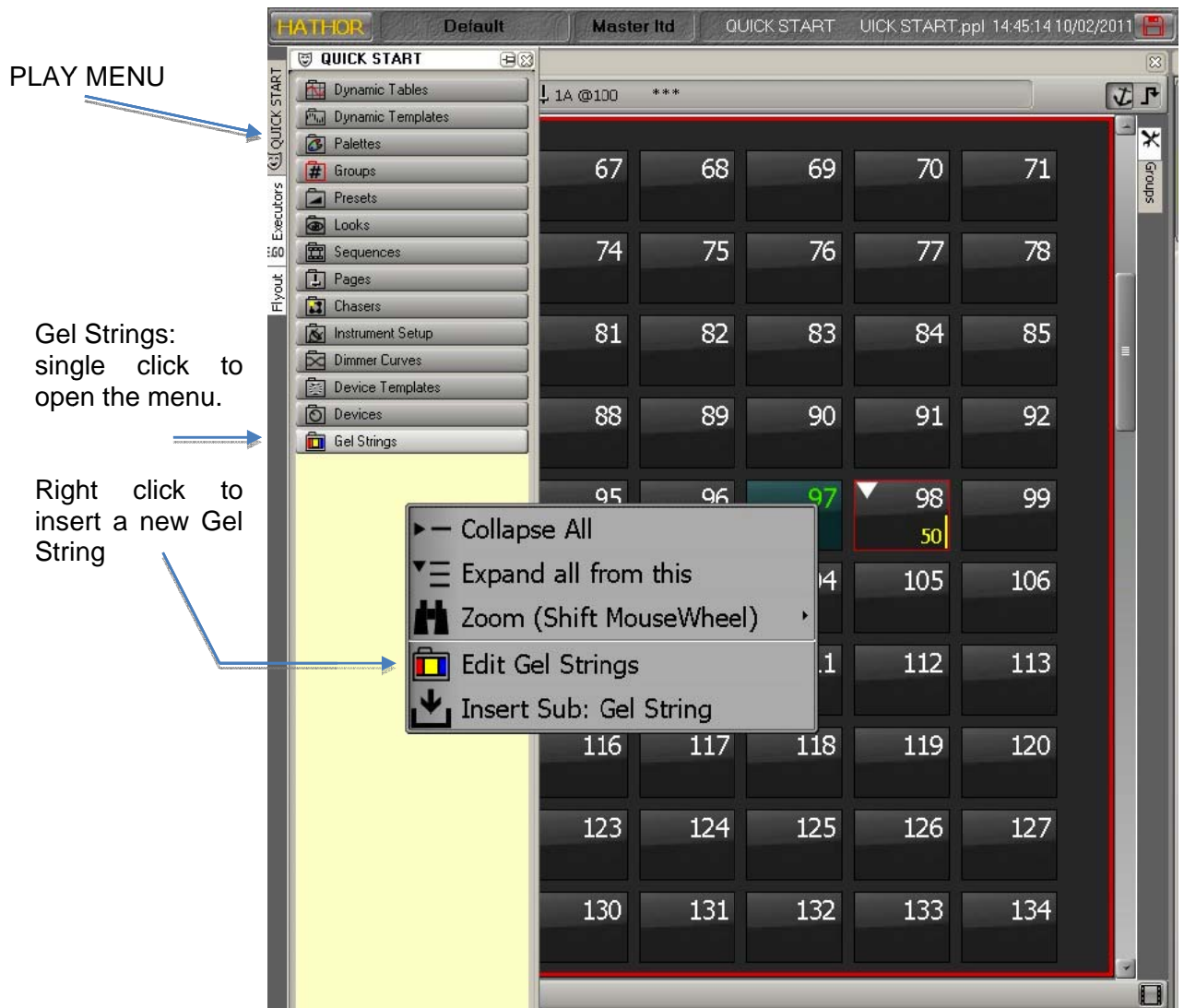
Then you will see the Gel String 1 in the Gel String menu, Right Click on Gel String 1 and choose Edit Gel String 1.

Go to the Frames column and set the number of colors of the roll, then **[ENTER]**. The steps will be automatically created.

To create specific colors and names usable and visible, go to **MENU HATHOR/TOOLS/ {Images}**.
In the Images window open the Gel Colors menu, choose a manufacturer and drag and drop the color needed in the Frames column, on the position of your choice (the cell becomes grey), then choose the option **{Copy color and names from _____}**
When the Gel string is complete close the window using the mouse or the **[ESC]** key.

3.2.6.3 PATCHING DIMMER(S) AND SCROLLER(S)
Go to the Channel # Column (Channel List), Right Click and choose {Instrument wizard} in the list.
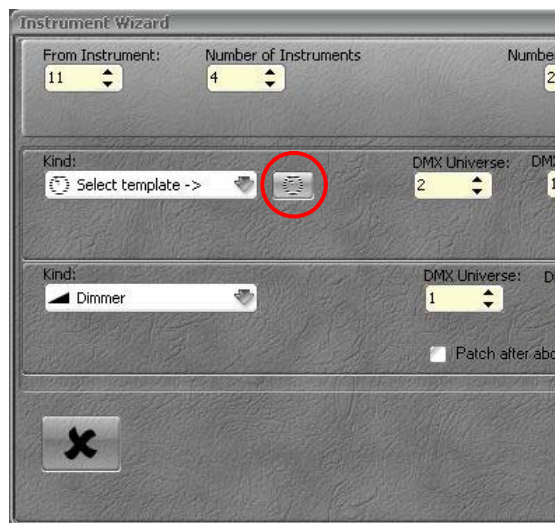
Set the first instrument of the range in the from Instrument box (e.g.: Instrument 11).

Set the number of instruments to create in the number of instruments box (e.g.: 4).

Set two Parts in the Number of parts box (one for the dimmer and one for the scroller).

Set Universes for the dimmer and for the scroller.

In the Kind area, click on Dimmers and choose Select Templates, then click on the soft key at the right side of this box.

A popup will open :
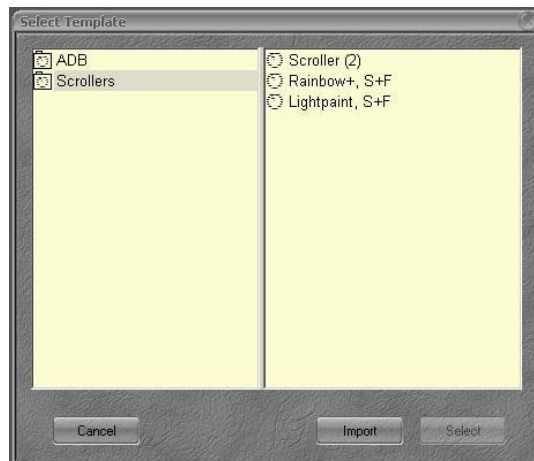
Choose the Scroller and click on Select.
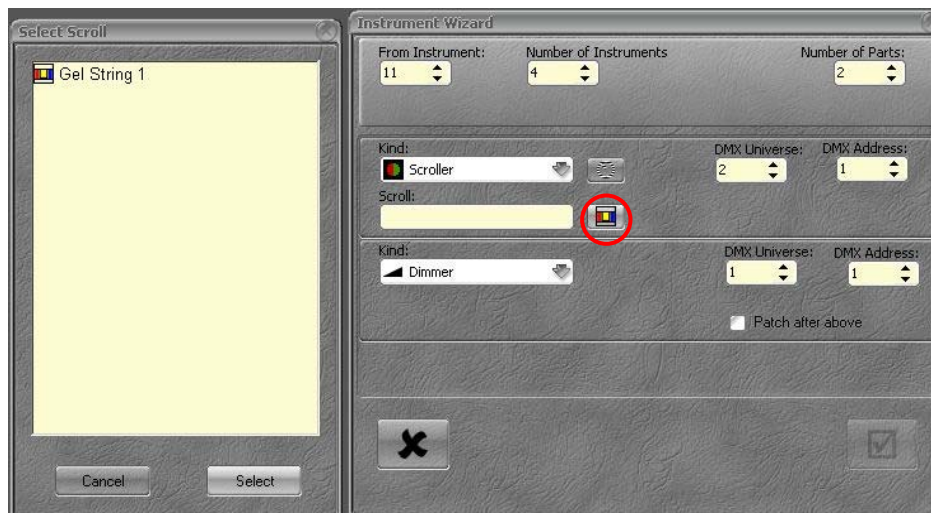
Click on the Gel String ICON.

In the Select Scroll window,
click on the Gel String of your choice then Select.

The selected gel String will appear in the Scroll box.

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4. Instruments (Channels)

4.1   Introduction

A channel is the "handle" you call upon to control any dimmer or moving device connected to the system.

Channels are selected in the Editor field (channel Grid), which is the channel functionality of the programming section. The Channel Control functions are mapped to any section of the console at any time - for example pressing [A/B] swaps between the A field of the Main Playback and the B field (Blind field) corresponding to the incoming step in the sequence.

General Facts

Channels can be selected and set with a Command Syntax from the keypad.

Channels can be selected and set with the mouse or your finger.

Channel levels are set from 0-100%. 0% values are not displayed on the channel screen and 100% values are displayed as F, standing for "Full".

4.2   The Channel grid

- At the top of this window are displayed:
  the selected Playback and its field (e.g.: Playback 1, field A) with the number and the name of the Preset loaded, or the Field selected.
  - Left side: the display format (Simple click to open a menu).
  - Middle: the selected Playback, its field and the Level (normally 100 for A field and zero from B field) the loaded Preset (number and name).

- At the bottom of this window the status stage option:
  - Checked: the channel grid displays the Output.
  - Unchecked: the channel grid displays only the content of the selected Field.
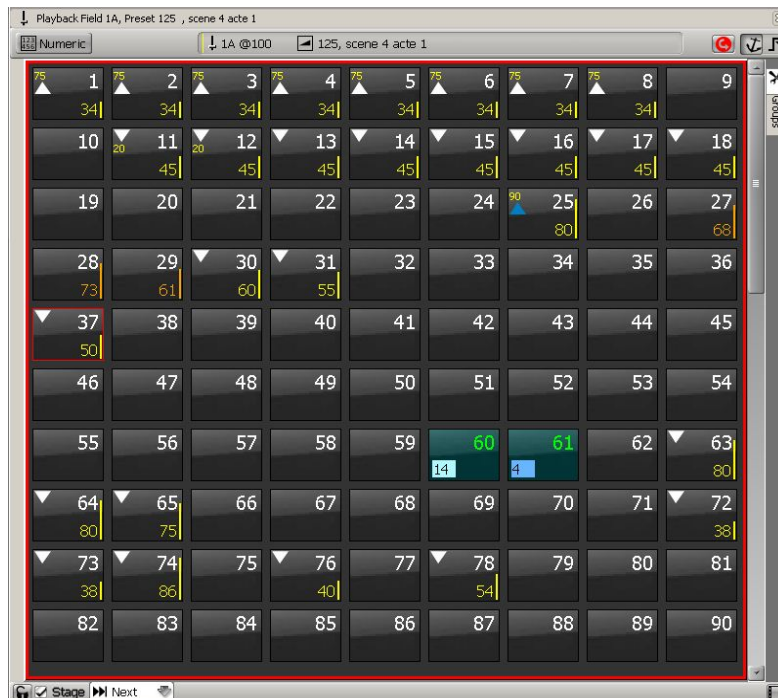
- **White** Number: generic light
- **Green** Number: channel with DEVICE
- Channel box with a **red square:** selected channel
- In Yellow / Downside Right corner: channels LEVELS coming from the selected Field
- In Yellow / Upside Left Corner: incoming LEVELS
- **White triangle**: with In/Out Sequence step time
- Blue triangle: with particular time
- In **Orange**/Downside right corner: Stage Channels LEVELS
- **Colored Square** with number: FRAME number

