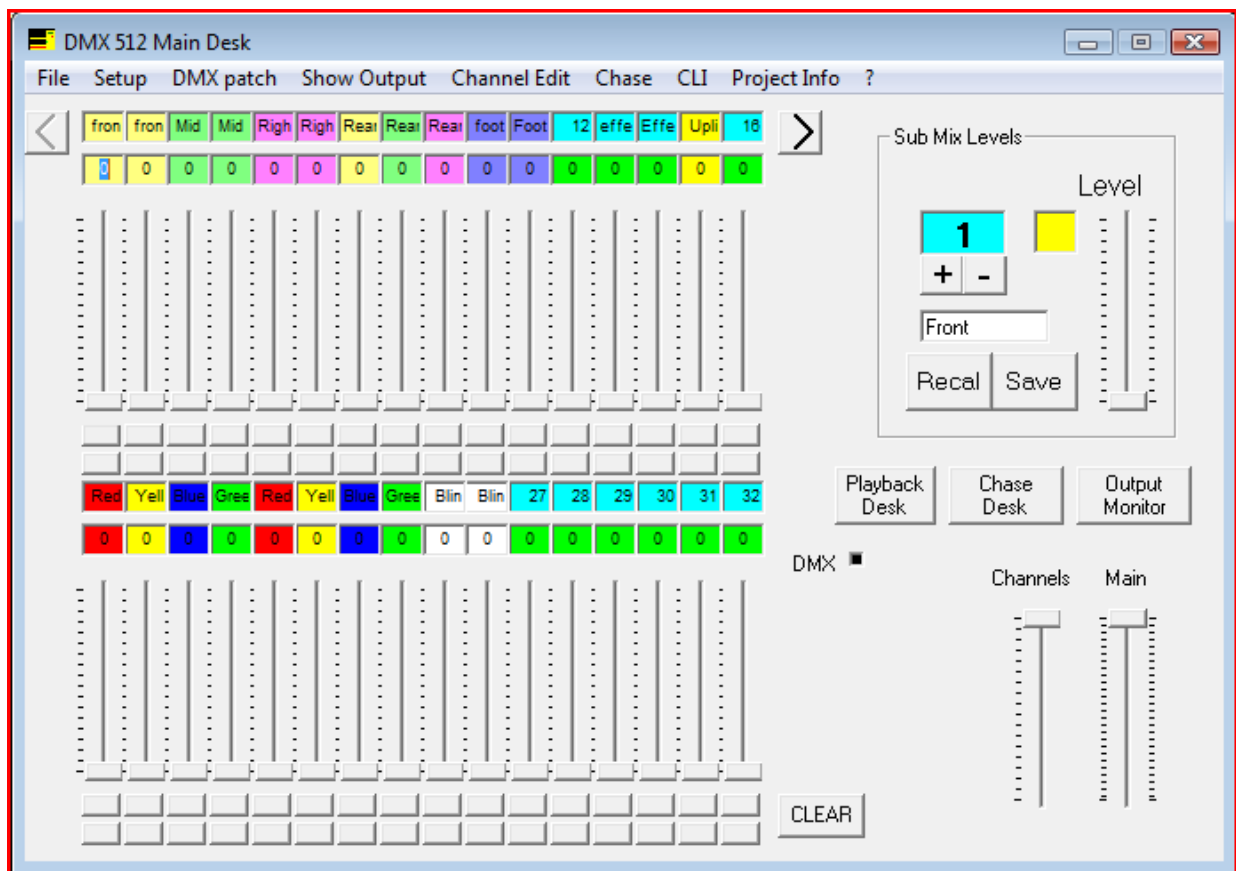


# DMX Desk



A 64 Channel Theatre Lighting Desk in Software

DMX Desk is a Lighting Control desk in software.  
It is Modelled on a theatre control type console,  
Able to output a DMX signal through a variety of output devices.

Features.

64 Desk Channels

512 Output Channels

Art Net Output ( Thanks to Hippy's Art-Net Code)

32 Sub mixes

99 Cues

32 Chases

Chase creator and Editor

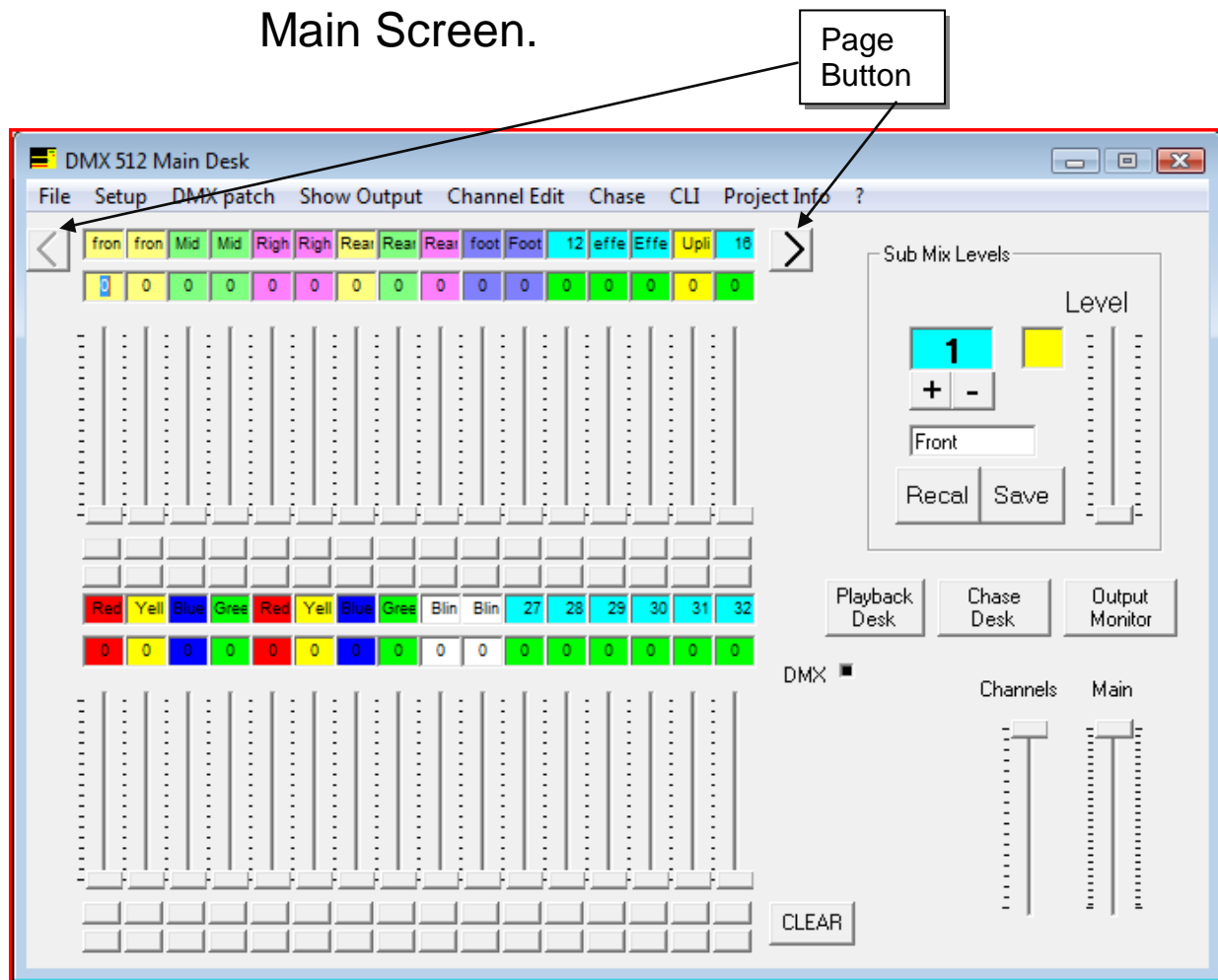
80 Programmable Buttons

60 Programmable Faders

Programmable Colour Outputs

Basic Moving light control function

## Main Screen.



From the main screen you are able to set individual channel levels for all the channels 1 to 64 .

To access channels 33 – 64 press the page key to get to the next bank of faders. When the faders are set up to the required level this can be saved as a Submix by Pressing the submix save button.

