



Android Control Card Y50

Instructions

Version: Ver.1.1

Statement

Dear user friend , thanks for choosing SHENZHEN SYSOLUTION TECHNOLOGY CO.,LTD (hereinafter referred to as Xixun Technology) 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.

Copyright

The copyright of this document belongs to Xixun Technology. Without the written permission of our company, no unit or individual may copy or extract the content of this article in any form.

Trademark



is a registered trademark of Xixun Technology.

Update Record

No.	Version	Details	Date
1	Ver.1.0	Initial	2020.09.27
2	Ver.1.1	Update content	2024.08.29

Catalogue

Overview	1
Functional Features	3
Interfaces	5
Technical Parameters	6
Hardware Connection Diagram	9
Ledset4.0 Configuration	10
Smart Setting	13
Receiver Configuration	18
LEDOK Upload /Publish Program	20
Network Configuration	25
Wired Ethernet Configuration	25
WiFi Configuration	26
4G Setup	27
AIPS Cloud Platform Register	29
Register For AIPS Platform	29
AIPS Cloud Programing	31
Simple Program	31
Advanced Program	33
Send Program	39

Overview

Thank you for choosing our LED control card, and we sincerely hope that you will enjoy your experience with the excellent performance of this product. The LED control card is designed to be consistent with international and industry standards, but can still have potential for personal injury and property damage if not operated properly. In order to avoid possible dangers posed by the card and to benefit as much as possible from your card, please follow the relevant instructions for use in this manual when installing and operating the product.

The Y50 control card is a high-performance control card that can operate stably in extremely harsh environments such as high and low temperatures. The performance configuration series uses an industrial grade quad core processor with a main frequency of 1.5GHz, and supports 1GB+8GB of memory (compatible with 2GB+16GB and requires customization) LPDDR4. Compared to commercial grade CPUs, the performance of industrial grade CPUs is generally lower, but the maximum temperature difference can reach -40 °C to 95 °C. This configuration performance can fully meet the smooth playback of images, 1080P videos with two hard decodes, flash animations, text, and other content simultaneously.

It can be widely used in outdoor industrial LED display scenarios such as car screens, traffic screens, community screens, and lamp post screens.

Product Features:

1. Stable and reliable performance, supporting wide temperature range operation from -40 °C to high temperature of 95 °C, with a wide voltage range of 5V-12V, continuous power supply for 7 * 24 hours, and a failure rate of $\leq 0.3\%$.
2. Support Gigabit network backup, which can be connected to the network through Ethernet cables, WiFi, or 4G. At the same time, it can be controlled through a mobile phone and configured wirelessly like a router;
3. The chip can support GSM, WCDMA, TD-SCDMA, EVDO, TDD-LTE, FDD-LTE and other standards;
4. Support accessing cloud platforms to publish programs, easily achieving remote cluster control of display screens;
5. Hardware design fully considers user on-site deployment, operation, and maintenance scenarios, with a simple structure that saves space, reduces wiring, and makes installation easier for users;
6. The software and platform are designed to run stably and maintain efficiently.
7. Apply UV three proof adhesive, with a national standard of double 85 protection level, dust-proof, moisture-proof, anti-static, and salt spray resistant.

Functional Features

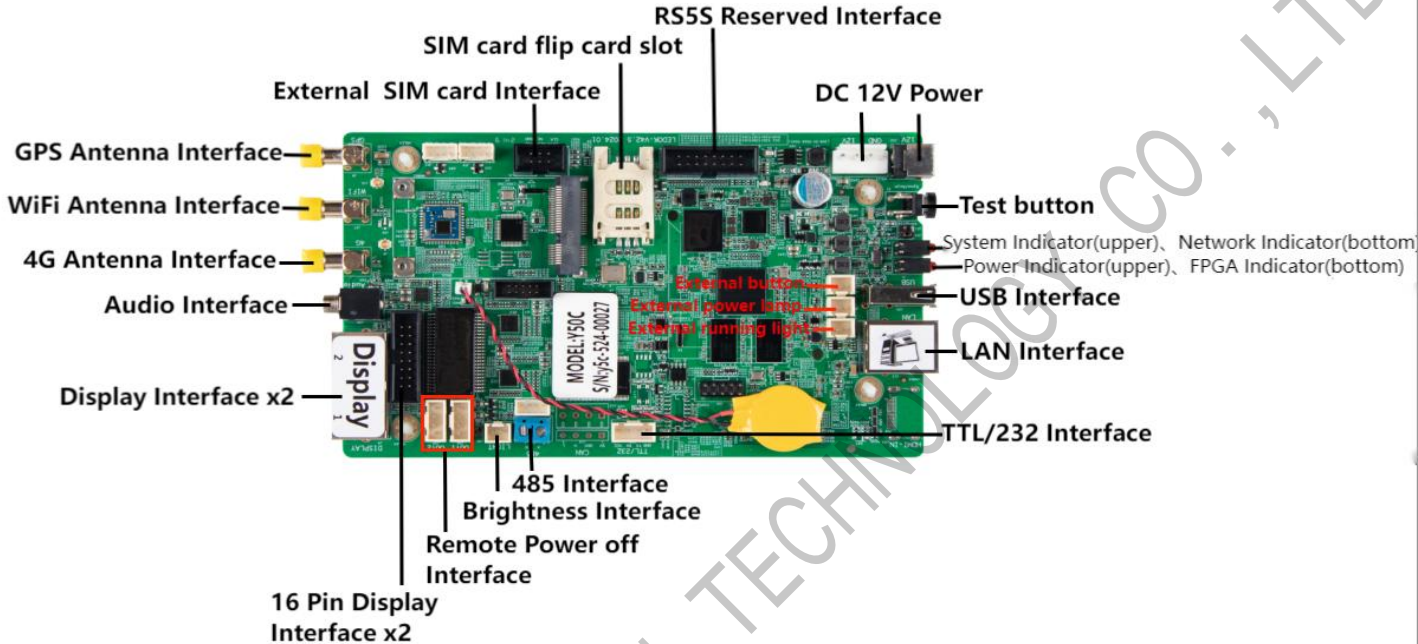
1. Dual gigabit network port output, which can be used as a backup to ensure stable image transmission;
2. Powerful processing performance, 4-core processor, clock speed of 1.5GHz, supports 1080P video hard decoding, 1GB of RAM, 8GB of internal storage space, user available 4GB;
3. Support playing programs according to the program schedule;
4. Support secondary development and remote cluster control on cloud platforms, such as centralized program publishing, setting timed power on/off, volume, brightness, remote power off, etc;
5. Onboard RS485 interface, convenient for front-end devices to control the brightness adjustment, playback image control, power on/off, and other command operations of the back-end display screen. External eight element environmental sensor R68, displaying environmental information without the need for secondary development,;
6. Y50 can automatically adjust the brightness of the display screen, and a brightness sensor is required for matching;
7. Supports three communication methods: wired network, WIFI, and 4G, making it easy to deploy in on-site environments. The 4G module is optional and the module model varies from country to country. Please provide the country of use for shipment;
8. Support switching between AP mode and Station mode. AP mode: Y50 emits hotspots that are found by other devices; Station mode: Y50 does not emit hotspots, but connects

to hotspots emitted by other devices;

9. The user terminal connects to the AP hotspot that comes with Y50, with a default SSID of "SN number" and a default password of "12345678";
10. Supports USB cameras;
11. Supports GPS timing/synchronization, NTP precise automatic timing, ensuring synchronized playback of multiple screens;
12. Supporting software: AIPS4.0 cloud release platform, PC software LedOK Express, mobile app: LedOK Lite.

SHENZHEN SYSOLUTION TECHNOLOGY CO., LTD

Interfaces



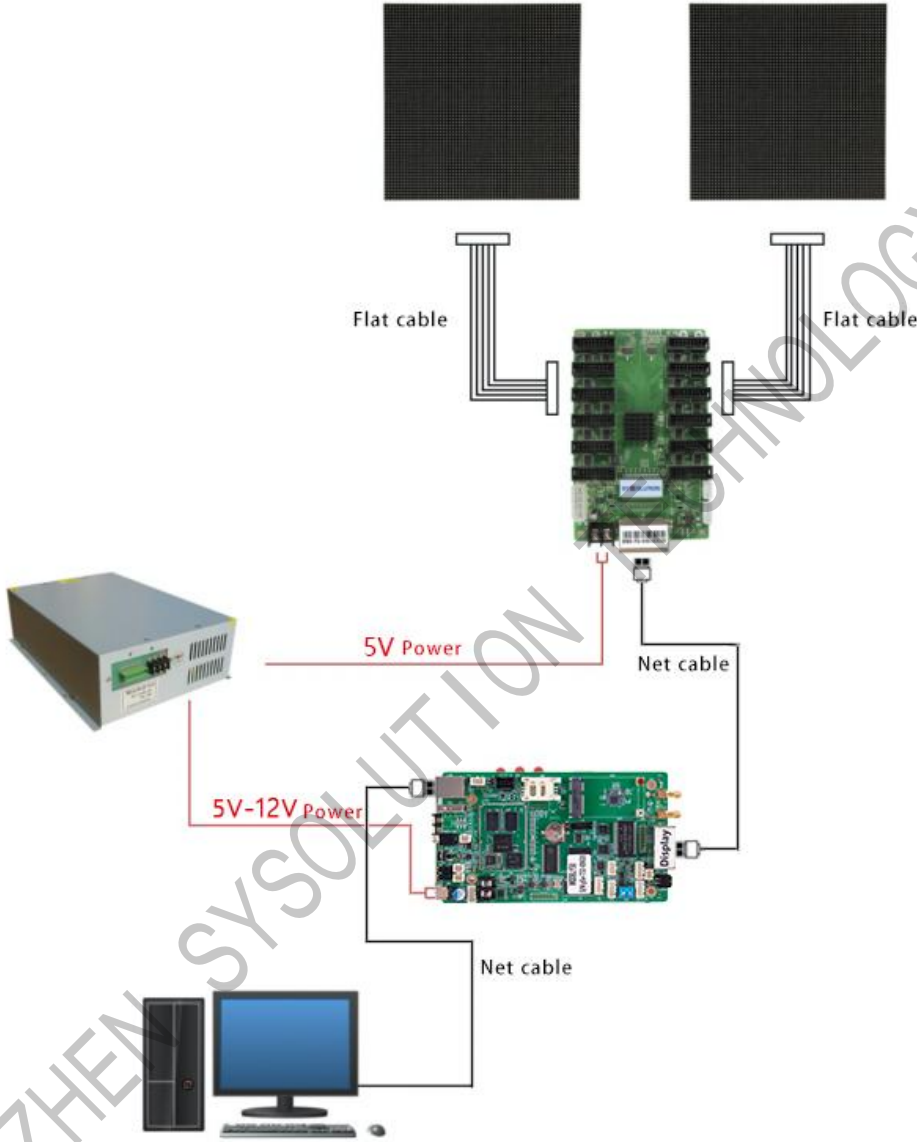
Technical Parameters

Features	Description	
Type	Y50-WIFI (no 4G) /Y50-NA、 Y50-EU、 Y50-LA、 Y50-G、 Y50-J	
Pixel	Y50: 1300,000 pixels, resolution 1920 (W)or1920 (H) , custom resolution support	
Communication mode	Ethernet port、 WiFi、 USB	
CPU	Cortex-A35 4 core main frequency1.5GHz	
GPU	Mali-G31MP2 OpenGL ES3.2, Vulkan 1.0, OpenCL 2.0 Dvalin-2EE	
System memory	8GB Emmc+1GB LPDDR3	
Operating syste	Android 9	
WiFi	IEEE 802.11b/g/n 2.4G	
GPS	GNSS GPS/Beidou/Glonass	
Other interface support	<ol style="list-style-type: none"> 1. 1 channel stereo audio output 2. 1 USB2.0 port 3. Support play program through USB 4. 1 RS485 port, 1 RS232、 1 TTL serial port. Connect to light sensor or other sensors, as well as connecting to other modems to realize other functions. 	
Configuration software	LedOK Express	
Support frequency band		
Type	3G/4G (optional)	Certificate

<p>Y50-CH</p>	<p>-China (China/India)</p> <p>FDD-LTE: B1/3/5/8</p> <p>TDD-LTE: B38/39/40/41</p> <p>TDSCDMA: B34/39</p> <p>WCDMA: B1/8</p> <p>CDMA 1X/EVDO: BC0</p> <p>GSM: B3/5/8</p>	<p>Compulsory Certification : SRRC/ NAL/ CCC</p> <p>Others : WHQL</p>
<p>Y50-NA</p>	<p>-North America</p> <p>FDD-LTE: B2/4/5/7/12/13/17</p> <p>WCDMA: B2/4/5</p>	<p>Operator certification: AT&T/ T-Mobile/Rogers/ TelusVerizon/AT&T (FirstNet)/T-Mobile/U.S. Cellular/Rogers/ Telus</p> <p>Mandatory / conformance certification: FCC/ IC/ PTCRB</p> <p>Others : WHQL</p>
<p>Y50-EU</p>	<p>-Eurasia</p> <p>(EMEA/Korea/Thailand/India and other Asian countries)</p> <p>FDD-LTE: B1/3/5/7/8/20</p> <p>TDD-LTE: B38/40/41</p> <p>WCDMA: B1/5/8</p> <p>GSM: B3/5/8</p>	<p>Operator certification:</p> <p>Vodafone/Deutsche Telekom/SKT/ Telefónica</p> <p>Mandatory / conformance certification: GCF/ CE/ KC/ NCC/RCM/ FAC/ NBTC/ICASA</p> <p>Others : WHQL</p>

<p>Y50-LA</p>	<p>-Latin America (LA/AU/Newsland) FDD-LTE: B1/3/5/7/8/28 TDD-LTE: B40 WCDMA: B1/2/5/8 GSM: B2/3/5/8</p>	<p>Compulsory Certification: GCF/ FCC/ Anatel/ NCC/RCM Others: WHQL</p>
<p>Y50-G</p>	<p>-Global FDD-LTE: B1/2/3/4/5/7/8/12/13/ 18/19/20/25/26/28 TDD-LTE: B38/39/40/41 WCDMA: B1/2/4/5/8/6/19 GSM: 4 frequencies</p>	<p>Operator certification: Deutsche Telekom/ Verizon/ AT&T/ Sprint/U.S. Cellular/ Telus Mandatory / conformance certification: GCF/ CE/ FCC/ PTCRB/ IC/ Anatel/IFETEL/ SRRC/ NAL/ CCC/ KC/ NCC/ JATE/ TELEC/ RCM/ NBTC/ IMDA/ICASA others: WHQL</p>
<p>Y50-J</p>	<p>-Japan FDD-LTE: B1/3/8/18/19/26 TDD-LTE: B41 WCDMA: B1/6/8/19</p>	<p>Operator certification: NTT DOCOMO/SoftBank/ KDDI Compulsory Certification: JATE/ TELEC Others : WHQL</p>

