W8S instruction manual

1、Introduction

The W8S is 8-outputs off-line controller can load 8192 points at most. Support Art-Net protocol, support for DMX chip editing address, can connect to DMX console, can add and delete DAT files through the local area network.

The driver chip that can be controlled has DMX512, HDMX, DMX 512_RDM, APA102, APA102-65536, WS2801, WS2811, WS2812, WS2813, TM1812, TM1809, TM1804, TM1923, TM1934, TM1925D, TM1926D, TM1803, TM1814, TM1913, TM1914, TM1926, UCS UCS1903, UCS1909, UCS1912, UCS2903, UCS2909, UCS2912, UCS8904, UCS5603, SK9816, SK6812, SM16716, SM16703, SM16709, SM16712, SM16704, LPD6803, LPD8806, LPD1882, LPD1889, LPD1883, INK1003, APA104, P943, LC8812, GW6205, QED311 0, D9866E, D9866B, D9865C, D9865E, D9865F, D9864B, D9864C, etc.

2、Performance characteristics

1. 8 output ports with up to 8,192 pixels in control. Maximum control of 1024 points per port.

2. The SD card supports FAT32 and FAT16 formats, allowing up to 64

DAT files.

3. LAN synchronization control, switch files by sending UDP command to the network port 2, or obtain the serial number of the current playback file.

4. Can connect to the DMX console, support RGBW, replace files, adjust the speed and brightness, and have a fast reaction speed.

5. Support Art-Net protocol, and can directly use MADRIX, jinx and other software to support Artnet.

6. Support the encryption function of limiting power times.

7. Support the address of DMX chip, with own number points and internal control test functions.

8. Can be connected, can be directly connected to the computer network card, router, or connected to the main controller.

10. Set up Sculpt of DAT to support DAT files with different shapes.

3、Instructions for use

1. The SD card needs to be formatted into either the FAT32 or FAT16 format after multiple files are added or deleted. Support SDHC (high capacity SD card), up to 64G bytes or above. Up to 64 DAT files are allowed in the SD card, played by letter by the file name.

2. Eight output ports with up to 8,192 pixels of control. The maximum number of control points per port is 1,024 points. You can also be set to one, two, or four output ports with a maximum of 2048 points for each port, and the remaining ports can serve as a backup of the used ports. The actual maximum output per port is 1,600 points, for a total of 12,800 points.

3. When the LCD, the first line displays the controller model, the second line displays the version number, press "MENU" to power again, the controller will automatically upgrade the firmware.

4. Press the MENU button, switch the menu, press '-' or '+' to set up, long press '-' or '+' to accelerate the parameter setting, press OK to

save the parameters or enter the submenu.

5. Set the password. In the lighting window of LED Compilation Software, click the menu "Settings" -- "controller password", pop up the encryption dialog box, select the controller encryption, the encryption method is to limit the number of power on.After the first encryption, a second encryption can be performed without decryption to extend the number of usage.

4、the controller button operation

1. Display the menu (File01) of the file, the file number later, and the file name in the second line.

2、Press the menu MENU key once to switch to the speed menu (Speed) for 1,100 frames per second.

3、Press the menu MENU key 2 times is the brightness (Bright), the range is 0-63.

4、Press the menu MENU 3 times in play mode (Play Mode): all file cycles (All), single file play (Single), Timed play (Timed Playback). Received the DMX console signal is automatically locked to a single file playback.

```
Play Mode:
Single
```

5、Press the menu MENU key 4 times to set the IP address (IP), the first three bytes are adaptive. cannot have the same IP address within the same LAN.

```
IP :18
OK-->Save
```

6、Press the menu MENU key 5 times for the chip model selection (IC Type); if the chip model (Do not choose) is not specified, the chip model specified by the DAT file is controlled; if the chip model is specified, the chip model in the DAT file is invalid. In Artnet control, if the chip model (Do not choose) is not specified, the first subcontrolled chip model is controlled, otherwise the own set shall prevail.

```
IC  Type:
Do  not  choose
```

7、Press the menu MENU key 6 times to select the port output mode (PortOutMode), TTL signal or DMX signal.

```
PortOutMode:DMX
OK-->Save
```

8. Press the menu MENU key 7 times is the DMX start channel address (DMX Address), the range is 1-512, when the color component number is 4,

each controller occupies 8 channels, otherwise each controller occupies 7 channels.