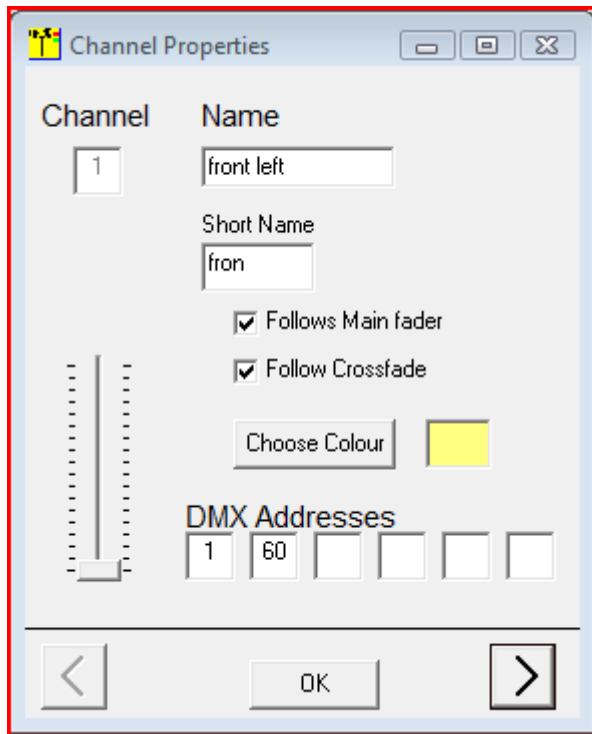
The Submix can be given a name in the box above and a colour by clicking on the square next to the number.

There are 32 submix's to use.

The fader in the Sub box selects the level for the currently selected sub.

Selecting Channel edit or right clicking on the select fader brings up the channel properties screen.

# Channel Properties



The Properties for each channel can be setup.  
Each channel can be given a name , from which a short name is made for display above it.  
A colour can also be selected.

The boxes select whether the channel follows the main fader and cross fades.  
If the follow Main is unselected then the channel ignores the main fader.  
If follow Cross fade is unselected then the channel just jumps to the next level after the cross fade.

The Fader allows the channel to be tested and the DMX address shows what the channel is patched to in the patch panel

The Arrows on the bottom allow you to move through the desk channels.  
Finally select OK to close the screen.

# Edit Patch

**Edit patchlist**

**DMX Lights ( 1 - 128 )**

DMX ch 1	1	DMX ch 28	28	DMX ch 55	22	DMX ch 82	0	DMX ch 109	0
DMX ch 2	2	DMX ch 29	29	DMX ch 56	23	DMX ch 83	0	DMX ch 110	0
DMX ch 3	3	DMX ch 30	30	DMX ch 57	24	DMX ch 84	0	DMX ch 111	0
DMX ch 4	4	DMX ch 31	31	DMX ch 58	58	DMX ch 85	0	DMX ch 112	0
DMX ch 5	5	DMX ch 32	32	DMX ch 59	59	DMX ch 86	0	DMX ch 113	0
DMX ch 6	6	DMX ch 33	33	DMX ch 60	1	DMX ch 87	0	DMX ch 114	0
DMX ch 7	7	DMX ch 34	34	DMX ch 61	2	DMX ch 88	0	DMX ch 115	0
DMX ch 8	8	DMX ch 35	35	DMX ch 62	3	DMX ch 89	0	DMX ch 116	0
DMX ch 9	9	DMX ch 36	36	DMX ch 63	64	DMX ch 90	0	DMX ch 117	0
DMX ch 10	10	DMX ch 37	37	DMX ch 64	64	DMX ch 91	0	DMX ch 118	0
DMX ch 11	11	DMX ch 38	38	DMX ch 65	0	DMX ch 92	0	DMX ch 119	0
DMX ch 12	12	DMX ch 39	39	DMX ch 66	0	DMX ch 93	0	DMX ch 120	0
DMX ch 13	13	DMX ch 40	13	DMX ch 67	0	DMX ch 94	0	DMX ch 121	0
DMX ch 14	14	DMX ch 41	14	DMX ch 68	0	DMX ch 95	0	DMX ch 122	0
DMX ch 15	15	DMX ch 42	42	DMX ch 69	0	DMX ch 96	0	DMX ch 123	0
DMX ch 16	16	DMX ch 43	43	DMX ch 70	0	DMX ch 97	0	DMX ch 124	0
DMX ch 17	17	DMX ch 44	44	DMX ch 71	0	DMX ch 98	0	DMX ch 125	0
DMX ch 18	18	DMX ch 45	45	DMX ch 72	0	DMX ch 99	0	DMX ch 126	0
DMX ch 19	19	DMX ch 46	46	DMX ch 73	0	DMX ch 100	0	DMX ch 127	0
DMX ch 20	20	DMX ch 47	47	DMX ch 74	0	DMX ch 101	0	DMX ch 128	0
DMX ch 21	21	DMX ch 48	48	DMX ch 75	0	DMX ch 102	0		
DMX ch 22	22	DMX ch 49	49	DMX ch 76	0	DMX ch 103	0		
DMX ch 23	23	DMX ch 50	17	DMX ch 77	0	DMX ch 104	0		
DMX ch 24	24	DMX ch 51	18	DMX ch 78	0	DMX ch 105	0		
DMX ch 25	25	DMX ch 52	19	DMX ch 79	0	DMX ch 106	0		
DMX ch 26	26	DMX ch 53	20	DMX ch 80	0	DMX ch 107	0		
DMX ch 27	27	DMX ch 54	21	DMX ch 81	0	DMX ch 108	0		

**Clear All**

**Channel Edit**

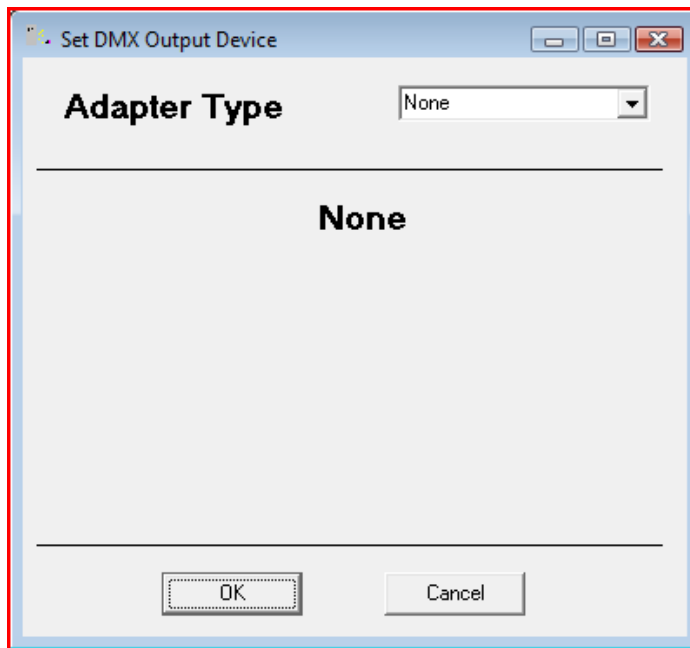
< >

**Exit**

The edit patch screen selects which desk channels drive the DMX output channel.

The two arrows allow you to page through all the available DMX channels.

## Setup – Output Port Setup.

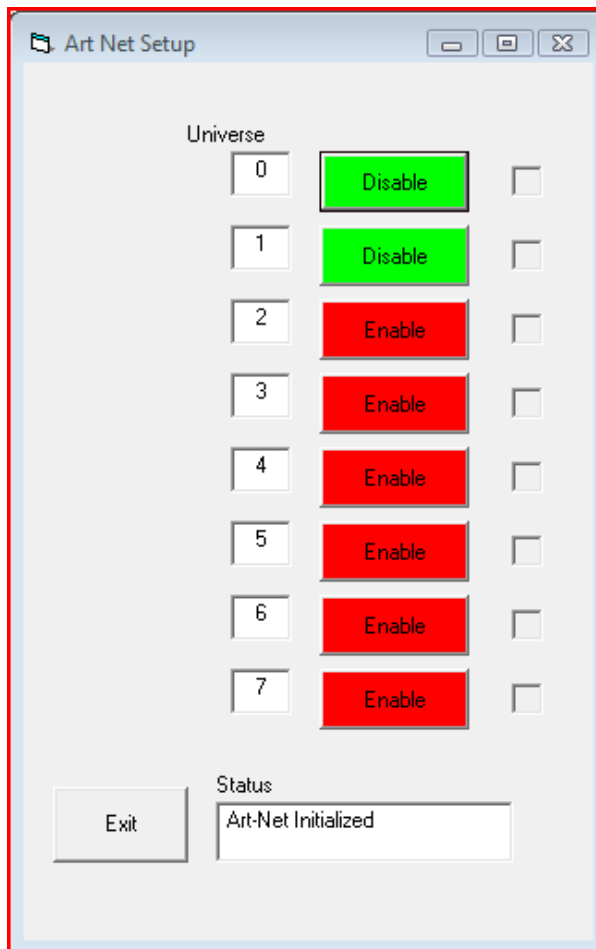


Select the adapter from the drop down box.