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4.3   Selecting Instruments and setting values

4.3.1   Using the Keypad

4.3.1.1   Using [Ch] [At%] [+] [-] [Thru] Keys and the intensity wheel
select one channel and use the intensity wheel
[#] + Intensity wheel
select one channel and use the [At%] key
[#] [Ch] [#] [At%]*: Channel # at # %*
[#] [Ch] [At%]*: Channel # at **Steplevel** (defined in Preferences/Channels/ « Use Steplevel »)*
[#] [Ch] [At%] [At%] > Channel # at Full
select several channels and use the [At%] key
[#] [Ch] [#] [+] [#] [+] [#] [+] [#] [+] [#= level] [At%] (or [At%] or [At%] [At%])
select a range of channels and use the [At%] key
[#] [Ch] [#] [Thru] [#=level] [At%] (or [At%] or [At%] [At%])
select a range of channels except some of them and use the [At%] key
[#] [Ch] [#] [Thru] [#] [-] [#] [-] [#=level] [At%] (or [At%] or [At%] [At%])
select a range of channels and add some others channels and use the [At%] key
[#] [Ch] [#] [Thru] [#] [+] [#] [+] [#=level] [At%] (or [At%] or [At%] [At%])

4.3.1.2 Using [+%] and [-%]
select one channel or several channels ALREADY with intensity upper than zero in the active Field and use the [+%] and [-%] keys to increase or decrease the level
[#] [Ch] [#] [+] [#] [+] [+%] > Level of selected channels increased of 5% (If **5** is the value in the +/-% field in Preferences/Channels)
[#] [Ch] [#] [+] [#] [+] [-%] > Level of selected channels decreased of 5% (If **5** is the value in the +/-% field in Preferences/Channels)

4.3.1.3 Using [All] and [Invert] key
The **[All]** key is designed to select every channels with an intensity upper than zero in the active Field.
The **[invert]** key is designed to select unselected channels with an intensity upper than zero.

e.g.:
first select some channels and give them some intensity values
[1] [Ch] [3] [+] [5] [+] [60] [At%]
Then select another channels and give them some intensity values
[13] [Ch] [24] [THRU] [At%] [At%]
To select again channels 1, 3 and 5 press **[INVERT]**

4.3.2   Using the mouse

Same as with the keypad, but instead of using [CH] key, simply select the channel with ONE click to add it to the selection DOUBLE click to deselect others and keep only this channel selected. Then use the intensity wheel, [At%], [+%] and [-%] keys to set levels. You can also Hold the mouse's Right button and move the mouse to change levels.

4.3.3   Using the Touch screen facilities

Same as with the keypad, but instead of using [CH] key, simply select the channel with ONE touch to add it to the selection DOUBLE touch to deselect others and keep only this channel selected. Then use the intensity wheel, [At%], [+%] and [-%] keys to set levels.

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Clear Functions

4.3.4 Using the Keypad

To clear all selected channels without reset levels to zero
[C/ALT] [Ch]
To clear all selected channels and reset all levels to zero
[C/ALT]&[Ch]

4.3.5 Using the mouse

To clear all selected channels; DOUBLE LEFT Click in the channel grid (empty space).

4.3.6 Using the Touch screen facilities

To clear all selected channels; DOUBLE Touch in the channel grid (empty space).

4.4 Focus Mode

First set all channels to focus at a preheat level
[1] [Ch] [24] [THRU] [5][At%] which set channels 1 thru 24 at 5%
Then select the start channel for focusing
[1] [Ch] [70] [At%]
and use the **[C/ALT]** key holded and the **[+]** key to step to the next channel.

The level used for focusing depends of the Step level defined in the settings (MENU HATHOR/Setup/Preferences/Channels)

TIP: this method is also useful to check Channels

4.5 Instruments with Scroller

4.5.1 Using the Keypad

4.5.1.1 Using [FRAME] key
[#] [Ch] [#] [FRAME]: load the frame # for the channel #

4.5.1.2 Using [COLOR] key
[#] [Ch] [0] [COLOR]: load the frame 1 (Home Color Frame) for the channel #

4.5.2 Using the mouse or the Touch Screen facilities

First select the DEVICE CONTROL SCREEN
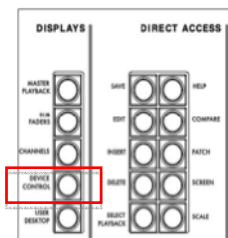
Select Channel(s) with Scroller (e.g. Ch 60).
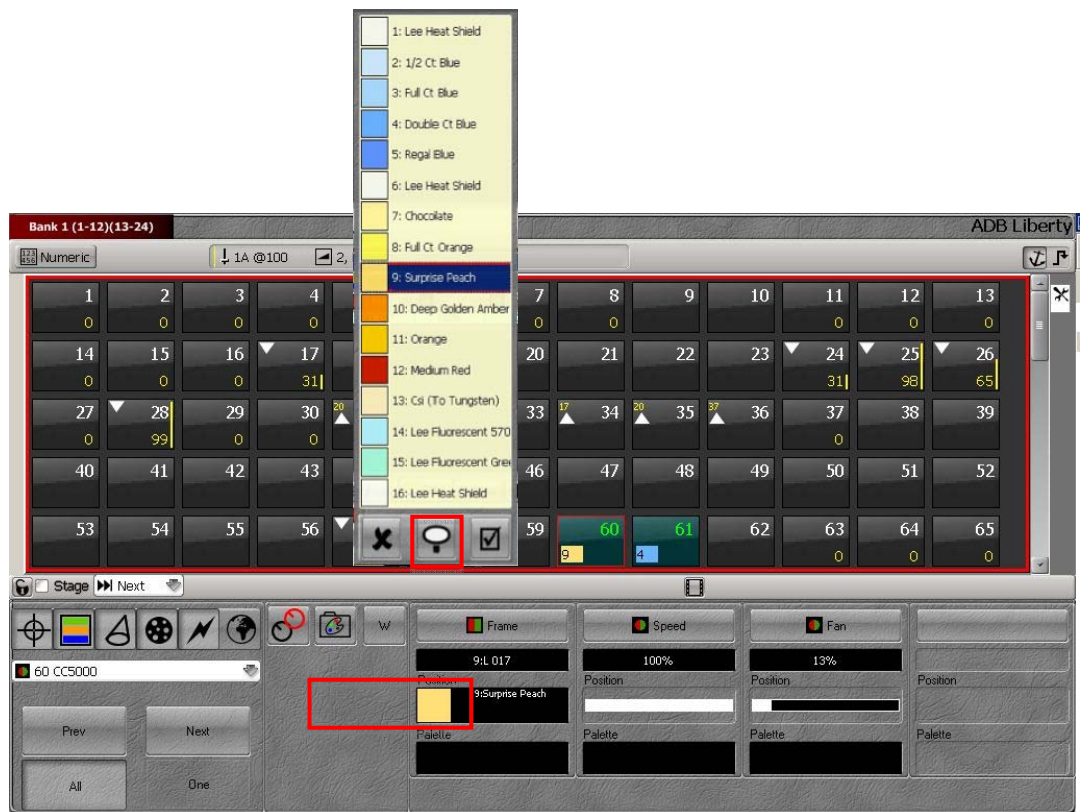
With the mouse or your finger click on the color in the Frame part.
A list of Gels will appear: choose the color you need. The list will close automatically.

Note: If you need to navigate in the list to check colors, use the « Pin » icon to lock the window, to confirm your choice click on the check mark icon.

5. Groups [Group] , [.]

Groups are a quick way of recalling a selection of channels.

5.1 Groups - Introduction

You can store channel combinations into groups. The difference between a Group and a Preset is that a group does not necessarily need levels for the channels involved, by default, only the channels **selected** are stored. Groups also do not contain moving light parameters.

5.1.1 Group functionality

- By default only selected channels are stored in a group.
- Channels can be recorded in the group with levels.
- Each group will "remember" the order in which channels were selected.
- Each group can have a text label.
- A group can be selected in the same way as a single channel
- A group can be loaded to a Subfader.

5.1.2 Groups - Record

Only selected channels are recorded, with or without level.

5.1.3 Using the Keypad

To record a group with the next free number:
[#] [Ch] [#] [+] [#] [+] [#] [+] [#] [+] [#] [At%]
[RECORD]&[GROUP] or [RECORD]&[.] or [.]&[RECORD]
You will get a popup where you confirm recording this group, and can write a text label.

To record a group with a specific number:
[#] [Ch] [#] [+] [#] [+] [#] [+] [#] [+] [#] [At%]
[#] [RECORD]&[GROUP] or [#] [RECORD]&[.] or [#] [.]&[RECORD]
You will get a popup where you confirm recording this group, and can write a text label.

5.1.4 Using the mouse: Drag&drop facilities
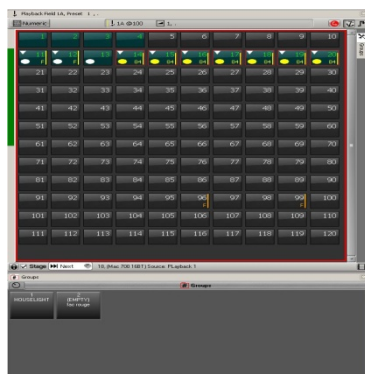
First select channels with the mouse, then drag the selection into the Groups window, a popup will appear:
Choose **{Record new Group}**, then you will get a popup where you can write a text label and confirm recording this group.
{Record} to confirm.

5.1.5 **Using the Touch screen facilities**

First select channels with your finger, then drag the selection into the Groups window, a popup will appear:
Choose Record new Group, and then you will get a popup where you can write a text label and confirm recording this group.
{Record} to confirm.

5.2 Working with Groups

You can add and subtract channels that are stored in Groups to/from the current channel selection.
You can select several consecutive or non consecutive groups at the same time.

5.2.1 **Using the Keypad**

To select all channels in a Group and deselect others
[#] [GROUP] or [#] [.] [Ch]
To add all channels in a Group to the current channel selection
[#] [.] [+]
To subtract all channels in a Group from the current channel selection
[#] [.] [-]
To select several non consecutive Groups
[#] [.] [Ch] [#] [.] [+] [#] [.] [+]
To select a range of Groups
[#] [.] [Ch] [#] [.] [Thru]

5.2.2 **Using the mouse or your finger and the keyboard**

Note: Use the **[GROUP]** key to open the Fly Out window in the internal Touch Screen. After one click in the window, use the SHIFT key on your keyboard, hold it and use the mouse wheel to zoom in the window.

To select all channels in a Group and deselect others
Click directly on the Group in the Groups window.
To add all channels in a Group to the current channel selection
If there is some channels selected, hold the Ctrl key then click on another Group
Select several non consecutive Groups
Click directly on the Group in the Groups window, hold the Ctrl key then click on another Group
Select a range of Groups
Click directly on the Group in the Groups window, hold the SHIFT key then click on another Group

5.2.3 **Using the mouse or your finger and the keypad.**

To add all channels in a Group to the current channel selection
If there is some channels selected, hold the [+] key then click on another Group
To subtract all channels in a Group from the current channel selection
If there is some channels selected, hold the [-] key then click on another Group
To select several non consecutive Groups
Click directly on the Group in the Groups window, hold the [+] key then click on another Group
To select a range of Groups
Click directly on the Group in the Groups window, hold the [THRU] key then click on another Group

5.3   Groups - Using recorded levels [FETCH]

If Channels were recorded with levels, you can copy these levels from the group to the matching selection.
You can fetch intensities for all or specific channels from any Group.

To copy levels from Group # for all channels of the Group
[#] [GROUP]&[AT LEVEL]
[#] [.] [Ch] to select all channels of Group #, **[#] [FETCH]** to set channels to their levels in Group #.

