TU20 Pro & TU15 Pro

LED Playback Control Processors

User Manual

Change History

Document Version	Release Date	Description
V1.0.0	2023-04-04	First release

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1 Introduction

This document introduces the operating method of the TU20 Pro and TU15 Pro to help users get started with the LED playback control processors quickly.

The TU20 Pro and TU15 Pro are playback control processors specially designed by Xi'an NovaStar Tech Co., Ltd. (hereinafter referred to as NovaStar) for indoor LED screens. They integrate the Android system and sending card functions into one unit, and allow third-party apps to run on them, featuring powerful interaction and playback control capabilities.

The TU20 Pro and TU15 Pro support wireless screen mirroring from Windows, macOS, iOS and Android terminals at up to 60 fps with a system latency of less than or equal to 80 ms at 8 meters. For different application scenarios, they provide 4 modes to let the document presentation, video playback and remote meetings have the optimal display effect.

In addition, the TU20 Pro and TU15 Pro support control by the VNNOX and VNNOX Care apps.

- Through VNNOX app, program editing, program publishing and screen control can be easily performed. For related operations, please refer to the *ViPlex Handy Media Player Control App User Manual*.
- Through VNNOX Care app, screen configuration, screen topology and automatic screen configuration backup can be quickly completed. For related operations, please refer to the help center of VNNOX Care.

TU20 Pro and TU15 Pro share the same operations. The screenshots provided in this document take the TU20 Pro as examples.

2 Getting Started

Do the following steps to quickly get started with the LED playback control processors.

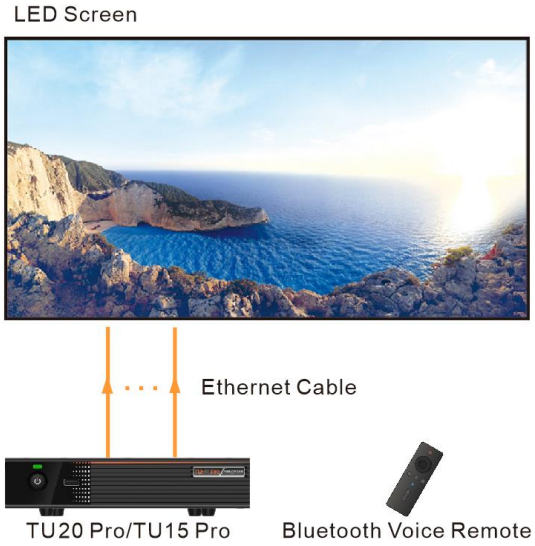
Step 1: Set Up the Hardware

Step 1 Open the package.

Step 2 Prepare the accessories, such as Ethernet cable, remote, and mirroring dongle.

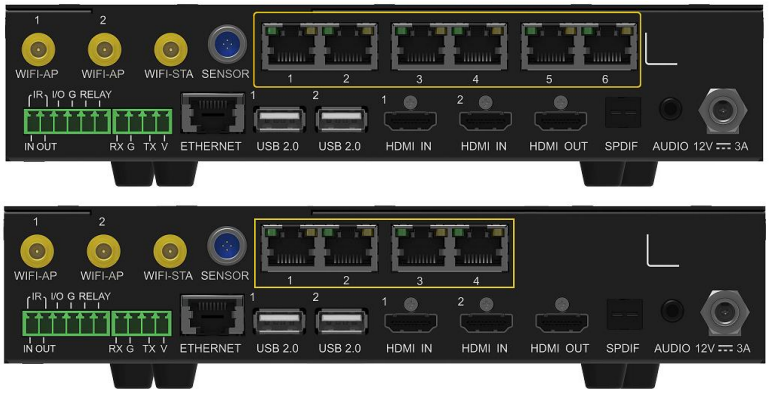
Step 3 Build the hardware environment according to the following diagram. You can also connect common peripherals as needed, such as mouse, keyboard, sound system, camera and infrared touch frame.

Figure 2-1 Hardware architecture



Step 4 Connect the Ethernet cables from the LED screen to the Ethernet output ports of TU20 Pro/TU15 Pro in the order shown below.

Figure 2-2 Rear panel – TU20 Pro (6 Ethernet ports) / TU15 Pro (4 Ethernet ports)



Step 5 Connect the power cable to power on the device.

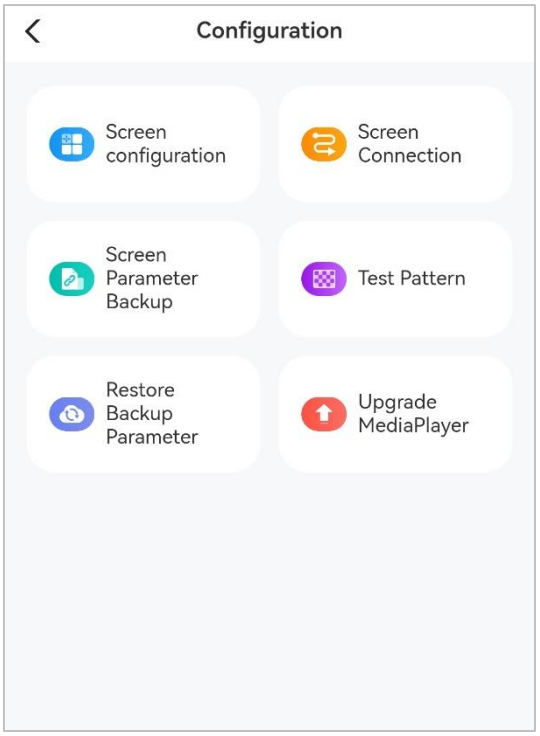
Step 2: Install Related Apps

Search for VNNOX and VNNOX Care in the app store, download and install them.