The default starting address is 1, which is the occupation channel 1-7. If the starting channel address is 2, the occupation channel is 2-8.

```
DMX Address:1
OK-->Save
```
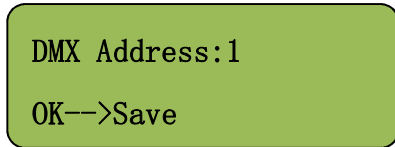
Channel 1 is the brightness, brightness channel values 0-3 correspond to 0 (bright), 4-7 to 1,8-11 to 2, …, 252-255 corresponds to 63.

Lane 2 is the red component.

Channel 3 is the green component.

Channel 4 is the blue component.

When color components is less than 4,7 channels:

Channel 5 is the DAT file serial number, the DMX512 console channel value corresponds to the file relationship, four values correspond to a file, namely 0-3 corresponds to the first file, 4-7 corresponds to the second file,..., 252-255 corresponds to File 64.

The sixth channel is the playback speed, the corresponding speed relationship is, (the speed set by the key) multiplied by (the speed channel value) and then divided by 255, namely the console maximum 255 corresponds to the speed set by the key.

Channel 7 is the direction, 0-127 is the forward, and other values are the reverse.

When the color component number equals 4, occupy 8 channels:

Lane 5 is the white component.

Channel 6 is the DAT file serial number, the DMX512 console channel value corresponds to the file relationship, four values correspond to a file, namely 0-3 corresponds to the first file, 4-7 corresponds to the second file,..., 252-255 corresponds to File 64.

The seventh channel is the playback speed, the corresponding speed relationship is, (the speed set by the key) multiplied by (the speed channel value) and then divided by 255, namely the console maximum 255 corresponds to the speed set by the key.

Channel 8 is the direction, 0-127 is forward, and other values are reverse.

9. Press the menu MENU key 8 times is to set the number of pixel channels (PixelChannel), set the number of color components of a point, the default is 3, namely RGB. The range is from 1-4.

Pixe Channel:3
OK-->Save

10. Press the menu MENU key 9 times to fold the menu, press '▲' and '▼' key to select the menu (Change menu), press "OK" to enter the submenu, enter the submenu, and continue to press MENU to switch the submenu.

OK ->Addressing
+ - ->Change Menu

(1). Address menu (Addressing)

Ⅰ.Select the DMX chip model (DMX IC Type).

DMX IC Type:
GREE

Ⅱ.Number of lamp channels (LightChannel), set the number of channels occupied by a lamp or transfer board. For a point light source, the value is the same as the number of color components.
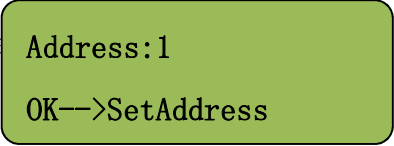
LightChannel:3
OK -->Save

Ⅲ.Some DMX chips need to set the color value when being charged, including red, green and blue (PowerOn R, PowerOn G, PowerOn B), and some chips don't need to be set.

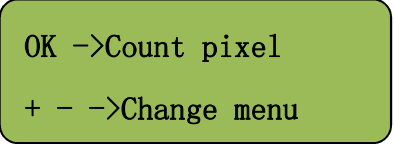Ⅳ.Some DMX chips require a set current (Current gain) in the range of 1-64.

Ⅴ.Some DMX chips require an output format (Output: RZ or Output: DMX512).