Select from     Kristof's Adapter  
                     DMX 3-1 Adapter  
                     Open DMX USB Adapter  
                     Manolator DMX Interface  
                     Oksidizer USB2DMX

Each adapter has its own settings which will appear when it is selected.  
Then select OK to connect to the adapter.

# Art-Net Output



Art-Net is a Network Lighting control system.

Using a computer network to transfer multiple universes of DMX data.

The Protocol has been developed by Artistic Licence <http://artisticlicence.com>

And full details of the protocol can be found here.

<http://artisticlicence.com/WebSiteMaster/User%20Guides/art-net.pdf>

DMX desk is using some Art Net code developed by Hippy to allow VB to transmit the code.

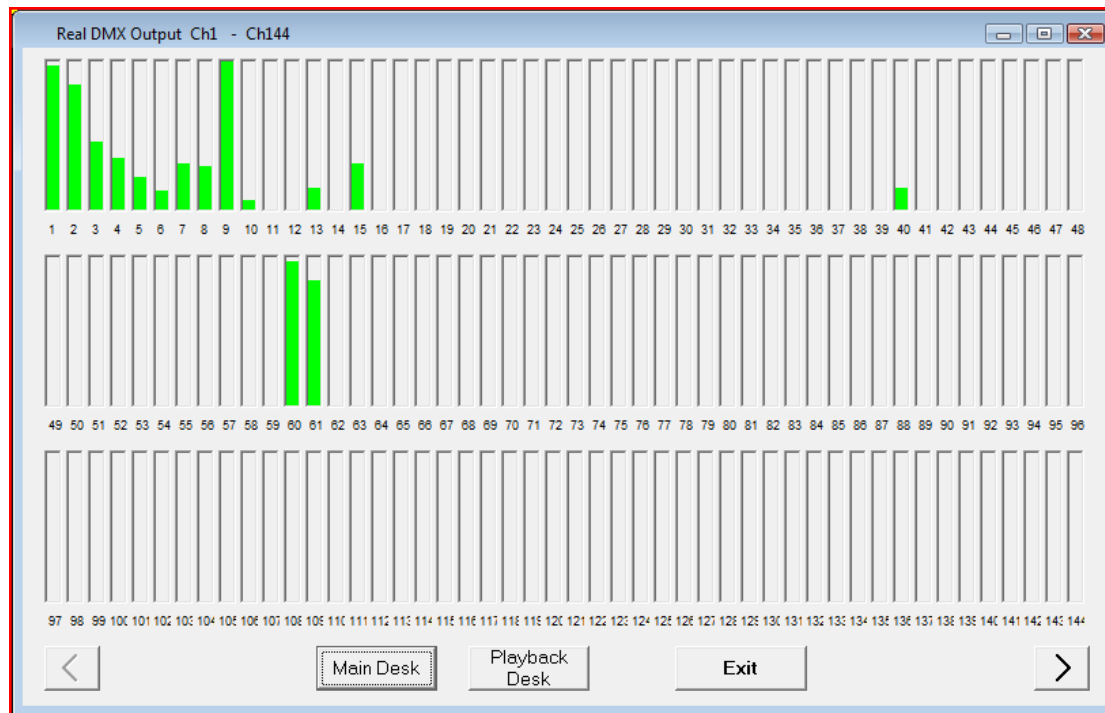
To make it work you need to set the ip address of the computer and everything on the network to 10.x.x.x where x is an address of your choice. And subnet mask of 255.0.0.0.

The art net data is transmitted to the broadcast address for all compatible devices to decode.

There are 8 available universe implemented which can be selected from the buttons.

There is a Led on the main desk to show when Art-Net data is being transmitted

## Show Output

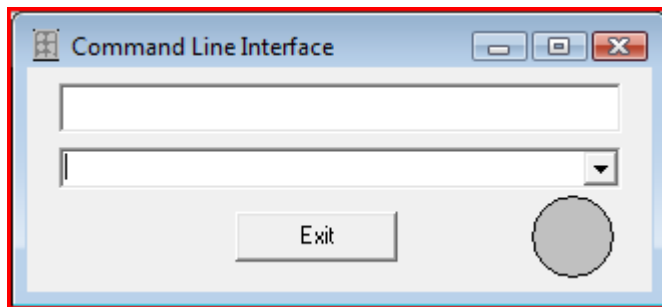


The show output shows a mimic of all the outputs from the desk in the DMX channel output order.

The arrow keys allow you to select the channels displayed.



# Command Line Interface



The command line interface allows you to use a keyboard number pad to change channel levels.

The number is setup is shown below.



. → @

/ → Sub

\* → Thru

+ → And

000 → Full on

To select channels type "<channel> @ <percentage>" to select a range of channels select "<channel> thru channel @ <percentage>"

To select a range of channels type "<channel> And <channel> @ percentage"

To select a channel on the playback screen select Sub first. Like "Sub<channel> thru Sub<channel> @ <percentage>"  
Followed by enter to execute the command.

If a channel is required at 100% <channel> @ <Full> can be pressed.  
No <Enter> is needed after the Full.

Commands can be typed on the keypad on any of the screens and the command is displayed on the main screen.

To view the level of any channel from a fader, type “ <channel> then enter to execute.

The level of that channel is now displayed on the CLI screen and the Main desk.

Is any error is made in typing press @ twice will clear everything typed.

When executing a command the screen will display a green if it is OK and a red if there is a problem with it.

## Example's

To set channel 12 at 100%                      12@100<Enter>

To set channel 12 and 15 at 80%      12 <And> 15 @ 80 <Enter>

To set from Channel 8 to 12 at 90%      8 <Thru> 12@90<Enter>

To set form channel 1 to 12 and 15 at 32%

```
1<Thru>12<and>15@32%<enter>
```

To set Channel 3 thru 5 at 100%      3<Thru>5@<Full>

This is just the same for the playback channels

To set playback channel 4 at 100%                      S4@100<Enter>

To set Playback channel 1 to 10 at 99%      S1<Thru>S10@99<Enter>

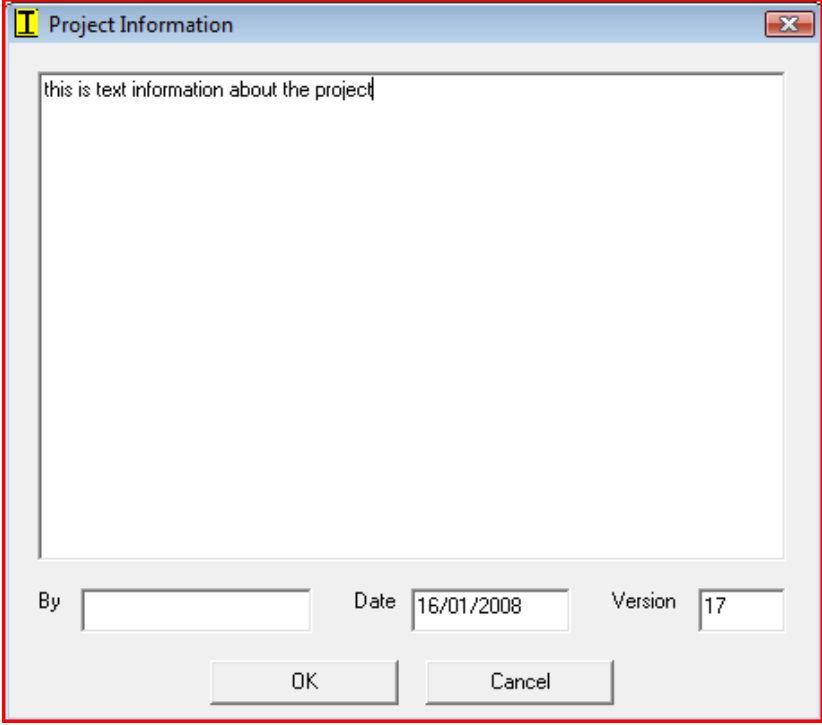
To display a Channels Level type      <channel> <Enter>  
The current setting will then be shown

E.g. to see the level of Channel 12 type 12 <Enter>  
 "Main Channel 12 =100%" will be displayed.

