

IS1200A

User Manual

iSPlay[™] 256 Channel
DMX Replay Unit



Software Version 1.2

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IS1200A User Manual

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1.0 Introduction

The Innovation Solutions iSPlay™ IS1200A DMX Replay Unit is a 256 channel lighting controller built for situations when you need reliable playback of sequences of lighting scenes with no user interface offering the advantage that the programming cannot be tampered with maintaining the reliability of an installation or temporary event. The controller is programmed from a standard PC using the software outlined in these instructions, once programmed the iSPlay unit can be disconnected from the PC leaving it tamper free during use.

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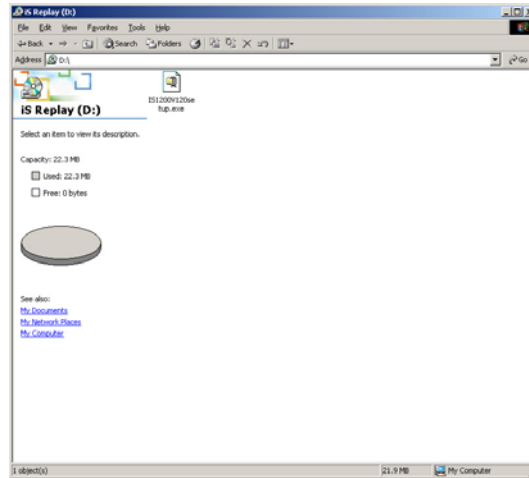
2.0 Software Installation

Windows 2000
Windows XP

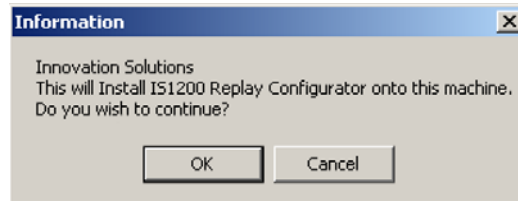
To Start installation, do so without the iSPlay unit connected to the PC.

Insert the installation CD into the computer. Double click on the drive letter of your CD drive, and the folder shown should open.

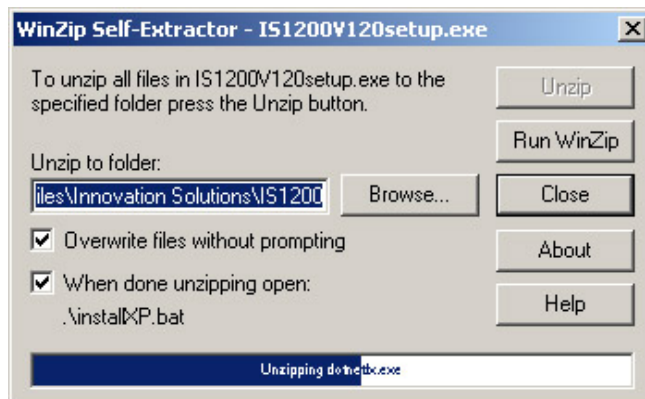
Double click on the icon - IS1200V120setup.exe



The window showing opens asking if you wish to continue and install the software, select OK