- Through VNNOX app, program editing, program publishing and screen control can be easily performed.
- Through VNNOX Care, screen configuration, screen layout and automatic screen configuration backup can be quickly completed.

Step 3 Configure the LED Screen

Step 1 Open VNNOX Care app.



Step 2 Click **Screen configuration**, follow the instructions to download the receiving card configuration file, and light up the screen.

Step 3 Click **Screen Connection** and follow the instructions to complete screen topology.

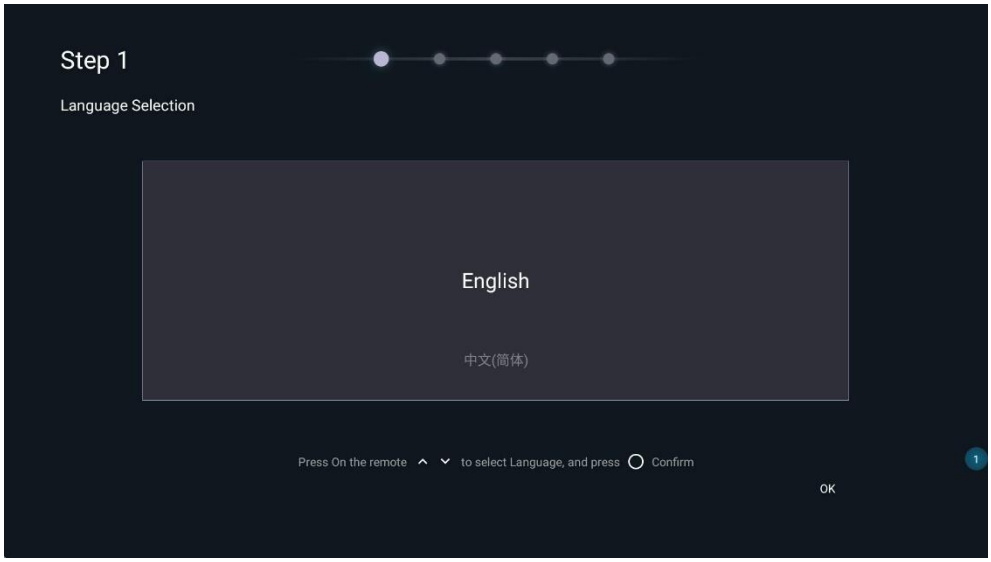
The above is the overall operation process. For detailed steps, see the app user manual.

Step 4 Initialize the System

For the first-time use of the LED playback control processor, do the following steps to complete the initialization settings.

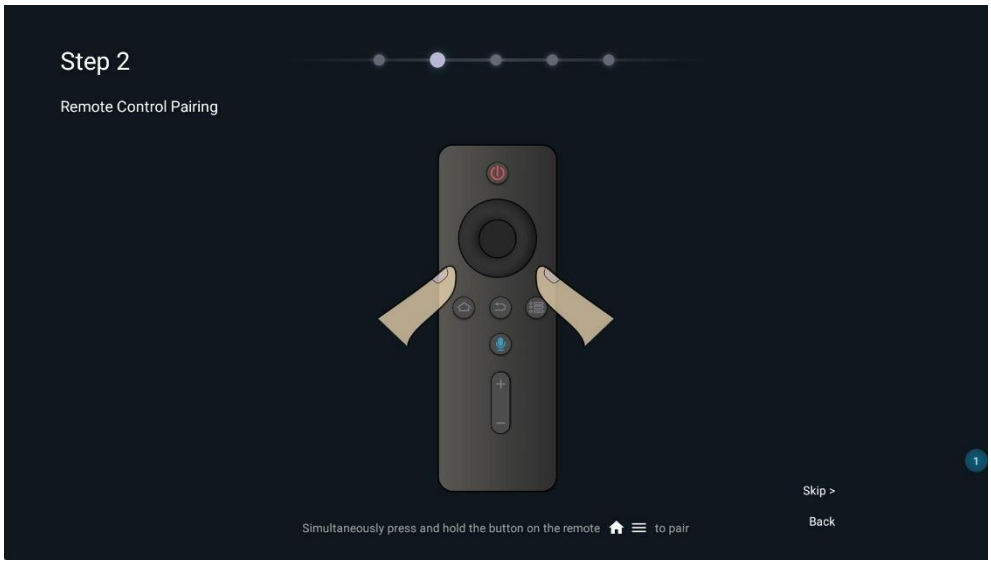
Step 1 Set the system language. You can choose **Chinese** or **English**.