Hardware Connection Diagram



Ledset4.0 Configuration

How to find Ledset4.0:

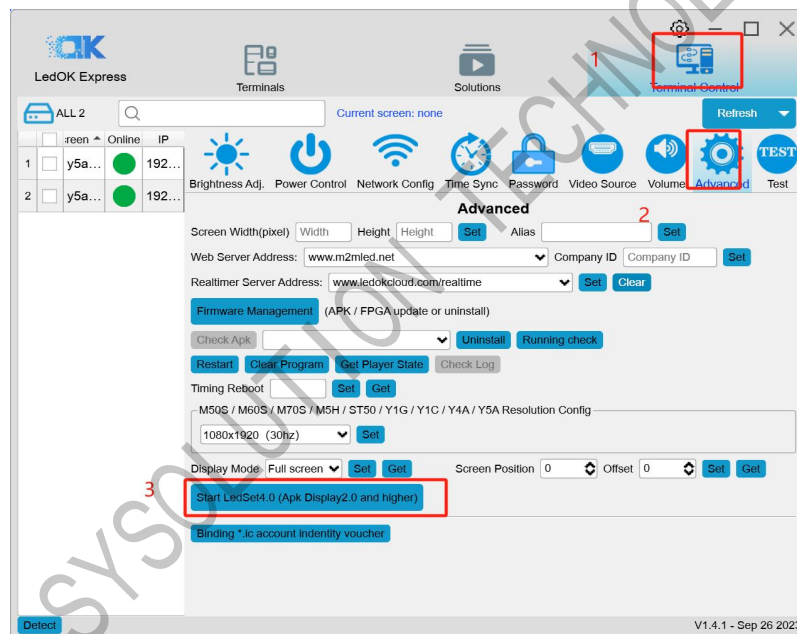
Please open Ledok Express software,

Click 'Terminal Control',

Click 'Advanced' ,

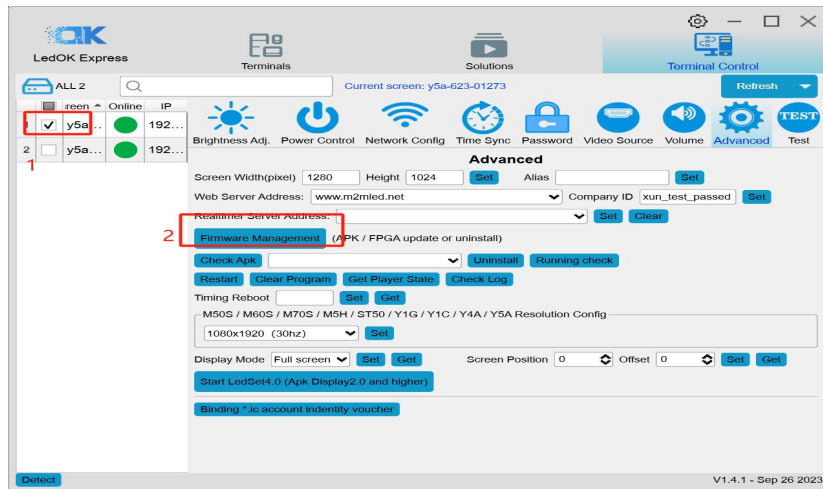
Enter password 888

Click 'start Ledset4.0' .

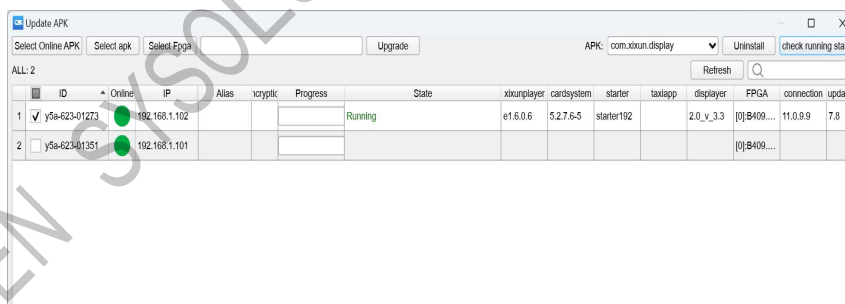
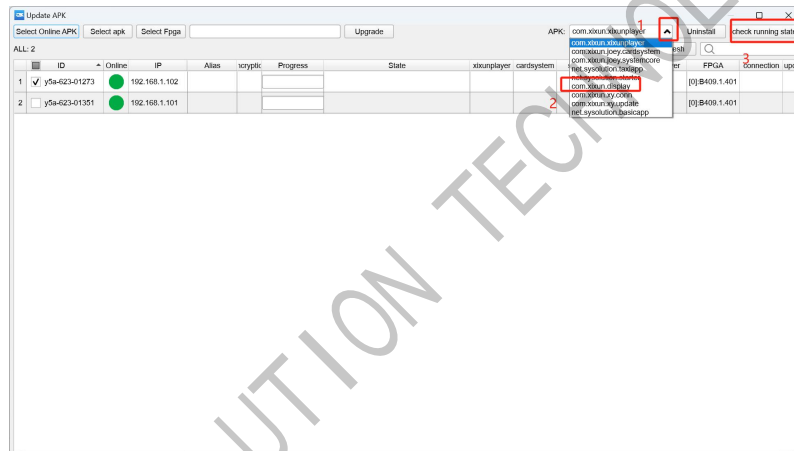


Note: Please make sure to install the display apk when using ledset 4.0.

Step 1: Tick the card, click 'Firmware management' .

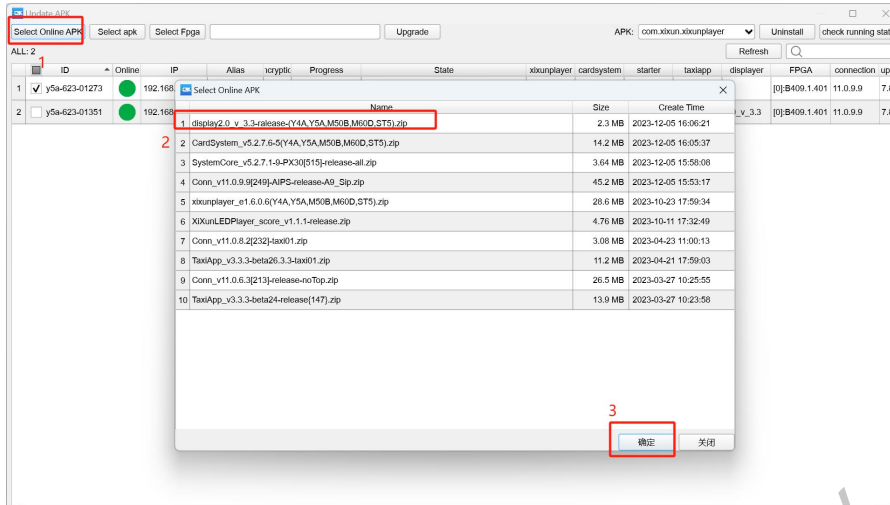


Step 2: Check whether display is running, click com.xixun.display, click 'check running state. If the state is running, you can use Ledset4.0 normally.

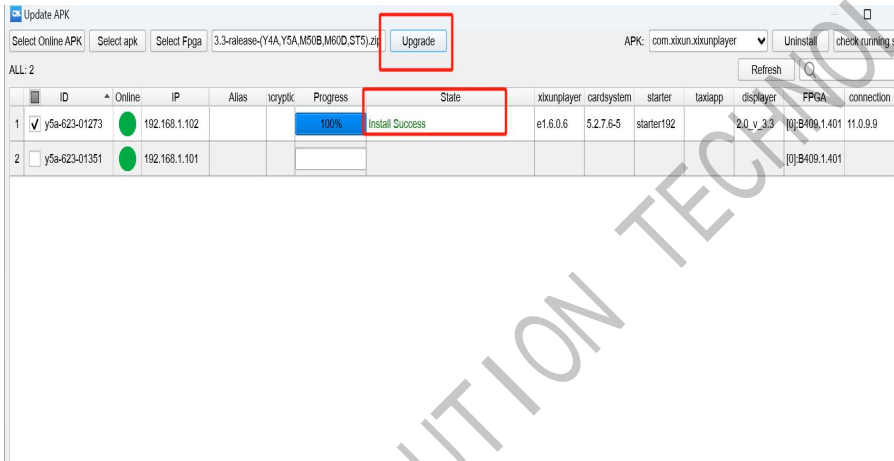


If the state is not running, follow the steps below to install display:

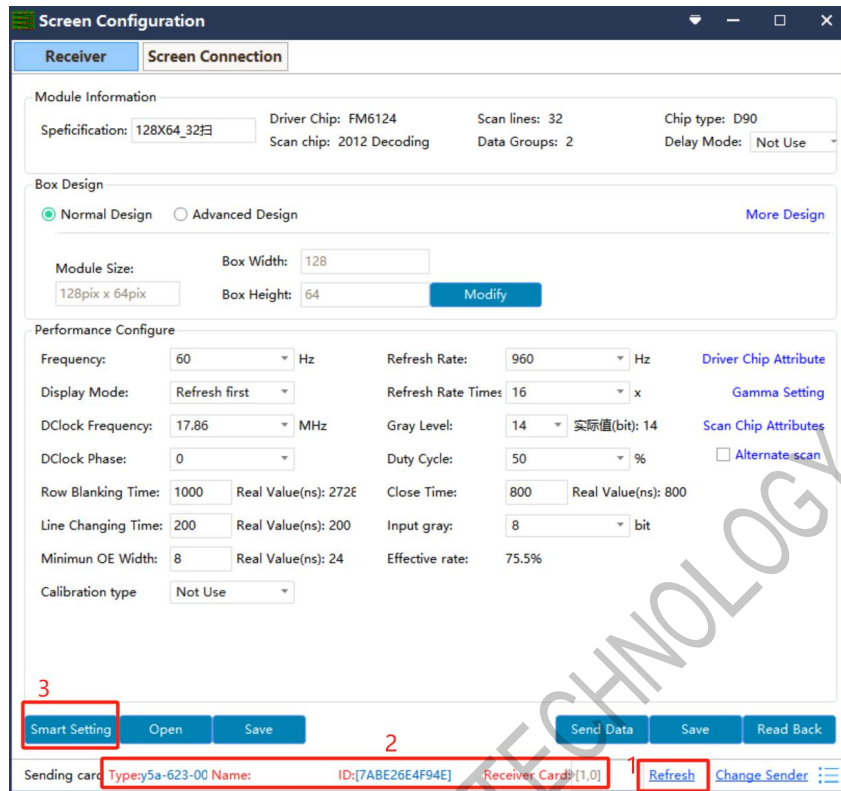
1. Click 'Select Online APK', Choose 'display', click 'ok'



2. Click 'Upgrade'. When the status is 'Install success', the display has been installed.

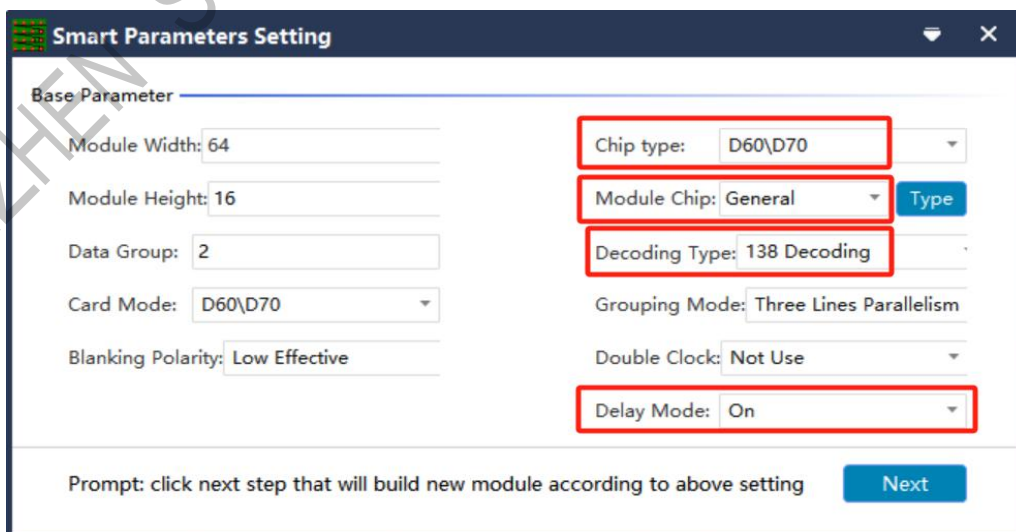


Smart Setting



Operating steps:

(1) Click on the main menu of the software 'Normal' icon, enter the receiver card configuration. click "Refresh" button and will see the cards information and receiving card number, then click on the 'Smart setting' button, according to the current LED module actual situation enter the corresponding parameters.