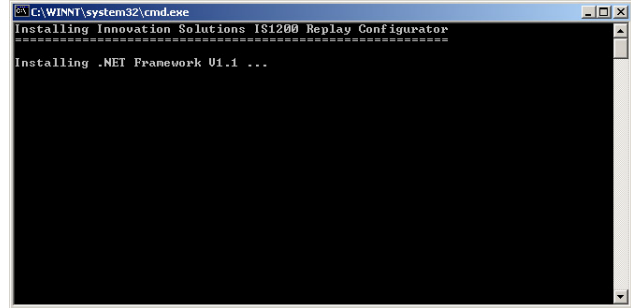


The Following window will appear as the software self extracts itself

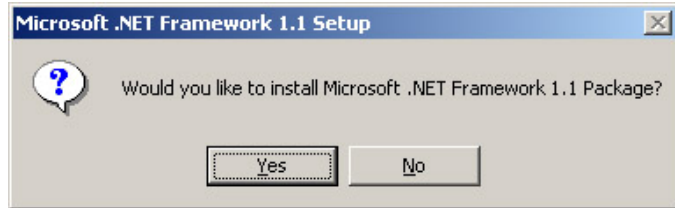


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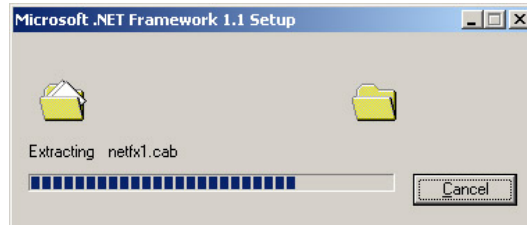
Another window will also open following the progress of the various stages of installation.



When asked if you would like to install the Microsoft .NET framework select YES.



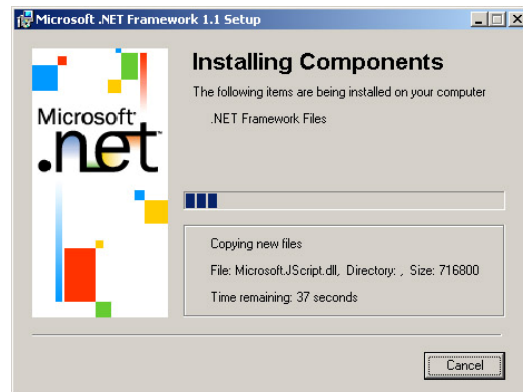
A progress bar will indicate the copying of the .NET files.



To start the .NET section of the installation you will need to agree to the license terms by selecting the 'I agree' option and then pressing install.

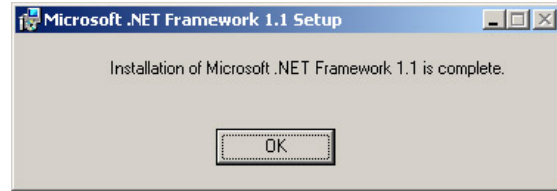


Another progress window displays the .NET installation status.

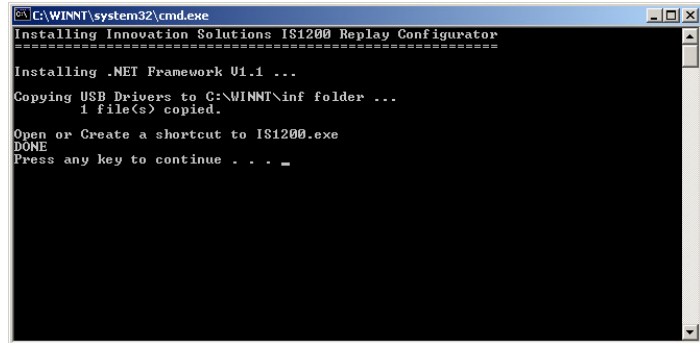


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Completion of the .NET section is shown by the following window, select OK to confirm and continue installation.

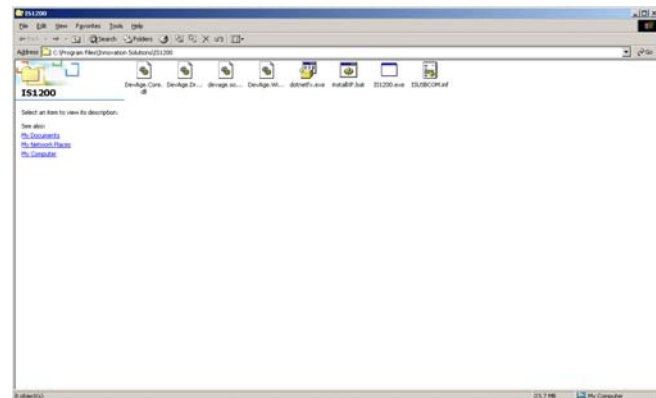


Within a few seconds the black status screen will display DONE, with this window selected, as instructed press any key and the window will disappear.



Installation is now complete, and the folder shown should be open, This folder is located on your C: at C:\Program Files\Innovation Solutions\IS1200

For convenience you may wish to make a shortcut to the program file IS1200.exe and place this shortcut on your desktop. To do this right click on the file and select create shortcut, this shortcut will be placed in this folder, then drag and drop the created shortcut to your desktop or another convenient place.