Figure 2-3 Choosing a language



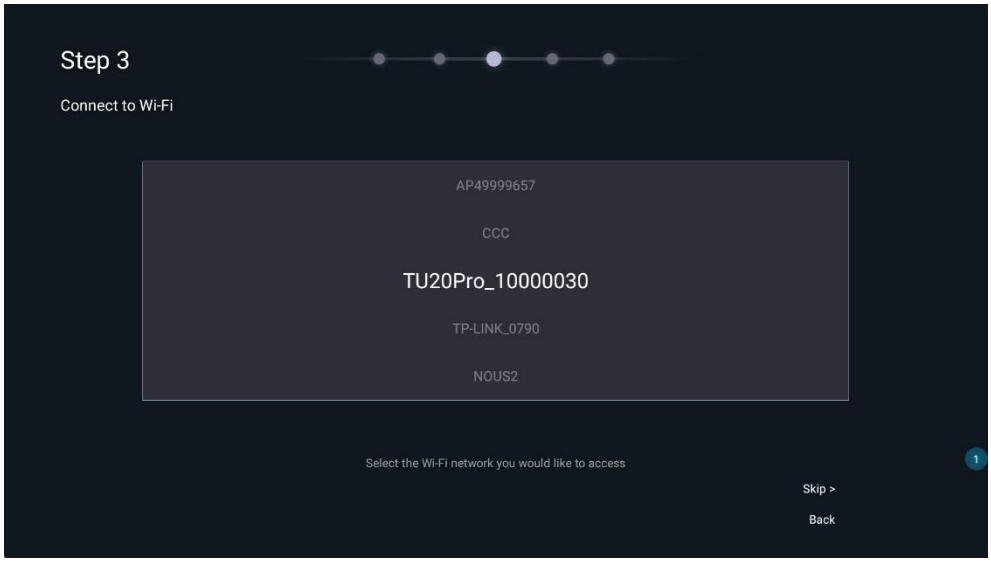
Step 2 (Optional) Pair the system with the remote for Bluetooth connection. To do this, hold down the menu and Home buttons on the remote simultaneously until the **Connecting to the remote** window appears at the bottom of the screen.

Figure 2-4 Pairing with the remote



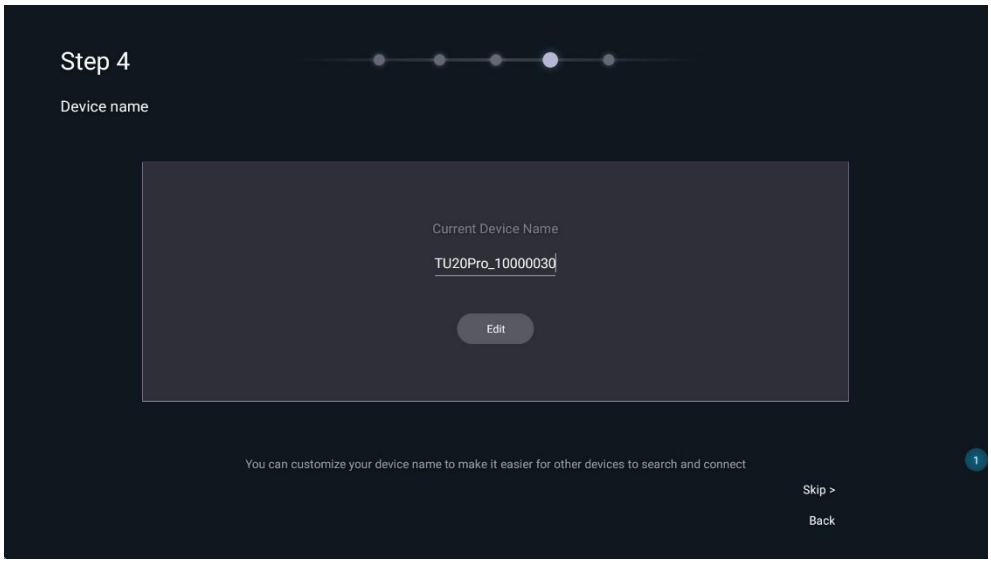
Step 3 (Optional) Select the Wi-Fi network you want to connect the system to and enter the password.

Figure 2-5 Connecting to a Wi-Fi network



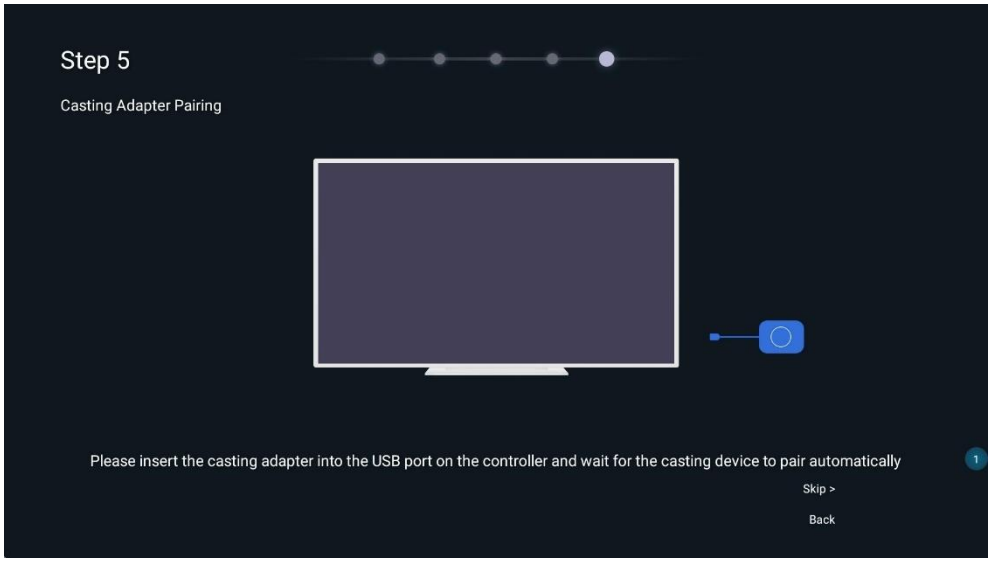
Step 4 (Optional) Customize the device name. A custom name is convenient for you to use other devices to search for.