To copy levels from Group # for a selection of channels existing in the Group select some channels of Group #, **[#] [FETCH]** to set those channels to their recorded levels in Group #

5.4   Groups Edit Window [EDIT]&[GROUP]

You can view, edit and create new Groups directly in the Group List: **[EDIT] & [GROUP**].

To move in the list of Groups: use arrows and Enter keys.

To delete a Group, move to the group in the list: **[DELETE] [ENTER]**, or **[ESC]** to cancel.

To add a Group: **[INSERT]**, select channels, add levels and **[UPDATE] [UPDATE].**

To give a name to a Group: Go to the Name column, **[ENTER]**, fill the field **[ENTER].**

To change the number (ID) of the group: Go to the ID column, **[ENTER]**, enter a new number then **[ENTER].**

To close the window: **[ESC].**

5.5   Editing a Group

To edit a group: **[#] [.] [EDIT]**
Select channels, change levels, then **[UPDATE] [UPDATE].**

5.6   Groups and Subfaders

You can load Groups directly to any Playback.

5.6.1   Loading a group in a subfader

Select Group 1 and load it directly to Subfader 13 with the keypad
[1] [.] [LOAD] & [Assign Key 13].

Select Group 1 and load it directly to Subfader 13 with the mouse or your finger
Click directly on the Group in the Groups window, Drag it to the Subfader Field and choose Load Group #.

5.6.2   Editing a group Loaded in a subfader

5.6.2.1 Using the keys
Hold the assign key of the Subfader, edit channels and levels, then while holding the assign key, press **[UPDATE]**. You will get a popup where you confirm recording this Group, and can write or edit a text label.
Then **[UPDATE] [UPDATE].**

5.6.2.2 Using the mouse
Right Click on the Subfader Field (FIELDS Controller), choose **Edit Field ## Group ##**

Select channels, change levels, then **[UPDATE] [UPDATE].**

Note: In this way, changing levels in the Edit window of the group will be « LIVE » if the
fader is above zero.

6. PRESETS

6.1   Introduction

General Facts

- A Sequence is structured in Steps which consists of Presets and Device links. Instruments levels are stored into Presets, parameters and dynamic Effects are stored into Device Links.
- Presets can be arranged in a list called a Sequence, with predefined fade times.
- Presets can be modified blind or live.
- Presets can be copied.
- You can retrieve individual channel levels from recorded Presets with Fetch.
- When a Preset is recorded in the A playback, it is automatically placed in numerical order in a step of the Sequence in that playback.
- When a Preset is recorded in a Field, it is not placed in a step of the Sequence but recorded in the Preset List directly.

Note:

- A Preset is a memory that can be reused in several Sequences or Playbacks at the same time. To delete it completely you have to go to the source of all Presets: the Preset List (Menu Play/Presets).
- This does NOT mean that the Preset number will disappear from the Sequence or from Master Pages, but it means that it will be an empty Preset with no channels or levels stored. It also means that the number of the Preset will be regarded as an unused Preset in the system.
- When deleting a Preset in the Preset List you will get a checkbox option of deleting all related Sequence Steps.

6.2   Record

6.2.1   Recording a Preset in the sequence

You can choose to record the complete Stage Output or only the A Field content, either by default in the SETUP (Preferences/Channels), or directly in the Record Preset window

To record a Preset with the next free number:
[RECORD]. You will get a popup where you confirm recording this Preset, and can write a text label. Then **[RECORD]** again or **[ENTER]** or click on. ③ See next page

To record a Preset with a specific number, use the same syntax as above but specify the number before: **[#] [RECORD]**.
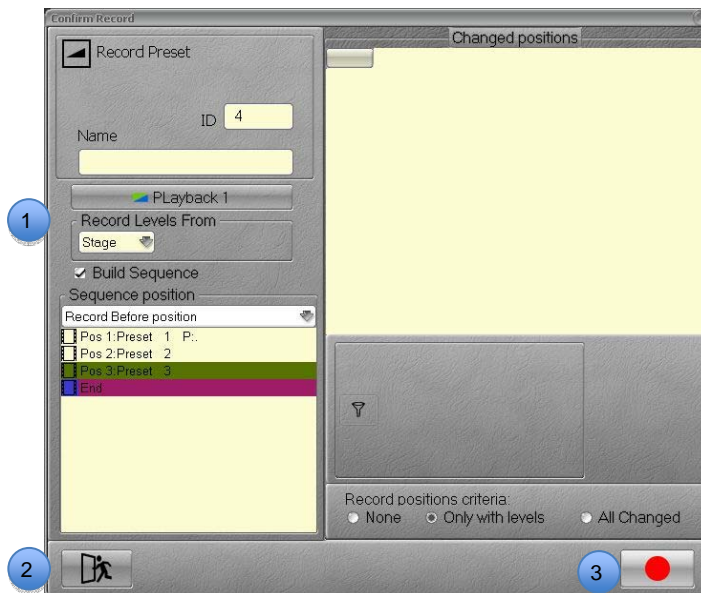
(1) Records Levels From:
Choose between Stage or Field
In <u>Field mode</u> you can choose between A field (Live) or B field (Blind).

(2) To cancel click on this icon or use [ESC].

6.2.2 **Recording a Preset not included in the sequence**

6.2.2.1 Working in the A playback
To record a Preset with the next free number:
[RECORD] (You will get a popup where you confirm recording this Preset, and can write a text label), **unchecked « Build Sequence ».** (1)
Then **[RECORD]** again or **[ENTER]** or click on the icon in the down right corner.
To record a Preset with a specific number, use the same syntax as above but specify the number before:
[#] [RECORD].

6.2.2.2 Working in a Subfader Field

Note: to record Preset directly from a field with only the content of this field, « Record Stage as default » in the SETUP (Preferences/Channels) should be Unchecked. If « Record Stage as default » is checked the Stage content will be recorded.

To record a Preset:
Hold the assign key of the Subfader, edit channels and levels, then while holding the assign key, press **[#] [RECORD]**. You will get a popup where you confirm recording this Preset, and can write a text label.
Then **[RECORD]** again or **[ENTER]** or click on the icon in the down right corner.

Note: the Preset will be automatically loaded in the Subfader.

6.3   Update

6.3.1.1 Working in the A playback
To update a Preset in the playback connected to the Fied Editor selected:
[UPDATE].
You will get a popup where you confirm recording this Preset, and can write or edit a text label. Then **[UPDATE]** again or **[ENTER]** or click on the icon in the down right corner.

6.3.1.2 Working in a Subfader Field
To update a Preset in the Field Editor of a Subfader:
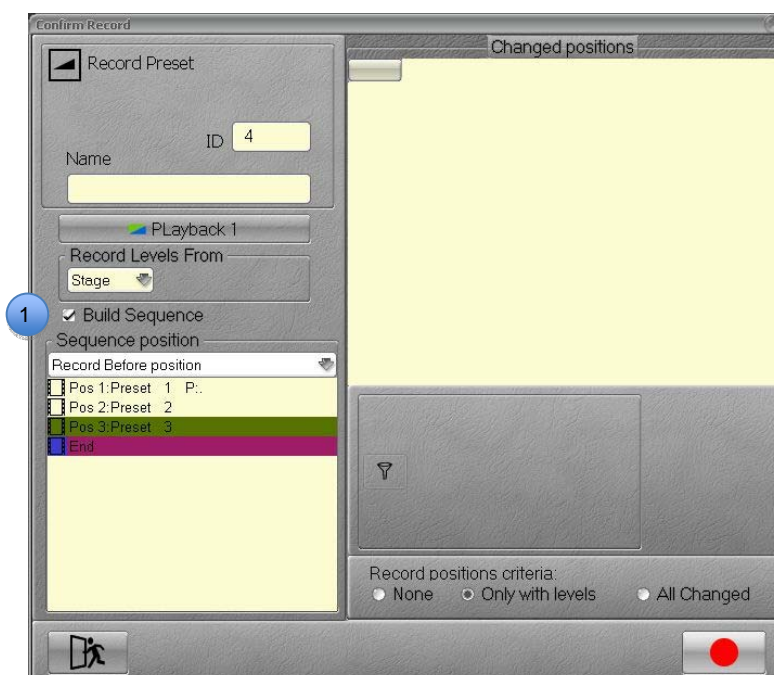Hold the assign key of the Subfader, edit channels and levels, then while holding the assign key, press **[UPDATE]**. You will get a popup where you confirm recording this Preset, and can write or edit a text label. Then **[UPDATE]** again or **[ENTER]** or click on the icon in the down right corner.

Note: In this way, changing levels in the Field Editor of the Subfader will be « LIVE » if the fader is above zero.

6.4   Edit

6.4.1   **Edit a Preset (BLIND mode)**

To Edit a Preset:
[#] [EDIT], select channels and edit levels then **[UPDATE].** Use **[ESC]** to close the edit window.

6.4.2   **Rename a Preset**

To Rename a Preset:
[#] [EDIT] and type your text in the field located in the left down corner. Then **[ESC]** to close the Edit window.

6.5   Copying levels from a preset to a selection of channels [FETCH]

To Copy levels from Preset # to selected channels referencing to this preset:
[#] [FETCH].

6.6   Loading a Preset in a Subfader

To load an existing Preset into a Subfader:
[#] [LOAD]&[Assign Key ##].

7. SEQUENCES

7.1 Introduction

General Facts

A sequence is a list of steps that can be played back manually or with fade times. Each step contains a Preset.

A sequence Step consists of three components:

- **Preset**: Channels levels only
- **Device Links**: Attributes values, Attribute Times, Go On Go flags
- **Data**: Fade Times, Wait Times, Channel Times (Part Fade), Master Link, Page Links and Action Links

The same Preset can exist in several sequence steps, and several sequences.

In a sequence step, each channel and each parameter can have a particular time.

Sequences can be played back from the Master Playback, or any virtual Playback.

7.2 Master Playback

When you start a new play (HATHOR menu > File > New / Clear Play) there is a default sequence (Seq 1) in the master Playback.

After selecting some channels with levels, just **[RECORD]** your first Preset. By default it will be the first free Preset in the Preset list (Preset 1). Write a text label for this first Preset in the text field, then **[RECORD]**.

Note: in the Sequence Playback window, you will see this text displayed twice, in the Text column as Step Text and in the Content column as Preset Text.

7.2.1 Recording a new Preset

To record a Preset with the next free number:
[RECORD].
You will get a popup where you confirm recording this Preset, and can write a text label: then **[RECORD]** again or **[ENTER]** or click on the icon in the down right corner.

To record a Preset with a specific number, use the same syntax as above but specify the number before:
[#] [RECORD].

7.2.2 Times

Fade times of a Sequence Step are related to that step, not to the Preset linked to the Step. This makes it possible to use the same Preset with different fade times in other Steps or in the Subfaders.

7.2.2.1 In & Out Times

First check that in [SETUP] Preferences/Playback the « Set Times mode » is on Active.

Use the [GO] button to execute the Preset on stage, check that you see the content of this Preset in your field Editor (means you're working in the A Field). Times used for the crossfade are default Times.

To set the new same value (#) for In & Out Times:
[#] [TIME].
To set a new value (#) for In Time:
[#] [TIME] & [B].
To set a new value (#) for Out Time:
[#] [TIME] & [A].

Note: to change Times for the incoming Step, <u>swap to B field</u> with the **[A/B]** key, and use the same syntax.

7.2.2.2 Delay Times
To set a new value (#) for Delay In Time:
[#] [DELAY] & [B].
To set a new value (#) for Delay Out Time:
[#] [DELAY] & [A].

Note: to change Times for the incoming Step, <u>swap to B field</u> with the **[A/B]** key, and use the same syntax.