If a mistake is made typing in a command press “-“ to clear the last typed command

To clear the whole line press “@” twice. E.g. 1<Thru>32+S12 @@ will do nothing.

# Project Information



The image shows a standard Windows-style dialog box titled "Project Information". It features a large text area at the top containing the text "this is text information about the project". Below the text area, there are three input fields: "By" (empty), "Date" (containing "16/01/2008"), and "Version" (containing "17"). At the bottom of the dialog are two buttons: "OK" and "Cancel". The entire dialog box is outlined with a red border.

On this screen details about the Project can be entered and saved with the file  
As well as showing the date the project was created or saved.

## **File Loading and Saving**

Loads and Save all the details about the current Project.  
The File is saved as a XML data Type allowing it to be viewed in other software.

### **Project Load – Save**

Project Load or save stores all the details about the current settings in to one file, a project.

### **Submix Save**

Saves just the Sub Mix Data in to a file.  
This can be loaded using the normal Load function.

### **Save sequence**

Saves just the sequences in to a file.  
These can be recalled using the load function.

### **Save Patches**

Saves just the patching details, these can be loaded using the normal load function.

## BCF Setup.

The BCF Setup can be selected from the Setup Menu.

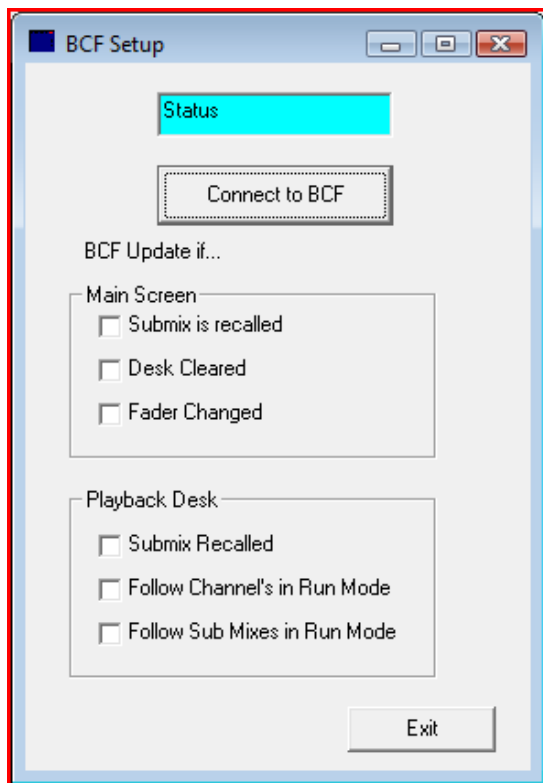
This allows the desk to be controlled by a Behringer BCF2000 Fader control unit.

This gives the desk 8 motorised faders and a number of Buttons and rotary control to control the lighting from.

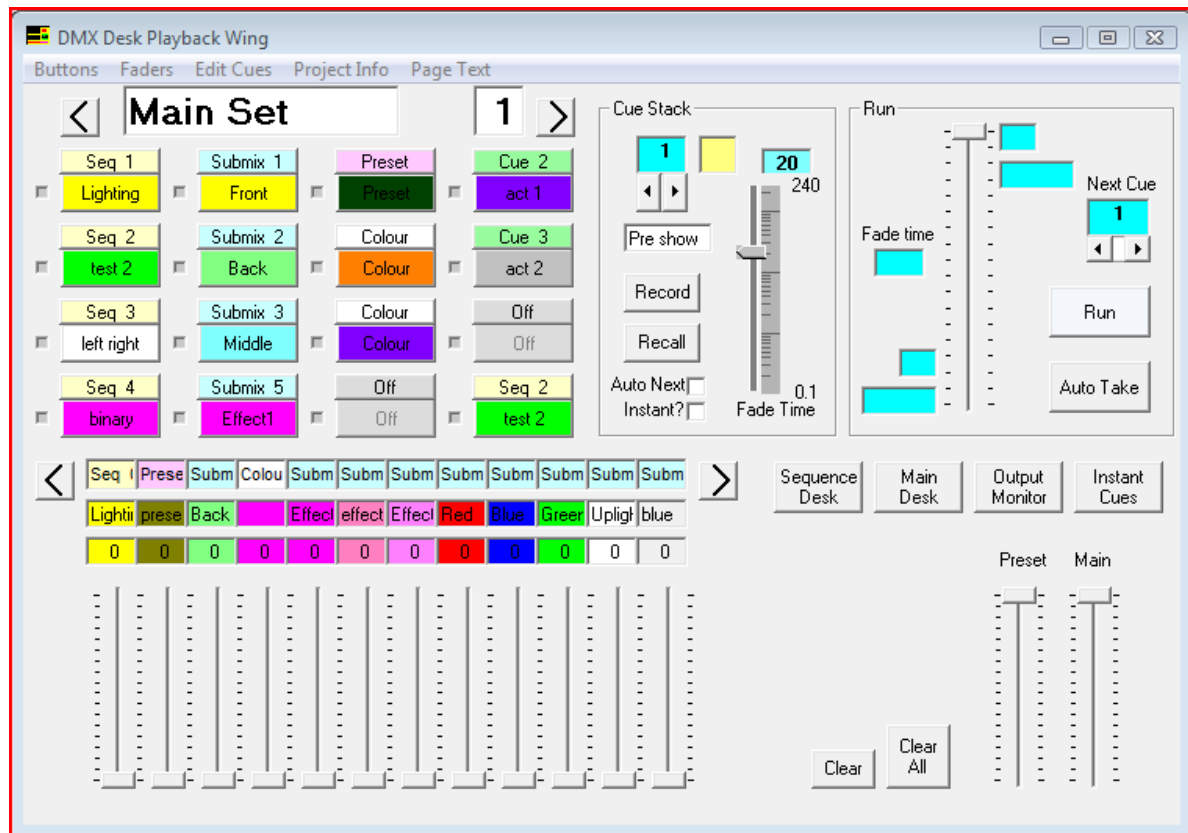
To connect to the BCF2000 it must be plugged in to the PC USB port with the correct drivers installed.

Once this is complete select the connect to BCF Button.

The software should then see the unit and the status will display Connected.



# Playback Desk.



The Playback deck is used to mix all the Presets, Submix's, Chases, Colours together to create the final desired lighting effect.

This can then be saved as a cue which is part of a cue stack.

Cues can either be instantly recalled or crossfaded through as part of a whole show.

