SYSOLUTION

Sync&Async Dual Modes Sending Card Instructions

Version：V2.2

Statement

Dear user friend， thanks for choosing SHENZHEN SYSOLUTION TECHNOLOGY CO.,LTD (hereinafter referred to as Sysolution) as your LED advertising equipment control system. The main purpose of this document is to help you quickly understand and use the product. We strive to be precise and reliable when writing the document，and the content may be modified or changed at any time without notice.

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Update Record

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2	Ver.2.0	Add content	2023.06.13
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4	Ver.2.2	Content update	2023.09.14

The document is subject to change without prior notice.

Note:

The Instructions fit for Sysolution Media player，including M50BS，M60BS，M70BS and M80BS， M70BS and M80BS are async&sync media player M50BS and M60BS are pure asynchronous media player.

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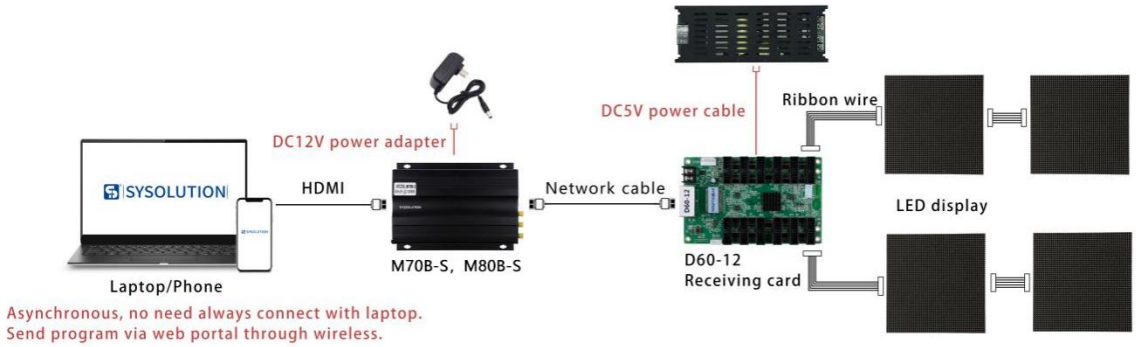
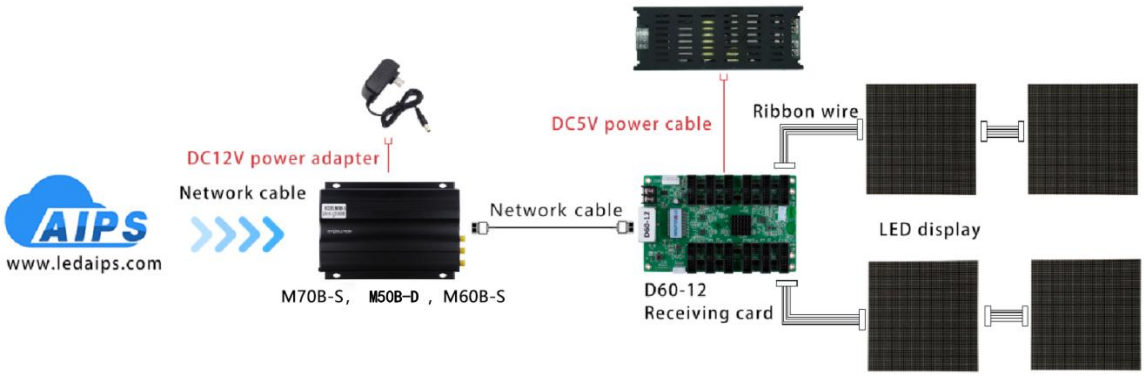
Hardware Connection Diagram

Synchronous connection



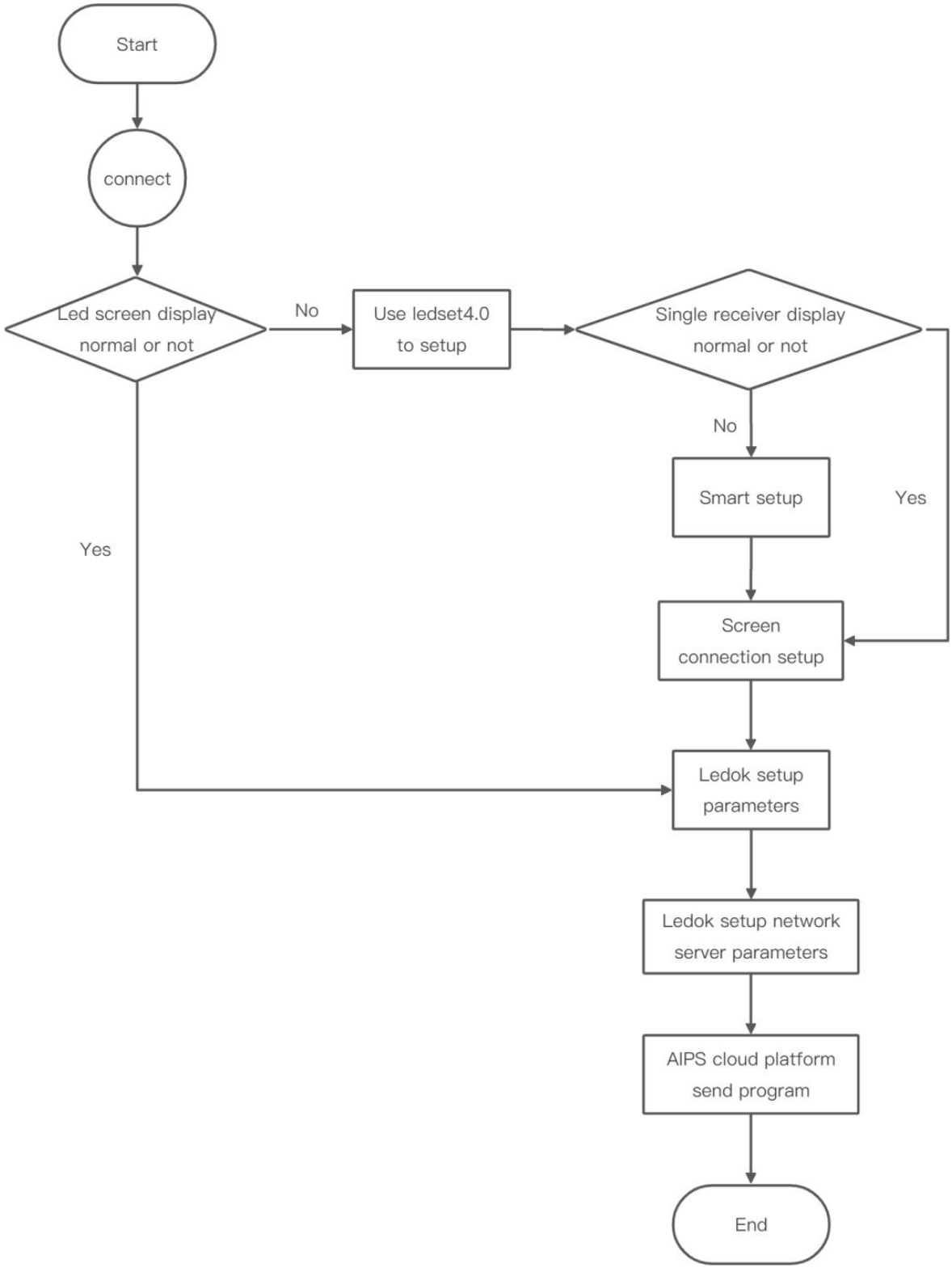
Asynchronous connection



Parameter Contrast

Model	M50B-D	M60B-S	M70B-S	M80B-S
Communication Methods	Single network port,WiFi, UsB driveoptional 4G	Dual network port，WiFi, USB drive，optional 4G	Dual network portWiFi, optional 4G	Four network port,optional 4G
On-Load Pixel	650,000	1.3 million		2.3 million
Width Heightlimit	Discount Max width 7680 Max height 1920	Discount Max width 20,222 Max height 1920		Discount Max width 350000 Max height 2560
Synchronous Asynchronous Swvitching	Not support		Support	
HDMI Splicing	Not support			Support

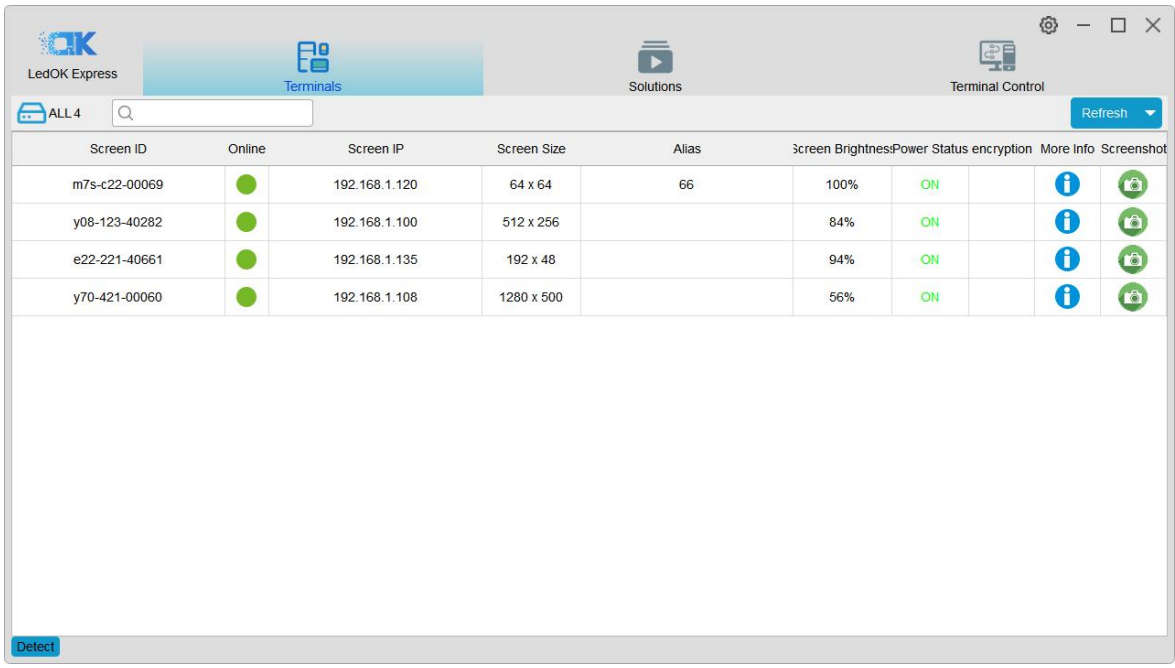
Software Operation Procedures



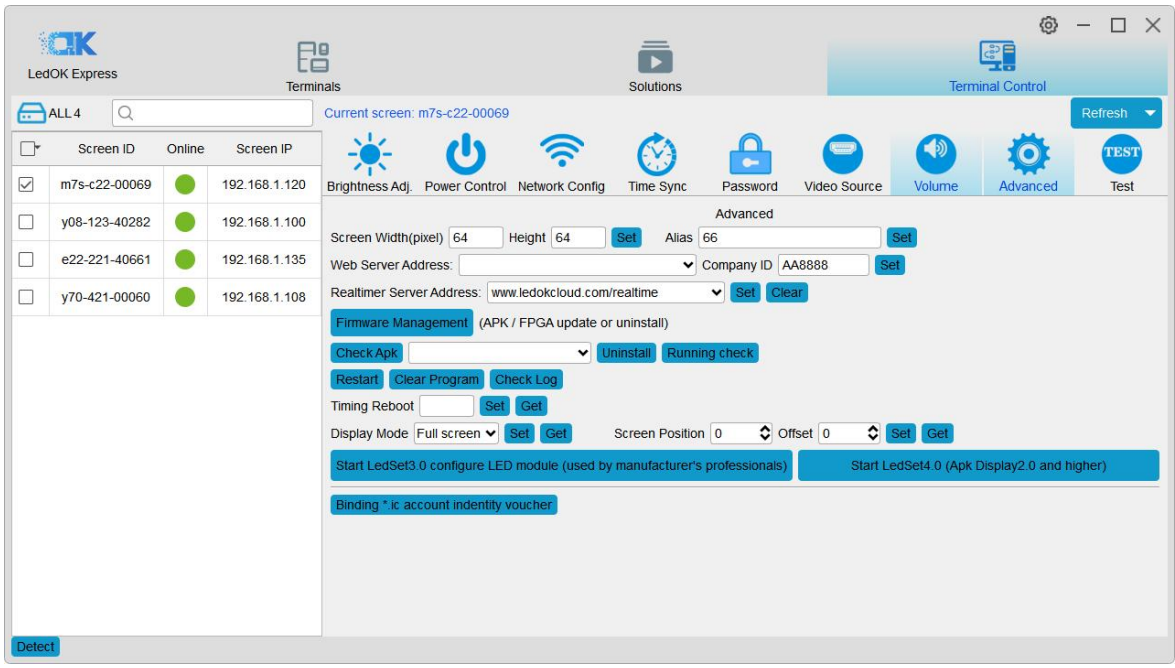
LedSet4.0 Setup

Sending card setu

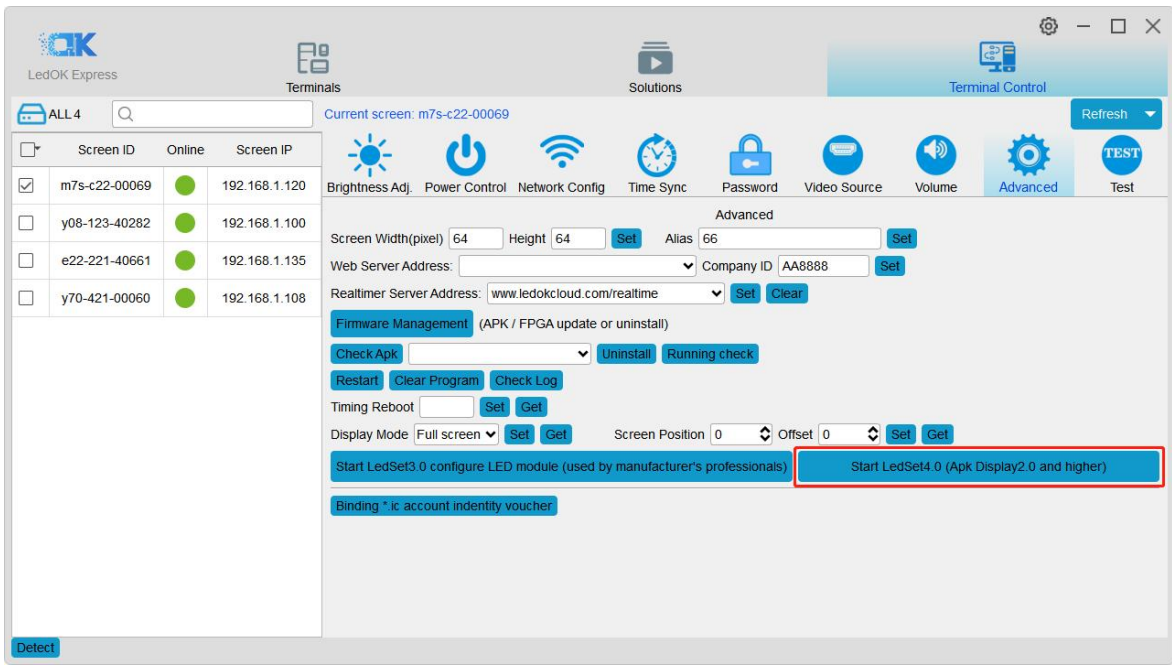
1. Make sure connecting the m70 with laptop via LAN cable directly，open LedOK Express software and auto detect the M70 IP address. Please click “refresh” button on the right top if can not detect controller IP. You can also enable “RJ45 cable directly connect” option and click Detect button to detect controller IP.



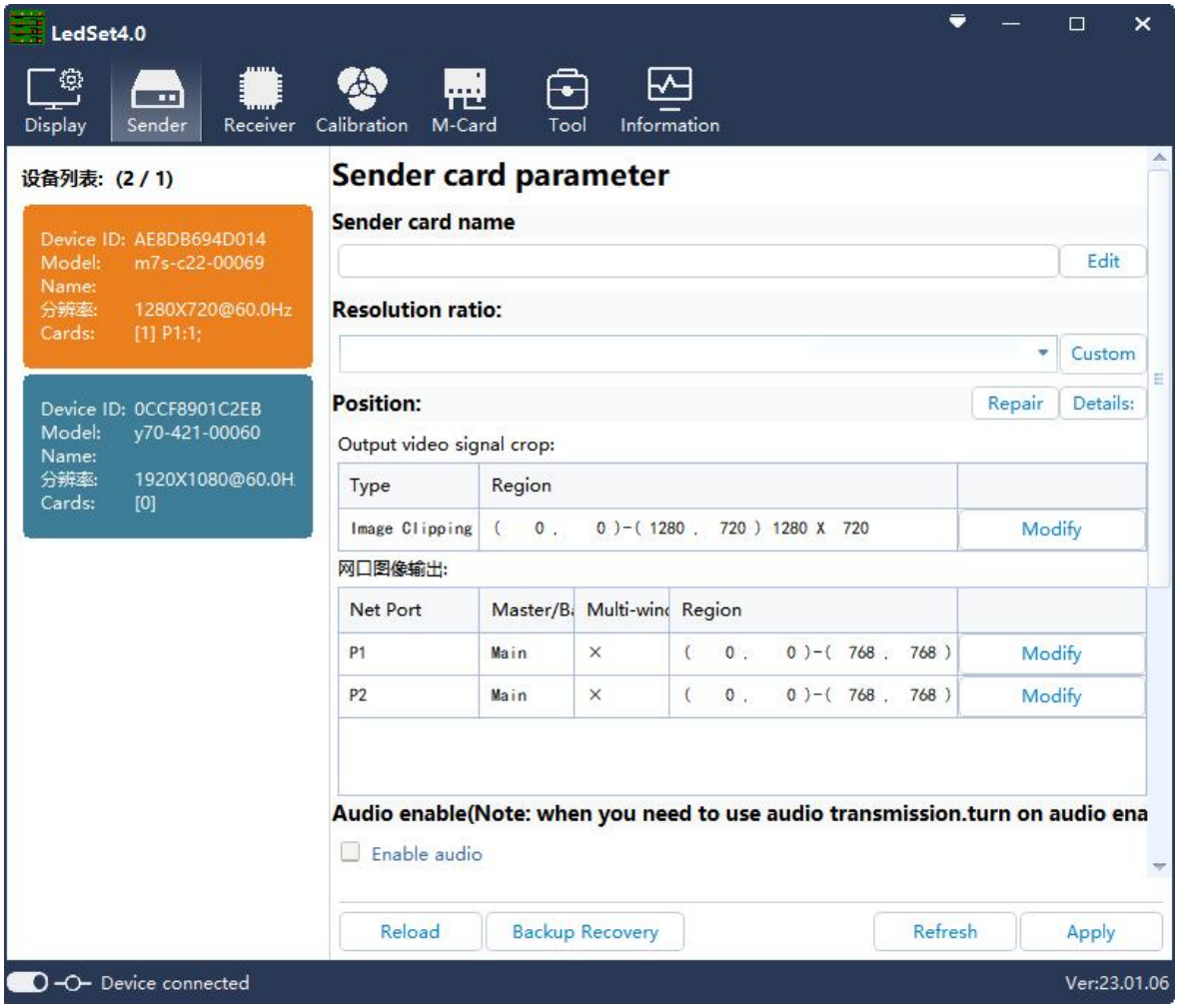
2. Click Terminal control and select the controller，go to Advanced parameters and input password 888 to enter setup interface.



