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# **DMX512-D**

## **Instruction Book**

### **REV 6.3**

### **2011.04.29**



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# Chapter 1 Product introduction

## 1.1 Introduction of product function

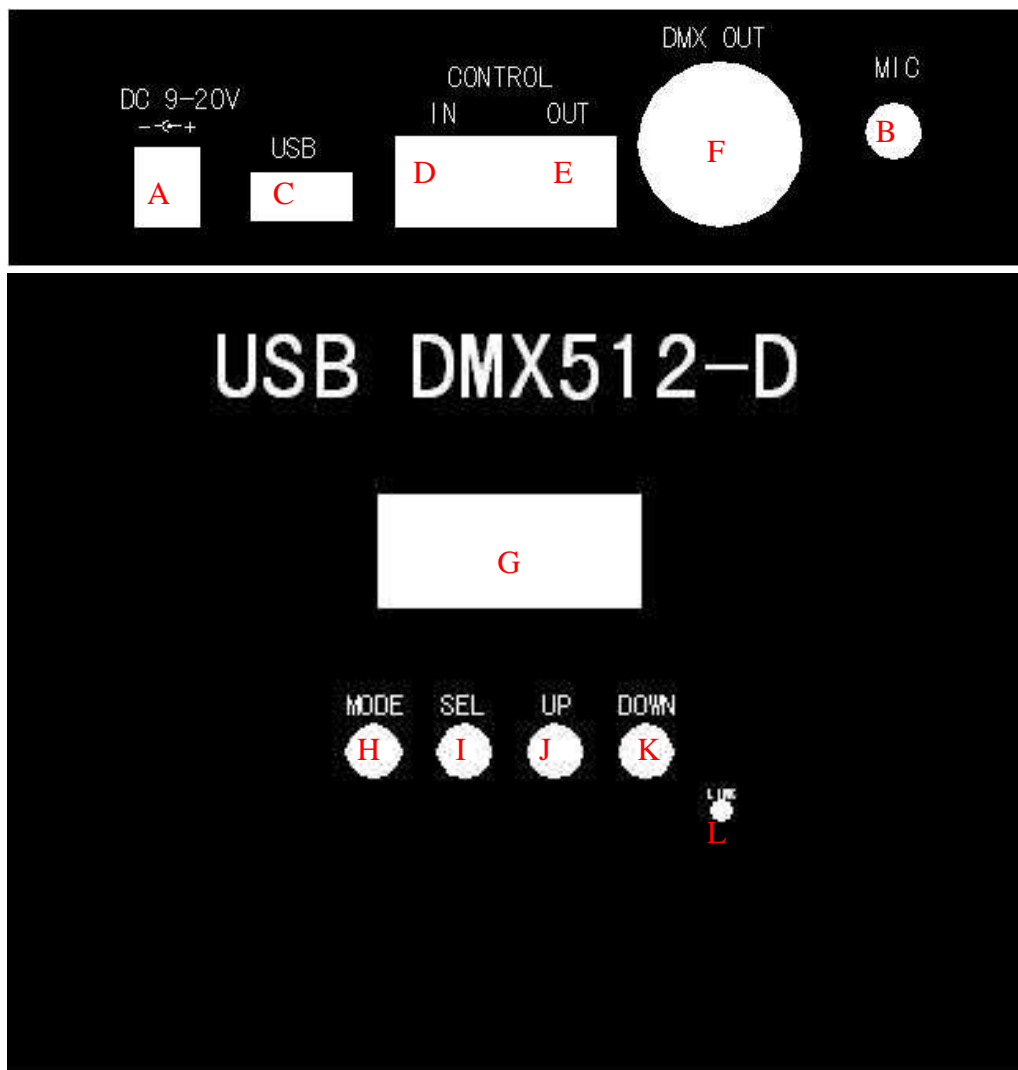
USB DMX-512 controller is connected with USB interface of the computer to achieve the purpose of controlling the light fittings through the friendly operation menu and the controller, simple in operation and convenient in usage. According to this operation instruction, anybody can control the light fittings proficiently in several minutes and run up to 4000 scene storage capacities offline. It is mated with relevant accessories of our company and flexible is application; it is suitable to the commissioning and application of large-scale stage and advertising signboards. It is a kind of DMX512 controller low in price and strong in function.

## 1.2 Main Features

- Conform to DMX-512/1990 international standard protocol with 512 circuits. The standard DMX512 signal is output via the XLR interface
- The performance programs can be loaded at options and 32 performance programs can be stored into the controller
- Speed, Fade, Strobe and Cycle index of each performance document is adjusted individually and stored into the controller automatically.
- Multi-fixture can be controlled simultaneously; acoustic control scene movement is supported.
- Perfect LED light fitting edit function and multi built-in effect; highly suitable to the control of LED fittings.
- Select Accessories infrared controller; any chase or scene can be called out at one-touch.
- Powerful timing function; up to 350 groups of timing outputs; any chase or scene can be output at any time all the year round.
- One-step one scene function is supported; extremely convenient in both manual and automatic scene switchover.
- DMX512 signal and RS232 signal controls are acceptable; interior scene and performance program can be called at any time.

- Online using of multi controllers; unlimited extension circuit; complete synchronous working; suitable for video presentation
- Offline operation is supported; man-machine-dialog interface of offline operation is friendly; with LCD screen display.
- Extremely convenient in system programming; it takes only one minute to perform you fittings.
- USB interface is connected with DMX controller convenient in commissioning of notebook and project site.
- Both Chinese and English interfaces are available for the system, simple and friendly; the computer operation system is WINDOWS2000/XP/VISTA/WINDOW7
- Small in shape, light in weight and convenient in carrying

### 1.3 Product diagram



A	9 - 20V DC input, internal- positive and external- negative
B	Microphone
C	USB interface
D	Input of control signal
E	Output of control signal
F	Output port of DMX512 signal
G	LCD
H	Button of MODE
I	SEL selection button
J	UP button
K	DOWN button
L	LINK indication of connection between controller and computer

## 1.4 Wiring Introduction of hardware

### Connection method of XLR Output seat, as shown in right figure

Introduction: XLR output connection is the common connection method

Pin 1 is the ground wire of DMX signal

Pin 2 is the negative DMX signal wire

Pin 3 is the positive DMX signal wire



### Connection method of CONTROL IN OUT

Introduction: RJ45 combination hub

IN connection

Pin 1 is the ground wire of signal

Pin 2 is the negative DMX input signal wire

Pin 3 is the positive DMX input signal wire

Pin 4 is the negative output signal wire

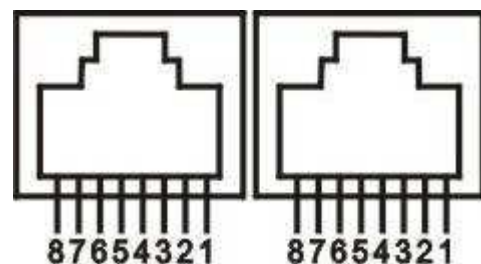
Pin 5 is the positive output signal wire

OUT connection

Pin 1 is the ground wire of signal

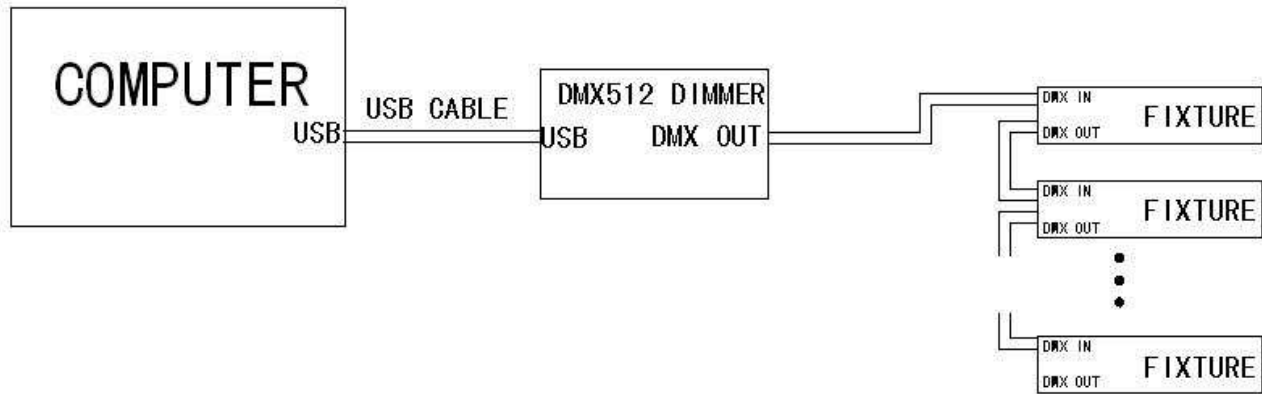
Pin 2 is the negative DMX input signal wire

Pin 3 is the positive DMX input signal wire

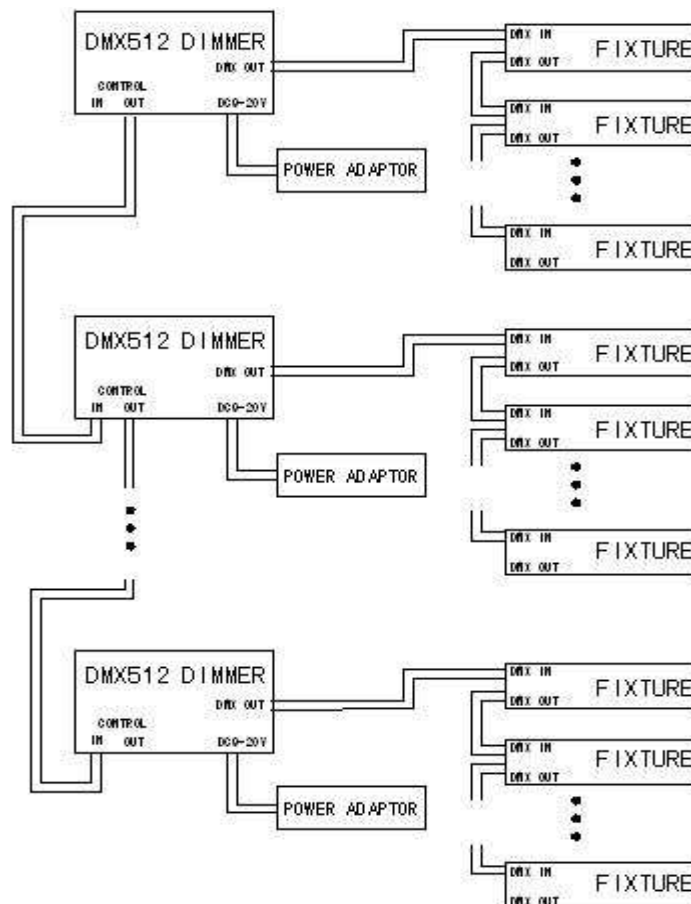


# Schematic Diagram of Link between DMX512 DIMMER and FIXTURE

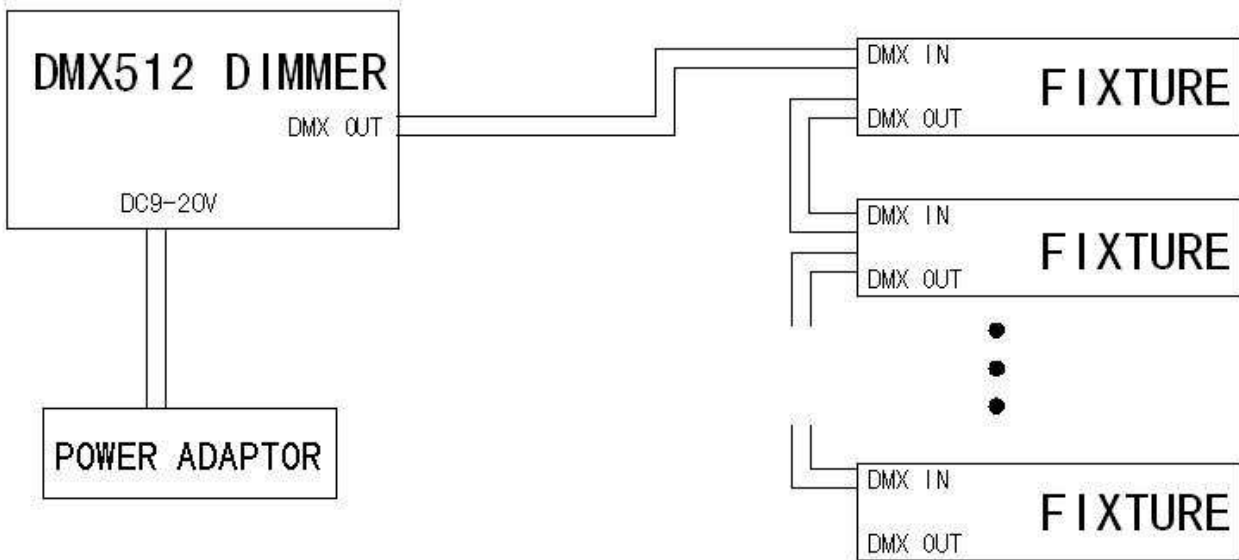
## Link between Dmx512 dimmer and fixture mode