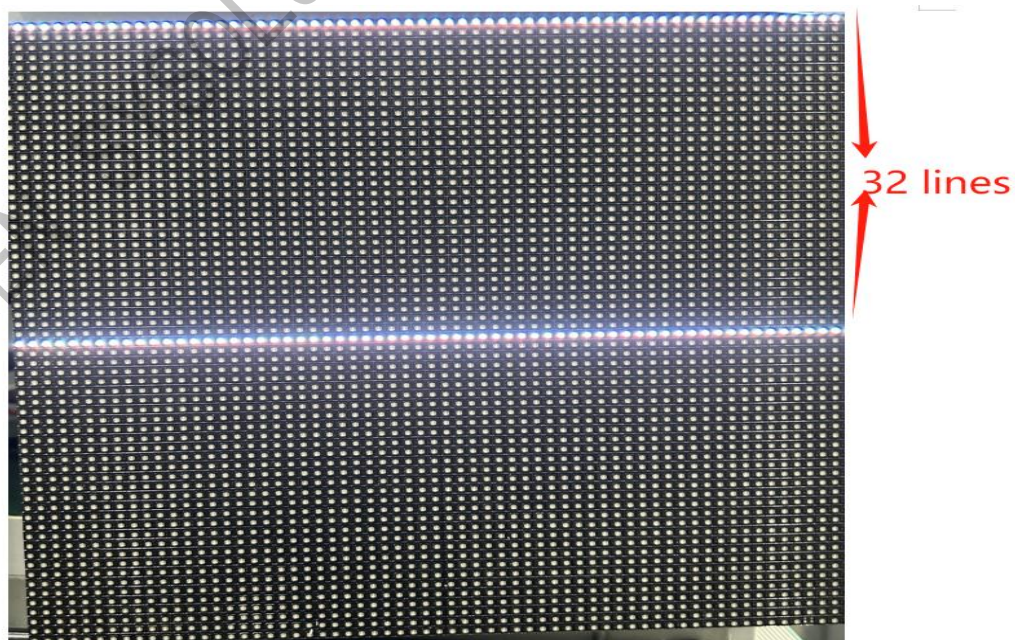
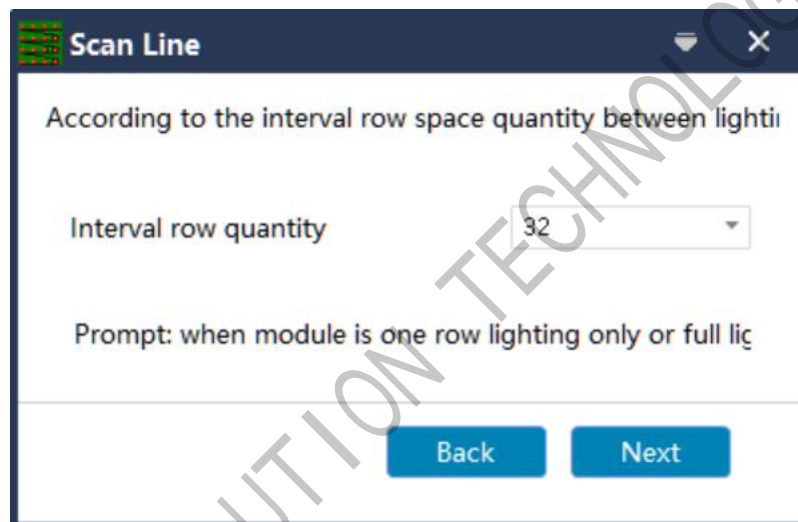
- ✓ **Module Width / Height:** Enter the actual pixel width / height of the current module.
- ✓ **Module data group:** View the module data input port interface definition, according to the module's actual number of data lines and grouping method calculation. Generally three lines in parallel, so a RGB for a group of data, such as: the module has two groups of RGB, then the module's data group is 2.
- ✓ **Card Model:** The type of receiver card currently used for debugging, you can directly view the logo on the receiver card.
- ✓ **Blanking Polarity:** Switching state 'low effective' or 'high effective', usually default.
- ✓ **Chip Type:** Select D60/D70 for debugging according to the type of receiver card currently in use.
- ✓ **Driver Chip:** Select the type of driver chip used in the current module, such as: General chip, MBI5153, ICN2053, etc. Normally for low refresh rate led module, choose General.
- ✓ **Decoding mode:** optional '138 decoding', '5958 decoding', 'high direct output' and so on.
- ✓ **Grouping mode:** View the current module data input port interface definition, such as R\G\B (red, green and blue) three color signal data, (and the module to control the red, green and blue LED driver chip is connected separately, red, green and blue chips are not connected in series), then the data type select 'three lines parallelism'; if the module only one color signal data or only one R data (except monochrome screen, and control the red, green and blue LED chips are connected in series), then select 'RGB serial'.

✓ **Double Clock:** D, E, F signals can be selected as the second clock when debugging the dual clock module, which is not used by default for debugging the normal module.

Keep default.

✓ **Delay Mode:** keep it on when use D60/D70

(4) Click 'Next' to enter the Scan Lines window. Number of rows between two bright lines plus 1 row. Select the scanning lines according to the actual display of the current module, if the led module 32scan, then choose 32; if it is 8scan module, then choose 8.



(5) Click 'Next' . Select the corresponding display color according to the status mode

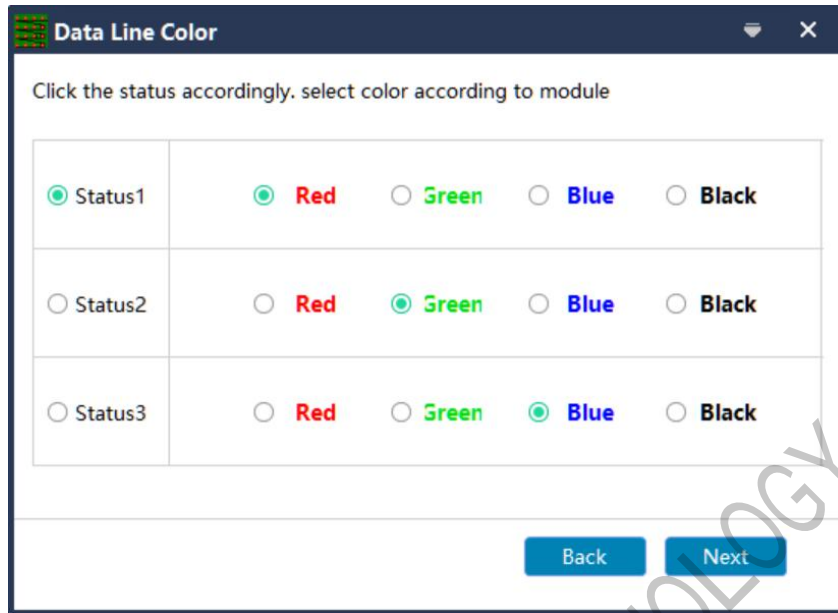
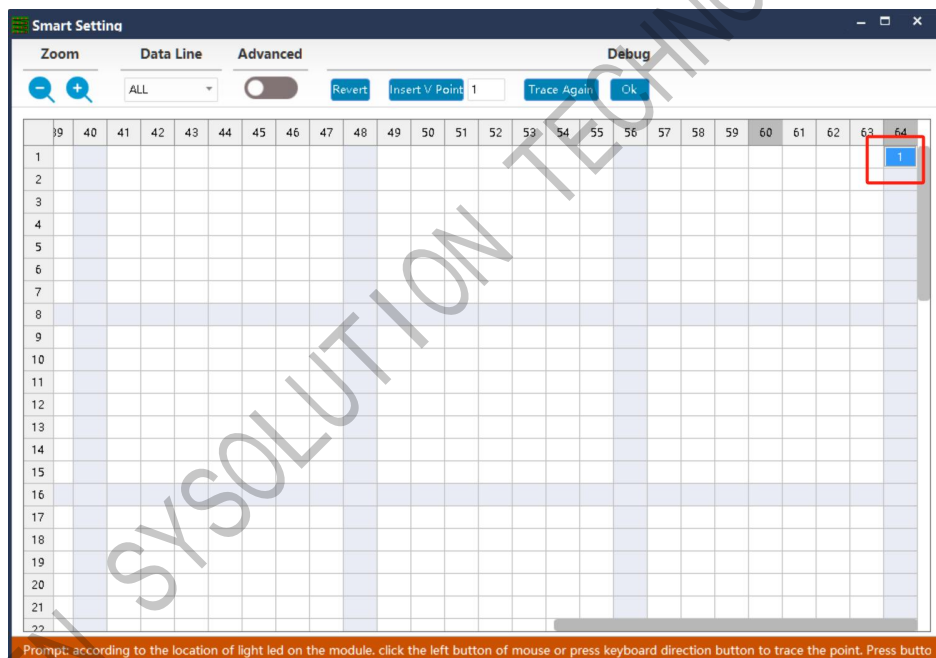
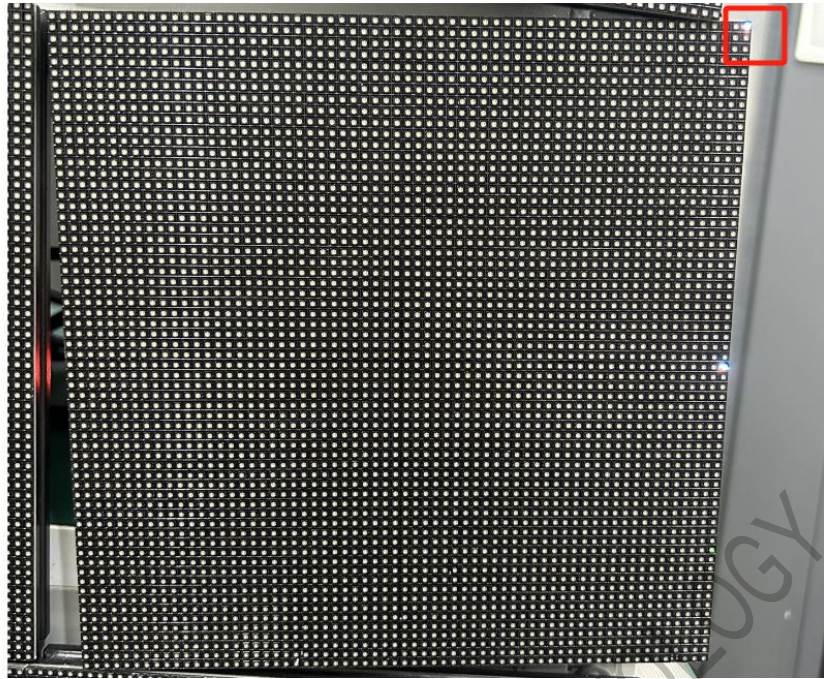
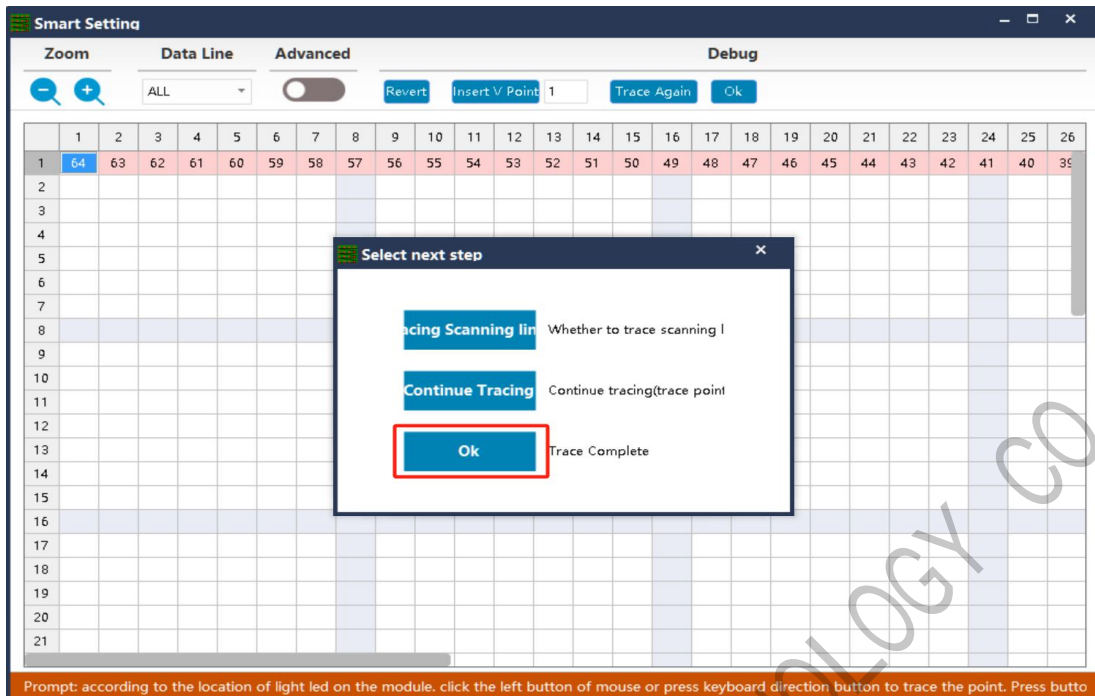


Figure 4-2-1-4 Normal screen configuration-data line color selection

(6) Click 'Next' to enter the smart setting window. According to the actual display of the current module corresponds to the point (if the module does not have pixel point blinking, please connect the LED module to the first data interface of the receiver card or change the data cable to all interfaces, or try to insert the virtual point to try).

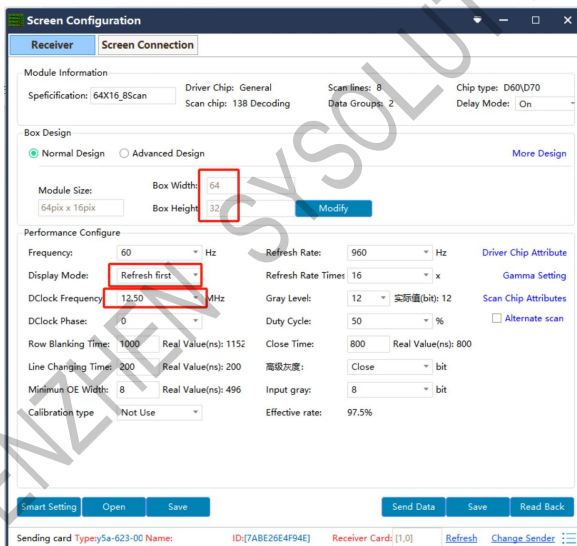


(7) Smart settings will be prompted after the completion of the window, and then click the 'trace complete' button, and then send the data to the screen

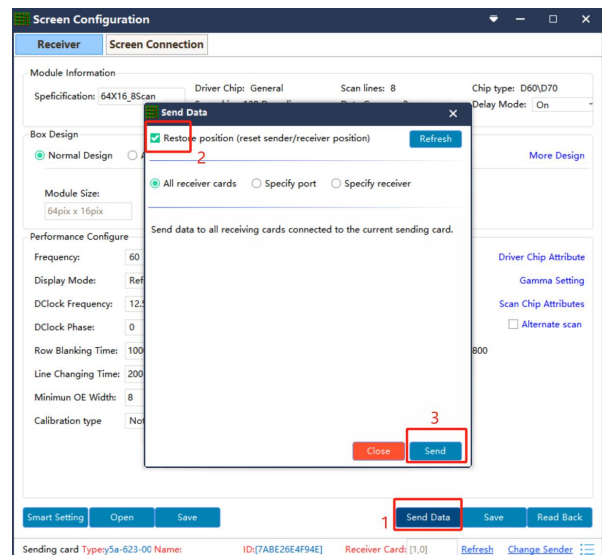


Receiver Configuration

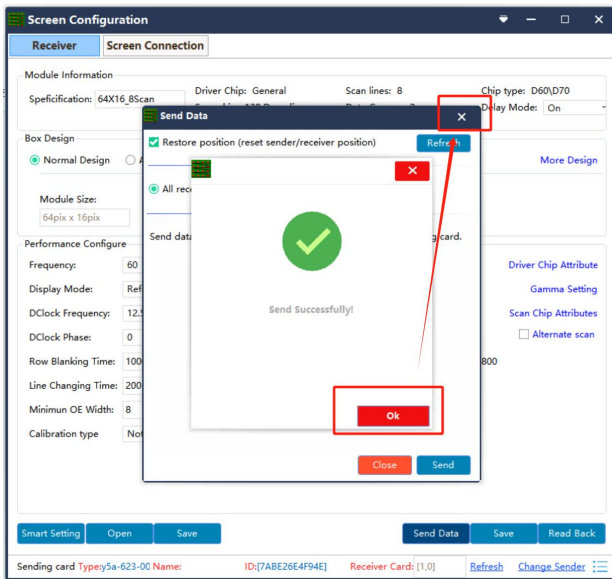
Jump back to Receiver settings and then change the box design first, choose Refresh rate first and other parameters keep default, then click the Send button in the bottom, and then click Save button to solidify the parameters ,