3. Then click the “Start Ledset4.0 configure led module” button in the bottom.



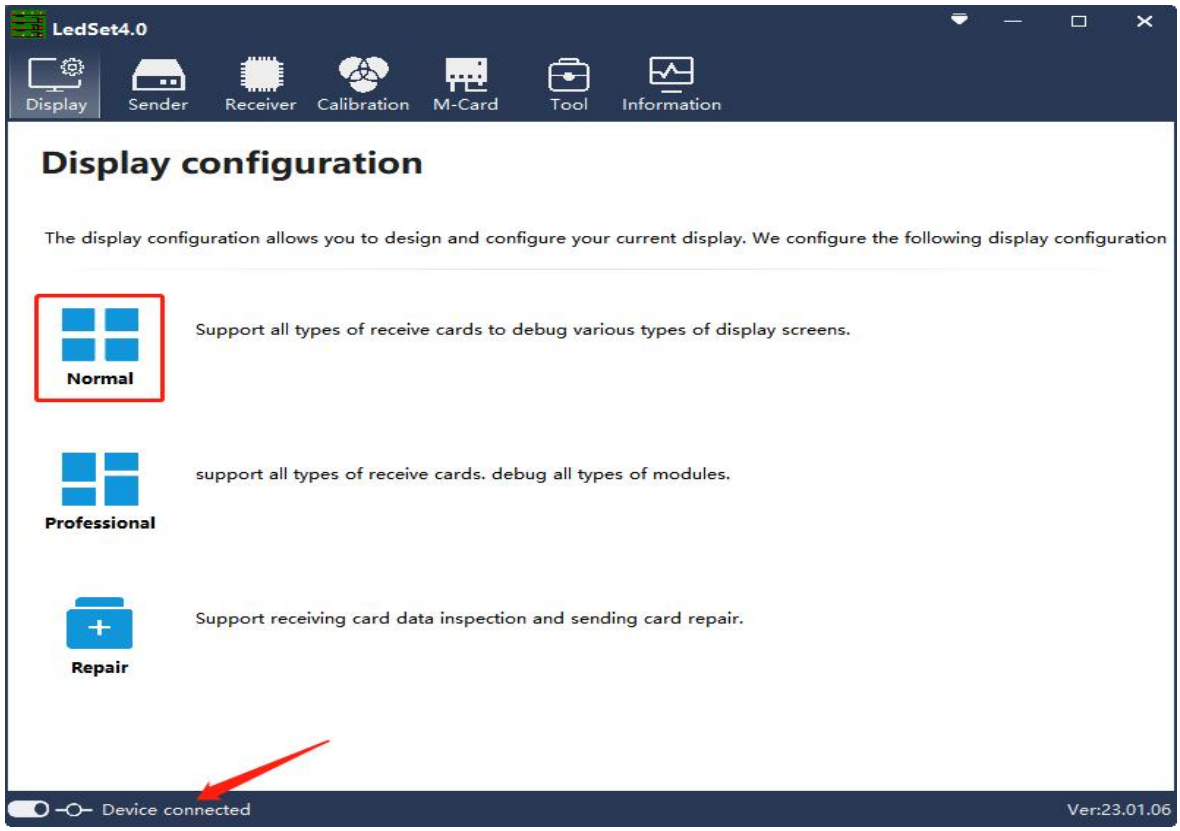
4. Choose Sender in Ledset4.0 and make sure the card number and sending card all correct.



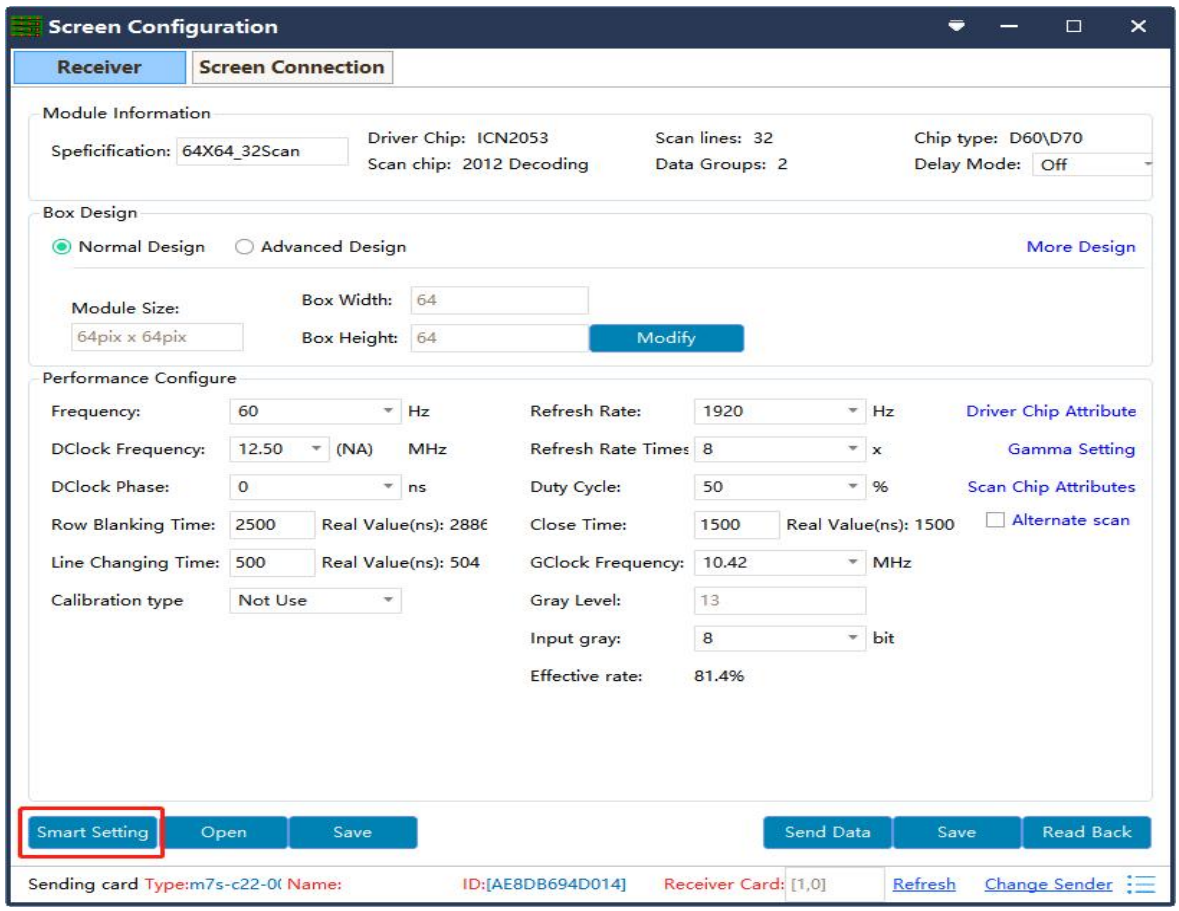
Note: LedSet4.0 cannot detect the sending card，please close the firewall and other anti-virus software.

Smart setup

5. Choose Normal mode debug.



6. Choose Smart setup wizard and start configuration



7. Please enter the correct parameters to the smart setup dialogue box .

① **Module width/height:** Input the actual pixel of the current pixel.

② **Module data group:** View the interface definition of module data input port and calculate according to the actual data line number and grouping mode of module.(Generally, three lines are parallel, so an RGB is a set of data. For example, if a module has two sets of RGB, then the module data group is 2)

③ **Card type:** Type of receiving card currently used for debugging which can directly view according to the identity on the receiving card.

④ **Blanking polarity:** Low/high effective, normally use the default one.

⑤ **Contrl system:** Please choose T6(D90 series) or FPGA(D80 series) according to your receiver card types.

⑥ **Drive chip:** Select the type of drive chip used in the current module, such as: conventional chip, MBI5153, ICN2053, etc.

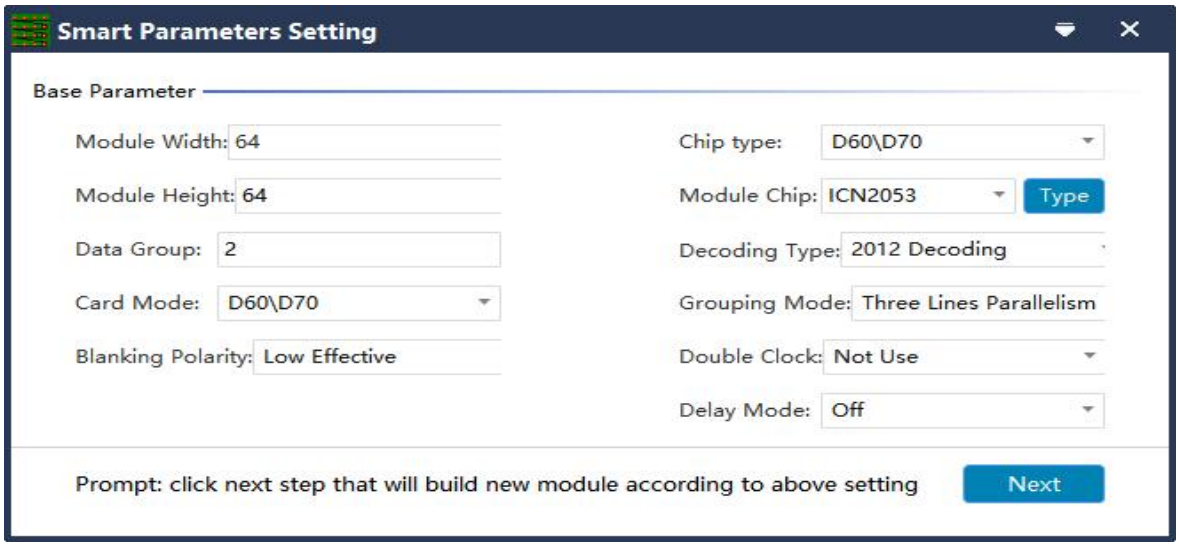
⑦ **Decoding method:** "138 decoding", "5958 decoding", "high direct output", etc.

⑧ **Grouping mode:** Viewing the interface definition of the current module data input port, if having R/G/B three colors (red, green and blue) signal data (red, green, and blue lights on driver chip is separate connection, and no string between them, thus choose "parallel three line";If there is only one color signal data on the module or only one R data (In addition to the single color screen, and the chip controlling the red, green and blue LED lights is connected together), then select "RGB serial".

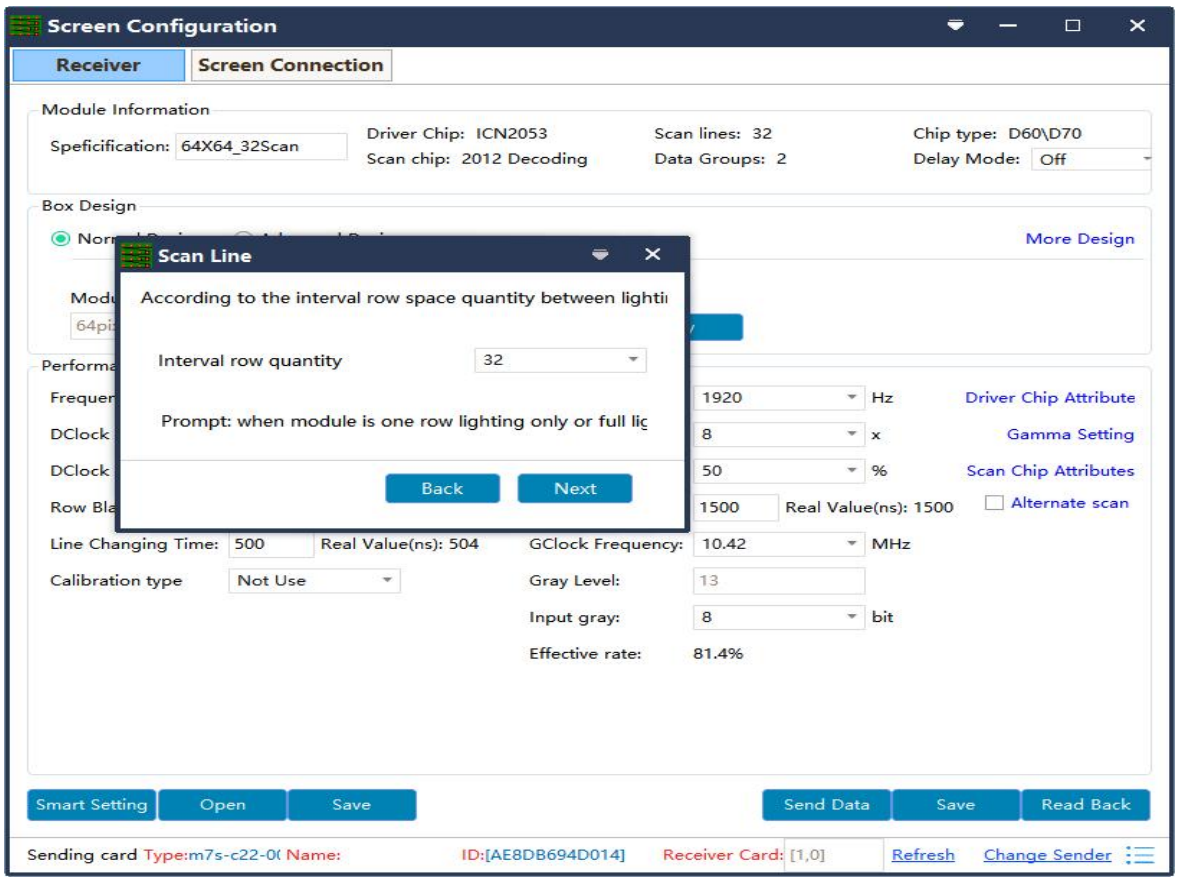
⑨ **Double clock:** No need to choose when configure normal module. Only need to

choose D，E，F signal for second clock when configure double clock led module.

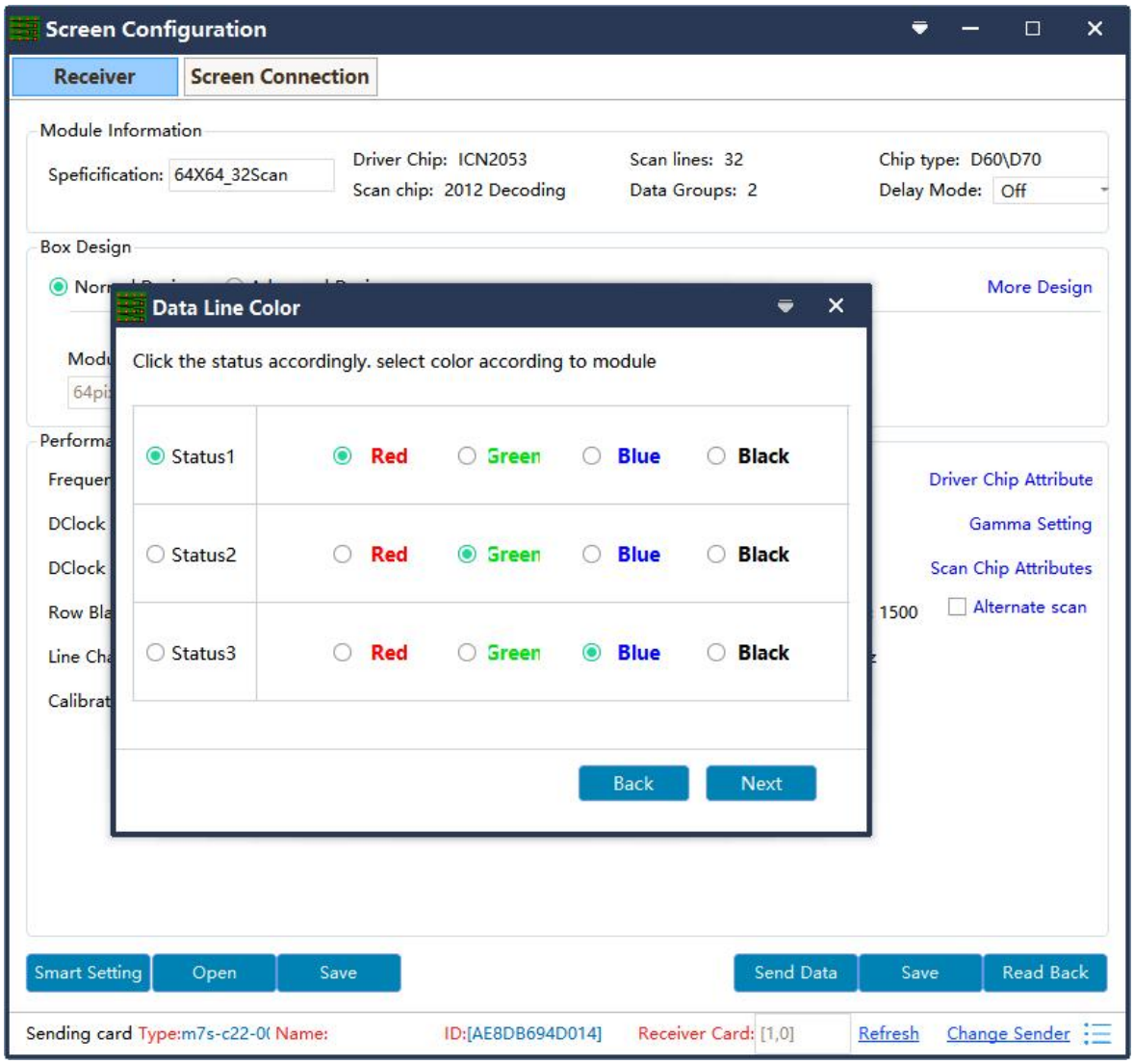
⑩**Low delay scheme：** Usually closed.



8. Click "Next Step" to enter the "scan line number" window and select the scan line according to the actual display of the current module.

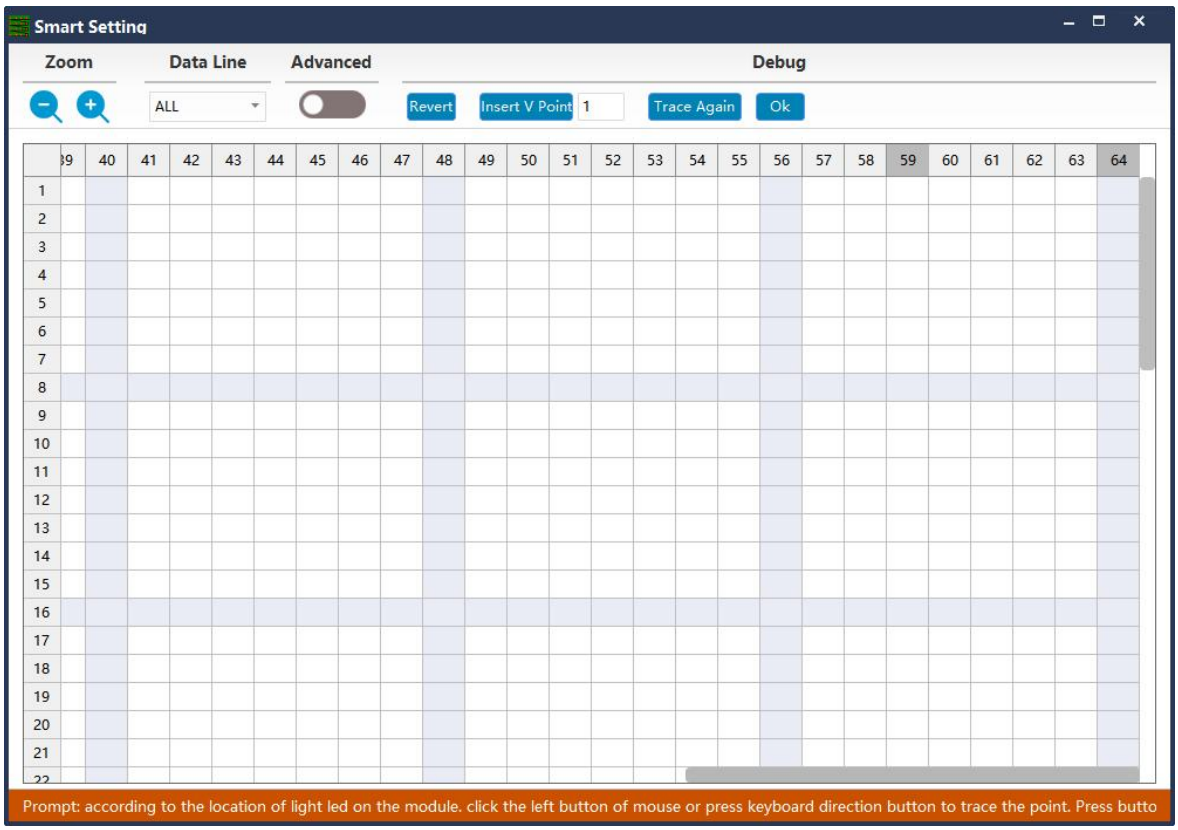


9. Click “Next Step” to enter the select color window.Select the corresponding display color according to the state mode.

