

LedSet User's Manual

V2.7.6

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Linsn Technology

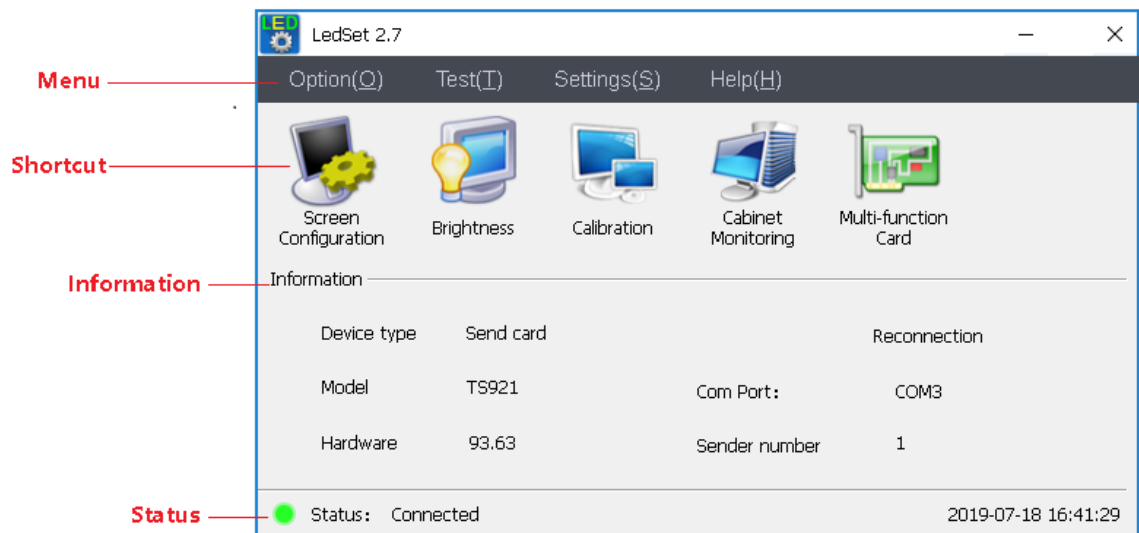
About LedSet



LedSetV2.7 is a software for setup only, such as generating .RCG&.CON file, brightness control and monitor, etc. For playing videos or pictures, please use LEDStudio.

1. Interface

After installing and launching LedSet on your computer, you will see the following interface.



Note: You have to connect the USB cable from PC to sending card **before** you do the setup (such as generating .RCG&.CON file, brightness control and monitor and etc.).

1.1.Screen Configuration

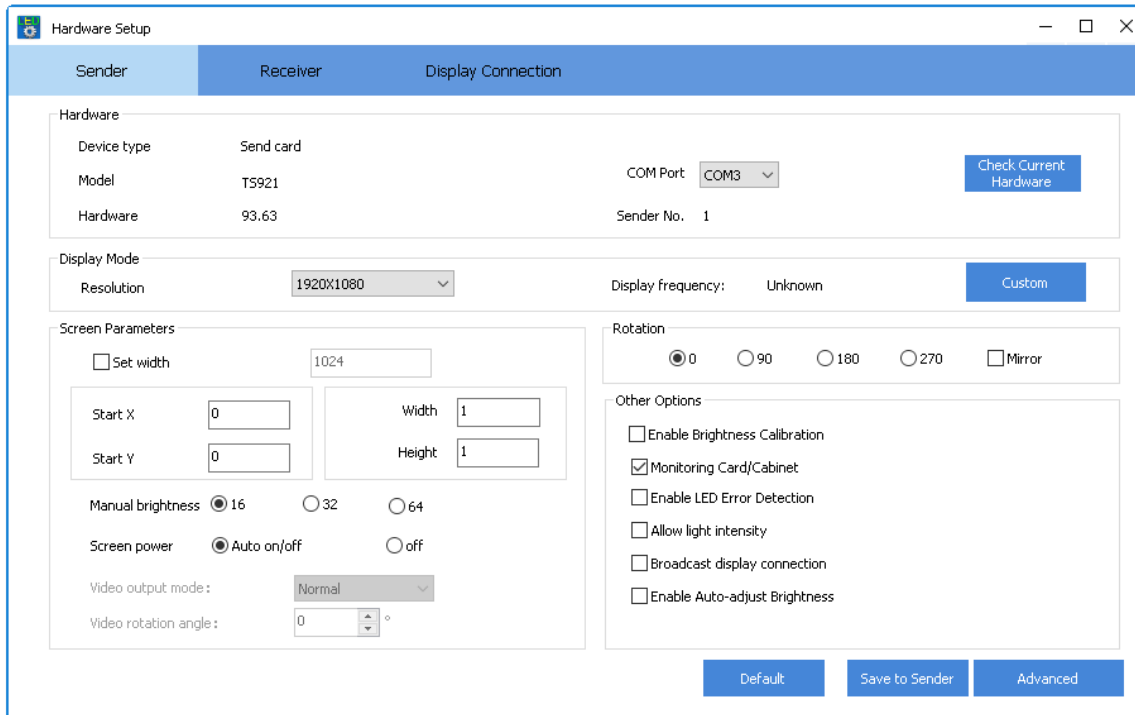


Screen Configuration: to generate/adjust .RCG/.CON file via **sender/receiver/display connection** interface

1.1.1. Instruction to Sender/ Receiver/ Display Connection

❖Sender

Note: The key thing needs to be set on the sender page is **Resolution** when you are trying to set the sending card. Please adjust the resolution to the same as your computer's resolution. If you have video processor connected, please keep sender's resolution the same as the processor's output resolution. After everything is done, click **Save to sender**.



The screenshot shows the 'Hardware Setup' window with the 'Sender' tab selected. The window is divided into three main sections: Hardware, Display Mode, and Screen Parameters. The Hardware section includes fields for Device type (Send card), Model (TS921), Hardware (93.63), COM Port (COM3), and Sender No. (1). The Display Mode section includes Resolution (1920X1080) and Display frequency (Unknown). The Screen Parameters section includes Set width (1024), Start X (0), Start Y (0), Width (1), Height (1), Manual brightness (16), Screen power (Auto on/off), Video output mode (Normal), and Video rotation angle (0). The Rotation section includes radio buttons for 0, 90, 180, and 270 degrees, and a checkbox for Mirror. The Other Options section includes checkboxes for Enable Brightness Calibration, Monitoring Card/Cabinet, Enable LED Error Detection, Allow light intensity, Broadcast display connection, and Enable Auto-adjust Brightness. Buttons for 'Check Current Hardware', 'Custom', 'Default', 'Save to Sender', and 'Advanced' are also visible.

•Hardware



If the sending card communicates with the PC well via the USB cable, information of **Hardware** and **Model** will be shown as in figure below.

Hardware	
Device type	Send card
Model	TS921
Hardware	93.63
COM Port	COM3
Sender No.	1

Check Current Hardware

If hardware error and Unknown appears like the following figure, please check the USB connection before you do the setup.

Hardware	
Device type	Send card
Model	Unknown
Hardware	Hardware error
COM Port	COM3
Sender No.	1

Check Current Hardware

•Display Mode

This option is to set the resolution/frequency of the sending card. Commonly keep it the same as your monitor's/video processor's output.

Display Mode	
Resolution	1920X1080
Display frequency:	60.115HZ

Custom

•Other options

- Enable Calibration: select it to use the loaded calibrating data
- Monitoring Card/Cabinet: select it enable the **Cabinet Monitoring** function
- Enable LED Error Detection: requires the LED module to use pixel-detection IC and new type of receiving card
- Enable Auto-adjust Brightness: select it to enable the auto- adjusting brightness function
- Allow light intensity: option for enabling light sensor on sender
- Broadcast display connection: auto-sending display connection when replacing receiver

•Screen Parameters

- Set width: use in some situation
- Start X/Y: set the coordinate of the display area
- Width/Height: zoom in image of the desktop
e.g. If you have a LED screen whose size is 512*256 pixels, and the resolution of you monitor is 1024*768 pixels. For zooming in the image of the monitor to fit into the LED screen, you need to: a.Calculate width=512/1024=0.5; height=256/768=0.33. b.Input the width and height respectively. c. Click **Save on Sender**
- Manual brighness: set the brightness asjusement scale for sender box
- Screen power: **Auto on/off** is set by default

Screen Parameters

☐ Set width 1024

Start X 0 Width 1

Start Y 0 Height 1

Manual brightness ☒ 16 ☐ 32 ☐ 64

Screen power ☒ Auto on/off ☐ off

Video output mode : Normal

Video rotation angle : 0

•Rotation

Rotate the image that the sending card connecting to.

❖Receiver

Note: Do not click **Send to Receiver/Save to Receiver** if you are not familiar with Linsn's control system

Hardware Setup

Sender Receiver Display Connection

Module Info

Drive IC: MB15041B Scanning mode: Full-color real pixel 6 scan 12 rows/zone

File: F:\LedSet\SetData\JHGP6.67 48-24 65.RCG

Module Info

Load Capacity Setup

Actual width: 128 Actual height: 128

Cascade direction: From right to left Card Mode: Normal(16 data)

Out Mode: Normal

Data exchange

Effects Setup

Refresh FRQ: 660 HZ Synchro refresh: Auto Hz

Scan clock: 18.8 MHZ Duty ratio: 50 %

Phase of clock: 3 Gray level: 65536 Level

Row blanking time: 300 ns Grey mode: high refresh-higher

afterglow time: 0 (1 ~ -1)

newline: 0 (0 ~ -1)

Brightness efficiency (including blanking): 99.0%

Intelligent setup ☐ New framework

Param readback Load from file Save to file Send to Receiver Save to Receiver Restore factory Data

Four-color exchange

Afterglow Blanking

Chroma space

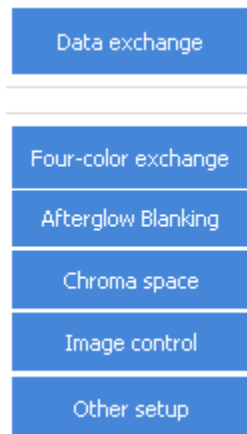
Image control

Other setup

Extended

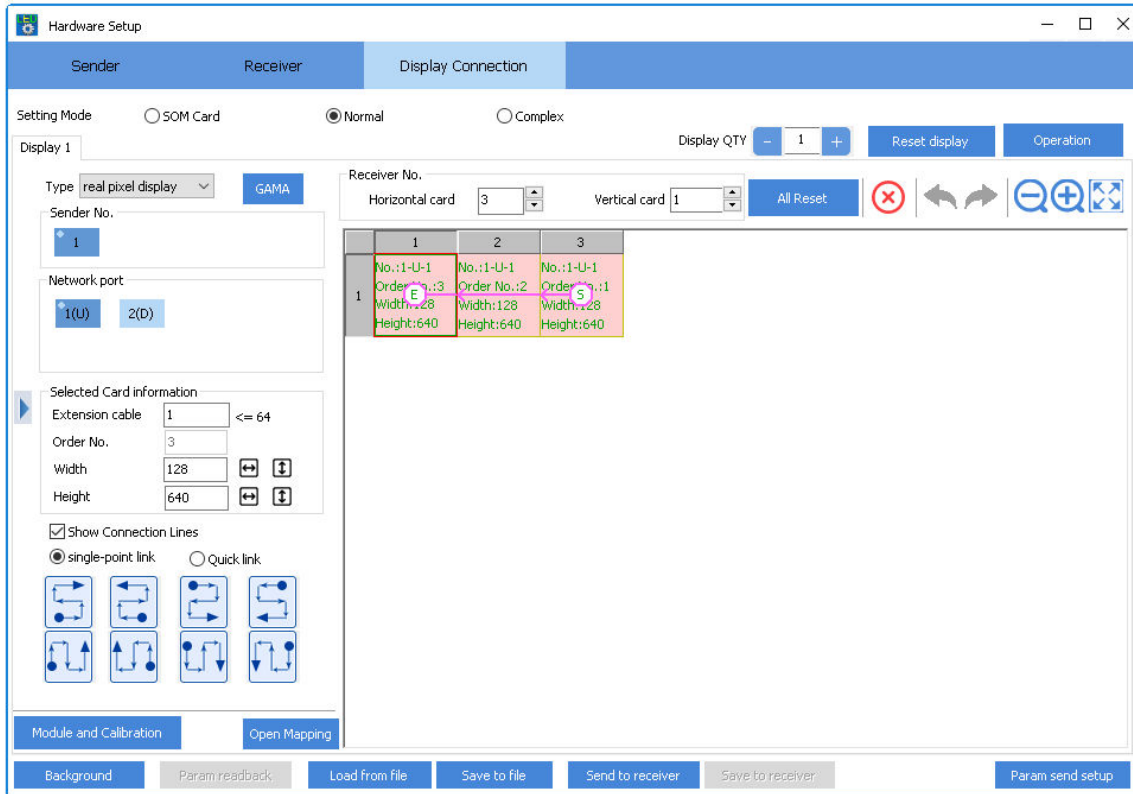
- **Actual width/height:** Load the **correct** .RCG file, before you send it to the receiver; please make sure that the actual width and actual height are the same with the panel of one receiver carrying. For example, you have a panel with W96*H96 pixels, so you have to input W96*H96 in software.

- **Synchronous refresh:** Tick it to make the LED screen synchronize with computer, and refresh rate is multiple of graphic card frequency. If the module is using PWM IC, this option would be locked.
- **Scan clock:** It depends on the design and performance of the module. The better performance gets by higher scan clock, resulting in longer width of receiver supports. Generally 16.67 or 18.75 MHZ is recommended.
- **Gray level:** High gray level means high quality of display effect and stronger color expression of LED screen. Generally for dual-color screen 256 gray level is enough. For full-color screen, it is suggested to use 65536 (select high refresh mode in **Gray mode**).
- **Gray mode:** This can be switch between high and low refresh mode, in low refresh mode the refresh rate is lower, generally high refresh mode for full-color screen is recommended.
- **Row blanking time:** Effective value: 10-200000. If lower ghosting effect appears, changing this option can reduce it. Note: The higher low blanking time is lower brightness.



- **Data exchange:** exchange the data sets
- **Four-color exchange:** exchange the color settings in RCG file
- **Afterglow Blanking:** for special LED module design setup
- **Chroma space:** use with light scanner to correct color difference
- **Image control:** set a specific image when there is no signal
- **Other setup:** for special LED module design setup

❖ Display Connection



Hardware Setup

Sender Receiver Display Connection

Setting Mode: ☐ SOM Card ☒ Normal ☐ Complex

Display QTY: - 1 +

Reset display Operation

Display 1

Type: real pixel display GAMA

Sender No.: 1

Network port: 1(U) 2(D)

Receiver No.: Horizontal card 3 Vertical card 1

All Reset

	1	2	3
No.:1-U-1	No.:1-U-1	No.:1-U-1	No.:1-U-1
Order No.:3	Order No.:2	Order No.:1	
Width:128	Width:128	Width:128	
Height:640	Height:640	Height:640	

Selected Card information

Extension cable: 1 <= 64

Order No.: 3

Width: 128

Height: 640

Show Connection Lines

☒ single-point link ☐ Quick link



Module and Calibration Open Mapping

Background Param readback Load from file Save to file Send to receiver Save to receiver Param send setup

• **Display QTY:** In most case just keep this to 1.