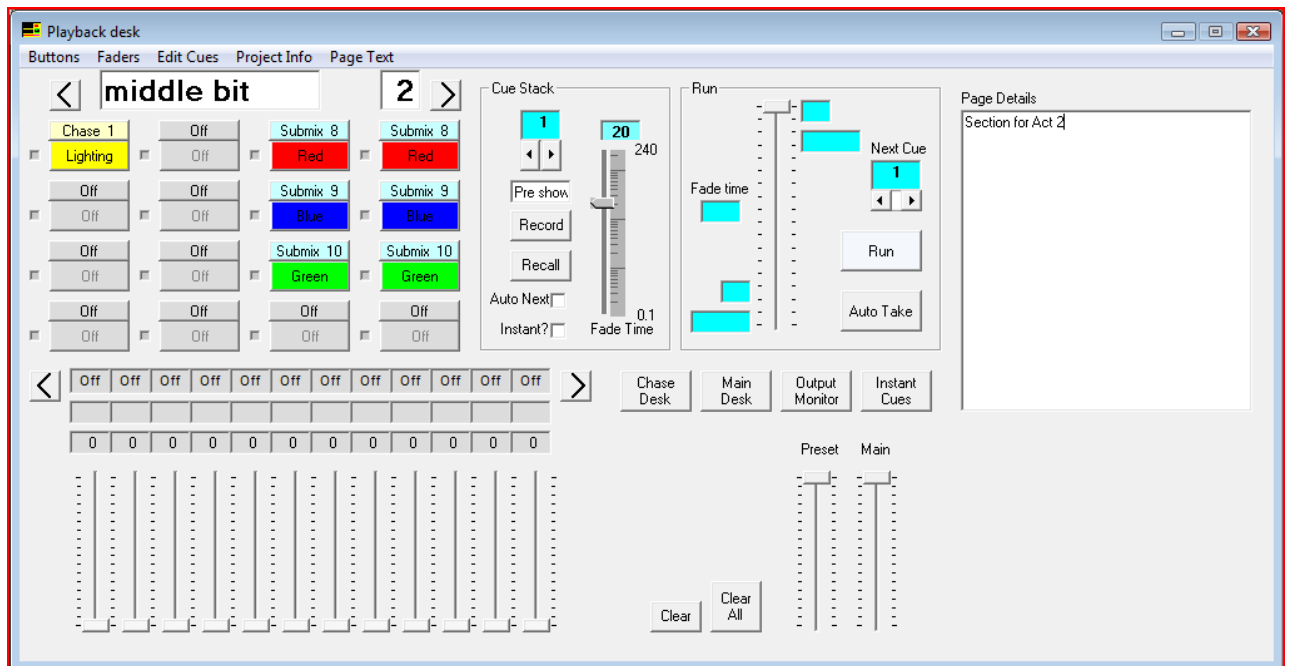
On the top half of the screen is the buttons.

There are 16 programmable buttons which can either be a Submix, a Preset, a Chase, a Colour, or a Cue.

Below these are 12 Faders which have the same options as the buttons expect the cue.

Using the arrow keys on the side there are 5 pages of buttons and faders.

Each separate Page can be given a title in the box above and text describing it . The text is selected by selecting the page text menu.



The text for each separate page is typed in the page details box on the right hand side.

**A Preset** is up to 3 channels which are setup for that button or fader e.g. a smoke machine could be configured to be one of the buttons and every time the button is pressed it will generate smoke.

Or a effect could be setup one that require a exact DMX value on its Channel. The channel can also be disabled form master levels of crossfade's in the channel edit screen.

**A Submix** is a series of channels as setup on the main screen. These can either be faded on the faders or set to a preset level by a button.

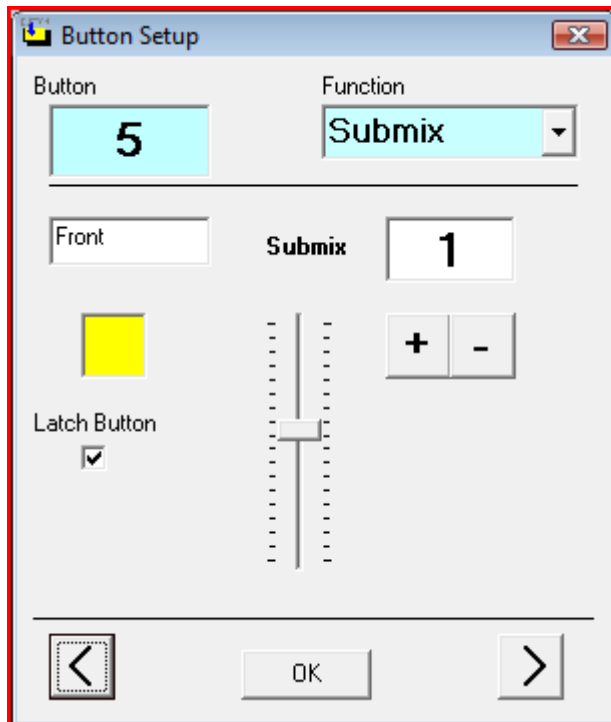
**A Sequence** is set up in the sequence edit screen, but can be used for light that need to continuously change during a screen. E.g. a chase.

**The colour** selection allows you to setup a colour that will be split in to its Red Green Blue values to be outputted on three different channels. This is typically used for Led type fixtures of colour changers.

**Final Choice is off.** That disables the button or function

## Button Function selection.

By selecting the buttons on the menu or double clicking on a button the selection box will come up.



This is where the function of that button can be defined from the drop down list. The arrow keys allow you to move through all of the available chase buttons.

## Submix Function

The first option is as a Submix

The Submix is selected using the + and – keys.

Once a submix is chosen it's title and colour will be shown, this will then be used for the button.

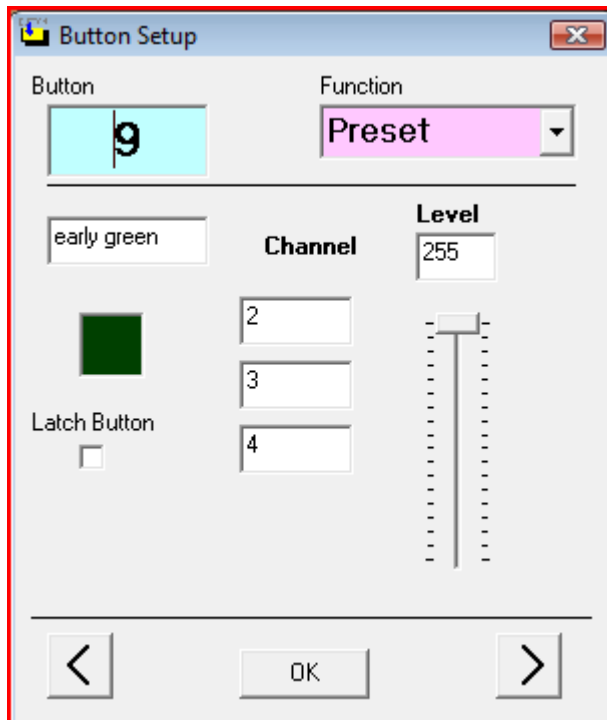
The level of this submix is selected by the fader in the middle.

The latch option selects whether when pressed the button should latch the selection or just flash is while pressed down.

A tick indicated that the latch function is selected.



## Preset Function



In the Preset Function for a button,  
The button when selected will make the selected channels to the chosen level.

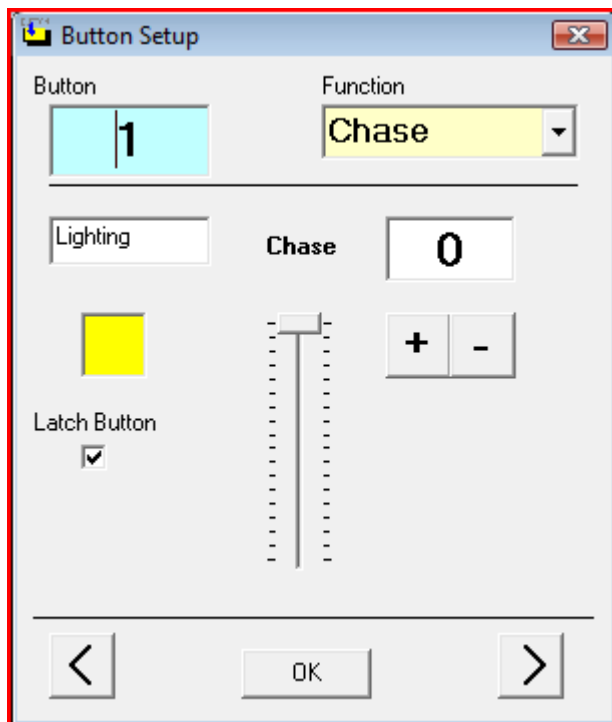
The Channels are typed in to the boxes under the channel title. Up to three  
channels can be typed in.

The level is selected on the fader to the right.

The Title for the button can be typed in to the box and a colour selected by  
clicking on the colour box.

The Latch option selects whether this latches upon selection or just flashes.