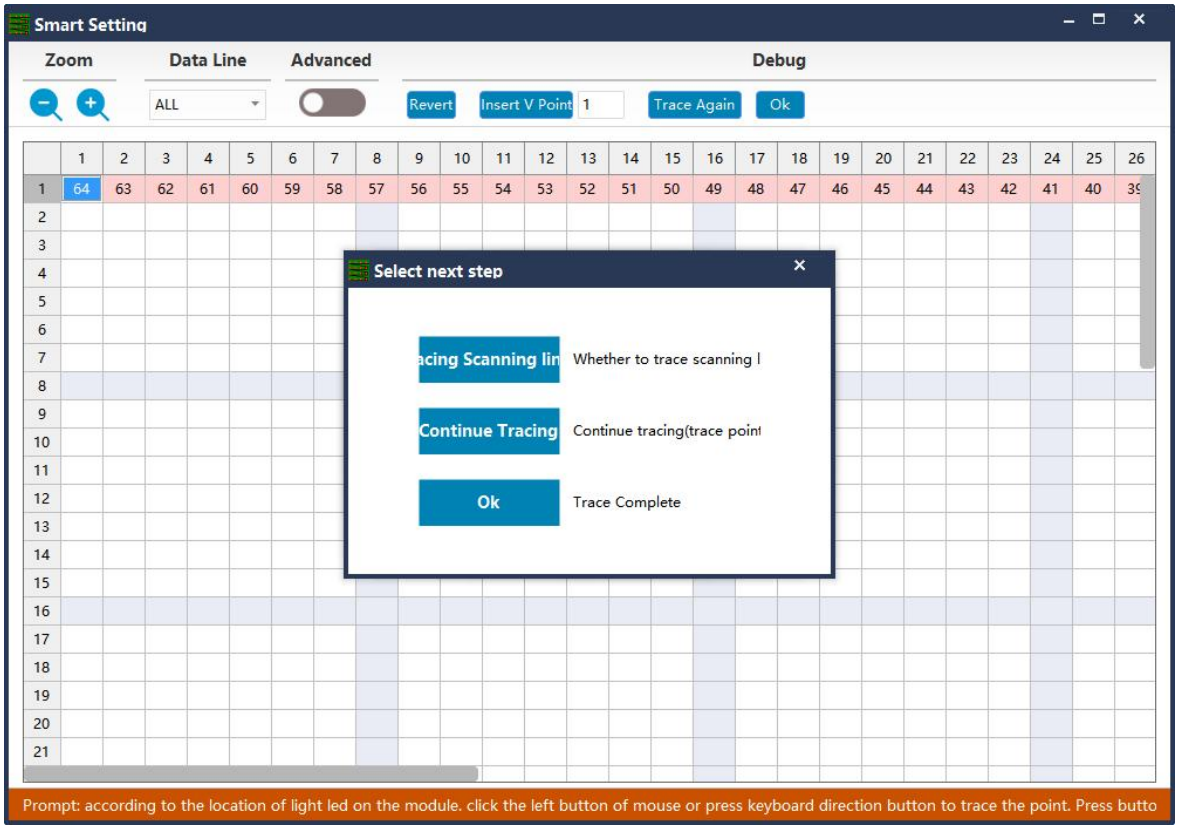


10. Click “Next step” to enter the “intelligent Settings” window and do the walk-points according to the actual display of the module (If not have a blinking pixel，please connect the LED module to the first data interface of the receiving card or change the data line to all Interface，or try to insert points attempt)，when smart setting is completed， click “finish” and send the data to the device.

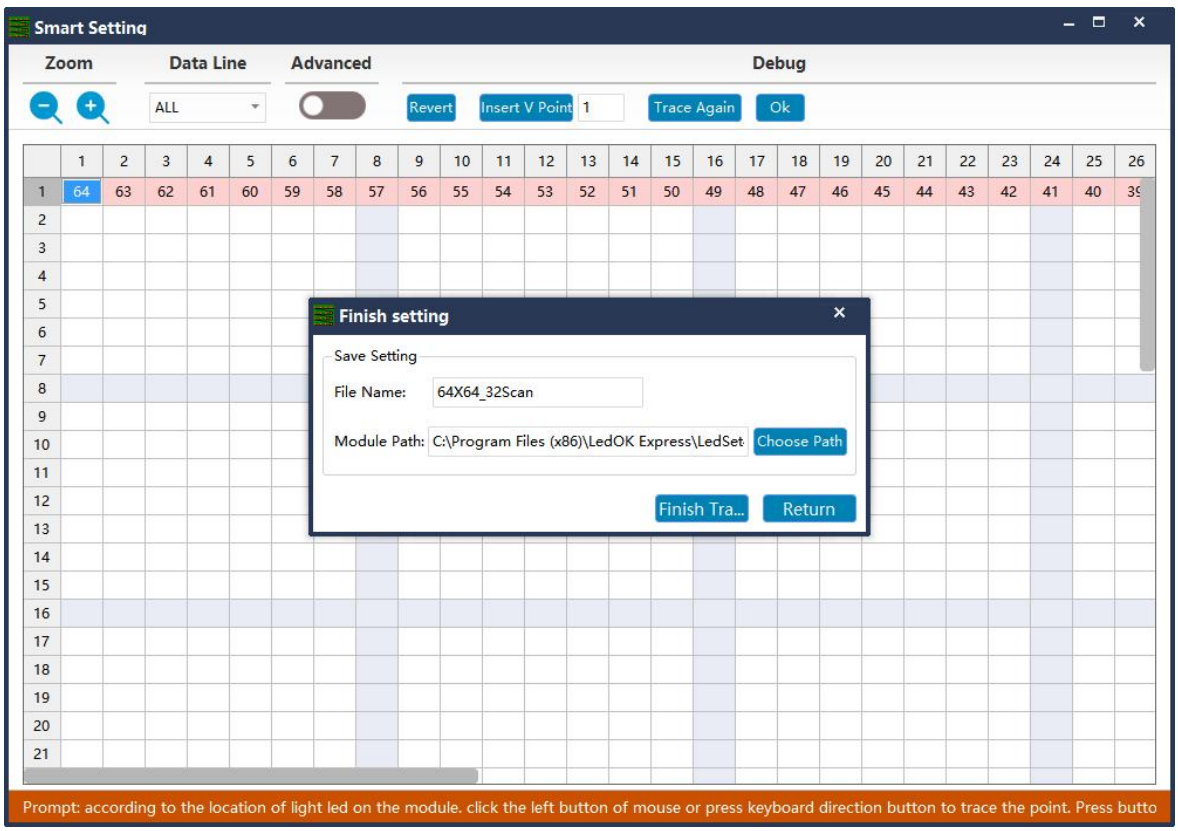
Note：If the LED module has no pixel flashing，the first can connect the LED module to the first group of data interface (JP1 port) of the receiving card; Second，you can select all the data line options under the list; Third，you can try to insert virtual points.



11. Click Complete to finish the smart setup.

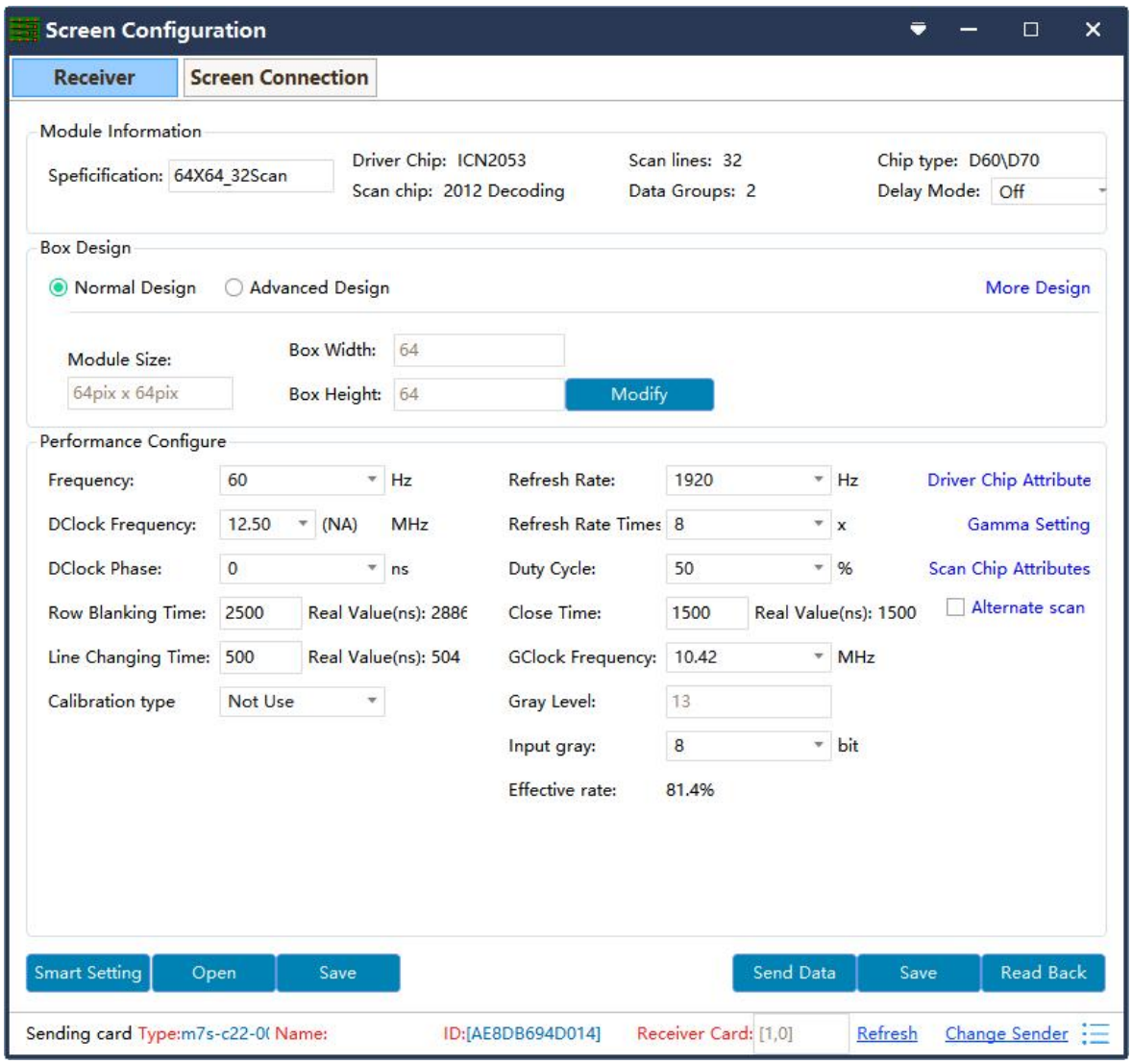


12. Click finish.



Receiver Card Setup

13. It can be configured by means of “smart setting” or by default “option modules” (applicable to receiving cards D90-75) to load module file or by “open box file” after loading preservation cabinet file.



14. Box Design, choose Normal design and click Modify , then enter the box width and height pixels according to your cabinet and choose the correct cascading direction and click complete.

① **Output mode:** with symmetrical to quadruple strip outputs, It can give full play of

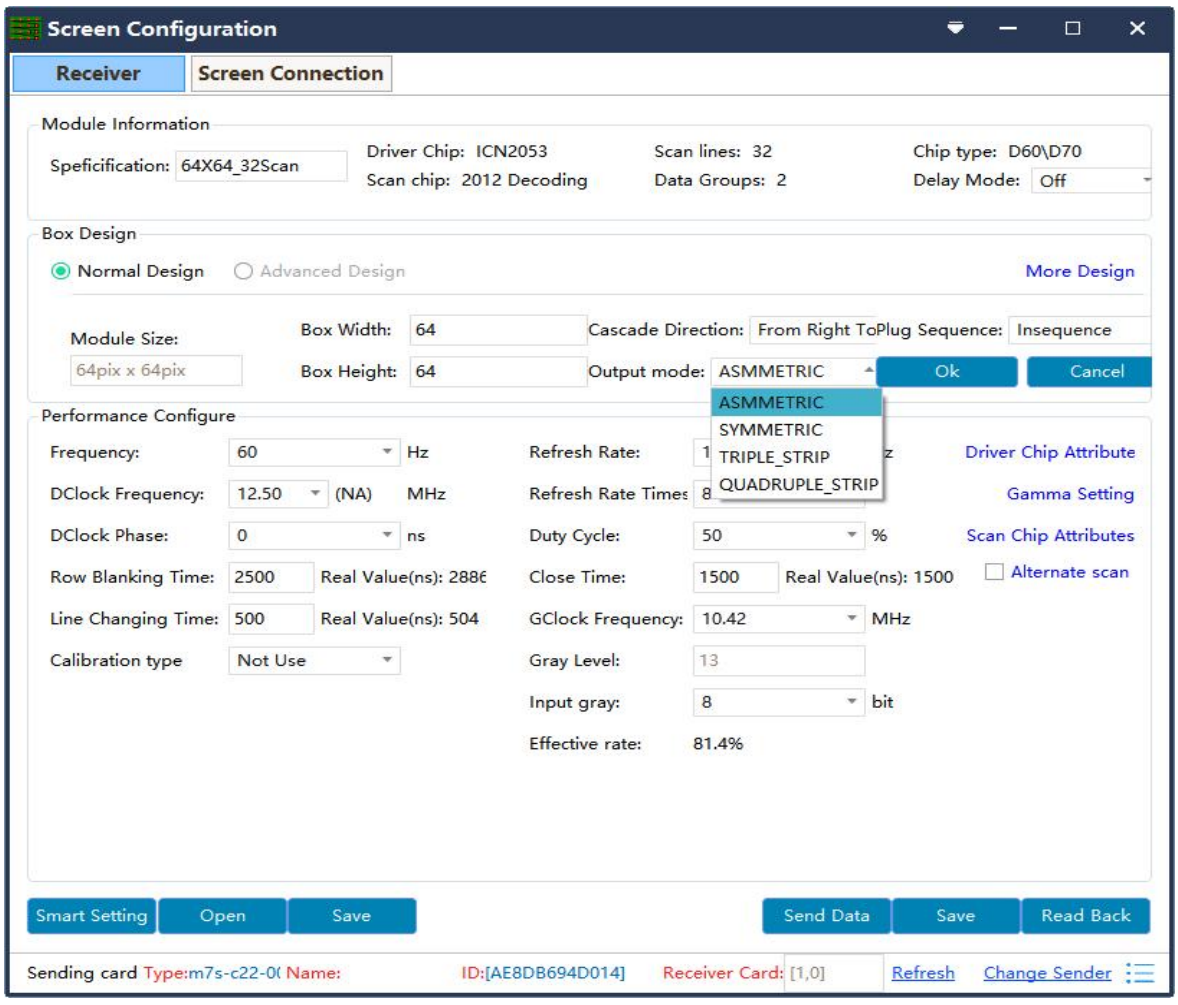
the receiving card performance to make the screen higher refresh rate according to actual needs. For example(cascade way： from right to left).

② **Normal output：** 1 to 24 sets of data are loaded from top to bottom.

③ **Symmetrical：** The data of the receiving card (1-12) group is equipped with the left half lamp board，and the data of (12-24) group is equipped with the right half lamp board，with the same width/height.

④ **Triple strip mode：** 1-8，9-16，17-24，Each 8 sets of data are carried in three parts horizontally with the same width and height

⑤ **Quadruple strip：** 1-6，7-12，13-18，18-24，Each 6 sets of data are carried in four parts horizontally with the same width and height.



15. The System will auto calculate the performance configuration parameters after done box design，you can also adjust some options to make display effect better.

Refresh rate： an important indicator of the Led screen.Increasing the refresh frequency can improve the water ripple when using the camera to take pictures.

Display mode： It can be divided into refresh priority and Grayscale priority. Refresh priority：In this mode，the brightness efficiency will be reduced while the refresh rate of the module can be greatly improved. Grayscale priority： This mode will have a better grayscale effect at low brightness.

Refresh rate times： High brush algorithm for improving visual refresh rate，default 16.

Data clock frequency： it is related to the design of LED module circuit and the driving chip used.If the well-designed high brush IC is used ，the module can be reached higher clock while gray degree and refresh frequency can be supported higher with the same load area.

Grayscale： Increasing the grayscale according to the requirements of the LED. The higher the grayscale，the better the picture quality. Generally，it is 12 to 14bit，(12bit grayscale is equal to 4096 gradation grayscale)

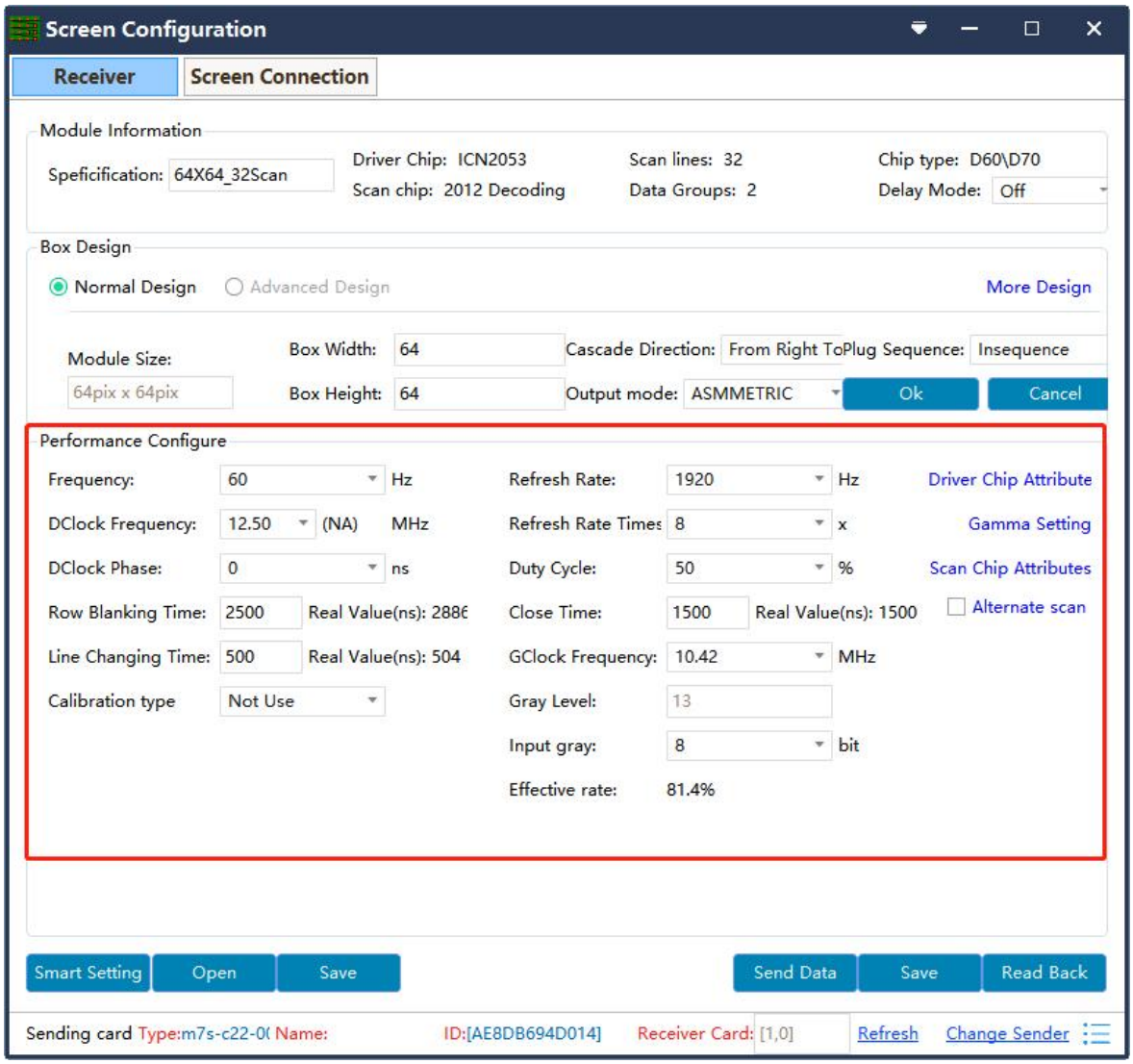
Data clock phase： timing starting point of the clock setting.It can be adjusted when the screen body has flash point，flower screen and other abnormal phenomena.Generally 12.5~17.86.