• **Reset display:** clear all the data in CON file

• **Receiver No:**

- Horizontal card : enter the number of the receiving cards in width (try clicking on the text box and scrolling the mouse wheel)
- Vertical card : enter the number of the receiving cards in height (try clicking on the text box and scrolling the mouse wheel)
- All Reset : to clear all the info(order/width/height) in each square
-  : to clear the info(order/width/height) for the selected square
-  : zooming out; zooming in; back to the original size

Receiver No.

Horizontal card Vertical card

	1	2	3	4	5	6	7	8
1	No.:1-U-1 Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:0 Width:0 Height:0
2	No.:1-U-1 Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:0 Width:0 Height:0

•Sender No/Network port/Selected Card information

Sender Device No.

Network port

Selected Card information






Extension cable ≤ 64

Order No.

Width






Height

- **Sender Device No.:** If there is more than one sending card connecting, please select the corresponding number.
 - **Network port:** There are two ports on the TS802D sending card. The one next to the LED lights is U, and the other one is D.
 - **Order No.:** The receiving card that connects to sending card directly is the No.1 card (Note: stand in front of the LED screen when checking the order)
 - **Width:** Pixels' width that one receiving card connects.
 - **Height:** Pixels' height that one receiving card connects.
- Fill the above info depending on the real connection, click on a random square and the info will be filled out the selected square automatically.

Receiver No.     

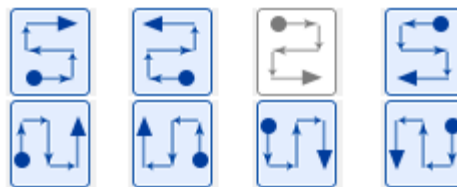
	1	2	3	4	5	6	7	8
1	No.:1-U-1 Order No.:1 Width:128 Height:256	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0
2	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0

- **Show Connection Lines:** select it to show the linking direction in lines
- **Single-point link:** set the order one by one by clicking the corresponding square or left-clicking on the first card, hold the mouse key and drag it to right or left (depending on the actual connection) to next card
- **Quick link:** click on the first receiver and the last one in the same row/column, all the cards between the two clicked card will be linked in order automatically

Receiver No.     

	1	2	3	4	5	6	7	8
1	No.:1-U-1 Order No.:1 Width:128 Height:256	No.:1-U-1 Order No.:2 Width:128 Height:256	No.:1-U-1 Order No.:3 Width:128 Height:256	No.:1-U-1 Order No.:4 Width:128 Height:256	No.:1-U-1 Order No.:5 Width:128 Height:256	No.:1-U-1 Order No.:6 Width:128 Height:256	No.:1-U-1 Order No.:7 Width:128 Height:256	No.:1-U-1 Order No.:8 Width:128 Height:256
2	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0

• Quick map



- Select one of the eight direction modes above depending on the actual connection
- Click the first square (stands for the **first** receiving card of the area that you need to set), hold down the left mouse button and drag it until the desired area is covered with black.

Receiver No. Horizontal card Vertical card

	1	2	3	4	5	6	7	8
1	No.:1-U-1 Order No.:1 Width:128 Height:128	No.:1-U-1 Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:0 Width:0 Height:0
2	No.:1-U-1 Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:0 Width:0 Height:0

c.Release the mouse and the rest of the square will be filled out

Receiver No. Horizontal card Vertical card

	1	2	3	4	5	6	7	8
1	No.:1-U-1 Order No.:9 Width:128 Height:128	No.:1-U-1 Order No.:10 Width:128 Height:128	No.:1-U-1 Order No.:11 Width:128 Height:128	No.:1-U-1 Order No.:12 Width:128 Height:128	No.:1-U-1 Order No.:13 Width:128 Height:128	No.:1-U-1 Order No.:14 Width:128 Height:128	No.:1-U-1 Order No.:15 Width:128 Height:128	No.:1-U-1 Order No.:16 Width:128 Height:128
2	No.:1-U-1 Order No.:8 Width:128 Height:128	No.:1-U-1 Order No.:7 Width:128 Height:128	No.:1-U-1 Order No.:6 Width:128 Height:128	No.:1-U-1 Order No.:5 Width:128 Height:128	No.:1-U-1 Order No.:4 Width:128 Height:128	No.:1-U-1 Order No.:3 Width:128 Height:128	No.:1-U-1 Order No.:2 Width:128 Height:128	No.:1-U-1 Order No.:1 Width:128 Height:128

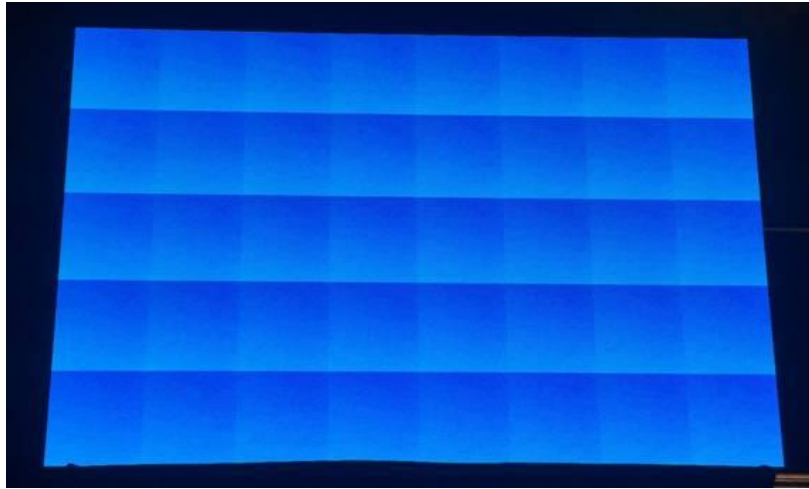
- Send to receiver:** click it after you finish the setup
- Save to receiver:** if the image is working on the LED screen, please click it to save the data to the receiver
- Save to file:** you can also save the settings as a .CON file, so that you can just load the setting as you need it next time.

Note: go to [page14-16](#) to check how to make a .CON file.

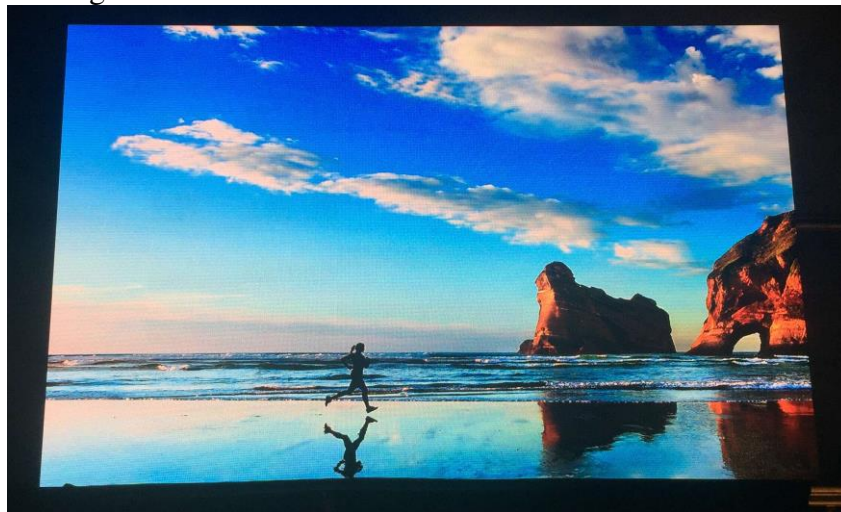
- Compatible old program:** Please check this option when firmware like 4F and firmware like 4008 are used together

1.1.2. What is .RCG & .CON file

.RCG file is used to configuring the image of each single receiving card, and the .RCG file is already saved on each receiving card normally when you get the whole set of LED screen and control cards from the supplier. So the first time you set up the LED screen, you will get several repeated images whose number is the same as the number of the receiving cards (e.g. If you have 40 receiving cards, then you will have 40 repeated images on the LED screen). The LED screen below is working with correct .RCG file saving (showing repeated images of the top-left part on your desktop).



After you assemble the whole LED screen, you need to send a .CON file, in order to make the whole LED screen show image in one piece. You will get the perfect image below after sending a .CON file to the above LED screen.

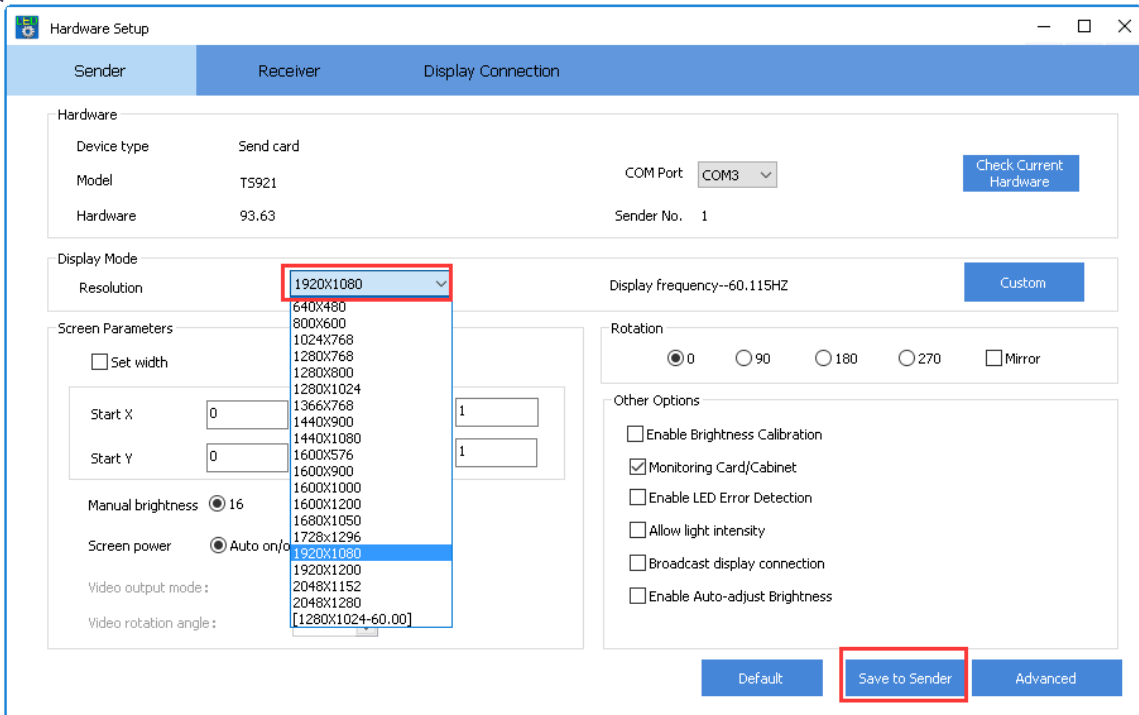


1.1.3. How to load a .RCG file

Note: Please do not send any random .RCG file to the cards if you are not familiar with Linsn's control system.

Procedure:

- a. Connect all the components well (PC->sending card->receiving card->LED screen)
- b. Click **Screen Configuration** to enter **Sender** tab, set the **Resolution** to the same as your PC's monitor and click **Save to Sender**. Go to the resolution settings interface on your PC and select the **duplicate/clone mode**.



Hardware Setup

Sender | Receiver | Display Connection

Hardware

Device type: Send card
Model: TS921
Hardware: 93.63

COM Port: COM3
Sender No.: 1

Display Mode

Resolution: 1920X1080
Display frequency: 60.115HZ

Screen Parameters

☐ Set width

Start X: 0
Start Y: 0

Manual brightness: 16
Screen power: Auto on/off

Video output mode:
Video rotation angle:

Rotation

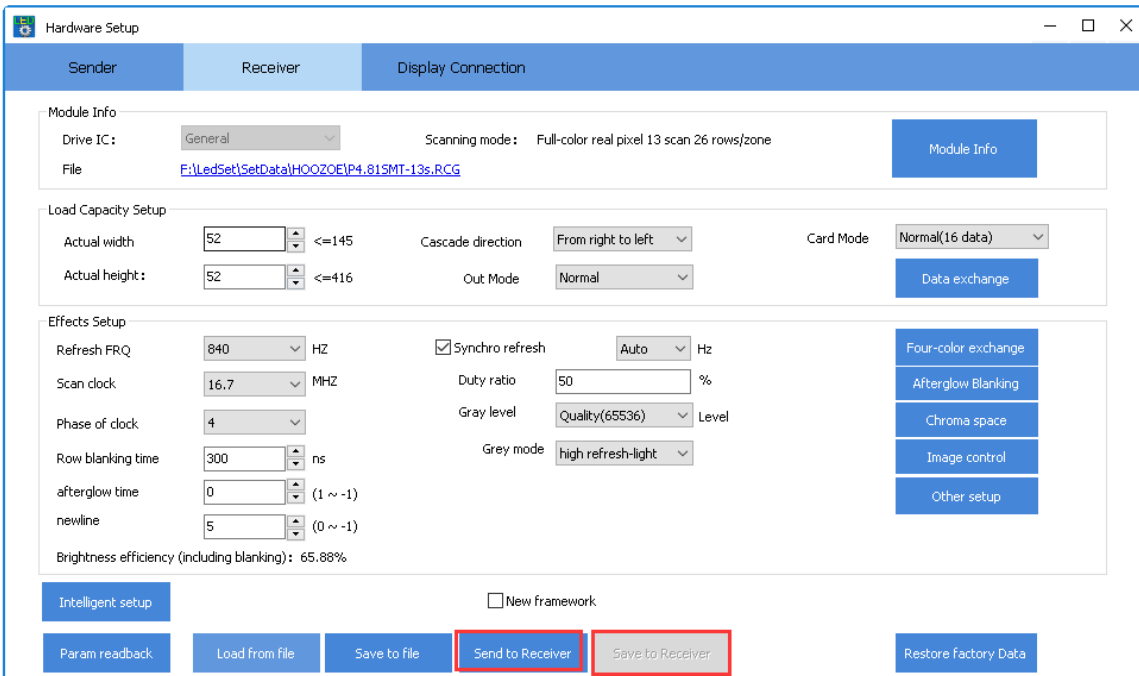
0 90 180 270 ☐ Mirror

Other Options

☐ Enable Brightness Calibration
☒ Monitoring Card/Cabinet
☐ Enable LED Error Detection
☐ Allow light intensity
☐ Broadcast display connection
☐ Enable Auto-adjust Brightness

Default **Save to Sender** Advanced

c. Go to the **Receiver** page. Load the .RCG file from **Load from file** and click **Send to Receiver** to see if one cabinet is working or not. If working, click **Save to Receiver** (this button will be enabled after clicking **Send to receiver**)



Hardware Setup

Sender | **Receiver** | Display Connection

Module Info

Drive IC: General
Scanning mode: Full-color real pixel 13 scan 26 rows/zone

File: F:\LedSet\SetData\H0020EIP4.815MT-13s.RCG

Load Capacity Setup

Actual width: 52
Actual height: 52

Cascade direction: From right to left
Out Mode: Normal

Card Mode: Normal(16 data)

Effects Setup

Refresh FRQ: 840 HZ
Scan clock: 16.7 MHZ
Phase of clock: 4
Row blanking time: 300 ns
afterglow time: 0 (1 ~ -1)
newline: 5 (0 ~ -1)

☒ Synchro refresh: Auto Hz
Duty ratio: 50 %
Gray level: Quality(65536) Level
Gray mode: high refresh-light

Brightness efficiency (including blanking): 65.88%

Intelligent setup ☐ New framework

Param readback Load from file Save to file **Send to Receiver** **Save to Receiver** Restore factory Data

d. If the settings you adjusted are working, click **Save to file** to save the settings to an .RCG file, so that you can load the settings directly when you need it.

