SYSOLUTION

LCD Controller

L30S Instructions

Version：Ver.1.0

Statement

Dear user friend, thanks for choosing Shanghai Xixun Electronic 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.

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Update Record

No.	Version	Details	Date
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Note:The document is subject to change without prior notice.

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Overview

L30S board Integrated HDMI/LVDS/EDP/Vby1 display interface, Ethernet/WIFI/BT/4G expansion interface in one, which greatly simplifies the whole machine design. Support most of the current popular video and picture format decoding, can drive a variety of TFT LCD display. It is more stable and widely used in AI servers, face payment devices, security, medical, transportation, finance, industrial control, smart education, smart retail and other AI intelligence fields.

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Functions And Features

1. High integration: Integrated HDMI/LVDS/EDP/ Vby1/Ethernet/WIFI/Bluetooth in one, simplify the whole design, TF card can be inserted, built-in PCI-E 3/4G module interface;
2. High stability: In the hard and software, increase the self-developed technology to ensure the stability of the product, which can make the final product reach 7*24 hours unattended;
3. Rich expansion interfaces: 6 USB ports (4 pins, 2 standard USB ports), 4 serial ports (can be changed to RS232/RS485), GPIO/ADC interface, can meet the requirements of various peripherals on the market.
4. High-definition: Maximum support 3840 × 2160 decoding and LCD display with various LVDS/EDP interfaces;
5. Complete functions: Support dual-screen display different， horizontal and vertical screen playback, video split screen, scrolling subtitles, timing switch, USB data import and other functions;
6. Convenient management: The user-friendly playlist background management software is convenient for advertising playback management and control. it is easy to understand the playback situation through Play log;
7. Software: LedOK Express.

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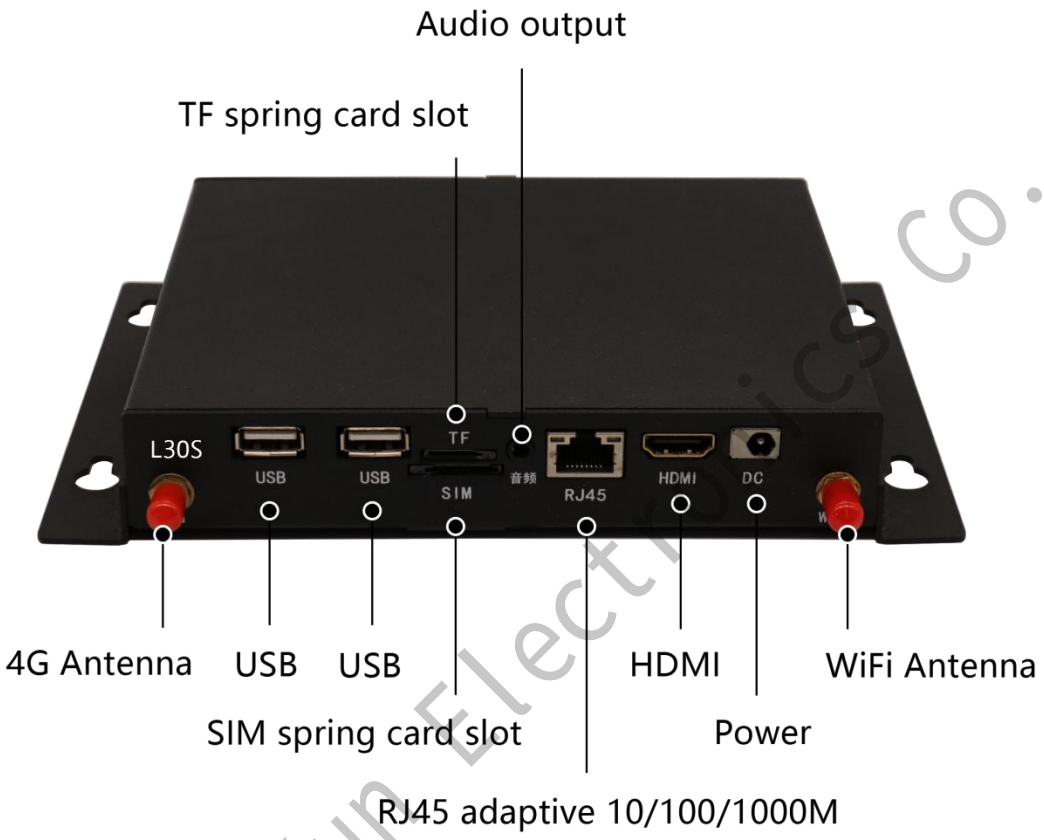
Interfaces



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Technical Parameters

Main Hardware Indicators	
CPU	Quad-core 64-bit Cortex-A55, up to 2.0Ghz
GPU	ARM G52 2EE supports OpenGL ES 1.1/2.0/3.2, OpenCL 2.0, Vulkan 1.1
Memory	Standard 2G
Internal memory	EMMC 16G as standard
Display	Support EDP/HDMI2.0/LVDS/ Vby1
Operating System	Android 11
Play Mode	Support loop, timer, interpolation and other playback modes
Network Support	100M adaptive Ethernet, support WiFi/Bluetooth 4.0, built-in 4G PCI-E interface
Multimedia	Support 4K 60fps H.265/H.264/VP9 1080P 100fps H.265/H.264 video decoding
USB Interface	USB 3.0/USB2.0 1 each, 4 built-in USB sockets
Serial Port	4 TTL serial sockets (can be changed to RS232 or 485)
LVDS Output	1 single/dual channel, can directly drive 50/60Hz LCD screen
EDP Output	1, up to support 1920 * 1080 output

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HDMI Output	1, support 1080P@120Hz, 4kx2k@60Hz output
V-By-One interface	1, support 4kx2k@60Hz output (optional)
CTP interface	1 I2C touch screen interface
Audio and video output	Support left and right channel output, built-in dual 8R / 5W amplifier
RTC real time clock	Support
Timer Switch	Support
System Upgrade	Support SD card/computer update
Working temperature	-20°C-70°C, 5°C~35°C recommended

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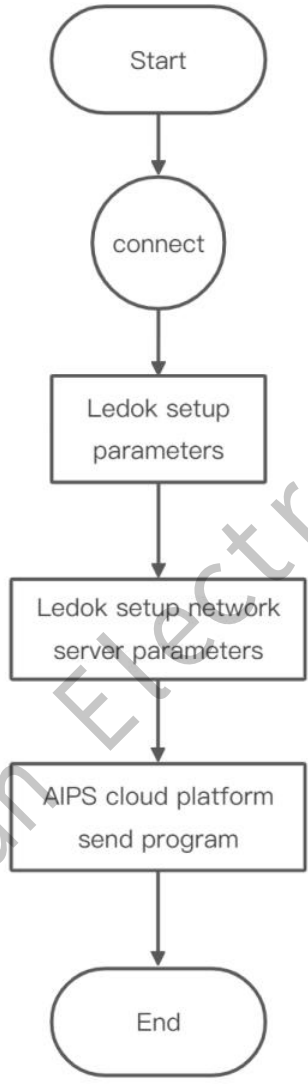
Software Operation Procedures



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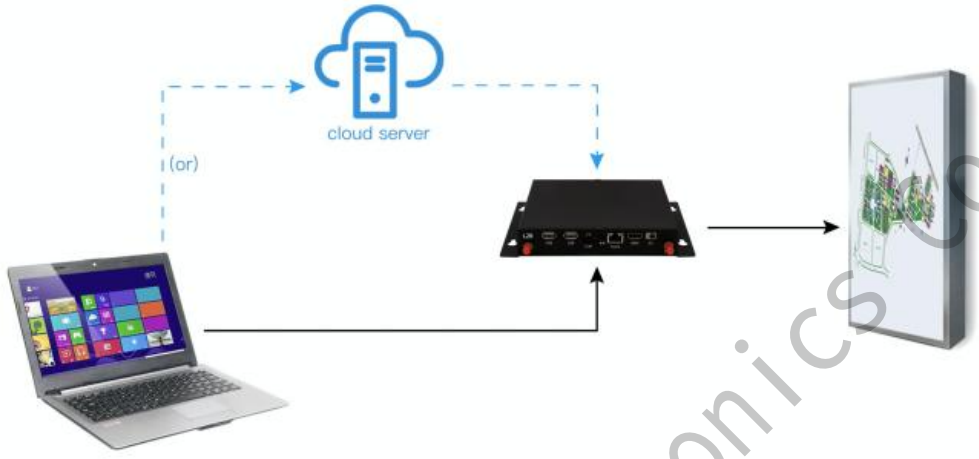
Hardware Connection Diagram