Duty cycle： refers to the duty cycle of the clock phase. Changing this data can make the scanning clock phase higher generally set to 50%.

Line changing time/discharge time/sweeping position： mainly adjust the scan screen

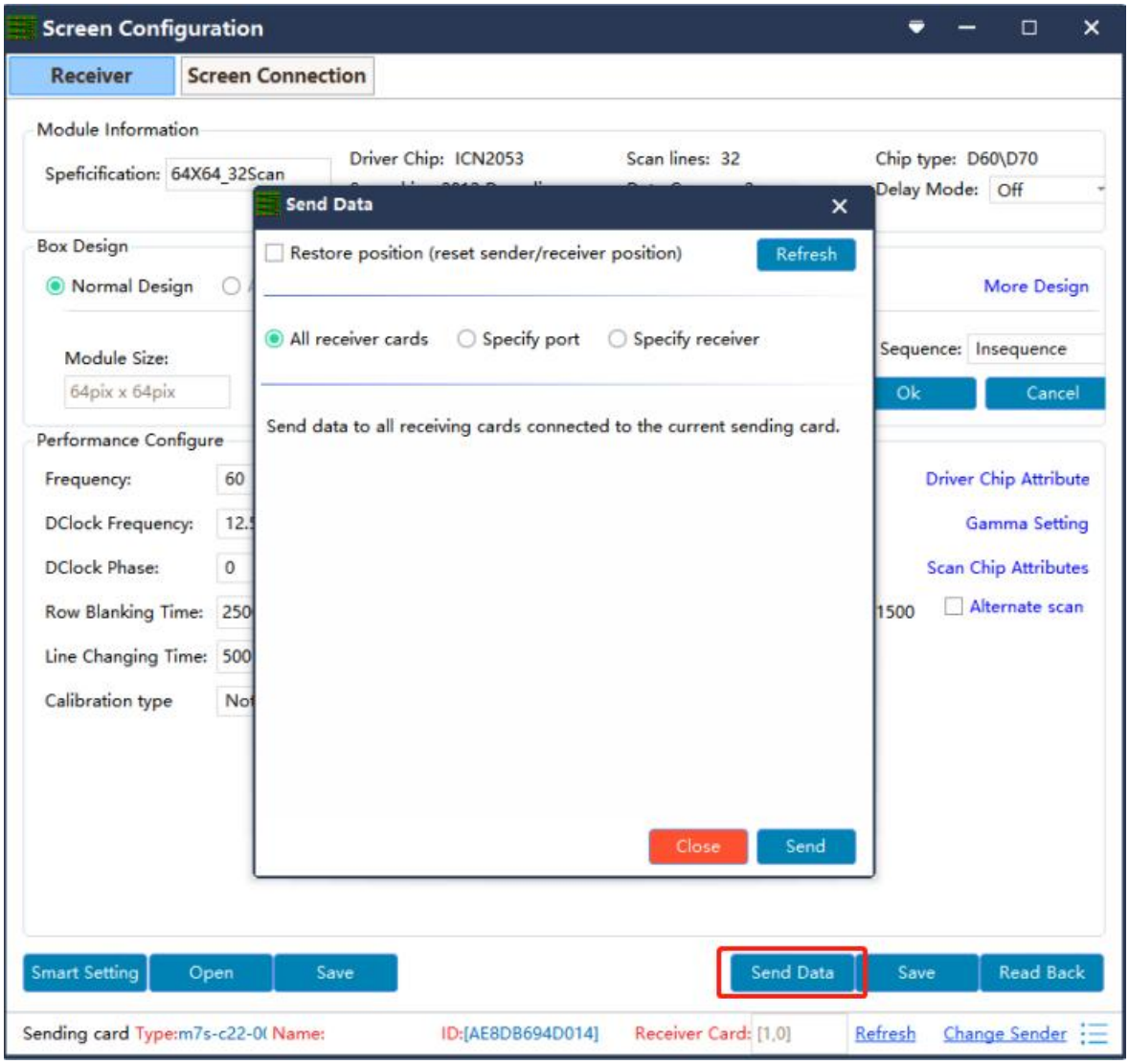
afterglow， the newline value time can be increased if serious ，generally take the default values.

Min OE width： Min response time. When the refresh cannot be improved effectively，try to reduce it.

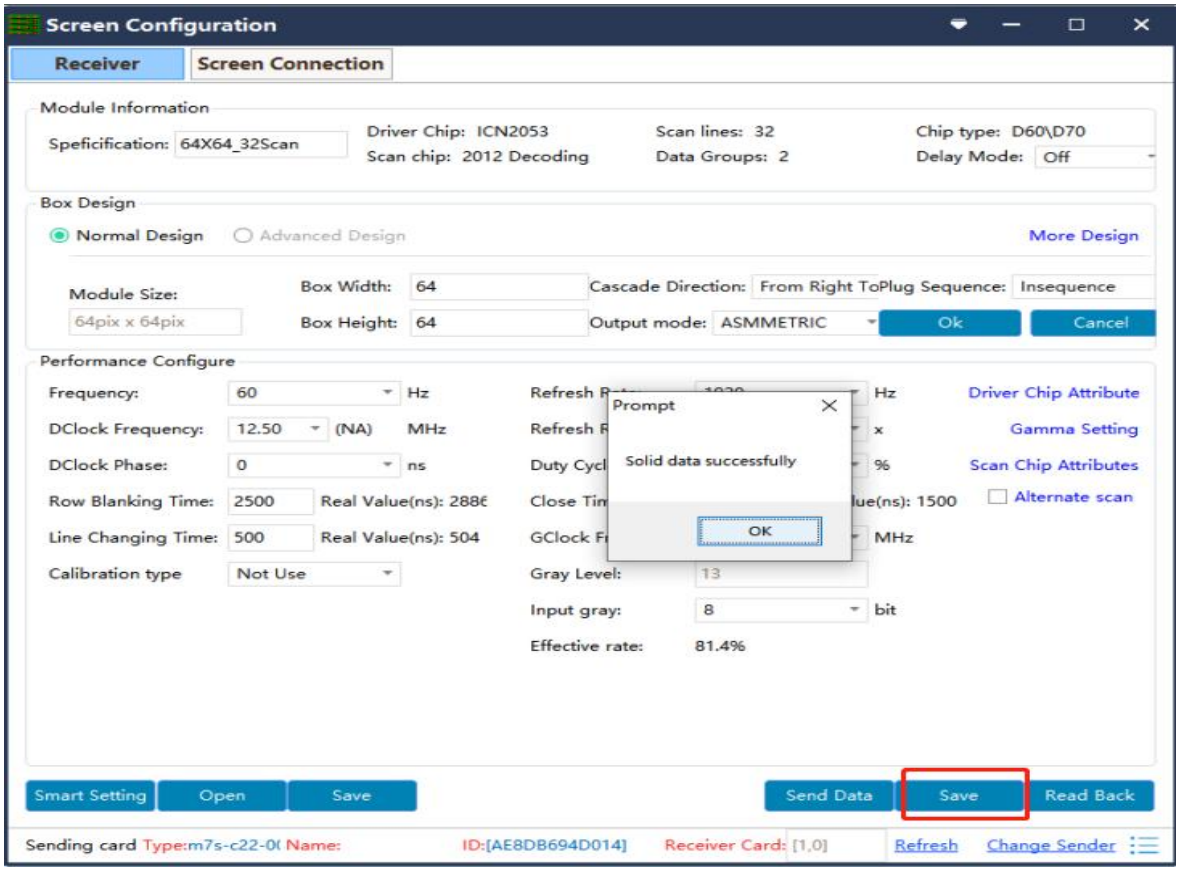


16. Click the" send data" button to send the program to the receiving card.

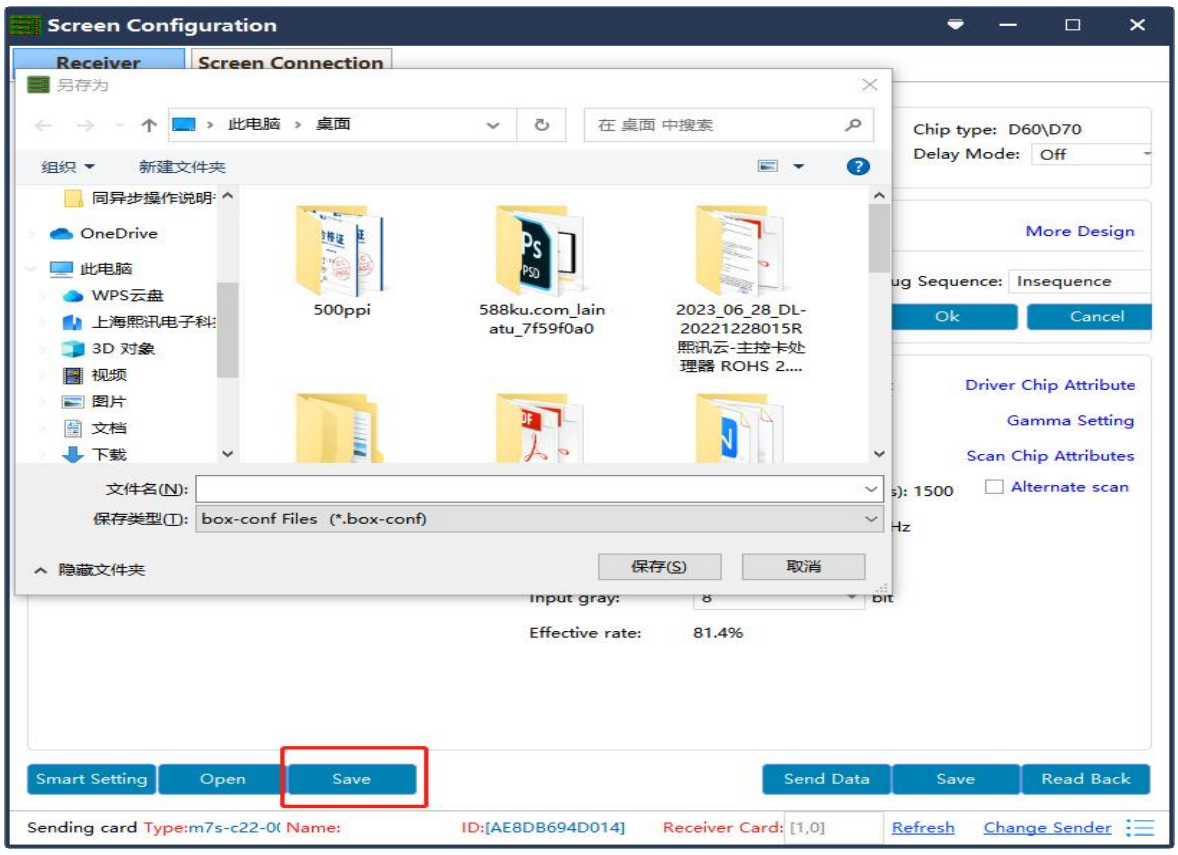
Note: When sending data，you can specify the network port or the specified card for sending，or reset the position of the receiving card，so that the position of all interface cards is zero and the same position is displayed.



17. Observe whether the box is displayed normally. Then click the "save" button and solidify the data to the receiving card to prevent data loss from power off and restarting.



18. Finanlly click Save Box Config button and save the configuration file to laptop.



Screen Connection

19. While the receiving card is configured, click the "screen connection" button in the menu bar of the receiving card configuration interface to enter the screen window interface.

① **Load:** load the saved screen configuration file.

② **Save to file:** save the display configuration information to the computer in (.* dcc) format.

③ **Send:** send screen configuration information to the sending and receiving cards.

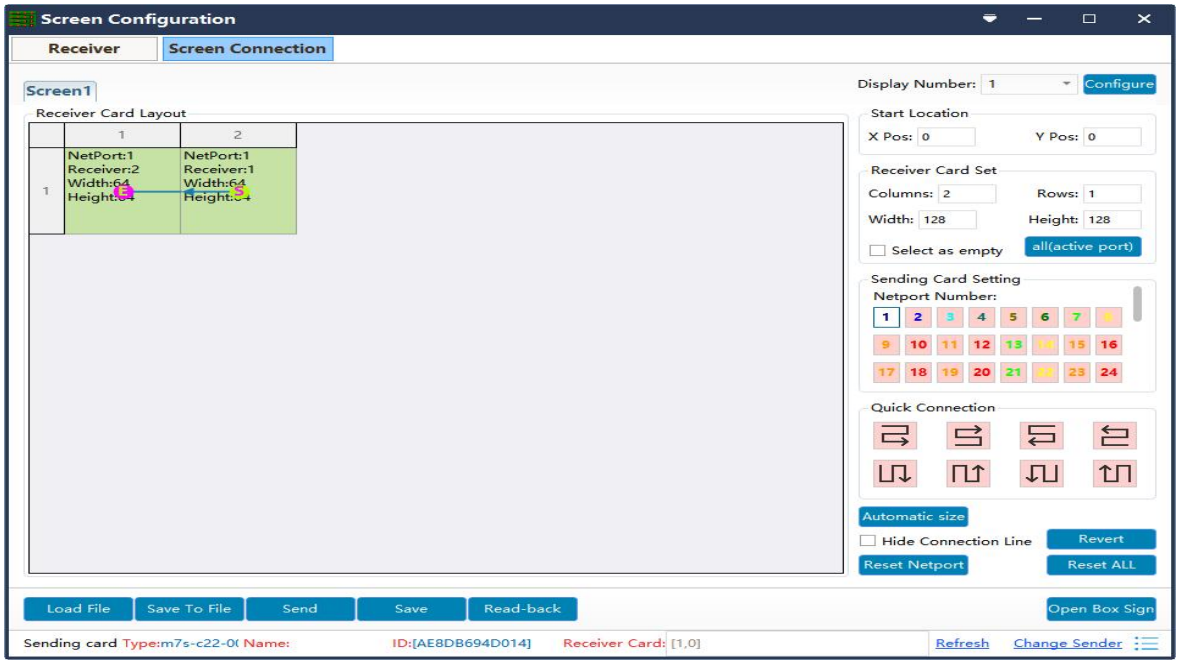
④ **Read back:** click this button will read back the existed screen connection configuration from the good working receiving card so that can quickly send to the new receiving card.

⑤ **Open Box sign:** click this button then will auto show the receiving card numbers in correct order in each cabinet.

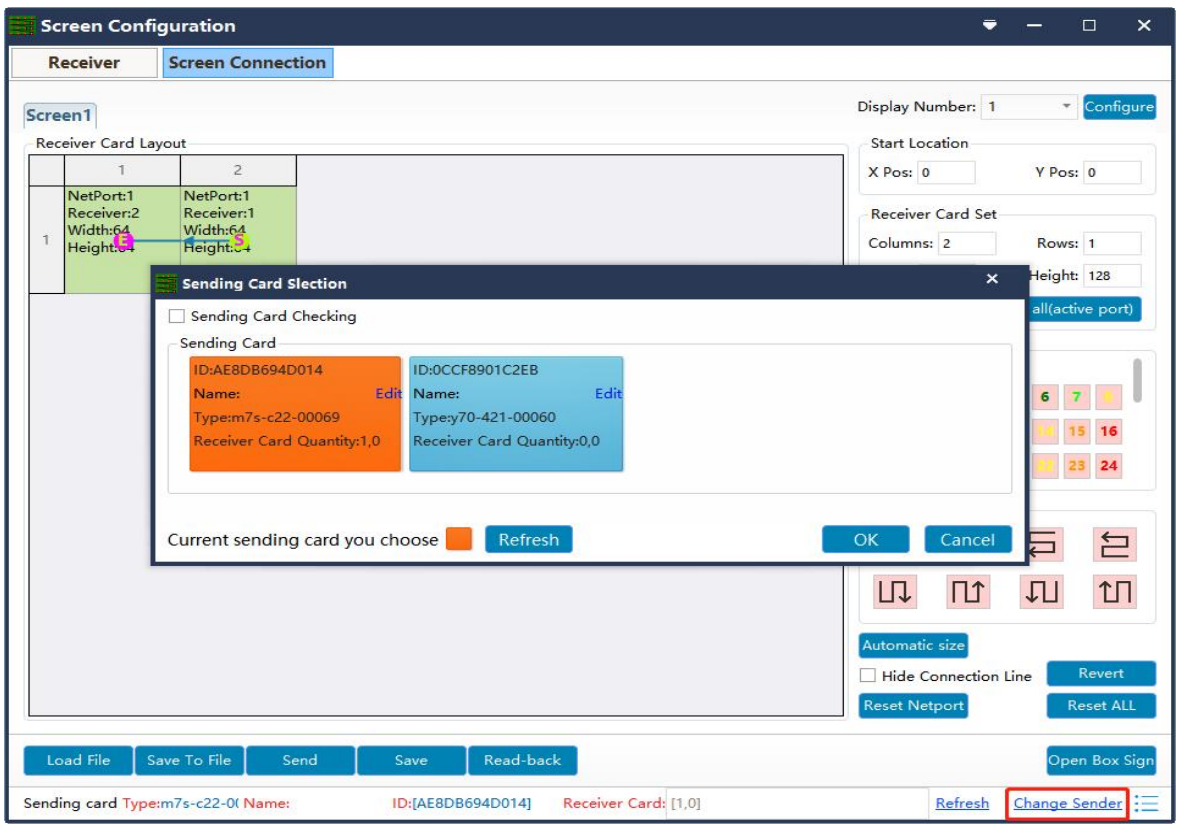
⑥ **Receiving card quantity:** it will show all receiving cards numbers, there are normally two digits, for example: [1.0] means Ethernet port 1 of sending card has connected 1 receiving card, while Ethernet port 2 of sending card no receiving card.

Notes:

When do the connection operation of the current display. firstly clickthe "refresh" button to refresh all the receiving card to check whether thechip number (usually receiving card number) is consistent with the number ofthe connected, if not consistent, please check the hardware connection, whenconnecting several sending cards please switch to find the correspondingsending card for debugging.