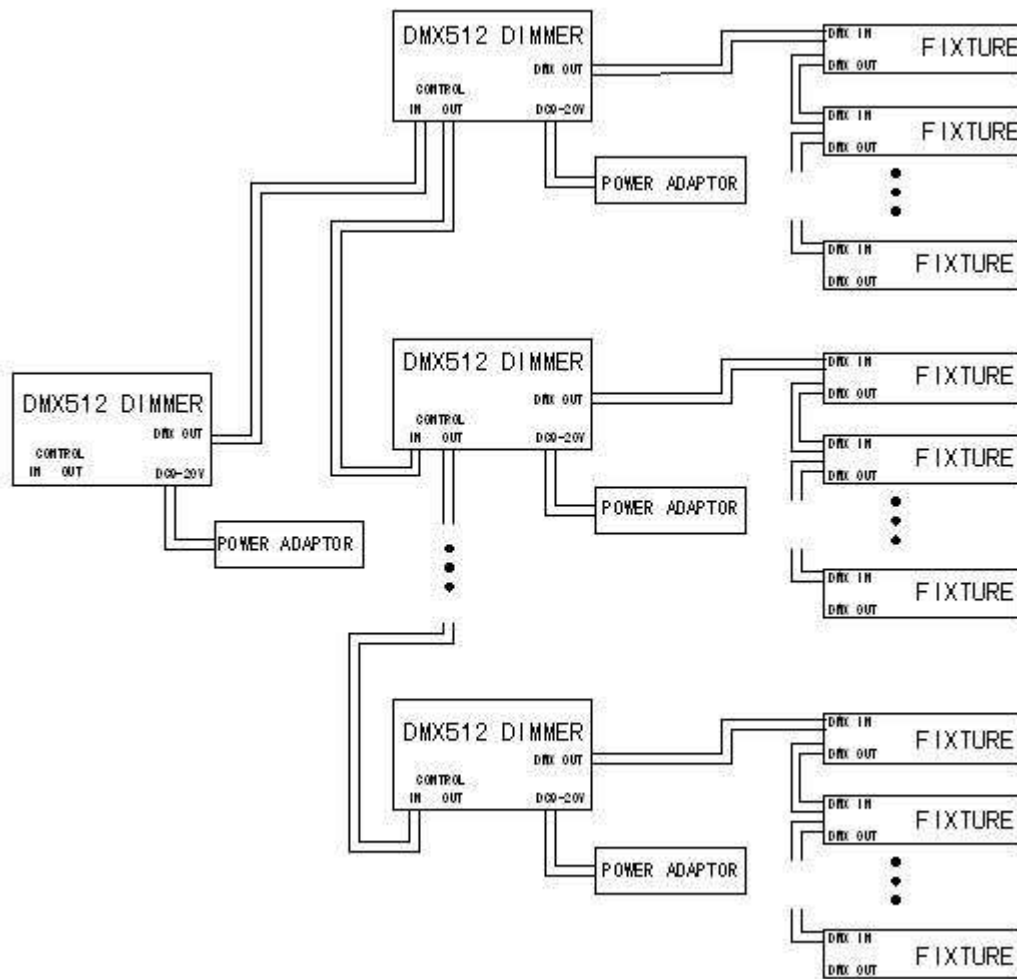
## Mode of expanding DMX512 channel



## Mode of offline operation

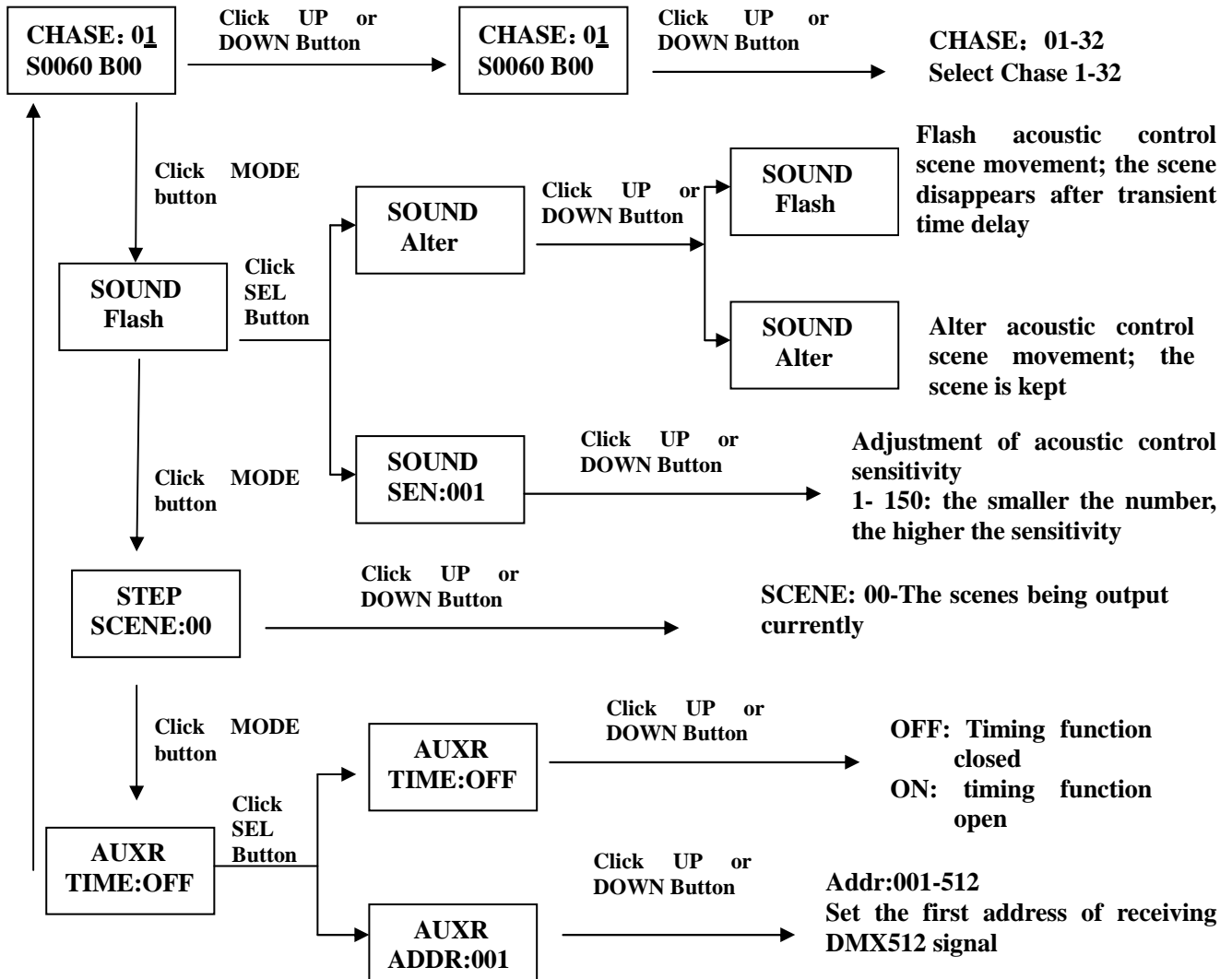


**Built-in program mode of the controller is called via DMX512 signal**



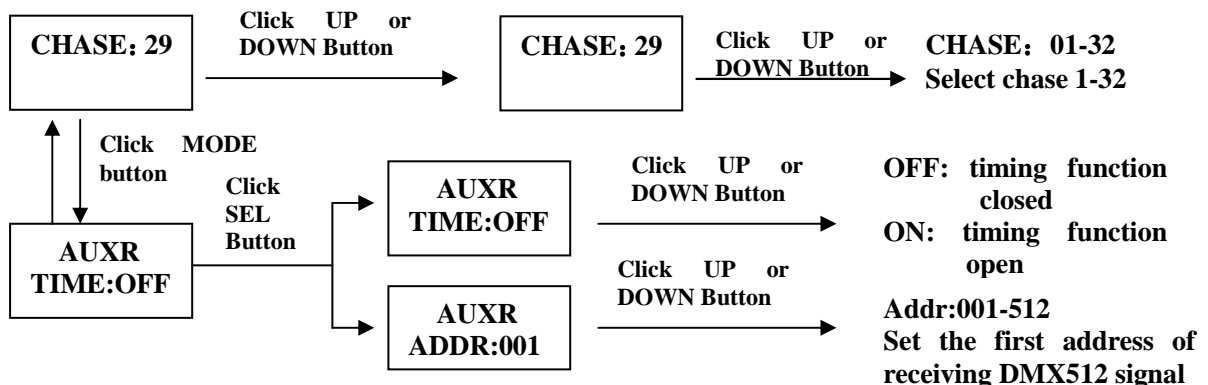
# Chapter 2 Method of application

## 2.1 DMX512 controller LCD display and operation instruction



### Note

The output is the combined program output for CHASE29-32; the acoustic control and the one-step one- scene function are invalid at this time; the operation will be screened automatically; here the LCD is shown as





**There are 6 DMX512 channels when DMX512 signal control is accepted, as follows:**

Channel 1: Chase 1-32 are called; interior Chase of controller and data relationship in the channel are called as follows:

<b>Chase 1: 1-7</b>	<b>Chase 9: 64-71</b>	<b>Chase 17: 128-135</b>	<b>Chase 25: 192-199</b>
<b>Chase 2: 8-15</b>	<b>Chase 10: 72-79</b>	<b>Chase 18: 136-143</b>	<b>Chase 26: 200-207</b>
<b>Chase 3: 16-23</b>	<b>Chase 11: 80-87</b>	<b>Chase 19: 144-151</b>	<b>Chase 27: 208-215</b>
<b>Chase 4: 24-31</b>	<b>Chase 12: 88-95</b>	<b>Chase 20: 152-159</b>	<b>Chase 28: 216-223</b>
<b>Chase 5: 32-39</b>	<b>Chase 13: 96-103</b>	<b>Chase 21: 160-167</b>	<b>Chase 29: 224-231</b>
<b>Chase 6: 40-47</b>	<b>Chase 14: 104-111</b>	<b>Chase 22: 168-175</b>	<b>Chase 30: 232-239</b>
<b>Chase 7: 48-55</b>	<b>Chase 15: 112-119</b>	<b>Chase 23: 176-183</b>	<b>Chase 31: 240-247</b>
<b>Chase 8: 56-63</b>	<b>Chase 16: 120-127</b>	<b>Chase 24: 184-191</b>	<b>Chase 32: 248-255</b>

Channel 2: speed setting.

Channel 3: fade setting.

Channel 4: fade mode setting. 0-89: Gradually brightening effect and gradually darken effect; 90-179: Gradually brightening effect; 180-255: gradually darken effect

Channel 5: setting of flash frequency.

Channel 6: setting of cycle index.

**Note:**

- 1, Channels 2 to 6 are invalid when chase 29 to 32 is called.
- 2, The above operations are valid only after the chase has been downloaded into the DMX512 controller.
- 3, External power supply adapter is prohibited when the DMX512 controller is connected with the computer.

**The following will be displayed when the controller is connected with the external control signal:**



Means DMX controller is connected with the computer and controlled by it



Means DMX controller is connected with DMX controller and is under the synchronous working condition

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**CONNECT  
DMX**

Means DMX controller is connected with DMX controller and controlled by exterior DMX512 signal

**CONNECT  
KEY**

Means DMX controller is connected with exterior keyboard controlled by it

**TIMER  
08 22:15**

Means internal timing function of DMX controller is opened and the DMX controller is controlled by internal timer

## Coding function

The coding function can be used when DMX512 fittings are used in special occasions, e.g. waterproof condition inconvenient in setting the address by DIP switch and button. It should be used combining with our decoding chip; provided chips of other companies are used, please contact with our technicians.

CONTROL OUT port of DMX512 controller should be connected with the signal input port of DMX512 decoder before the operation, then power it on.

The operation methods are as follows:

- 1, Pressing MODE button for 6 seconds and the LCD will show as right
- 2, Pressing UP or DOWN button to get the wanted address.
- 3, Pressing SEL button to output the address signal.

**SET ADDR  
ADDR:001**

## 2.2 DMX-512 software operation interface

### Introduction of Software Installation

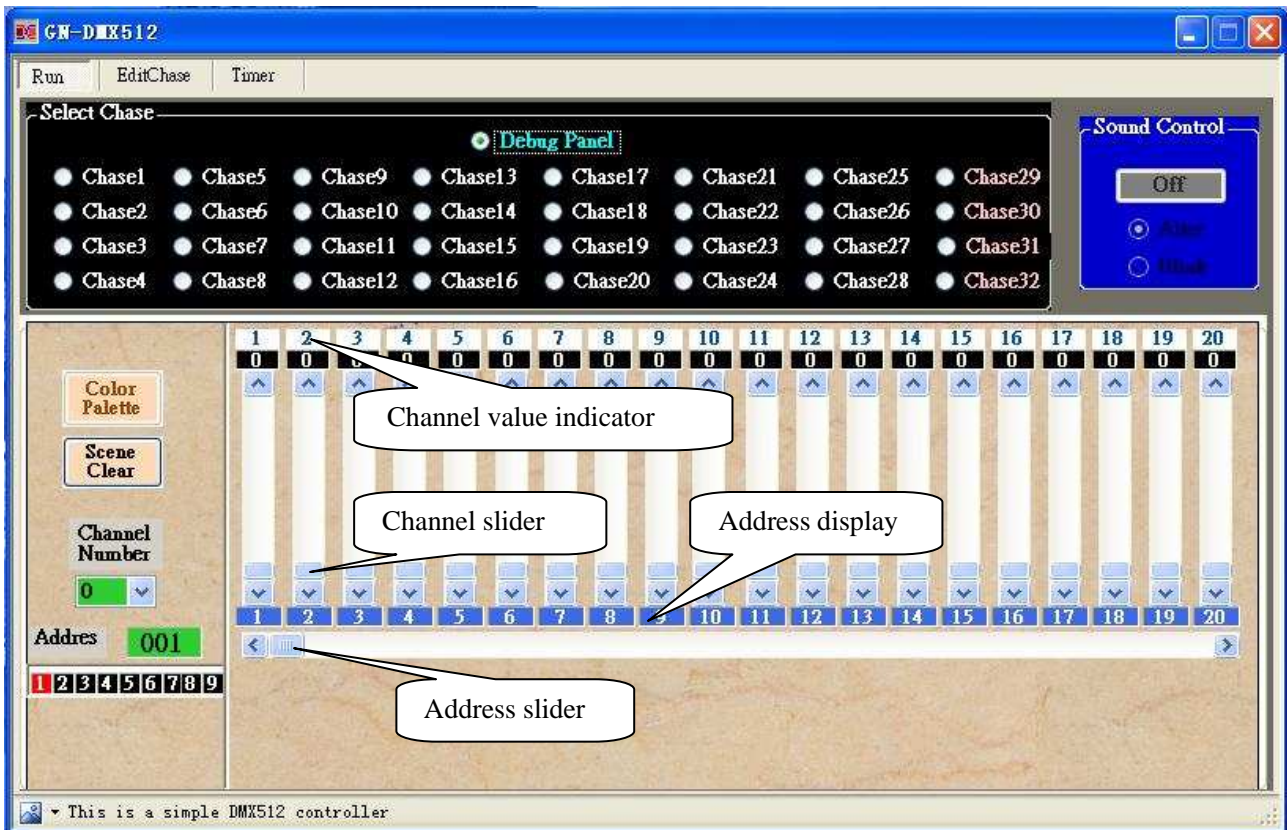
WINDOWS XP installation is taken as the example to describe the installation procedure.

1. Put Disc in CD driver
2. Perform Setup.exe and start the installation.
3. USBDMX512 controller connected to the computer hardware installation dialog box pop-up tips
4. Click "Next Step" till "Finish"

# Introduction of Software Operation



1. Click  in PC desktop.
2. The following interface will show in PC.



## Introduction of professional Terminology

- Channel:** Another name is called return, as the smallest controlling unit. There are 512 channels in Dmx512 Controller
- Scene:** as congregation of 512 channels.
- Chase:** made up of many scenes which are displayed according to preset time intervals and mode.
- Speed:** Run parameter of chases. That is the time interval between two scenes.
- Fade:** Gradual change for LED is generating gradual light and gradual dark effect.  
Upper chase is generating gradual light effect and down chase is generating gradual dark effect.
- Flash:** to flash in certain frequency.
- Sound Control:** as for this controller, low sound is used to realize scene alter in a chase.

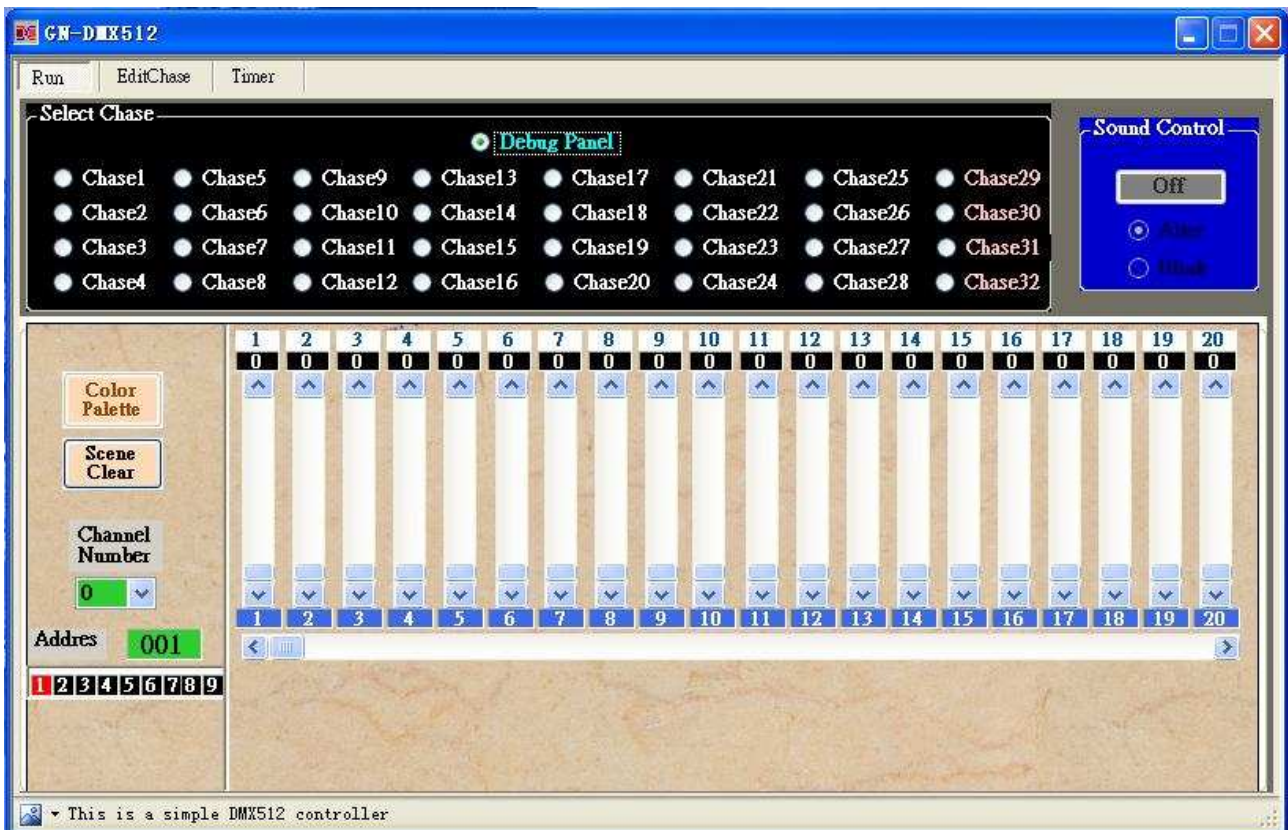
**Decoder:** General designation of devices receiving DMX512 signal

**Channel numbers:** decided by channel numbers that each decoder occupies so as to make operation convenient. Adjustable from 0-20