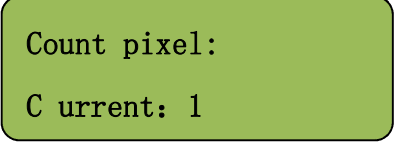Ⅵ.Start channel (Address), press OK and wait a few seconds to complete.

```
Address:1

OK-->SetAddress
```
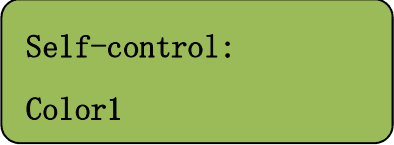
(2) Number of internal control

```
OK ->Count pixel

+ - ->Change menu
```

Ⅰ.Count the points, and press them long for acceleration.

```
Count pixel:

C urrent: 1
```

Ⅱ.Internal control, channel sequence test.

```
Self-control:

Color1
```

(3) The Artnet Settings menu

```
OK ->Artnet Set

+ - ->Change Menu
```

Chip model in the seventh menu on the controller, the first control can also be set through the computer software, the second control to choose

Ⅰ.Set up the start space.

Start Univ:1

OK -->Save

Ⅱ.Sets how many channels a port carries.

Universe/Port:4

OK -->Save

Ⅲ.Set the number of Artnet controls, how many controls.

Slave Number:

1

(4) Timing clock setting, need to weld cylinder crystal vibration and battery to have this function, the format is year month day seconds (2010260,609:30:01), the year only input the last two, must press OK key to save.

OK->Set clock

+ - ->Change Menu

(5) Other settings

OK->Other Set

+ - ->Change Menu

Ⅰ.Sub-control number (Slave No.), When forming a multi-branch network with routers or switches, a separate control number should be set, and please select automatic when the number is 1.The control of the cascade

```
Slave  No.:255
OK -->Save
```

can be set to automatic, the factory default is automatic.

Ⅱ.Insert W (Insert W) to control RGB W lamps by inserting W in R G B format, including no (No), W front (Front), W back (Back).

```
Insert  W:
OK -->Save
```

Ⅲ.Network port 2 working mode, general selection (Net2 Input).When LAN synchronization is required, one of the controllers must be set to (Net2 Send Sync) and the others to (Net2 Input).

```
Net2 Input：
Net2 to Net1
```

Ⅳ.Whether the DAT file in the SD card corresponds to the same shape (Sculpt of DAT), The same represents the same shape, and Not the same represents the corresponding different shape.

```
Sculpt of DAT:
The same
```

Ⅴ.Press + to restore the factory settings (+ -> Reset).

```
+ ->Reset
R63，G63，B63
```

5、offline synchronization

1. When several W8S synchronize offline, one of the W8S should be set to "Net2 Send Sync" and other W8S to "Net2 Input", (the controller supporting this function can be synchronized), the number of DAT files, and the same number of frames of each DAT file must be the same, and the
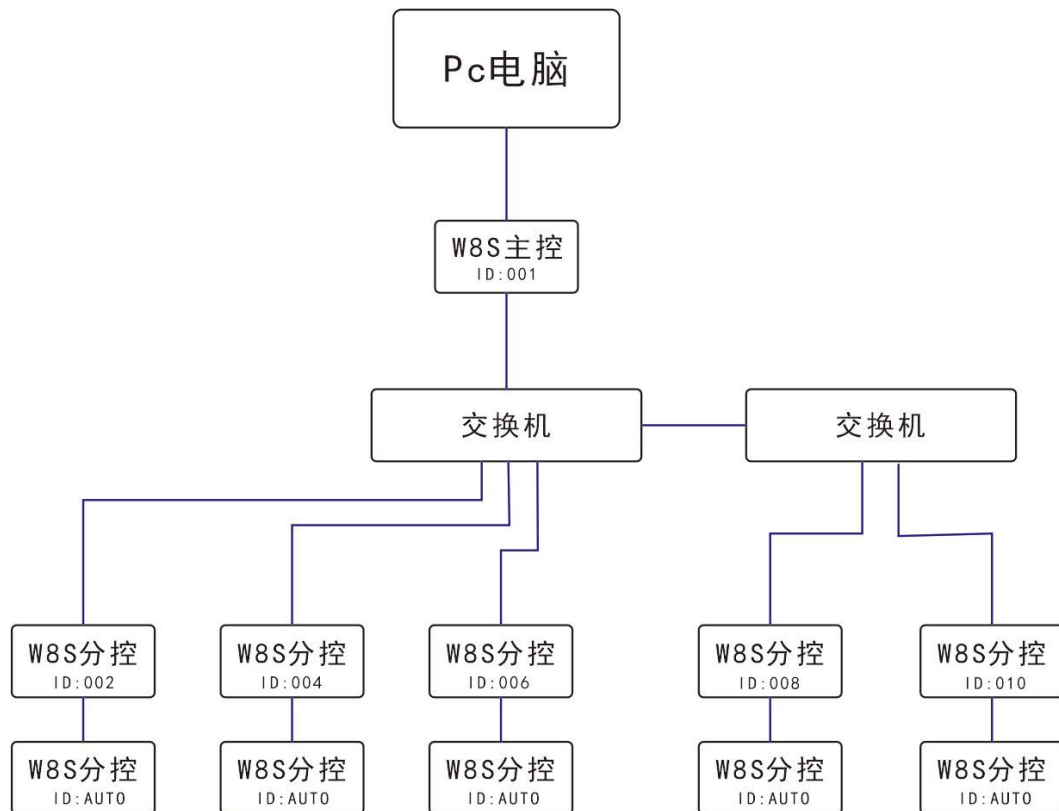
same file can be directly copied into the same file in the same picture.