7.2.2.3 Wait Times
When you want to execute automatically a crossfade between two steps, the wait Time is always to set on the second step.
The wait Time starts counting down after the END of the first crossfade. That means if you want the second step to start immediately after the end of the first step, you should set a value of 0,1 sec.
To set a wait Time:
[#] [WAIT].

Note: to change Times for the incoming Step, <u>swap to B field</u> with the **[A/B]** key, and use the same syntax.

7.2.2.4 Channel Time and channel delay
To set a particular Time for one or several channels:
Select Channels
[#] [CH] & [TIME].
To set a particular Delay for one or several channels:
Select Channels
[#] [CH] & [DELAY].

Note: to change Times for the incoming Step, <u>swap to B field</u> with the **[A/B]** key, and use the same syntax.

7.2.2.5 Parameter Time and Parameter delay
To set a particular Time for one or several channels and for one attribute Group (e.g. COLOR):
Select Channels with Scroller
[#] [COLOR] & [TIME].
To set a particular Delay for one or several channels and for one attribute Group (e.g. COLOR):
Select Channels
[#] [COLOR] & [DELAY].

Note: to change Times for the incoming Step, <u>swap to B field</u> with the **[A/B]** key, and use the same syntax.

7.2.3   **Insert a Step**

Record a Preset with a decimal number :
[#] [.] [#] [RECORD].

7.2.4   **Delete a Step**

Note: When you delete a Sequence Step the Preset of that step still exist in the Preset List but all assigned times, links and texts are lost.

With the mouse or your finger, go to the step to delete, in the Sequence Playback window.
Right click or let your finger few seconds on the cell.
In the menu choose **{Delete Sequence Step}.**

7.2.5 Replace and Rename Preset

With the mouse or your finger, go to the Preset to replace in the Sequence Playback window.
Double click on the Preset Number, tap the new number then **[ENTER]**.
A popup window will appear with different options:
{Replace Preset} is the default option, confirm with **[ENTER].**
{Copy Preset to new number}: to copy existing content of selected Preset to another one without deleting the target selected Preset.

Note: if the new number is corresponding to an existing Preset, check the option « Replace if new number exists » to replace. If unchecked the existing target Preset will be not overwrited.

{Rename Preset to new number}: to copy existing content of selected Preset to another one but with deleting the target selected Preset.

Note: if the new number is corresponding to an existing Preset, check the option « Replace if new number exists » to replace. If unchecked the existing target Preset will be not overwrited.

7.2.5.1 Drag & drop a step
To Copy or Move a step to a new location, click on the Step number, drag and drop it to the step to insert, choose Copy or Move.

8. LOOKS

8.1   Introduction

Looks are a recording of channels including their intensity levels and their attributes. They are similar to Groups, but with attribute data also included. Channels that do not have intensity levels can be included in a Look, just as with a Group.
There is no Time concept in Looks.
They are primarily useful for "live" performances, when you wish to be able to bring up pre-recorded fixture settings, but in a non-sequential, spontaneous manner, such as for a musical concert.
Looks can also be useful as building blocks where you can store an idea for future use, but don't want to record it as a Sequence Step/ Preset.
For "live" use, Looks are usually loaded to subfaders, where they can be faded in or out. They can be accessed from a Direct Access Panel, where there are special function buttons.
Looks can be recorded in variety of methods, but a pop-up window gives you options about what is to be recorded.

8.2   Record
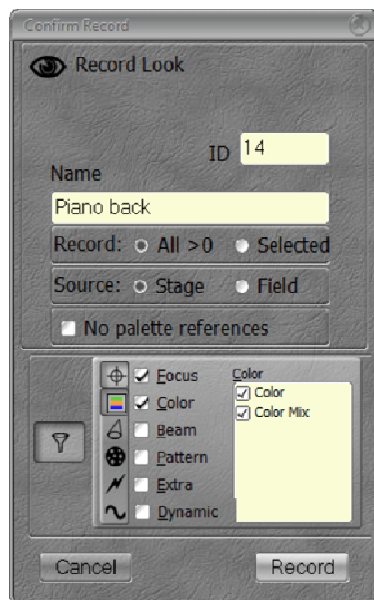
When recording, you can choose between different options:

All > 0: Every channel with level > 0:
- **Stage**
- **Field**

Selected: only selected channels

Note: you can choose working by default in one of this mode.
[SETUP] (Channels)
« Record all with level in Looks » **checked** = All > 0
« Record all with level in Looks » **unchecked** = Selected

No Palette References: if selected, attribute values are recorded instead of Palette references.

Attribute FILTERS: simply use Attribute Group buttons (below the internal Touch Screen) to uncheck Attribute Groups in the Filter window.

8.2.1   Using the Keypad

To Record a Look with the next free number:
[RECORD] & [LOOK], enter a name if needed, change options if necessary then **[RECORD]** or **[ENTER]** or **[LOOK].**
To Record a Look with the next free number DIRECTLY in a Subfader:
[LOOK] & [Assign Key] enter a name if needed, change options if necessary then **[RECORD]** or **[ENTER] or [LOOK].**
To Record a Look with a specific number:
[#] [RECORD] & [LOOK], enter a name if needed, change options if necessary then **[RECORD]** or **[ENTER] or [LOOK].**
To Record a Look with a specific number DIRECTLY in a Subfader:
[#] [LOOK] & [Assign Key] enter a name if needed, change options if necessary then **[RECORD]** or **[ENTER]** or **[LOOK].**

8.2.2 **Using the mouse**

Drag & drop a selection of channels to the Look direct access panel and choose **{Record New Look}** in the local menu.
Drag & drop a Sequence step a Subfader Field and choose **{Create New Look from Pos #: Preset # and load to field}**.

Note: the recorded look will be the intensities from the Cue/Preset in the sequence step, and all positions for those with intensity based on their history in the sequence.

Right Click in the Direct Access panel and choose **{Record New Look}** in the local menu.
Right Click on a Sequence step and choose **{Create New Look from this}** in the local menu.

Note: the recorded look will be the intensities from the Cue/Preset in the sequence step, and all positions for those with intensity based on their history in the sequence.

8.2.3 **Using the Touch screen facilities**

Drag & drop a selection of channels to the Look direct access panel and choose **{Record New Look}** in the local menu.
Drag & drop a Sequence step a Subfader Field and choose **{Create New Look from Pos #: Preset # and load to field}**.

Note: the recorded look will be the intensities from the Cue/Preset in the sequence step, and all positions for those with intensity based on their history in the sequence.

Right Click (Let the finger 2 seconds on the Touch Screen) in the Direct Access panel and choose **{Record New Look}** in the local menu.
Right Click (Let the finger 2 seconds on the Touch Screen) on a Sequence step and choose **{Create New Look from this}** in the local menu.

Note: the recorded look will be the intensities from the Cue/Preset in the sequence step, and all positions for those with intensity based on their history in the sequence.

8.3 **Working with Looks**

8.3.1 **Select Channels**

Look in Subfader: **[ASSIGN Key].**

Direct Access Panel / **#** mode: click on the Look box or touch it to select channels recorded in this look.

Note: selects the channels stored in that Look, but does not change Intensity levels, or load attributes and <u>de-select</u> all selected channels.

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8.3.2 **Playback Looks**

Look in Subfader: **[START]&[ASSIGN Key]** or raise the Subfader Fader.

Note: Looks on subfaders handle Intensity levels as HTP (Highest Takes Precedence) and attributes as LTP (Last Takes Precedence).
If you a Look raised on a subfader, then raise another, the attributes will move to the positions in the 2nd Look. When you lower the 2nd Look, the attributes will restore to those in the first Look.
If "Auto execute Looks on Faders" has been checked (Setup/Preferences/Attributes): as soon as the fader moves above zero, the attributes will move to their positions, they will not fade with the movement of the fader. The Intensity will follow the movement of the fader.
If "Auto execute Looks on Faders" has NOT been checked: the attributes and Intensity will follow the movement of the fader.
If "Rubber band" has been checked (under Setup/Preferences/Attributes):
when the subfader is lowered, the intensity AND attributes will restore to their previous values.
If "Rubber band" has NOT been checked: ·when the subfader is lowered, the only intensities will restore to their previous values.

Keypad: **[#] [LOOK]** will execute the Look #.
It doesn't de-select any selected channels. It changes Intensity and attributes for the channels stored in the Look · It doesn't select channel stored in Look.

Direct Access Panel / $\sum$ mode: click on the Look box or touch it to execute Look and clear the active field.

Note: changes Intensity levels, and load attributes for the channels recorded in that look and <u>de-select</u> all selected channels.

Direct Access Panel / { 🖌 } mode: click on the Look box or touch it to execute Look but not clear the active field.

Note: changes Intensity levels, and load attributes for the channels stored in that look but doesn't <u>de-select</u> all selected channels.

### 8.3.3 **Using recorded values / Fetch**

Direct Access Panel / ☞ mode: click on the Look box or touch it to FETCH attribute data from Look for selected channels only.
Right Click on a Look Box, in addition to the normal options there is:
- **{Fetch Levels from Look}.**
- **{Fetch Positions from Look}**, with an additional sub-menu to allow you to filter to a specific attribute group (i.e. Colour, Beam etc.).

8.4 Editing

8.4.1 The Edit window
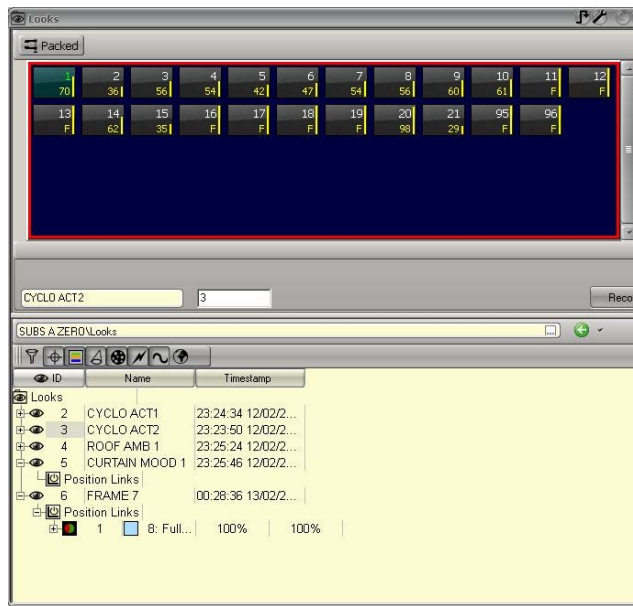
To open the LOOK Edit window: **[EDIT]** & **[LOOK]**.
Left click on a Look to open the Channel Grid.
Open a Position Link to change directly parameter values.
Change the Label in the label field.

8.4.2 Editing a Look

To Edit a LOOK: **[#] [EDIT] & [LOOK]**.
Left click on a Look to open the Channel Grid.
Open a Position Link to change directly parameter values.
Change the Label in the label field.

8.5 Loading To a Subfader

To load a Look:
Using the keypad: **[#] [LOOK] & [ASSIGN Key]**
Using the mouse or the Touch screen:
Drag&Drop the Look from the Direct Acess Panel to a Subfader Field.

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9. SUBFADERS

9.1 Introduction

Subfaders and Fields are different controllers to the same data.
The Subfader controller includes a Field Editor channel display (hold down 2 seconds the [ASSIGN] key), so that you can see and edit its content directly.
A Subfader is only a controller (Field), not a content (object).
So the concept is to load content in a controller and to record the main organisation of every Subfaders in a PAGE.