**Address:** place of each channel in DMX512 data packet. Adjustable from 1-512

## Introduction of software button

When **Debug Panel** Interface, software interface is shown as follows. (Color of all key characters font is blue. No special Introduction. )

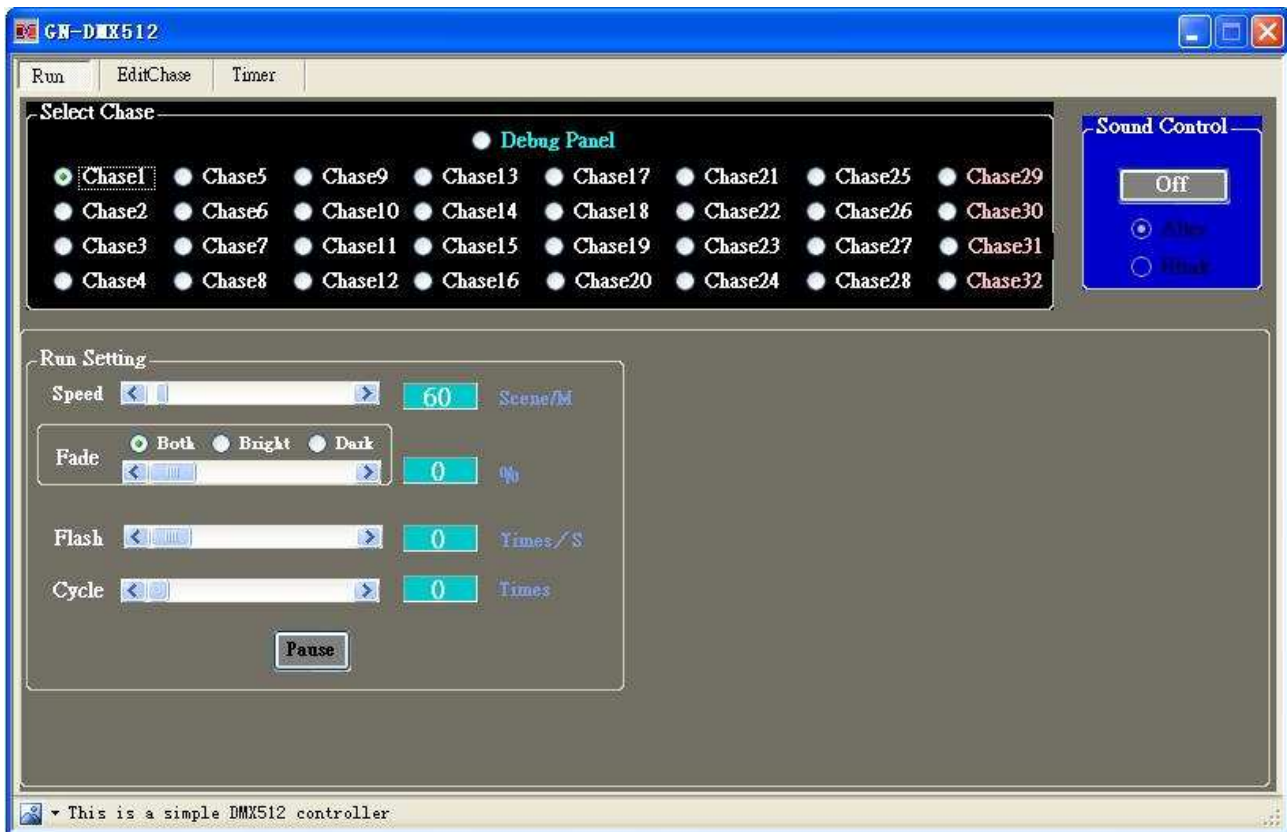


**Debug Panel:** for debugging performance of the fixture

**Chase1-Chase32:** Running inner chase1-32 is only available when relative chase is downloaded to controller.

**Scene clear:** All channel values of present scene are zero-clearing.

When **chase** 1-28 is chosen, software interface is shown as following picture.

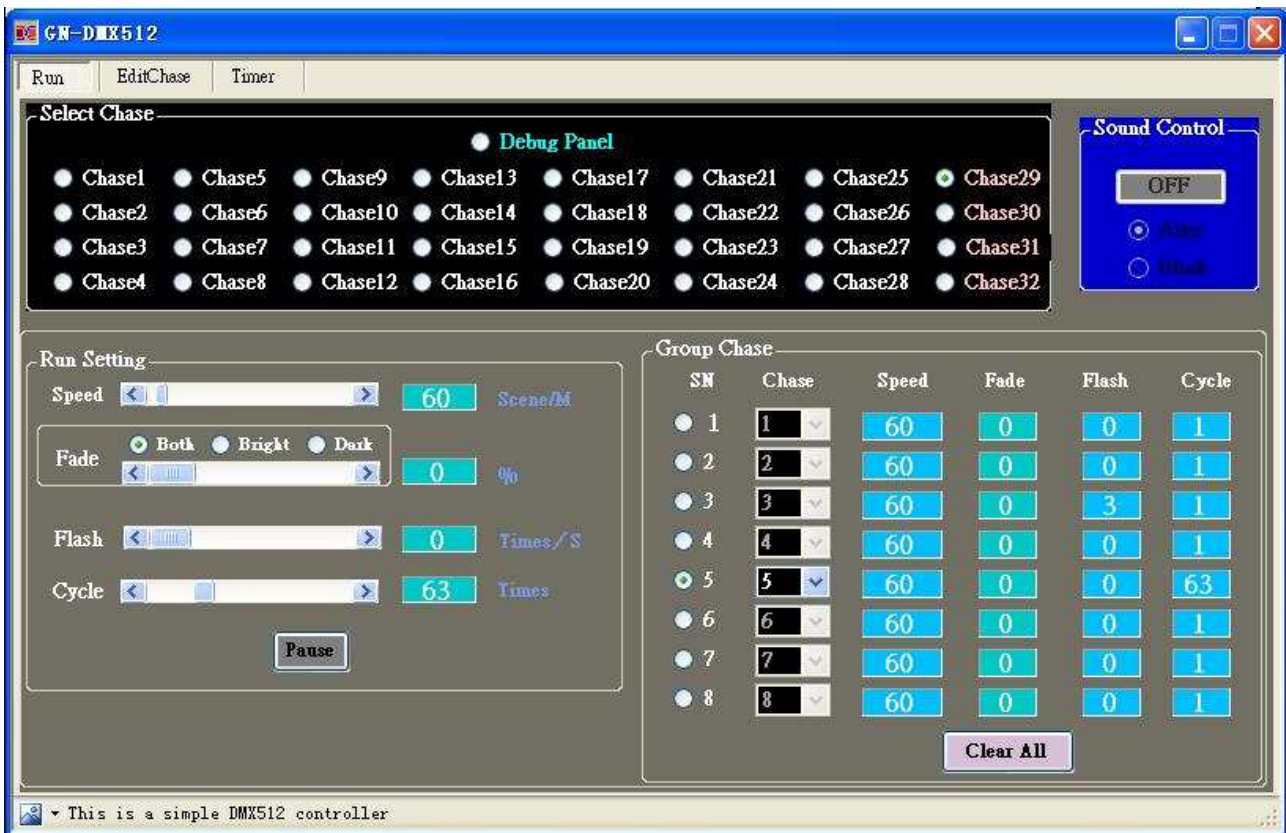


- OFF:** controller is running under chase mode
- ON:** Controller is running under sound control mode. For controller itself, low sound is used to realize scene alter in a chase.
- ALTER:** Low sound is used to realize scene alter in a chase. Current scene is held..
- Blink:** Low frequency sound is used to realize scene alter in a chase. Current scene is held for a while then it disappears.
- Speed:** Run parameter of chases. That is the time interval between two scenes. Adjustable in the range 0-1500, i.e. 0-1500 scenes per min
- Fade:** Gradual change for LED is generating gradual light and gradual dark effect.  
 Gradual light is to generate gradual light effect and gradual dark is to generate gradual dark effect. Adjustable in the range 0-100%, i.e. percentage that gradual-change time covers in scene-alter time.
- Flash:** to flash in certain frequency when running chase. 1-20, i.e. flash 1-20 times per second.
- Cycle:** When chase after running the set number of times, it stops at the last scene of current chase. Adjustable in range 0-250
  - 0: Means unlimited number of cycles
  - 1-250: Means to stop at the last scene of current chase after running

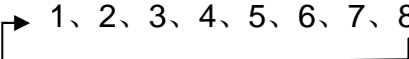
1-250 times.

**Pause:** Maintain the current state of the scene and stops running.

When **Chase29-32** is chosen, software interface is shown as following picture.



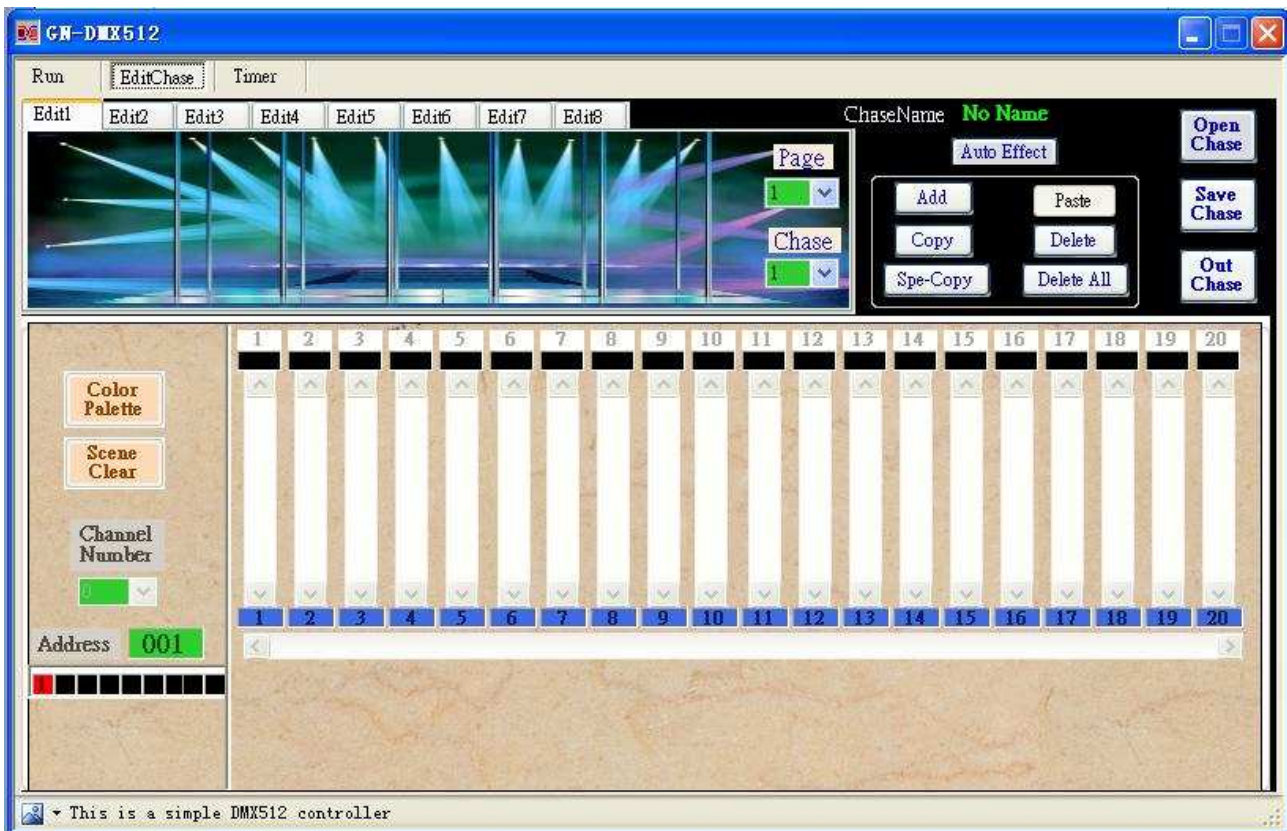
**Chase29-32** is a chase combining several chases and runs with different parameters. Therefore, chase 29-32 could generate complex results of all kinds.

Running order is 

Sound control is unavailable under this mode.

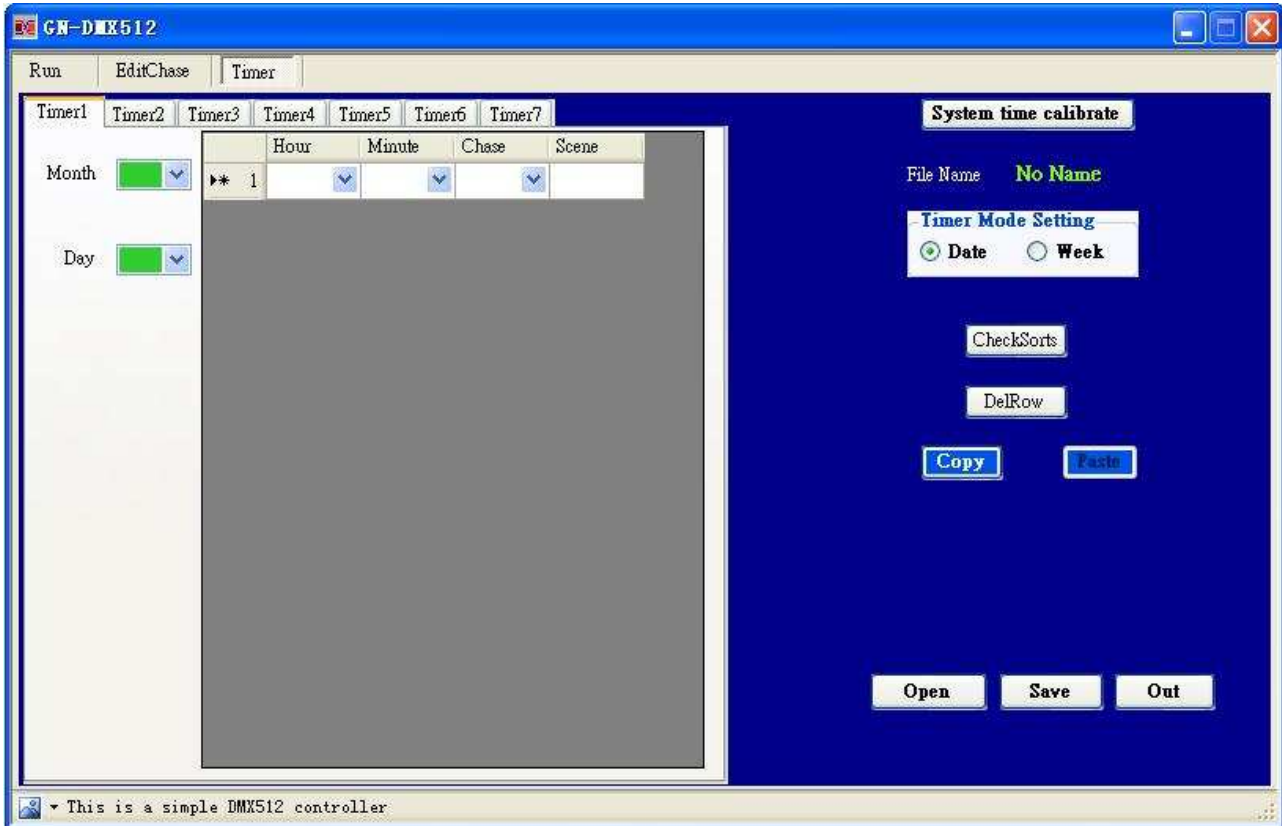
**Clear All:** Delete all setting of current chase

When editing chase, software interface is shown as the following picture.



- AutoEffect:** Automatically generate the internal effect, only available for LED the light fittings
- ADD:** A new scene is added at the place after the chosen scene.
- Delete:** Remove the currently selected scene
- Copy:** Copy chosen scenes.
- Spe-Copy:** to copy of several scenes
- Paste:** To copy scene or insert several scenes
- Delete All:** Delete all scenes loaded in current chase.
- Open Chase:** Open previously saved program
- Save Chase:** Save current chase
- Out Chase:** Output current chases to controller. If there is no scene, the old chases in controller will be deleted.
- Page:** When current scenes are more than 32, current window cannot display all, so scene will be displayed in several pages.
- Chase:** The effect of the current edit the output to the corresponding chase

When in Timer mode, software interface is shown as the following picture.