Figure 2-6 Customizing device name



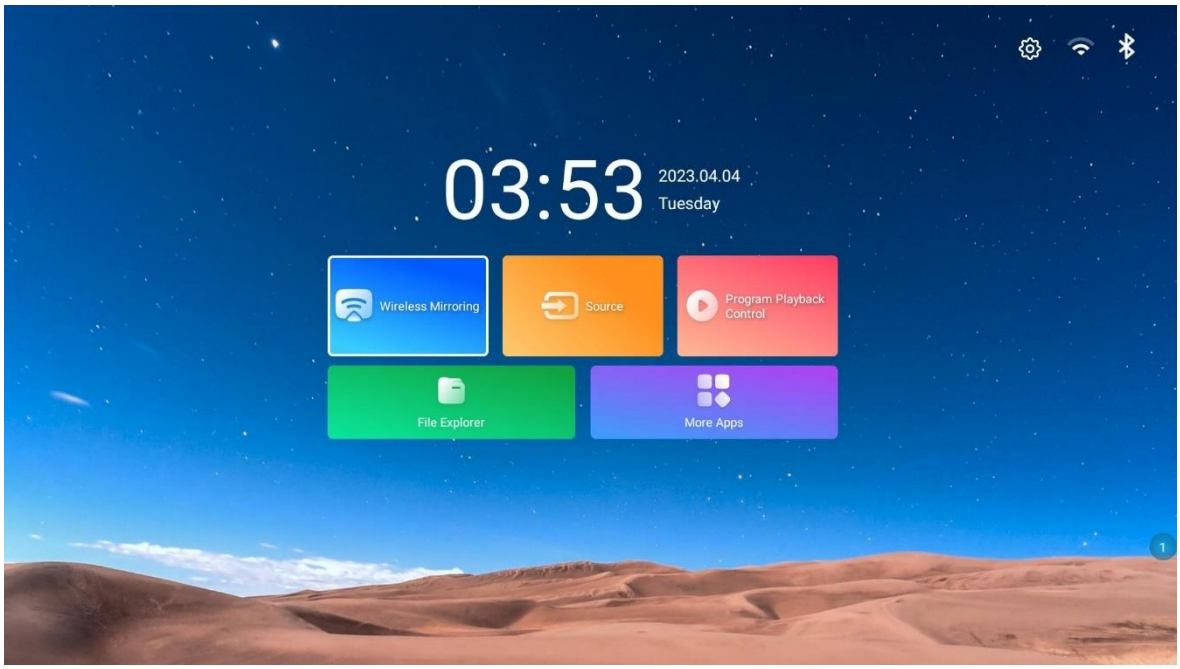
Step 5 (Optional) Pair the system with the mirroring dongle by inserting the dongle into the USB port of the LED screen. The dongle will be paired automatically with the system.

Figure 2-7 Pairing with the dongle



Step 6 The initialization settings are done. You can see the Beginner's Guide or start using the LED playback control processor directly.

Figure 2-8 Home screen



3 Usage of the Remote

3.1 Buttons on the Remote

Figure 3-1 Description of buttons on the remote

3.2 Bluetooth Pairing Method

Hold down the menu and Home buttons on the remote simultaneously until the **Connecting to the remote** window appears at the bottom of the screen.

4 Screen Mirroring

4.1 Wireless Mirroring

4.1.1 Mirroring from Mobile Phone

Mirroring from Android

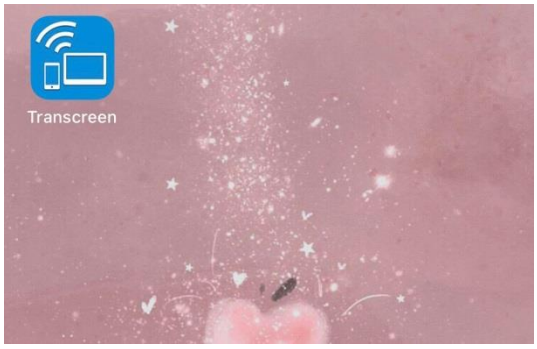
Step 1 Use the phone to scan the QR code on the **Wireless Mirroring** page to download the Transcreen app and install it on the phone.

Step 2 Connect the phone to hotspot of the LED playback control processor (default name: TU*xx* Pro_xxxx; default password: 12345678).

Step 3 Run the Transcreen app on the phone. On the displayed **Select for Devices** window, select the device you want to connect to, and tap **Confirm**.

Step 4 Tap **Mirror** and then tap **Start now** on the displayed window to start mirroring.

Figure 4-1 Running the Transcreen app



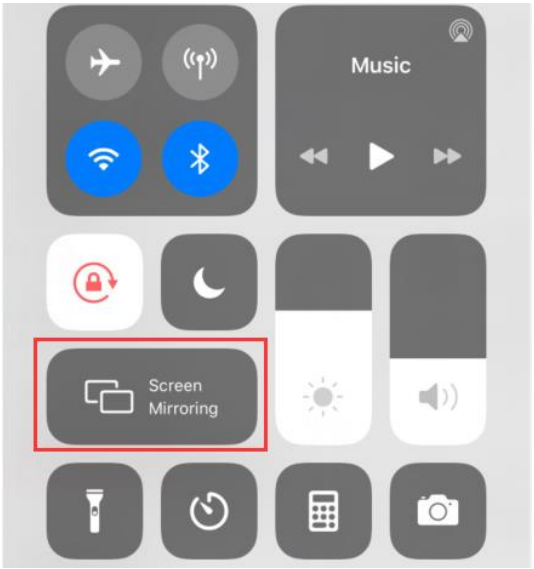
Mirroring from iOS

Step 1 Connect the phone to hotspot of the LED playback control processor (default name: TU*xx* Pro_xxxx; default password: 12345678).

Step 2 Swipe up from the bottom edge of any screen to open the control center.

Step 3 Tap **Screen Mirroring** and select the device to start mirroring.