2. When stitching the picture, the multi-controller should add partial control in the offline preparation software setting shape, export the file as multiple files, and copy it to the w 8s partial control in the corresponding load area. If there is a separate control id number, that is, copy into the control control of the corresponding id number.

6、Online control or Sir Mai control is added to the switch.

1. When the LAN online synchronization is formed through the router or switch, the first main control is connected to the front end of the switch / router. The separate control should set the separate control number (see the number setting in other setting options).

The connection schematic diagram is as follows:

```
                    ┌─────────────┐
                    │   Pc电脑    │
                    └──────┬──────┘
                           │
                    ┌──────┴──────┐
                    │   W8S主控   │
                    │   ID:001    │
                    └──────┬──────┘
                           │
              ┌────────────┴───────────┐
          ┌───┴────┐              ┌────┴───┐
          │ 交换机 │──────────────│ 交换机 │
          └───┬────┘              └────┬───┘
              │                        │
    ┌─────────┼─────────┐        ┌─────┴──────┐
┌───┴───┐ ┌───┴───┐ ┌───┴───┐  ┌───┴───┐ ┌────┴──┐
│W8S分控│ │W8S分控│ │W8S分控│  │W8S分控│ │W8S分控│
│ID:002 │ │ID:004 │ │ID:006 │  │ID:008 │ │ID:010 │
└───┬───┘ └───┬───┘ └───┬───┘  └───┬───┘ └────┬──┘
┌───┴───┐ ┌───┴───┐ ┌───┴───┐  ┌───┴───┐ ┌────┴──┐
│W8S分控│ │W8S分控│ │W8S分控│  │W8S分控│ │W8S分控│
│ID:AUTO│ │ID:AUTO│ │ID:AUTO│  │ID:AUTO│ │ID:AUTO│
└───────┘ └───────┘ └───────┘  └───────┘ └───────┘
```