⑦ **Switching sending card：** if there are more than one sending cards in the same network，can switch to the correct sending card when sending parameters.



20. In the screen connection interface，the cascade mode of receiving card as well as the width and the height can be set according to the actual situation of large screen，(the width and height of the dots of each receiving cards can be different)，

Please setup the cascading way including receiver card width and height pixels correctly.

① **Display Number：** number range 1-20，please select according to real situation，click Configure button after choose. If choose 2 means LED screen is double sides，you need do screen connection one by one.

② **Starting location：**LED display interception position of input signal source.The default state is (0，0)，which means that the LED display starts at the point (0，0) of the video source.

③ **Receiving card Settings：** Set the rows and lines and the dots of the width of each receiving cards according to the actual number of cards used in the screen .

④ **Position blank：** click the "Select Empty position" button ，and then select the blank. When set，click the button again to exit the select blanks operation.

⑤ **Apply to current port ：** set the size of all boxes connected to this port to the current column width and column height.

⑥ **Sending card setting：** select the output port of sending card.

⑦ **Connect hub：** if adopt the hub in the big screen can do following operations：

- Choose the "Connect HUB" option;
- Select the sending card Ethernet port and setup the "hub address";
- Choose "hub address" and do screen connection;

⑧ **Quick connect：** the entire screen is loaded with only one network cable and the

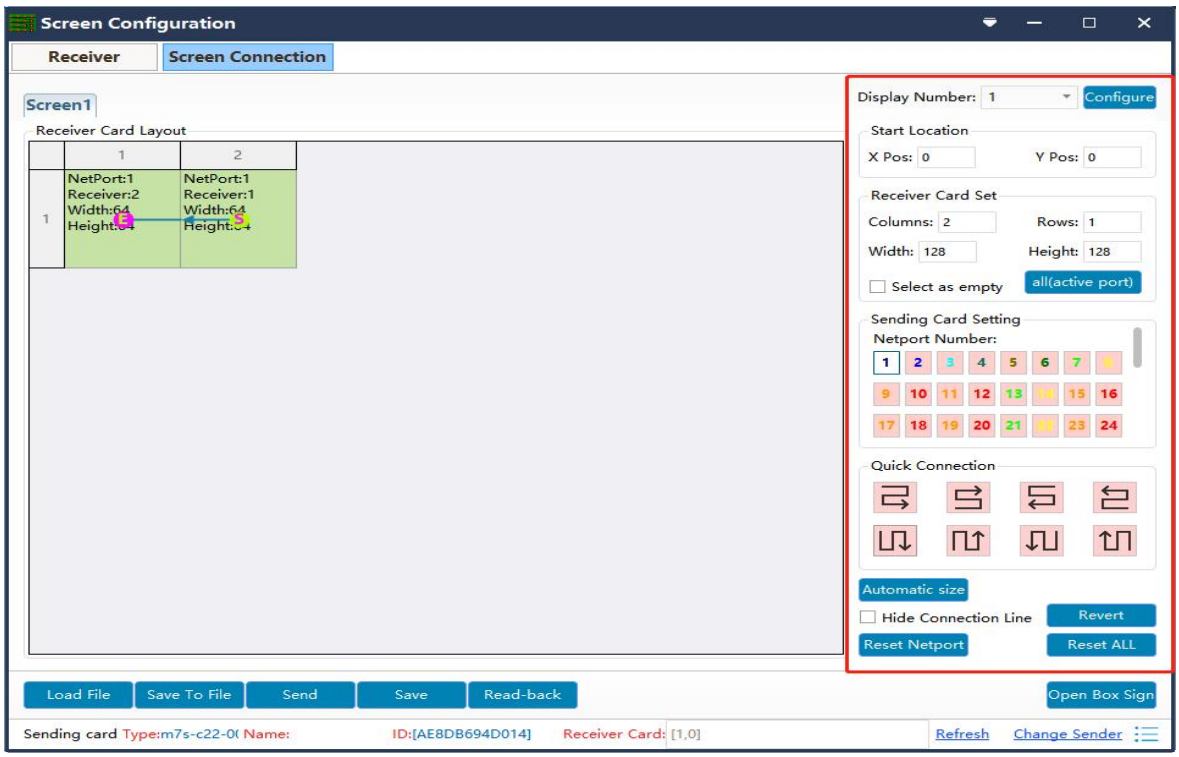
receiving card's network cable is regularly cascaded.

⑨ **Hidden connection line:** When checking the hidden connection line box, the display wire knowledge will be hidden.

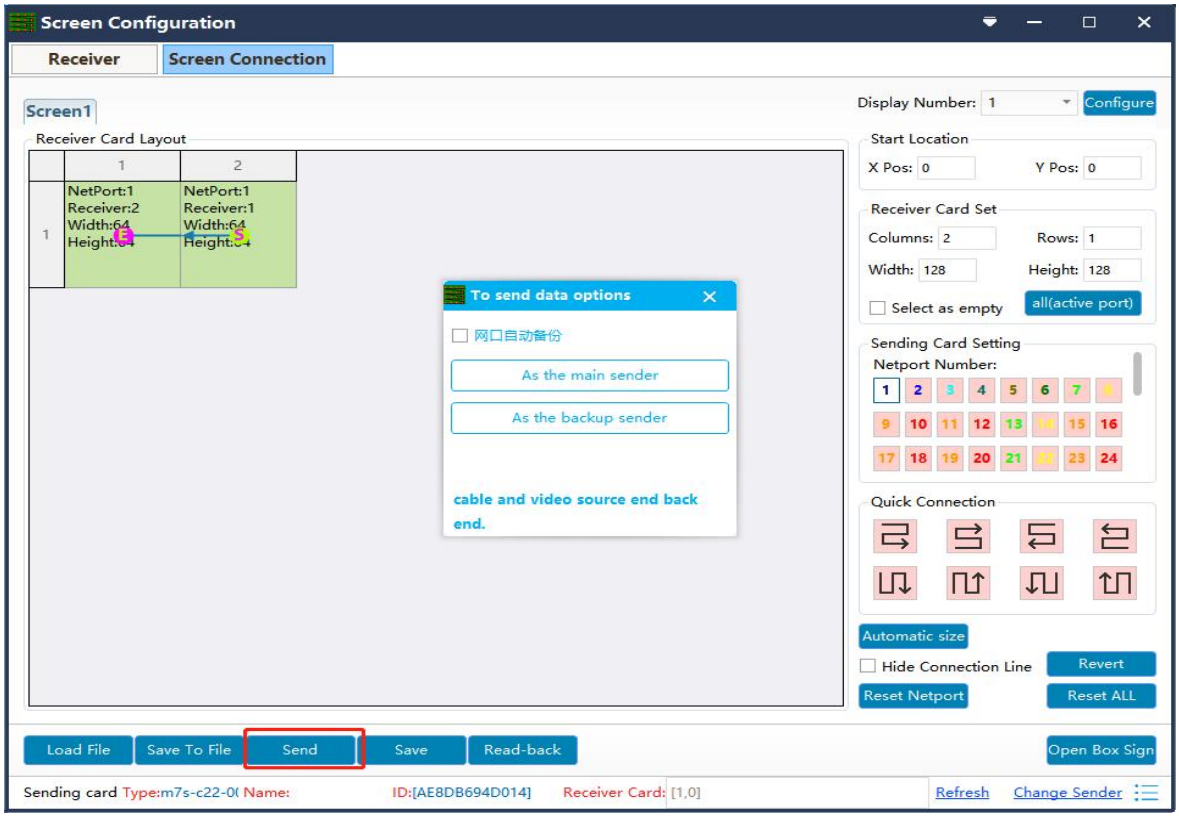
⑩ **Revert:** cancel the lastest operation

⑪ **Reset Netport:** will revert all setup for current Ethernet port.

⑫ **Revert ALL:** will revert all setup for all network ports.



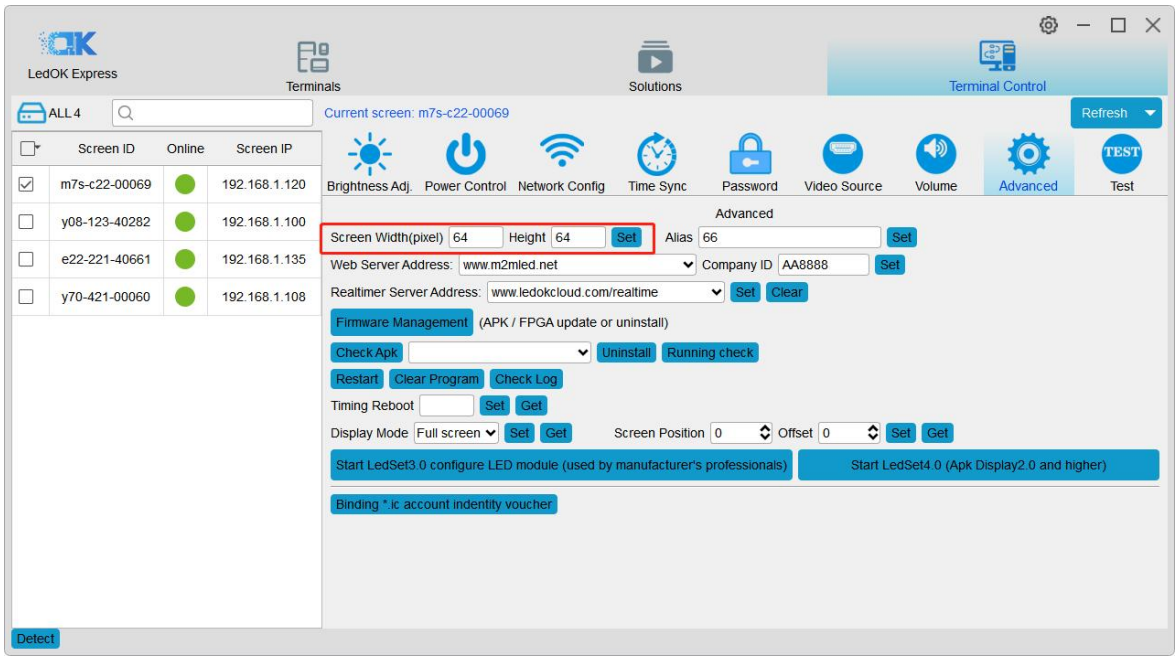
21. Click send and choose "as the main sender" and save to device; or choose "As the backup sender" to save to backup sender device. For double sender backup only work for synchronous controller.


Screen Configuration
Receiver
Screen Connection
Screen1
Receiver Card Layout
NetPort:1
Receiver:2
NetPort:1
Receiver:1
To send data options
网口自动备份
As the main sender
As the backup sender
cable and video source end back end.
Display Number: 1
Configure
Start Location
X Pos: 0
Y Pos: 0
Receiver Card Set
Columns: 2
Rows: 1
Width: 128
Height: 128
Select as empty
all(active port)
Sending Card Setting
Netport Number:
Quick Connection
Automatic size
Hide Connection Line
Revert
Reset Netport
Reset ALL
Load File
Save To File
Send
Save
Read-back
Open Box Sign
Sending card Type:m7s-c22-0(Name:
ID:[AE8DB694D014]
Receiver Card: [1,0]
Refresh
Change Sender

LedOK Setup System Parameters

LED Screen Width and Height Pixels

LedOK Express software，advanced parameters and enter screen width and height pixels，then click save.

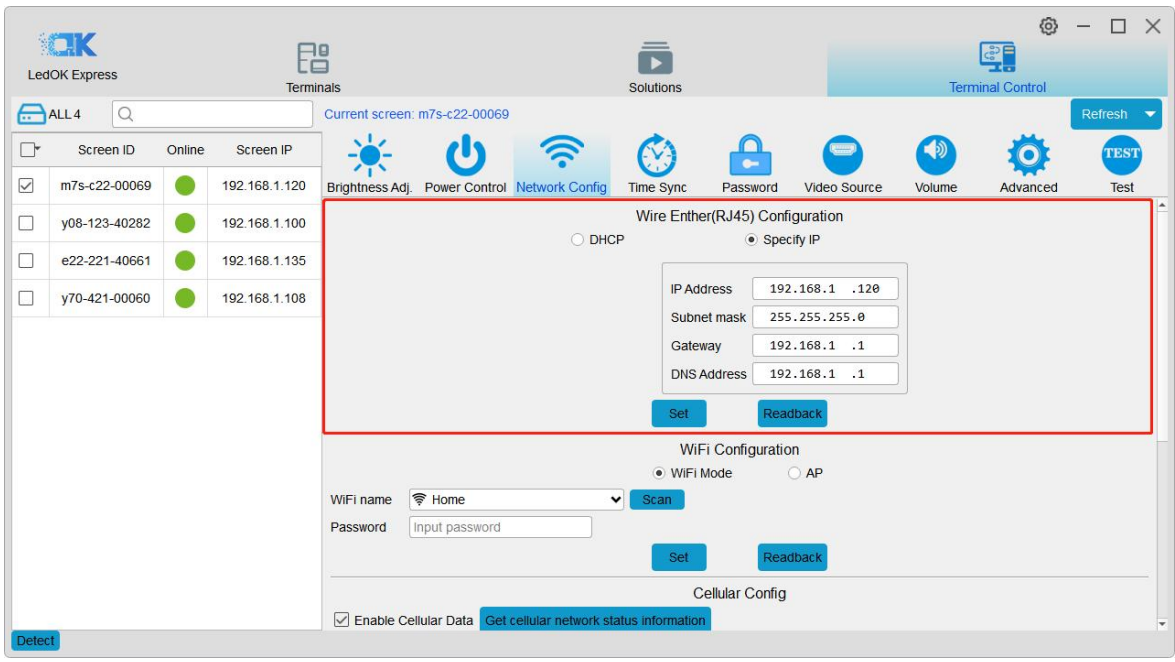


LedOK Setup Network

There are 3 ways of accessing internet for controller，1. Wire 2. WIFI 3. 3G/4G. can only choose either of them.

Wire Setup

Network configuration，first is Wire，can setup the controller IP address.

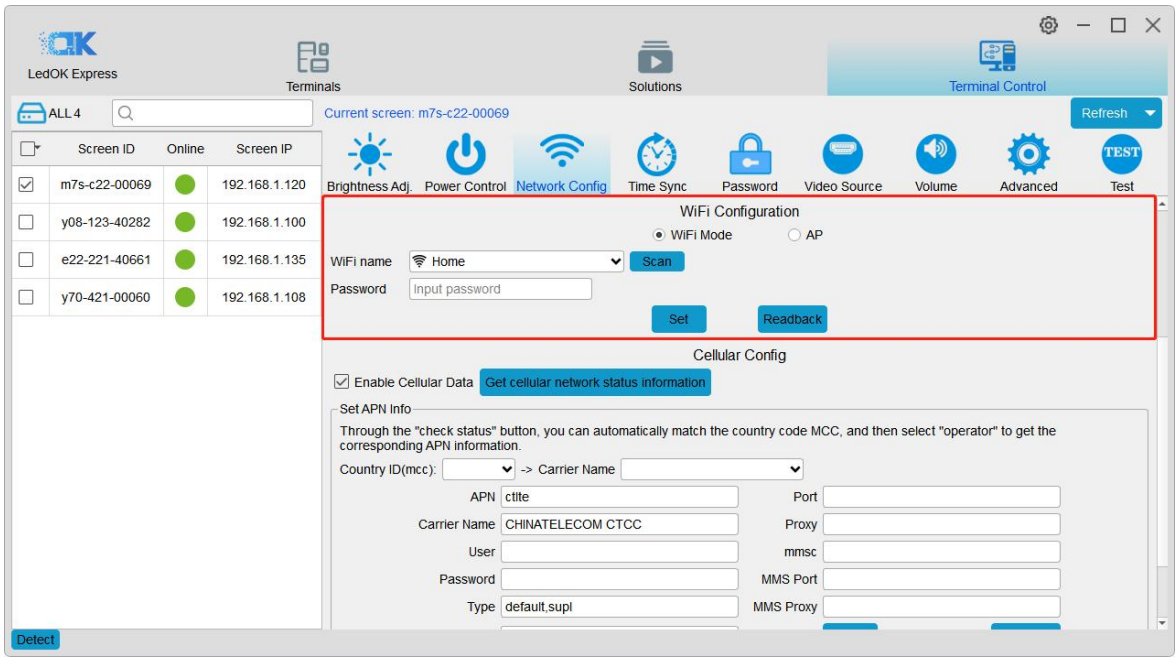


NOTES:

1. Controller will get access to internet by wire as first priority.
2. Must remove the LAN cable from controller if choose WIFI or 3G internet and choose automatically acquisition IP.

WiFi Configuration

Turn on WIFI and scanning WIFI hotspot，then enter wifi password and click save.



Wait for about 3 minutes，controller will come online. Please watch the “Internet” light，if it flashing regularly means online success，go to AIPS platform and check it.

NOTES:

1. If could not scanning the WiFi，please try to turn on/turn off Software or WiFi Switch.
2. If controller can’t get access to internet through WiFi，please double check the steps below:

   A.WiFi antenna plug correctly.

   B.WiFi password is correct or not.

   C.If the Wireless router being accessed too many terminals?

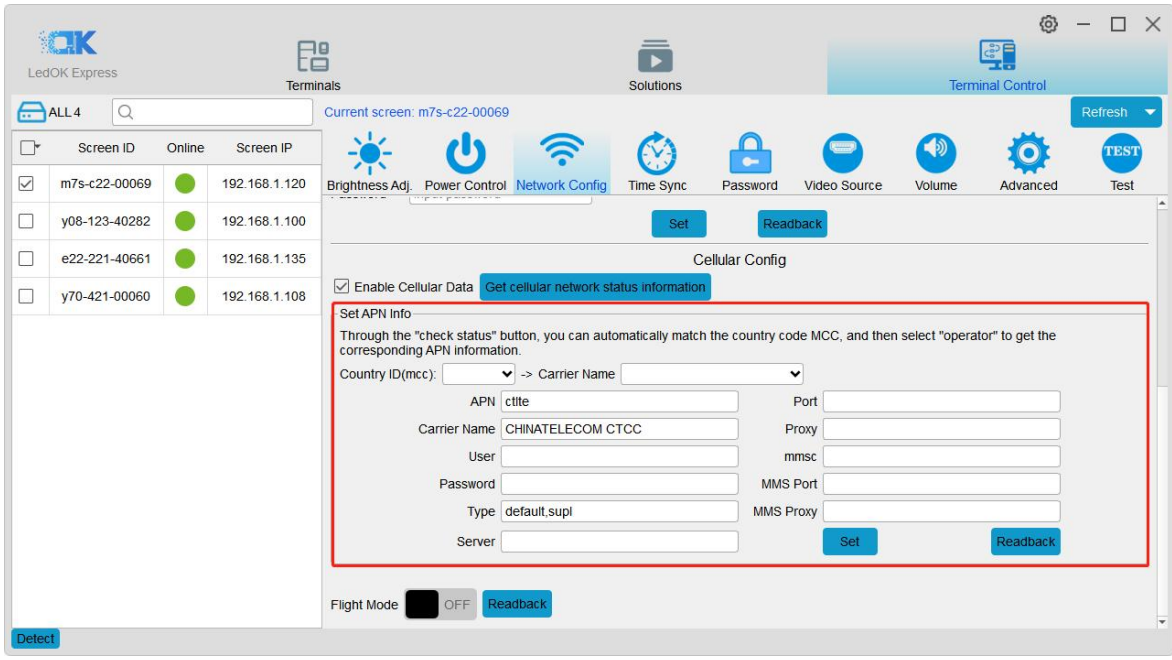
   D.E series controller switch on WIFI mode?

E.Try another WIFI hot spot.