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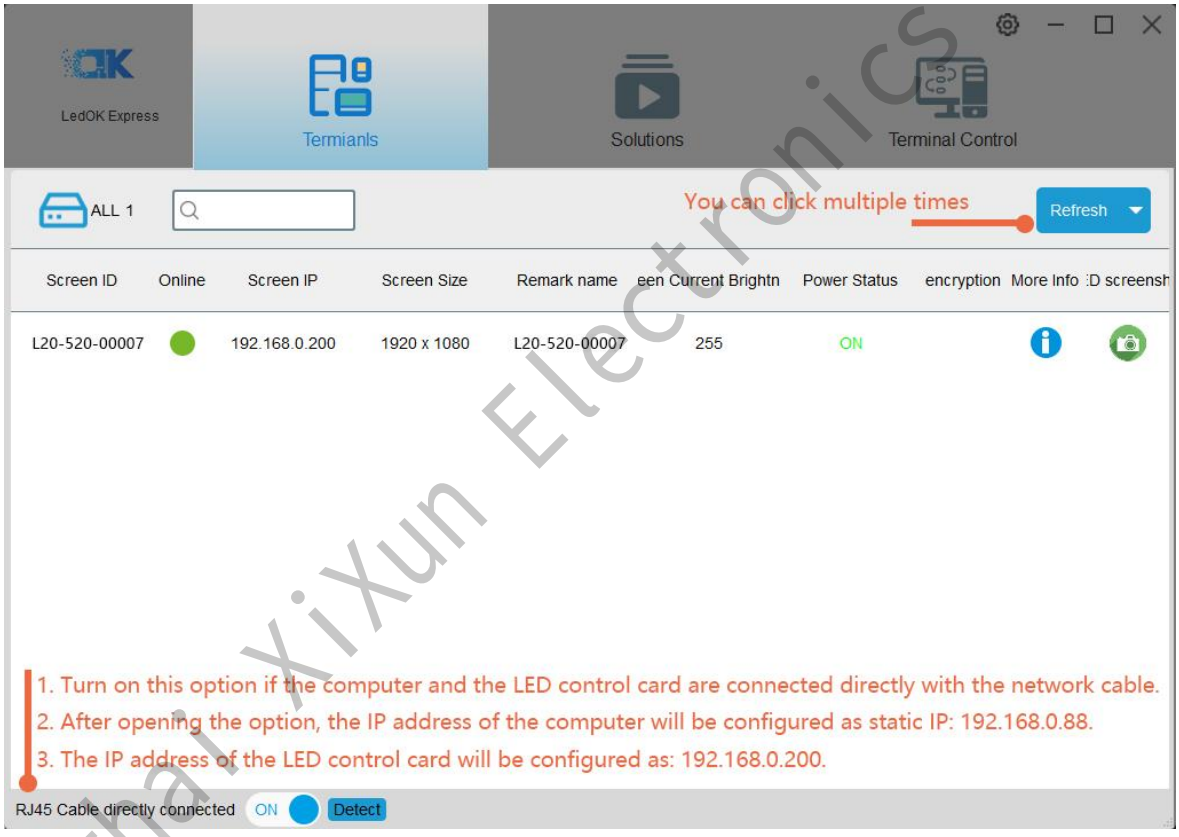
Software Connection

Confirm the hardware connection, open the LedOK Express software, and the sending card can be automatically detected in the device management interface. If the sending card cannot be detected, please click the refresh button on the right side of the software interface. If it is connected by a network cable, please open the "RJ45 Cable directly connected" in the lower left corner of the software interface.



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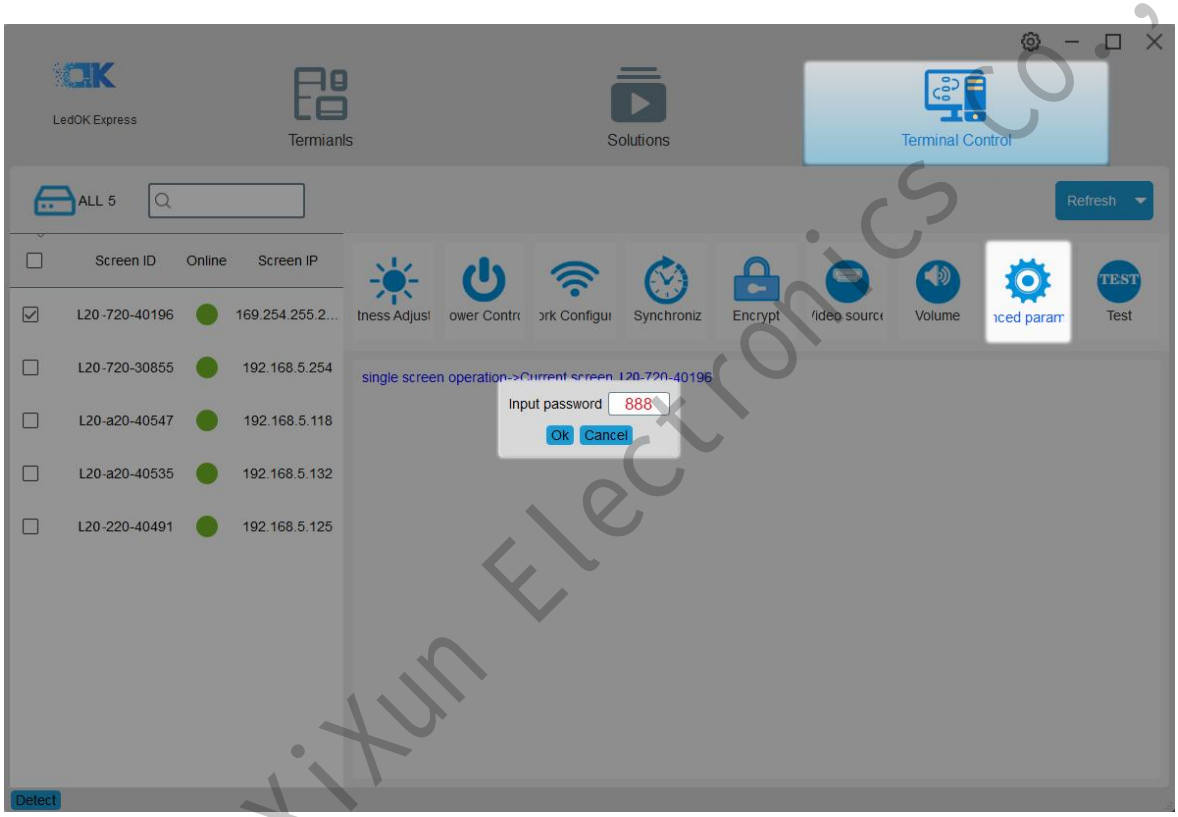
LedOK System Parameters

LED full screen width and height settings

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



In the advanced configuration interface, enter the LED screen width and height parameters and click "Set" to prompt success.

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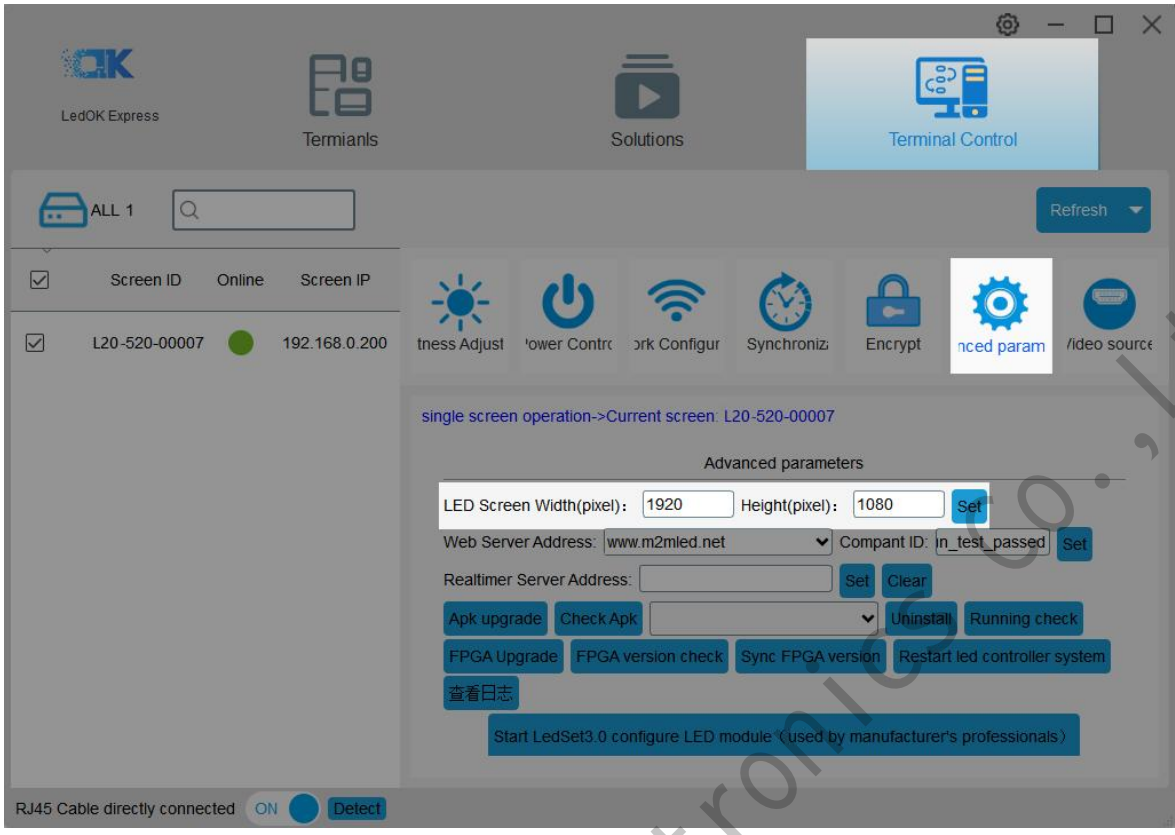