Note: because Subfaders are controllers, they are linked to the Software and the Desk and not to the « Play ».
That means every time you will load a Play, the precedent Subfaders will be still there and that means these Subfaders are not recorded in the Play. **To save the main organisation of the Subfaders in the Play, Record a Page.**

9.2 Fader Banks

There are a limitless number of Subfader Fields available, with 192 available at a time.
These 192 Subfaders are organised in 8 Banks of 24 physical Subfaders.
To select a bank: [#] [F/B #].
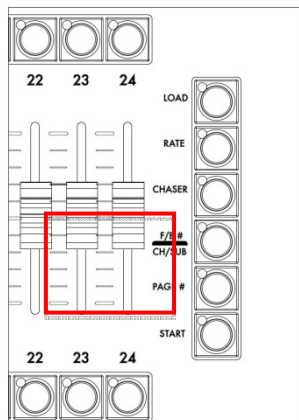
To move from one bank to another: **[F/B -]** and **[F/B +]**

Note: The bank number is displayed in the Internal Touch Screen / up left corner, if Subfader Screen **[Subfader]** is selected.

9.3 Pages

The information for each set of 192 Subfaders is stored on a "Page".
To Record a Page with the next free number:
[RECORD] & **[PAGE#]**
To Record a Page with a specific number:
[#] **[RECORD]** & **[PAGE#]**

You can switch between Pages:
To switch to the page 0: [0] **[PAGE#]** a popup will open « Clear all Fields? », **[ENTER]** to confirm if you want to clear all the 192 subfaders, **[ESC]** to cancel.
To switch to the page #: [#] **[PAGE#]**
Or press directly **[PAGE#]** a Flyout window will appear in the Internal Touch Screen, select the page of your choice.

Note: Loading a new Subfader Page puts the new content in a pending state if the Subfader is above 0%. When the Subfader is faded to 0% the new information is loaded.

9.4   Assign Keys

Each Subfader has a assign key. This is used to load, select, record or edit content to that Subfader.
In combination with the **[START]** key holded, the assign key becomes a start key, which execute the content on Time if a Time value does exist for this Subfader.
The master key is referred to in this manual simply as a **[ASSIGN key]**.
There are two keys for a master, the assign key is the upper key, the lower key is a flash key that will bump the content of the master, depending on the settings.

9.5   Flash Keys

There are 24 Flash keys above the 24 faders.
[FLASH] key: The content of the Master is set to the flash level as long as the Flash key is held.
Flash mode is toggled individually for each Master 1-24.
By default, all Subfaders are set in Flash mode.
To turn off Flash mode for a Subfader:
In the SUBFADER SCREEN [SUBFADERS], Right click on the field just below the Subfader's number , choose the last option {Browse Fields}, click on the line regarding the Subfader to edit, in the FlMo column uncheck the box.

To set the Flash level for a Subfader:
In the SUBFADER SCREEN **[SUBFADERS]**, Right click on the field just below the Subfader's number , choose the last option **{Browse Fields}**, click on the line regarding the Subfader to edit, in the FlLev column click in the cell, tap the value on the keypad, then confirm with **[ENTER].**

9.6   Load / Clear
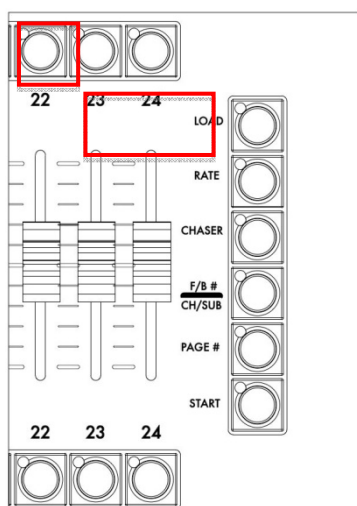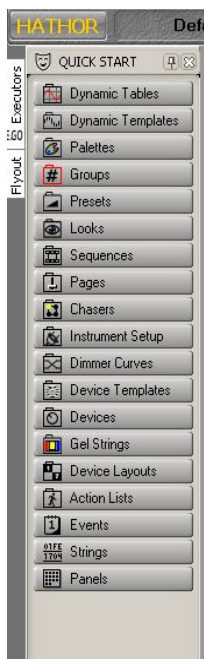

To Clear a Subfader
[C/ALT] & [ASSIGN Key].
To Clear all Subfaders
[0] [PAGE #] confirm with **[ENTER].**

To Load an object from the Menu Play.

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Open the object menu, drag & drop the object to the Field/number area and choose (Load XXXX).
E .g: in the Menu Play, click on the Tab.

E .g.:
in the Menu Play, click on the Tab Groups.
Drag & drop the Group 1 to the number area of the Field 1 (in the Fields window or in the SUBMASTER screen) and choose the option {Load Group 1}

9.7   Channel Selection

Press a Assign key to select all channels in the content of that Subfader, except for Palettes.
Precedent selected channels will be deselected.
To work with several Subfader's channels, hold the **[+]** while selecting Subfaders.

Note: precedent selected channels won't be deselected by an empty Subfader.

9.8   Editing

"Direct Edit Subfader Field":
Hold down **[ASSIGN key]**, after 2 seconds the Field Editor will switch display to that Subfader.
While holding the assign button you can edit directly the Subfader Field content.
Release the assign key to finish.

Note: this method only edit the content of the Subfader, not the object loaded to the Subfader

To Edit the Object loaded in the Subfader and the content at the same time:
Hold down the **[ASSIGN key]**, after 2 seconds the Field Editor will switch display to that Subfader.
While holding the [ASSIGN key] you can edit directly the Subfader Field content, still holding the **[ASSIGN key]** press **[UPDATE]**: a popup concerning the object will open press **[UPDATE]** again.

9.9 Times

[#] [TIME] & [ASSIGN KEY]
Hold down the [START] key and press the [ASSIGN KEY] to execute the Subfader in Time.
If some parameters such as Colour Frame exist as content in the Subfader (Look or Palette), they will jump to the recorded value if Auto Execute Looks on Faders > **[SETUP] / (Attributes)** is checked. If unchecked the attributes and Intensity will follow the movement of the fader.

9.10 Settings

9.10.1 Subfader Modes: Normal / Inhibit / Focusing / Disable Stage Recording

To change a subfader mode:
In the SUBFADER SCREEN **[SUBFADERS]**, Right click on the field just below the Subfader's number, choose the last option {Mode},
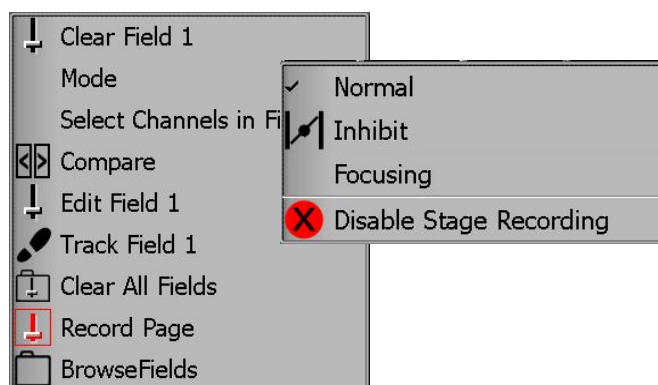
Choose between the four modes in one click.

10.1   Introduction

A Chaser is a specific object, used to Build multi-step effects and always executed while loaded in a Subfader. A Sequence can't be set to run as Chaser.
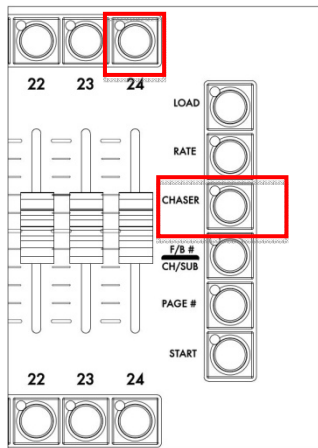
General Facts

- Chasers have Rate and BPM (BPM can be set with TAP).
- A Chaser has playback direction's modes such as Normal, Random, Reverse, Bounce and Build mode.
- You can limit any Chaser to a number of loops.
- You can link any Chaser to a sequence step.
- You can play back a Chaser from any Subfader and use the next following Subfader as Speedmaster.

10.2   Recording a chaser

10.2.1 **Using the keyboard**

10.2.1.1   NO CHANNEL SELECTED

To Record a Chaser with the next free number (for a specific number, just add [#] before):
[CHASER] & **[Assign Key]** and raise the Subfader at 100%.
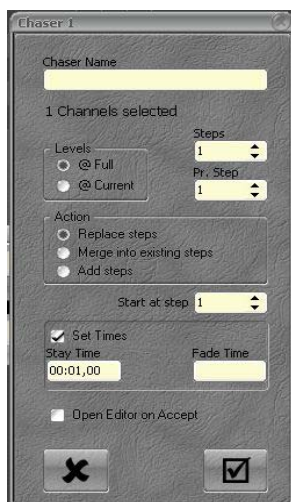
- Enter the Name of the Chaser
- In the Channels selected area:
  just enter the number of Steps needed.
- Tick the Set Times box to set times, enter the Stay and the Fade Times.
- The Open Editor on Accept option is checked by default.
  If Unchecked, the editor won't open automatically.
- **Click on the checkmark virtual button to validate: the EDITOR window appears.**
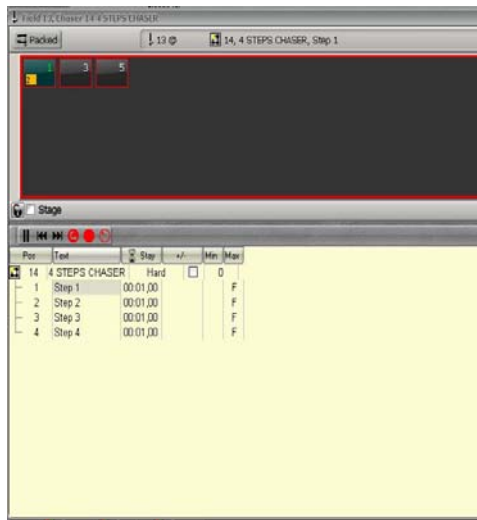
1. Click on the **Pause** virtual button
2. Click on the Step **1**
3. Select Channel(s) ant set level(s)

Note: [#] & [LOOK] will load the Look # directly

4. Press **[UPDATE]** to store the Step **1**
5. Go to Step **2** with the **[Down]** key
6. Repeat 1 to 4
7. Go to Step **3** with the **[Down]** key
8. Repeat 1 to 4
9. Go to Step **4** with the **[Down]** key
10. Repeat 1 to 4
11. **[ESC]** close the Editor window (changes will be stored automatically). A popup appears, **{YES}** will **start the Chaser**.

Note: to use the next boarding Subfader as Speedmaster: go in the Subfader Screen **[SubFaders],** Right click on the number area, select **{As Speed master for chaser in Field #}.**

10.2.1.2   CHANNELS SELECTED
E .g. Channels 1 thru 4 are selected with 70% as level
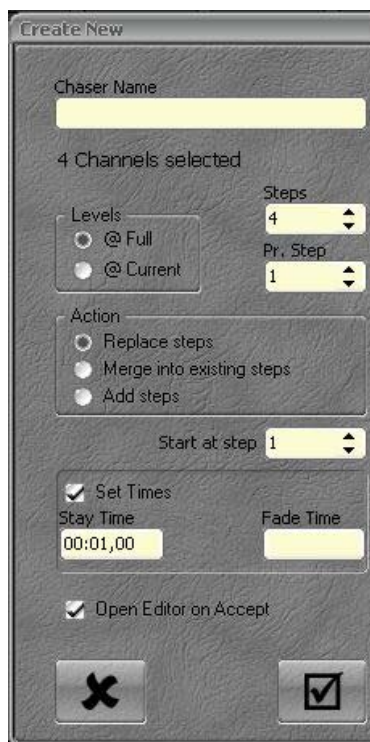To Record a Chaser with the next free number (for a specific number, just add **[#]** before):
[CHASER] & [Assign Key] and raise the Subfader at 100%.