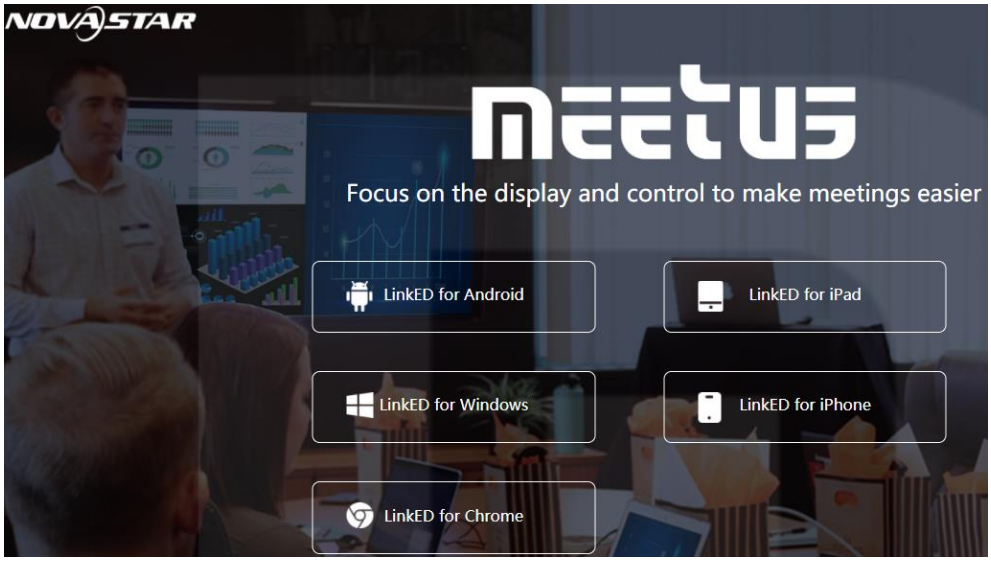
Figure 4-2 Screen mirroring - iOS



4.1.2 Mirroring from PC

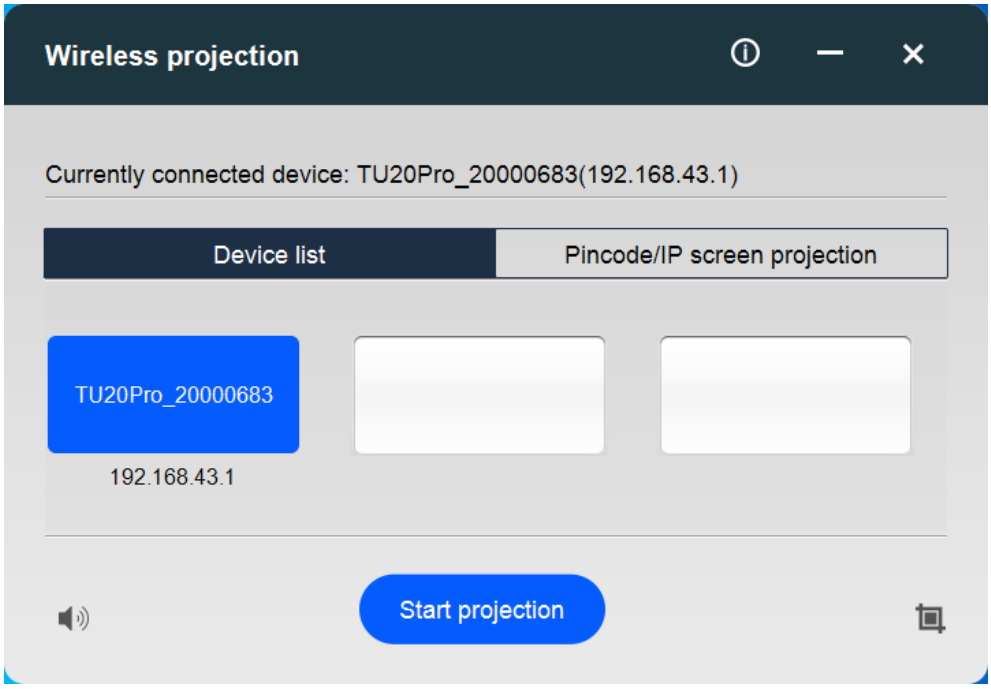
Mirroring from Windows

Step 1 On the PC, open a browser, enter the website address “meexus.cn/English.html” and download the **LinkED for Windows** client.



Step 2 Connect the PC to hotspot of the LED playback control processor (default name: TU*xx* Pro_xxxx; default password: 12345678).

Step 3 Run the client on the PC. The connected device will be detected by the client automatically. Then, click **Start projection**.