F.Y/M series controller，please make sure the LAN cable removed

3G/4G Setup

Enable 4G/5G option，click”Check” button will auto match the country code MMC and choose the operator name to get the APN ，if can not find your country code，please enter by click custom option.



After save 3G parameters，waiting for about 5 minutes，please check if card online in AIPS platform. “Internet” light will flashing fast for dialing up then flashing regularly means get online success.

NOTES:

If controller can’t get online success，please checking following things:

A.3G antenna has plugged correctly?

B.Y/M series controller，make sure the LAN cable removed.

C.APN is correct or not?

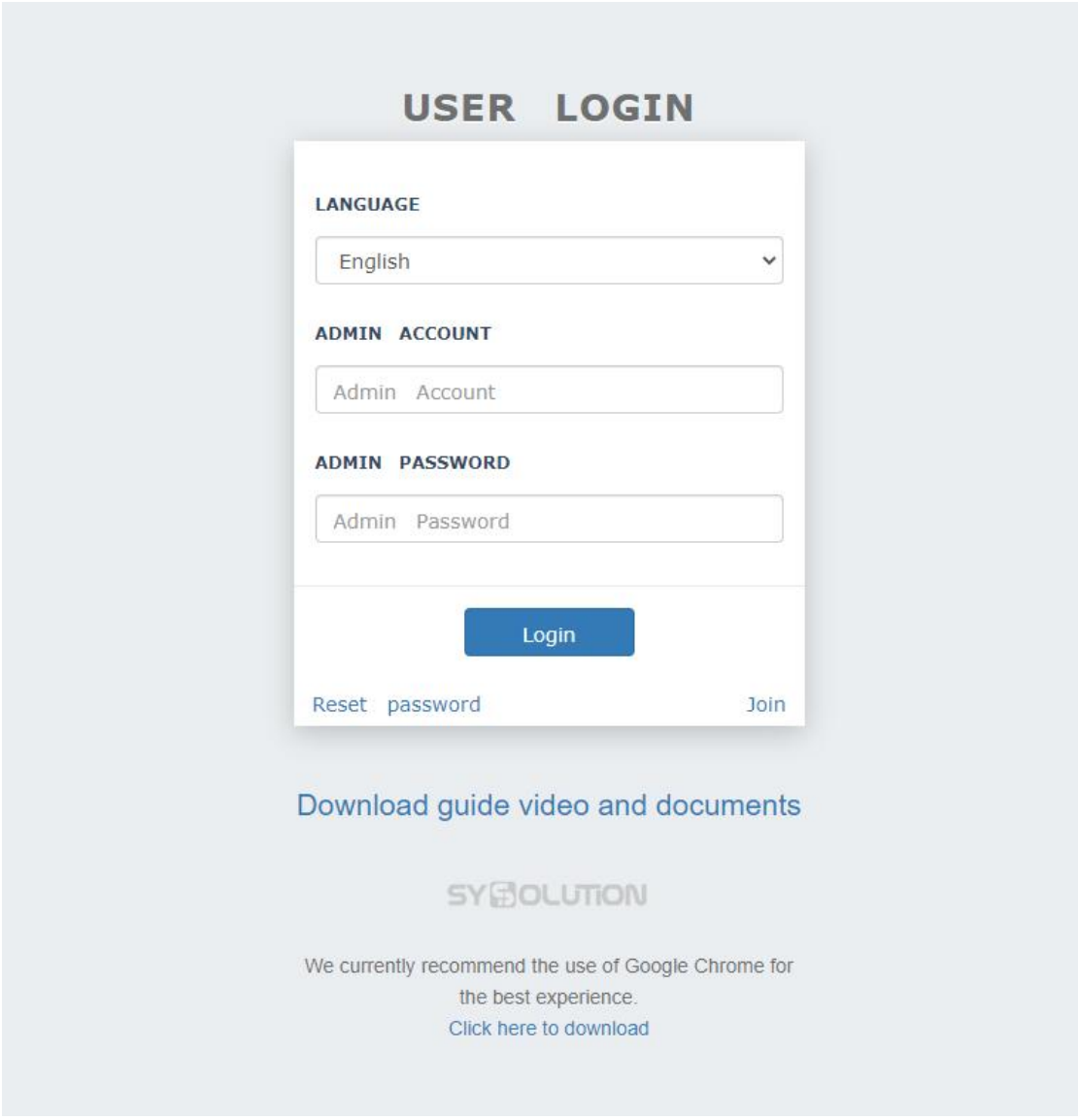
D.SIM card has activate? SIM card has enough money and 3G data service?

E.Check 3G signal at least 13 and above? Click Network status detection to check 3G signal.

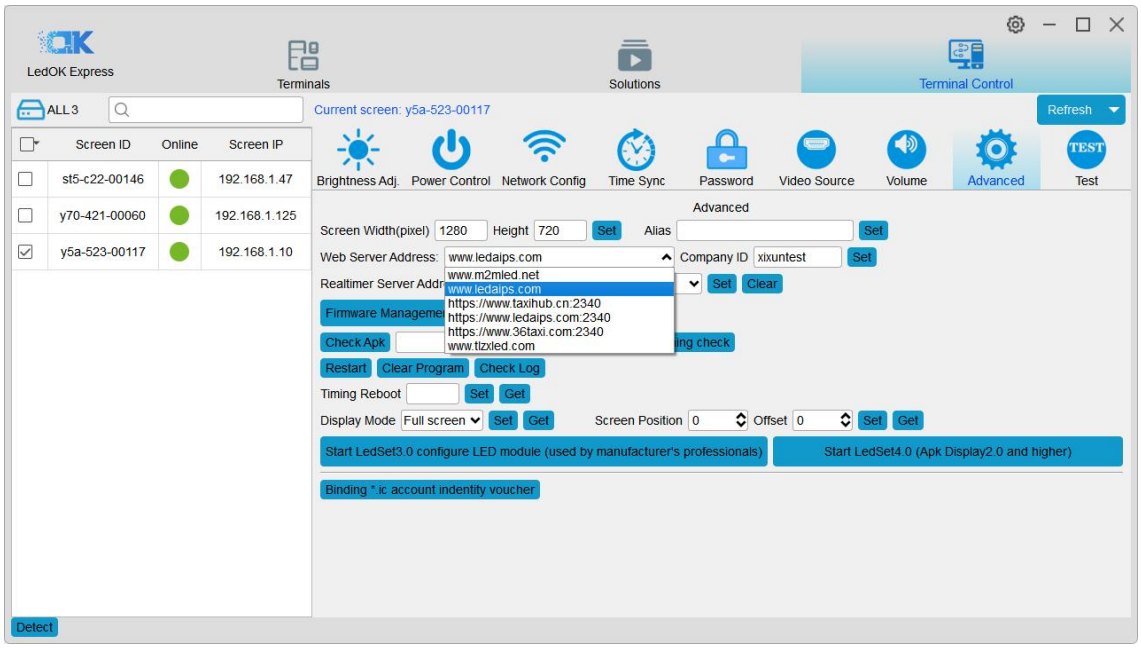
AIPS Cloud Platform Register

Register For AIPS Platform

Visit www.ledaips.com and choose Register to starting input related information，click done and verified the link sent by email，finish the register.



Oversea address：www.ledaips.com

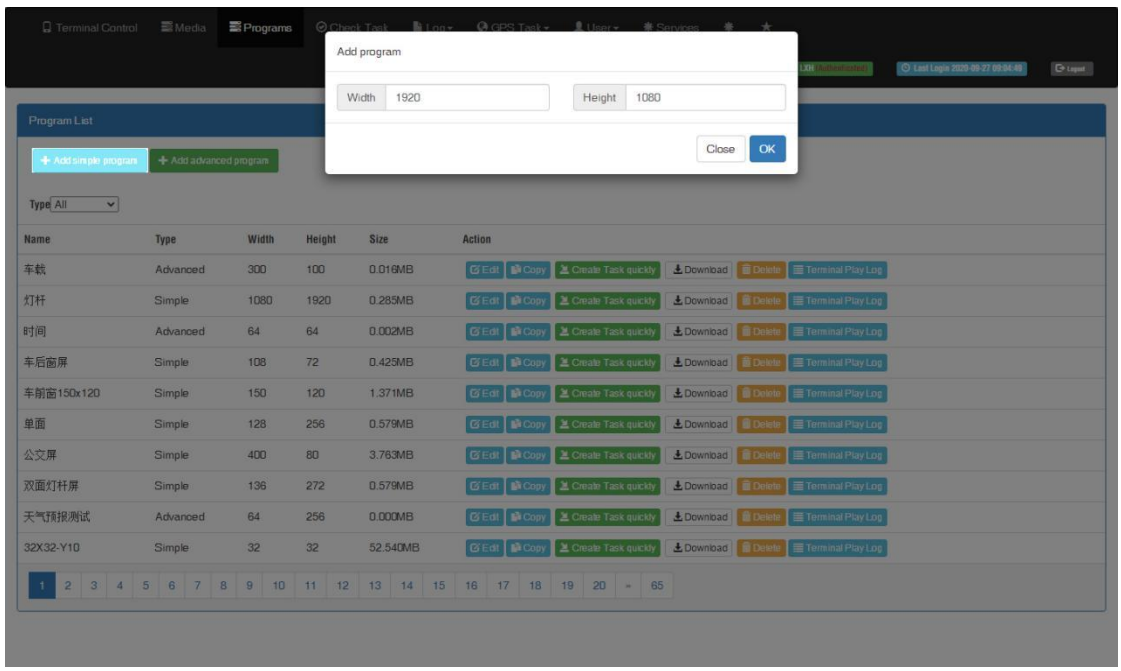

LedOK Express
Terminals
Solutions
Terminal Control
ALL 3
Current screen: y5a-523-00117
Refresh
Screen ID
Online
Screen IP
st5-c22-00146
192.168.1.47
y70-421-00060
192.168.1.125
y5a-523-00117
192.168.1.10
Brightness Adj.
Power Control
Network Config
Time Sync
Password
Video Source
Volume
Advanced
Test
Advanced
Screen Width(pixel) 1280
Height 720
Set
Alias
Set
Web Server Address: www.ledaips.com
Company ID xixuntest
Set
Realtimer Server Addr
Set
Clear
Firmware Manageme
Check Apk
ing check
Restart
Clear Program
Check Log
Timing Reboot
Set
Get
Display Mode Full screen
Set
Get
Screen Position 0
Offset 0
Set
Get
Start LedSet3.0 configure LED module (used by manufacturer's professionals)
Start LedSet4.0 (Apk Display2.0 and higher)
Binding *.ic account indentity voucher
www.m2mled.net
www.ledaips.com
https://www.taxihub.cn:2340
https://www.ledaips.com:2340
https://www.36taxi.com:2340
www.ttzxled.com
Detect

AIPS Cloud Programing

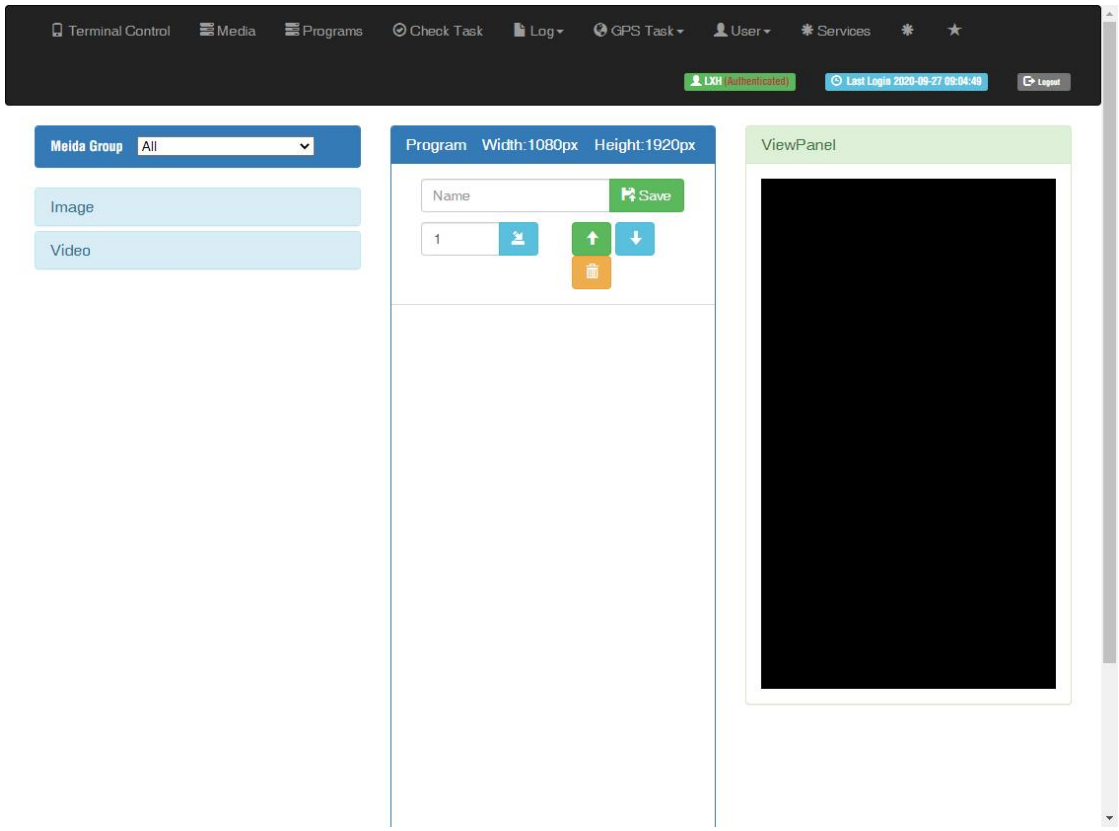
Simple Program

Make simple program ----only support image or video files

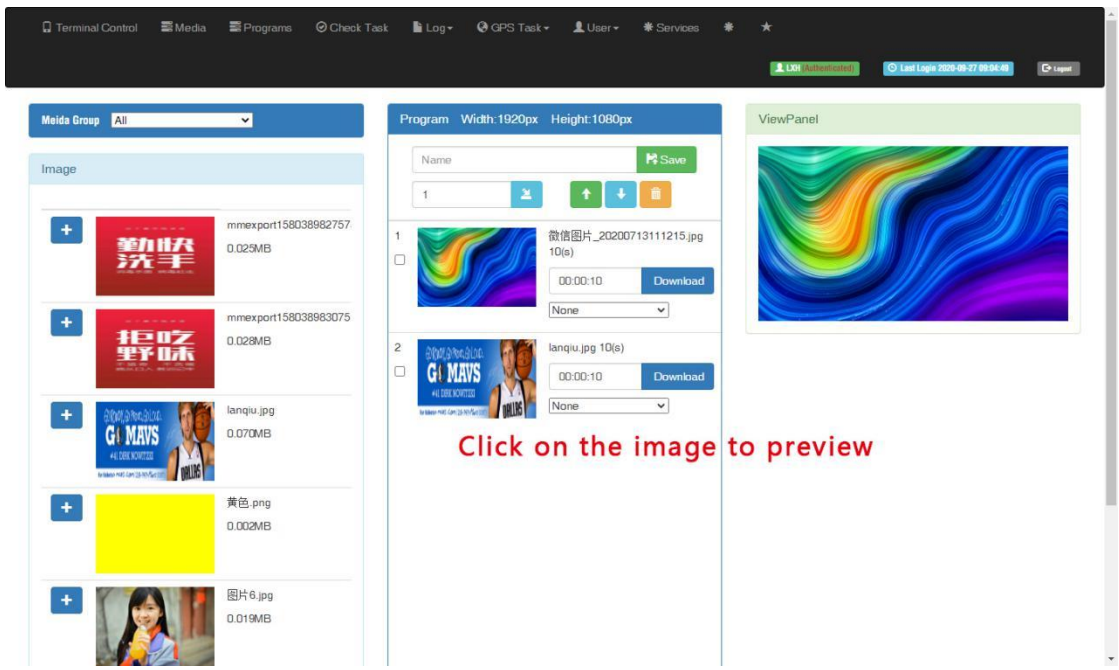
1. Click “add simple program” button and set correct screen width and height pixels and click OK.



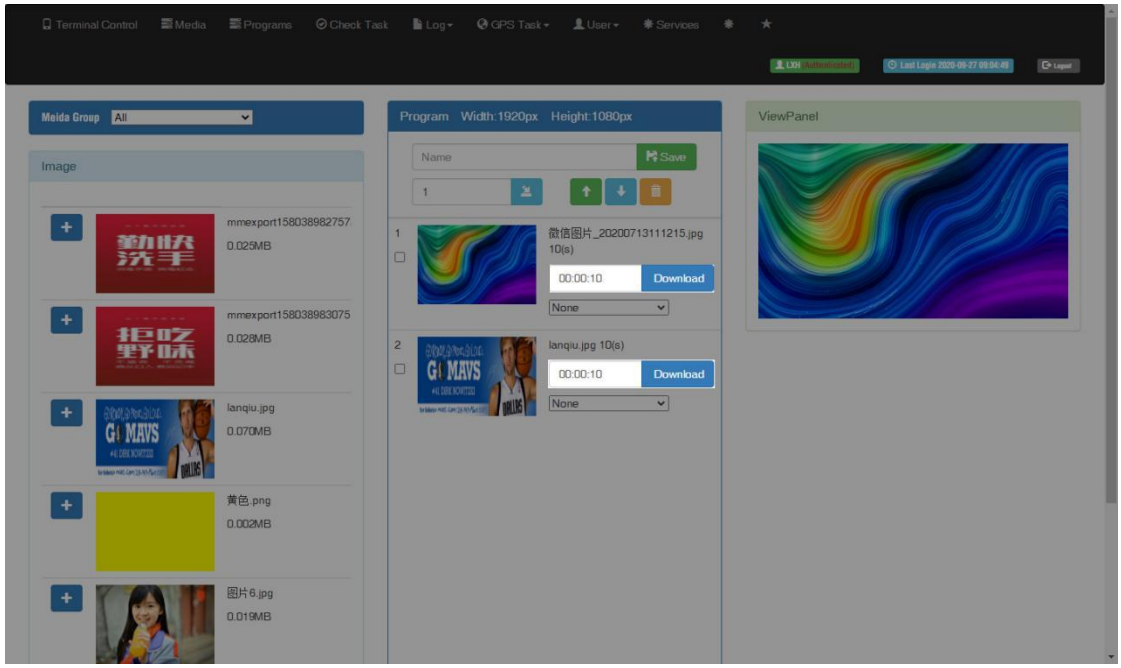
2. Input program name and select the material from left side，here are 3 zones including material in the left side，program editing in the middle and preview window in the right side.