You are now ready to plug in the iSPlay unit, the unit is connected via USB, when using USB you do not need to use an external power source as the unit can draw power from the USB connection.

When the unit is connected for the first time the new hardware window will appear and a driver will automatically be installed, this could also occur if you were to connect to a different USB socket in the future.



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3.0 Software Operation

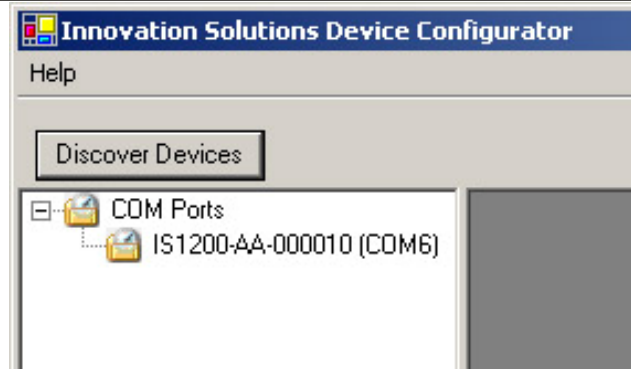
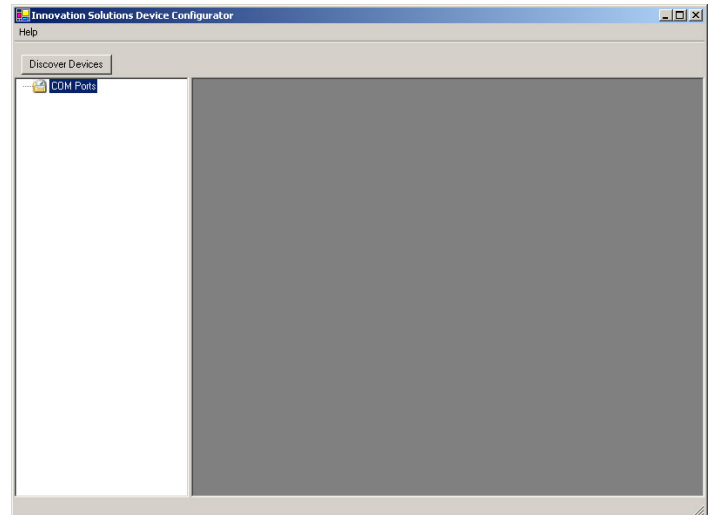
Opening the software and connecting to an iSPlay device.

Double clicking the IS1200.exe icon or a shortcut will open the software, The opening window is shown here.

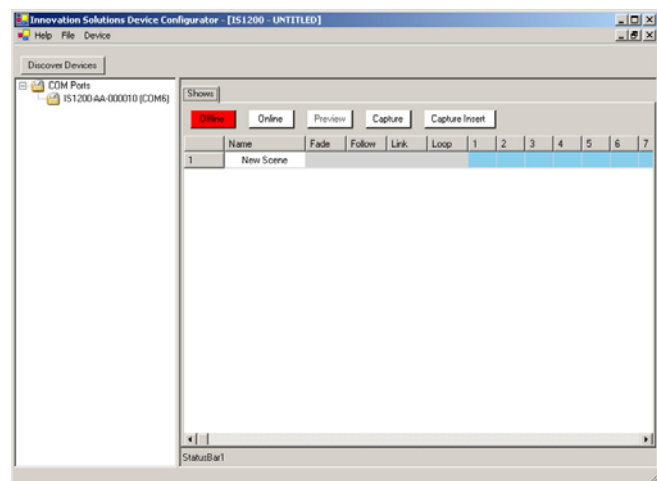
With the iSPlay unit connected, press the discover devices button,

If successfully connected any iSPlay units will be listed in the connections section of the window on the left hand side. Showing the com port being used, if a unit fails to show this could be down to an error with the setup of you PC's com ports, this can be resolved in your system settings.