**Month:** to set month

**Day:** to set date

**System time calibrate:** taking current time of computer as benchmark to calibrate inner time of controller

**Date:** to time according to Gregorian calendar

**Week:** To time according week

**CheckSorts:** Check timing input is correct or not and sequence according to time order.

**DelRow:** to delete chosen rows

**Copy:** Copy current timing setting

**Paste:** Paste copied timing setting

**Open:** Open timing setting saved in computer

**Save:** Save current timing setting.

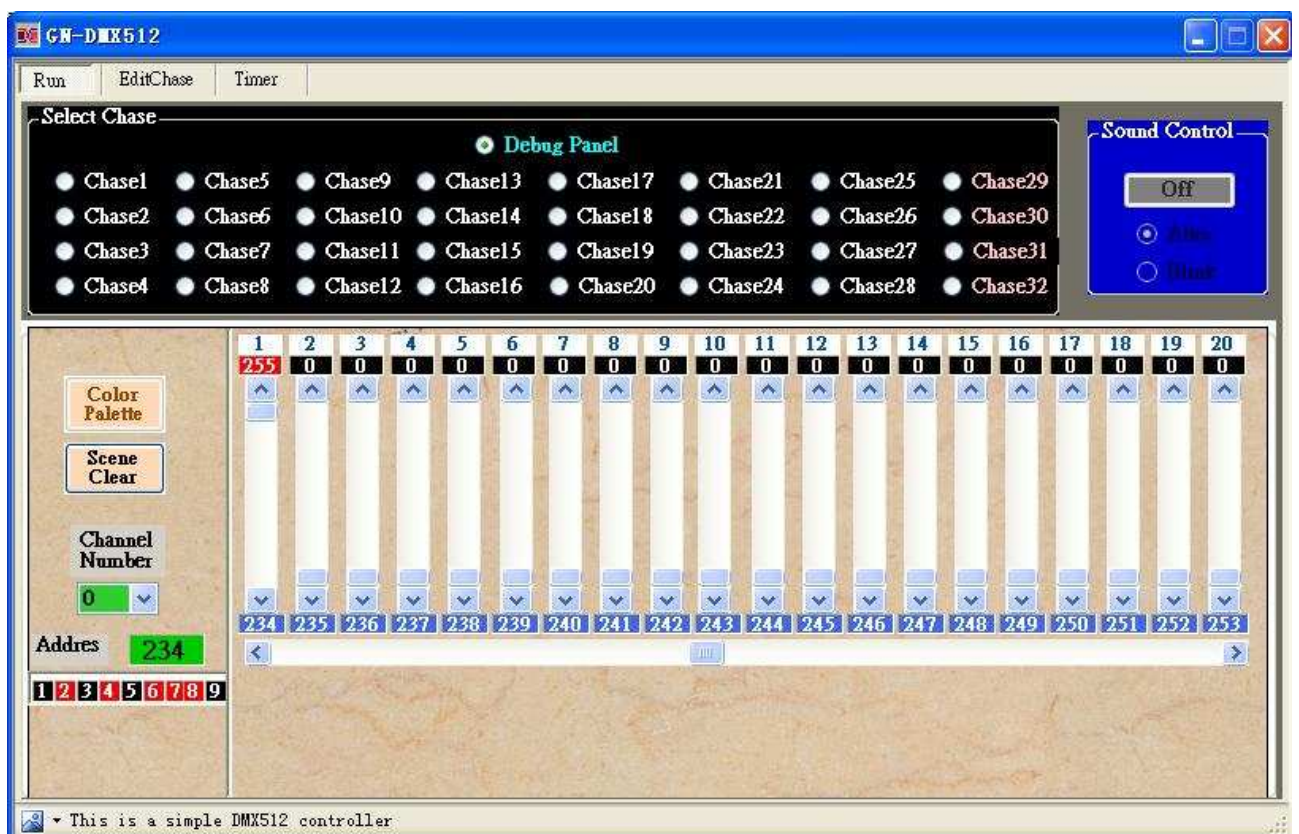
**Out:** Output current setting to DMX512 controller



## Operation steps of controlling the fixtures via debugging panel

- 1, Set DMX512 address of controlled the fixtures.
- 2, Address slider at the bottom of computer control software is set to accord with address of controlled the fixtures.
- 3, Channel sliders are used to change channel value so as to realize corresponding lighting effect.

For example, as for a LED fixture with 3 channels, first channel is to control red color, the second channel to control green color and the third channel to control blue color. First address is set at 234. Slider whose software address is 234 controls red color. Slider whose software address is 236 controls blue color. As shown in the following picture, lights are on with red color.



## Step-by-Step Procedures of Editing Chase

1. As the following interface is shown, click  button. It is also acceptable to  choose after clicking right key of mouse and shortcut menu is bounced.
2. Adjust slider in the faceplate as well as DMX512 channel value and channel address as necessary.
3. Click repeatedly  button to set other scenes as necessary.

The following keys can be clicked to edit scenes.

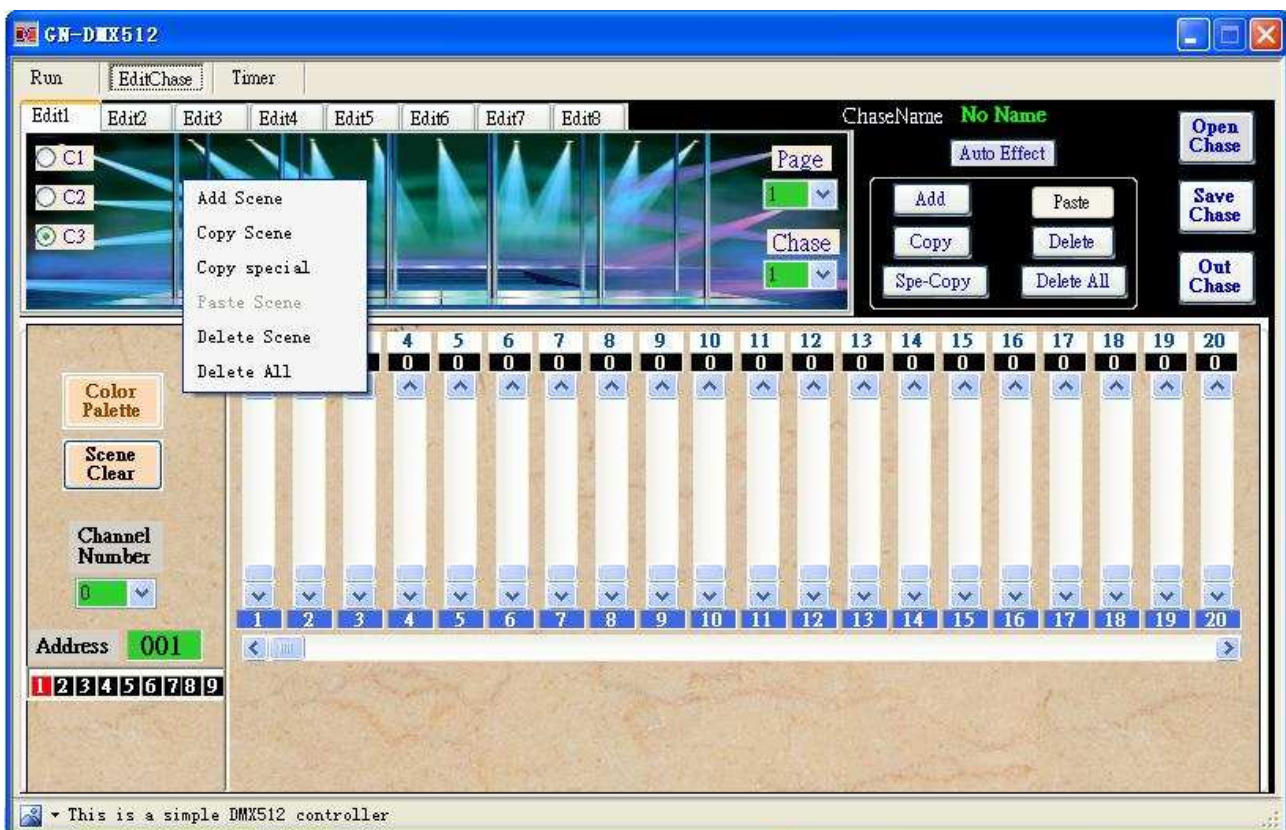
Click  button to copy current chosen scenes.

Click  button to copy several scenes.

Click  button to paste chosen scenes after the copied ones or insert several copied scenes.

Click  button to delete all the chosen scenes.

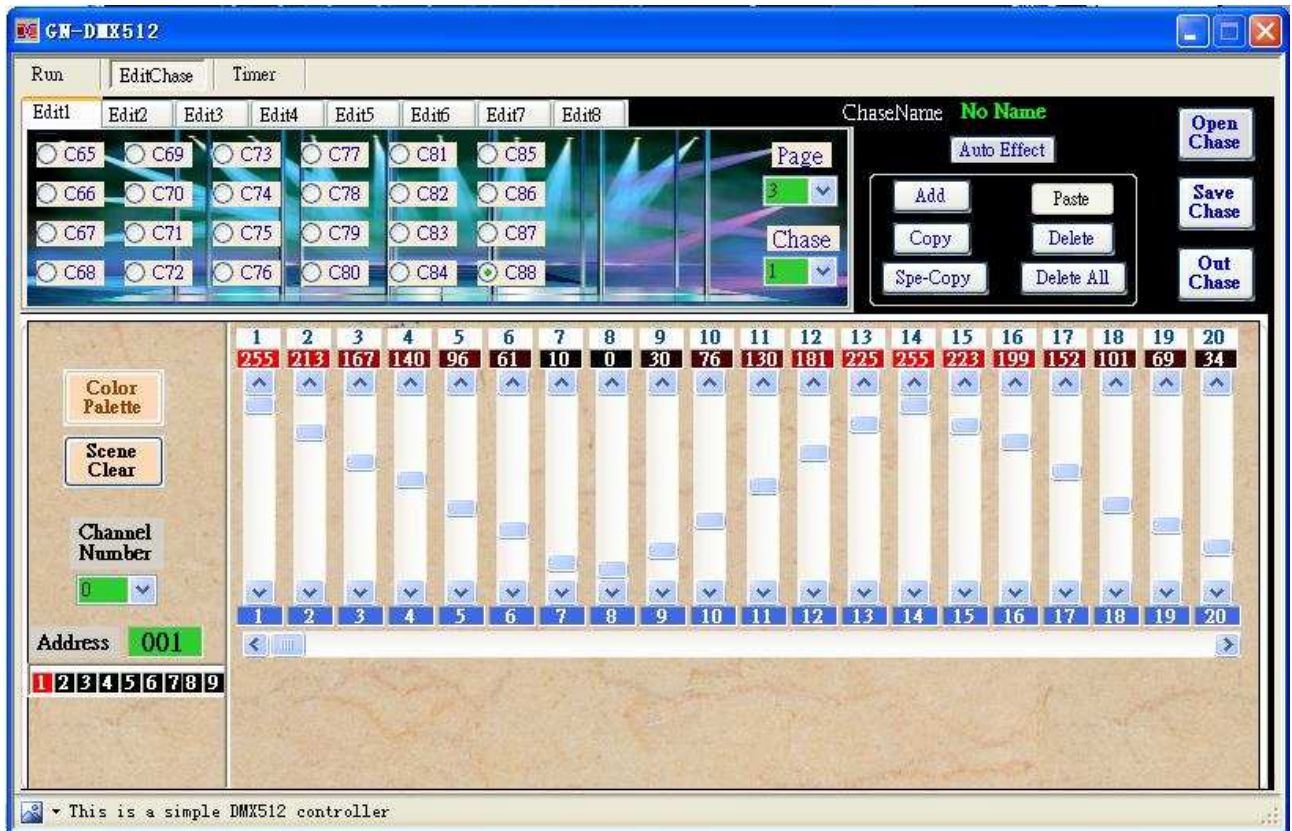
Click  button to clear current scenes.



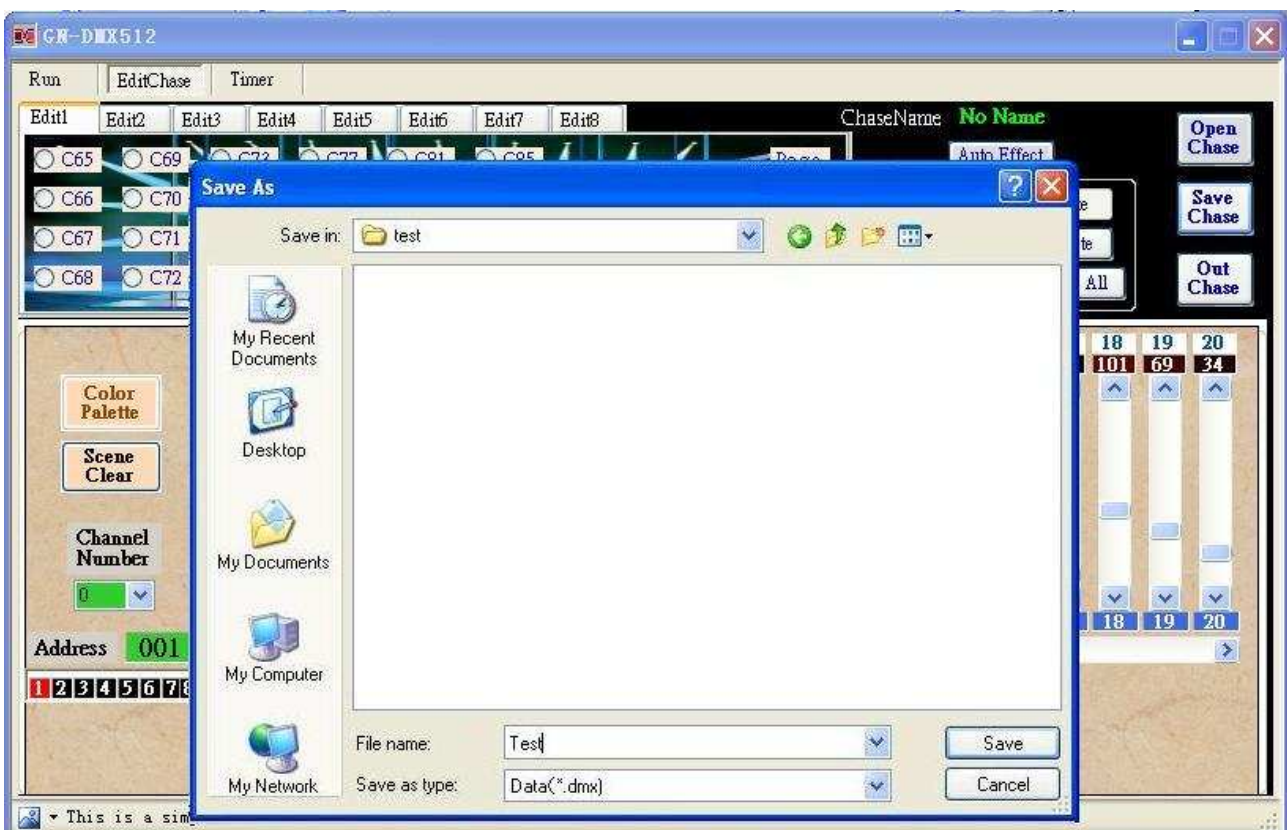
### Note:

Click right key of mouse on blank space of  item, function of buttons on shortcut menu bounced is the same as the right buttons and the same as buttons on shortcut menu bounced when clicking right key of mouse on current scene. Operation object is a little different. The user can find it themselves.