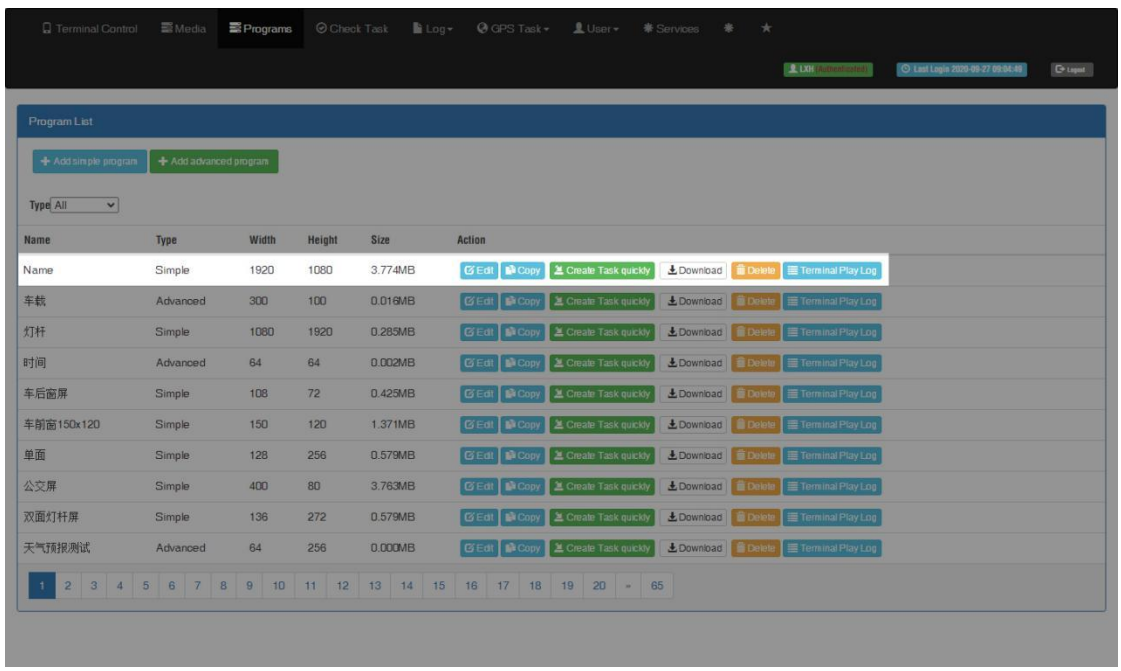
3. Choose materials and set program name，can check preview in the right window.



4. Can set the display duration time here，see screenshot in below：



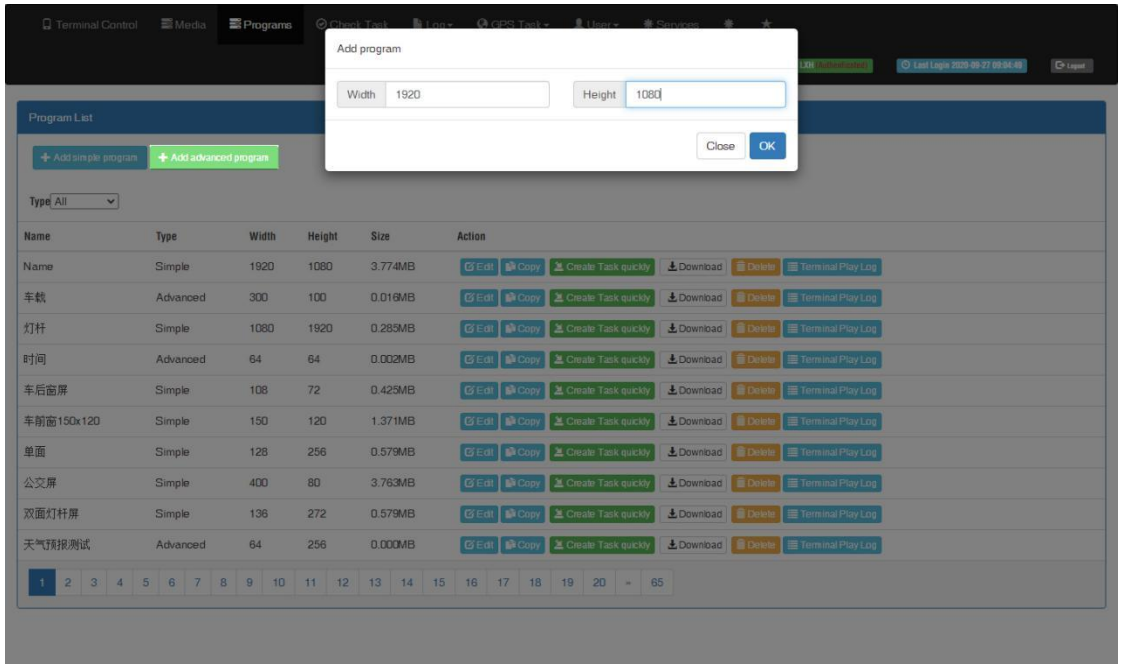
5. Will see program in the list after save.



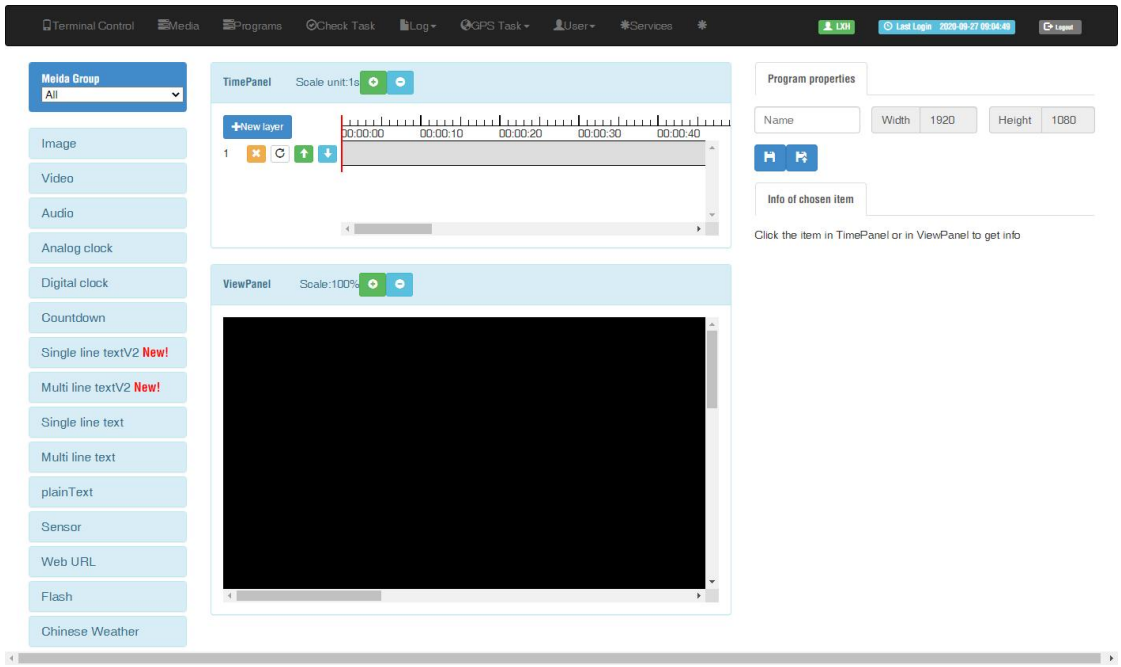
Advanced Program

Advanced program including image，video，clock，text，audio and support more layers.

1. Clcik “add advanced program” button and set correct screen width and height pixels，click ok.

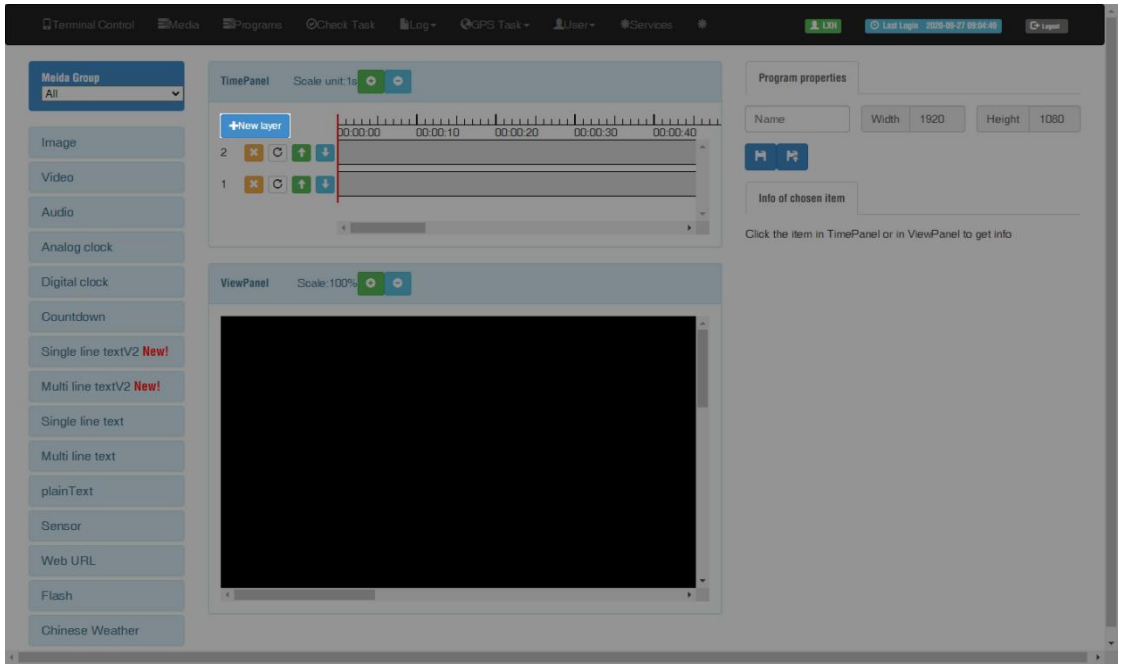


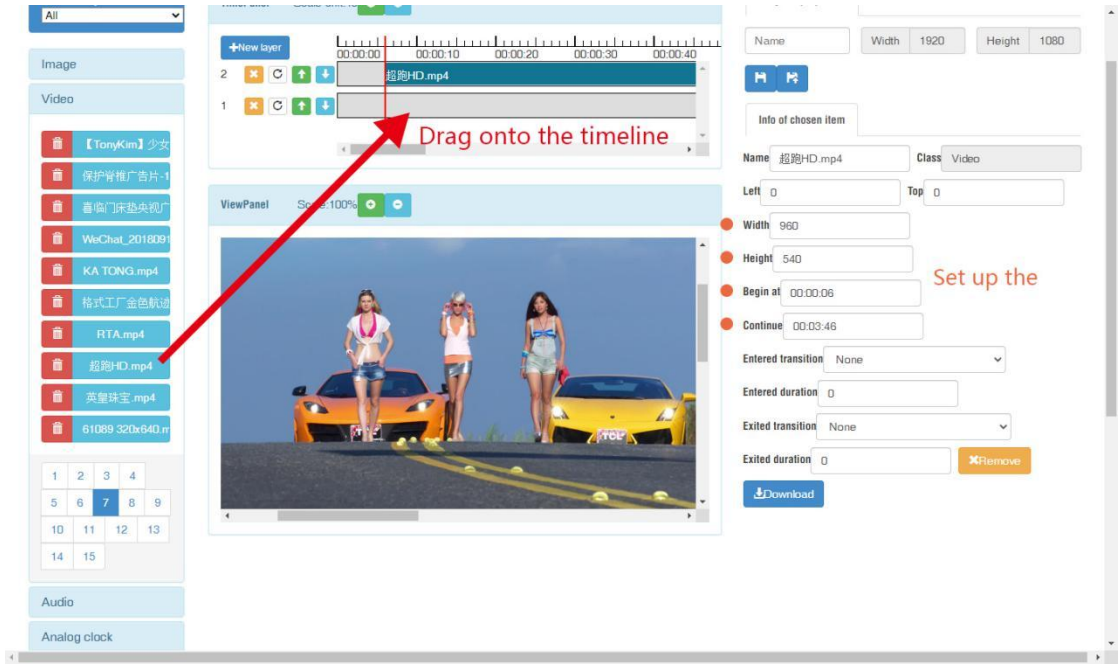
Here are 4 zones including media group，time panel，preview and program property.



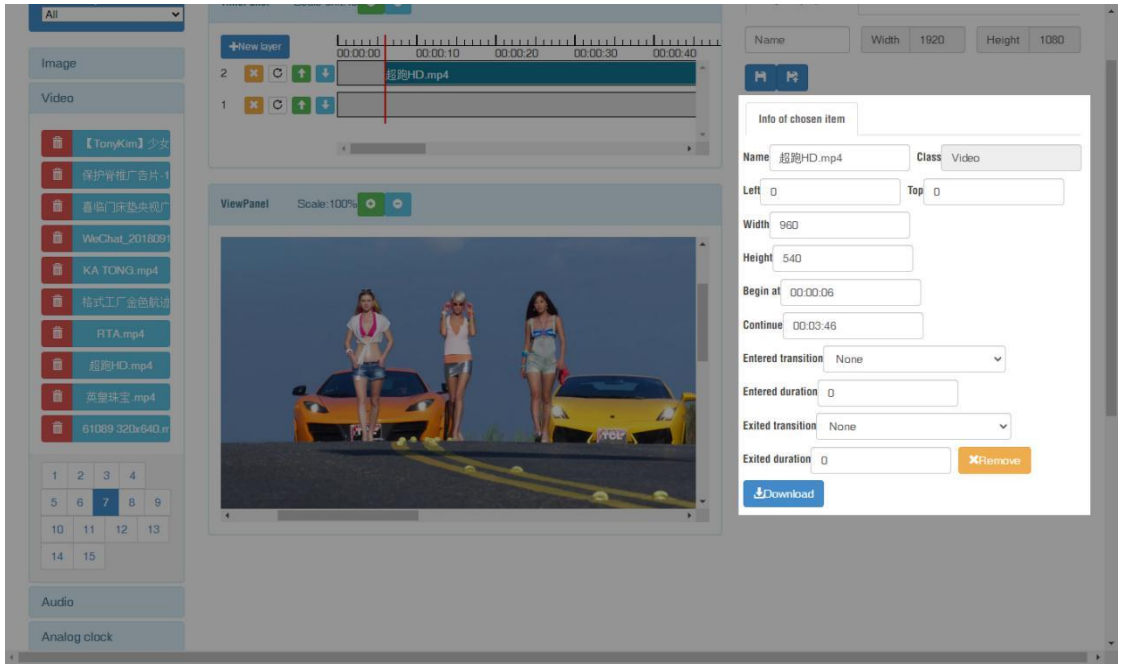
2. Click “New layer” button and select media file then add to the time panel，for example：

   select video file and add to time panel.

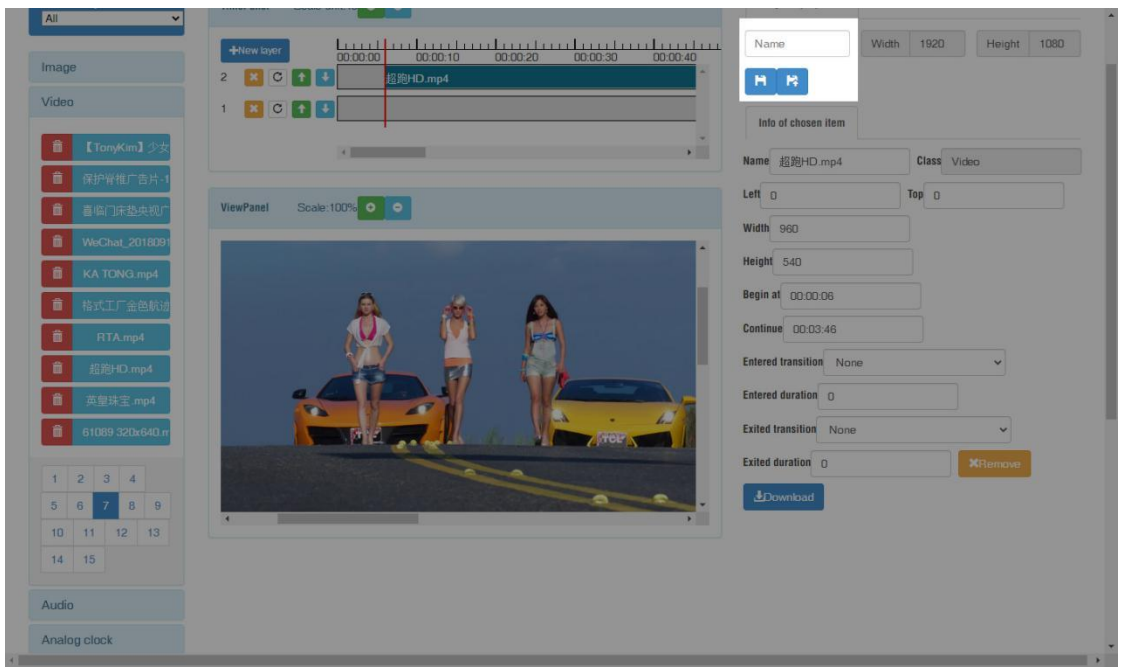




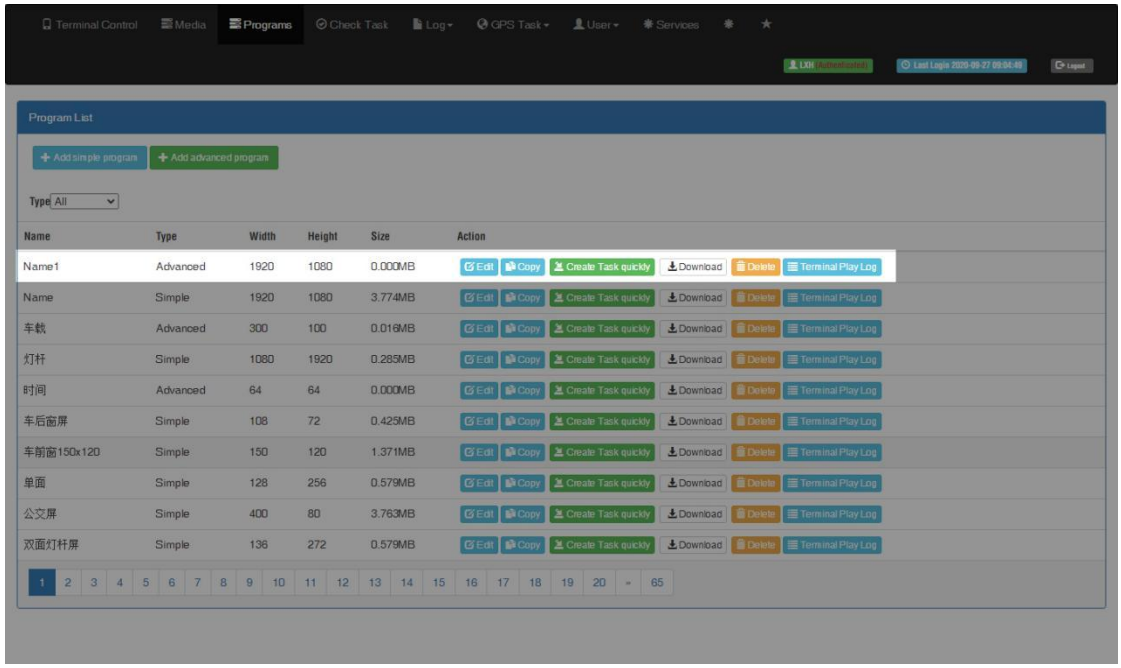
3. Can set the program parameters，start and end time，



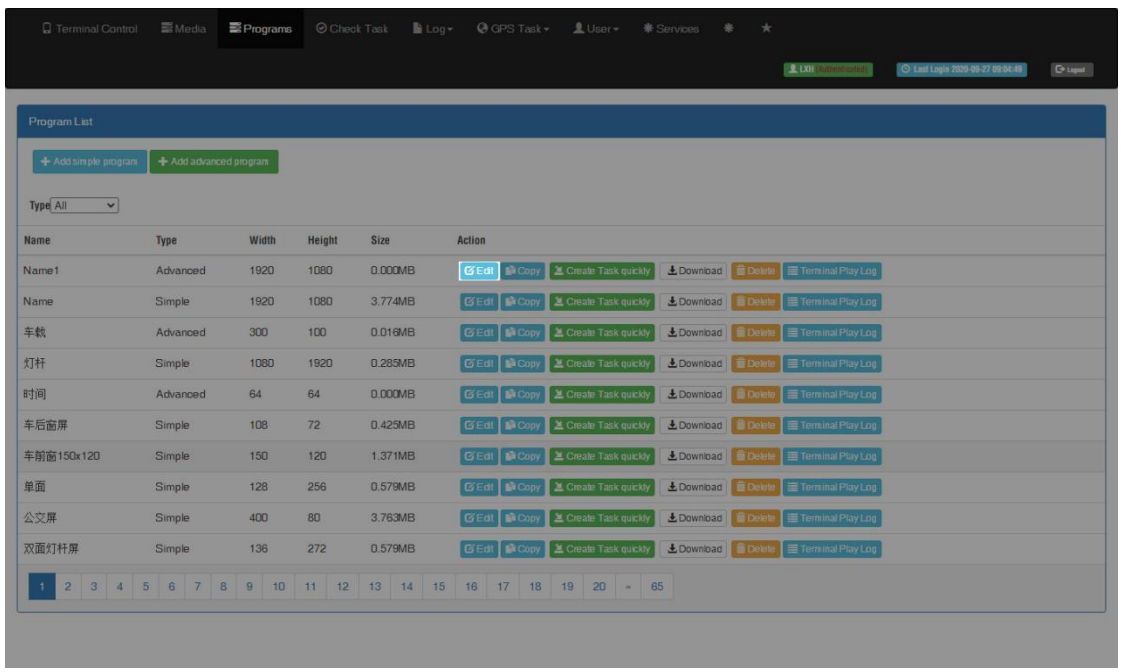
4. Save and quit after setup all parameters and program name.