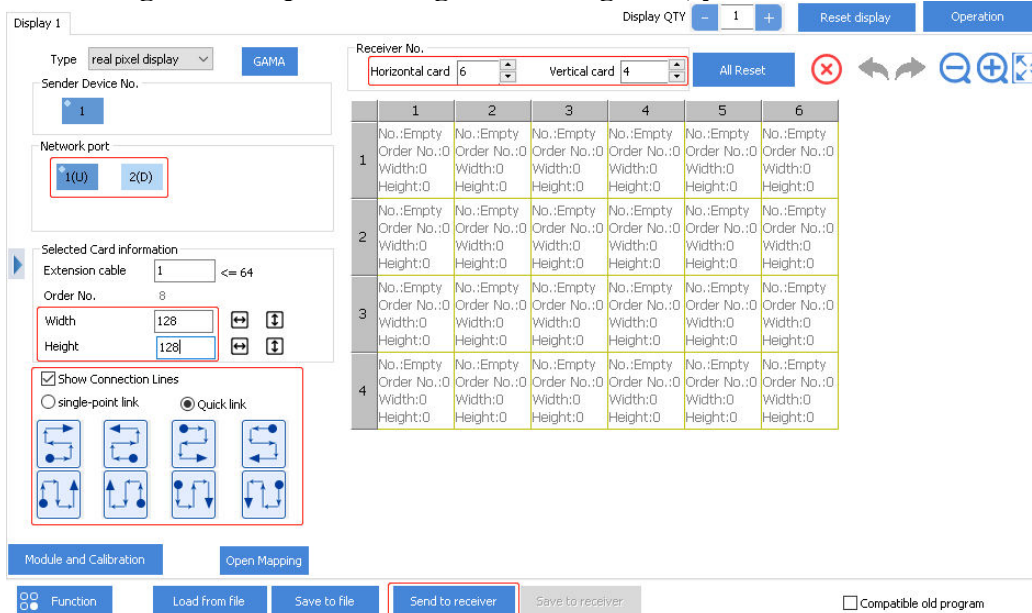
1.1.4. Generating a .CON file

Note: Please stand in front of the LED screen when you are checking the connecting direction of receiving cards.

After sending the corresponding .RCG file to the receivers, correct and repeated images will be shown on each cabinet as in the following picture.



For connecting all the repeated images above together, you need to do:



Display 1

Type: real pixel display

Sender Device No.: 1

Network port: 1(U)

Selected Card information

Extension cable: 1

Order No.: 8

Width: 128

Height: 128

Show Connection Lines: ☒ single-point link ☒ Quick link

Module and Calibration

Open Mapping

Receiver No.

Horizontal card: 6

Vertical card: 4

All Reset

	1	2	3	4	5	6
1	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0
2	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0
3	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0
4	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0

Function

Load from file

Save to file

Send to receiver

Save to receiver

Compatible old program

a. Input 6 in **Horizontal card**, and 4 in **Vertical card**

b. Select 1(U) if the **network port** near the LED light on the sending card is connected

c. Input 128 (pixels) in width and height separately (the above cabinet is 128*128 pixels)

d. Click on the square that corresponds to the first receiving card, and click the second square stands for the second receiving card till all the squares are covered if you select **single-point link**

Type: real pixel display GAMA

Sender Device No.
1

Network port
1(U) 2(D)

Selected Card information

Extension cable: 1 <= 64

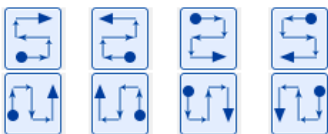
Order No.: 1

Width: 128 ↔ ↑↓

Height: 128 ↔ ↑↓

☒ Show Connection Lines

☒ single-point link ☐ Quick link



Type: real pixel display GAMA

Sender Device No.
1

Network port
1(U) 2(D)

Selected Card information

Extension cable: 1 <= 64

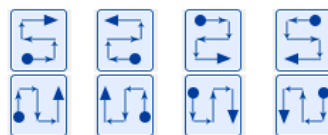
Order No.: 2

Width: 128 ↔ ↑↓

Height: 128 ↔ ↑↓

☒ Show Connection Lines

☒ single-point link ☐ Quick link



Receiver No.
Horizontal card: 6 Vertical card: 4 All Reset ✖

	1	2	3	4	5	6
1	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0
2	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0
3	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0
4	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:1 Width:128 Height:128

Receiver No.
Horizontal card: 6 Vertical card: 4 All Reset ✖

	1	2	3	4	5	6
1	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0
2	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0
3	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0
4	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:1-U-1 Order No.:1 Width:128 Height:128	No.:1-U-1 Order No.:1 Width:128 Height:128

You can also select **Quick link** to finish the setup (see [page10-11](#) for detailed skills to set quick link).





Type real pixel display GAMA





Sender Device No.

Network port

Selected Card information
Extension cable <= 64
Order No.
Width
Height

☒ Show Connection Lines
☐ single-point link ☒ Quick link

Receiver No.
Horizontal card Vertical card All Reset ✕

	1	2	3	4	5	6
1	No.:1-U-1 Order No.:1 Width:128 Height:128	No.:1-U-1 Order No.:2 Width:128 Height:128	No.:1-U-1 Order No.:2 Width:128 Height:128	No.:1-U-1 Order No.:2 Width:128 Height:128	No.:1-U-1 Order No.:2 Width:128 Height:128	No.:1-U-1 Order No.:2 Width:128 Height:128
2	No.:1-U-1 Order No.:1 Width:128 Height:128	No.:1-U-1 Order No.:1 Width:128 Height:128	No.:1-U-1 Order No.:1 Width:128 Height:128	No.:1-U-1 Order No.:1 Width:128 Height:128	No.:1-U-1 Order No.:1 Width:128 Height:128	No.:1-U-1 Order No.:1 Width:128 Height:128
3	No.:1-U-1 Order No.:7 Width:128 Height:128	No.:1-U-1 Order No.:8 Width:128 Height:128	No.:1-U-1 Order No.:9 Width:128 Height:128	No.:1-U-1 Order No.:11 Width:128 Height:128	No.:1-U-1 Order No.:1 Width:128 Height:128	No.:1-U-1 Order No.:1 Width:128 Height:128
4	No.:1-U-1 Order No.:6 Width:128 Height:128	No.:1-U-1 Order No.:5 Width:128 Height:128	No.:1-U-1 Order No.:4 Width:128 Height:128	No.:1-U-1 Order No.:3 Width:128 Height:128	No.:1-U-1 Order No.:2 Width:128 Height:128	No.:1-U-1 Order No.:1 Width:128 Height:128

Or use **quick map**: choose one of the eight maps matching to the actual connection, left-click on one of the squares, hold down the mouse key and drag it till all the squares are selected(covered by black), and it will link all the square in order with the selected connection way





Type real pixel display GAMA





Sender Device No.

Network port

Selected Card information
Extension cable <= 64
Order No.
Width
Height

☒ Show Connection Lines
☐ single-point link ☒ Quick link

Receiver No.
Horizontal card Vertical card All Reset ✕





	1	2	3	4	5	6
1	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0
2	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0
3	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0
4	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0	No.:Empty Order No.:0 Width:0 Height:0





Type real pixel display GAMA

Sender Device No.
1

Network port
1(U) 2(D)

Selected Card information
Extension cable 1 <= 64
Order No. 24
Width 128 ↔ ↕
Height 128 ↔ ↕
☒ Show Connection Lines
☐ single-point link ☒ Quick link

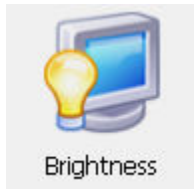
Receiver No.
Horizontal card 6 Vertical card 4 All Reset ✖

	1	2	3	4	5	6
1	No.:1-U-1 Order No.:1 Width:128 Height:128	No.:1-U-1 Order No.:2 Width:128 Height:128	No.:1-U-1 Order No.:2 Width:128 Height:128	No.:1-U-1 Order No.:2 Width:128 Height:128	No.:1-U-1 Order No.:2 Width:128 Height:128	No.:1-U-1 Order No.:2 Width:128 Height:128
2	No.:1-U-1 Order No.:1 Width:128 Height:128	No.:1-U-1 Order No.:1 Width:128 Height:128	No.:1-U-1 Order No.:1 Width:128 Height:128	No.:1-U-1 Order No.:1 Width:128 Height:128	No.:1-U-1 Order No.:1 Width:128 Height:128	No.:1-U-1 Order No.:1 Width:128 Height:128
3	No.:1-U-1 Order No.:7 Width:128 Height:128	No.:1-U-1 Order No.:8 Width:128 Height:128	No.:1-U-1 Order No.:9 Width:128 Height:128	No.:1-U-1 Order No.:1 Width:128 Height:128	No.:1-U-1 Order No.:1 Width:128 Height:128	No.:1-U-1 Order No.:1 Width:128 Height:128
4	No.:1-U-1 Order No.:6 Width:128 Height:128	No.:1-U-1 Order No.:5 Width:128 Height:128	No.:1-U-1 Order No.:4 Width:128 Height:128	No.:1-U-1 Order No.:3 Width:128 Height:128	No.:1-U-1 Order No.:2 Width:128 Height:128	No.:1-U-1 Order No.:1 Width:128 Height:128

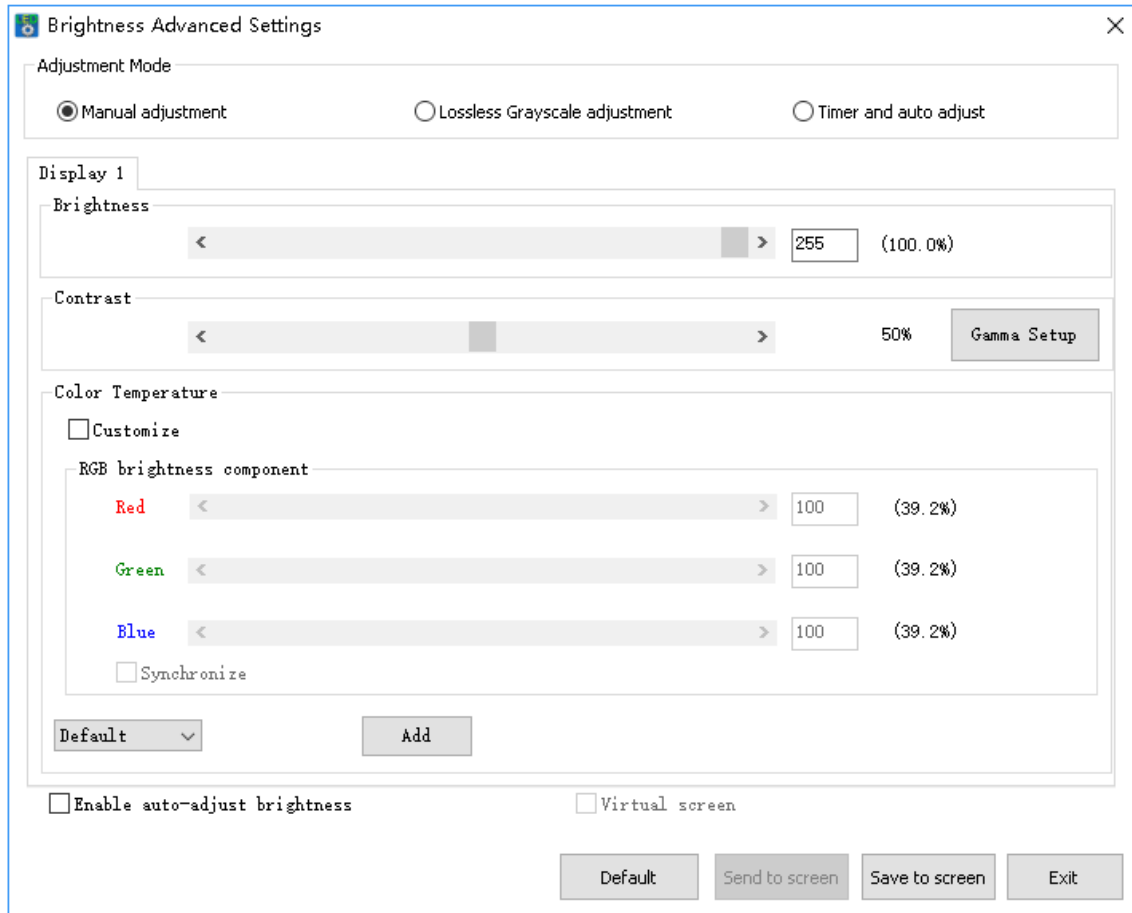
e. After filling out all the squares, click **Send to receiver**. Don't forget to click **Save to Receiver** if the image is working well on the LED screen.

f. You can save the above settings as a .CON file, and load it when you need it.

1.2. Brightness



Set brightness/contrast/color temperature



Brightness Advanced Settings

Adjustment Mode

☒ Manual adjustment ☐ Lossless Grayscale adjustment ☐ Timer and auto adjust

Display 1

Brightness

< [Slider] > 255 (100.0%)

Contrast

< [Slider] > 50% Gamma Setup

Color Temperature

☐ Customize

RGB brightness component

Red < [Slider] > 100 (39.2%)

Green < [Slider] > 100 (39.2%)

Blue < [Slider] > 100 (39.2%)

☐ Synchronize

Default ▼ Add

☐ Enable auto-adjust brightness ☐ Virtual screen

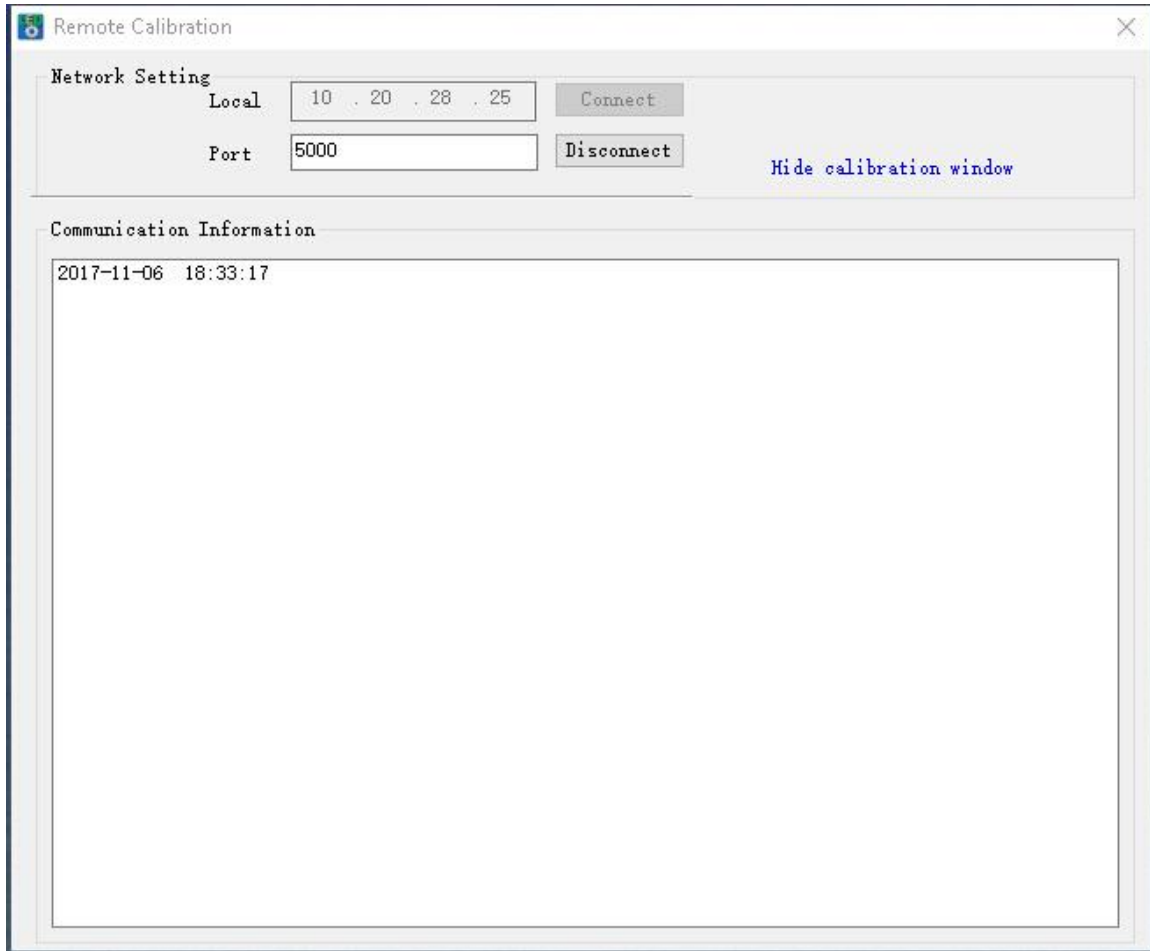
Default Send to screen Save to screen Exit