4. The Edited Chases are Shown in the Following figure

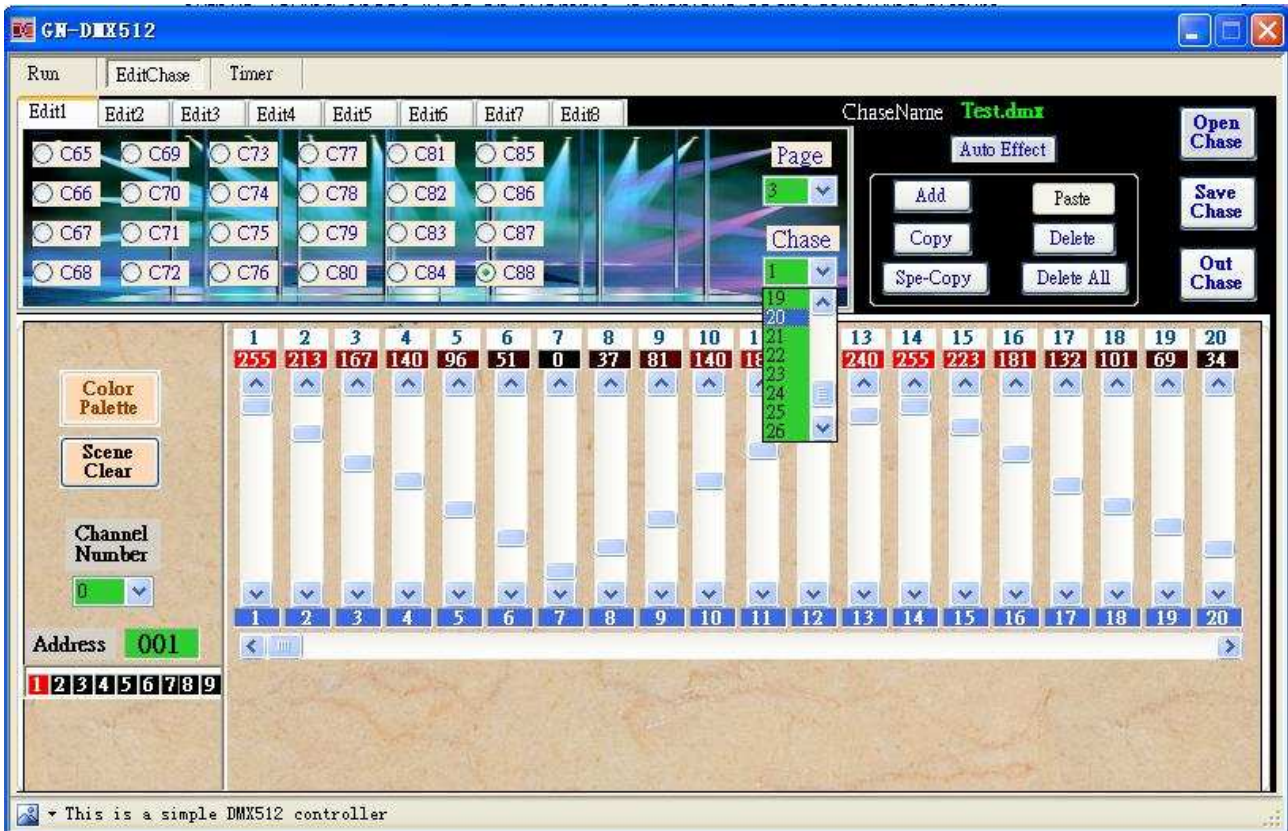


5. After chases are edited, click **Save Chase** button as shown in the following figure. Input file name and click **Save** button.

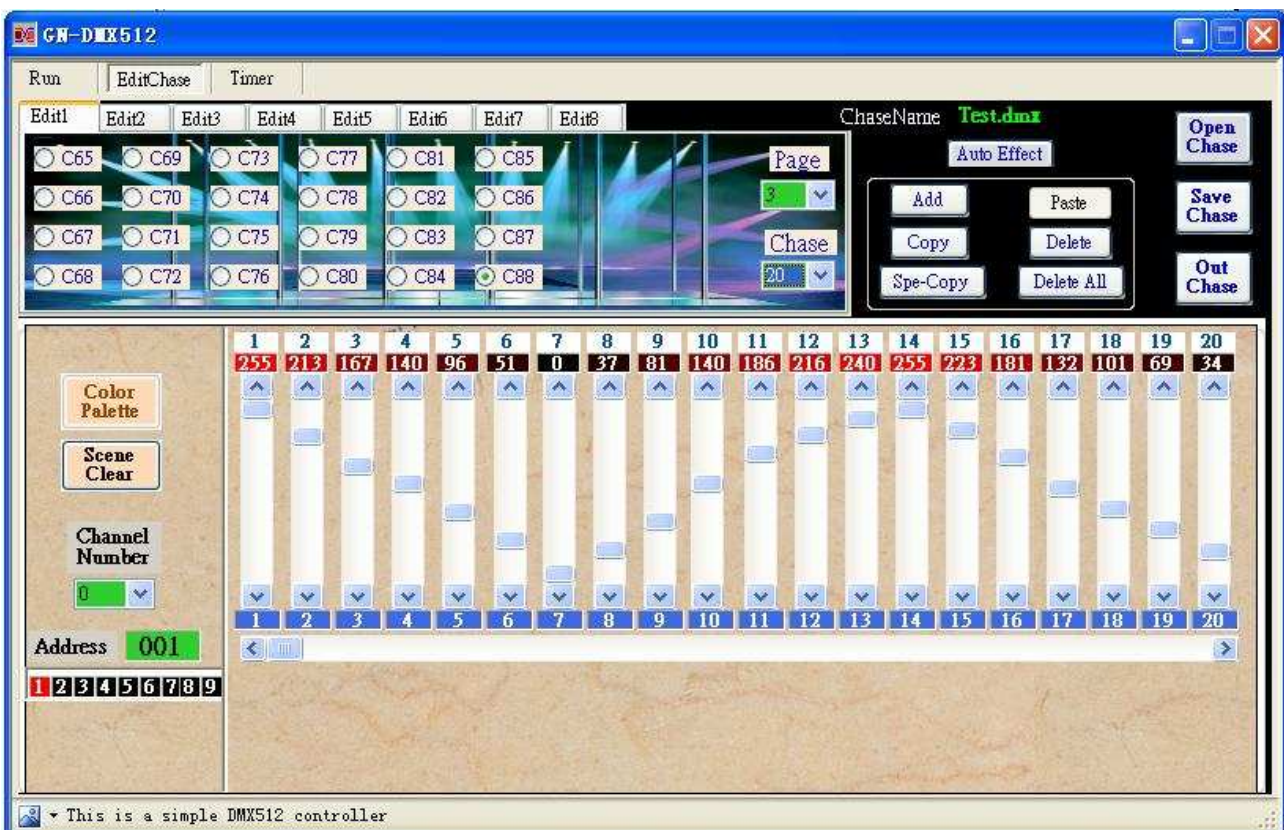


Patient users will find Chase name is changed into "Test.dmx" from "No Name"

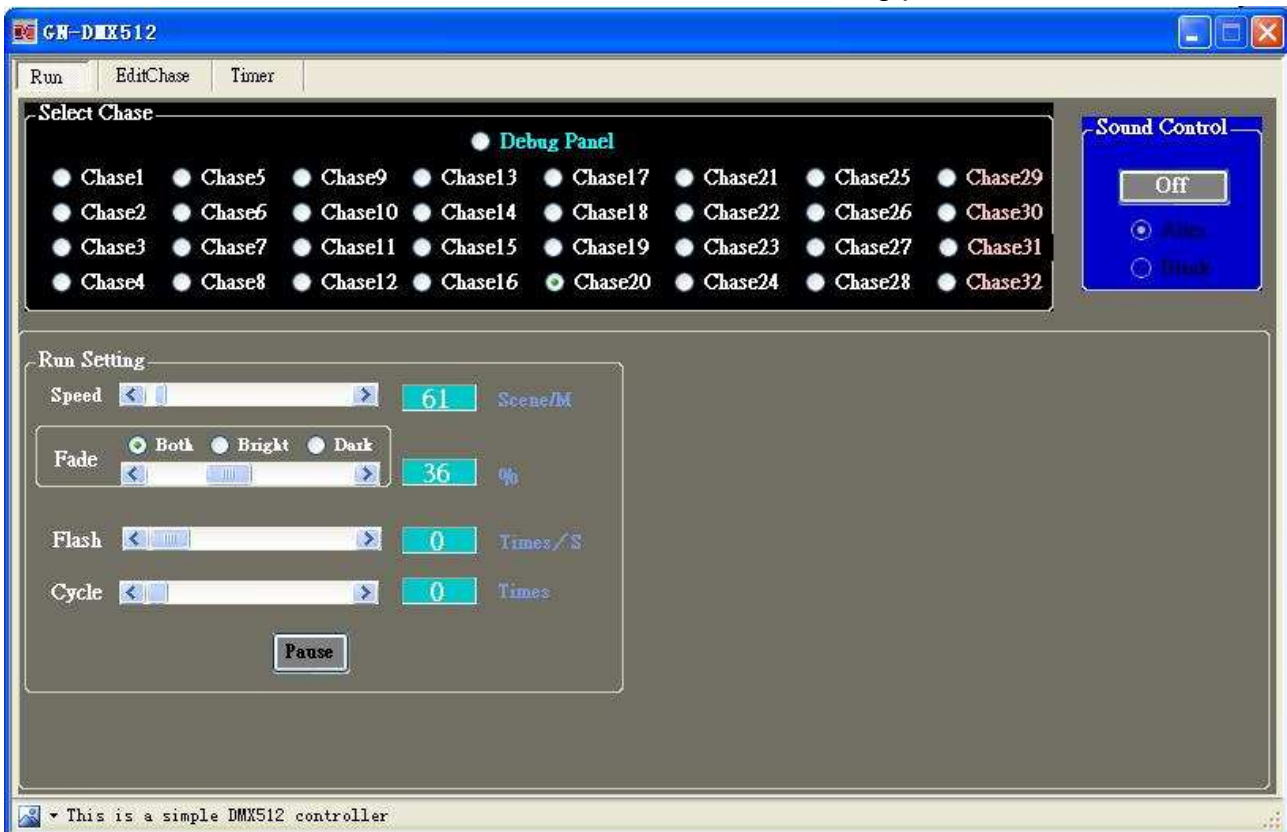
- Choose relative chase in controller to which output result that currently edited will be output. Taking chase20 as an example, it displays as the following picture.



- Click Out Chase button to output chases to controller. The interface is shown as the following figure after chases are edited.

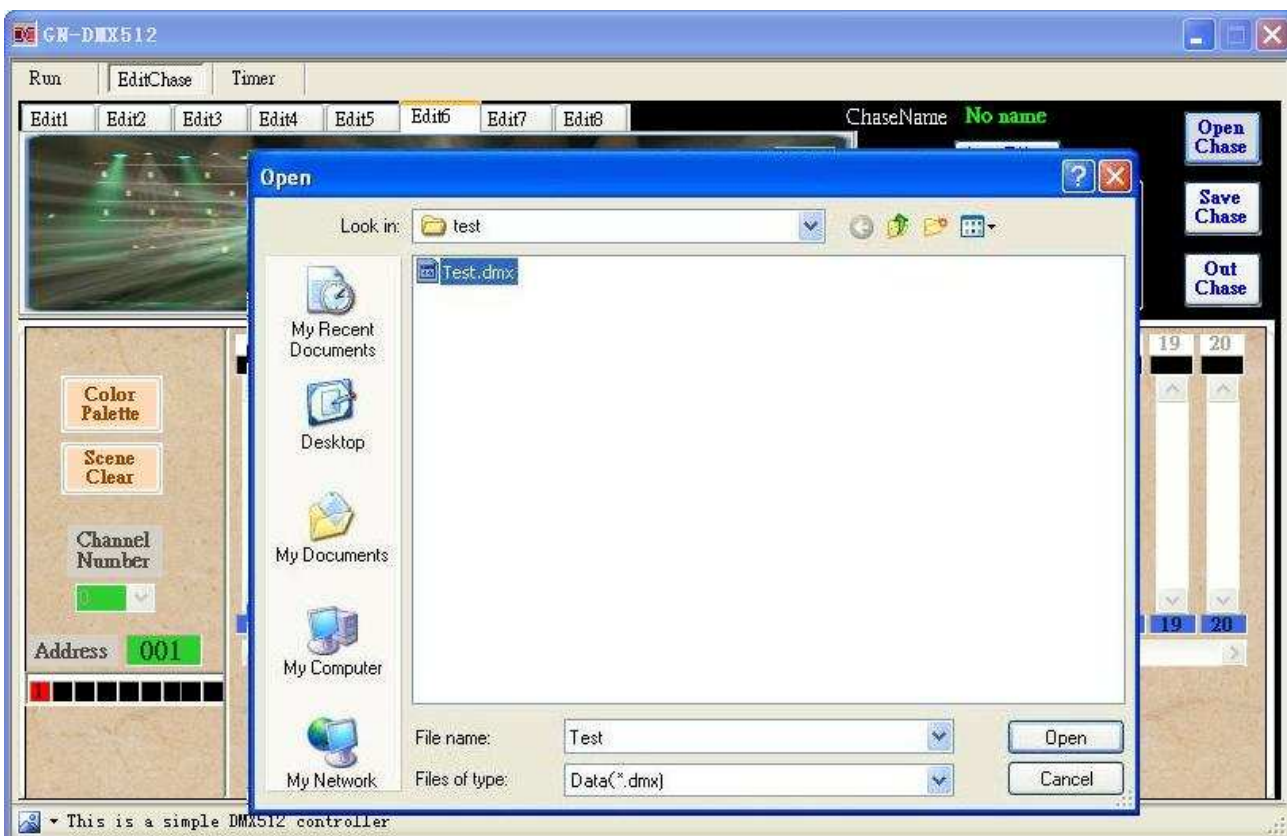


- Click Run item to run chase edited above. Taking chase 20 as an example, run chase edited above and the result shows as the following picture.



## Open Chases Edited

- Select Edit Chase and edit 1-8. Take Edit 6 as an example.
- Click Open Chase button and dialog box "OPEN" is shown as the following picture.



3. Select old edited files and open them. File names of edited chases are shown in the right. Alters can be made to edited chases.
4. The following operation steps please refer to the above section.

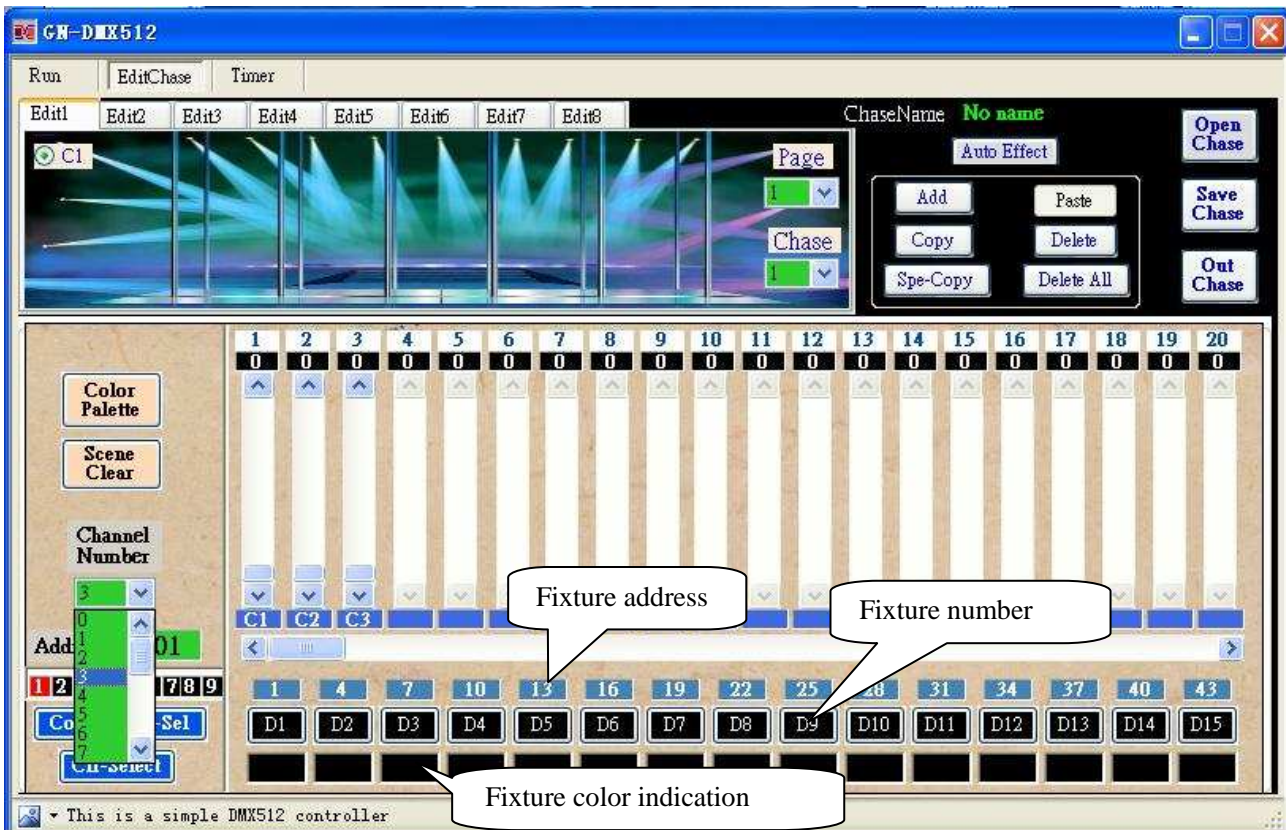
**Note:**

There should be compatibility between number of editing chases and Chase number of DMX512 controller as shown in the following table.