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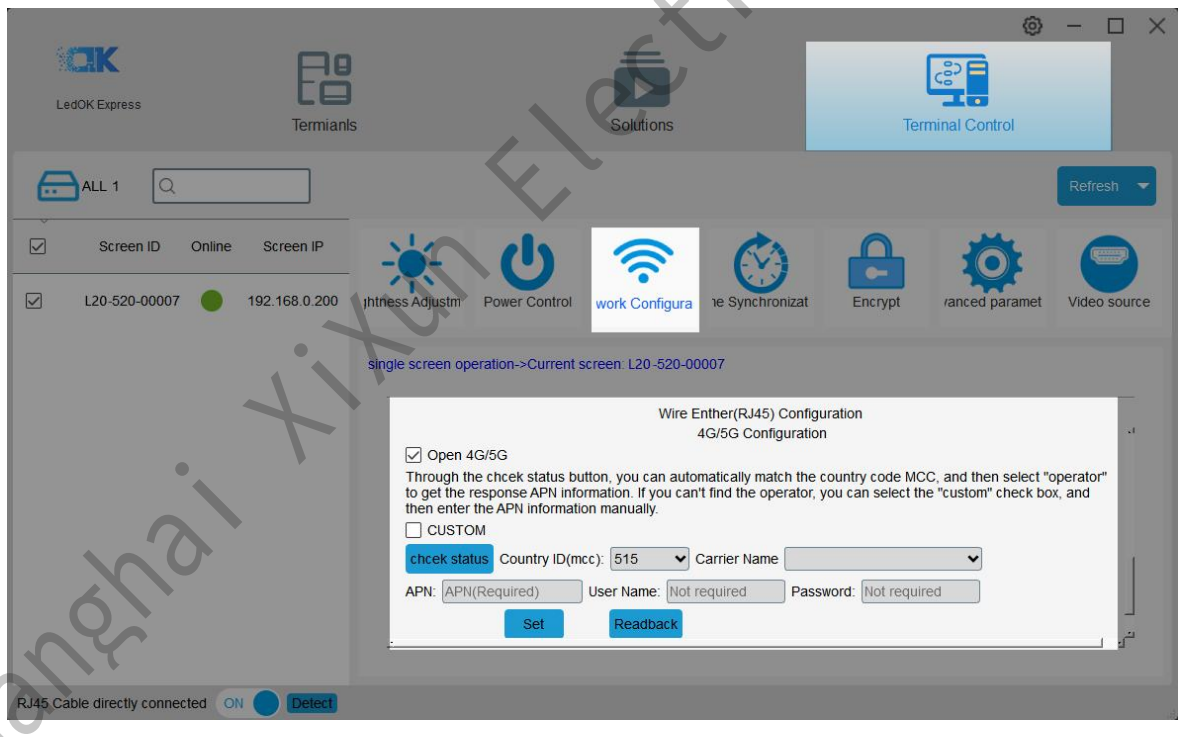
LedOK Configuration Network

There are three ways for the control card to access the network, namely, network cable access, WiFi access, 3G/4G network access, and different types of control cards can choose the network access method according to the application (choose one of the three).

Method 1: Wired network configuration

Then open the network configuration interface, the first is the wired network, you can set the IP parameters of the selected control card.



Control card access network priority wire network.

When selecting wireless WiFi or 4G network access, the wired network must be unplugged, and the IP address of the sending card is obtained automatically.

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Method 2: WiFi enabled

Check WiFi Enable and wait for about 3 seconds, click Scan WiFi to scan available WiFi nearby, select the WiFi and enter the password, click Save to save the WiFi configuration to the control card.

After about 3 minutes, the control card will automatically search for the WiFi hotspot connected to the configuration, and the "internet" light on the control card will flash uniformly and slowly, indicating that it has connected to the cloud platform. At this time, you can log in to the cloud platform www.m2mled.net to send the program.

Tips

If the WiFi cannot go online, you can troubleshoot the following situations:

1. Check whether the WiFi antenna is tightened;

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2. Please check if the WiFi password is correct;

3. Check whether the number of router access terminals has reached the upper limit;

4. Whether the E-card code is in the wifi location;

5. Re-select a WiFi hotspot to configure the connection;

6. Is the Y/M series wired network unplugged (priority wired network).

Method 3: 4G/5G configuration

Check Enable 4G/5G, the country code MMC can be automatically matched by the Get Status button, and then select "Operator" to get the corresponding APN information, if the operator cannot be found, you can check the "Custom" checkbox, Then manually enter the APN information.

After setting the 4G/5G parameters, wait for about 5 minutes for the control card to

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automatically dial the 3G/4G network to access the network; observe the "internet" light of the control card flashing uniformly and slowly, which means that the cloud platform has been connected, and you can log in to the cloud platform at this time. www.ledaips.com to send programs.

Tips

If 4G/4G cannot go online, you can check the following situations:

1. Check whether the 4G/5G antenna is tightened;
2. Is the Y series wired network unplugged (priority wired network);
3. Check whether the APN is correct (you can consult the operator);
4. Whether the status of the control card is normal, and whether the available flow of the control card in the current month is greater than 0M;
5. Check whether the 4G/5G signal strength is above 13, and the 3G/4G signal strength can be obtained through "Network Status Detection".

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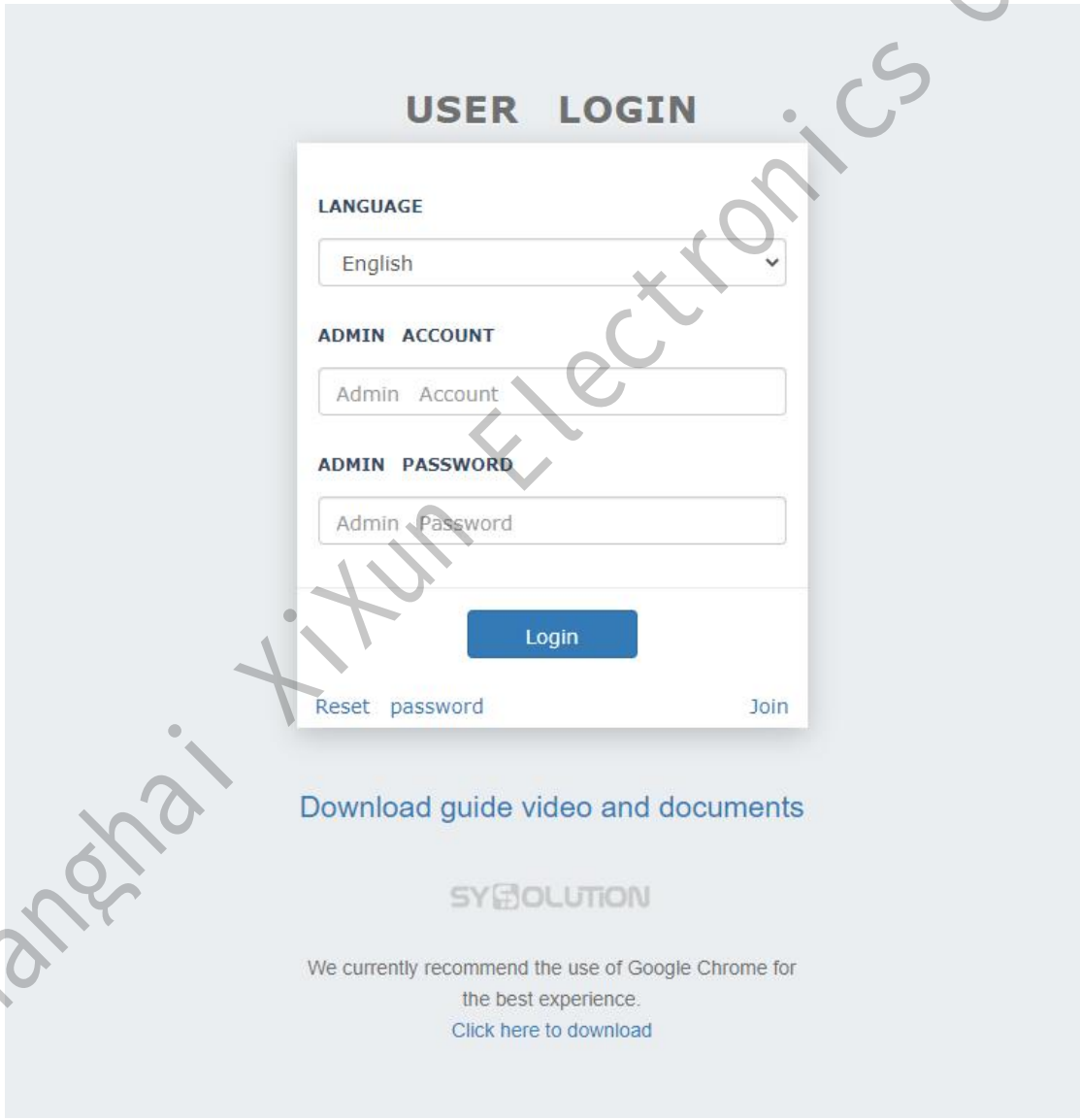
AIPS Cloud Platform Register

Cloud platform account registration

Open the cloud platform login interface, click the registration button, input information according to the relevant prompts and click submit. After receiving the confirmation email, click the link to confirm and complete the registration.