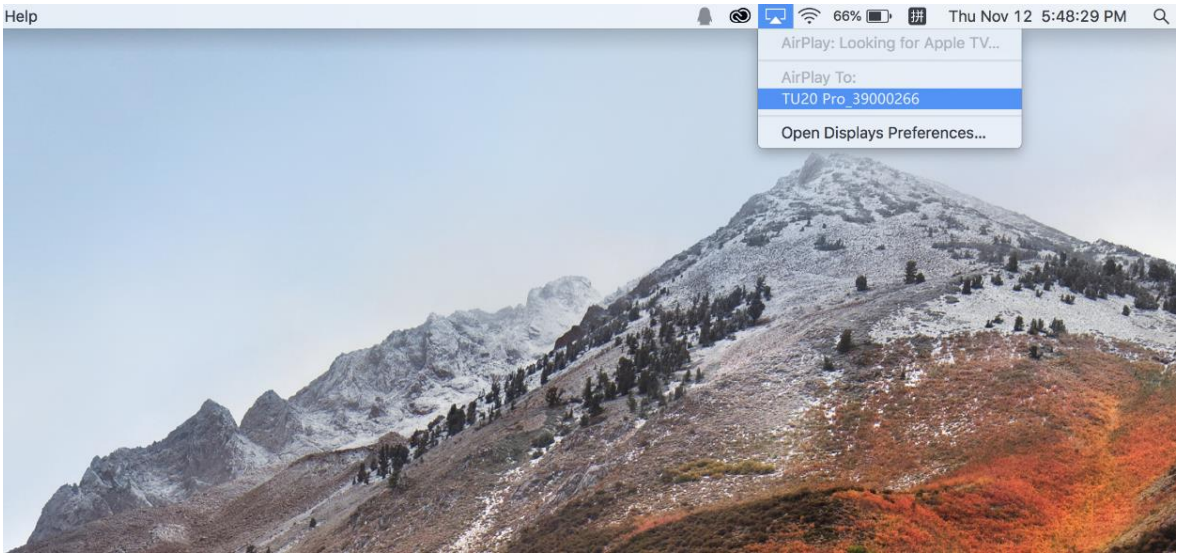


Mirroring from macOS

Step 1 Connect the PC to hotspot of the LED playback control processor (default name: TU*xx* Pro_xxxx; default password: 12345678).

Step 2 Click the AirPlay icon in the menu bar at the top of your screen, and select the device you want to mirror the screen to.

Figure 4-3 Screen mirroring - Mac



4.1.3 Mirroring via Dongle

Step 1 For the first-time use, or after you change the device name, hotspot name or hotspot password, you must insert the mirroring dongle into the USB port of the LED Playback control processor for pairing.

Step 2 Insert the paired dongle into the USB port of the PC.

Figure 4-4 Connection successful

Step 3 When a pop-up window with the “Connection successful” message appears on the desktop, press the round button on the dongle to start mirroring.

4.1.4 Secondary Mirroring

The system supports secondary mirroring during mirroring. The speaker can walk around the room freely and use the Android mobile device (phone or tablet) to reversely control the computer that is being mirrored.

Step 1 Use the mobile device to scan the QR code on the **Wireless Mirroring** page to download and install the Transcreen app.

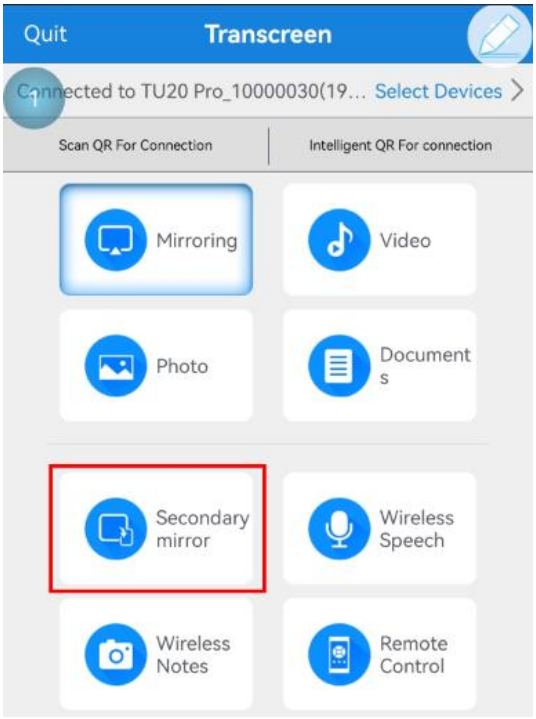
Note

The secondary mirroring function is supported only by the Android mobile devices.

Step 2 Connect the mobile device to the hotspot of the LED playback control processor (default name: TU*xx* Pro_xxxx; default password: 12345678).

Step 3 Run the Transcreen app. On the displayed **Select for Devices** window, select the device you want to connect to, and tap **Confirm**.

Figure 4-5 Secondary mirroring



Step 4 For the first-time opening, tap **Mirror** and then tap **Start now** on the displayed window to start mirroring.

Step 5 Tap **Secondary mirror** to start reverse control.

4.1.5 Wireless Notes

The system supports wireless notes function. The audience can use the mobile device (phone or tablet) to take a snapshot of the content mirrored by the speaker on the display device. The snapshot will be transmitted and saved to a specified location of the audience's mobile device instantly.

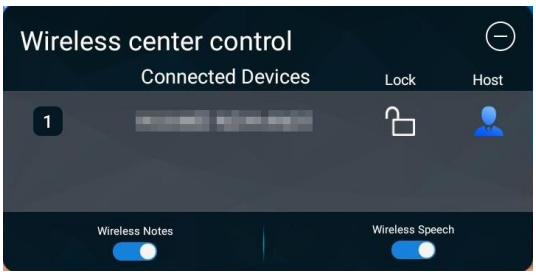
Step 1 Use the mobile device to scan the QR code on the **Wireless Mirroring** page to download and install the Transcreen app.

Step 2 Connect the mobile device to the hotspot of the LED playback control processor (default name: TU*xx* Pro_xxxx; default password: 12345678).

Step 3 Run the Transcreen app. On the displayed **Select for Devices** window, select the device you want to connect to, and tap **Confirm**.