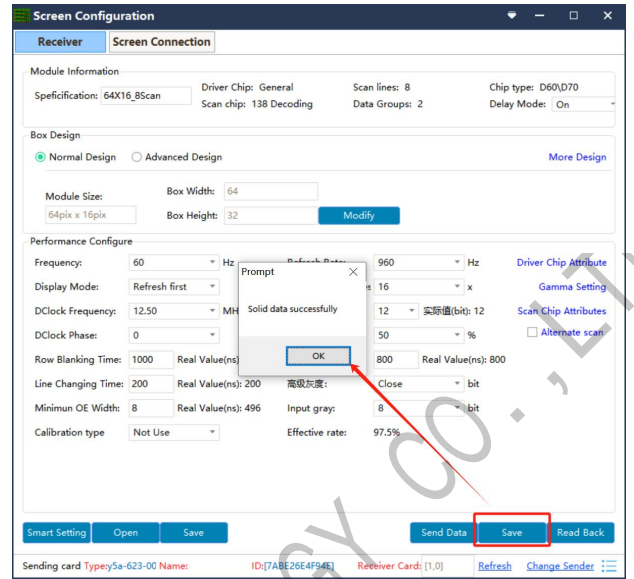
1



2



3



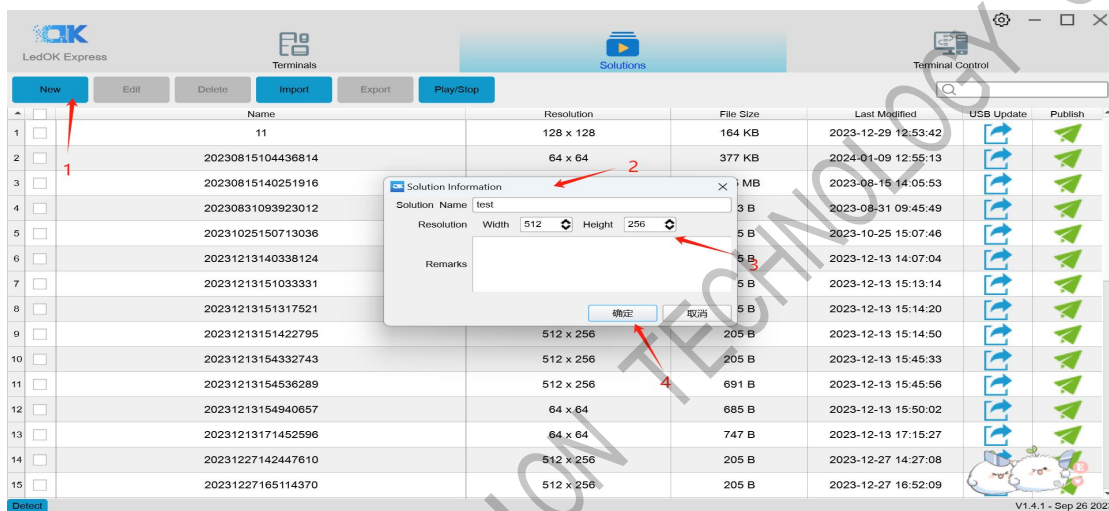
4

Notes : Refer to the LedSet4.0 operating manual for more details.

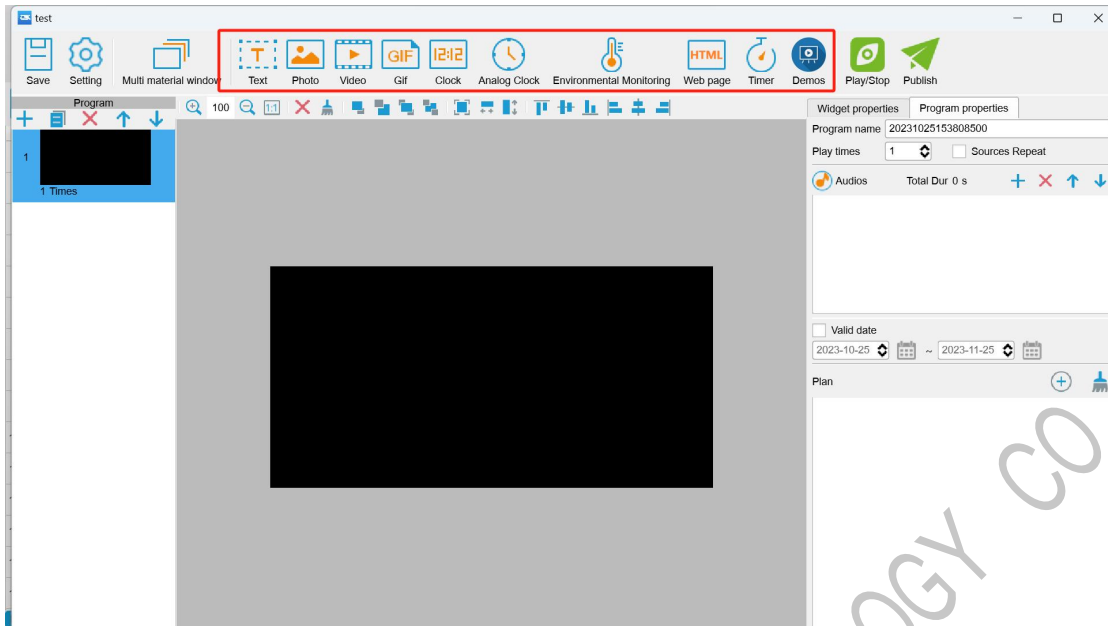
SHENZHEN SYSOLUTION TECHNOLOGY CO., LTD.

LEDOK Upload /Publish Program

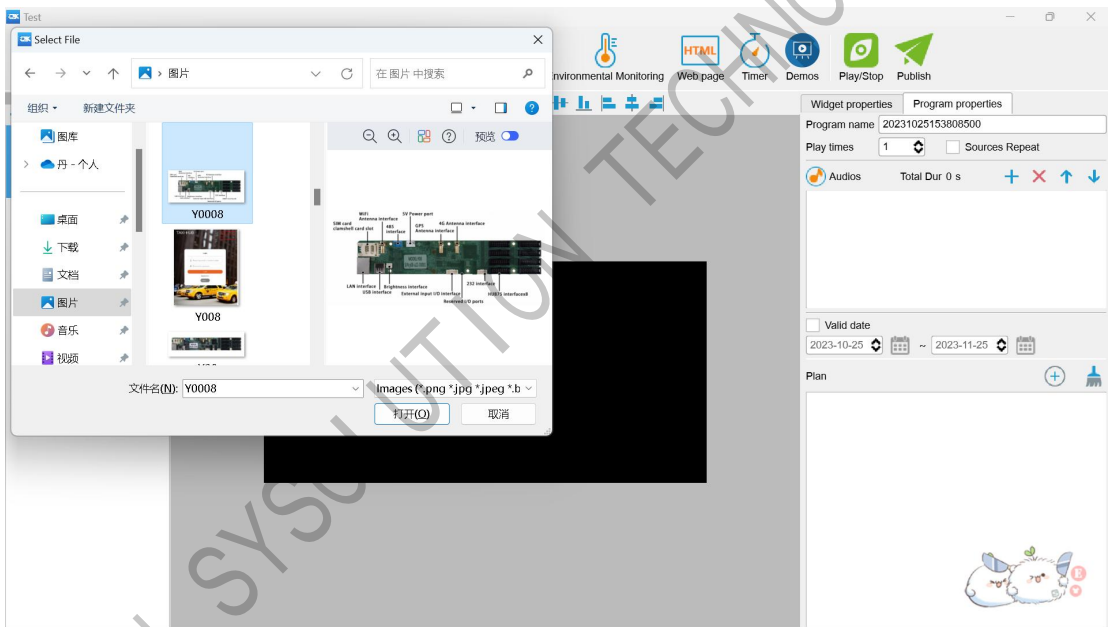
1. Open the program management interface, its name is Solution in software, then click 'New' , input the program name and size information in the dialogue box and enter the editing interface.



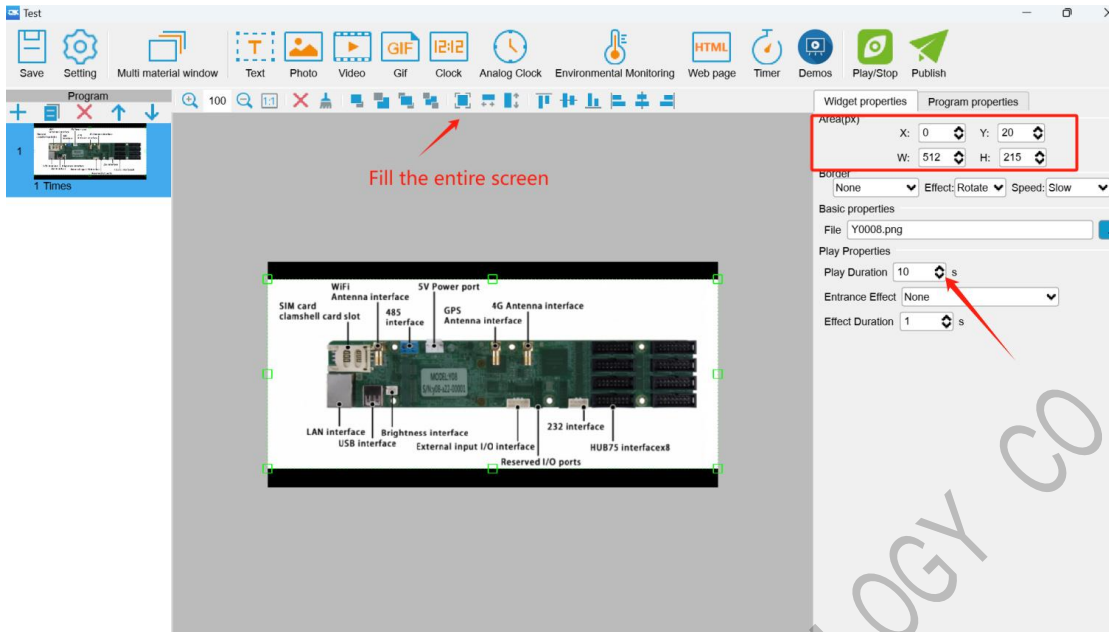
2. As shown in the figure, the top is the type of material that can be added, you can add video, pictures, text, digital clocks, analog clocks, etc., according to the need to choose, this article to pictures and videos as an example.



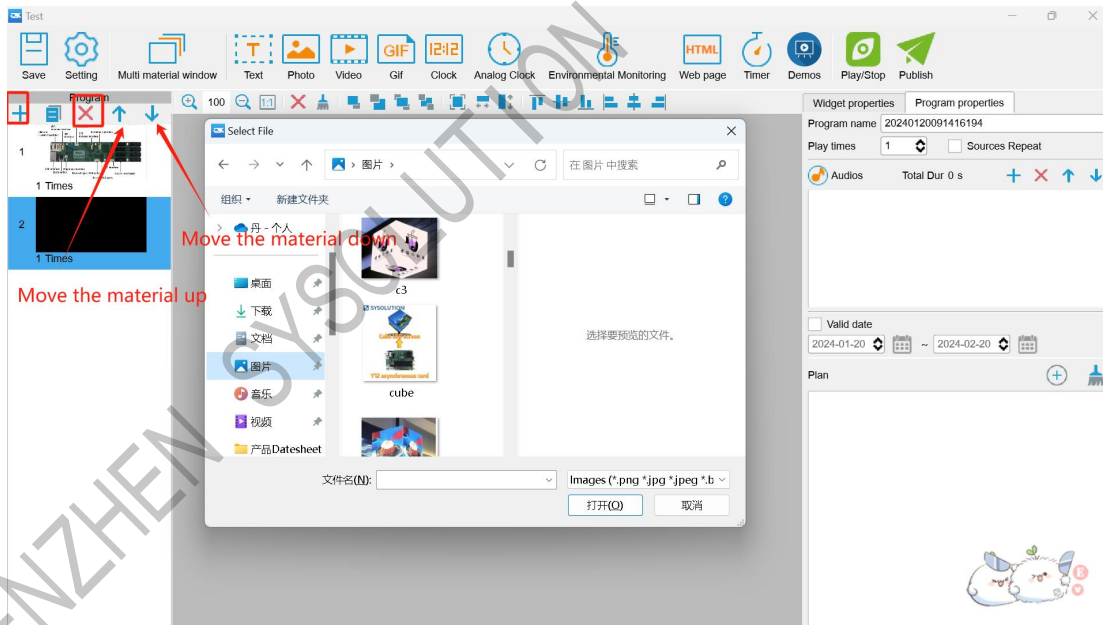
3. Click on the picture and select the picture you want to play.



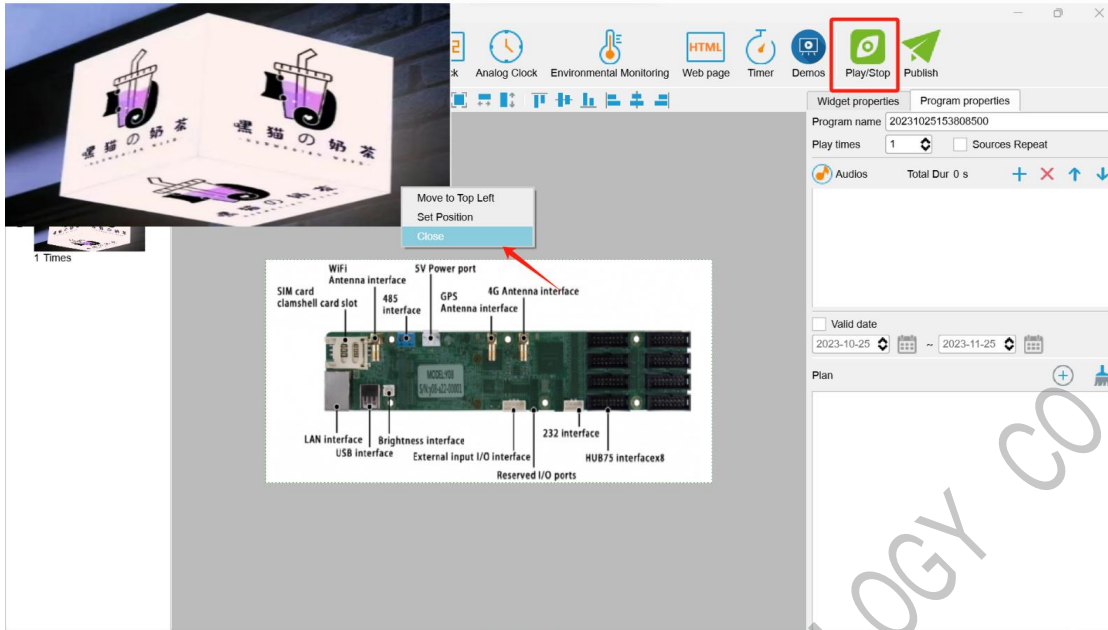
4. After the photo is added, you can click 'full screen' to make the photo spread all over the screen, or you can set the size of the material to make it full screen in the component properties on the right side. The default playback time of the added photo material is 10s, if you need to change the playback time, you can change it in the widget properties.