- Brightness: adjust the brightness manually
- Contrast: adjust the contrast manually
- Color Temperature
 - Customize: check to enable RGB brightness component
 - RGB brightness component: Adjust brightness of red, green and blue manually
 - Add: Customize the color temperature that you need, ranging from 1000K to 40000K
- Enable auto-adjust brightness: Enable adjusting brightness automatically by multifunction card

1.3.Calibration



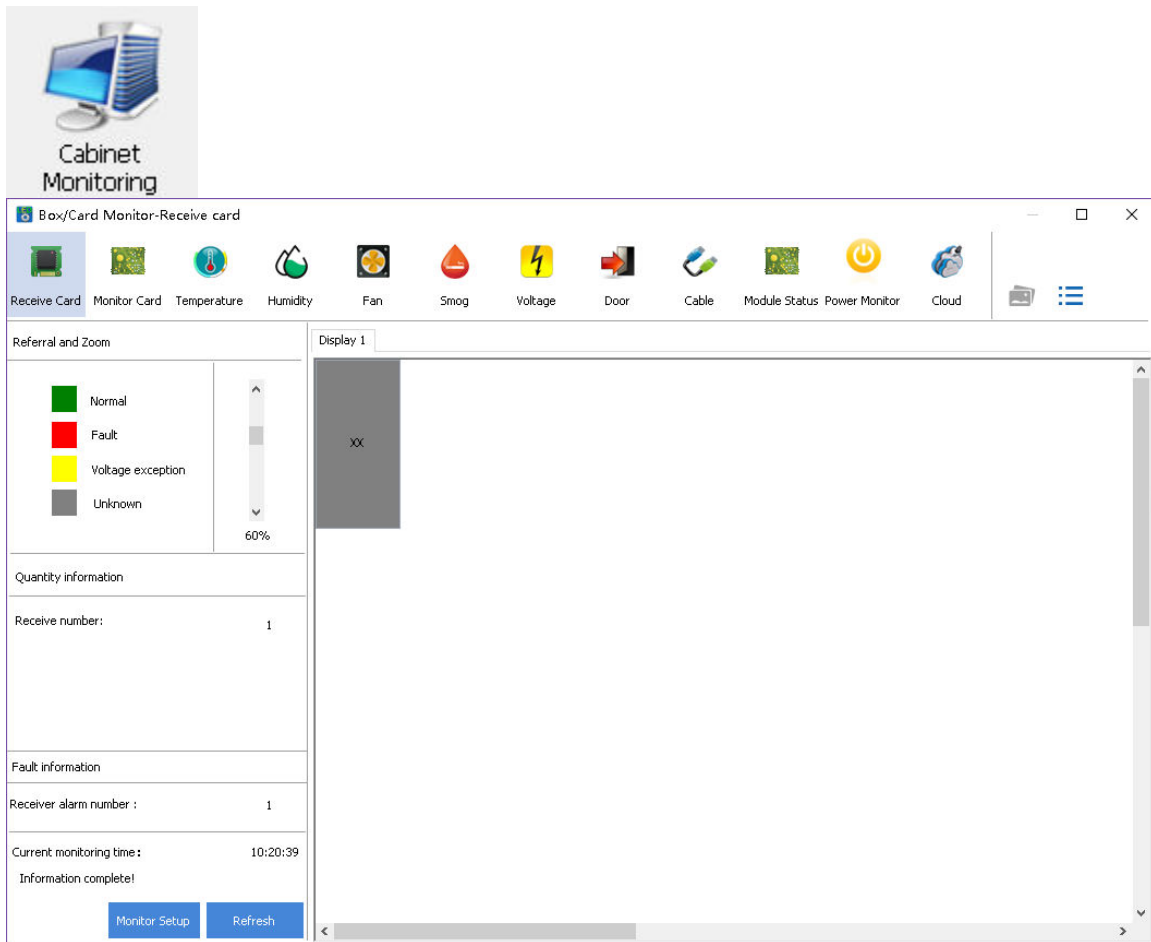
This is a remote calibration sever which works with the LED Correction software. It is designed for the LED screen that is installed high or with large resolution but needs calibration in a far distance.



- Network Setting:
 - Local: IP address of the server which is connecting to the LED screen
 - Port: Communication port (Keep it default)
- Communication Information: Showing connection status of the server and client.

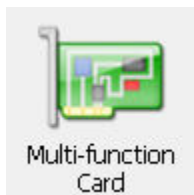
Linsn Technology

1.4.Cabinet Monitoring

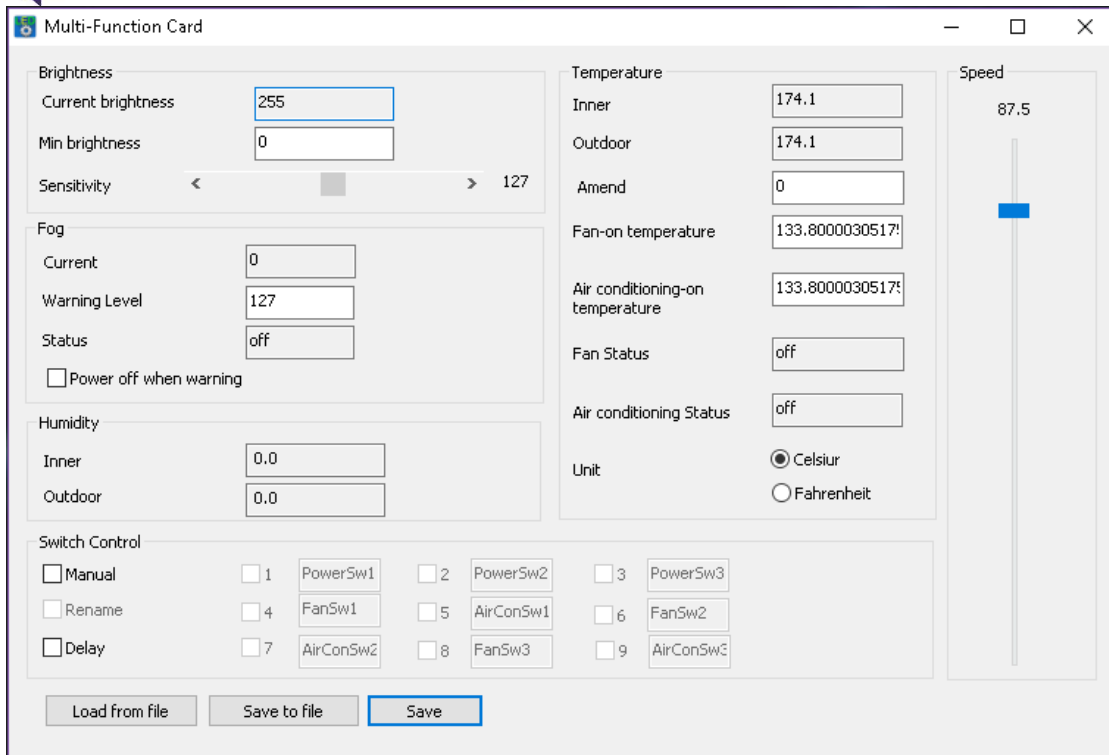


Cabinet monitoring is for showing the monitoring data of each cabinet rather than the whole LED screen.

1.5.Multi-function Card



This function works with multifunction card for showing monitoring data of the whole LED screen. In the page below, you can set the sensitivity of light sensor and monitoring speed of multi-function card, etc.



Multi-Function Card

Brightness

Current brightness: 255

Min brightness: 0

Sensitivity: < [Slider] > 127

Fog

Current: 0

Warning Level: 127

Status: off

☐ Power off when warning

Humidity

Inner: 0.0

Outdoor: 0.0

Temperature

Inner: 174.1

Outdoor: 174.1

Amend: 0

Fan-on temperature: 133.8000030517

Air conditioning-on temperature: 133.8000030517

Fan Status: off

Air conditioning Status: off

Unit: ☒ Celsius ☐ Fahrenheit

Speed

87.5

Switch Control

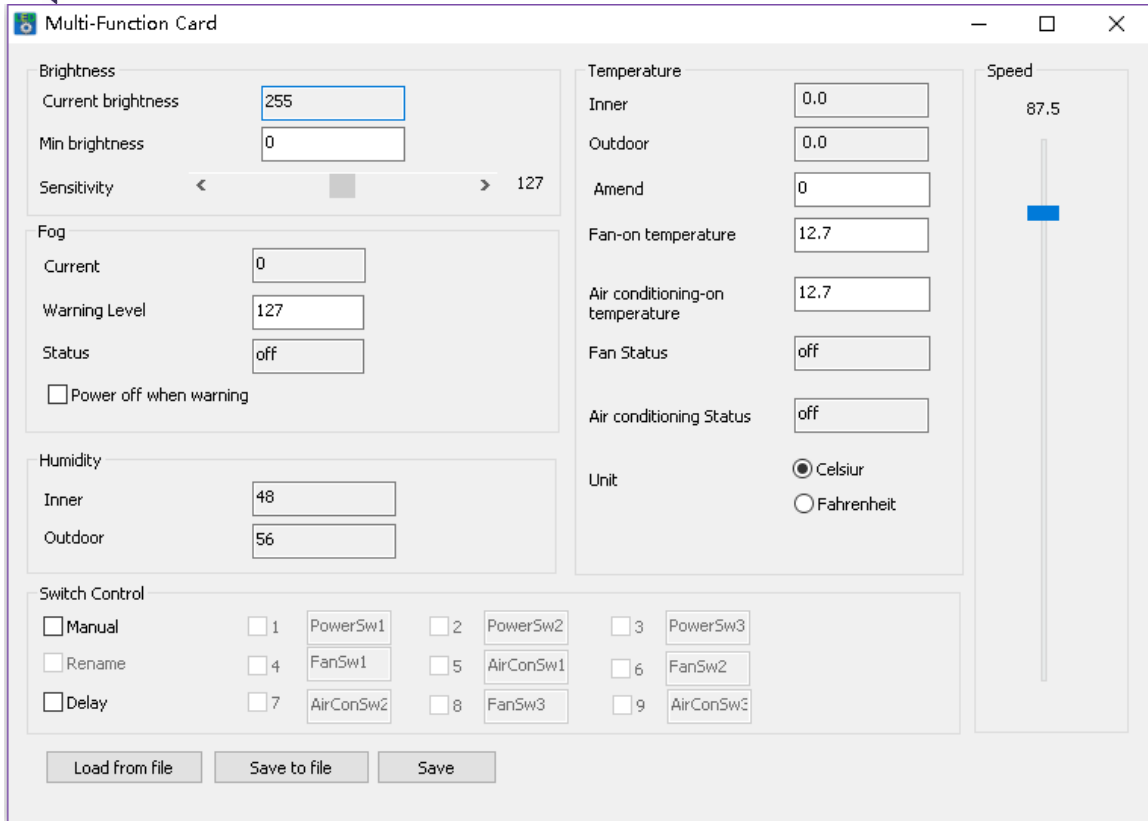
☐ Manual ☐ 1 PowerSw1 ☐ 2 PowerSw2 ☐ 3 PowerSw3

☐ Rename ☐ 4 FanSw1 ☐ 5 AirConSw1 ☐ 6 FanSw2

☐ Delay ☐ 7 AirConSw2 ☐ 8 FanSw3 ☐ 9 AirConSw3

Load from file Save to file Save

Note: After you finish installing and setting up the multifunction card and light sensor, enter this page. If the current brightness, temperature and humidity value changes automatically, it means the sensors are working.

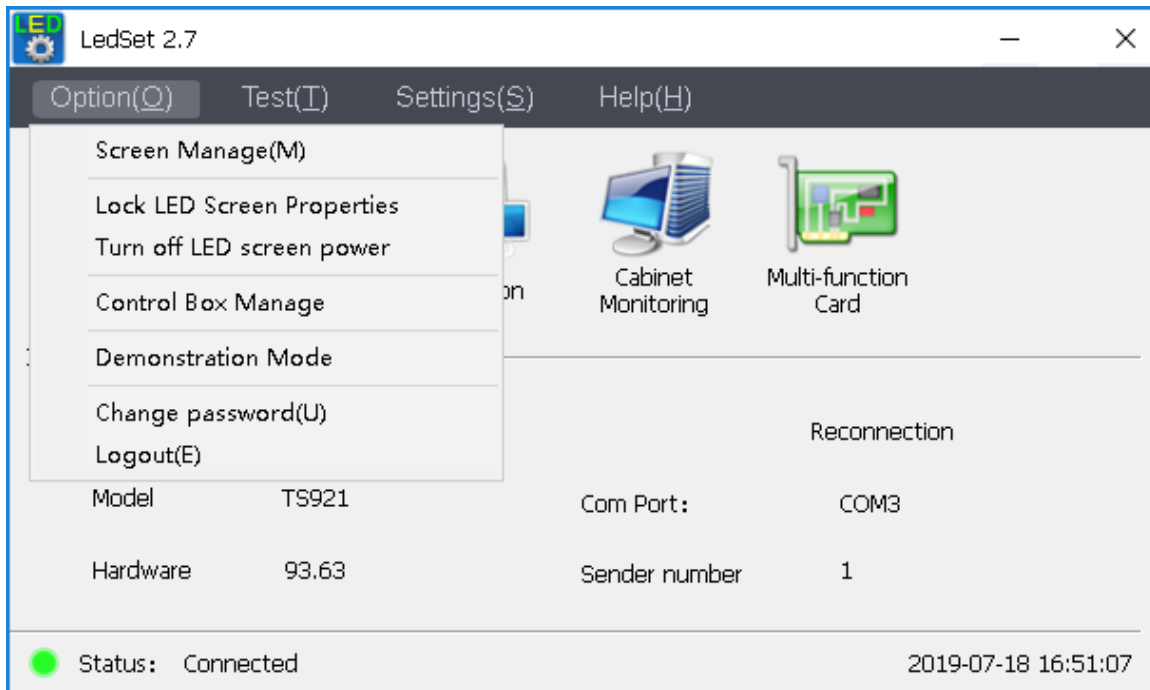


The screenshot shows a software window titled "Multi-Function Card" with various configuration options for a multifunction card. The window is organized into several sections:

- Brightness:** Includes fields for "Current brightness" (set to 255), "Min brightness" (set to 0), and a "Sensitivity" slider (set to 127).
- Fog:** Includes fields for "Current" (set to 0), "Warning Level" (set to 127), and "Status" (set to off). There is also a checkbox for "Power off when warning".
- Humidity:** Includes fields for "Inner" (set to 48) and "Outdoor" (set to 56).
- Temperature:** Includes fields for "Inner" (0.0), "Outdoor" (0.0), "Amend" (0), "Fan-on temperature" (12.7), "Air conditioning-on temperature" (12.7), "Fan Status" (off), and "Air conditioning Status" (off). There is also a "Unit" selector with radio buttons for "Celsius" (selected) and "Fahrenheit".
- Speed:** A vertical slider on the right side, currently set to 87.5.
- Switch Control:** A section with checkboxes for "Manual", "Rename", and "Delay". Below these are nine numbered buttons (1-9) for "PowerSw1", "PowerSw2", "PowerSw3", "FanSw1", "AirConSw1", "FanSw2", "AirConSw2", "FanSw3", and "AirConSw3".
- Buttons:** At the bottom, there are three buttons: "Load from file", "Save to file", and "Save".