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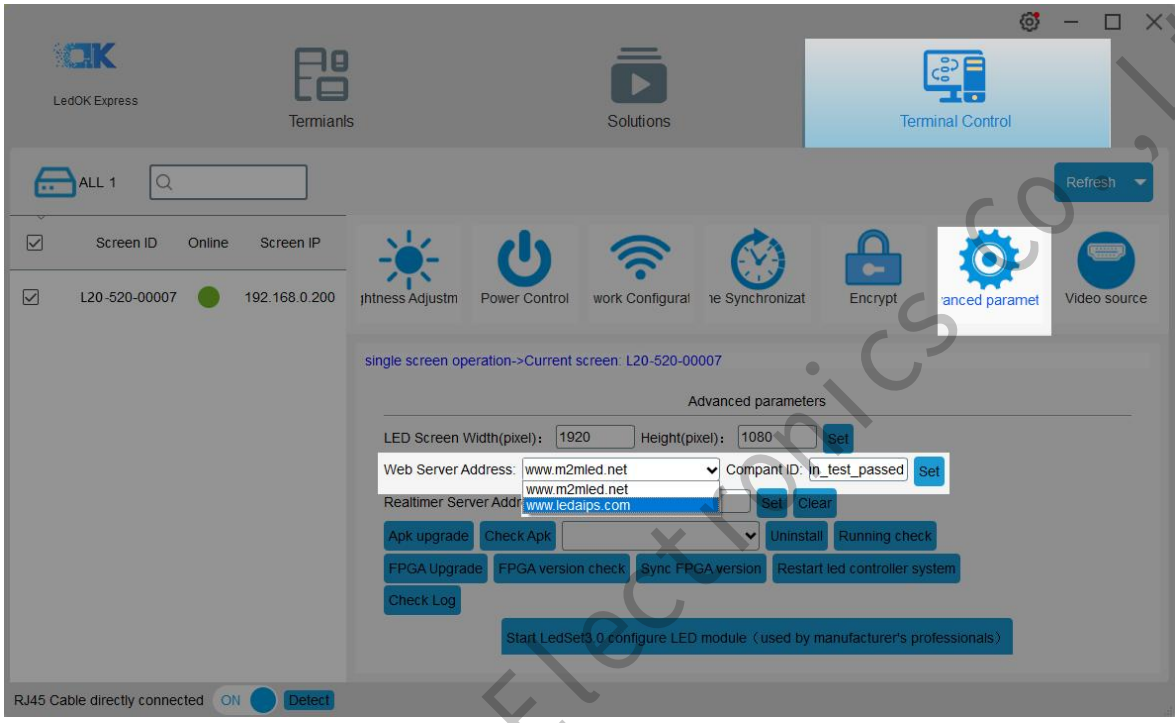
Cloud platform account binding

Enter the web server address and company ID and click Save.

The foreign server address is: www.ledaips.com



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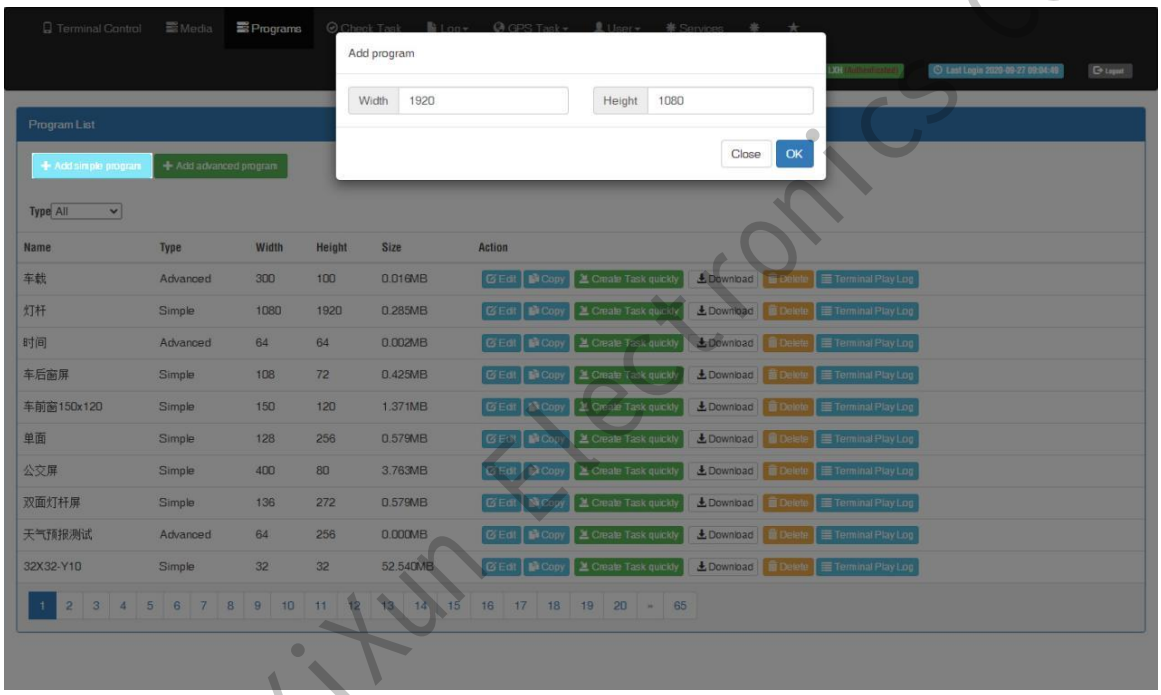
AIPS Cloud Programming

Simple Program

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

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



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.

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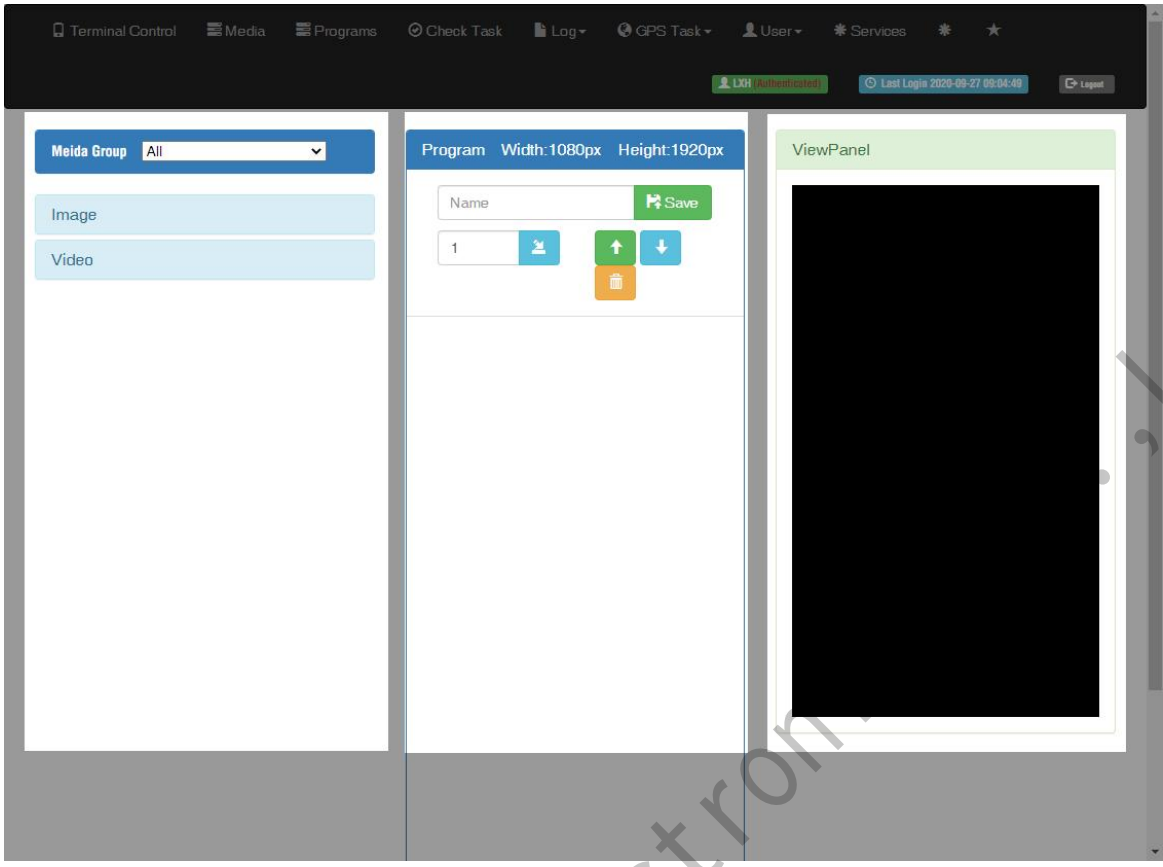
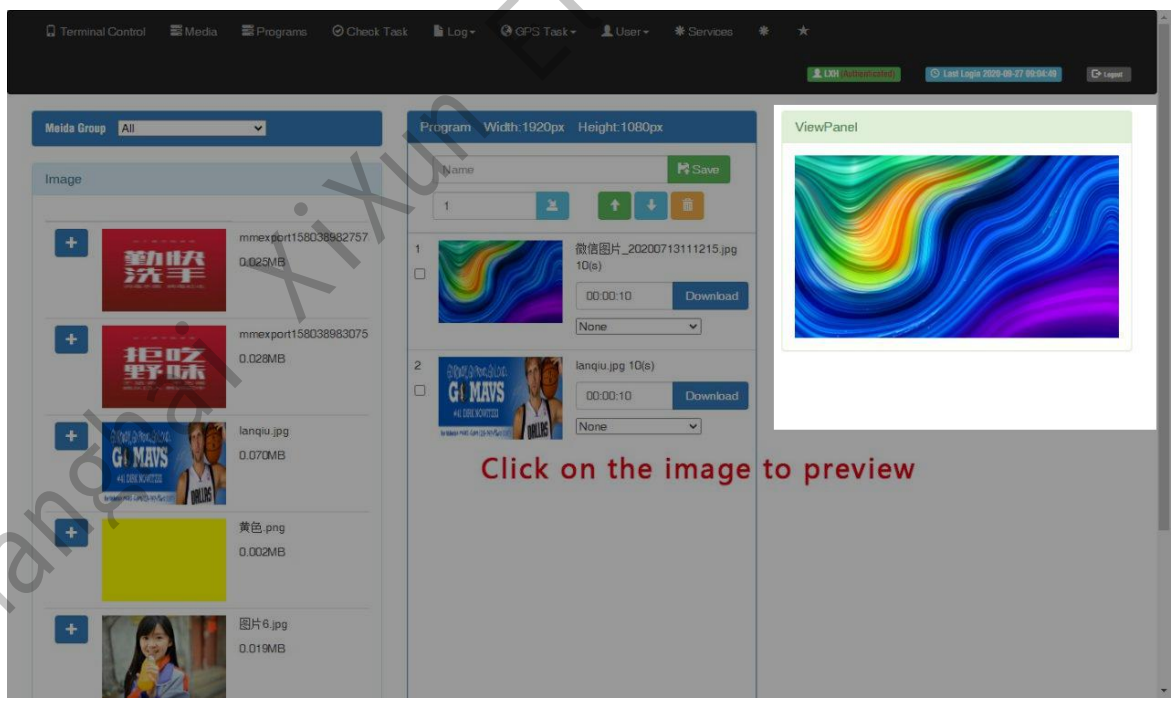


Choose materials and set program name，can check preview in the right window.