To start editing your lighting states Double click on the unit you wish to control



More menu options will now become available in the top left, and the scene editor window will become active with the start of a cuelist and the operation buttons highlighting the iSPlay unit's status.



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4.0 Menu Structure

In the top left corner of the window are the menu options which include

- Help
- File
- Device



Help

Currently help allows you to select the **about** option, This displays a window in the screen that give you a link to the Innovation Solutions website for further assistance, as well as displaying the software version installed, this could be useful when contacting us for support or if you are considering upgrading to a newer version.

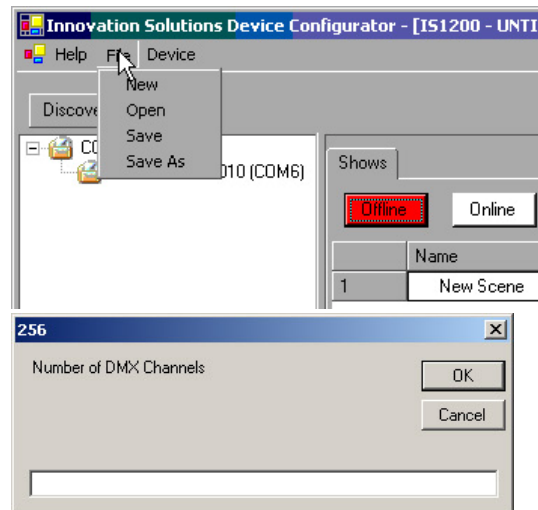


File

The file menu offers the following options.

New

Clears the existing cue list and starts a new cue list, following pressing the New option a window opens allowing you to enter the number of channels you wish to use from 1 to 256 the default is 256,



The system reallocates memory relevant to the number of channels used, the unit can store 112 memories with 256 channels, so if you do not envisage needing more memories than this it is better to select this option as it allows you to add equipment to the system later. By decreasing the number of channels the number of memories available will increase proportionally.

If you are happy with 256 channels you can simply hit the OK button, if you would like to use less channels you can enter the number you wish to use and then hit the OK option.

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Open

Open an existing show file that you have previously saved, from the window that opens simply select the file you wish to open and press the **Open** button. Valid files have a .IS1200 extension. You can navigate to anywhere accessible on your computer using the standard windows navigational tools in the window.

Save

Save the current show to the place it was opened from or previously saved, if it is the first time you use this function for a new show it will function like the **Save As** function below.

Save As

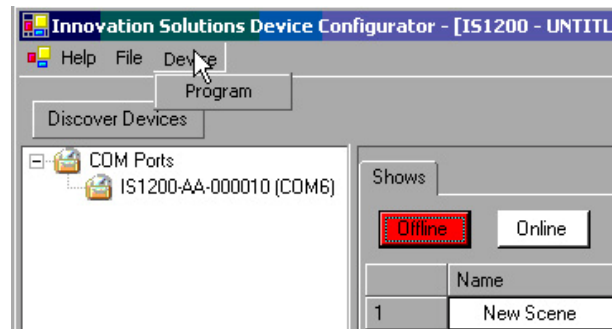
Allows you to give a name of your choice and save the file, this is used to initially name your file but can also be used to make various different show files or backup versions as you program a show or make changes. Simply name your file ensuring it has the .IS1200 extension in the file name box and select the Save button. You can navigate to anywhere accessible on your computer using the standard windows navigational tools in the window.

Device

The Device Option allows you to select the Program function.

Program

Program compiles the show file and converts it into a compressed code that is then transferred into the connected iSPlay unit. You need to do this when you have completed programming or when you wish to test a sequence.



Once the program has been transferred to the iSPlay unit you can still run it powered from USB or alternatively you can disconnect it from the PC and run it from its own PSU.

Note: You do not need to Program the iSPlay unit to use the preview function.

5.0 Control Structure



Offline

Places the iSPlay device in Offline mode, no output will be made from the controller and any DMX going into the iSPlay will be allowed to pass through to the output.

This button highlights red when selected and the LED on the iSPlay unit also turns to red when in this mode.