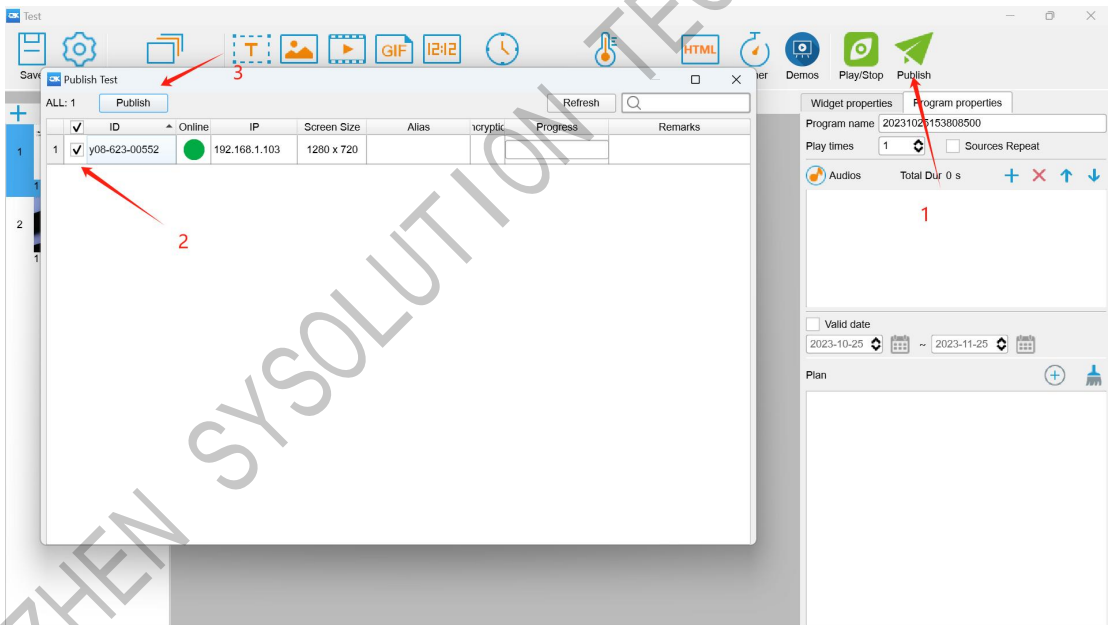
- Click the '+' at the top left to add a second material and the 'X' to delete the material page.

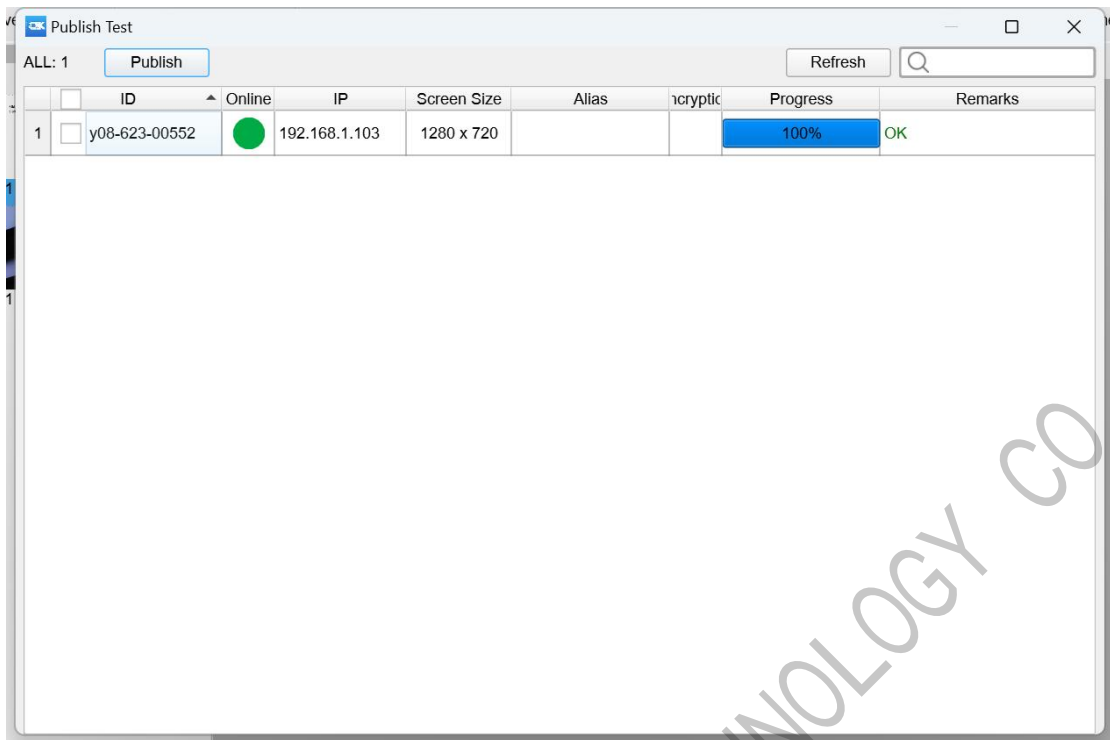


- When the program is finished, you can click 'Play/Stop' on the top to preview the program. You can close the preview by clicking the right mouse button.

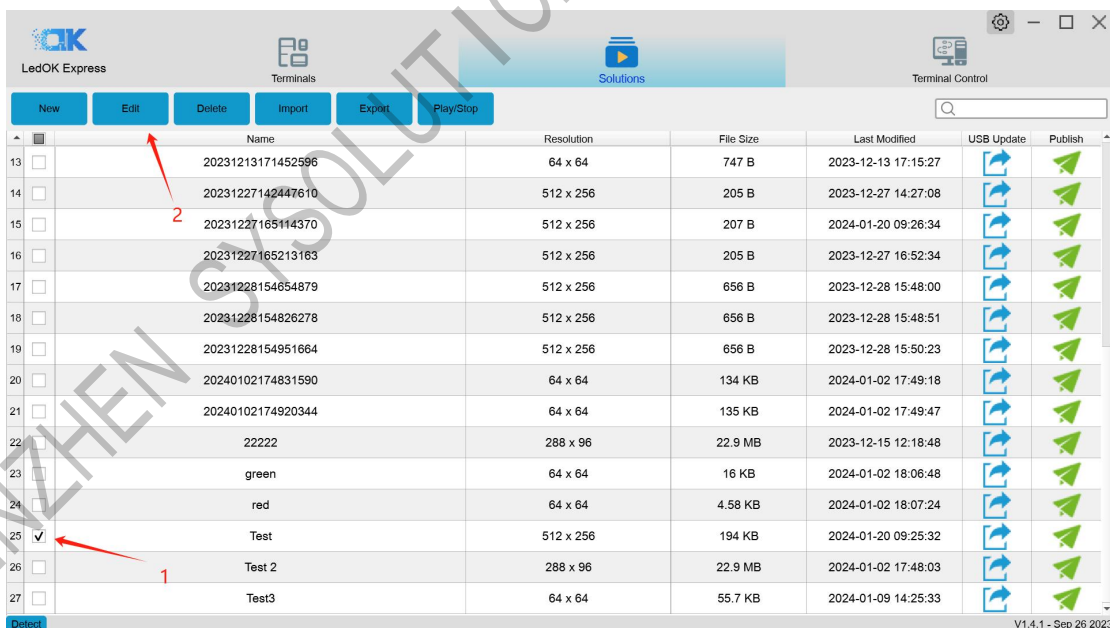


- Click publish button after done all setup, and select the controller id and click send, 100% means send success.





8. The finished program will present in the solution management. At this time, you can check the program and click "Edit" to enter the program page again to modify the program, and then follow the above steps to send the program.

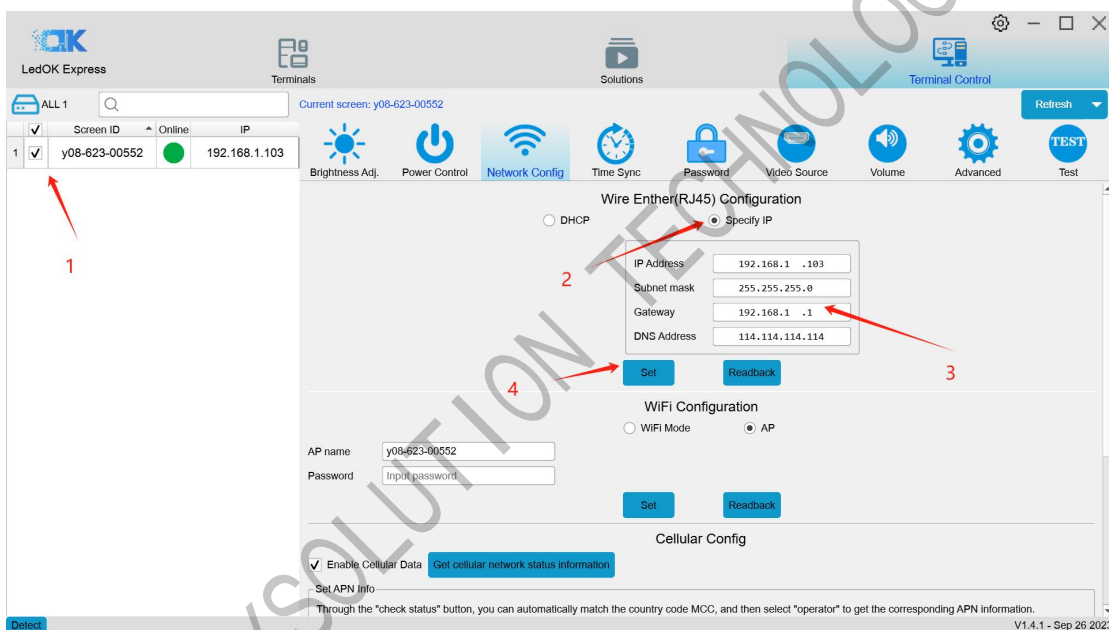


Network Configuration

There are three ways for the controller to access the network, which are Wired Ethernet, WiFi and 4G. Different models of controller according to the application to choose the way to access the network (one of the three options).

Wired Ethernet Configuration

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.
- 3.

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.

Check 'WiFi' and wait for about 3 seconds, then click "Scan" to scan for available WiFi.

Select WiFi and enter the password, then click 'Save' to save the WiFi configuration to the controller.

NOTES:

If there is a network cable inserted into the controller at this time, you need to unplug the cable. If there is a WiFi dip switch on the controller, you need to dial the dip switch to the WIFI position, and the controller will automatically connect to the configured WIFI hotspot.



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 (www.ledaips.com) 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.

4G Setup

Check 'Enable Cellular Data' and select the country code MMC through the drop-down frame. Select 'carrier name' to get the APN information, and the specific identification of the carrier is shown in Figure 2; if you can't find the carrier, you can manually input the carrier information and APN information.

Click 'Set', after success, wait for about 3 minutes for the controller to automatically unplug the 4G network into the network; observe the 'internet' light of the controller flashing evenly and slowly, that is to say, it has been accessed to the cloud platform.

If the 'internet' light does not flash, check whether the APN is set correctly. If there is no error, you can reboot the controller and wait for it to go online.

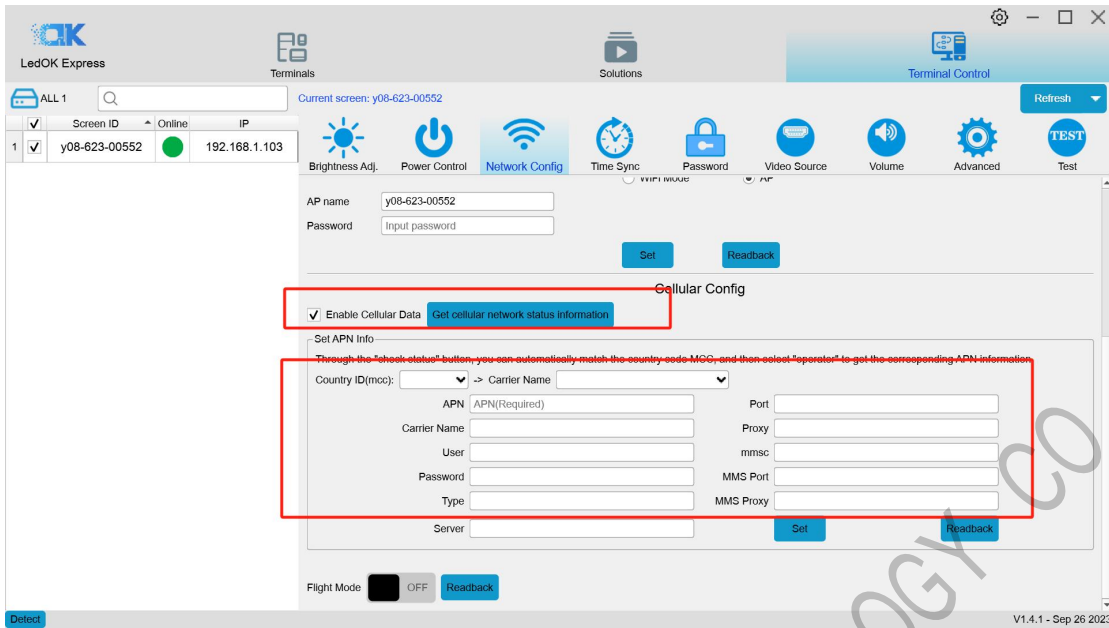


Figure 1



Figure 2

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

- A. 4G antenna has plugged correctly?
- B. Y/M series controller, make sure the LAN cable removed.
- C. APN is correct or not? (Consult with the carrier" available)
- D. SIM card has activate? SIM card has enough money and 4Gdata service?

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.