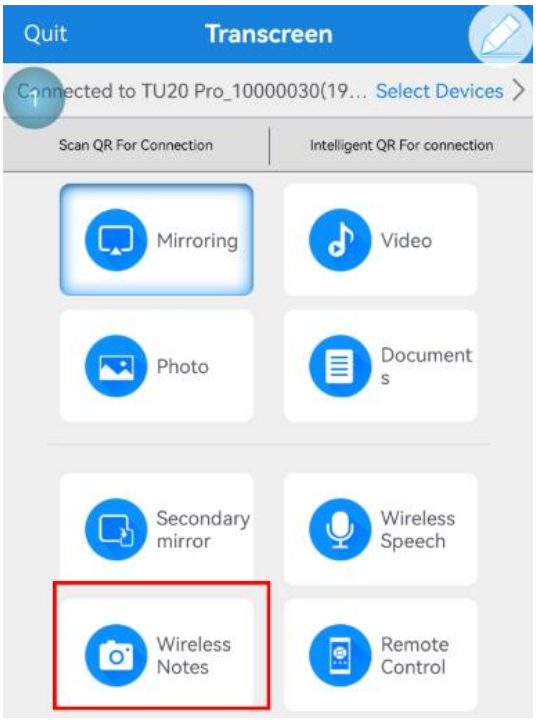
Step 4 In the system, enable **Display master control ball** in the menu to open the **Wireless Central Control** window. On the window, enable the **Wireless Notes** function with the mouse.

Figure 4-6 Wireless central control



Step 5 In the Transcreen app, tap **Wireless Notes**. A snapshot of the mirrored content will be taken instantly and saved to the specified location.

Figure 4-7 Wireless notes



4.1.6 Wireless Speech

The system supports wireless speech function. The mobile device (phone or tablet) can be used as a microphone, and the audience can make a speech directly via the mobile device. The sound will be transmitted to the sound system in the room.

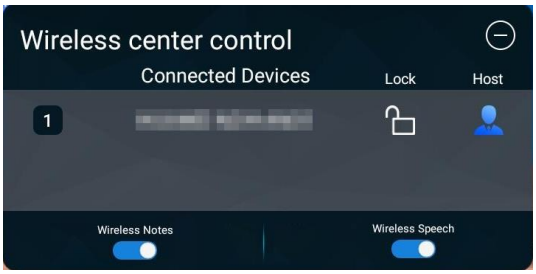
Step 1 Use the mobile device to scan the QR code on the **Wireless Mirroring** page to download and install the Transcreen app.

Step 2 Connect the mobile device to the hotspot of the LED playback control processor (default name: TU*xx* Pro_xxxx; default password: 12345678).

Step 3 Run the Transcreen app. On the displayed **Select for Devices** window, select the device you want to connect to, and tap **Confirm**.

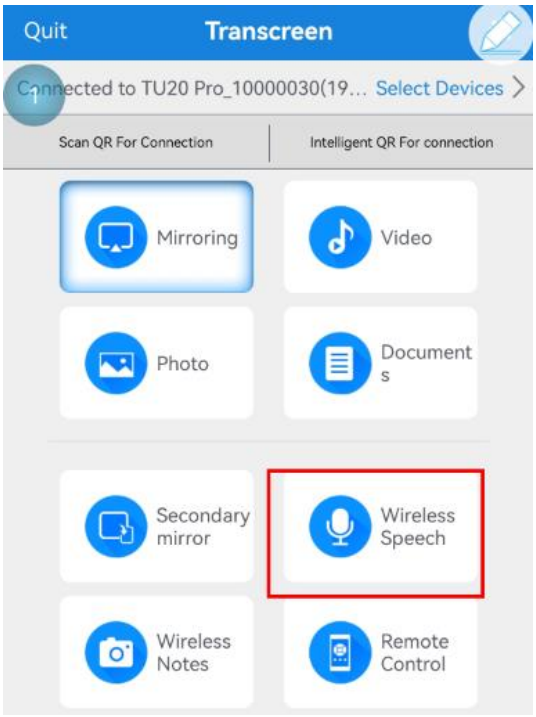
Step 4 In the system, enable **Display master control ball** in the menu to open the **Wireless Central Control** window. On the window, enable the **Wireless Speech** function with the mouse.

Figure 4-8 Wireless central control



Step 5 In the Transcreen app, tap **Wireless Speech**. On the displayed screen, tap and hold **Press to talk** to talk directly.

Figure 4-9 Wireless speech

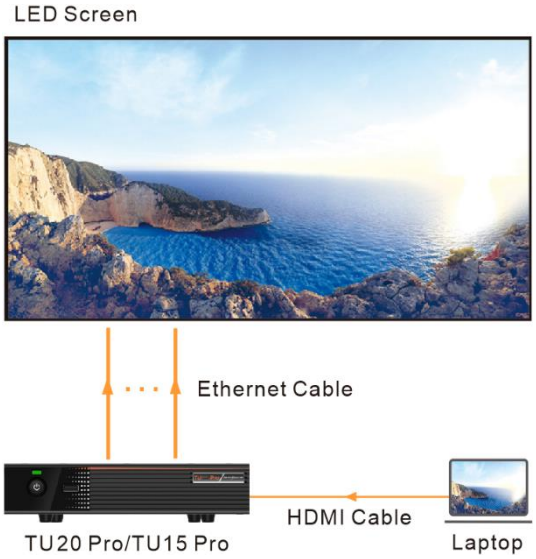


4.2 Wired Mirroring

4.2.1 Connect Signal Source

Connect the LED playback control processor to the device you want to mirror the screen from via HDMI cable.