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

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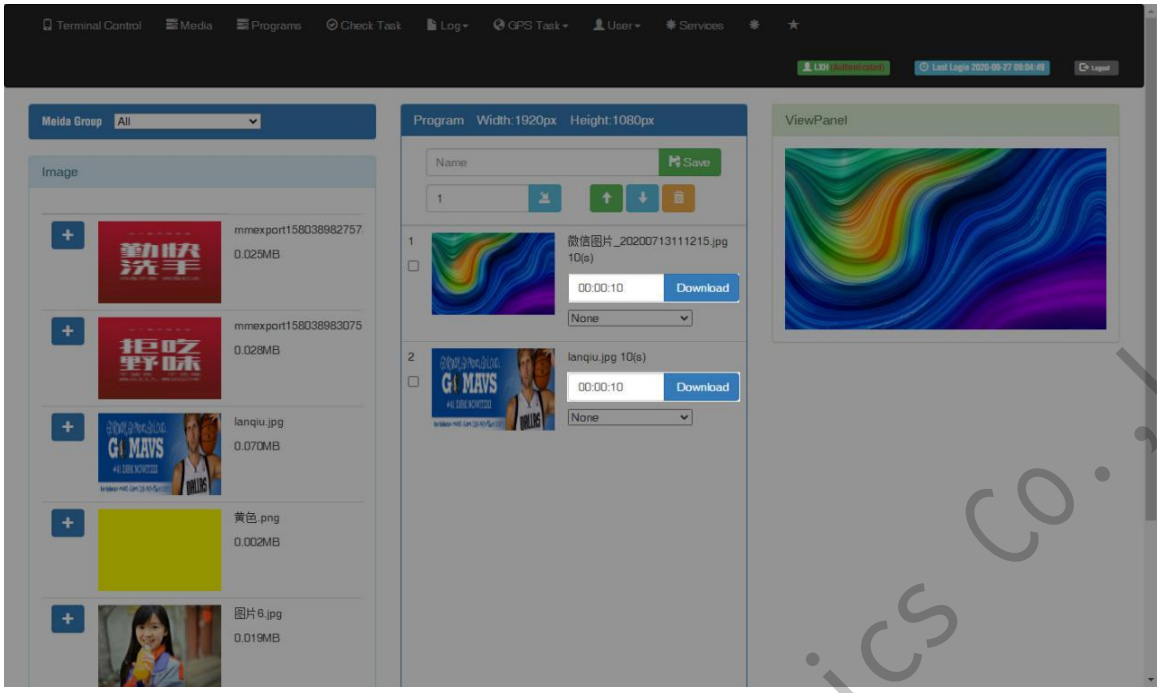
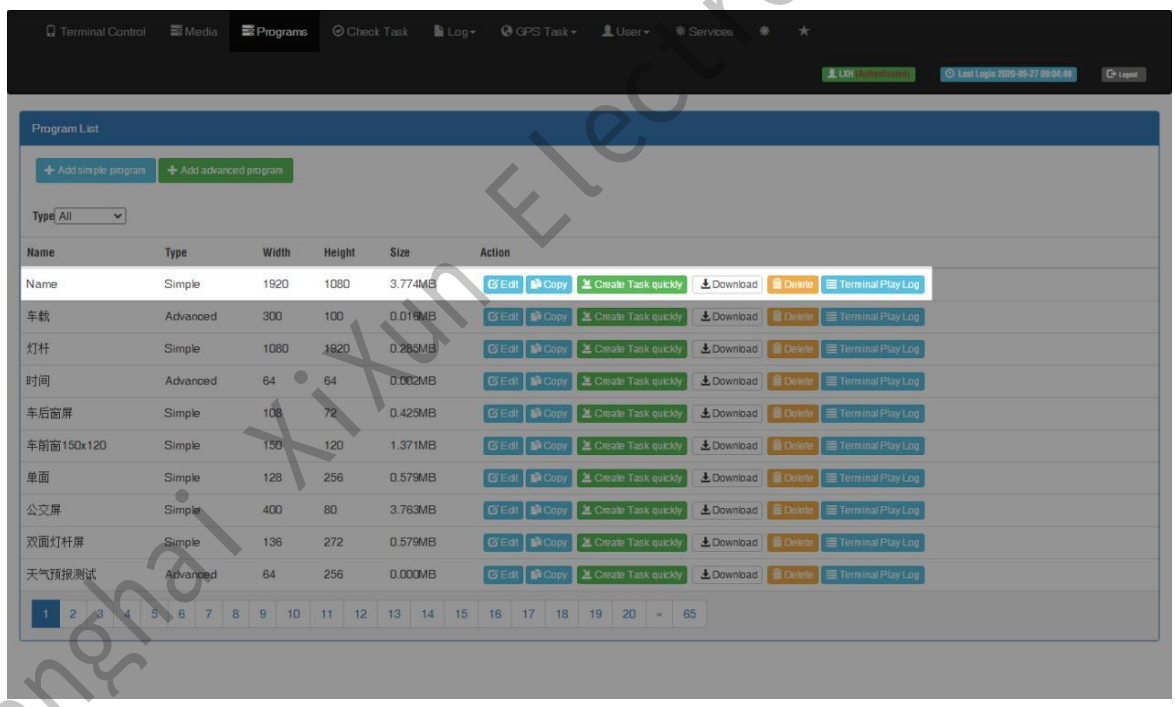


After saving you will see the program in the list.



Advanced Program

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

Click “add advanced program” button and set correct screen width and height pixels，

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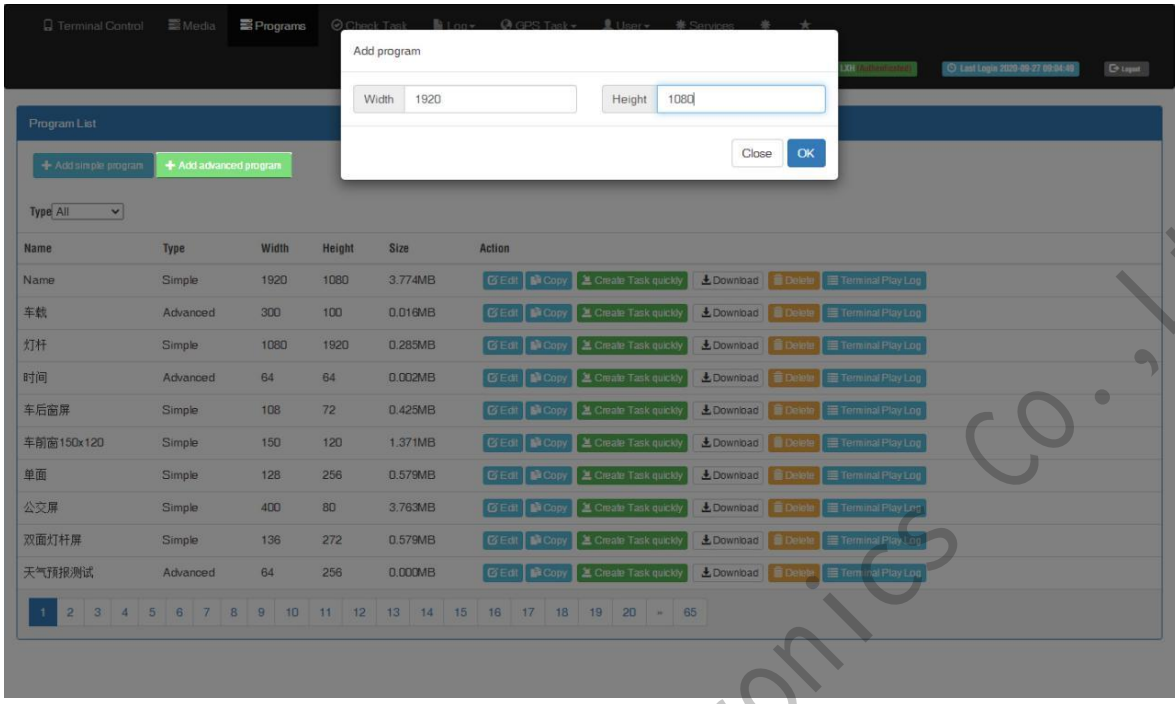
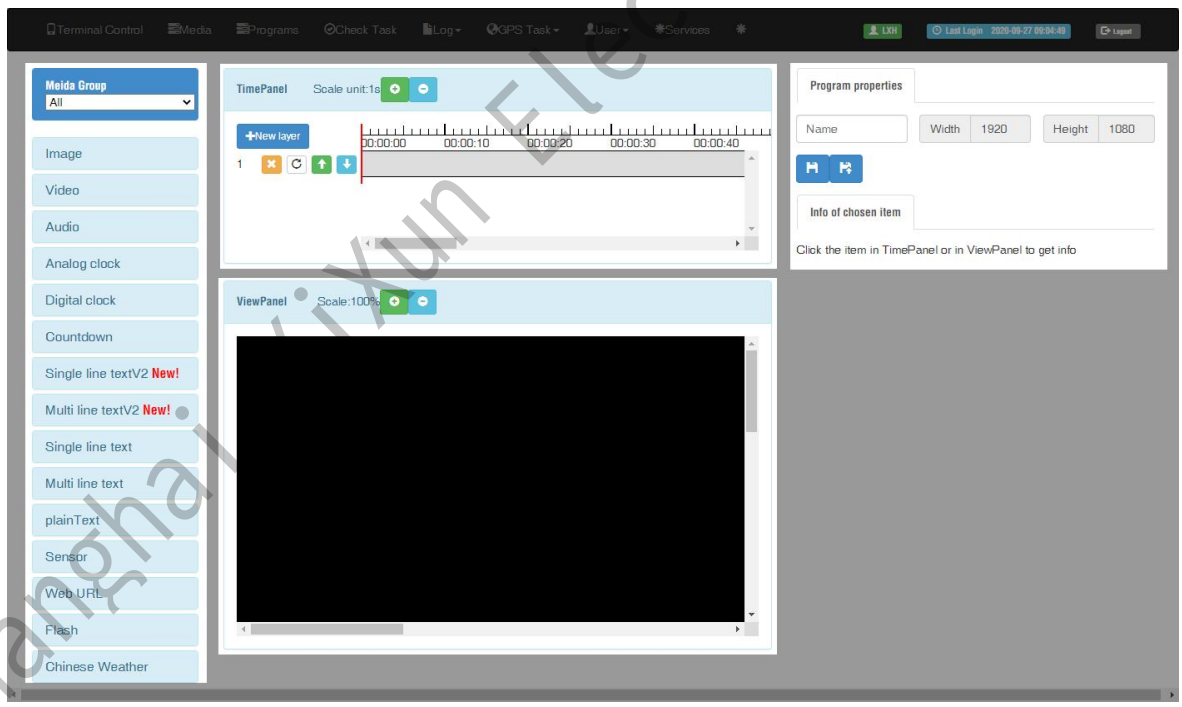
click “OK”.