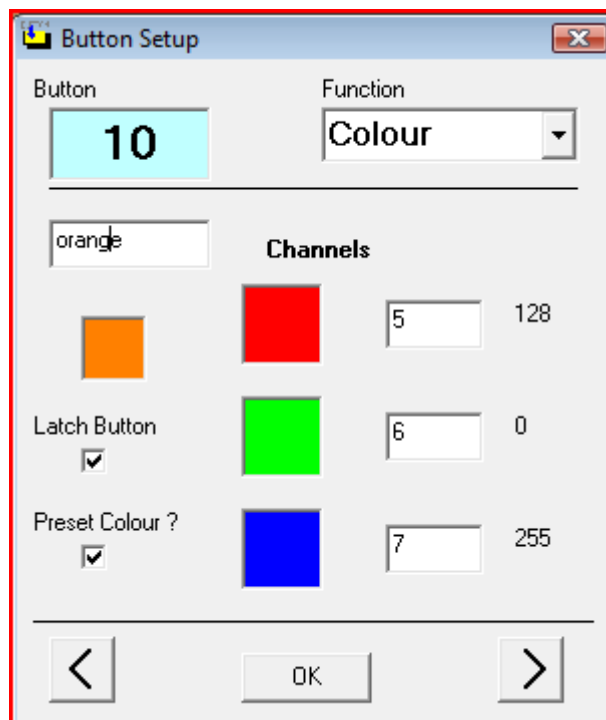
## Chase Button Function



Using this a chase or sequence can be selected for the buttons function. The chase is chosen using the + and – keys. Once a chase id selected it's title and selected colour is displayed and these will be used for the button.

The level of the sequence is selected using the fader in the middle. The latch option selected whether the button latches when selected or just flashes the chase.

## Colour Button function



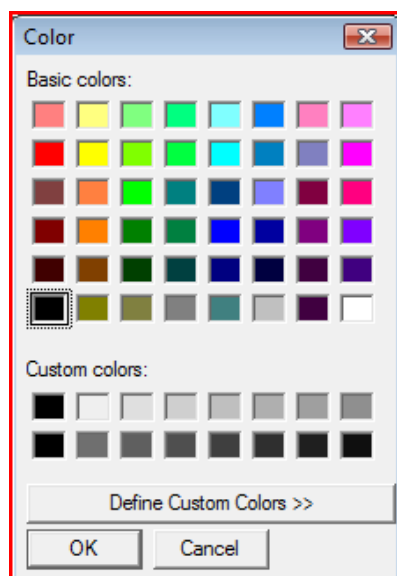
The colour function allow a button to be defined to a particular selected colour output in RGB output.

The three output channels ate selected in the three boxes by red, green , blue. The title for the button is defined in the normal box.

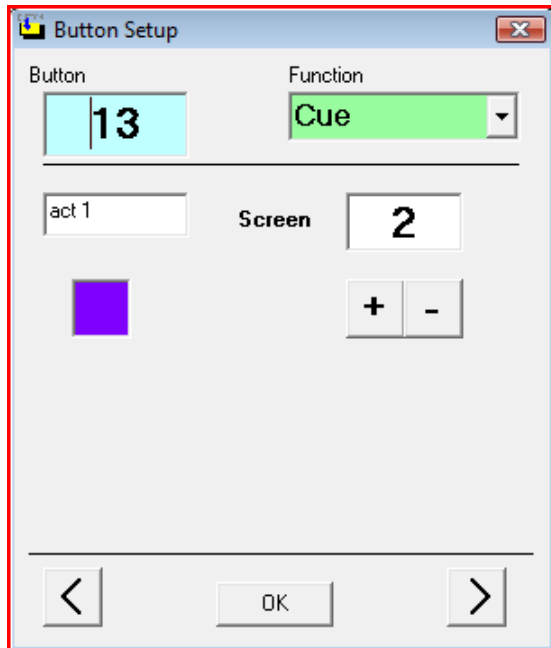
If a preset colour is ticked then the colour is fixed and selected by clicking the colour box to select it.

The required output for this colour is shown to the right of the three channels

If a preset colour is not ticked the colour selection screen comes up every time the button is selected.

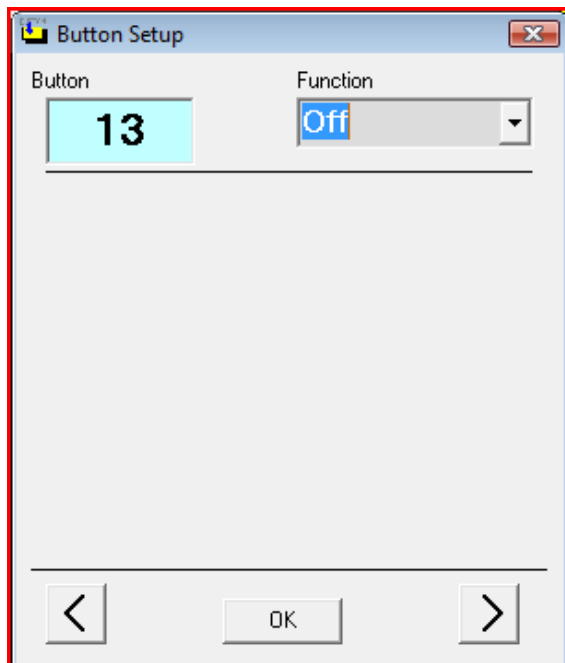


## A Cue Function



With this selection a button can be use to instantly recall a cue.  
In run mode this will be recalled with a auto take ( Cue faded in with the set fade time)  
In non edit mode the cue is recalled instantly.

## Button off Function.



Final selection is button off in this mode the button is disabled and has no function.  
Useful to keep the screen tidy.

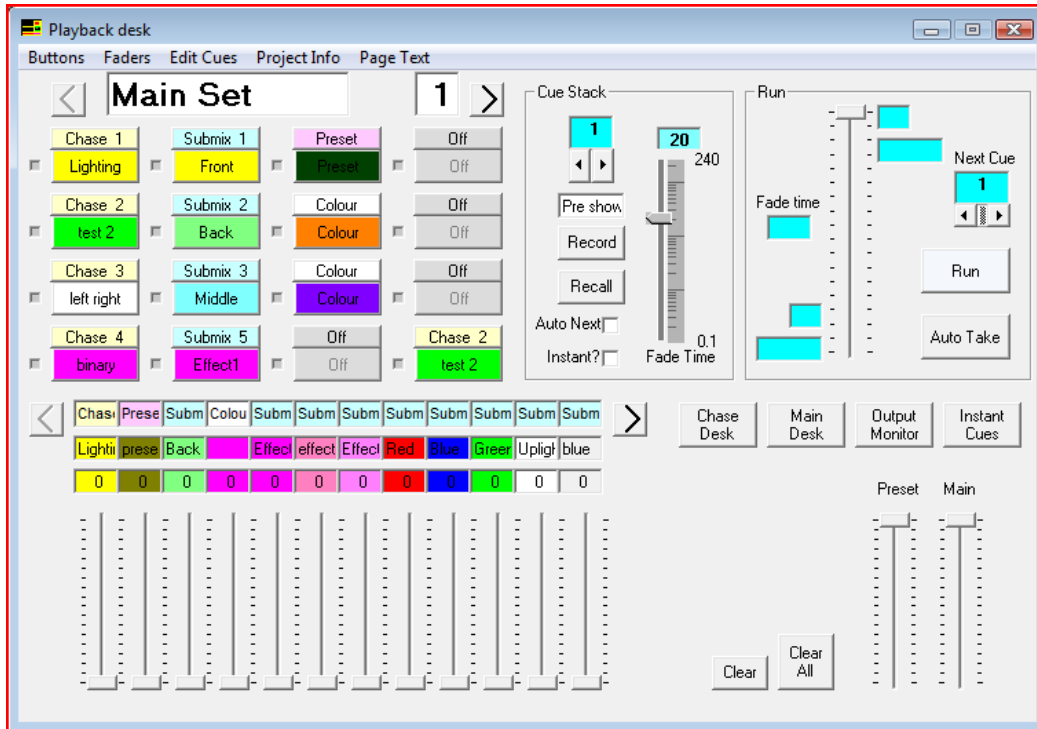
## Fader Functions

The fader functions are just the same as buttons function but without the level setting option, the latching option or the colour selection option for the colour one.