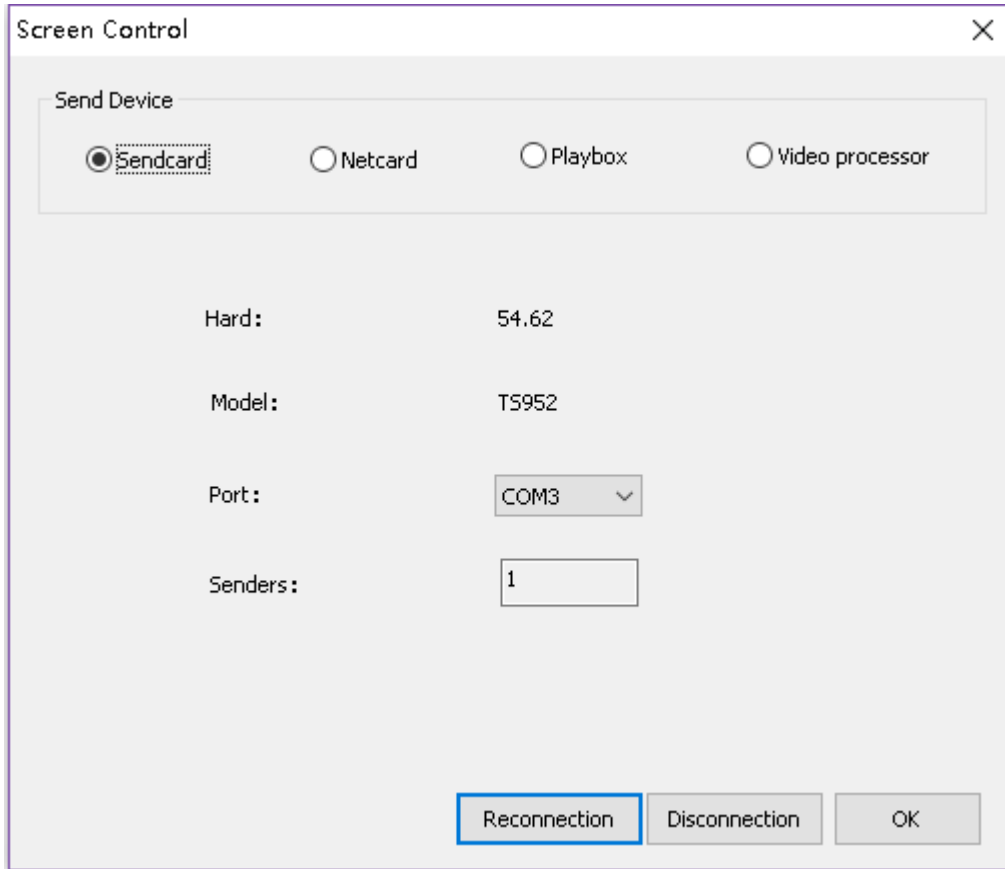
This function works with multifunction card for showing monitoring data of the whole LED screen. In the page below, you can set the sensitivity of light sensor and monitoring speed of multi-function card, etc.

1.6.Option Menu



- Screen Manage:** select connected device type
- Lock LED Screen Properties:** to freeze what is currently being displayed on the LED screen
- Turn off LED screen power:** works with multifunction board (EX902/EX906 and etc) to turn off the power of the LED screen; if no multifunction board connected, enabling this option will just turn off the video signal
- Control Box Manage:** save RCG to the 9th Gen device
- Change password:** to manage the password for **Screen Configuration** and LedSet
- Logout(E):** to prevent others from changing the settings in **Screen Configuration**

1.6.1. Screen Manage



The screenshot shows a 'Screen Control' dialog box with a close button (X) in the top right corner. Inside the dialog, there is a 'Send Device' section with four radio buttons: 'Sendcard' (selected), 'Netcard', 'Playbox', and 'Video processor'. Below this, there are four labels with corresponding values or input fields: 'Hard:' with the value '54.62', 'Model:' with the value 'TS952', 'Port:' with a dropdown menu showing 'COM3', and 'Senders:' with a text input field containing the number '1'. At the bottom right, there are three buttons: 'Reconnection' (highlighted with a blue border), 'Disconnection', and 'OK'.

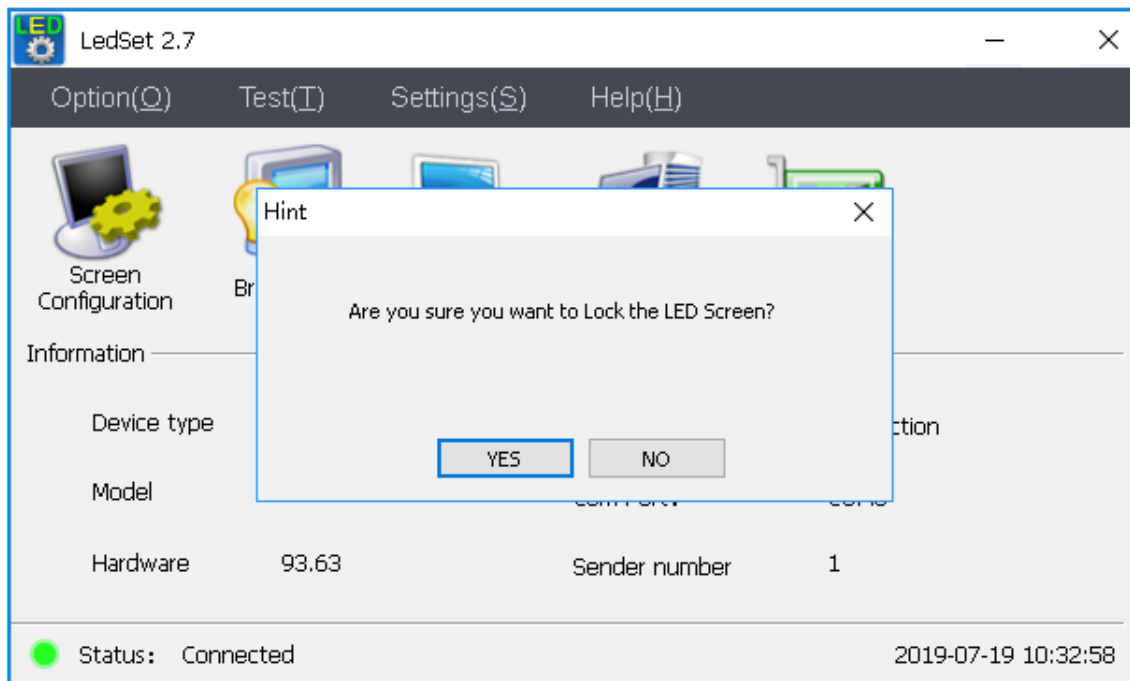
a. Go to **Option->Screen Manage**

b. Select the device that is connected, click Reconnection and click ok

c. The status in the main interface will show green and connected

Note: Please select the connected device type when player box or video processor is connected. For sender, it will be detected automatically when it is connected to PC

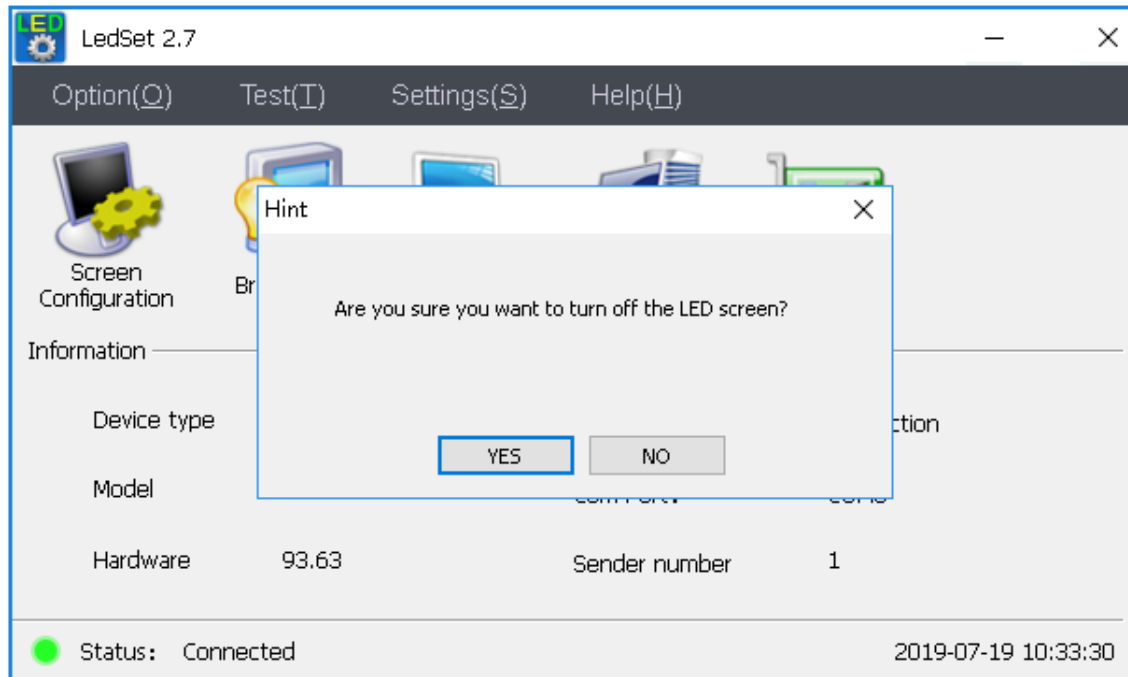
1.6.2. Lock LED Screen Properties



d. Go to **Option->Lock LED screen properties->Hint**

e. Click **YES** to freeze the image on the LED screen and the button will turn into **unlock the LED screen properties**. You can click **unlock the LED screen properties** to resume the action on the LED screen.

1.6.3. Turn off the LED screen power

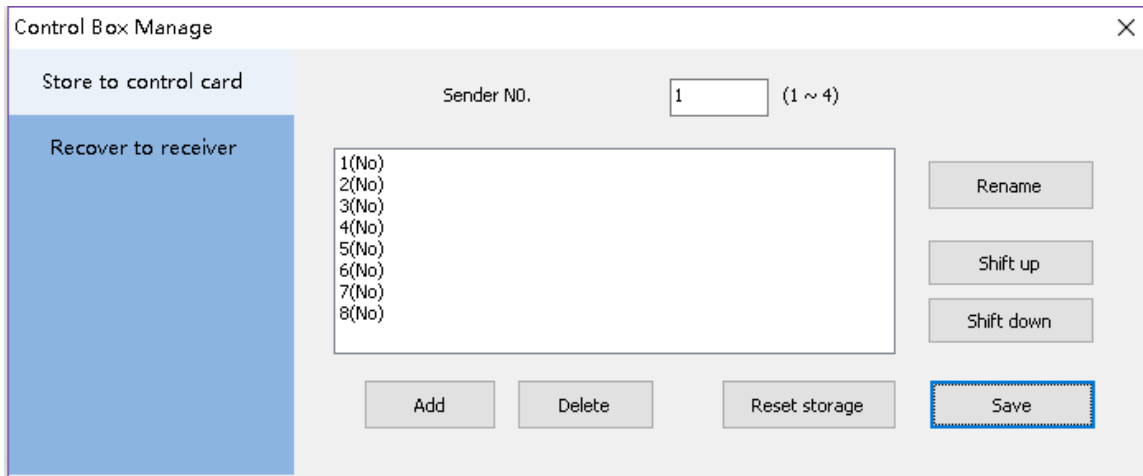


This function requires multifunction board (like EX902, EX906 and etc). After connecting the power supply for the LED screen to the relays on the multifunction board, you can turn off the power of the LED screen by LedSet:

- a. Go to **Option->Turn off the LED screen->Hint**
- b. Click **YES**
- c. The button will turn into **Turn on the LED screen**

Note: If you don't have multifunction board connected, it will cut off the video signal (indicated by green light on the sending card) rather than power by using this function.