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.

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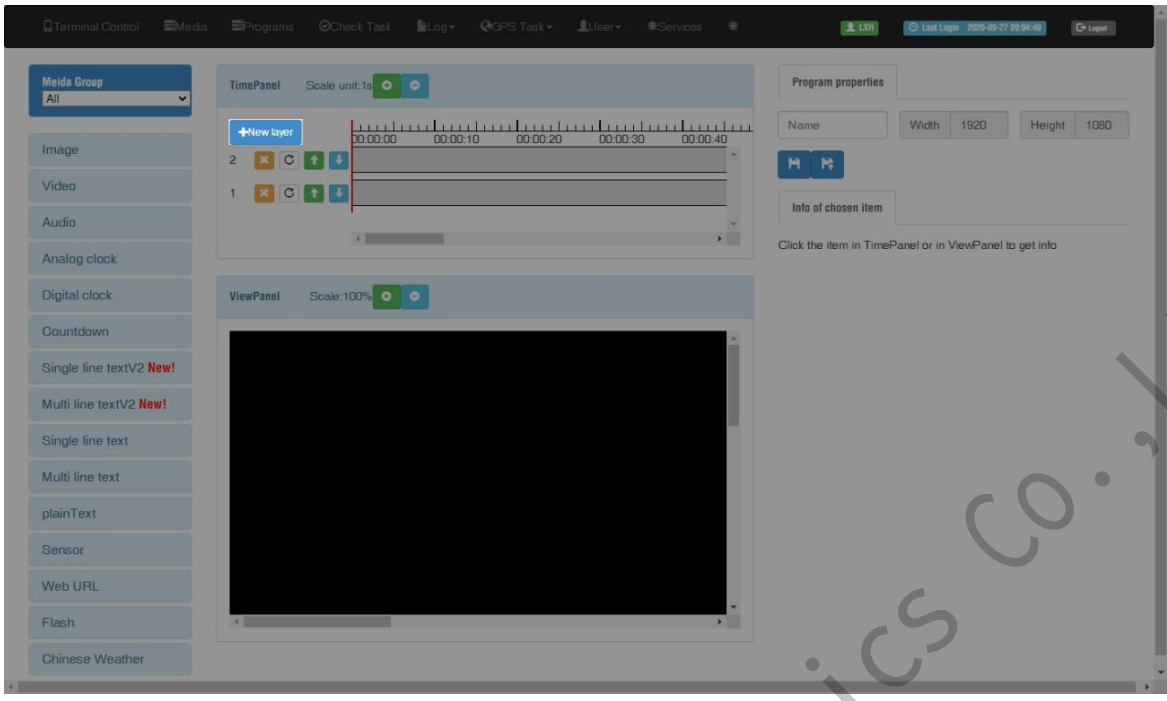
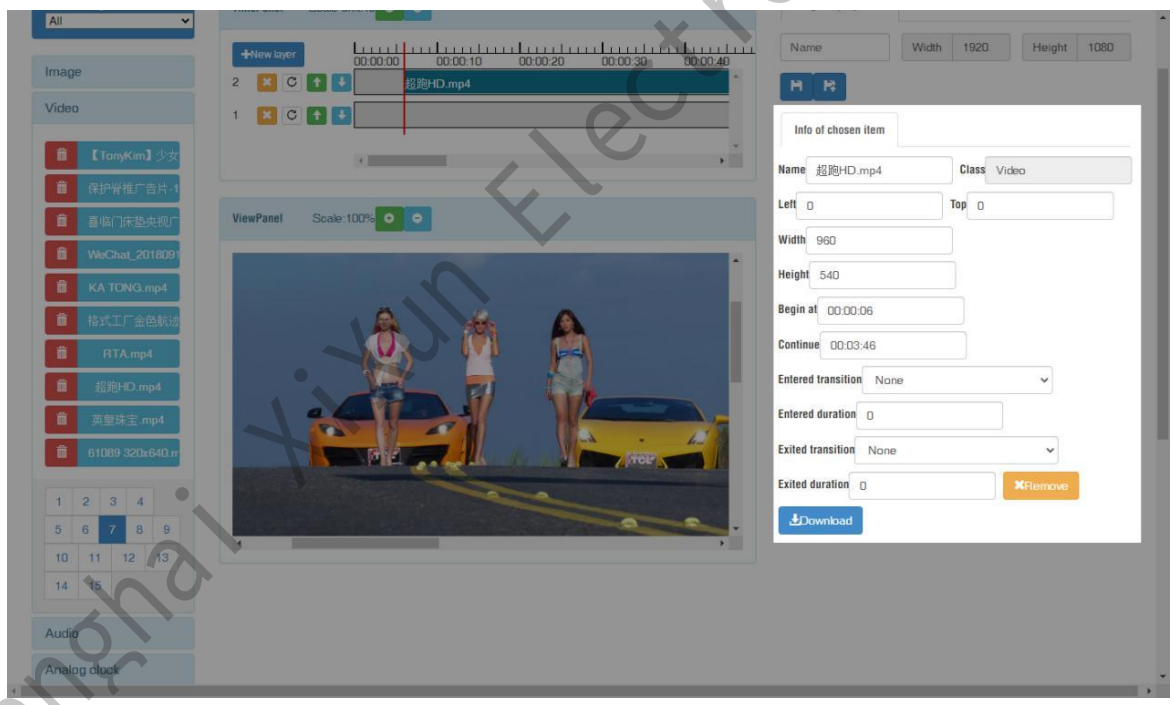


Can set the program parameters，start and end time.



Save and quit after setup all parameters and program name.