USER LOGIN

LANGUAGE

English

ADMIN ACCOUNT

Admin Account

ADMIN PASSWORD

Admin Password

Login

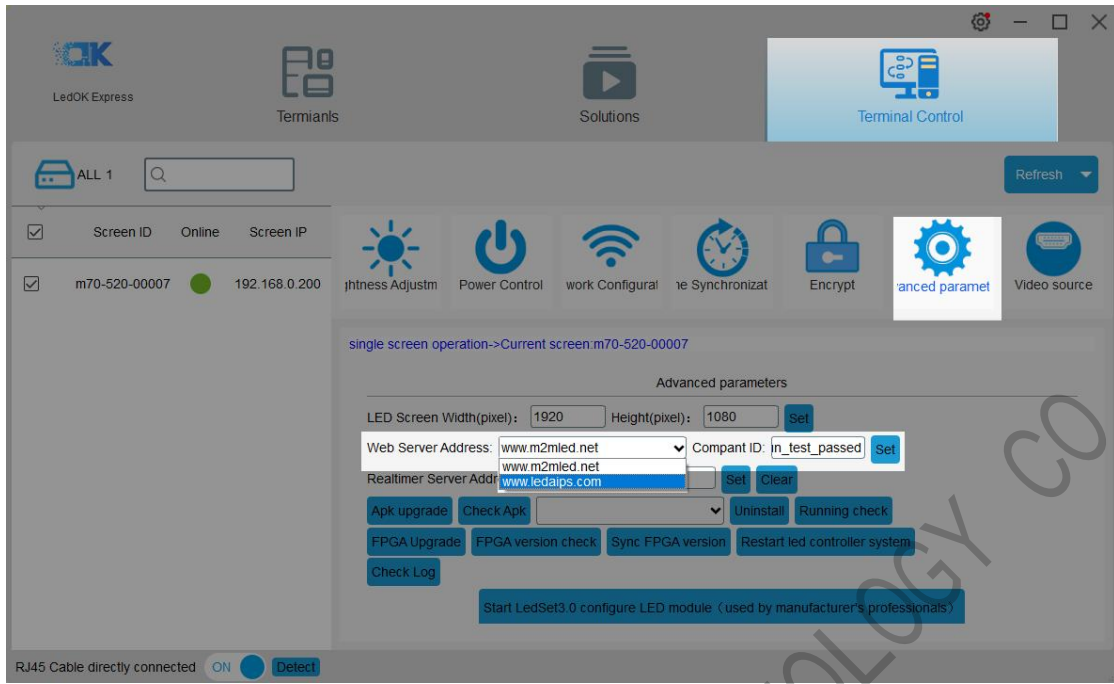
[Reset password](#) [Join](#)

[Download guide video and documents](#)

SYSOLUTION

We currently recommend the use of Google Chrome for the best experience.
[Click here to download](#)

Oversea address: www.ledaips.com



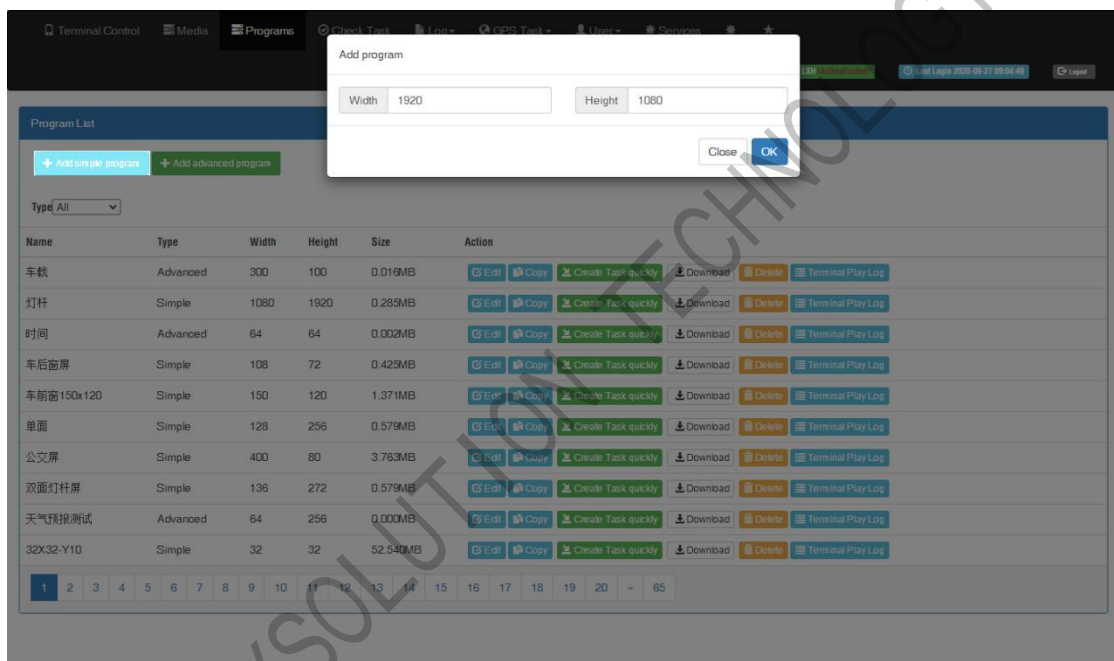
SHENZHEN SYSOLUTION TECHNOLOGY CO., LTD

AIPS Cloud Programing

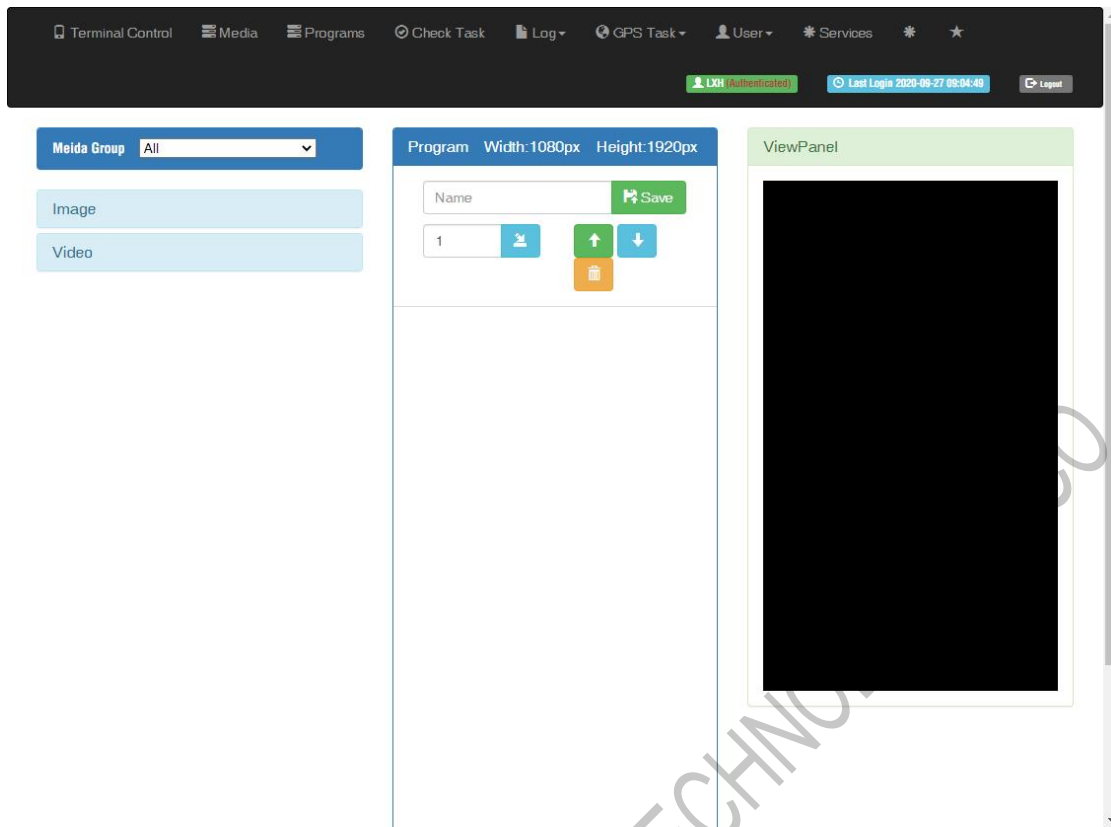
Simple Program

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

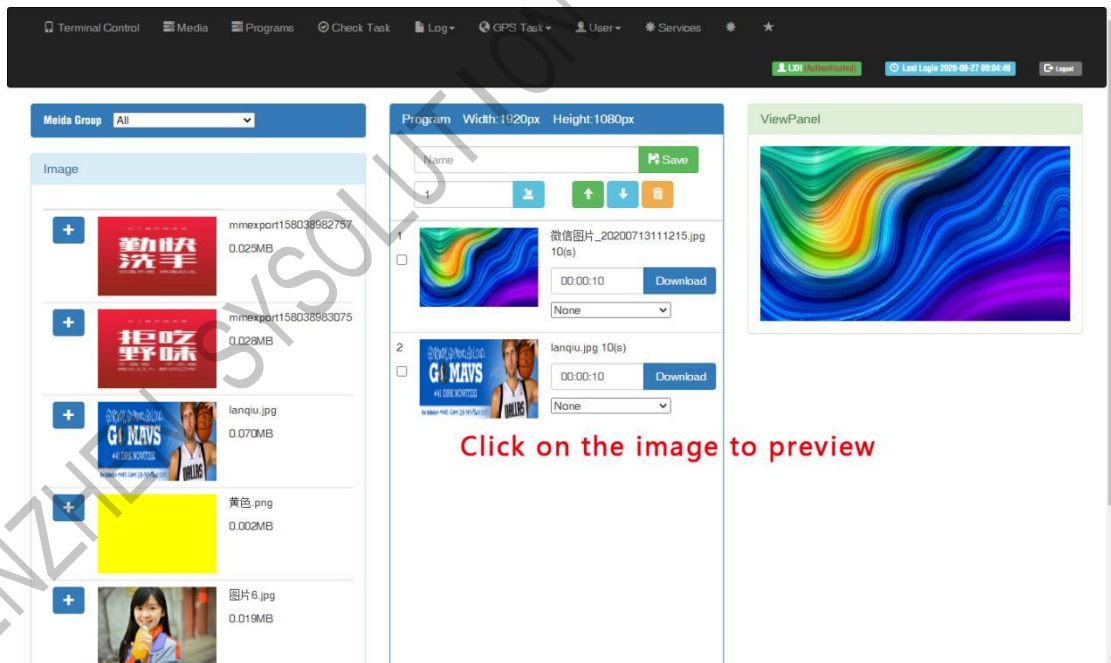
1. Click “add simple program” button and set correct screen width and height pixels and click OK.



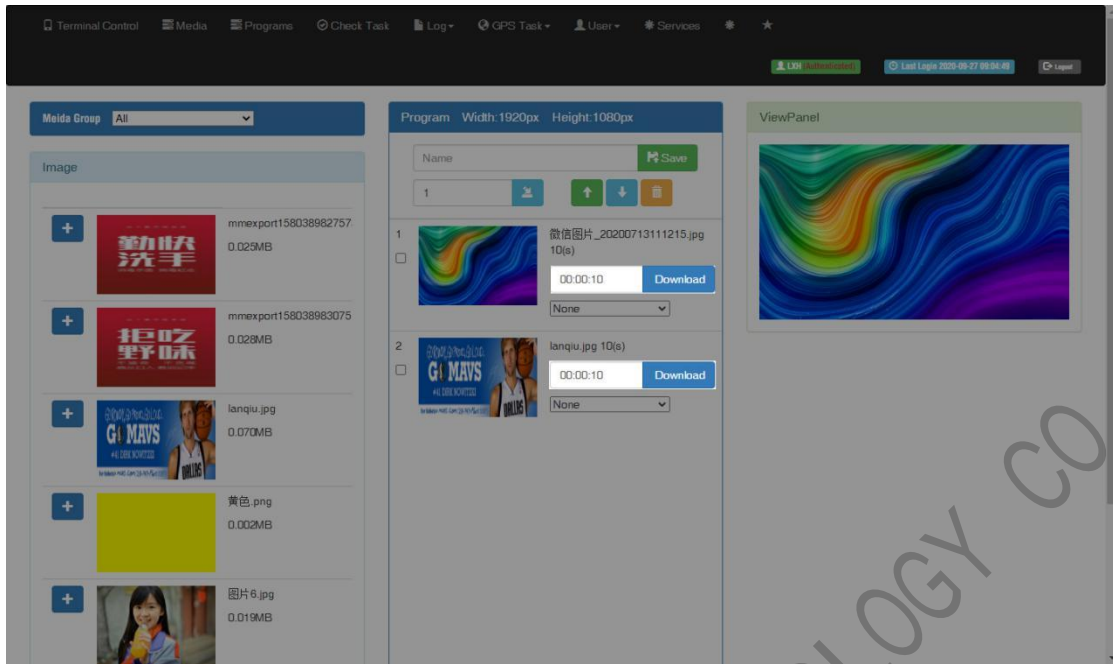
2. Input program name and select the material from left side , here are 3 zones including material in the left side , program editing in the middle and preview window in the right side.



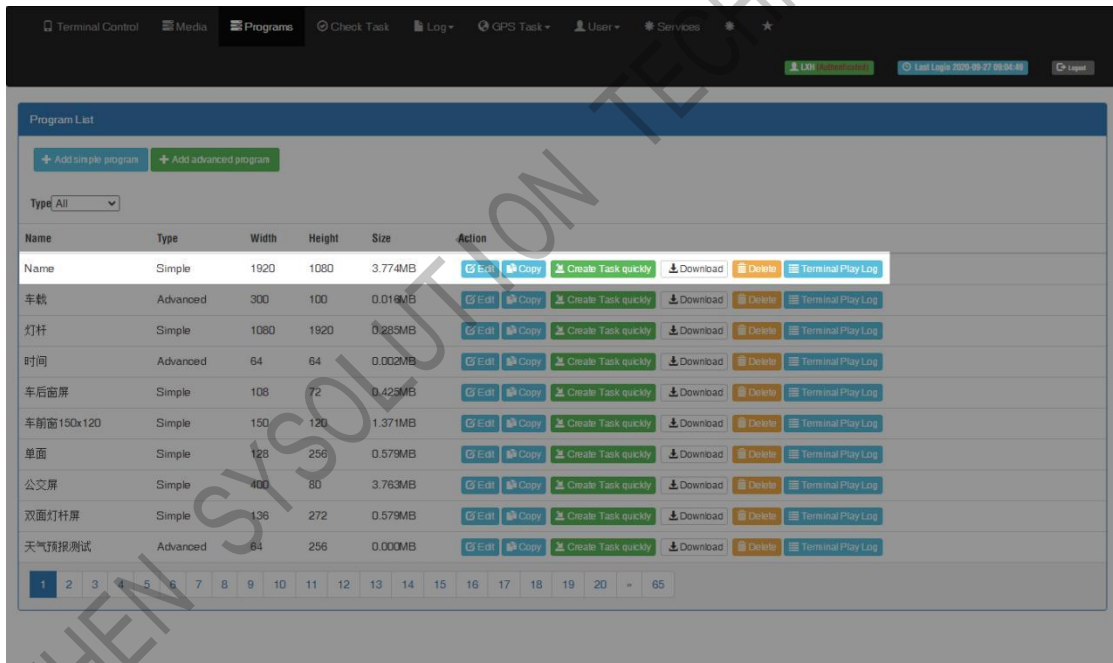
3. Choose materials and set program name, can check preview in the right window.