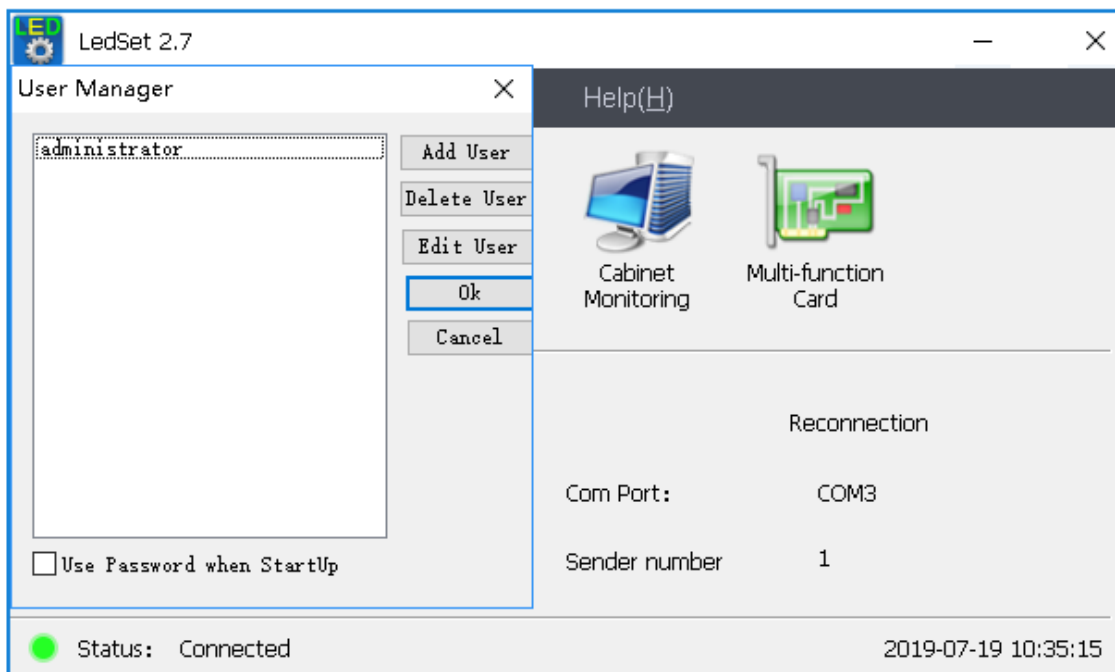
1.6.4. Control Box Manage



This function requires the 9th Gen sender or device (like TS952, X2000 and etc). After connecting USB cable from device to PC (go to Screen Manage to connect the device to PC)

- Go to **Option->Control Box Manage**
- Select one of the 8 No.
- Click **Save** to select one correct RCG file to the sender

1.6.5. Change password

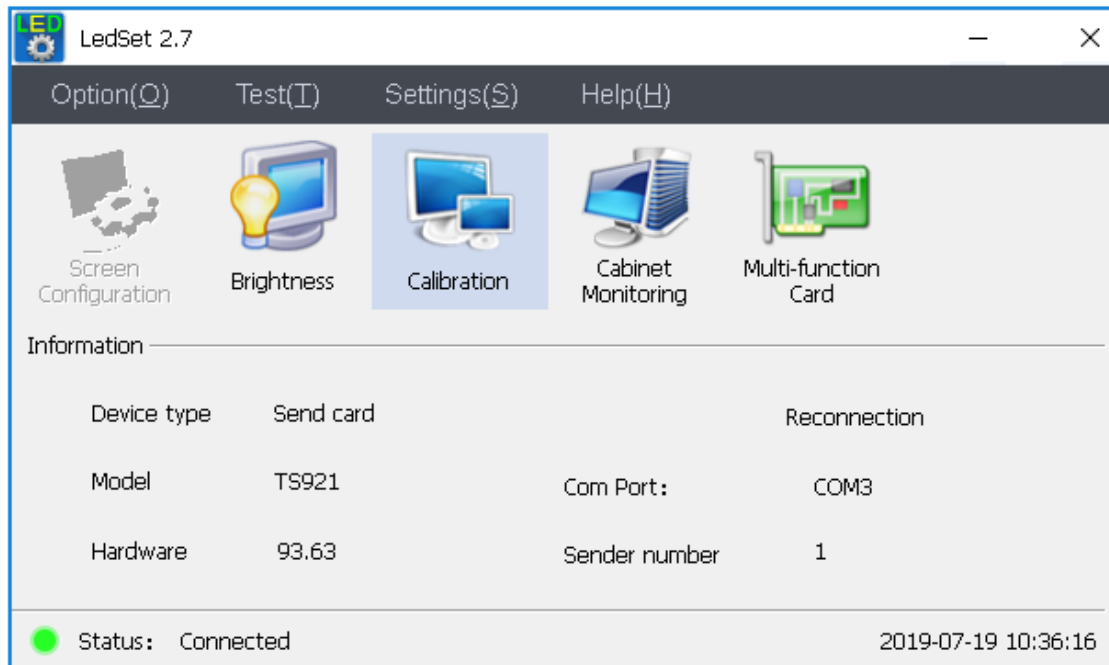


- **Add User:** add a new user name and password
- **Delete User:** delete the selected user
- **Edit User:** edit the name and password for the selected user



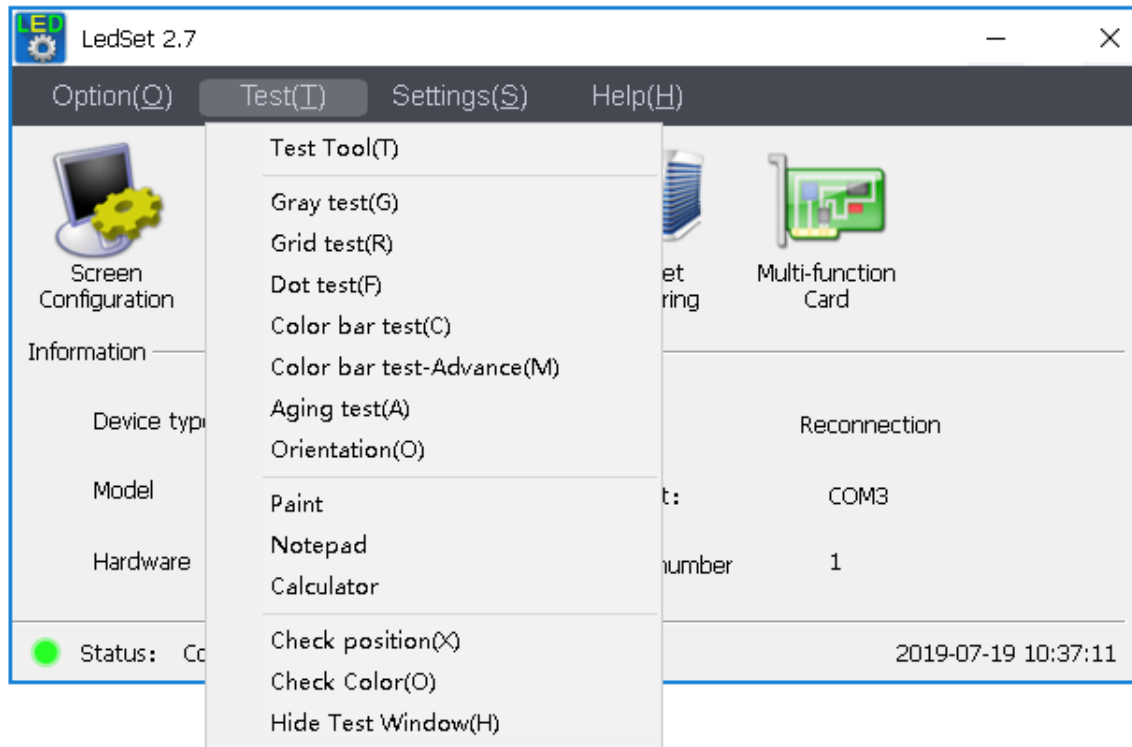
- Ok**: click ok to finish the setup
- Cancel**: click cancel to exit
- Use Password when StartUp**: it requires enter password when the software starts up

1.6.6. Logout



To prevent others from changing the settings by accident, you can click logout to disable the **Screen Configuration** feature.

1.7.Test Menu



•Gray test

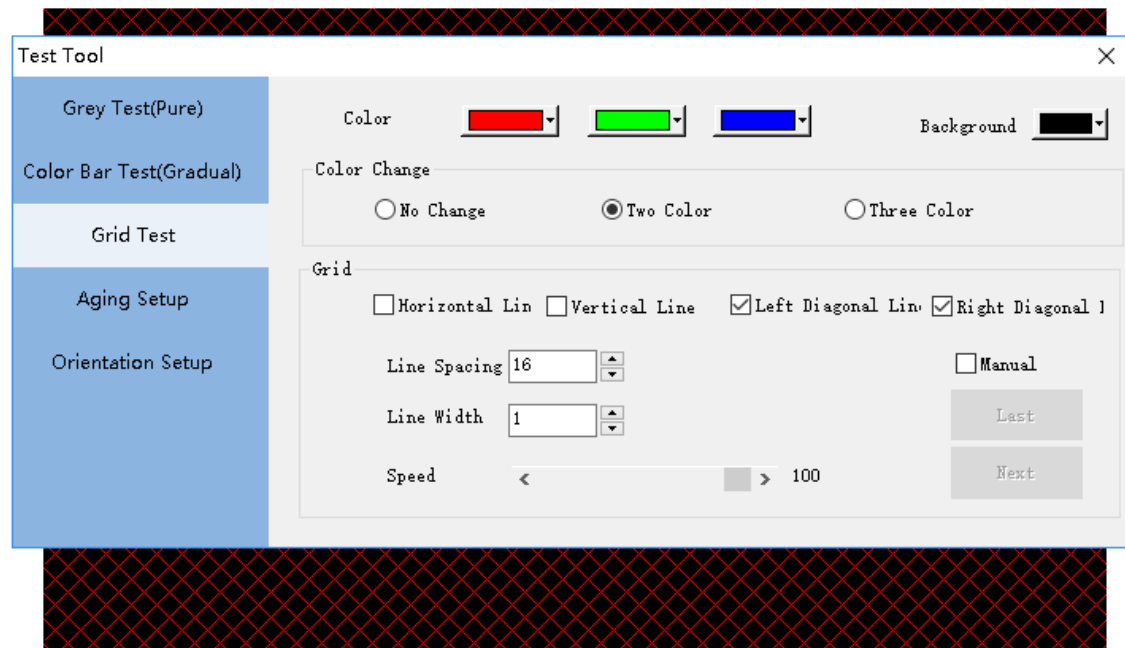
It will shows the selected color's grayscale from level 1 to 255 automatically.

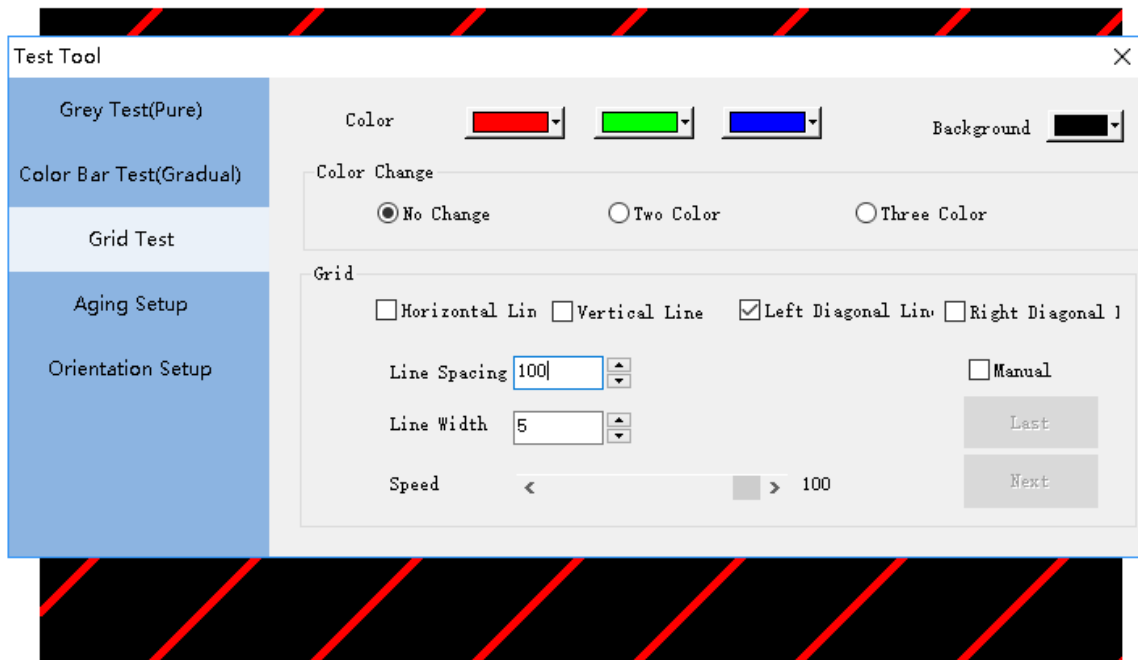


•Grid test

For testing the pixels' movement on the LED screen.

Official website: www.linsn.com





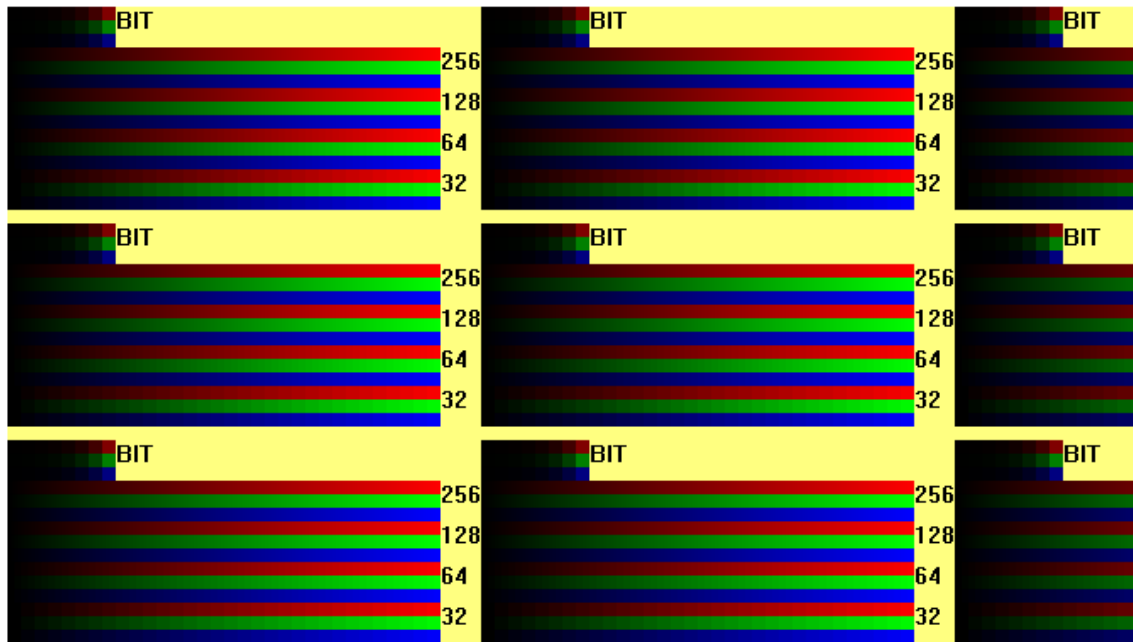
•Dot test

A quick way to check if there is faulty pixel on the LED screen.