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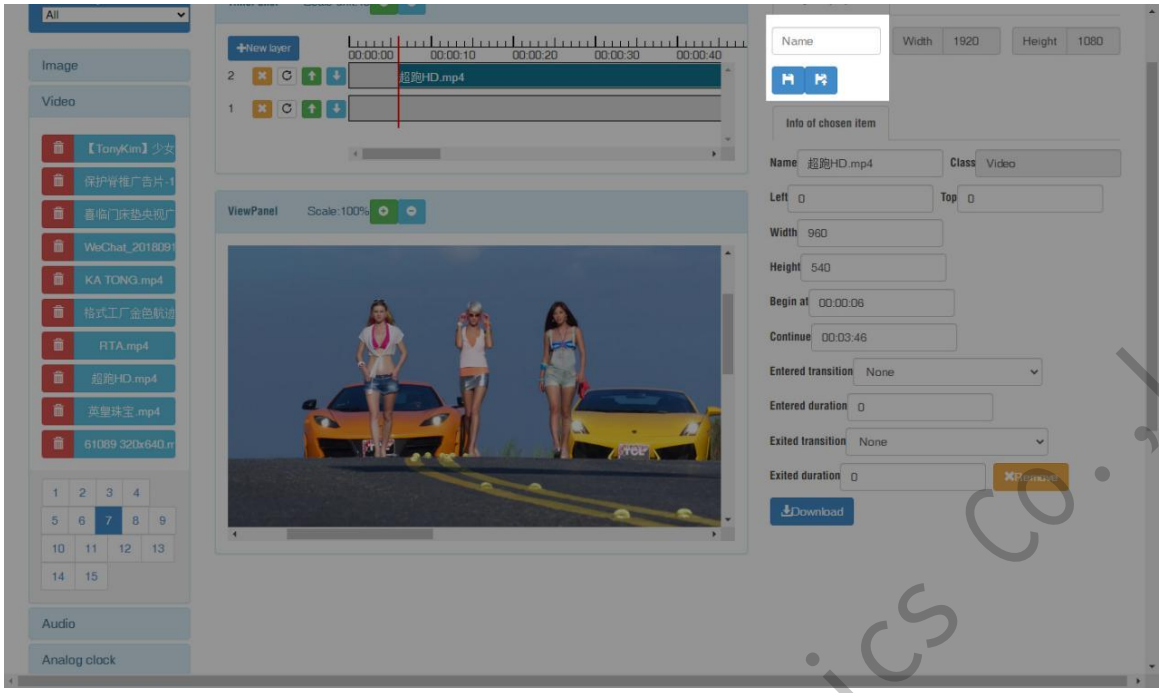
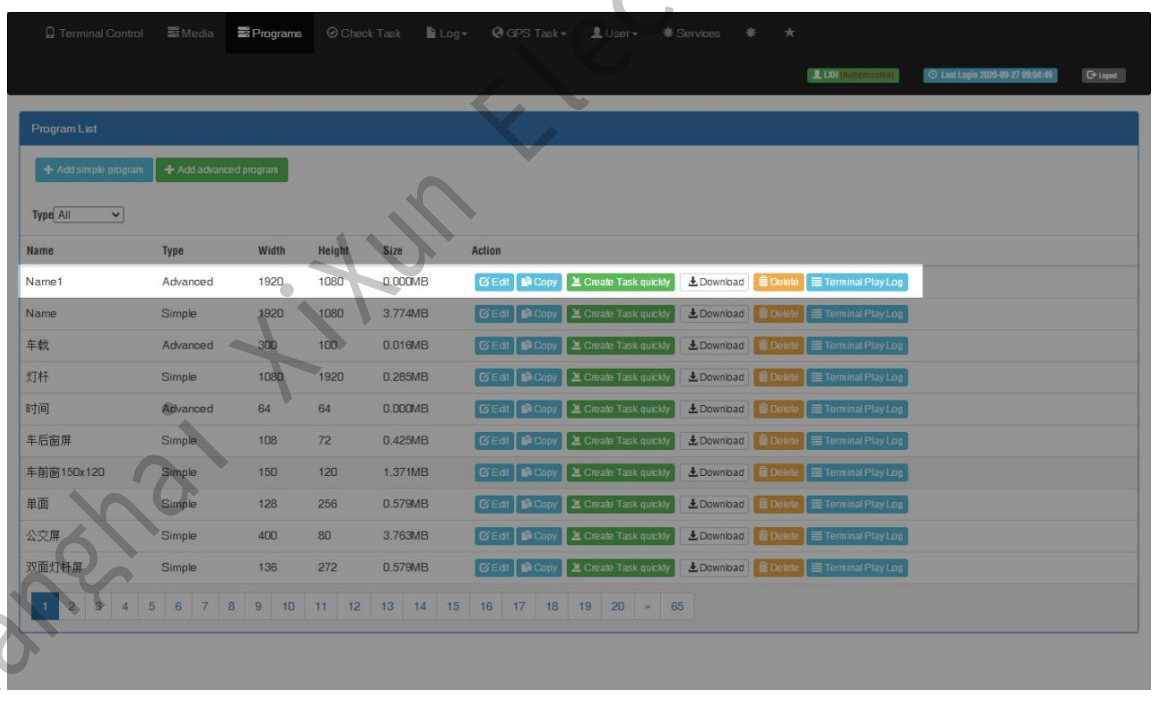


Then jump to program list interface，you can click green button of create task quickly and then select controller and send.



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

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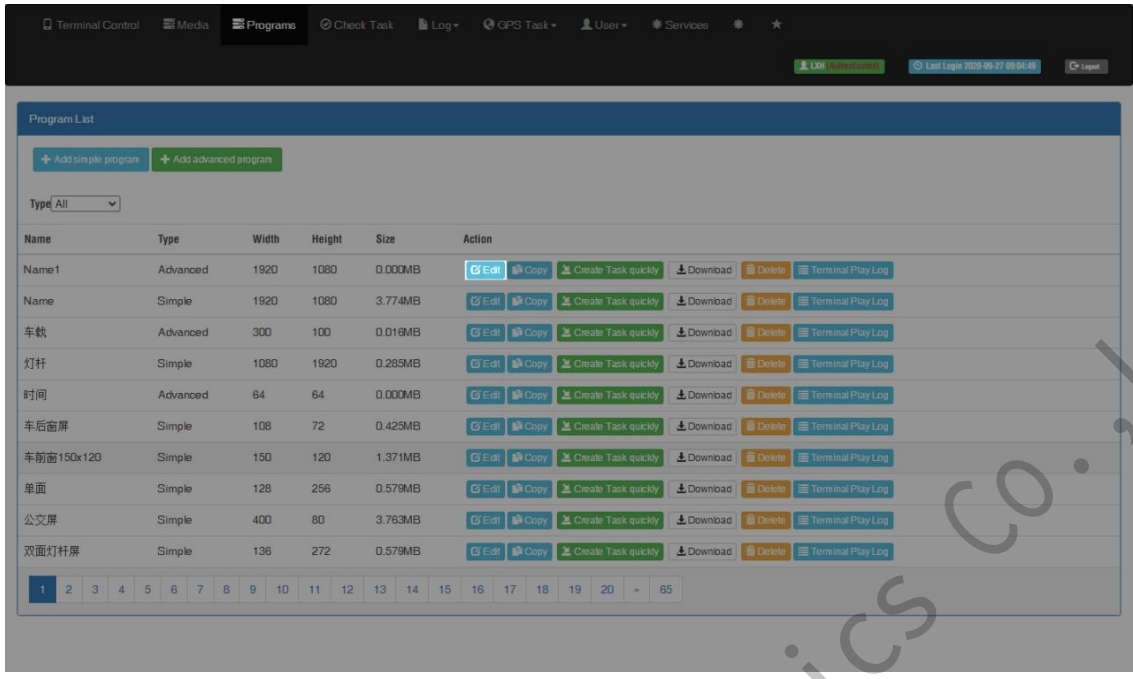
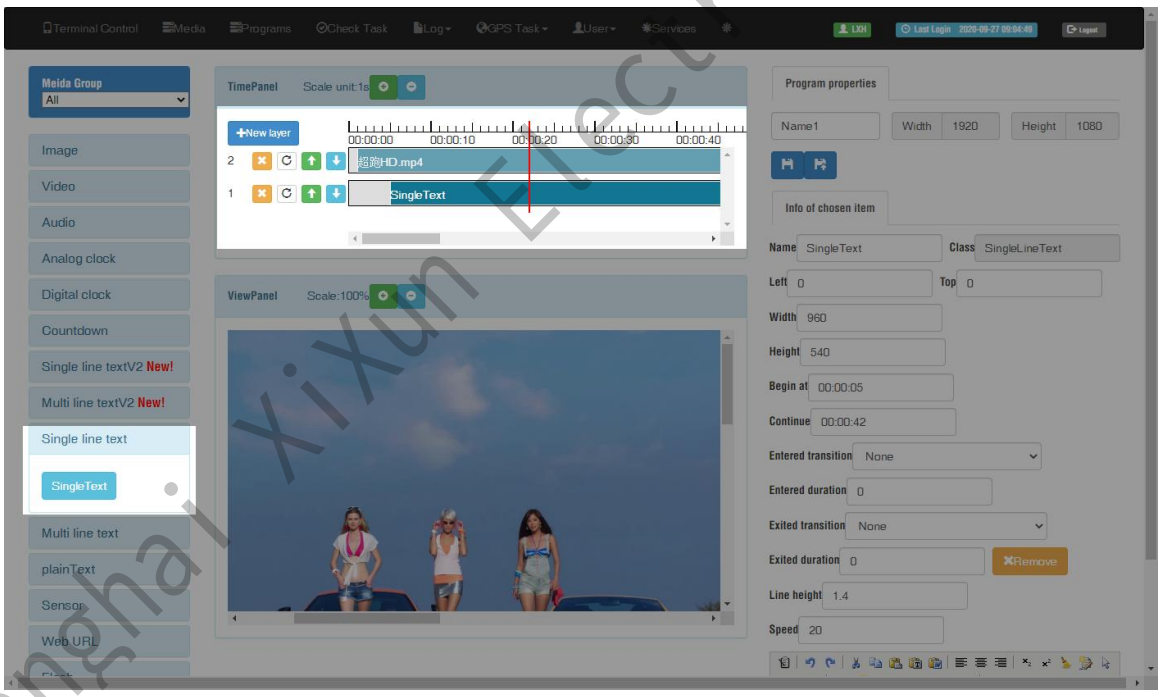


Add multi-line text，click the text (single or muti-text)and add to the time panel.