There are still the five options.

- 1, Submix – fader controls the level of a submix.
- 2, Preset – fader controls the level of a single , two or three channels.
- 3, Chase – fader controls the level of a chase which starts when the fader is greater than zero.
- 4, Colour – fader controls the level to create the selected colour at the selected fader level.
- 5, Off – fader deselected.

## Cues.



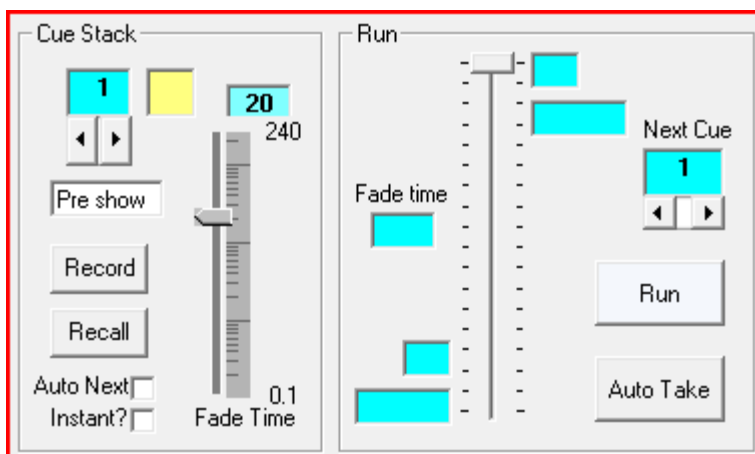
A cue is made up out of the button levels, the fader levels, the individual channel levels form the main desk.

The cues are programmed in to a stack.

Each cue also has it's fade in time ,a name to identify it and a colour.

The cues programmed in to a stack are designed to be the show form beginning to end.

Cues can also be set to automatically fade in to the next cue when they are complete.



To Programme a cue setup the levels required on the faders and buttons, and also any channel required from the main desk, then give the cue a name in the name box and press record.

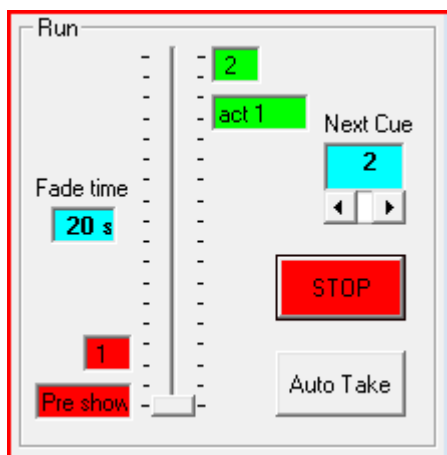
A cue can be edited by using the recall function.

Cues can be moved around, Copied, Pasted, Deleted, Inserted and Cleared using the menu option.

## Run Mode

To use the programmed Cues select Run mode by pressing the Run Button. In Run mode each cue is display in the selected order and using the crossfade time.

All channels will do a smooth crossfade unless this is disabled in the channel setup (see channel Properties).



In Run mode a crossfade can either performed manually by using the crossfade fader or automatically by pressing the Auto Take.

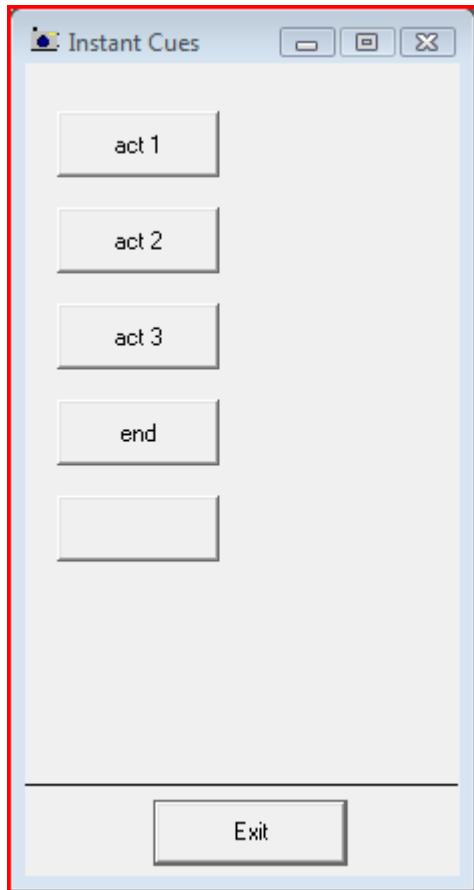
This will then perform a autofade in the time setup for the crossfade.

During a Autofade the desk controls are inoperative. But once the fade is complete the desk can be changed as required.

Before a crossfade the next cue can be changed in the selection box.

## Instant Cues

If the instant option is selected then each of the first 18 cues are displayed on the instant screen when it is selected

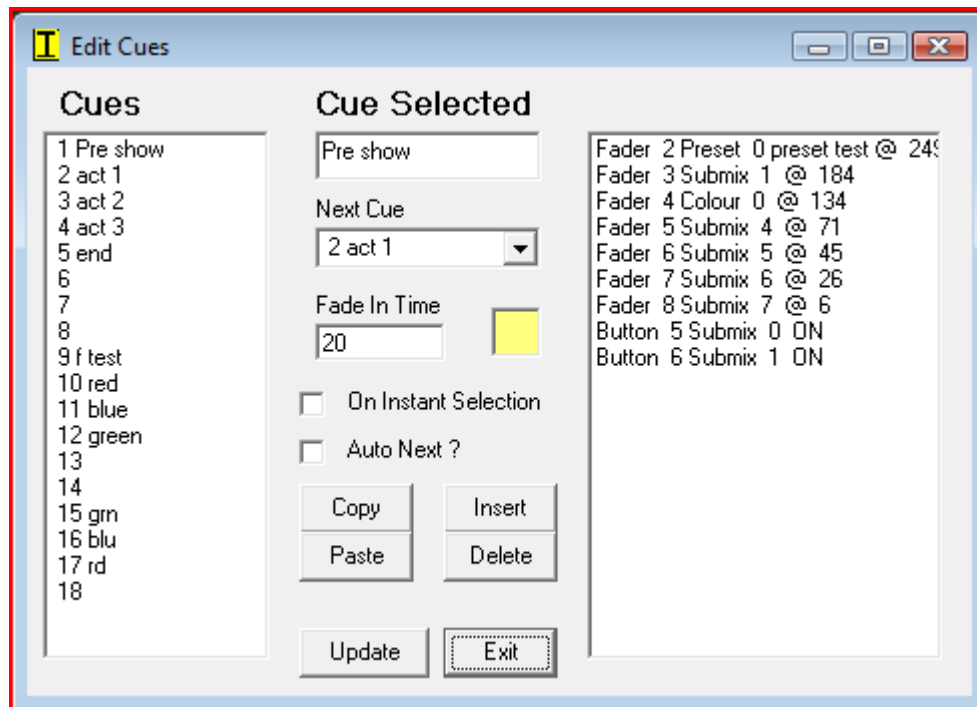


In Run mode selecting one of these will cause a auto crossfade to the selected Cue.



## Cue Edit Screen

On the Cue Edit Screen all the Cues can be viewed moved, copied, pasted, inserted and deleted.