- Enter the Name of the Chaser
- In the Channels selected area: **the number of Steps** depends on the number of channels selected. You can change it.
- Pr. Step: quantity of channels by Step, by default set in 1.

Note: setting 2 Channels by Step will create 4 Steps, Step 1 with Channel 1 and 2, Step 2 with Channel 3 and 4, Steps 3 and 4 will be exactly the same as 1 and 2.

- Levels : Full or levels on stage
- Tick the Set Times box to set times, enter the Stay and the Fade Times.
- The Open Editor on Accept option is checked by default.
  If Unchecked, the editor won't open automatically.
- **Click on the checkmark virtual button to validate:
  the EDITOR window appears.**
- Click on the **Pause** virtual button
- Use navigation keys **[Up] and [Down]** to move from step to step
- If the result don't suit to you, use the above method to Edit Steps.
- **[ESC]** close the Editor window (changes will be stored automatically).
  A popup appears, **{YES}** will **start the Chaser**

10.2.2 **Changing modes and editing Times and levels in the EDITOR window**

10.2.2.1   MODES

By default the Chaser is in Hard mode, which means only the Stay Times will be used as set in the Wizard and if « Set Times » was checked.

To switch to a Crossfade mode, go to the column Mode, double-click on Hard and select **{Soft}**, in this mode Fade Time will be used as set in the Wizard and if « Set Times » was checked.

To switch between different modes:
Normal: go to the column Direction, double-click on XXXX (Current mode) and select **{Normal}**
Bounce: go to the column Direction, double-click on XXXX (Current mode) and select **{Bounce}**
Reverse: go to the column Direction, double-click on XXXX (Current mode) and select **{Reverse}**
Random: go to the column Direction, double-click on XXXX (Current mode) and select **{Random}**

Build mode: go to the column Build, tick the box.

To determine a count: go to the column Loops, click on the cell, **[ENTER]**, tap a number then **[ENTER]**. A new column will appear where you can choose the action at the end of the count, between OFF or ON.

Note: In Hard mode you can set a BPM value: go to the column BPM, click on the cell, **[ENTER]**, tap a number then **[ENTER]**.

10.2.2.2 TIMES
To Edit Times for one Step:
go to the column In/Out (other choices are In, Out and Stay) with the **[DOWN]** key then the other navigation keys, **[ENTER]**, tap a value then **[ENTER]**.
To Edit Times for a range of Steps:
go to the column In/Out (other choices are In, Out and Stay) on the line corresponding to the first step, with the **[DOWN]** key, then use the other navigation keys,
hold the shift key on the keyboard, use the **[DOWN]** key to select the next steps
tap a value then **[ENTER]**.

10.2.2.3 CHANGING INTENSITY LEVELS
To Edit channel level for one Step:
go to the column corresponding to the channel and on the line corresponding to the step to edit with the **[DOWN]** key then the other navigation keys
tap new level then **[ENTER]**.

To Edit channel level for a range of Steps:
go to the column corresponding to the channel and on the line corresponding to the first step to edit with the **[DOWN]** key then the other navigation keys
hold the shift key on the keyboard, use the **[DOWN]** key to select the next steps,
tap new level then **[ENTER]**.

10.3 Loading a Chaser in a Subfader

To Load a Chaser in a Subfader:
[#] [CHASER]&[ASSIGN Key]

Note: to use the next boarding Subfader as Speedmaster: go in the Subfader Screen **[SubFaders]**, Right click on the number area, select **{As Speedmaster for chaser in Field #}.**

10.4 Editing a Chaser

10.4.1 BLIND mode

To Edit a Chaser in BLIND mode:
go to the Play Menu, to open the Chasers menu Left click on the Chasers Tab,
Right click on the chaser to edit select **{Edit Chaser #}**.
Here you can change Modes, Times values, and levels, following exactly the same method as in paragraph 10.2.2.

10.4.2 LIVE mode

First load the chaser in the Subfader, [#] [CHASER]&[ASSIGN Key]:
[EDIT]] & [ASSIGN Key].
STOP the chaser with the pause virtual button.
Here you can change Modes, Times values, and levels, following exactly the same method as in paragraph 10.2.2.

10.5 Start a Chaser

Raise the Subfader at 100%: the Chaser will start at Step 1.

You can also use the [START] key: **[START] & [ASSIGN Key].**

Note: if you set a time to this Subfader, with this method the Chaser will fade in with the Time set to the Subfader.

When a Chaser is running, you can change the Rate:
Use the next following Subfader as Speedmaster
Use the **[RATE]** key hold it and TAP the tempo on the **[ASSIGN Key]**

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11. The TRACK WINDOW [TRACK] / Ctrl F4
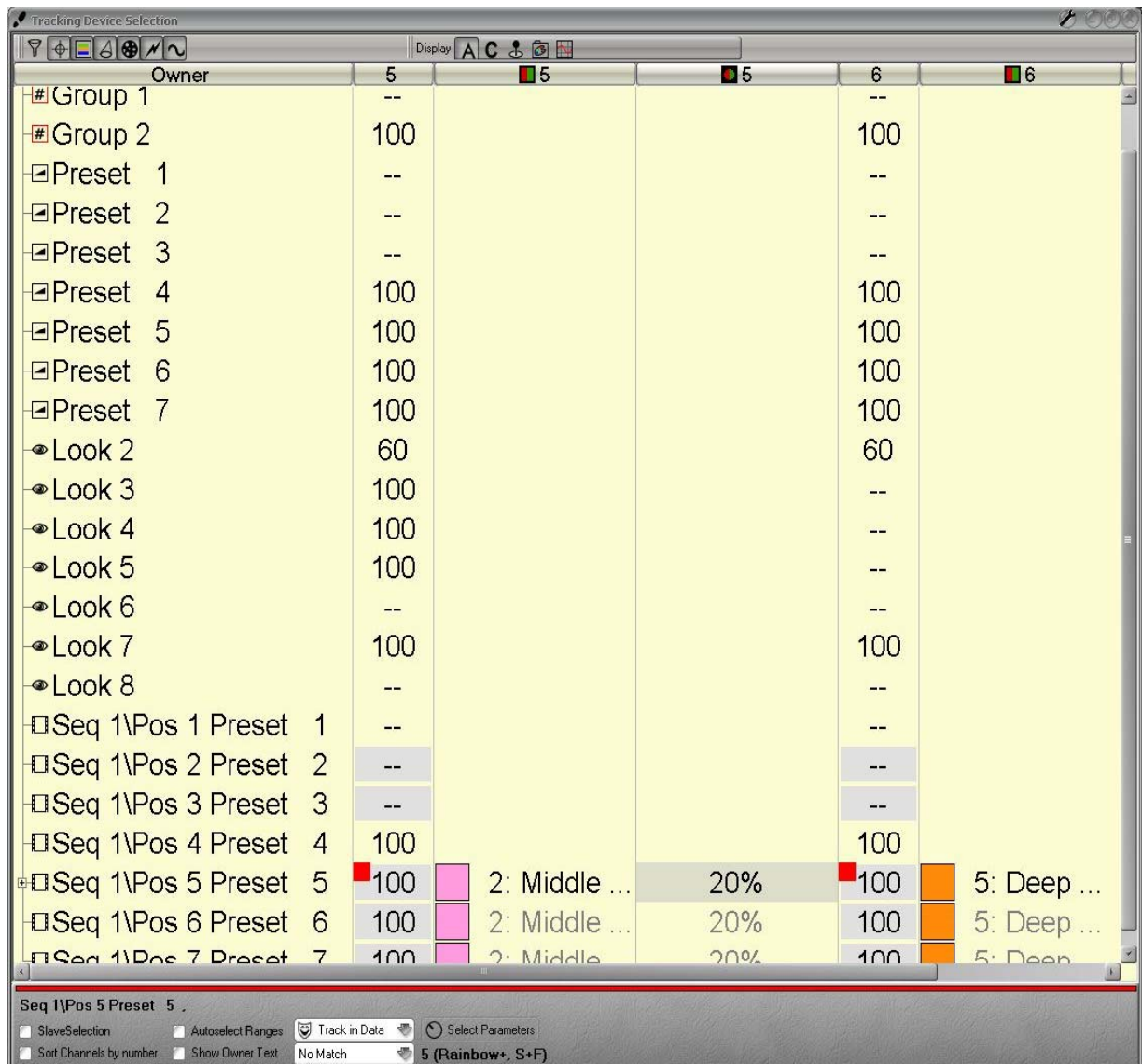
To open the track window:
[TRACK].

Note: if some channels are selected, those channels will appear in the Track window.

To display a selection of channels
Just select channels with the common selecting tools [Ch] [THRU] [+] [-].

To add or remove channels
[#] [+] / [#] [-].

To Edit level for a channel and one object (Preset, Group, Look).
Use the mouse, your finger or navigation keys, enter the value on the keypad then
[ENTER], **[#] [+]** / **[#] [-].**

To Edit level for a channel on a range of objects (Preset, Group, Look).

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Use the mouse, your finger or navigation keys, select the first cell (Channel column / First Object Line), HOLD the Shift key on the Keyboard, select the last cell (Channel column / Last Object Line), enter the value on the keypad then **[ENTER]**.

To add specific parameter column(s) to Channel Intensity Columns.
Focus a channel column and press **Select Parameters**.
Choose parameter(s) in the list. This will add columns for ALL channels.

**Note**:   historical parameters are displayed in gray, and cannot be edited.

Actual position recordings can be edited, and dragged:
To change a value: double click on a cell or **[ENTER]**, set the new value and **[ENTER]** to confirm.
To change a Frame: double click on a cell or **[ENTER]**, pick the new Frame in the list using the mouse or navigation keys, and **[ENTER]** to confirm.
To change a Time value: open the Seq Step (+ box left side of the sequence icon)
Double click on a cell or **[ENTER]**, set the new value and **[ENTER]** to confirm.
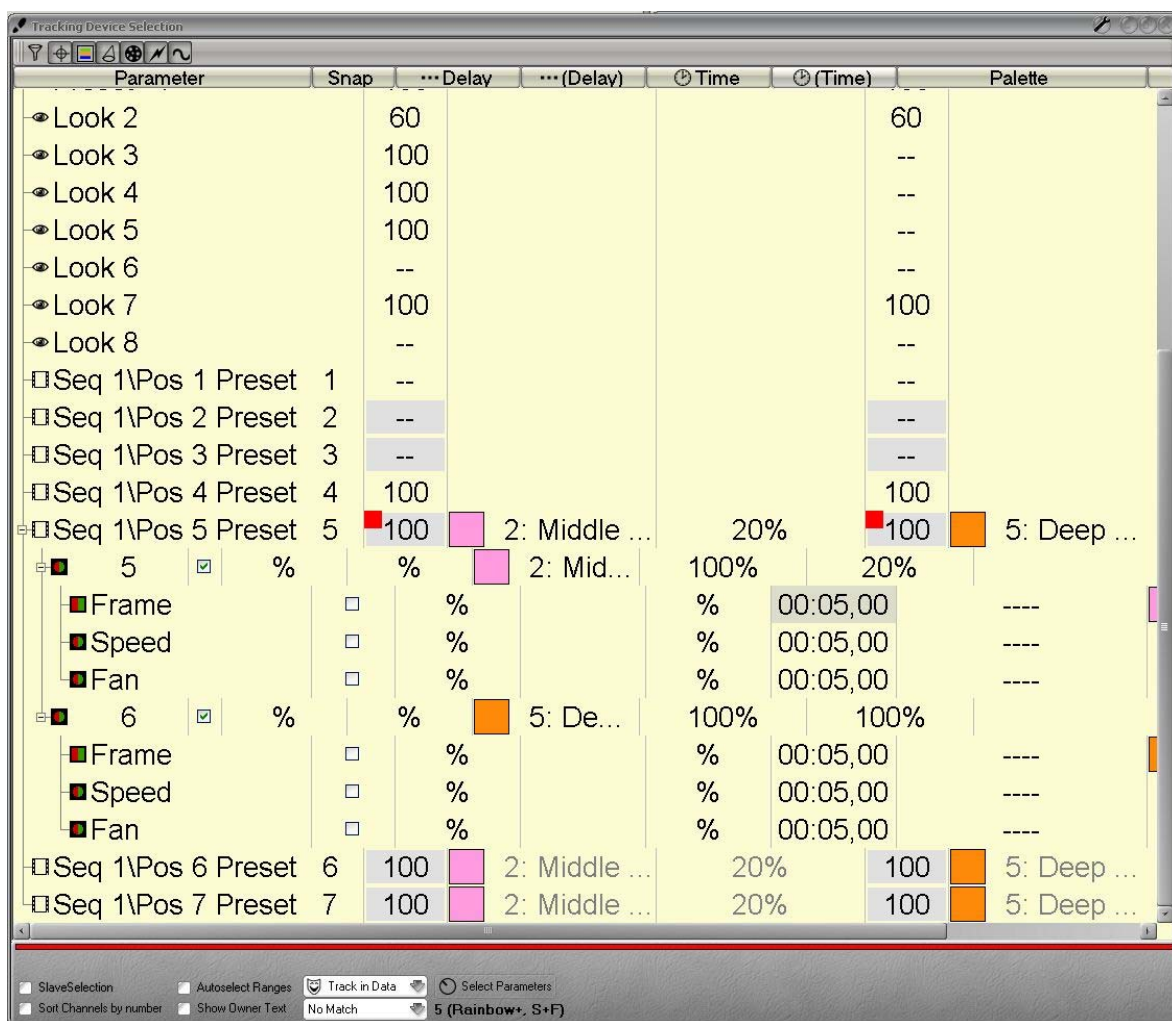
12. Screen Setup (MENU HATHOR / Controllers)