•Color bar test

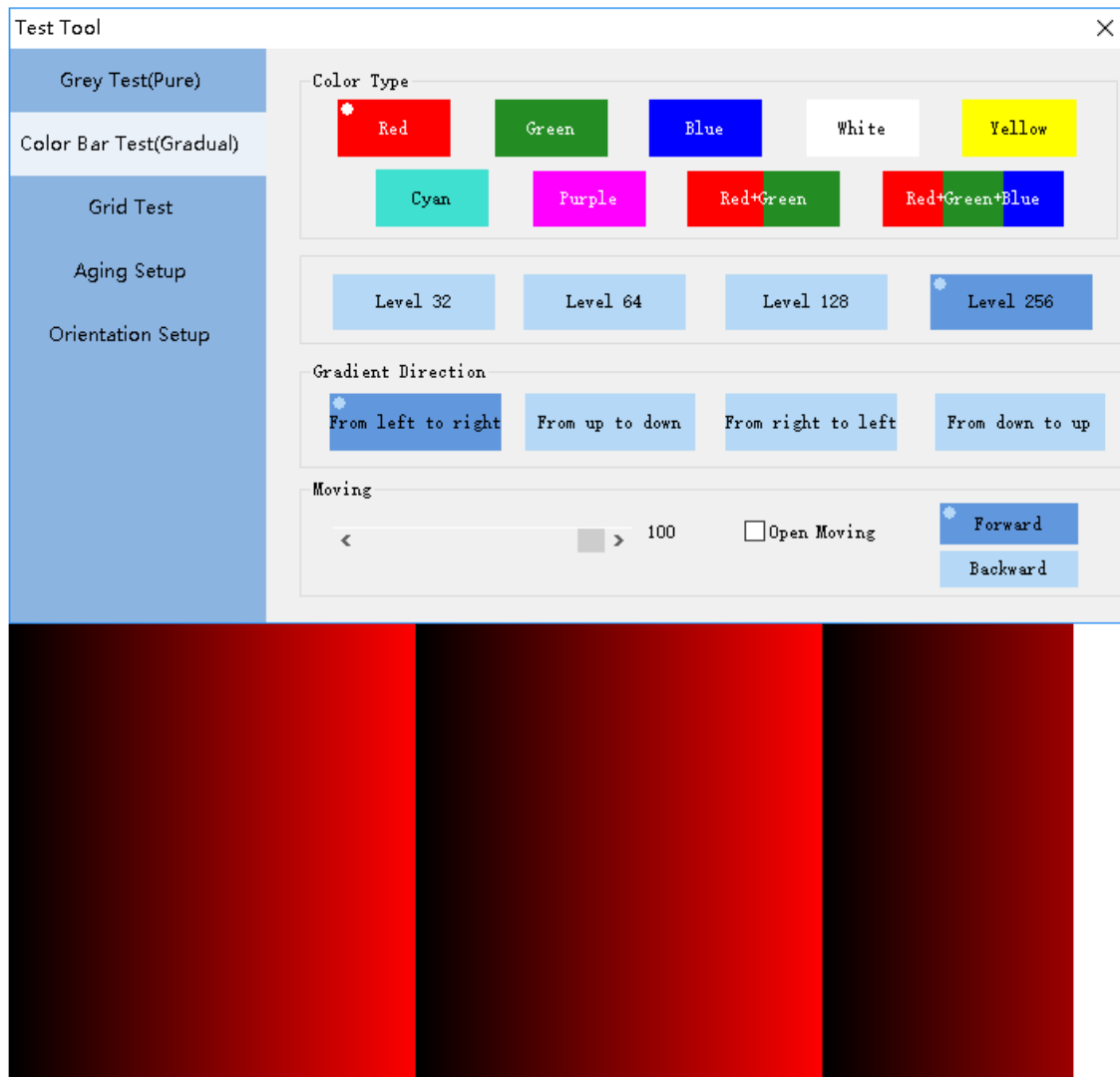
- For testing different grayscale of different color (internal use)



•Color bar test-Advance

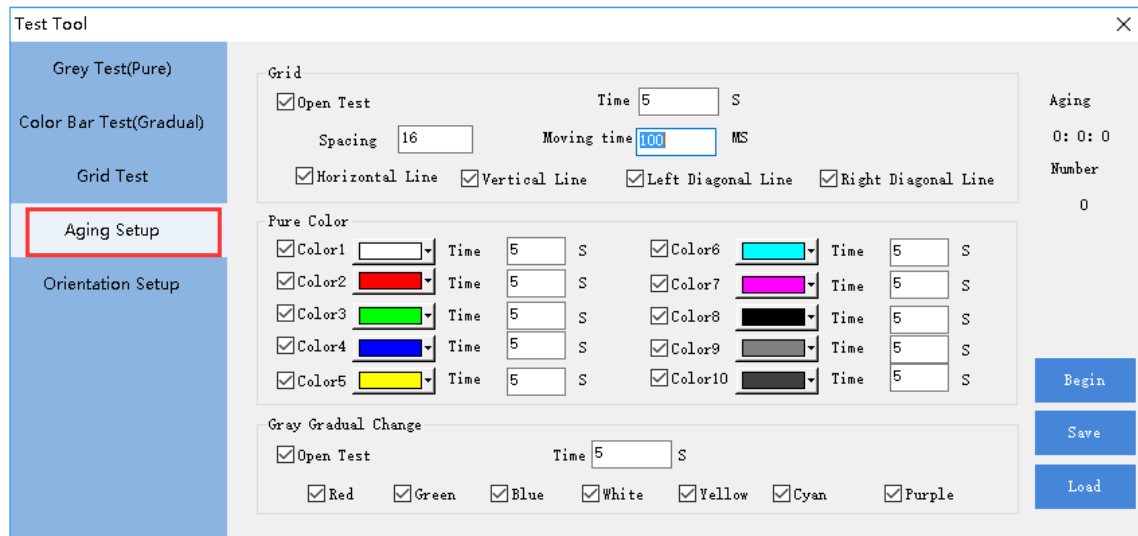
Grayscale test pattern for

Red/Green/Blue/White/Purple/Yellow/Cyan/Purple/Red+Green/Red+Green+Blue



•Aging

For customizing an aging pattern



•Check position

For checking the showing area and the area for each data sets

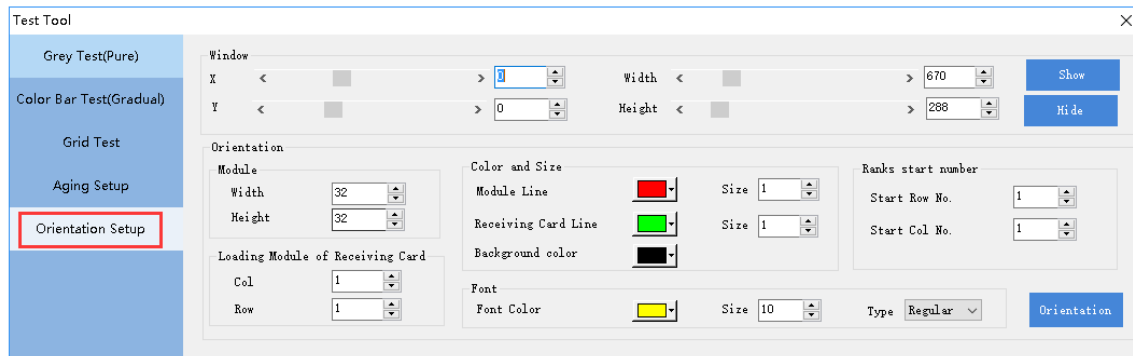


•Check color

For reading RGB color codes

•Orientation

This function is for locating the faulty module/cabinet/card.



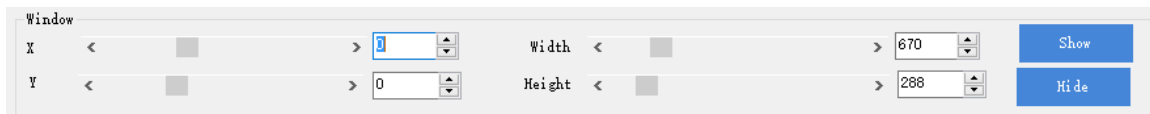
■Window

X: start x of play window, and keep it to 0 commonly

Y: start y of play window, and keep it to 0 commonly

Width: pixels' width of play window, and keep it the same as your LED screen

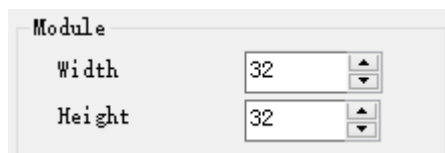
Height: pixels' height of play window, and keep it the same as your LED screen



■Module

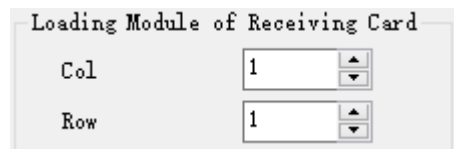
Width: pixel's number of one module in width

Height: pixel's number of one module in height



■Loading Module of Receiving Card

The number of modules that connected to one receiving card in height and width

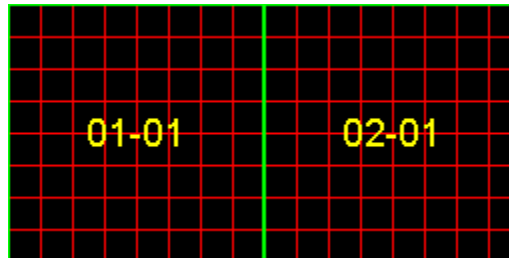


■Color and Size

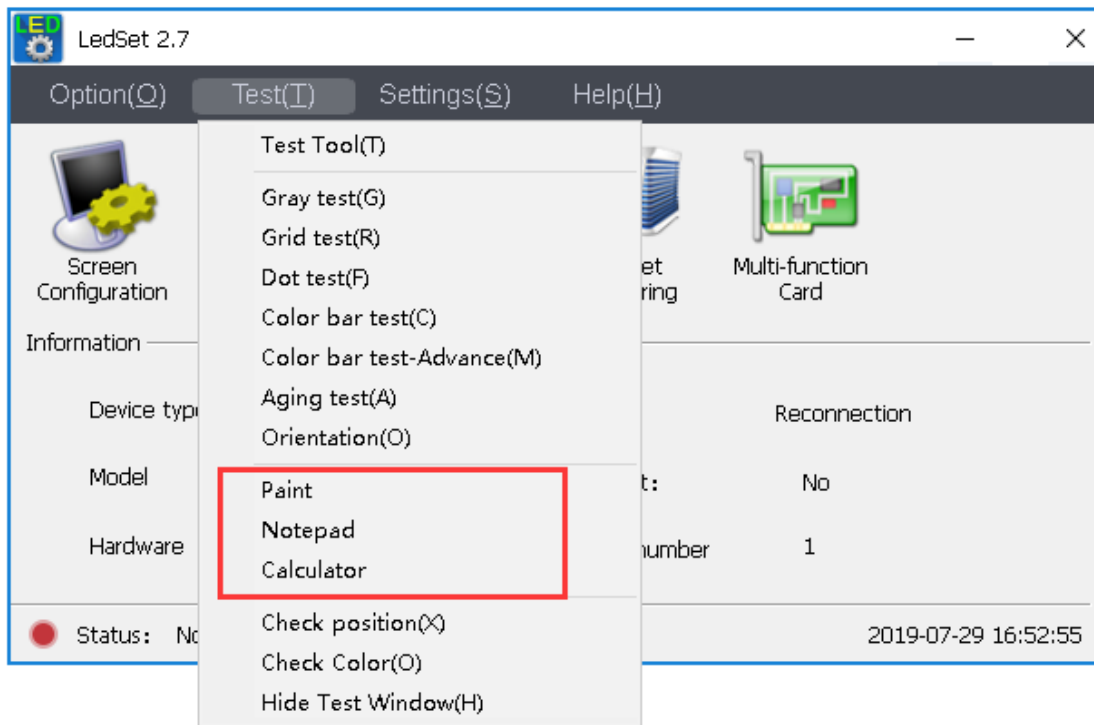
Color and Size		
Module Line		Size <input type="text" value="1"/>
Receiving Card Line		Size <input type="text" value="1"/>
Background color		

▪**Orientation:** Click it to update the contents

- Set the pixels' width and height for module and LED screen, and the number of the modules that connected to one receiving card.
- Click **Orientation** to update your settings.
- The display window will show the grids on the LED screen for you to recognize each

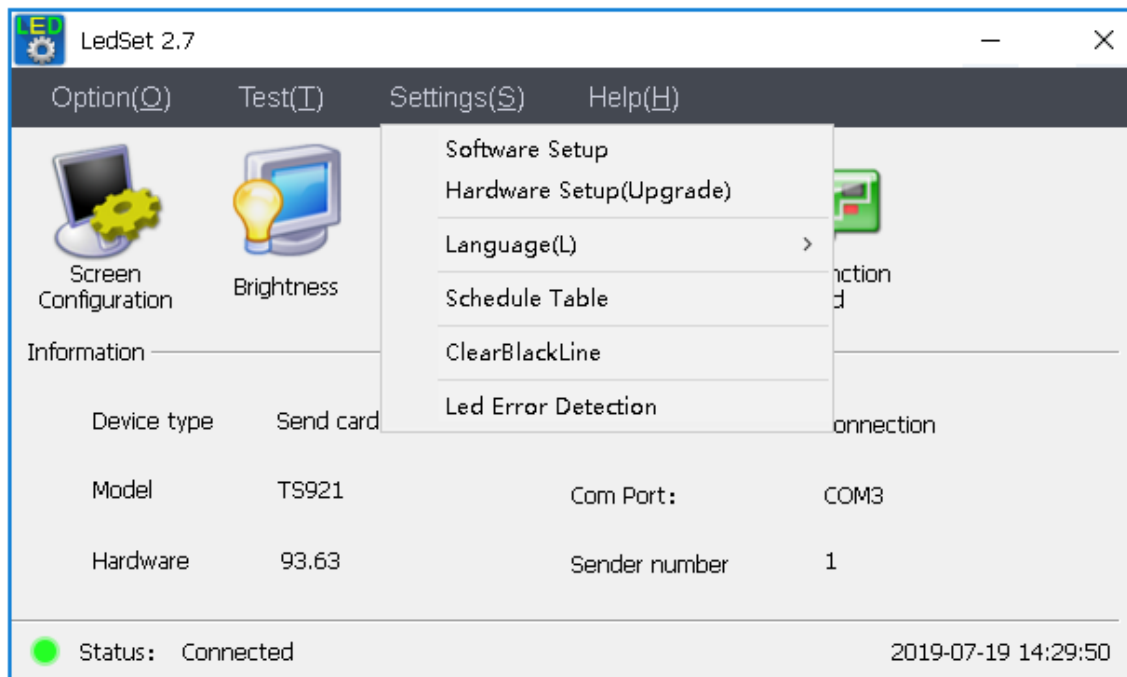


Open Paint/Notepad/Calculator (Window's program) in LedSet



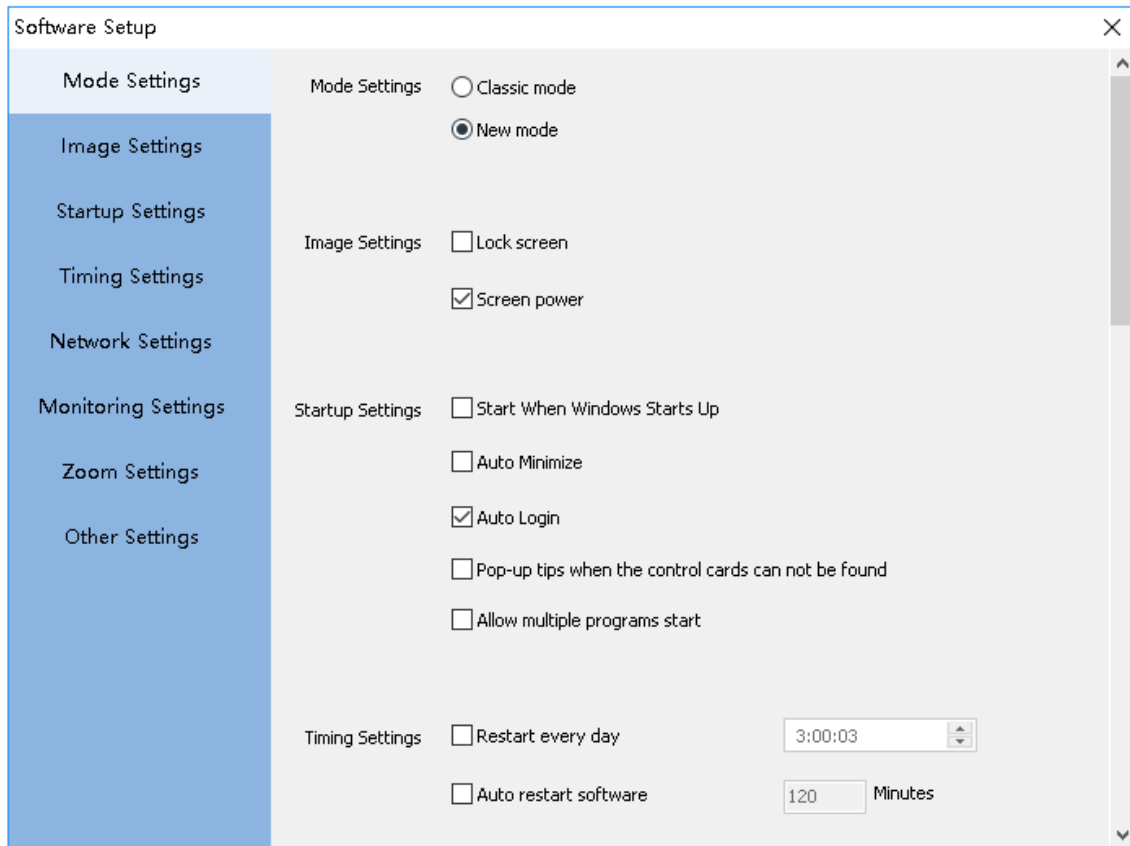
- Hide test window:** to hide/show the above window