Run	DMX controller
chase 20	chase20

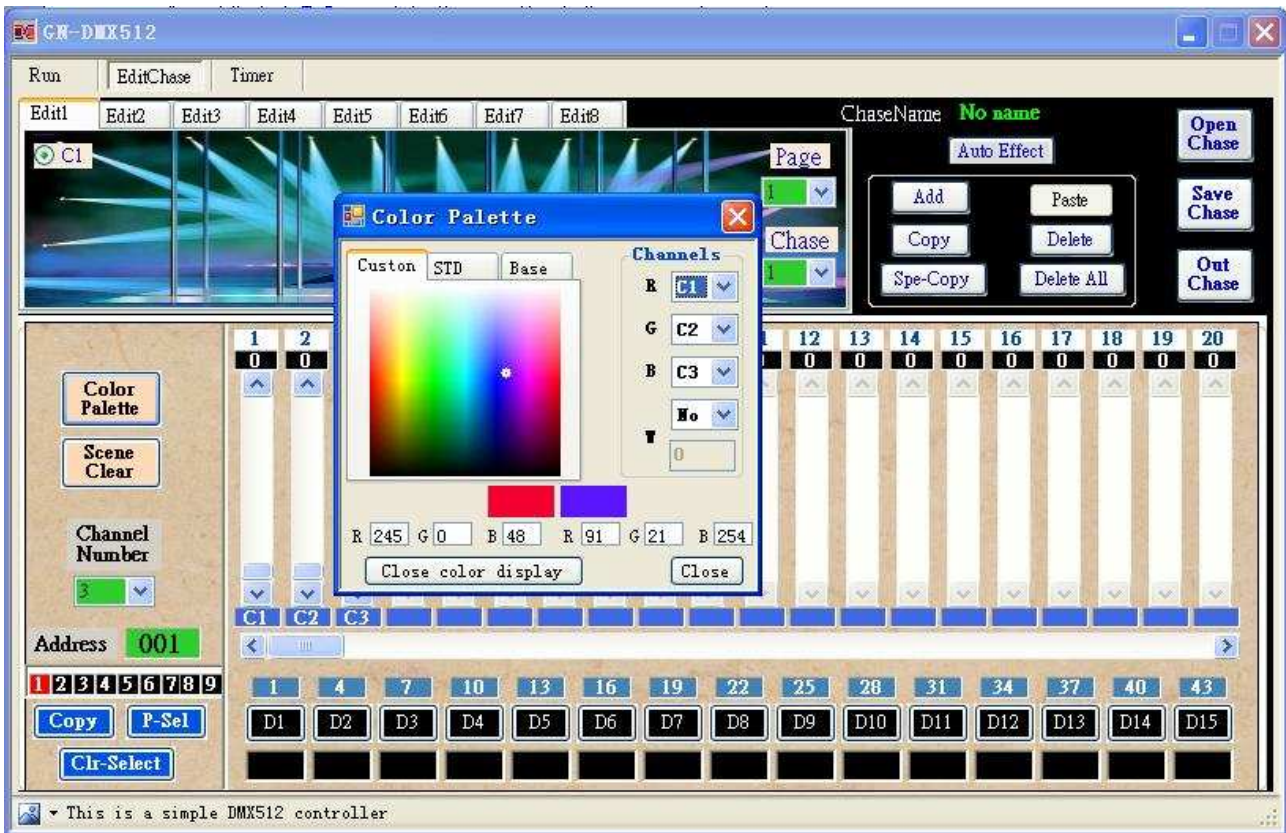
## Skills of multi-fixture editing

Take LED fixture with 3 channels as an example and the channels are defined as: channel1 red brightness, channel2 green brightness, channel3 blue brightness. Click **ADD** button, or choose **Add Scene** button on shortcut menu bounced after clicking right key of mouse, to choose 3 as **channel number**. Interface displays as the following picture shows (The following operation is done on base of this interface).



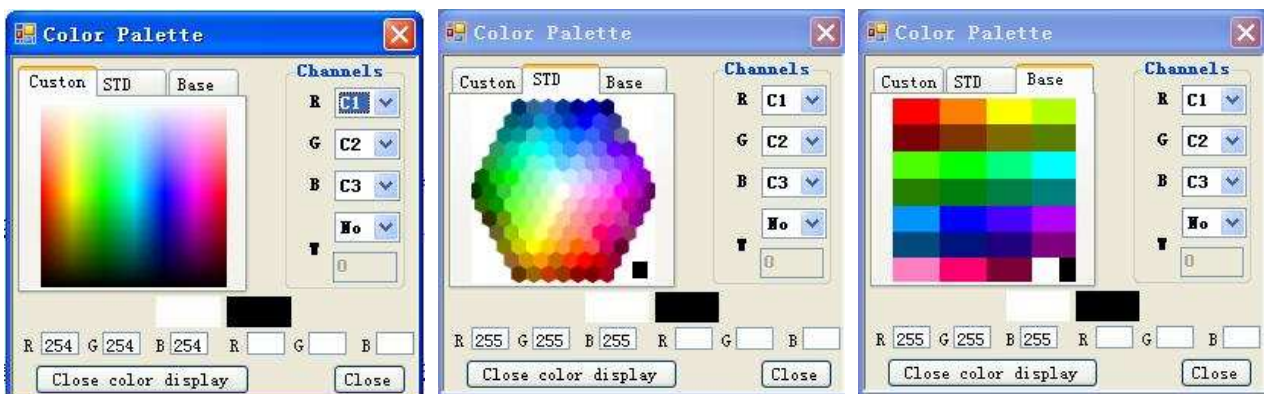
# Use of color palette

1. Click Color Palette button as the following picture shows:



Introduction of color palette

According to requirement, choose Customized or Standard Basic item as the following picture shows.



Definition of channel as the above pictures show

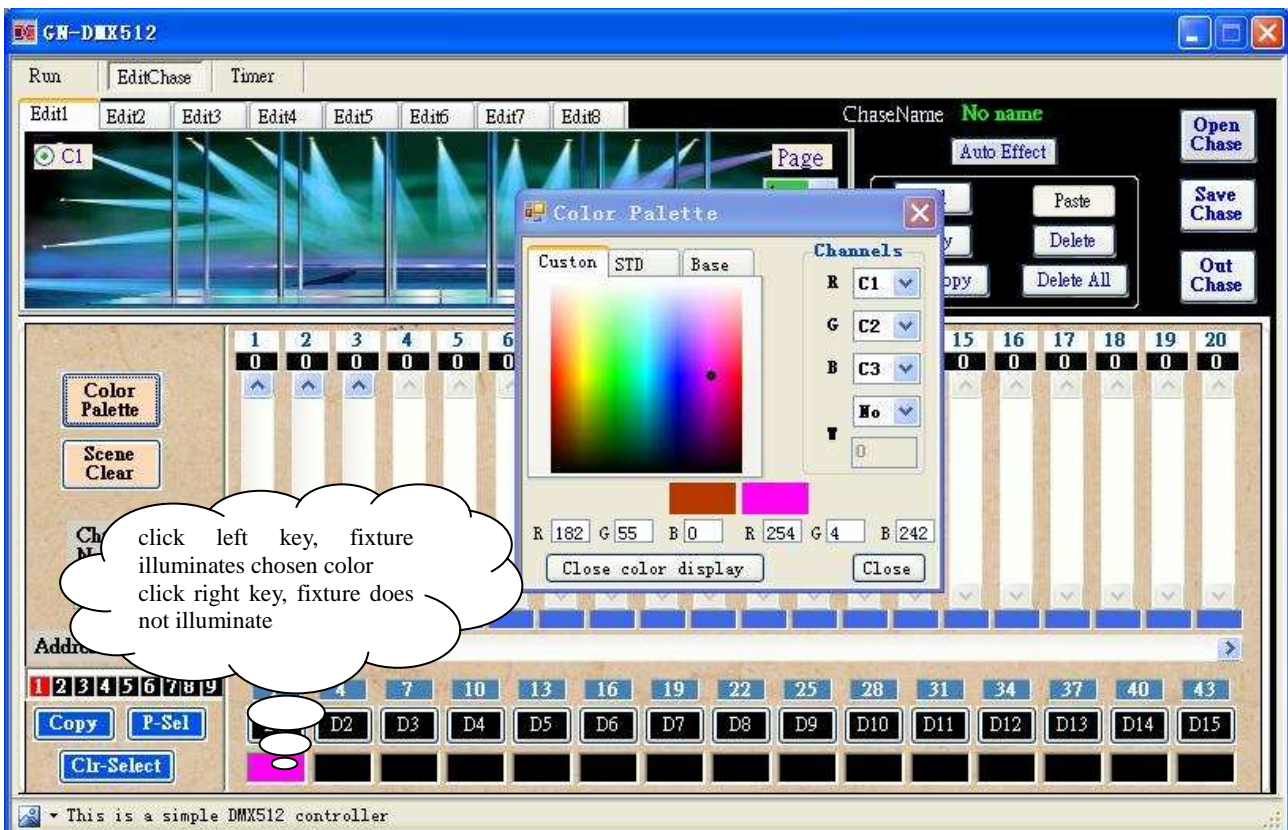
- R C1 means red brightness controls relative channel C1
- G C2 means green brightness controls relative channel C2
- B C3 means blue brightness controls relative channel C3
- W No: means no control setting to whole brightness (only available for decoder)

containing control to 4<sup>th</sup> channel brightness)

**0** is used to set value of brightness. Only when W channel is valid, could the value be set.

**Close color display** is used to close color display in the bottom of main panel.

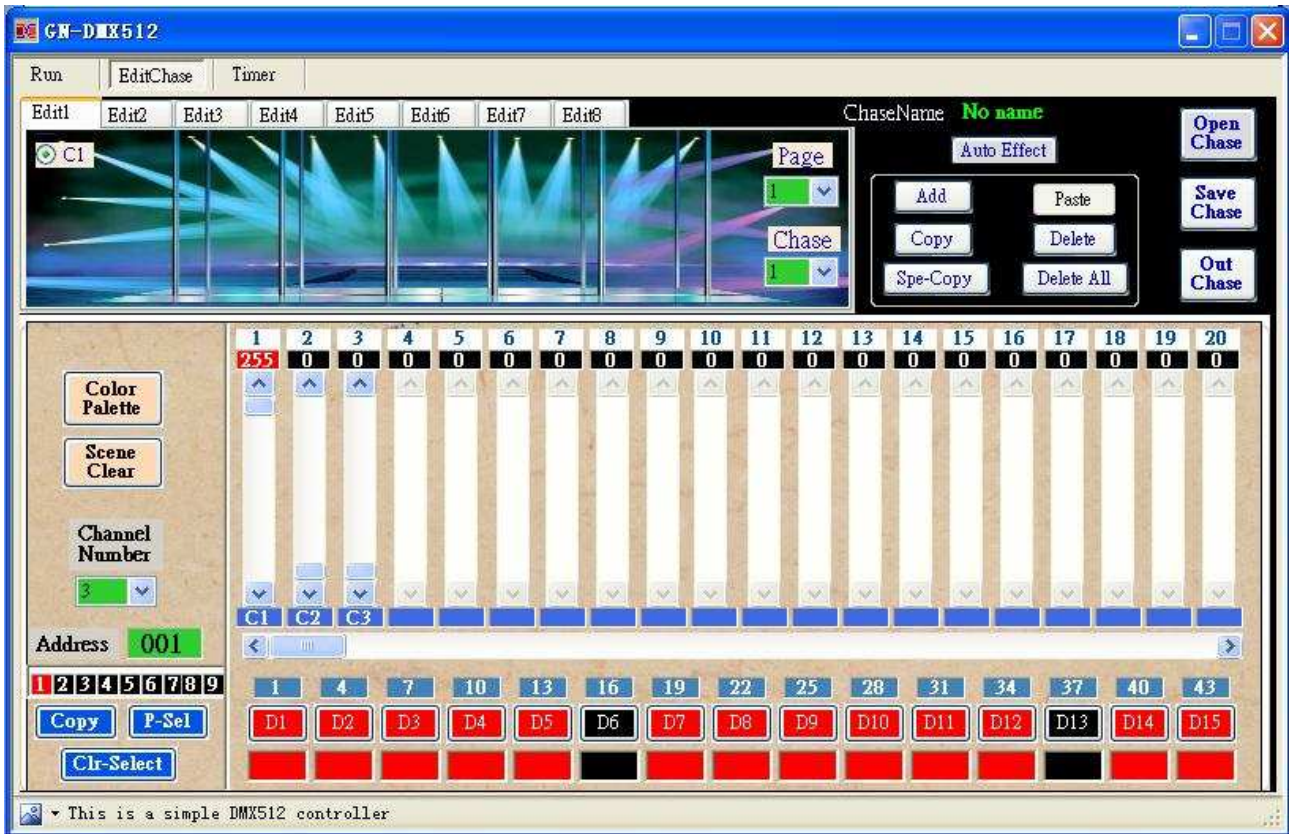
2. Click color wanted and then click color display in the bottom of main panel as the following picture shows. After pink is chosen, left-click color frame under D1 and D1 will output pink. If right-click color frame under D1, data in D1 channel will be cleared.



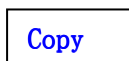
## Synchronous change of multi-fixture

- 1 Click D1-D15 to choose single fixture or click **P-Sel** button to choose 15 currently displayed fixtures. Adjust address slider to show more fixtures.
- 2 Adjust slider to position showed as the picture below. All chosen fixtures will be synchronized.

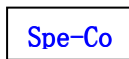




## Copy and paste Scene



Button is used to copy single scene



Could used to copy several scenes and change the order of scenes.

If button is clicked before clicking button, the contents of the currently selected scene will be replaced by copied scene. If button is clicked then copied scene will be inserted after currently chosen scene.

Click button and dialogue will show as the following picture. Input 1 to Start Scene and 9 to End Scene,

i.e. copy from scene 1 to 9

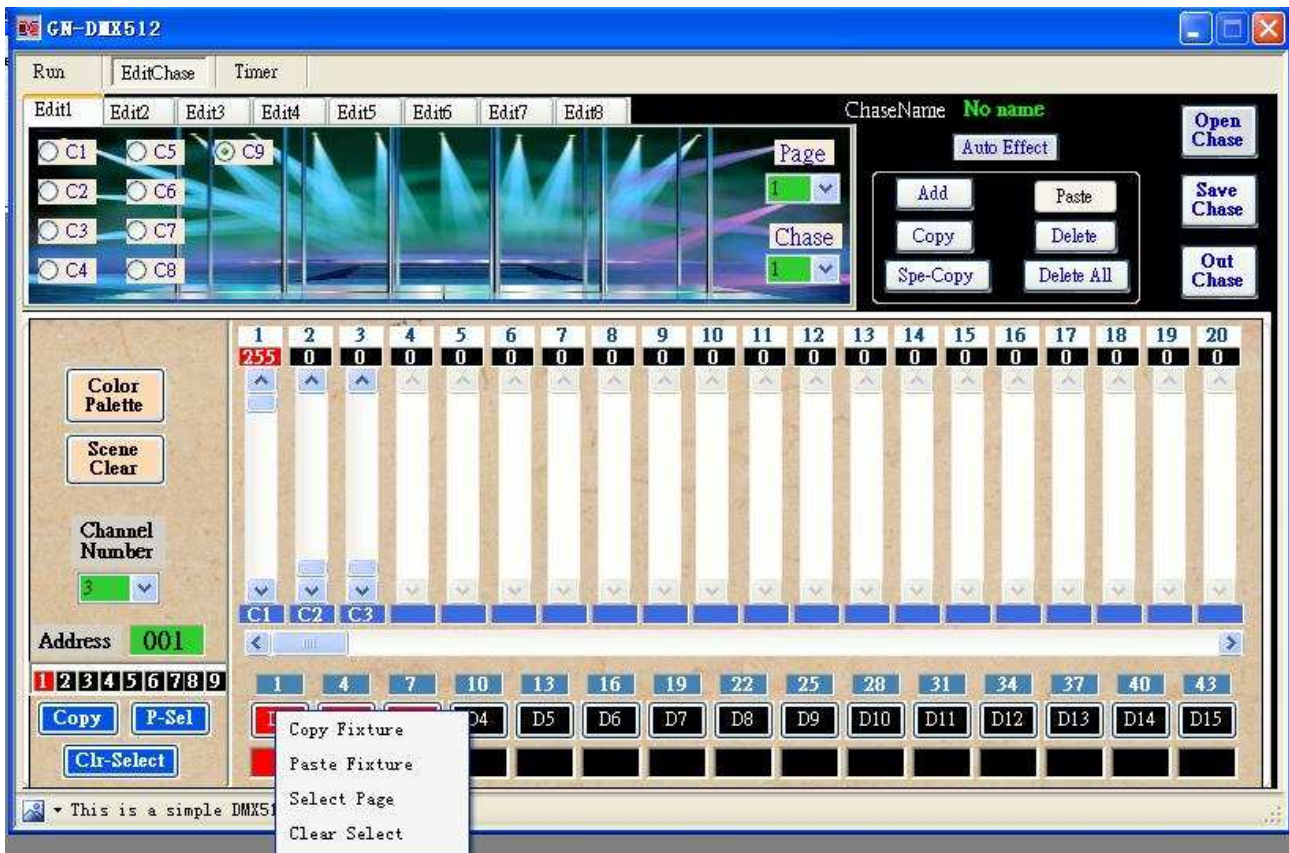


If input 9 to Start Scene and 1 to End Scene as the following picture shows, scene order after pasting is reversed.