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



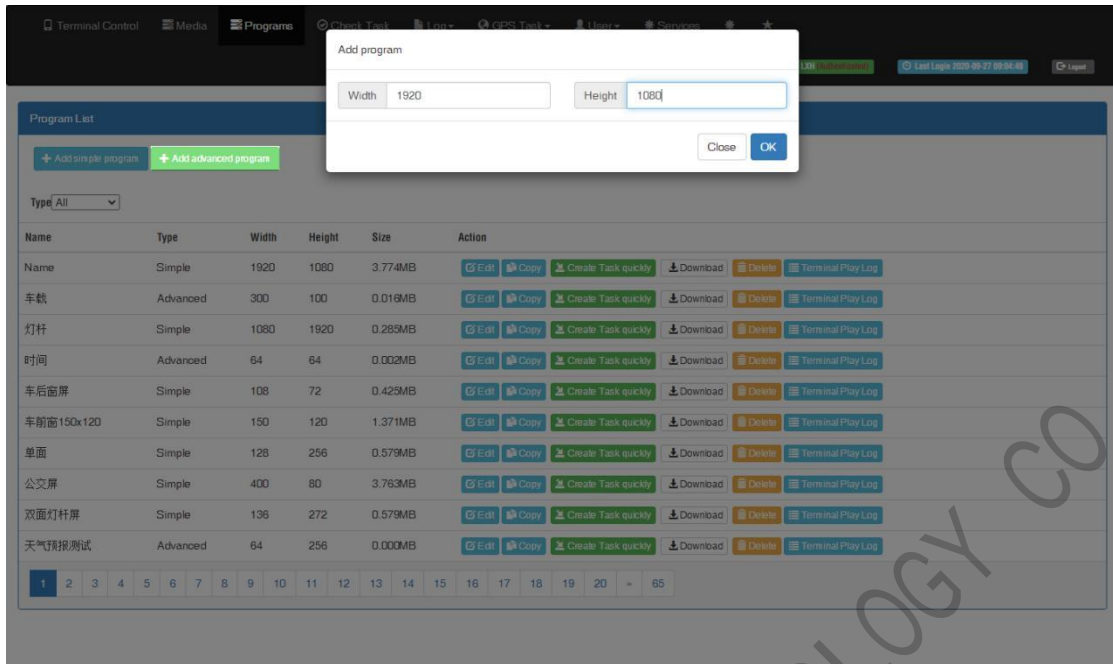
5. Will see program in the list after save.



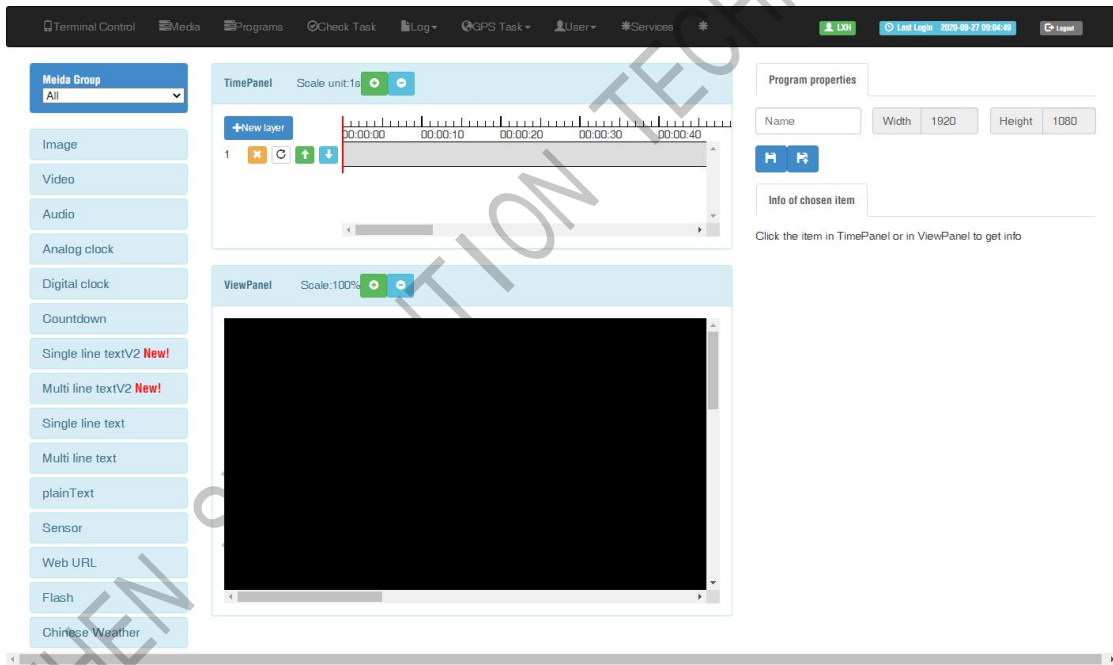
Advanced Program

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

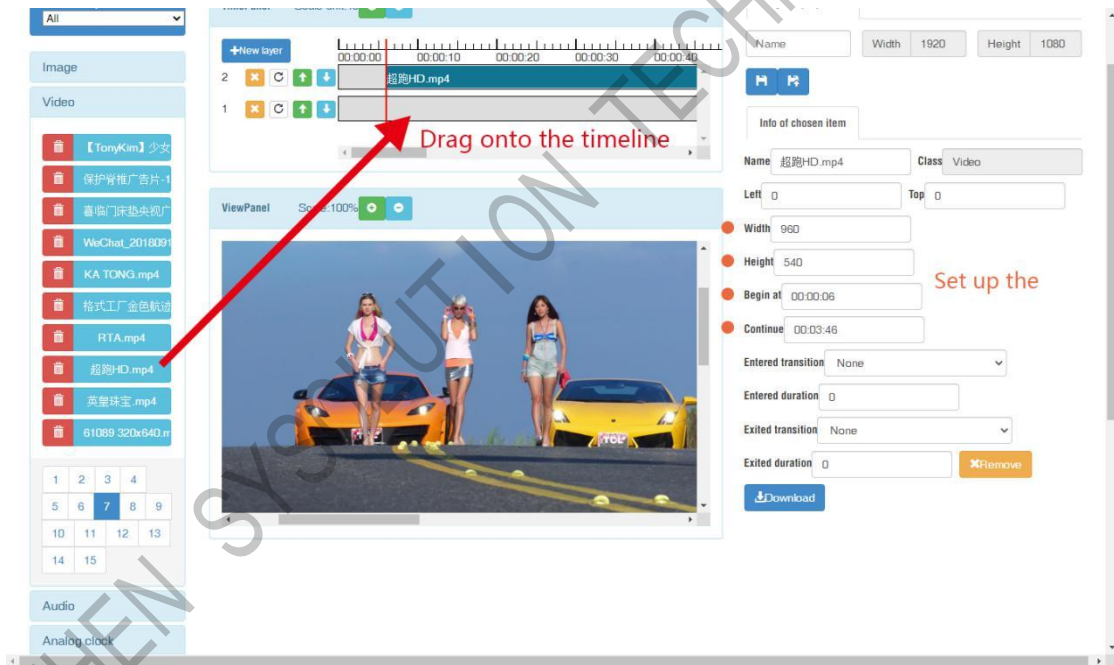
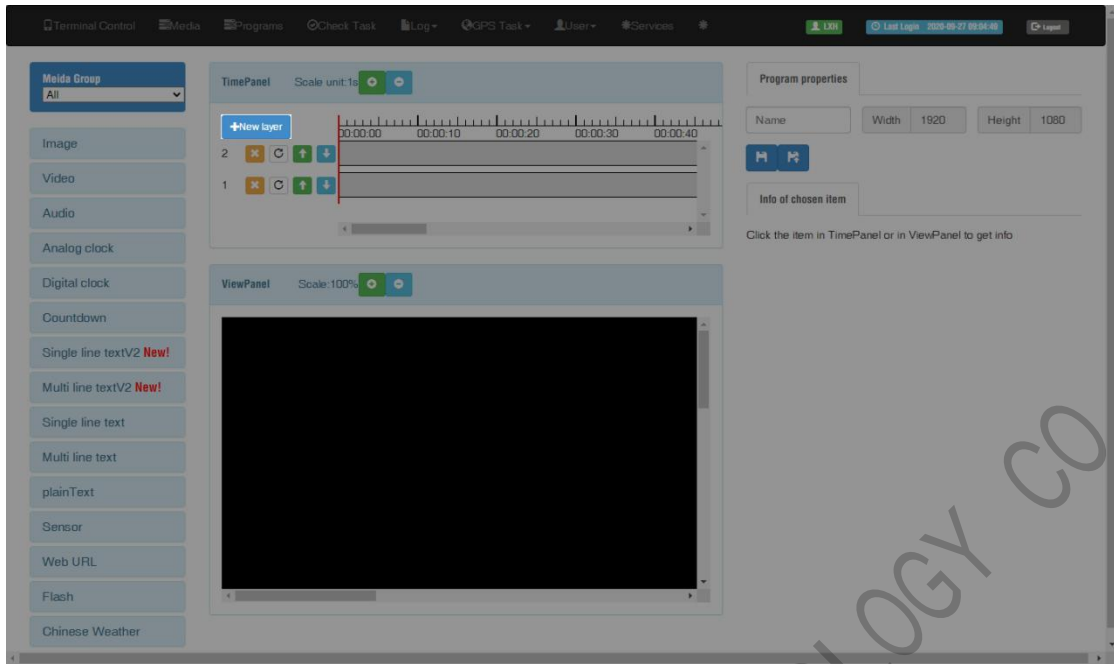
1. Click "add advanced program" button and set correct screen width and height pixels, click ok.



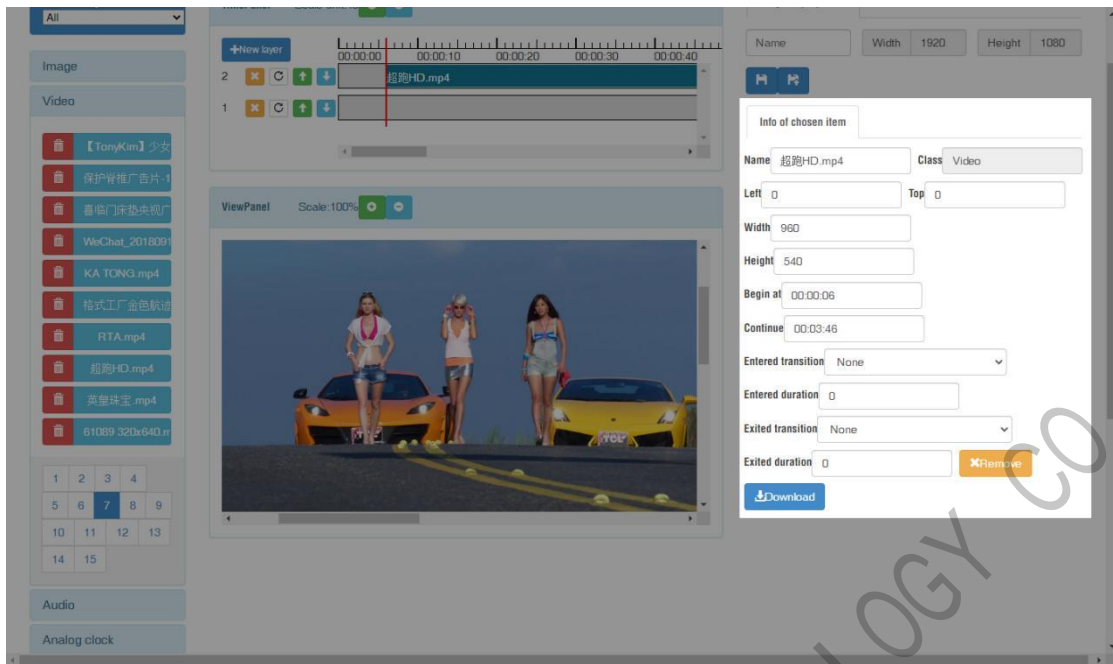
Here are 4 zones including media group, time panel, preview and program property.



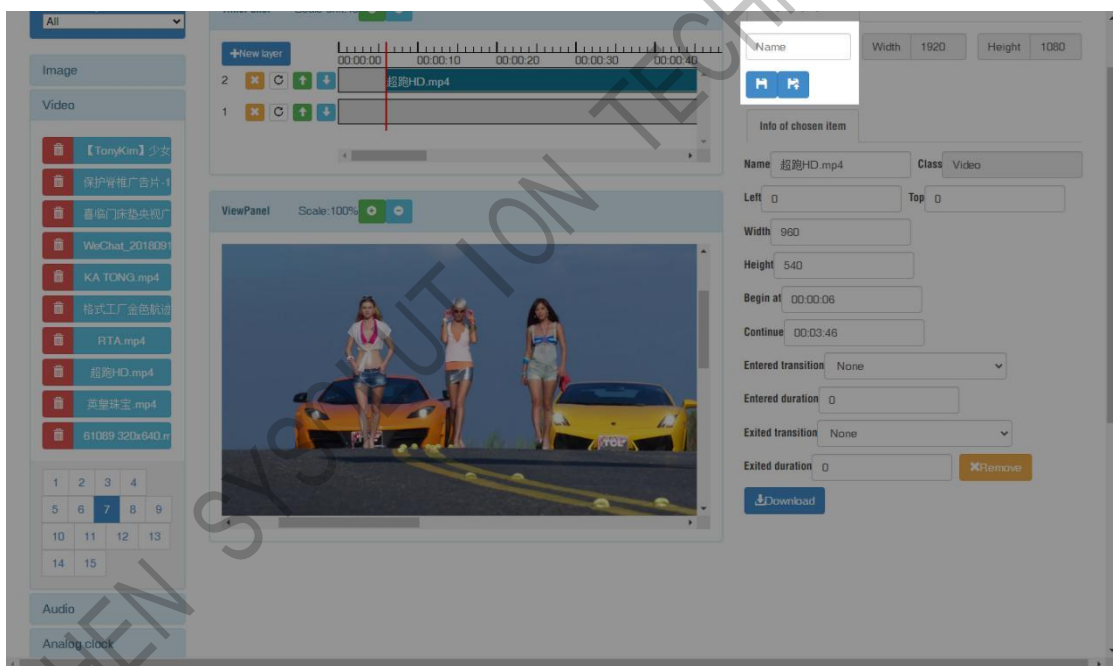
- Click "New layer" button and select media file then add to the time panel, for example: select video file and add to time panel.