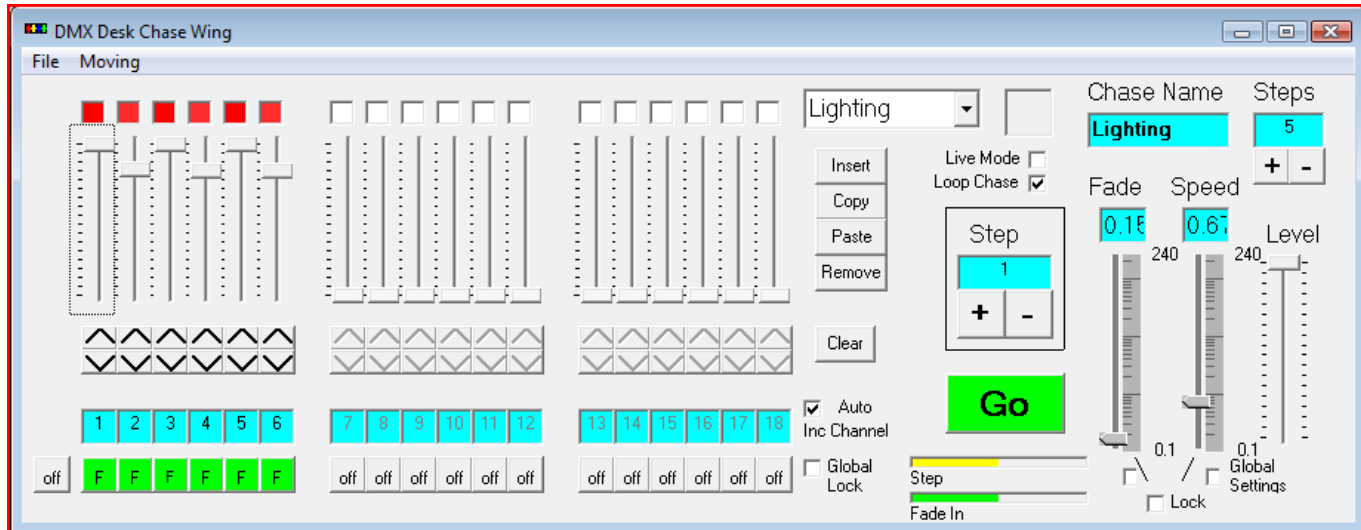


A cue is selected on the left, then its attributes are shown on the right.

Any of the attributes can be changed as required and the cue updated.

# Chase Desk

The Chase Desk allows you to programme sequences.

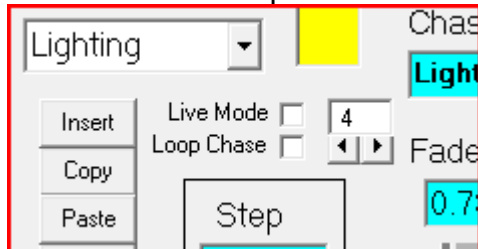


A Sequence is a series of changes to the required outputs that are based on time each sequence is made up from individual steps.

Each separate step requires programming for the output levels, the change method and the time delay to next step.

## Sequence Info.

A sequence can be given a name in the top right hand side and a colour that is used when the sequence is shown on the playback screen.



Each sequence has a number of steps, selected in the top right. A maximum of 32 steps are available for each sequence.

## Programming individual steps .

First we set the output levels on the faders

Next we setup the method of change to the next step.

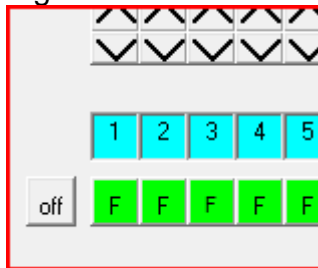
The options are F – fade (Channel fades to next level) , S – Shoot (Jumps straight to the next level) or Off – channel has no value for this step.

Then finally the speed needs selecting this is the delay to the next step.  
 The fade duration time can also be changed, this can be the same as the speed or longer or shorter.  
 ( if the fade time is shorter the channel will complete its required change before the next step or if it is shorter the channel will never complete the full fade and jump when the next step is called.)  
 The speed set is shown in the box above either fader.

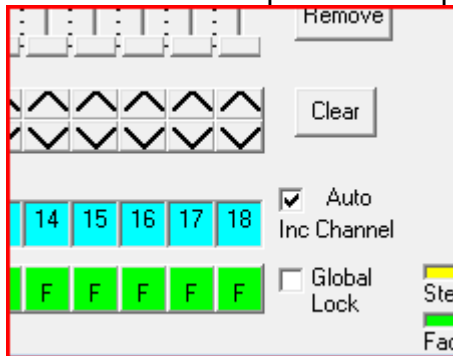
Once this all complete the sequence can be tested by pressing the Go button.

## Global Options

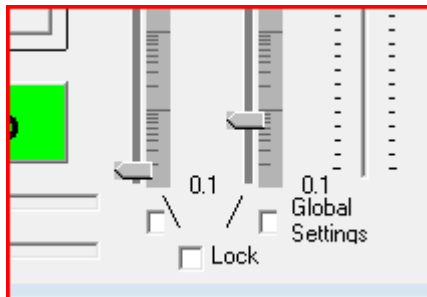
By using the Button to the left of the change option all channels can be changed together.



If the global Lock is selected any change in the method of step change will be effect all of the steps in the sequence.



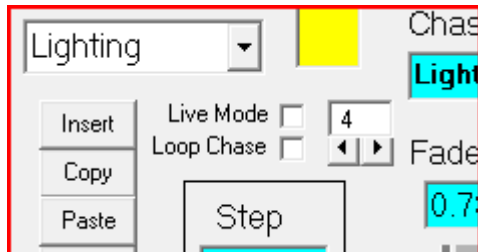
The Global tick boxes when selected will make any changes in step speed or Fade time the same for all steps within the current sequence.



If the Lock box is ticked the fade time will always be the same as the step speed.

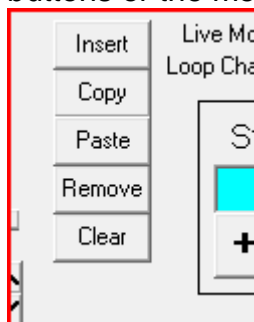
## Looping and Output display

If live mode is selected Chase will be displayed on channels as it is created.  
If The loop is selected sequence will loop for ever Otherwise the box to the right of the loop options selects the number of loops the sequence will do.  
This can be from 1 to 255



## Edit Function

Individual steps can be copied, Pasted, Inserted or removed by using the edit buttons or the menu options.



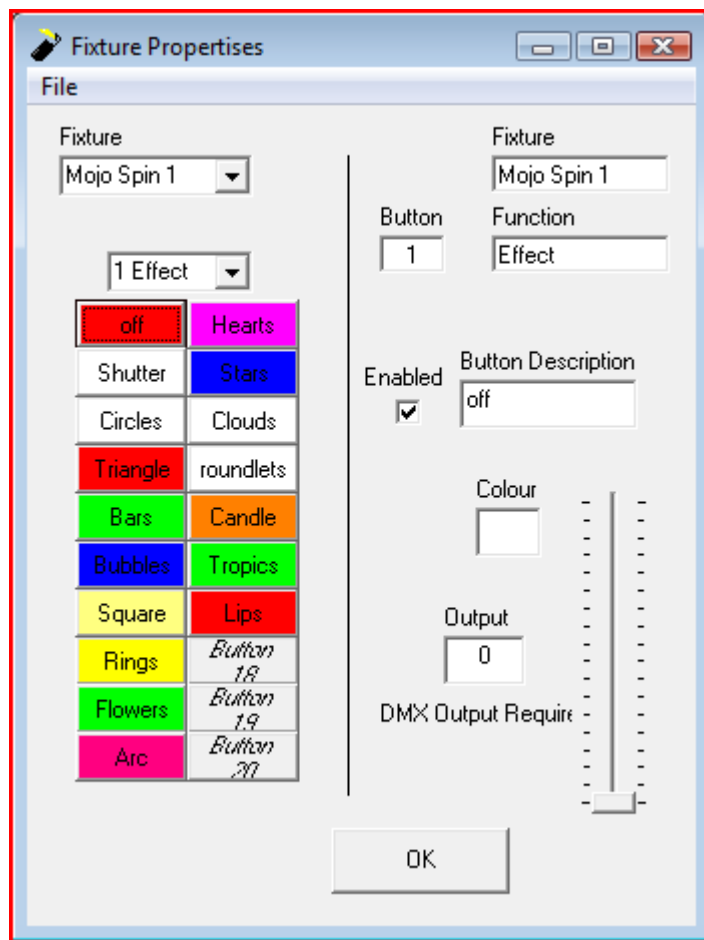
## Moving Light Functions.

By selecting Show moving desk form the menu.  
The whole sequence desk is shown with moving light options.

This is still very developmental but have a play.  
A fixture profile needs to be setup in the fixture editor.  
Is can then be loaded and the settings changed.



Chase Desk with Fixture



Fixture Editor