2. When controlled by the switch, set the IP address of each

controller. The first three IP addresses of the W 8S controller are adaptive, and just set the fourth paragraph. The same LAN can not have the same IP.
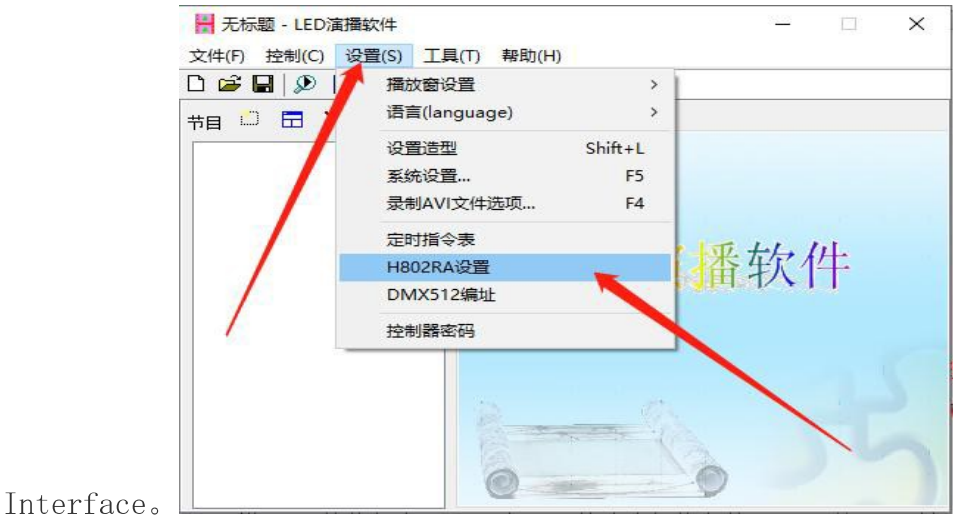
The connection schematic diagram is as follows:
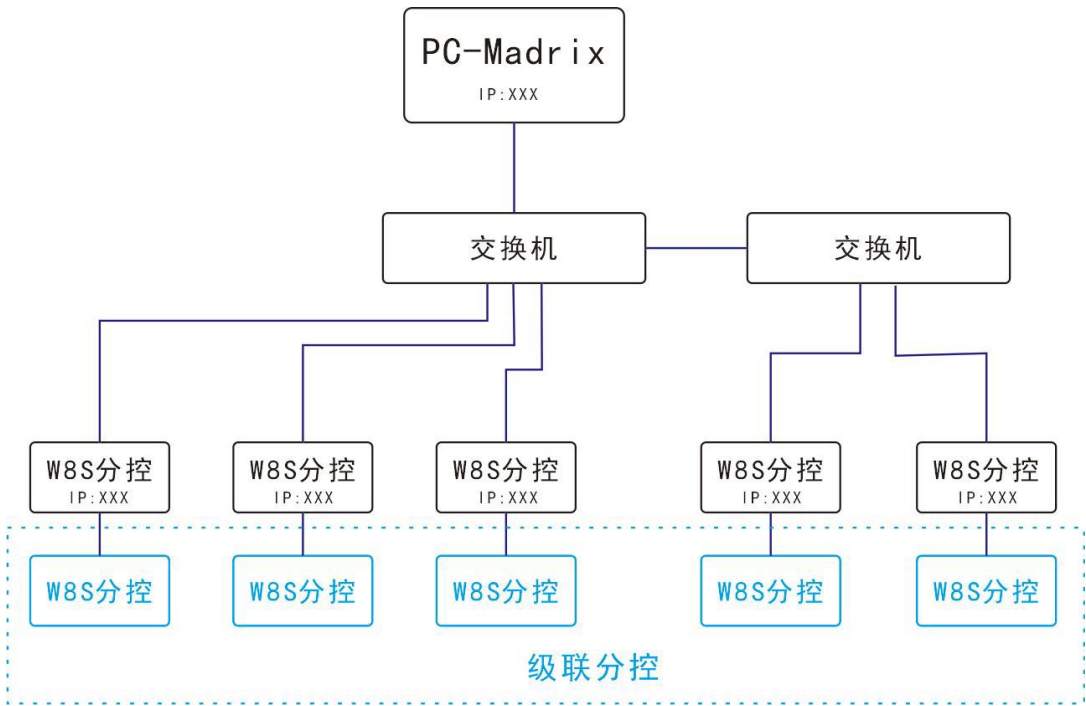
The specific steps of setting IP and connecting Sir Mai software are as follows:

Step 1: Set the IP address:

Open the LED broadcast, find the H 802RA Settings menu bar under the other version but a rt-net setting click open, enter the next setting
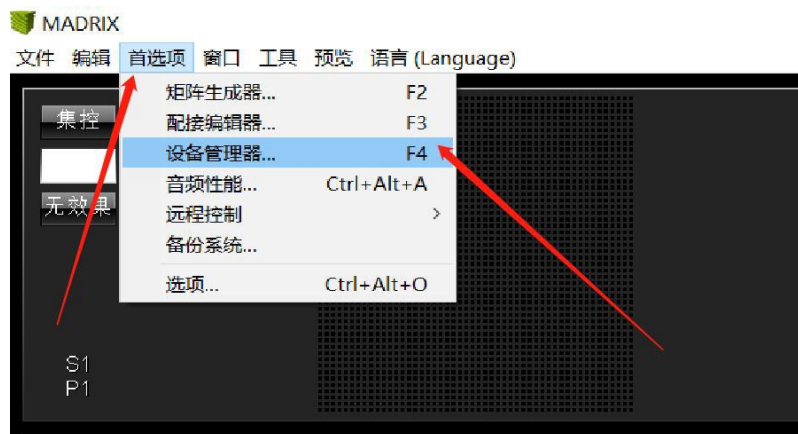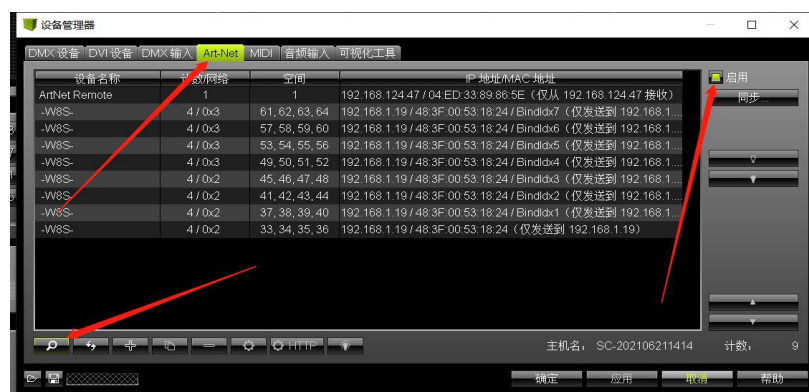

Interface。

Next, open the Sir McControl software:

Click Menu Bar Preferences Select Device Manager Click Open.

Then select Art-Net, check the right to enable, and then click

the bottom left search button to search.

After searching out the split control, double-click the port, check the broadcast mode, and then apply, determine.Note: Each port must be set separately and cannot be set in bulk.Each port needs to be set up.

Then click the DMX device, select all the space in the device bar, check the right to enable, send the full frame, and then click the application below, determine.
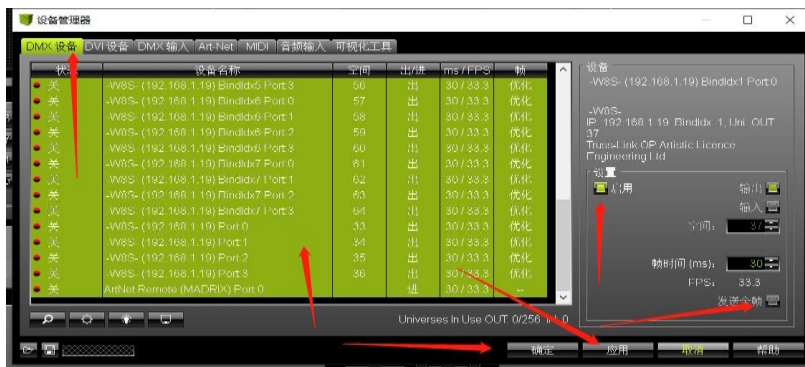
When enabled, the controller shows that the On line mode connection is successful.

Note: In the switch LAN mode, each port space should be set to a directional broadcast in the MAC Software Device Manager.The same IP sub-control subordinate has other sub-control, which does not need to set IP, and the number of split control should be set in the art-net setting of W 8S.

4. Regular schedule setting

The schedule is in seconds, and at the specified time, perform the specified task (change the file or adjust the brightness) with the schedule file extension.TAB ", which is made as follows:

Select whether to use the Gregorian, Lunar, or Week; specify the week or month days, or a few seconds; then select the file or brightness, select the file, select the file number to play, otherwise select brightness, select the brightness value (0-31); and click Add.