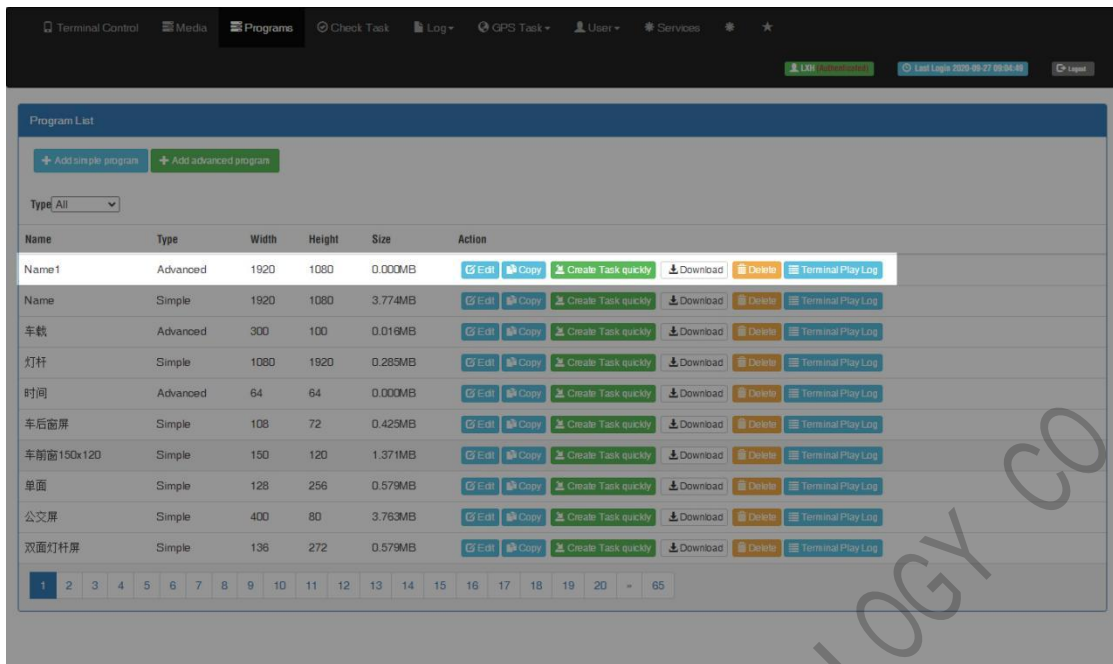
3. Can set the program parameters, start and end time,



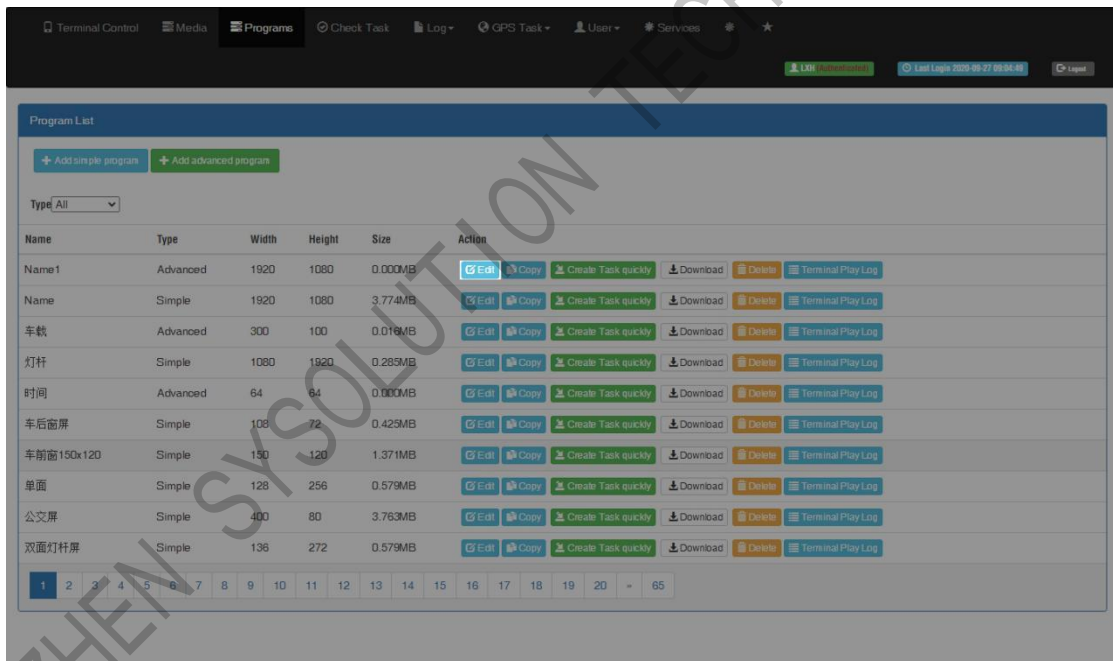
4. Save and quit after setup all parameters and program name.



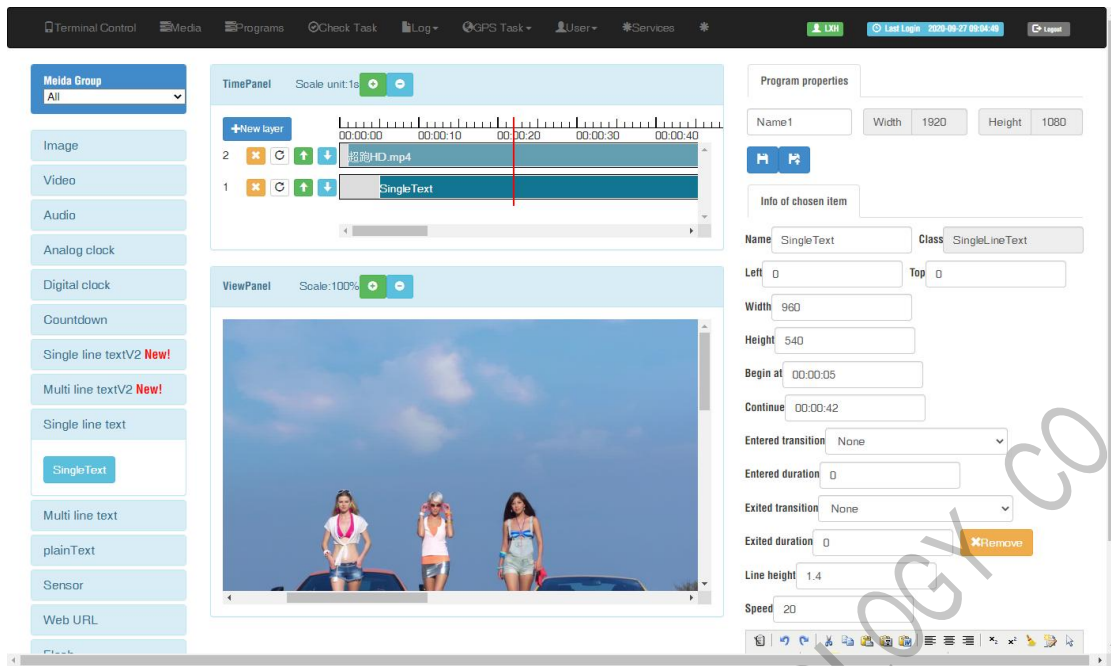
5. Then jump to program list interface , you can click green button of create task quickly and then select controller and send.



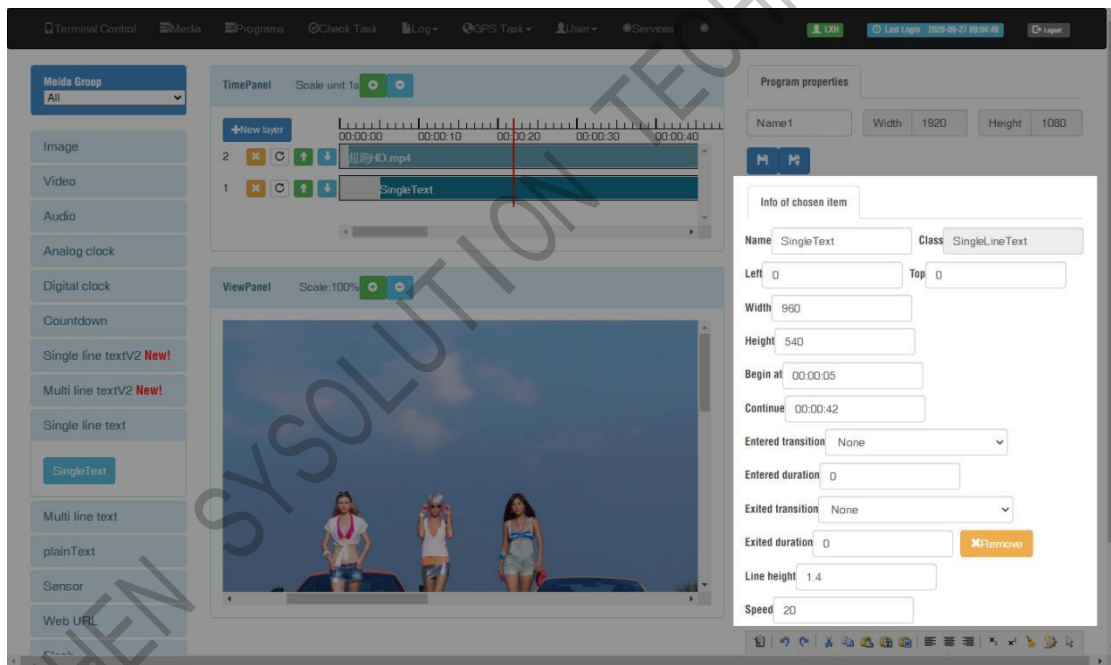
Use the "Edit" button to modify the existing program.



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



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



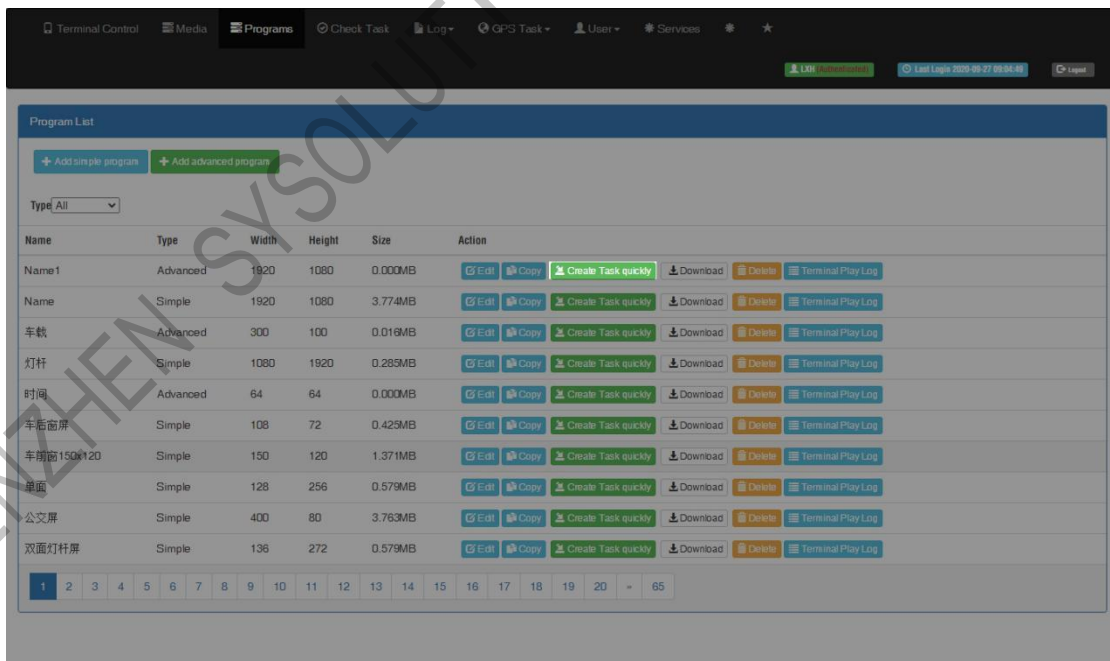
Setup the text color, font size and add more pages, please pay attention to our TIPS message in below, save and quit after finish.



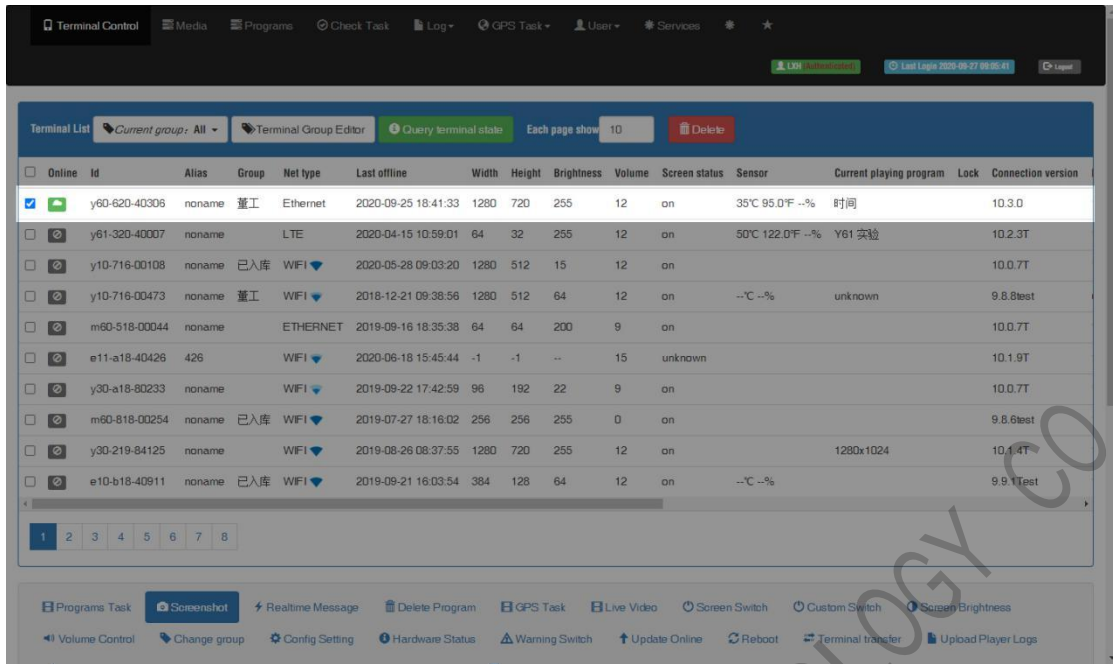
Hint Press Enter to separate next page, Press Shift + Enter to new a line. Define the following string instead of the value of sensors in terminal: %c is celcius, %f is fahrenheit, %h is humidity, (%c1 %f1) or (%c2 %f2) round to 1 or 2 digit(s) after the decimal point

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



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