When you open a new window, such as a Controller or an Editor, it will initially be floating on the monitor that you opened it from. From there you can work with it as it is. Or you can dock it. If it is not docked, it will remain in the foreground on that monitor, regardless of which virtual screen you are using.

To Dock a window:

1.   Right click on the top bar of the window, to the right of its label (i.e. Fields, Playback etc.), on the local menu that will open click on "Dock able" to check it.
2.   Left click on the top bar and drag the window. If the screen is currently blank the window will dock and expand to full screen size when it is dragged near the top of the screen.
3.   If the window already has content you will see an horizontal or vertical bar indicating where the new window will dock. While that bar is visible drop the window and it will dock.
4.   The split between the windows can be adjusted by dragging the bar between them.

To Un-dock or remove a window:

Click on the upper border of the window. You will have the option to un-dock or close the window

12.1 CONTROLLERS > MENU HATHOR / Controllers

Controllers are windows that access the shows data, and provide interfaces to operate the system.
The system can have multiples of all Controllers, each configured for different uses.
Select a controller and it will open in a non-docked window on the current monitor. It can then be **dragged** to whichever monitor you wish, adjusted in size and/or **docked**
Controllers are typically arranged on the Hathor desktop by docking them on the Subscreens.
Controllers can also be opened for temporary needs and left floating on the desktop.

Brief description of the different Controllers:

Field Editor: displays a grid of Instruments used for selecting instruments, changing levels etc.
Fields: displays Subfader Fields in a high density format.
Sequence Playback: displays a Sequence of steps, along with playback controls (i.e, GO, Stop etc.).
Device Control: displays controls and information for devices such as moving lights etc that operate in a Last Takes Precedence (LTP) mode.
Device Control Browser: displays information for devices such as moving lights etc that operate in a Last Takes Precedence (LTP) mode, with zoom functionality, and color information.
Direct Access: displays buttons used to activate Groups, Looks, Palettes and Pages.
Priority Fields (LTP): displays Information for a special type of Field used for LTP control (normally only used in architectural systems with external control inputs).
Subfaders: displays information from the same Subfader Fields as shown in "Fields" but includes a Field Editor grid and virtual faders.
User Panels: displays panels with buttons used to directly activate Action Lists.

Concept:
Selected fixtures have a red highlight box around their box.
Channels are selected so that you can adjust their levels. Specifically for the following types of devices:
Intensity channels: you directly control the intensity level in the Filed Editor.
Scrollers: you can change their colour frame directly from the Field Editor, or from the Device Controls.

Channel grid display Zoom
The size of the channel boxes can be adjusted by zooming the display area [Ctrl] or [Shift] & Mouse Scroll Wheel.

Channel grid display format

- Numeric = all channels
- Packed = channels that are: at a level in A Field + going to a level in B field + selected+ at a level
- Selected = Selected channels
- Used = Used in Play (includes at level and selected)
- Locked = prevents currently displayed channels from changing (i.e., select Packed, then Locked- displayed channels will not change even if criteria for "Packed" changes)
- Device Layouts- these are user created

Current Playback/ Field Identity and current level

- Shows what Playback/Field is being shown in the Field Editor
- Click on the level indicator to open a window listing other Playbacks & Fields available for editing

Content of Current Field
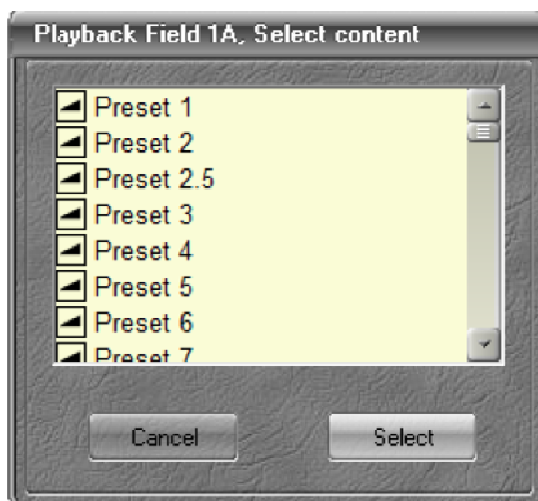
- displays what is currently loaded into the current Playback / Field ·
- if a Playback is current you can select a different Preset·
- if Stage/Field mode is set to Stage, doing this loads the Preset live onstage ·
- if a Submaster / Field is current you can select a different Preset/Group/Palette or Chaser

Record Preset Status
If shown, this indicates that the intensity levels in the current playback are different from those recorded in the current loaded preset. Typically shown when you have made level changes, but have not re-recorded the preset.

Anchors to Global Selection .
This links multiple Field Editors (aka Channel Grids) together, so that they are active at the same time.
I.e. channels selected in Field Editor are active in all others that have "Follow" active.
Follow mode is active when the button is depressed.
Follow mode is only available on Field Editors that are docked.
The order that Filed Editors are selected is not relevant.
All Field Editors have to have "Follow" activated for them to be connected.
Fields that are in Follow mode will all be showing the same Field Content (i.e. Playback, Preset, etc).
Different Fields that are in Follow mode can have different Display modes.
A useful combination is to have one Field in "Packed" mode with another in "Selected".

Linked Mode
Allows large number of channels to span across multiple grids.
Linked mode is only available for Field Editors that are in "Follow" mode.
Linked mode is active when the button is depressed.
i.e.: the 1s Editor shows channel 1 through 100, then the 2nd Editor will show 101 and higher.
The sequence that the Field Editors have "Linked" activated determines which Editor has the lowest channel numbers
There may be overlap in the channels displayed depending on the size shape and zoom of the channel grids
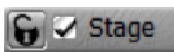Scrolling the display in one editor will scroll the other linked editors.
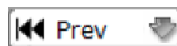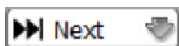
Previous / Next Mode
The indicators in the top left of each channel show either where the channel level **was** in the **previous** step, or where it **will be** going to in the **next** step.

Stage / Field Mode
When this box is checked then you are in Stage Mode.
In Stage mode, the Field Editor shows all current levels, including all Playbacks, Subfaders and Priority Fields.
Channel levels from Action Lists or Priority Fields will not be recorded.
In Field mode (box not checked) only channel with levels in the active field will be shown.
Use **[Stage/Field]** key to toggle between Stage and Field modes.

Note: If the lock icon is closed, then [Stage/Field] will not change this setting. Left click on the lock icon to toggle it between locked and unlocked

13. Utilities

## 13.1 [SETUP] Preferences (Menu HATHOR / Setup / Preferences)
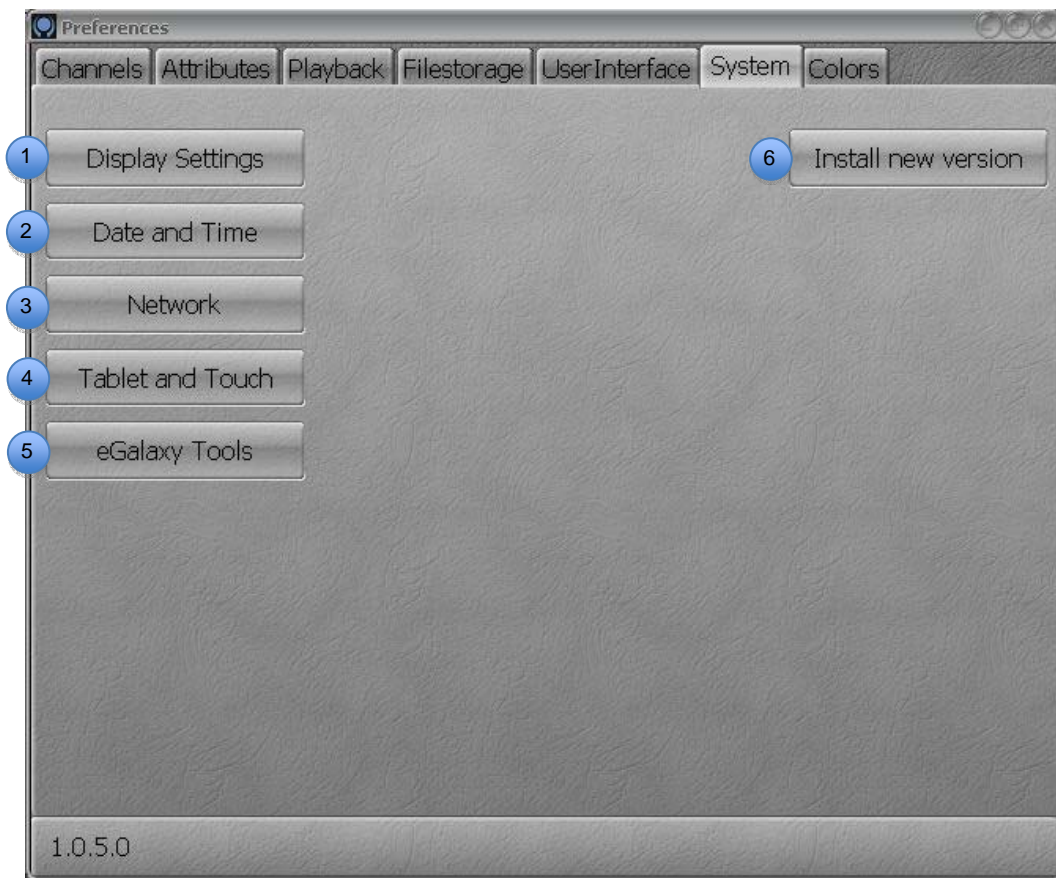
1. **Display Settings**
   Direct access to Windows Screens configuration
2. **Date and Time**
   Direct access to Windows Date and Time settings
3. **Network**
   Direct access to Windows Network configuration
4. **Tablet and Touch** (Please check that your external monitor is USB wired)
   Direct access to Windows Screens configuration to calibrate the **external Touch Screen**:
   1. {Configure}, touch the screen with your finger if this screen is the correct one or [ENTER] to step to the next, again if necessary and touch the correct screen to setup.
   2. {Calibrate} touch the black cross upper left corner, then carry on, and validate calibration {OK}
5. **eGalaxy Tools**
   Direct access to Windows Screens configuration to calibrate the **internal Touch Screen**:
   1. click on USB controller then {Monitor Mapping}
   2. Touch your Internal Touch screen till OK appears
   3. click on {Tools} then {4 calibration points}
   4. Calibrate (LET YOUR FINGER ON SPOT DURING few seconds)
   5. {OK}
   6. {OK}