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

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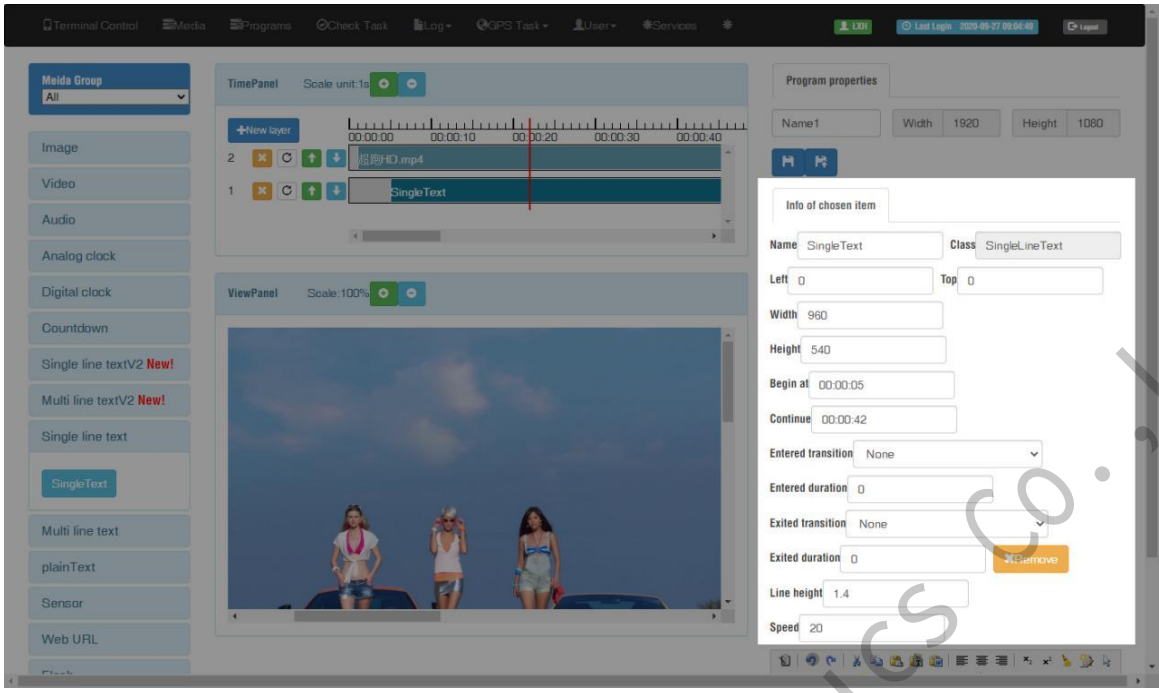

Setup the text color，font size and add more pages，please pay attention to our TIPS message in below，save and quit after finish.

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

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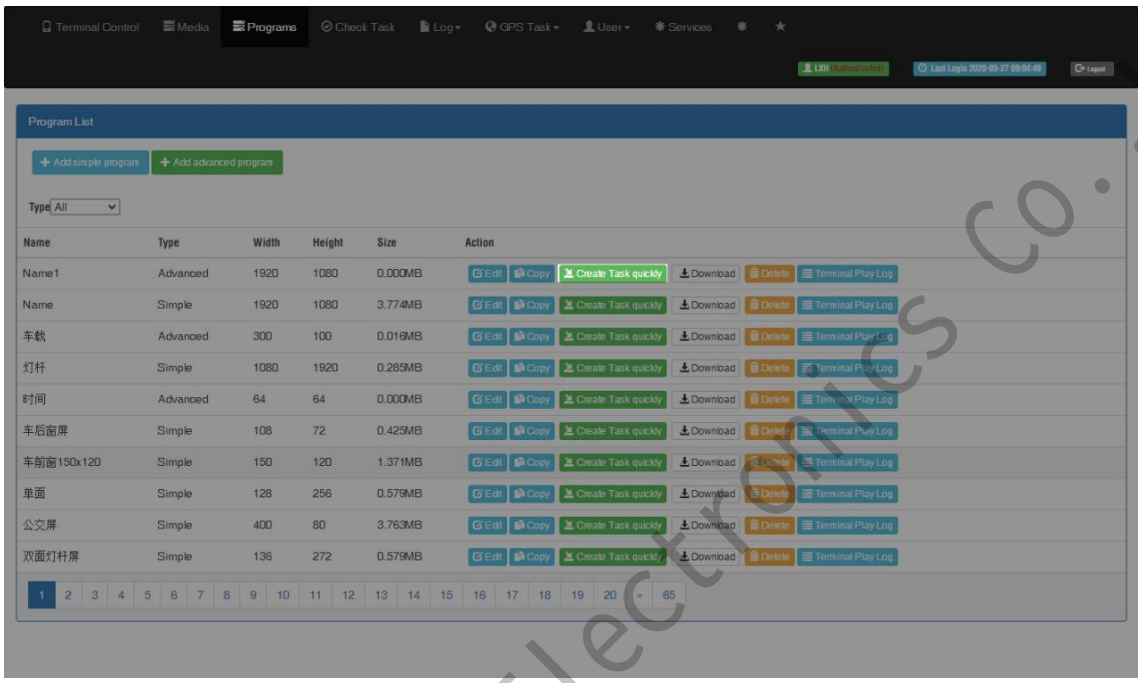
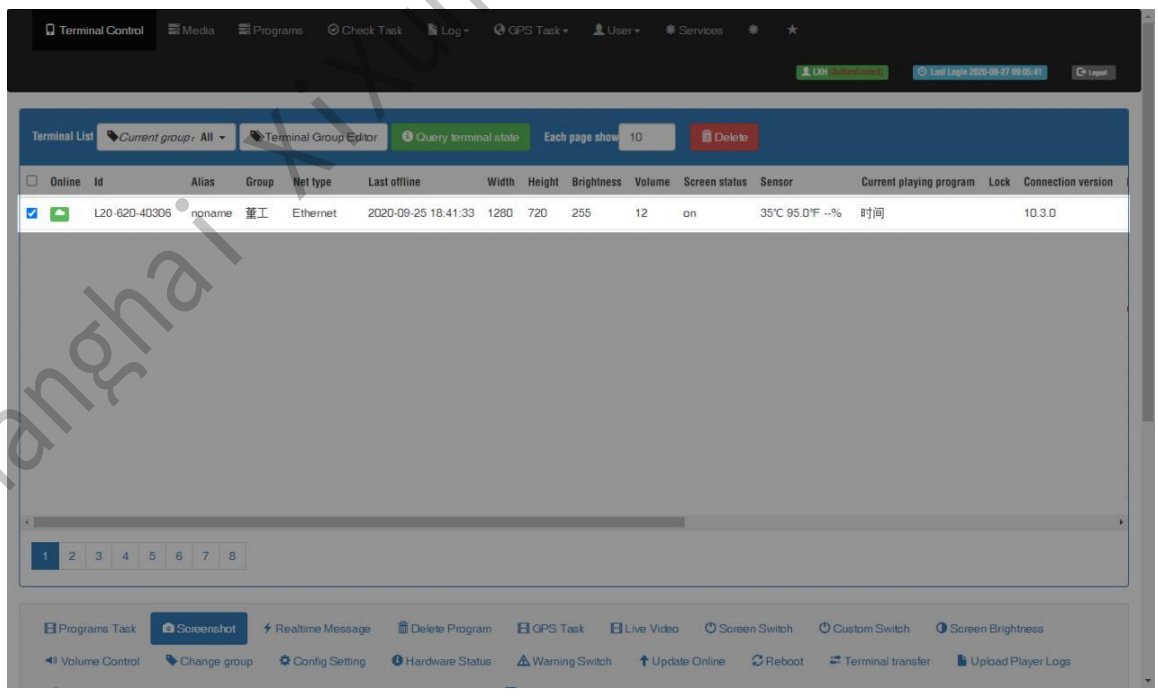
Send Program

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



Select the controller and send program.



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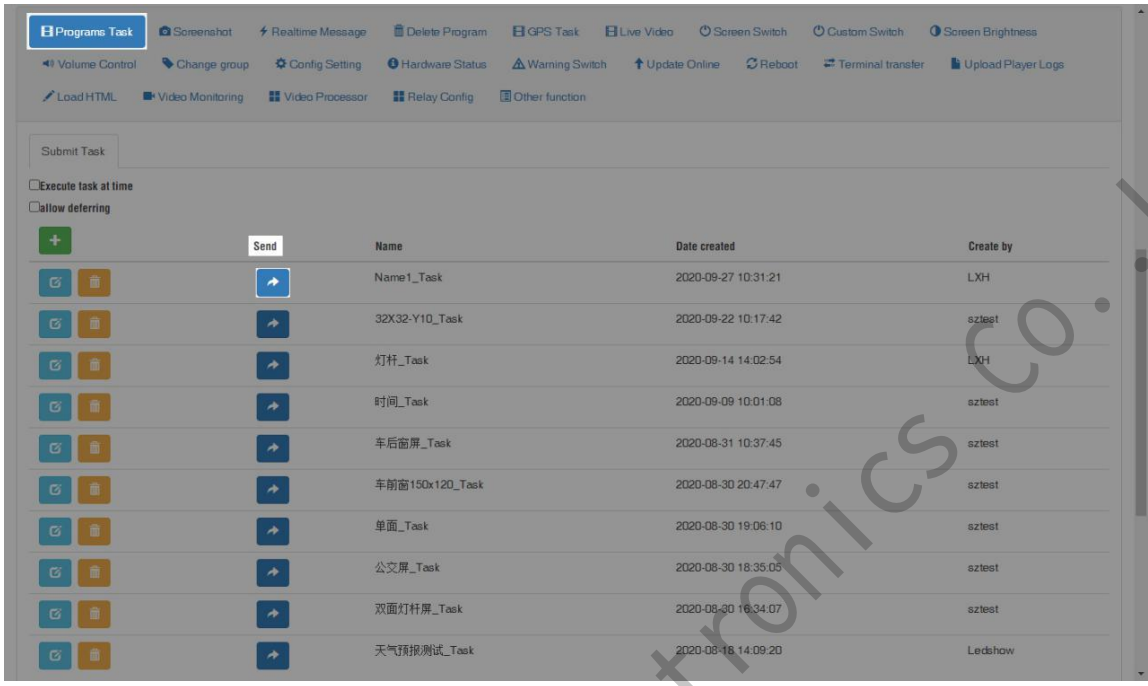
In the bottom part of terminal interface，will see program task then choose the program task and click send.



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End Page

For more information on the Internet cluster control solution for LED advertising equipment control, as well as related instruction documents, please visit our website: www.ledok.cn for detailed information. If necessary, the online customer service will communicate with you in time. The industry experience will definitely give you a satisfactory answer, Shanghai Xixun sincerely looks forward to the follow-up cooperation with you.

Best regards

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March 2022

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