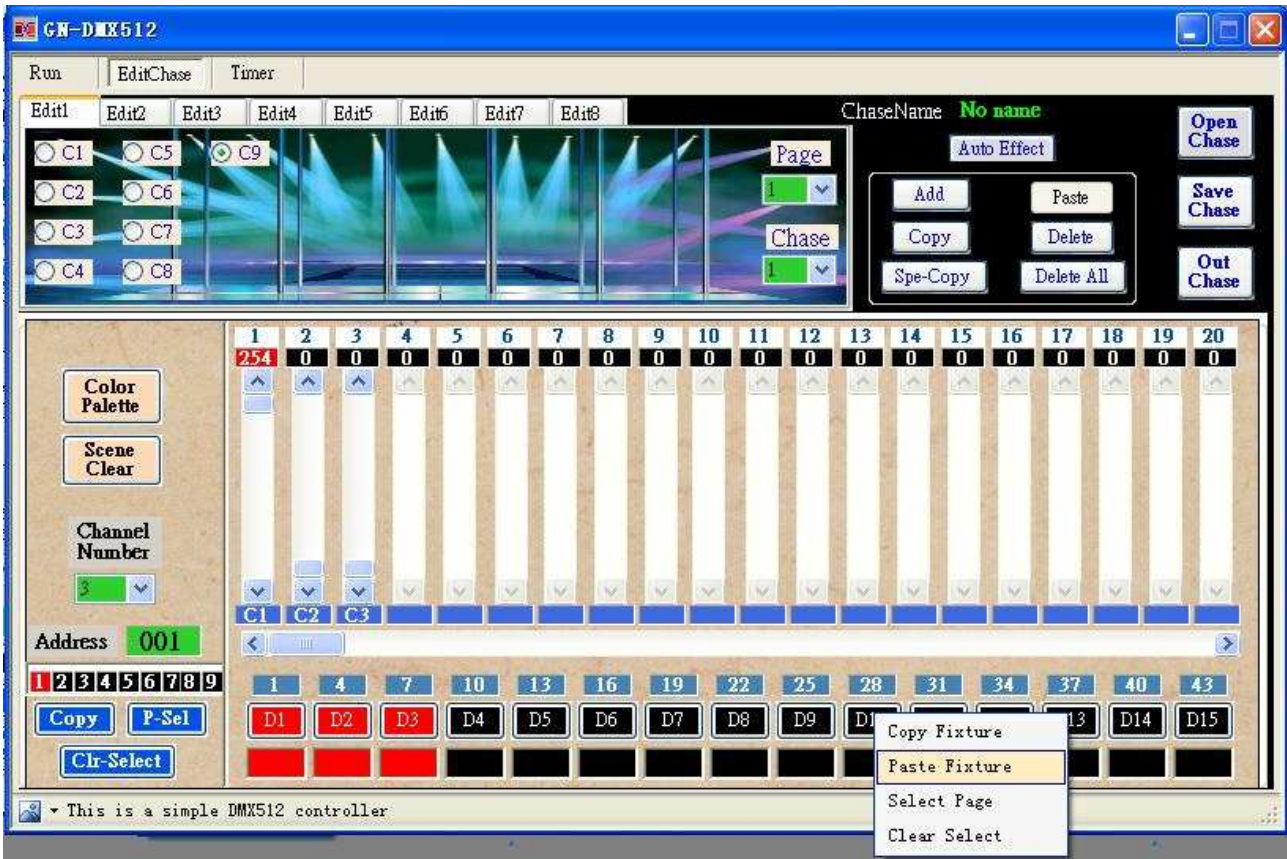


## Copy and Paste of Fixture

Edit fixture through **Copy** **P-Sel** **Clr-Select** buttons in bottom or clicking relative buttons on shortcut menu after clicking right key on buttons D1-D15 (fixture order buttons). As the following picture shows, red means fixture is chosen. Click **Copy** button, D1, D2, D3 fixture will be copied.



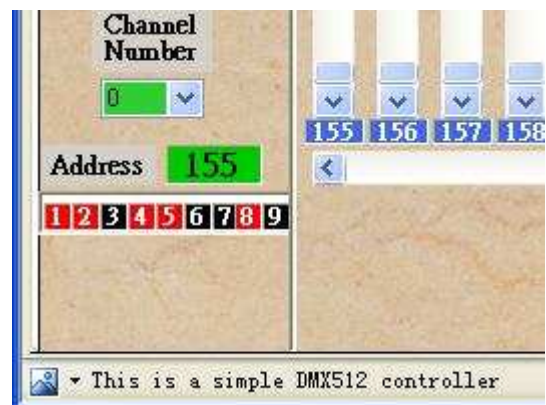
As the following picture shows, Click **Paste** button on position showed in the following picture. Effect of D10, D11, D12 fixture will be the same as that of D1, D2, D3 fixture.



## Use of Dip switch

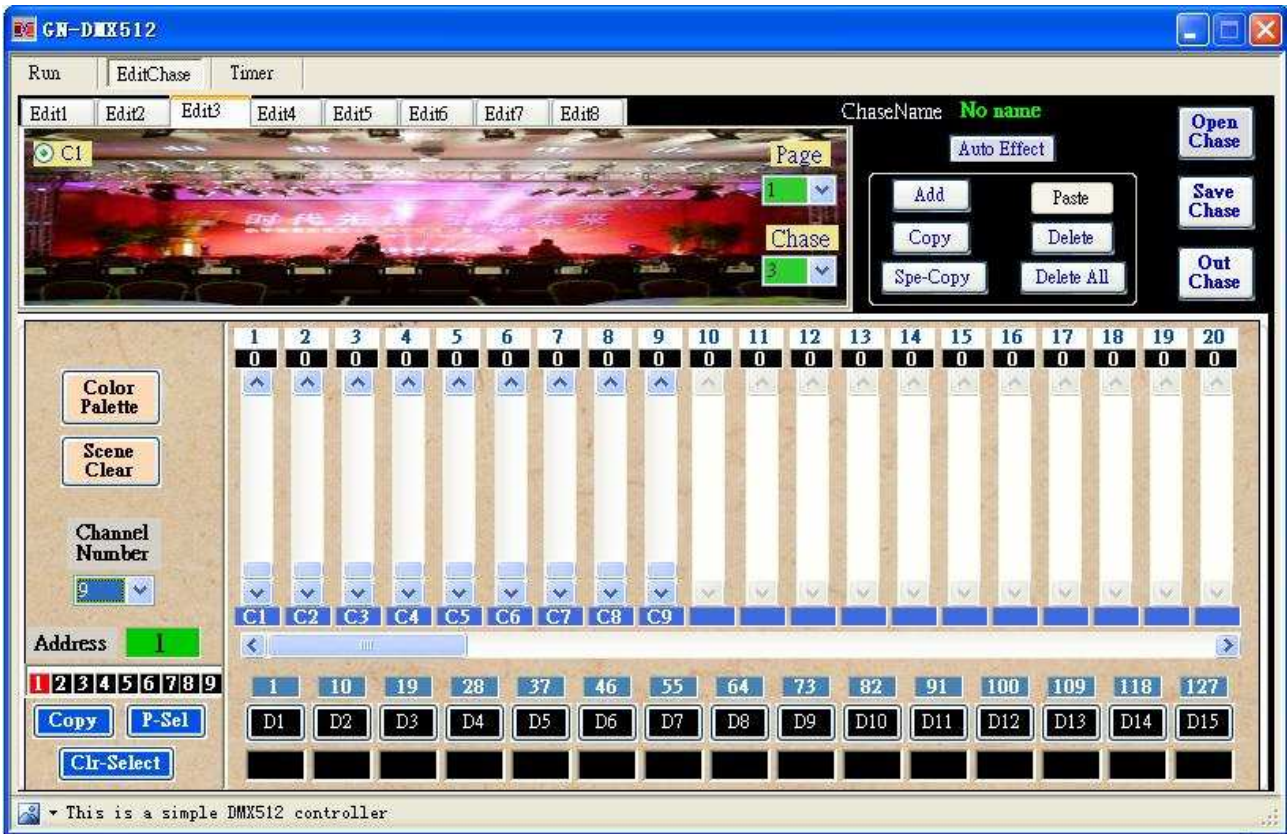
1.If Dip switch is used to set DMX address of fixture, switch can be set in accordance with the guide in the lower left corner of interface. Red color indicates “on” and black indicates “off”.

- Current address is 155
- Corresponding Dip switch address is:
- Dial from 1, 2, 4, 5, 8 to on side.
- Dial from 3, 6, 7, 9 to off side



## Use of channel numbers

Proper use of channel numbers could simplify operation procedure. If there are 3 sets of LED fixture and respectively has 3, 6 and 9 DMX channels. Then the channel number should be set 9 (i.e. accords with fixture occupying maximum DMX channels) as the following picture shows.



There are 3 DMX channels, fixture address is set 1.

There are 6 DMX channels, fixture address is set 10

There are 9 DMX channels, fixture address is set 19.

Click **D1** button, the button will turn red. Drag C1, C2, C3 buttons to operate fixture with 3 DMX channels.

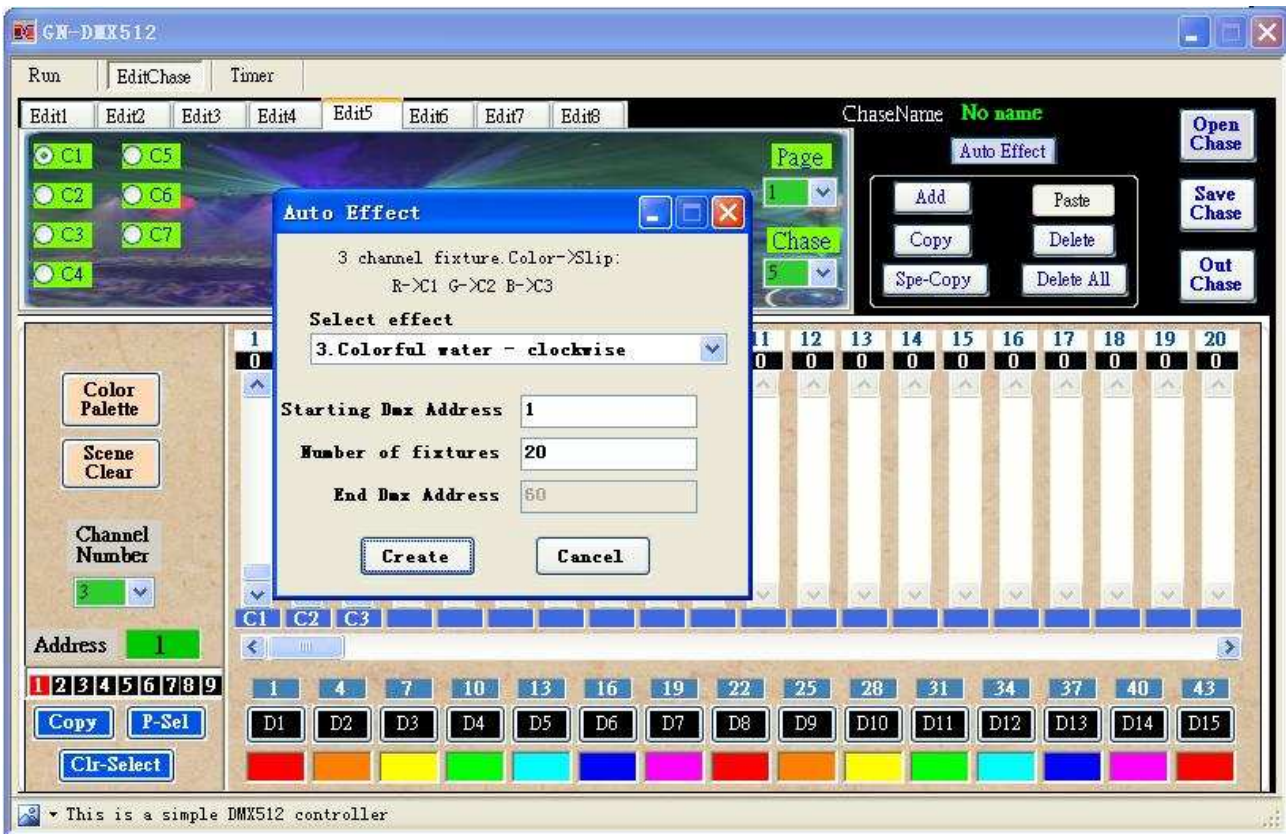
Click **D2** button, the button will turn red. Drag C1, C2, C3, C4, C5, C6 buttons to operate fixture with 6 DMX channels.

Click **D3** button, the button will turn red. Drag C1, C2, C3, C4, C5, C6, C7, C8, C9 buttons to operate fixture with 9 DMX channels.

# Introduction of Automatic Effect

This operation is only available for LED fixture.

- 1, Click Auto Effect button as the following picture shows:



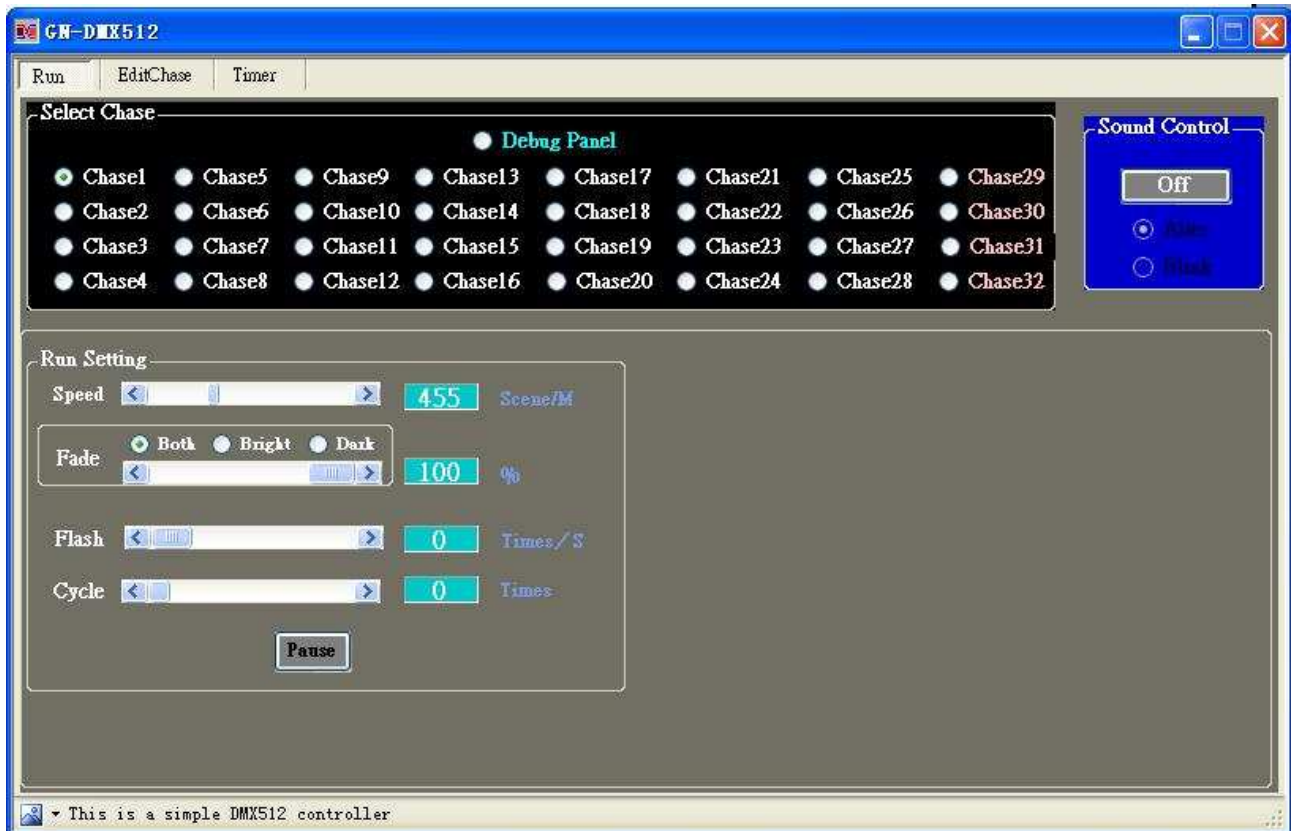
Setting of channel could be defined by sub-window body of Color Palette.