The list on the left is automatically sorted by time. If multiple tasks are performed in the same second, the bottom one is performed. As shown above, the second line refers to play the second file at 20 o'clock every day, and the third line indicates the Gregorian calendar on August 1, 20 points to play the third file, because it is in the following, so on August 1 day is playing the third file, rather than the second, lunar calendar on the first 20 points began to play the fourth file, other days of 20 points to play the second file.

If the power time of the controller is 19 o'clock, the first line indicates the fifth file to play at 18 o'clock every day, so the fifth file will be played; the controller is on before 18 o'clock, playing the file set with the key, and the fifth file until 18 o'clock.
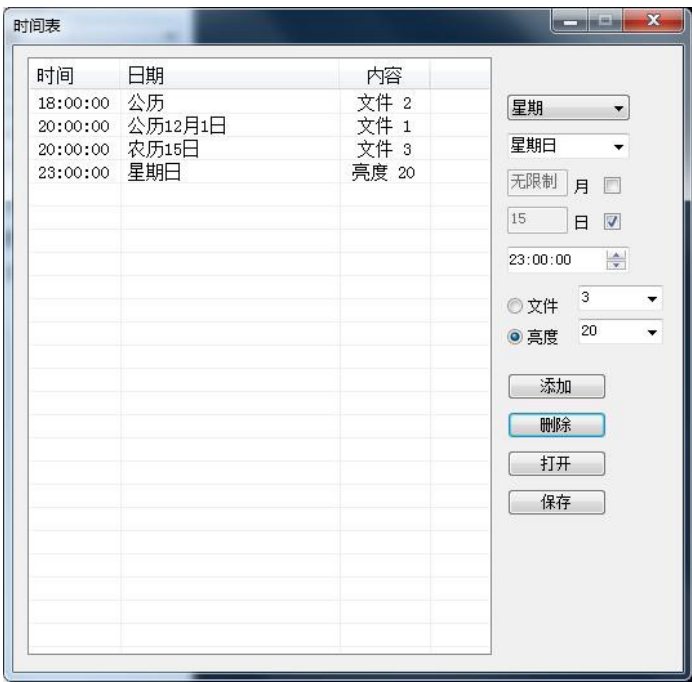
7、 Add and delete of DAT files

1. Connect the W 8S to your computer, or both to the same router. Note

that the IP address of the W 4S cannot conflict with other devices in the LAN.

Step 1: Set up the computer LAN IP

Step 2: Start the LED Preparation Software, click the Tools menu- -Send File, the software automatically searches the controller, and displays the file name in the SD card, select a file, and click Delete to delete the file.
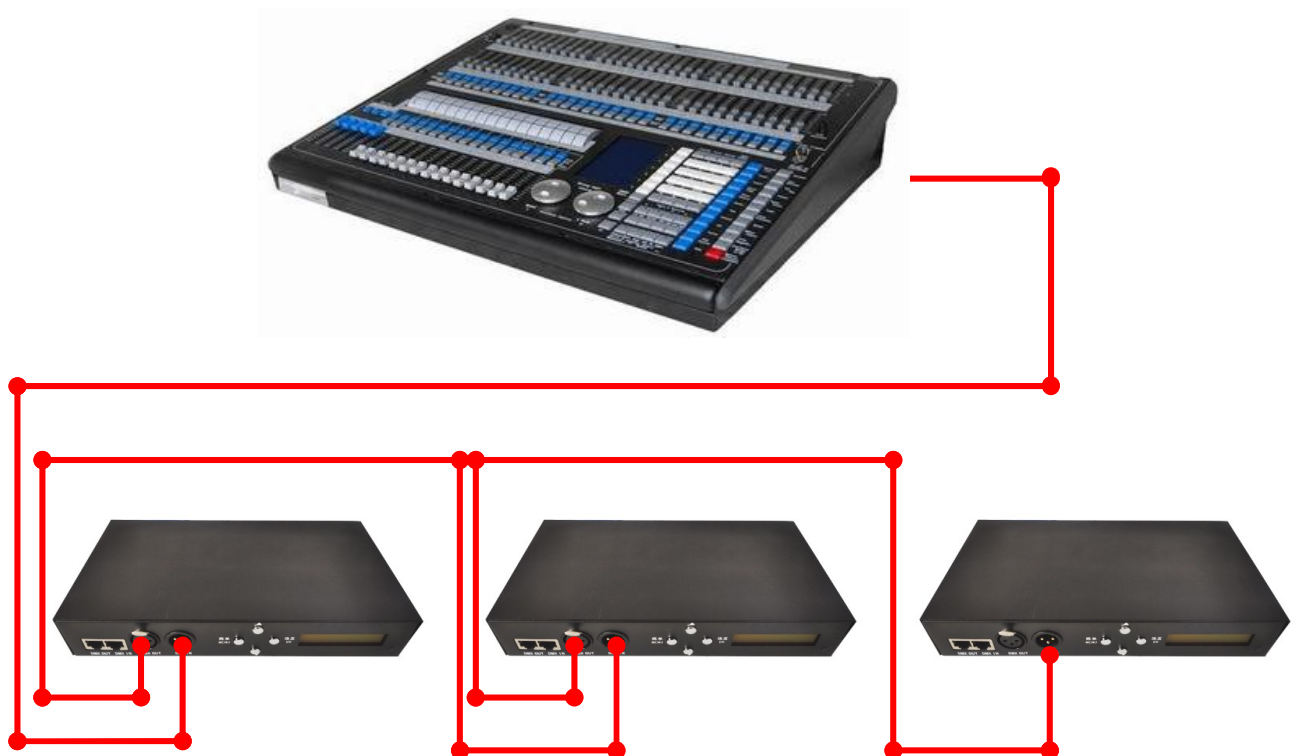