1.8.Settings Menu

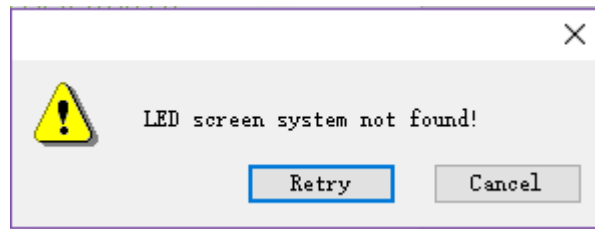


- Software Setup: Other settings for software
- Hardware Setup(Upgrade): For upgrading the firmware
- Language: Other languages
- Schedule Table: For timing settings

1.8.1. Software Setup

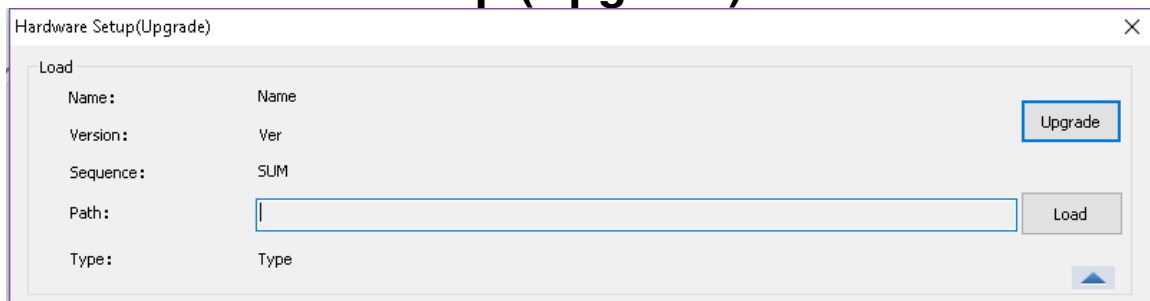


- Mode Settings:
 - Classic mode
 - New mode(recommended)
 - Image Settings:
 - Lock screen: this option is unchecked by default, and you can check it to freeze the image of LED screen (same as Option->Lock LED screen properties, please check [page25](#) for detailed instructions)
 - Screen power: this option is checked by default, and you can uncheck it to turn off the power(same as Option->Turn off LED screen power, please check [page26](#) for detailed instructions)
 - Startup Settings:
 - Start When Windows Starts Up: auto-start LedSet when your PC starts up
 - Auto Minimize: auto-minimize the software when launching LedSet
- Auto Login: this option is checked by default, and you can uncheck it to keep logging out the software (same as Option->Logout, please check [page28](#) for detailed instructions)
- Pop-up tips when the control cards cannot be found: check to show the prompt when the USB connection cannot be recognized.



- Allow multiple programs start: allow open several LedSet
- Timing Settings:
 - Restart every day: set to restart the software at certain time for every day
 - Auto restart software: restart the software every certain period of time
- Network Settings: Reserved
- Monitoring Settings
- Zoom Settings: Enable zoom-> When the resolution-height is less than a certain value
- Other Settings:
 - Auto restart software when fault occurs
 - Show prompt message when quit
 - No error message: to disable the 'LED screen system not found' prompt
 - Not allow closing software
 - Power off when close
 - Auto Update new software: reserved
 - Enable complex display old interface


1.8.2. Hardware Setup (Upgrade)



Upgrade:

- Go to **Settings->Hardware Setup->** Input password(admin)-> Click **Load** to select a correct firmware->**Upgrade**
- Power off and on the cards to check if the upgrade works or not

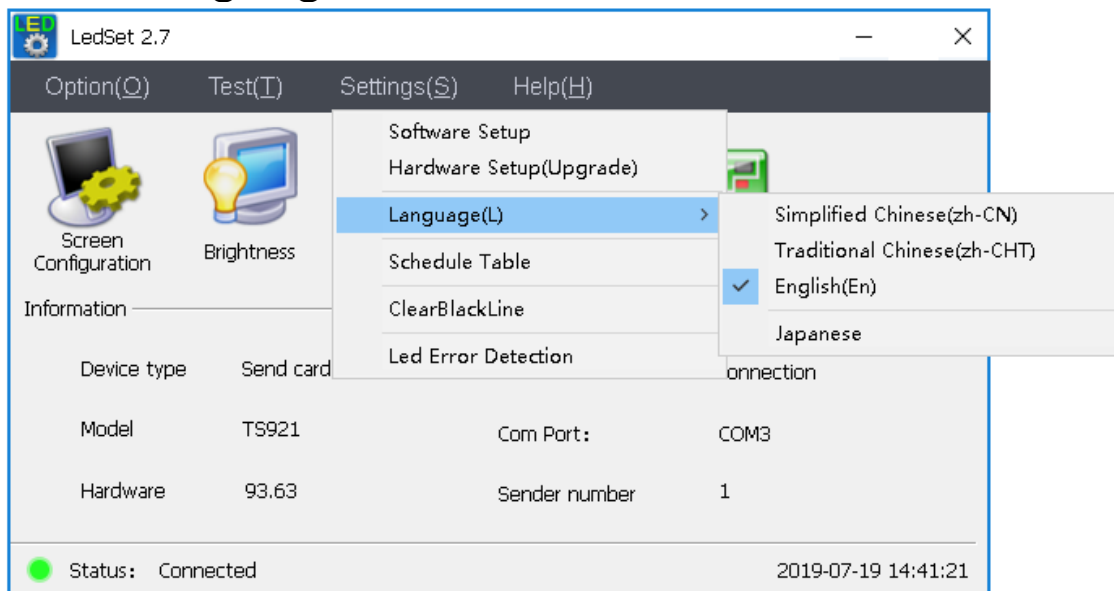
Check firmware version:

- Send CON file to all the receivers(for how to make a CON file, please refer to page14)
- Go to **Settings->Hardware Setup->** Input password(admin)-> click  -> the following interface will show:

[illegible]

If the signal goes through, it will show the corresponding version on the XX position

1.8.3. Language





1.8.4. Schedule Table

[illegible]

- Edit: to edit the existing command
- Add: to add a new command

Schedule [X]

Command: Turn on LED screen power

Execution time: 14:50:47

LED No.: 1

Valid Date

☒ Every Day

☐ Specified Date

From: 2019/ 7/19

To: 2019/ 7/19

Valid Week

☒ No Limit

☐ Specified

☒ Sunday

☒ Monday

☒ Tuesday

☒ Wednesday

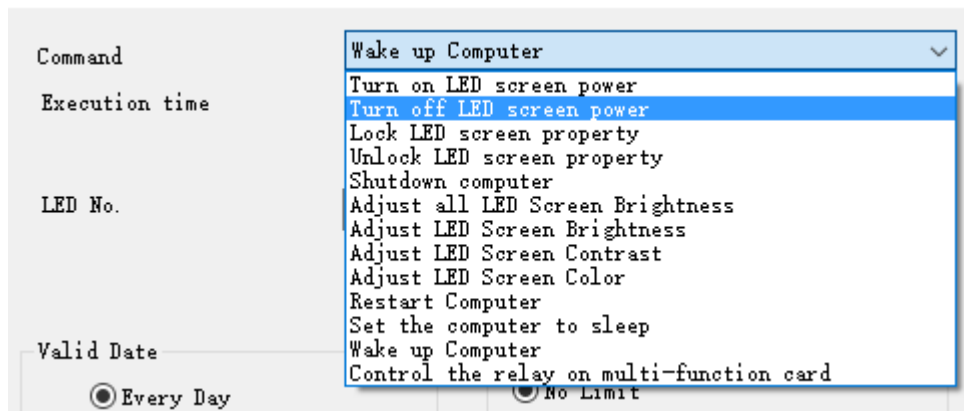
☒ Thursday

☒ Friday

☒ Saturday

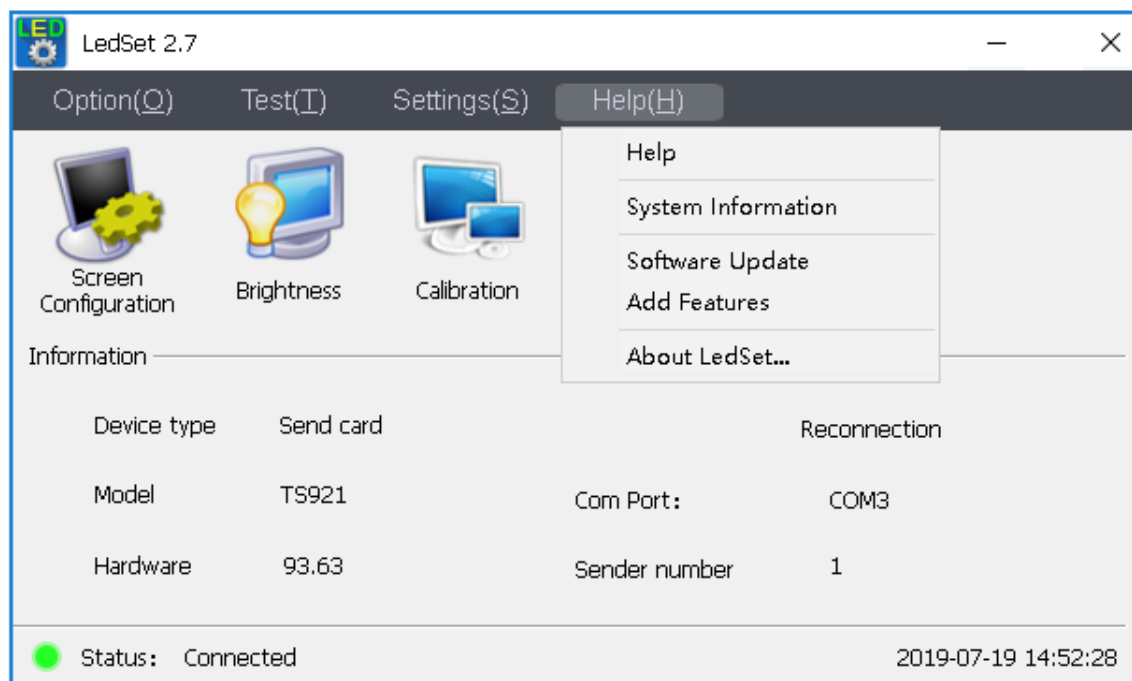
Ok Cancel

- Command: select a command that you need

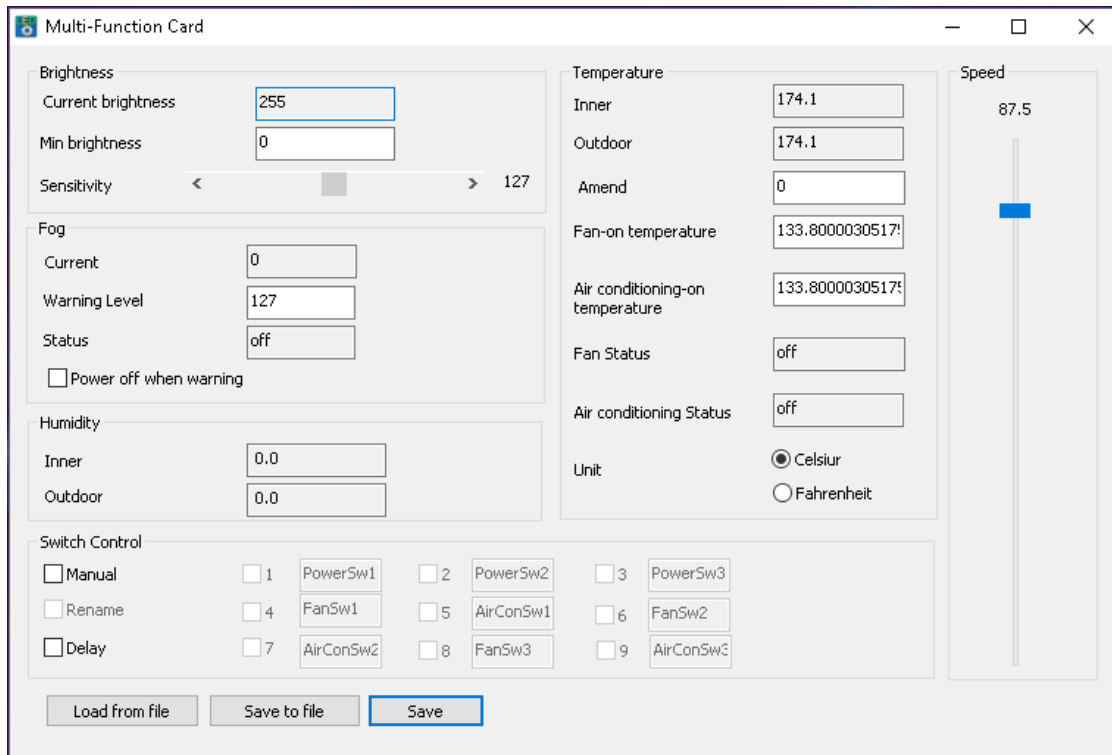


- Execution time: set a specific time
- LED No.: select the LED screen you need
- Valid Date/Valid Week: set a period of days to run the commands
- Delete: delete the selected command
- Delete All: delete all the commands
- Exit

1.9.Help Menu




- Help: reserved
- System Information: obtain info of the computer
- Software Update: reserved
- Add Features: reserved



Note: After you finish installing and setting up the multifunction card and light sensor, enter this page. If the current brightness, temperature and humidity value changes automatically, it means the sensors are working

1.10.Hardware Information

The hardware information shows correctly only when the USB cable is recognized well by the controlling computer.

Information			
Device type	Send card		Reconnection
Model	Unknown	Com Port:	No
Hardware	Hardware error	Sender number	1
 Status: Not Connected			2019-08-07 11:47:09



If the USB communicates with the PC well, the hardware info will show as follows

Information			
Device type	Send card		Reconnection
Model	TS952	Com Port:	COM3
Hardware	54.62	Sender number	1
● Status: Connected			2019-08-07 11:43:37

And the USB status in **Device Manager** on your computer is working as follows

- Ports (COM & LPT)
 - Silicon Labs CP210x USB to UART Bridge (COM3)

END