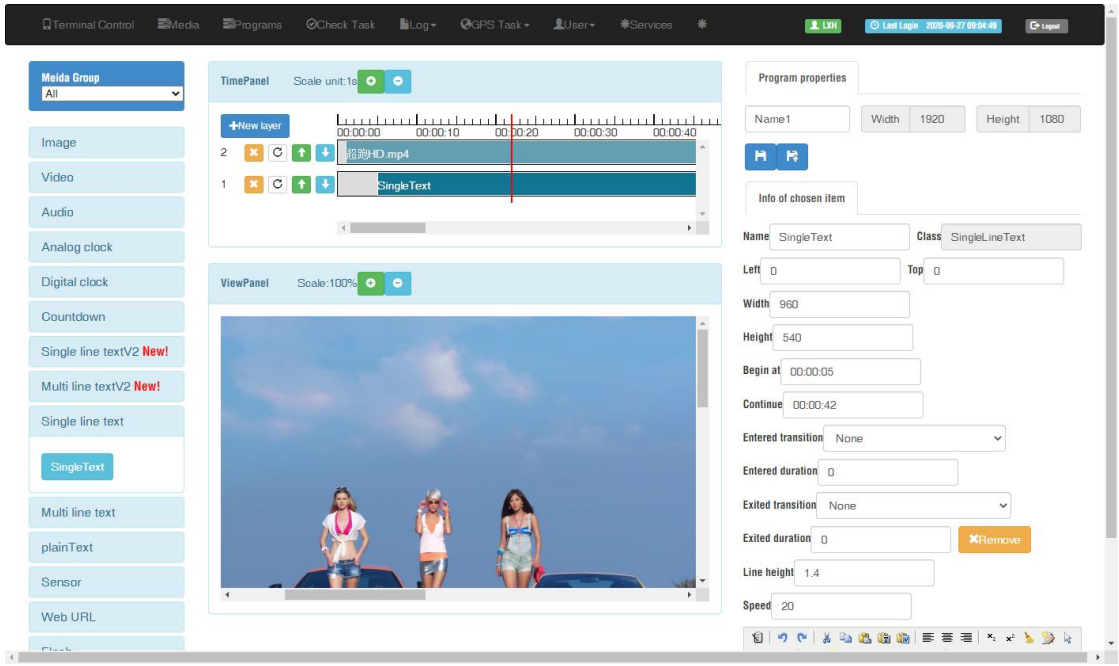
5. Then jump to program list interface，you can click green button of create task quickly and then select controller and send.



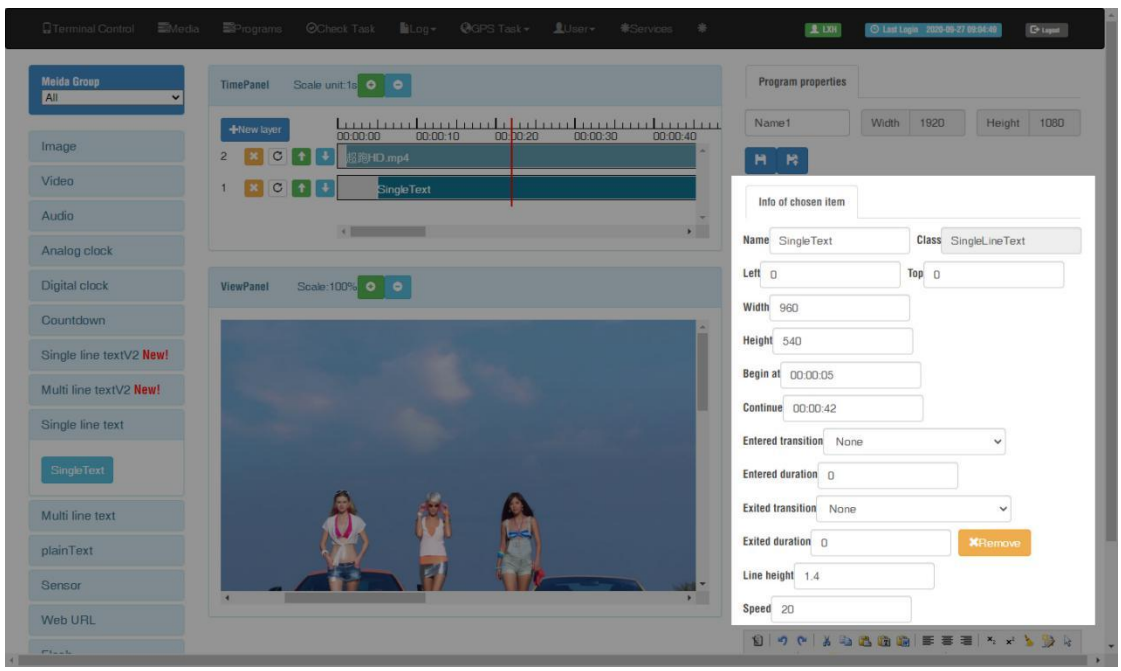
Use the “Edit” button to modify the existing program.



Add multi-line text，click the text (single or muti-text)and add to the time panel



Setup parameters for text，including the start and end time.

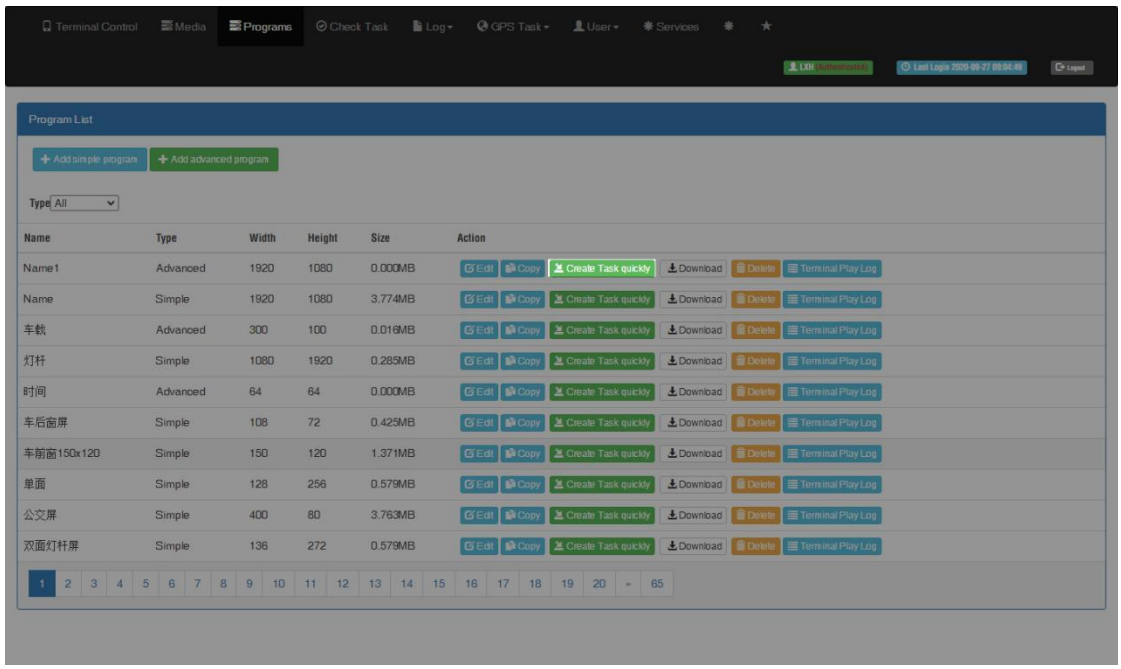


Setup the text color，font size and add more pages，please pay attention to our TIPS message in below，save and quit after finish.

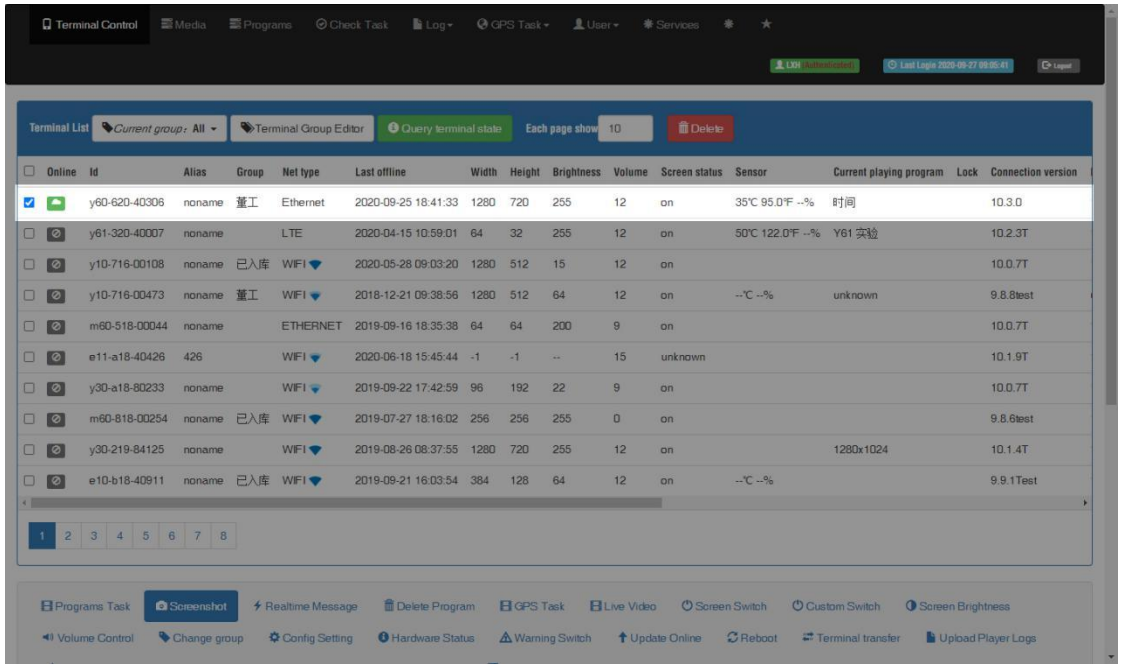
Hint Press Enter to separate next page, Press Shift + Enter to new a line. Define the following string instead of the value of sensors in terminal: %c is celcius, %f is fahrenhite, %h is humidity, (%c1 %f1) or (%c2 %f2) round to 1 or 2 digit(s) after the decimal point

Send Program

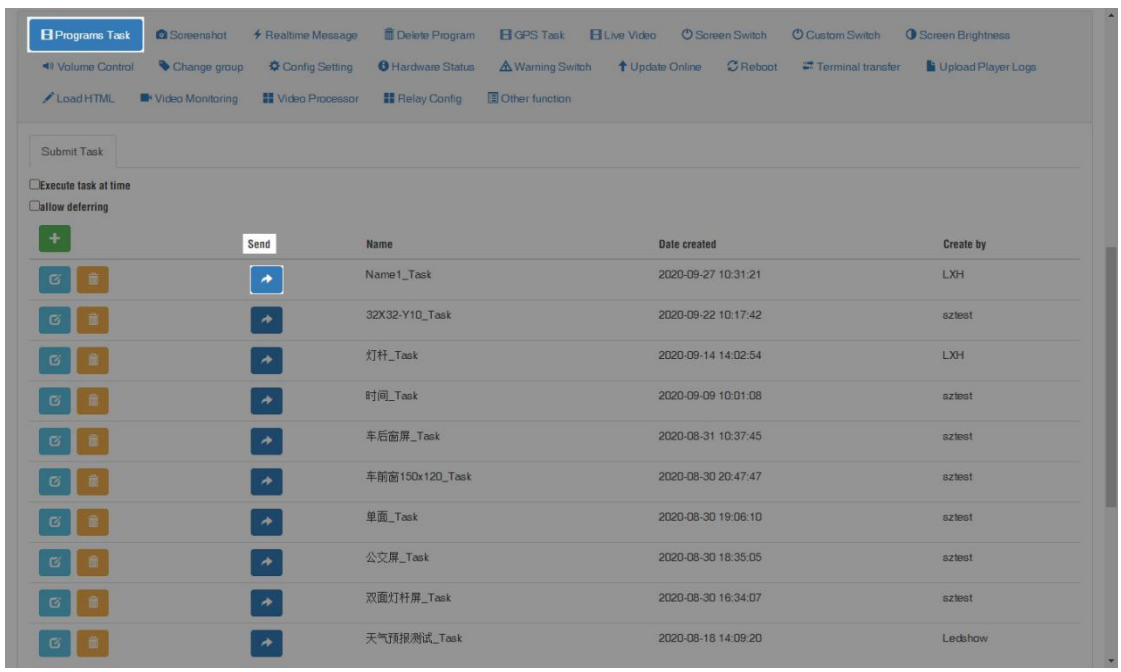
1. Click "create task quickly" button in the program list interface and will jump to the terminal interface directly.



2. Select the controller and send program



3. In the bottom part of terminal interface，will see program task then choose the program task and click send.



Synchronous and asynchronous setup

There are two setup ways: manual and schedule

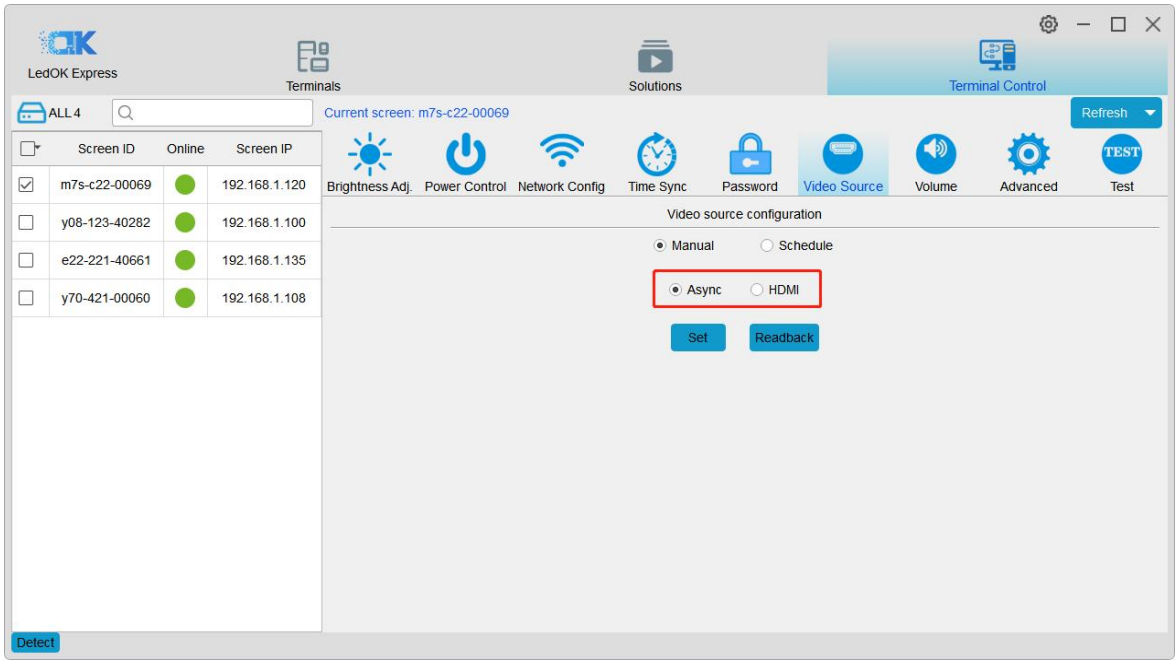
Button of sync&async setup

Running LedOK Express software，enter terminal control，and open sync&async setup，select the controller and choose display mode.

Sync: means the M70 will keep connection with extra device through HDMI cable and then display the synchronous image or video on the led display.

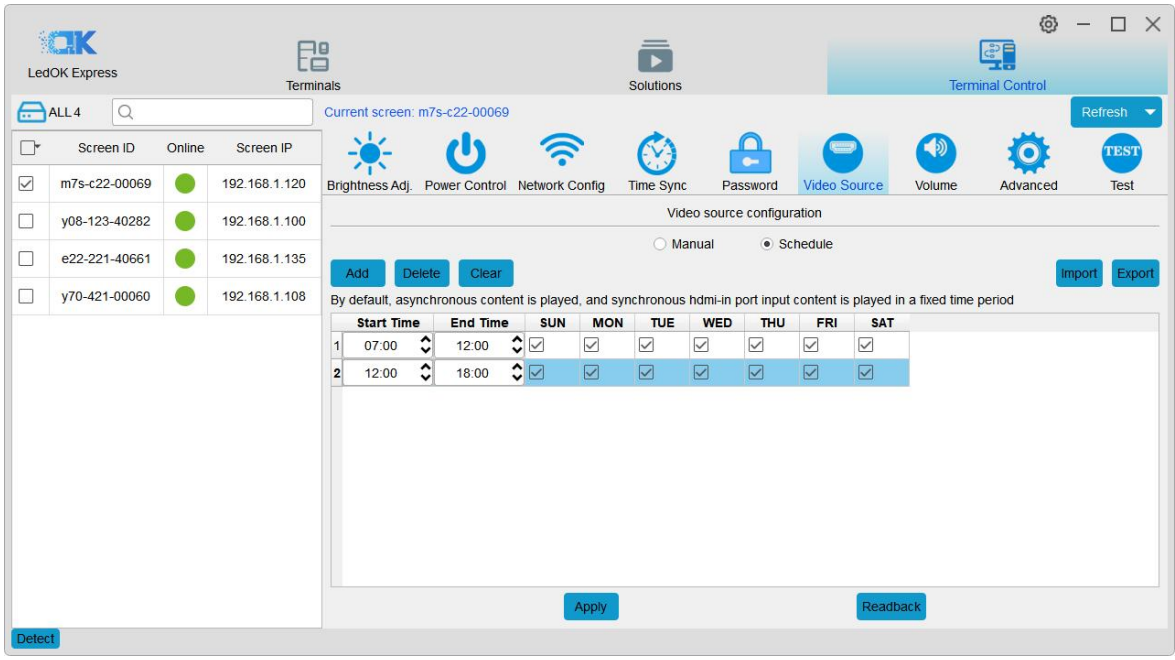
Async: means the M70 work without laptop or other extra device，it will accept the programs from the LEDAIPS platform and display.

Manual or schedule. Also can click read back button to know controller current mode.



Switch schedule

In schedule setup interface，can add schedule tasks according to customer requests，default status is displaying asynchronous content.

After finishing setup，click apply.

Can also export the schedule task from software to computer，or you can import the schedule tasks into software.