Step 3: Click "Send DAT File", pop up to open the dialog box, select the DAT file to add, click "Open", the progress bar shows the send progress,

after completed prompt send success, click ″OK″ after the list to refresh
the file just sent.

2. Control:

Step 1: Press "Menu" successively, press to interface 4, and display as follows: DMX Address: 1

Step 2: Press "▲▲" and add or subtract the value, which represents the control address.

Step 3: Press OK (OK) " to save the address.

Step 4: open the console, according to the corresponding address, the connection is as follows:

The W8S channel list	
classical pathway:	Brightness 0 - 255,4 values for one grade, for a total of 63 levels
second channel:	R Red (0-255)
Third channel:	G Green (0-255)
Fourth channel:	B Blue (0-255)
Channel 5:	W White (0-255) is for RGBW lamps only
Channel 6:	File (DAT) serial number, 4 values for one file, a total of 64 files
Channel 7:	Playback speed (0-255)
Channel 8:	Forward and reverse, 0 - 123 is forward, 124 - 131 is stopped, and 132 - 255 is reverse.

3. Programmer personnel who understand UDP can switch files through UDP protocol. The UDP port of W8S is 8216 (0x2018).

Step 1: Select the type, set the target IP, and set the target port.as illustrated in following figure:

type:UDP

Target IP: the corresponding

Target port: 8216

Local port: Select a randomly

    Click Create

Step 2: Create a connection

Click "Connect" as shown in the red mark above

Step 3: Send the instructions

Select a hex-decimal format.

The instruction format is as follows:

Send: A8,20, xx represents a direct call to the xx file

Re: A8,21, xx has called the xx file

Start with the first file:

Send to: A8,20

Reply: A8,21,00 has called the first file

For example: how to call the 15th file?

Send: A8,20,0F represents a direct call to 15 files

Reply: A8,21,15 File 15 was called

Query Directive:

Sent: A8,30 represents a direct query

Re: A8,31, the xx representative is playing the xx file

Viii. Specifications and parameters

operate mode:	Online, offline, access console, access to Madrix, UDP protocol
Parameter features:	Eight independent output, online real-time tracing point
Load quantity:	Single port 1024 points, a total of 8192 points
loading regime:	The SD card copy storage program
SD card storage:	Max imum 32G, 64 files
working temperature:	-20℃--75℃
working voltage:	AC110V ••• 220V
maximum power:	1W
weight:	Gross weight: 1.1kg, net weight: 0.9kg
size:	Outer box: 3124.76cm Native: 28.5×10.5×4.5cm