Online

Places the iSPlay unit in Online mode, the controller will playback from cue 1 the latest program that was sent to the unit. When programming is complete you need to restore the controller to this mode for it to run the downloaded program. Any input DMX to the iSPlay unit is terminated. This button highlights green when selected and the LED on the iSPlay unit also turns to green when in this mode.

Preview

Places the iSPlay unit in preview mode, the controller will output the DMX state of the scene selected in the scene list, as you select a different scene the output will swap to that state. This button highlights blue when selected and the LED on the iSPlay unit also turns to blue when in this mode.

Capture

Takes a snapshot of the DMX values seen on the DMX input socket of the iSPlay unit and places them in the scene you have selected in the scene list.

This button highlights blue when selected and the LED on the iSPlay unit also turns to blue when in this mode. If no DMX signal is detected when using this function a warning window appears.

Capture Insert

From the scene you currently have selected, this scene and all scenes higher are advanced one memory number, a snapshot of the DMX values seen on the DMX input socket of the iSPlay unit are then placed in the currently selected scene.

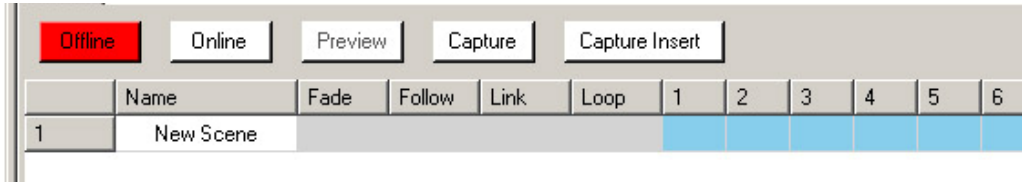
This is in effect inserting a new cue between the previous scenes. This function will work as long as the maximum number of memories available is not reached. This button highlights blue when selected and the LED on the iSPlay unit also turns to blue when in this mode.

If no DMX signal is detected when using this function a warning window appears.

6.0 Programming Scenes

Scene Window Area

All information relating to the lighting scenes played by the iSPlay controller are programmed, edited and displayed in the Scene window area of the software.



Basics

When a new file is started the window looks like the above with only scene 1 shown with the name “new scene”. Automatically a new scene is created ready for use in the next scene number as soon as any data has been entered in last scene displayed.

Each scene is automatically assigned a number which is on the left hand side in the grey column, these numbers are sequential from 1.

When you have finished programming you will end up with a scene created at the end with no information in called “New Scene” This will not affect your programming.

You can resize the overall programming window by left clicking the far left corner and dragging the corner, as well as using the minimise and maximise buttons in the top right corner, the scroll bars allow you to navigate up and down the scene list and across into higher channel numbers. The name and timing information is scroll locked to keep them accessible as you move through the channel numbers.

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For each scene you can assign the following information.

Name

By default this is called “New Scene” as each new scene is created, this can be changed to a more descriptive term for each scene to assist you editing programmes, it can also be left unchanged and will not effect the programming.

Fade

Here you can enter a time in seconds that the lighting will smoothly transition from the previous scene into this scene, values accepted range from 0 to 80000 seconds (over 22 hours), the window also accepts points of a second eg, 0.5 for half a second, this can defined as accurate as 0.01 of a second. The default is 0 which is a clear box, if you enter 0 the values will clear.

Follow

Here you can enter in seconds the time before the next cue is triggered, values acceptable range from 0.01 seconds to 80000 seconds (over 22 hours), entering 0 or pressing delete will clear the follow values. Leaving this field empty would mean that when this scene is complete the program would halt at this scene and nothing else would occur until the iSPlay is ether power cycled or taken offline and placed back online.

The follow time starts from the moment the cue is triggered so if the follow time is lower than the cues fade time the next cue will trigger before this cue completes, this will result in the next cues fade time also taking over the transition.

Link

Link is used in combination with a follow time, in the link field you can enter a scene number, which would then become the next scene that would be played back instead of proceeding to the scene number higher which the unit would do by default if no value is entered into the link field

This function is useful for creating endless loop programmes by making scene 1 the link value in your last scene. It can also be used with the loop function to create more complex subroutines.