6   Install new version (Please check that your USB stick with new HATHOR version is plugged)
1. choose the version in the Installer files window
2. {Install}
3. Terminate HATHOR and install version X.X.X.X: **{OK}**
4. Terminate HATHOR: **{YES}**
5. {Next>}
6. {Next>}
7. {Next>}
8. {Next>}
9. {Install}
10. {Finish}

13.2 File
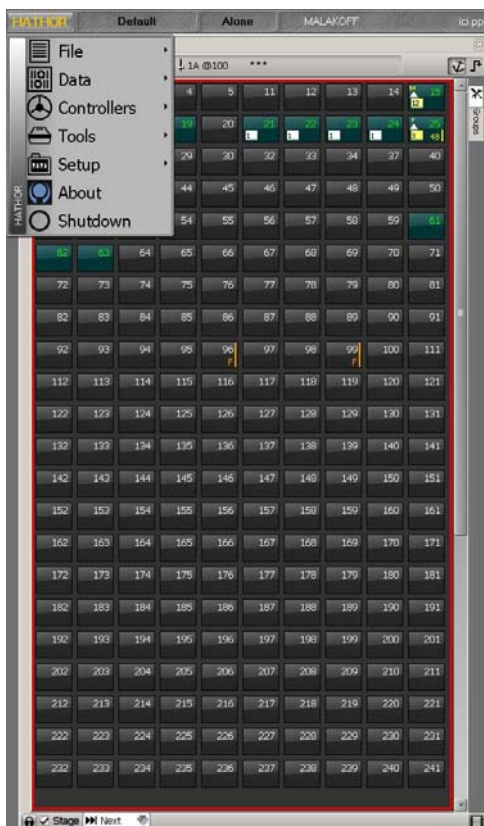
13.2.1 Introduction

In this section you will find tools to save, import, export and open your Play file information as well as browse other Play files.

The system has a hard drive as the primary storage. The Play library is located on the partition E. You can also use a USB memory stick, an external USB drive, Floppy or a File Server on the network.

General Notes about HATHOR show files
HATHOR saves play files in 3 ways:
1.   the most current version (-------.ppl file extension)
2.   history versions of existing play files(-------.$0** file extension)
3.   Auto save version (-------.ppl file extension, but in separate Auto save directory)

Prego will create a "Library" subdirectory in the "HATHOR" directory, in the partition E, as the default storage location for play files.

This can be changed at Setup/Preferences/File storage.

Each time you do a manual save, the previously saved version saved is saved as a history file with an extension of $001, in a unique subdirectory created by Prego, for each play file. The new version is saved with the extension PPL.

On each subsequent save the 001 file becomes 002, 002 becomes 003 etc.

Each of these files has a time and date stamp, so you an "go back" to a previous version if needed.

Auto save automatically records a backup copy of the show file, in a separate directory, at a time interval set under Prego menu / Setup / Preferences / File Storage.

Autos aves: ·

- are recorded in the same manner as History files, with date/time stamps

- are only executed if show data has changed

- does not clear the "Changed Data Alert" indicator at the top of the screen

Each Play file has a "Play Name" (Name column), the Play file contains every files attached to this play (current file and history files). That Play name is separate from the "File name" (File column).

13.2.2 **Save**

To saves the current play in current file:

[SAVE]
or
[F2] keyboard key
or
Click on " Changed Data Alert" icon at top of screen (the red disk)
or
HATHOR menu / File / Save

13.2.3 **Save as**

To save the current play file under a new file name

Note: editor allows you to also change the Play Name

13.2.4 **Open Library**

Open Library allows you to open or browse:

- the most current version (* .ppl file extension)

- history versions of existing play files (*.0** file extension)

- Auto save version (*.ppl file extension, but in separate Auto save directory)

From Local menu select a play file and you can Load the File, or Browse it.

Browse allows you to access the data from a Play that you do not currently have loaded.

You can move content from the Browsed Play into the loaded play (i.e. import a Device Template).

See "Browse another" for details on importing data.

13.2.5 **Import**

Import allows you to select a non-HATHOR format play file, such as Avab Safari (.pla) or ASCII Light cues (.txt).
Import opens a Windows file browser to facilitate navigating to another drive, or network location.

13.2.6 **Export**

Export allows you to save in a non-HATHOR file format, such as Avab Safari (.pla) or ASCII Light cues (.txt).
Export opens a Windows file browser to facilitate navigating to another drive as a USB memory stick, or network location.
"Export" is also for storing the play file to somewhere outside the normal library, as on a USB memory stick.
An "exported" save is independent of normal saves

13.2.7 **New/Clear Play**

New / Clear play is used to start a new playfile or clear data from an existing play file.

Play name:
Here you can name the play (the show).
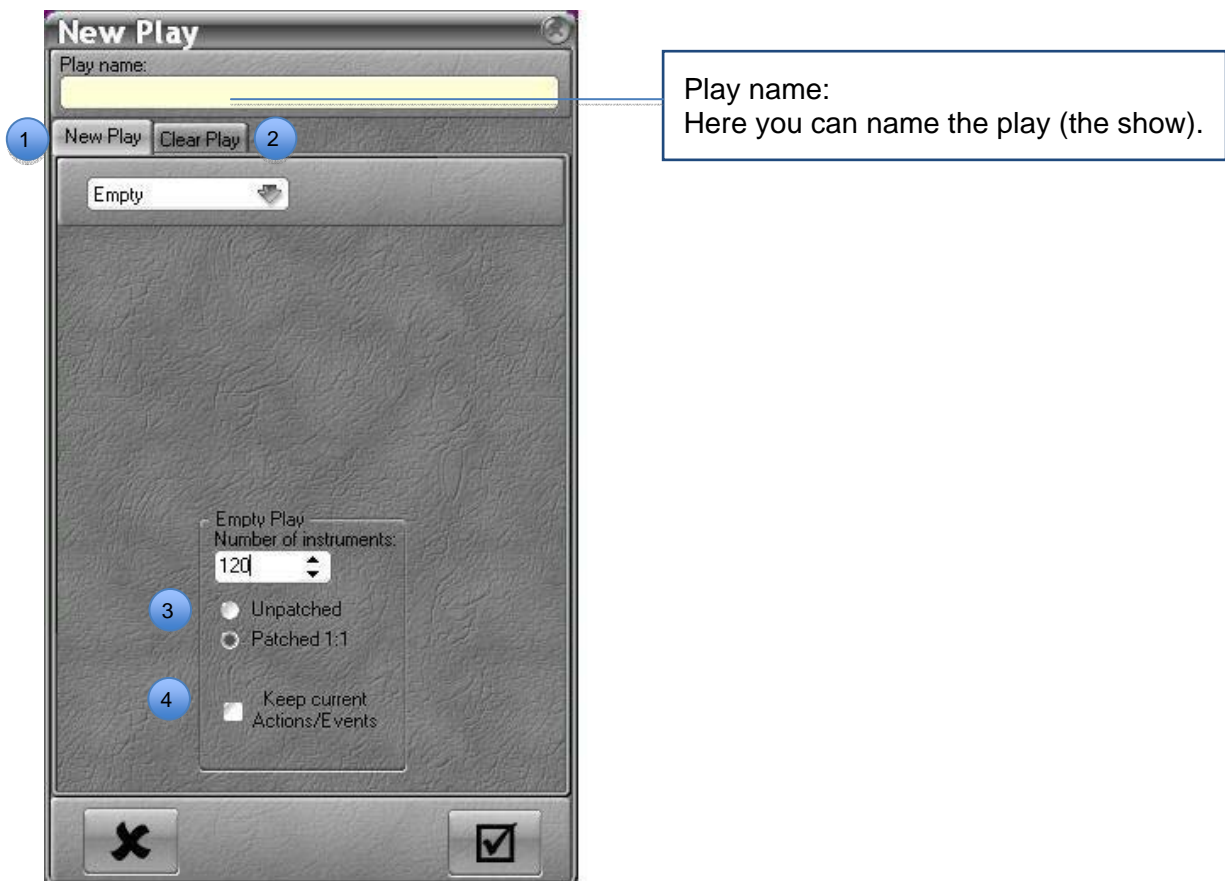
①   Choose new play to start with an empty play
"New Play" tab offers the choice of creating a new Empty play, or one "Based on Another" (pull down menu that defaults to "Empty")
"Based on another" defaults to a play file that is set under Setup/Preferences/ File storage.
Browse icon at the end of the file name allows you to select any other play from your library.

"Based on another" menu allows you to filter what contents you wish to have imported from the file into your new file. These filter settings are retained.

(2) Choose Clear play to start from your current play and select objects to clear in the menu (tab menu includes filter for what contents should be cleared).

(3) Choose Unpatched to start with a empty Patch or Patched 1:1 to start with a 1:1 patch

Please note: if you have Instruments with levels in a Play due to Action Lists, when you create a "new Play" those levels will remain active. If you do not wish to have these levels, you must turn them off from the initial Play before creating a New Play.

Alternatively you can import these Actions into the new play. **(4)**

13.2.8 **Browse another**

Browse allows you to access the data from a Play that you do not currently have loaded.
You can move content from the Browsed Play into the loaded play by dragging the object from the Browsed Play to the currently loaded play.
The following objects are involved:

- Dynamic Templates
- Dynamic Tables
- Device Templates
- Sequences
- Dimmer Curves
- Device Layouts
- Action Links
- Panels

To do this, open the object menu by clicking on the object Tab, in the Play menu, then drag the object from the Browsed Play on an existing object in the current play. Choose Copy.

The following elements have a local menu option (Right Click Import) in the browsed play, to Import to the current Play.

- Instruments Setup (autocreating missing Devices and Templates).
- Palettes (autocreating missing Instruments/Devices/Templates).
- Presets.
- Groups.

Use this with care, you can mess up your play totally if you try to import into a play containing a totally different setup.

13.3 System Restore (KEYBOARD and MOUSE needed)

The HATHOR system restore routine allows reinstallation of the software from an internal DOM SATA device.
All external devices should be removed before starting.

The Desk includes a system restore routine that can restore the original software and Windows image on the console.
A specific DOM SATA device included stores the files needed to create a clean restore of the desk software.
The C partition on the hard drive will be completely restored, be sure before anything that all play files were stored on the D partition: SETUP/PREFERENCES/FILESTORAGE.

In case of your desk is completely crashed:

Shutdown the desk with the keyboard: **(Ctrl&Alt&Del)**
In the low right corner of the screen you will see a RED icon: click on it to Shutdown
Choose **{Forced shutdown}** and confirm.

Start the desk normally, but press alternatively F12 while starting till « Boot menu » appears.
Use the keyboard down arrow to go to Hard Disk then **(ENTER)** (keyboard).
Use the keyboard down arrow to go to xxxxx SATADOM then **(ENTER)** (keyboard).
The message « Windows is loading file » appears, wait about ten minutes.
At the end of the process the message « wait Reboot» appears then HATHOR restart.

Personal Notes

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