Follow the steps below and automatically generate effect

- 1, Choose AutoEffect
- 2, Set starting Dmx Address
- 3, Set Number of fixtures
- 4, Click Create button

## Run Chase

1. Click Run item.
2. Choose Chase 1-32 (which should be output to Dmx512 controller at first)
3. Adjust speed, fade, flash, cycle running parameters to effect wanted. It is also acceptable to start sound control, running under Alter or Blink situation. chase 1 will be run as the following picture shows.



**Note:** Only after relative chase are loaded to DMX512 controller, can the [running setting](#) be saved automatically.

## Offline Run Chase

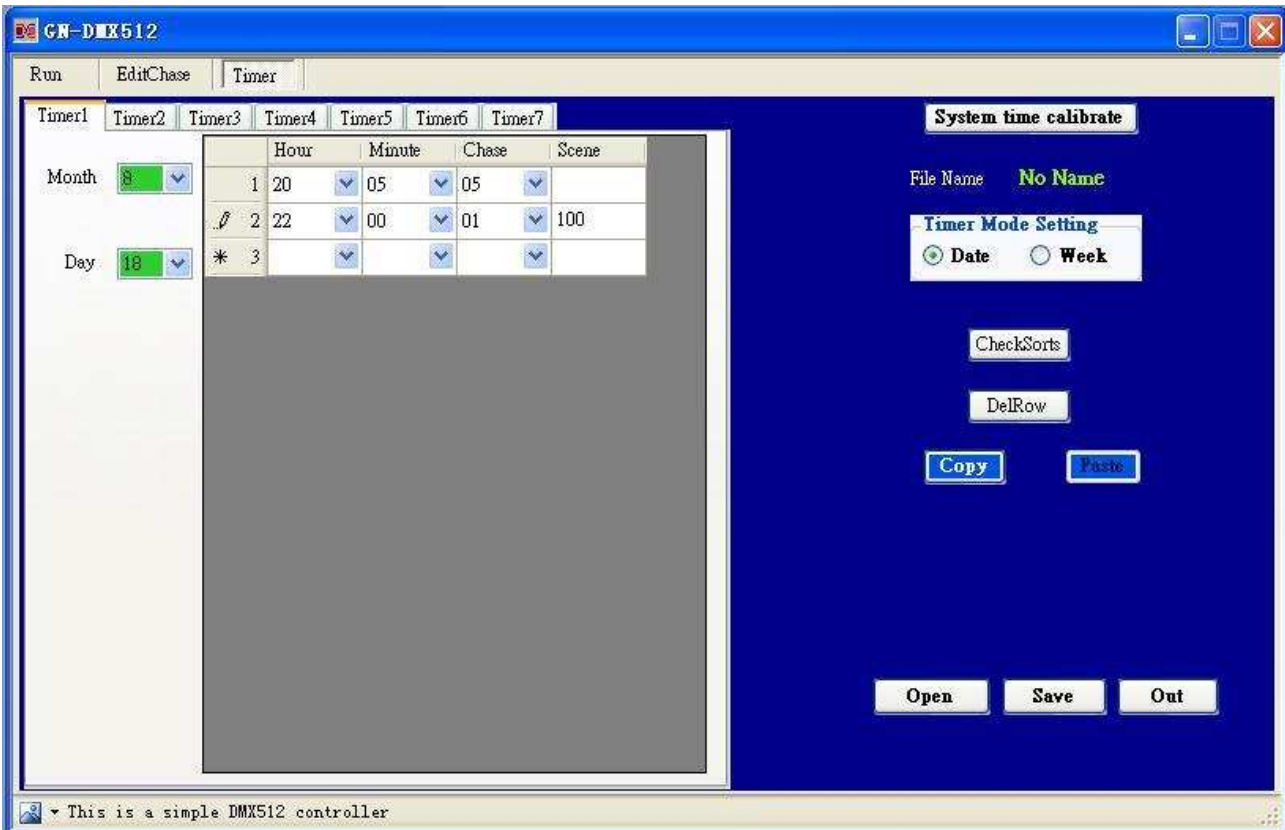
1. Link dimmer to the power and fixture.
2. Press button on dimmer and MODE button and select inner chase or sound control, or invoke scenes.
3. The parameters of chases are saved automatically after they are set.

## Timing Function

**There are up to 350 groups of timing output for timing function and could output any chase or scene anytime. It must be used together with timing module.**

Click Timer item as the following picture shows.

Click Calibrate system time button to calibrate system time of DMX512 dimmer with current time of computer. There are 7 groups of time for setting in total, could set according to month, day and week as well.



1. Choose date or week.
2. Set time, hour, minute, chase and scene.
3. Click OUT button to output timing setting to Dmx512 controller

Click Open or Save button to save or open timing setting.

The above picture shows chase5 will run at 20:05, August 18<sup>th</sup> and scene 100 of chase1 will run at 22:00 every year.

## Open Timing Function

Click button MODE of DMX512 controller until the LCD monitor displays menu as below. AUXR  
TIME:OFF Click button UP or DOWN of DMX512 controller, LCD monitor displays menu as below.

AUXR  
TIME: ON 2 seconds later, it will become TIMER  
08 22:15 or TIMER  
MON22:15

TIMER  
08 22:15 Timing according to date method, 08 means current date is 8<sup>th</sup> and time is 22:15.

---

<b>TIMER</b> <b>MON22:15</b>
---------------------------------

Timing according to week, MON means Monday and time is 22:15.

**Note:** Before the arrival of new timing setting, DMX512 controller will run according to the last timing setting everyday.

### **Example**

#### **1, DMX512 dimmer runs the same effect everyday**

Taking the above picture as an example, if only **Timing 1** is set, DMX512 controller will run chase 5 everyday 20:05 and run the 100<sup>th</sup> scene of chase 1 everyday 22:00.

#### **2, DMX512 Control In the year to run different scenarios for each quarter**

All that have to do is set four timing setting. Dates are as follows:

Date of **Timer1**: Mar 1<sup>st</sup>

Date of **Timer2**: Jun 1<sup>st</sup>

Date of **Timer3**: Sep 1<sup>st</sup>

Date of **Timer4**: Dec 1<sup>st</sup>

DMX512 controller will run as the following method.

From Mar 1<sup>st</sup> to May 31<sup>st</sup>, it runs chase or scene set by **Timer1** everyday

From Jun 1<sup>st</sup> to Aug 31<sup>st</sup>, it runs chase or scene set by **Timer2** everyday

From Sep 1<sup>st</sup> to Nov 30<sup>th</sup>, it runs chase or scene set by **Timer3** everyday

From Dec 1<sup>st</sup> to Feb 28<sup>th</sup>, it runs chase or scene set by **Timer4** everyday

#### **3, DMX512 runs the same effect from Monday to Friday and the same on Saturday and Sunday**

Use **Timer1** to set formula or scene required to run, no setting for **Timer 2 to Timer 5**

Use **Timer 6** to set chase or scene required to run, no setting for **Time7**

### **Note:**

If DMX512 controller system time cannot be saved or its error is relatively large, it may be caused by insufficient capacity of battery in DMX512 controller. Please open shell and replace battery.



and Computer Configuration

### 3.1 Minimum Configuration:

1. CPU PIII300 higher
2. Hard Disc larger than 1G.
3. EMS Memory larger than 32M
4. Displayer 1024\*768, 24 true colors
5. Windows98 /Me/2000/XP/VISTA operating system.
6. CD-ROM CD driver.

### 3.2 Product and Attached Product Accessories

1. One set of DMX512 Controller
2. One USB interface
3. One AC adaptor
4. Software of DMX512 dimmer (compact disc).

### 3.3 Product mechanical properties

1. Mechanical Dimensions 150\*100\*40mm
2. Weight 0.5Kg

### 3.4 Optional accessories of product

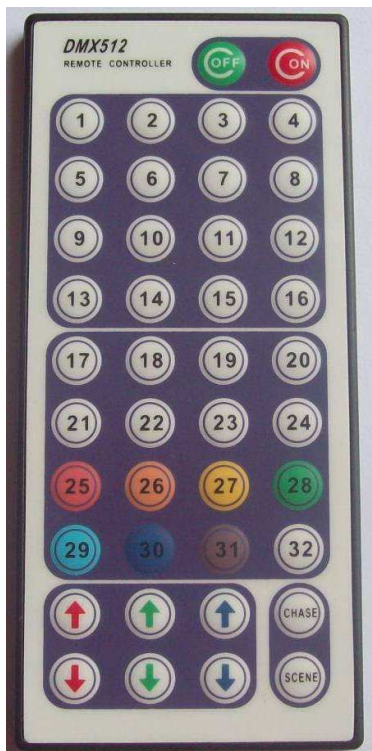
#### **DMX512 wireless transceiver (detailed application is shown in relevant product instruction book)**

- 1 .Up to 252 channels, 200KHz between each channel.
- 2 .39 grade adjustable power output, from -50dBm to 20dBm, visible communication distance larger than 600m
- 3 . Work on ISM frequency range, use of 2.4-2.4835 GHz is free of license
- 4 .About ten thousands of code for setting, guarantee no interference occur when several sets of wireless DMX512 transceivers are used in the same area
5. Apply several code correction methods, guaranteeing reliable transportation of data
6. Empty closed channel test, 4 grade frequency hopping. When several sets of channels are set in the same way, it works normally.
7. work as DMX512 amplifier, adapter, 4 loops of DMX512 outlet

8. Meet DMX-512/1990 International Standard Protocol. 512 returns and output standard DMX512 signal



Infrared remote control



Infrared transmitter



Infrared receiver

Before using the cable remote control receiver crystal head first into the CONTROL IN jack of USBDMX512 controller. In use, the infrared emitting diodes infrared receiver should be aligned. USBDMX512 controller should be built-in editing the appropriate program or scene, otherwise all channels will output at 0.

### **IR emitter panel shows:**

OFF: DMX512 controller output current scene of all channels to 0, For LED lamps, it will be all off

ON: Output of the previous program or scene.

1-32: Output of the program 1-32, or scene1-32, Program or scene change, keys and by CHASE SCENE button

CHASE: CHASE button after the operation and then 1-32 in the operation of any button, the controller will run the corresponding built-in program.

SCENE: SCENE button operation after the operation button and then any one of 1-32, the controller will run the corresponding program built one of the first 32 scenes.

### **Infrared remote control and timer work in match (timer is open)**

Click button on Infrared remote control, DMX512 dimmer execute corresponding action If timer acts in the following time, corresponding action of timer will be activated.

### **Function 4: keyboard and timer work in match (timer is open)**

Click button on keyboard, DMX512 dimmer execute corresponding action

If timer acts in the following time, corresponding action of timer will be activated.

### **DMX512 Signal Switcher /Amplifier (detailed application is shown in Relevant product instruction book)**

1. One XLR and one RJ45 socket are needed to input DMX512 signals.
2. Two XLR and two RJ45 sockets are needed to output DMX512 signals. Four loops in total
3. DC 9-20V power supply voltage
4. For different socket switchers and DMX512 signal segregation.

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Exterior see picture below



Front View



Back View

# Chapter 4 Failure Recovery and Maintenance

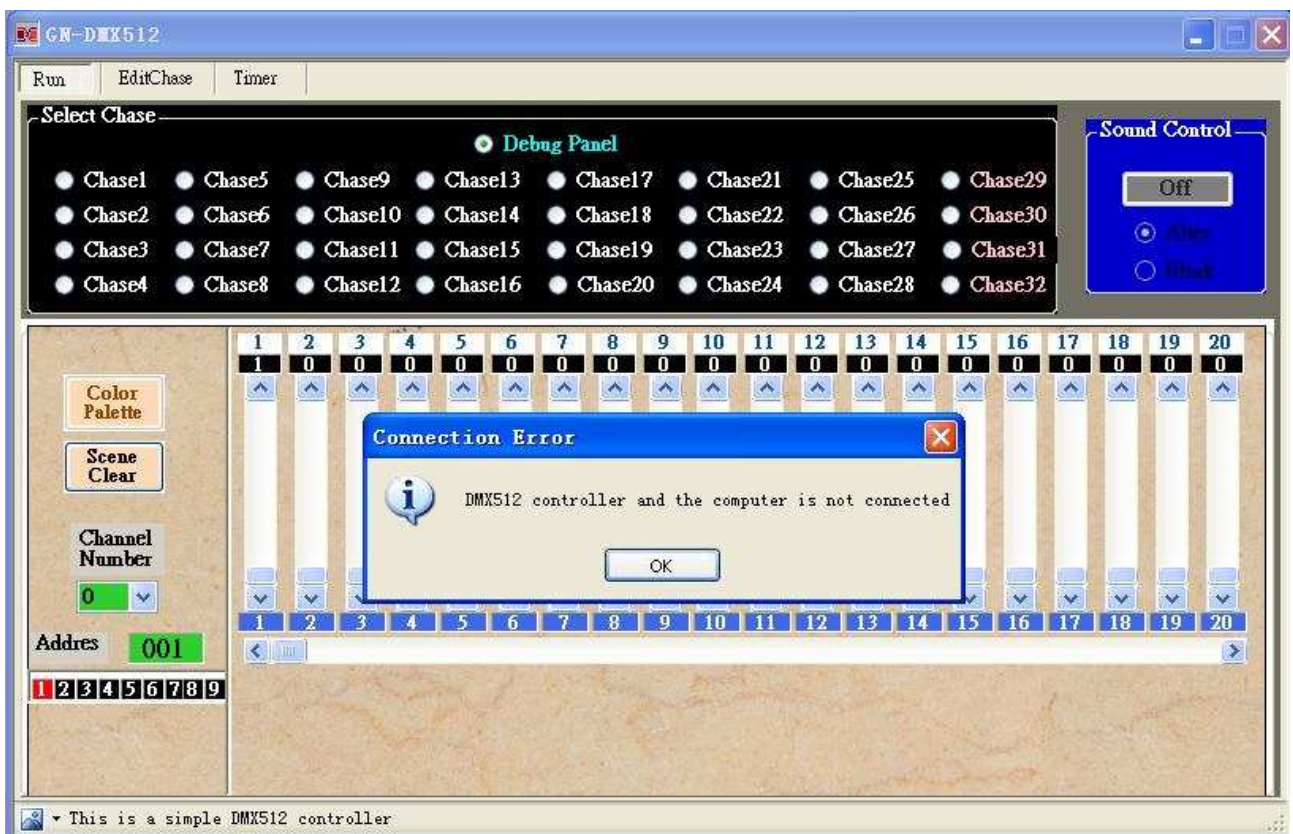
1, Failure: LCD display fails to work normally after controller is linked to 12VDC.

Clear Methods: check the link to 12VDC and check if there is 12VDC input. Please use millimeter to test. If the Failure cannot be cleared, please cut off power and keep contact with technical department in our company.

2, Failure: Despite LCD window works normally, it fails to send or receive DMX512 signals.

Clear Methods: Check whether XLR socket is linked or not. If it is linked, please keep contact with technical department in our company.

3, Failure: Dialogue box “CONNECTED ERROR” appears in the computer when starting software as shown in the following figure:



Troubleshooting:

- 1, Check the correct installation of hardware driver.
- 2, Plug out and plug in USB wire again.
- 3, Check USB wire is good or not and connection between computer and dmx512 controller is good or not.

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4, Phenomenon: When using timing function and the calibration of system time is done, system time of dimmer is not precise or the error of it is relative large.

Troubleshooting: Capacity of inner battery is not enough and need to be replaced.