Loop

The Loop function can be used to break free from what would become an endless loop using the link function, If no value is entered this function will not be enabled, if a value from 1 to 255 is entered the controller will allow the next scene to be the scene in the link field only for the number of times in the loop field, on the next time the unit passes through this scene it would then not move to the linked cue and would instead move to the next highest cue number.

This function is useful for creating subroutines like chases or colour rolls within a larger sequence.

This loop system can cope with up to 2 active loops at any one time, which means you could have multiple sub loops going on within 1 larger loop, what you cannot have is a loop within a loop within another loop. Sequences trying to exceed these parameters would have unexpected results.

Channel information

The value you wish for each channel is entered in the field matched with the channel number displayed at the top of the column if you leave a field clear that means that the channel will stay at the value it was in prior to moving to this scene. If you wish the channel to change in the scene you are programming you must enter a value between 0 to 255, with 0 being off increasing to 255 for full.

Leaving channels with no information in can save needing to programme information into channels you do not wish to alter in level through a number of cues, although when using links and loops it may become more complex as you could return to the same state and end up with a different output due to information coming through from a cue you have linked back from. As such you may prefer to put a value in for each field of channels you are using until you become used to this feature.

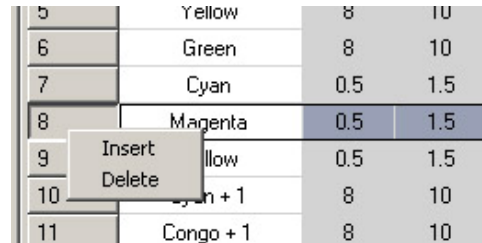
Channel information can also be loaded from a DMX input into the Replay unit, this allows you to use your favourite console to program the state and then use one of the two capture options described earlier to copy the DMX state into the scene you have selected.

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7.0 Advanced Editing

Inserting and Deleting Scenes

By right clicking on the scene number the options of Insert and Delete appear



The screenshot shows a table with 4 columns and 11 rows. The first column contains scene numbers 5 through 11. The second column contains cue names: Yellow, Green, Cyan, Magenta, Yellow, and Congo + 1. The third and fourth columns contain numerical values: 8, 10, 0.5, 1.5, 0.5, 1.5, 8, 10, 8, 10. A context menu is open over row 8, showing 'Insert' and 'Delete' options. The 'Magenta' row (row 8) is highlighted in blue.

5	Yellow	8	10
6	Green	8	10
7	Cyan	0.5	1.5
8	Magenta	0.5	1.5
9	Yellow	0.5	1.5
10	Yellow + 1	8	10
11	Congo + 1	8	10

Insert

Moves the cue selected and all the following cues down the scene sheet, increasing them by one scene number, a new scene is now available for editing in the position selected.

All link numbers for the cues moved also automatically advance to maintain the structure.

Delete

Removes the cue selected and moves all the cues below it up the scene sheet, decreasing their scene number by one, all link values for the cues moved are decreased by one to maintain the same structure.

Copy / Paste

As the Scene window operates like a spreadsheet, you can use the mouse and the left click to select more than one field at a time, then using the standard shortcuts for copy (ctrl C) and paste (ctrl V) move data around as you wish, when pasting data from multiple columns / rows select the top left field that you wish the paste to start from.

This can be useful for the following functions to name a few:

- Copying a whole scene or multiple scenes into another place in the cuelist.
- Copying a whole range of channel columns into another range of columns, useful if you have added or have duplicates of the same lights.
- Copying single values like fade times, channel values or cue names into other cues
- Copying a select number of channels from a select number of cues and pasting somewhere else can be useful for applying a sequence you have programmed for one light to another one but starting it offset in another cue.

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8.0 Programming Example

Here is an example of a program using a few of the functions described,

If we pay particular attention to the first 5 channels, this is the information to control a studio due city colour where the channels are

- 1 – Intensity
- 2 – Cyan Colour mix
- 3 – Magenta Colour mix
- 4 – Yellow Colour mix
- 5 – Speed

	Name	Fade	Follow	Link	Loop	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Cyan	8	10			255	255	0	0	255		255	255	0	0	255		255	255	0	0	255	
2	Congo	8	10			255	255	255	0	255		255	255	255	0	255		255	255	255	0	255	
3	Magenta	8	10			255	0	255	0	255		255	0	255	0	255		255	0	255	0	255	
4	Orange	8	10			255	0	255	255	255		255	0	255	255	255		255	0	255	255	255	
5	Yellow	8	10			255	0	0	255	255		255	0	0	255	255		255	0	0	255	255	
6	Green	8	10	1	10	255	255	0	255	255		255	255	0	255	255		255	255	0	255	255	
7	Cyan	0.5	1.5			255	255	0	0	255		255	255	0	0	255		255	255	0	0	255	
8	Magenta	0.5	1.5			255	0	255	0	255		255	0	255	0	255		255	0	255	0	255	
9	Yellow	0.5	1.5	7	4	255	0	0	255	255		255	0	0	255	255		255	0	0	255	255	
10	Cyan + 1	8	10			255	255	0	0	255		255	255	0	0	255		255	255	0	0	255	
11	Congo + 1	8	10			255	255	255	0	255		255	255	255	0	255		255	255	255	0	255	
12	Magenta + 1	8	10			255	0	255	0	255		255	0	255	0	255		255	0	255	0	255	
13	Orange + 1	8	10			255	0	255	255	255		255	0	255	255	255		255	0	255	255	255	
14	Yellow + 1	8	10			255	0	0	255	255		255	0	0	255	255		255	0	0	255	255	
15	Green + 1	8	10	10	10	255	255	0	255	255		255	255	0	255	255		255	255	0	255	255	
16	Cyan + 1	0.5	1.5			255	255	0	0	255		255	255	0	0	255		255	255	0	0	255	
17	Magenta + 1	0.5	1.5			255	0	255	0	255		255	0	255	0	255		255	0	255	0	255	
18	Yellow + 1	0.5	1.5	16	4	255	0	0	255	255		255	0	0	255	255		255	0	0	255	255	
19	LOOP	0.1	0.1	1		255	0	0	255	255		255	0	0	255	255		255	0	0	255	255	
20	New Scene																						

You will first notice that channels 1 and 5 are always set to full (255) that is because we wished the unit to be always on and to operate in the fastest time (which would be the time set by our fade time as opposed to a time that the light itself uses)

In scenes 1 to 6 the light moves through the colours as per the scene names due to the colour mix levels changing in channels 2, 3 and 4. Each cue is taking 8 seconds to cross fade from the last cue and then will wait for 2 seconds after the

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fade is complete. This is because the follow time is 10 (10 minus the 8 second fade time = 2 seconds of hold before the next cue triggers)

In cue 6 the link cue is 1, so this becomes the next cue triggered, but as the loop value is set to 10 the sequence runs from cue 1 to cue 6 in total 11 times and then moves to cue 7,
(11 times equals the first run to the loop cue and then the 10 loops)

Following this, the sequence then runs from cue 7 to 9 in total 4 times before dropping through into cue 10.

Again the sequence now runs from cue 10 through to 15 for 11 times before moving to cue 16 which it then loops from 16 to 18 for 5 times.

In each of the loops different fade and follow cues are used for faster and slower colour changes.

After the 5th completion of the loop from 16 to 18 the scene next triggered is cue 19, which has the same channel info as the previous cue, with a 0.1 second fade and following time and link cue of 1 which sends it almost instantly right back to the start of the sequence to run everything again, This total sequence will playback continually.

Starting from channel 7 and again at 13 are two more identical fixtures where the information was copied and pasted. These three units were on one part of a building and three others further up the channel list we on another part of the building, In the section where the scenes are labels +1 the colour information was pasted with an offset so that the colours from one part of the building follow the next part as opposed to changing together as in the other cues.

This file is stored as a demo file for you to look at in the software. It would also work into an RGB LED fixture if you set the start address to 2 the CMY info would come out as RGB.

Appendix A - Technical Specifications

Input Power	5 Volts 1 Amp
Input protection	Internally Fused
DMX IN	256 Channels of DMX 5 pin XLR Male Opto-isolated DMX input with surge protection
DMX THRU	5 pin XLR Female