Figure 4-10 Wired mirroring

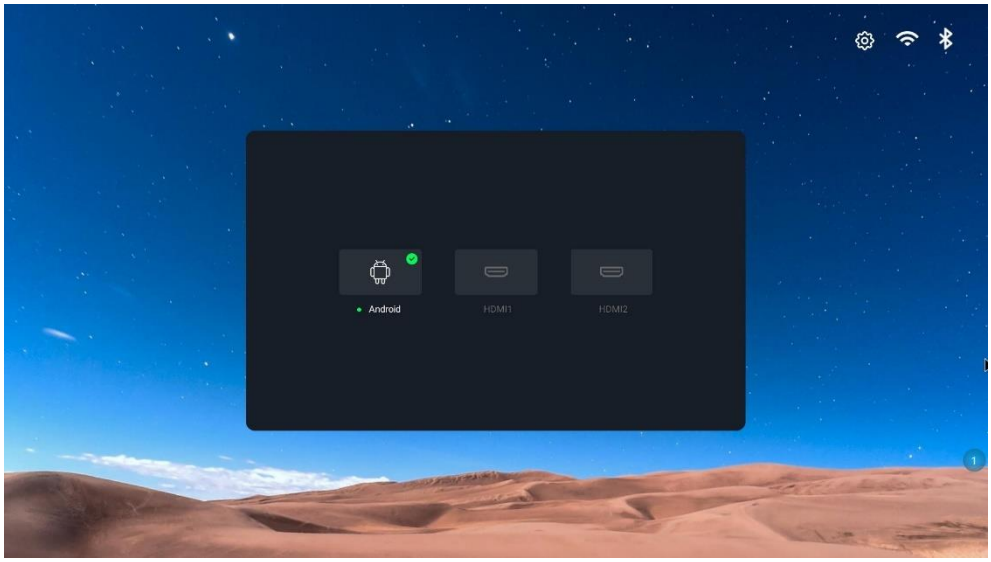


4.2.2 Switch Signal Source

You can switch the signal source via the following method.

Step 1 Select **Source** on the home screen or press the menu button on the remote to enter the source menu.

Figure 4-11 Source



Step 2 Select the source that you want to present and press the **OK** button on the remote to complete switching.

5 Display Effect Adjustment

To have a more comfortable viewing experience, you can adjust the display effect via the following 3 methods.

Select An Application Mode

For different applications, the LED playback control processor provides 4 modes to let the document presentation, video playback and remote meetings have the optimal display effect.

Step 1 On the remote, press the menu button to enter the menu.

Figure 5-1 Effect adjustment

Step 2 Select **Effect Adjustment** and press the **OK** button to enter the effect adjustment screen.

Step 3 Select a mode based on your actual need.

- Standard Mode: This is the default mode and covers most applications.
- Soft Mode: This mode is suitable to applications where there is a lot of text, such as document presentation, PPT slide show, etc.
- Theater Mode: This mode is suitable to video and movie playback applications.
- Meeting Mode: This mode is suitable to the applications where there are many figures, such as a remote meeting.

Customize a Display Effect

You can fine-tune the effect parameters after selecting an application mode to satisfy personalized requirements.

Step 1 On the remote, press the menu button to enter the menu.

Step 2 Select **Effect Adjustment** and press the **OK** button to enter the effect adjustment screen.

Step 3 Adjust the brightness, saturation, contrast, color temperature and hue parameter values to customize the display effect.

Step 4 (Optional) If you are not satisfied with the effect after adjustment, press the **Reset** button to reset the parameter values to the defaults.

Enable Eye Comfort Mode

You can enable the eye comfort mode via one click only.

Step 1 On the remote, press the menu button to enter the menu.

Step 2 Toggle the **Eye Comfort Mode** switch to enable or disable the mode.

Note

After you enable the eye comfort mode, the display will become a little yellowish.

6 Program Playback Control

The LED playback control processor supports program playback control. Users can perform program playback and simple program editing in the system. What's more, programs can also be edited in VNNOX app and published to the LED playback control processor. For detailed operations, please click **Me** > **Help** > **User Manual** in VNNOX app and refer to the user manual.

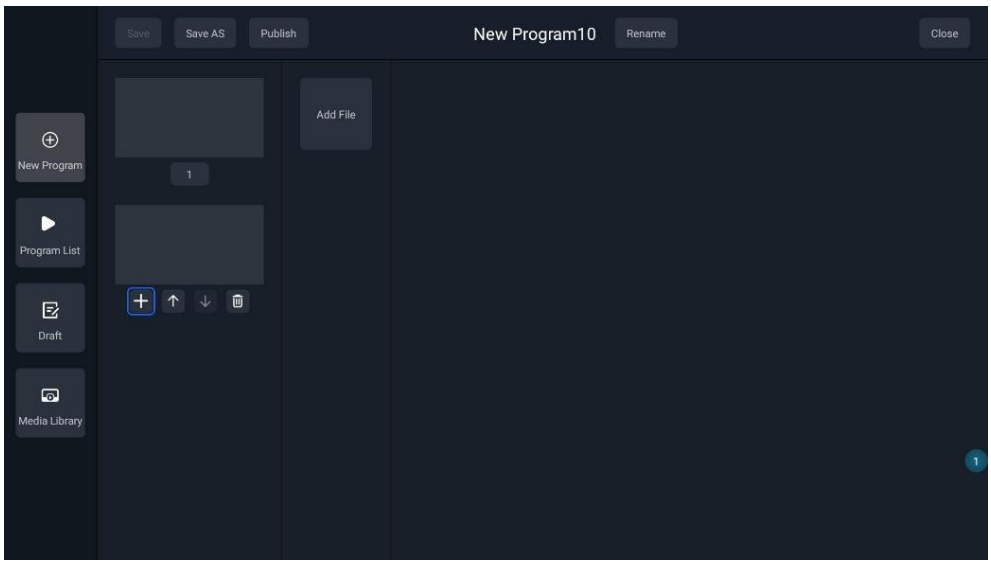
6.1 Create a Program

Step 1 On the home screen of the system, select **Program Playback Control** to enter the playback control page.

Step 2 From the navigation bar on the left, click **New Program**.

Step 3 Set the number of pages for the program by clicking to add pages. Each program supports up to 50 pages.

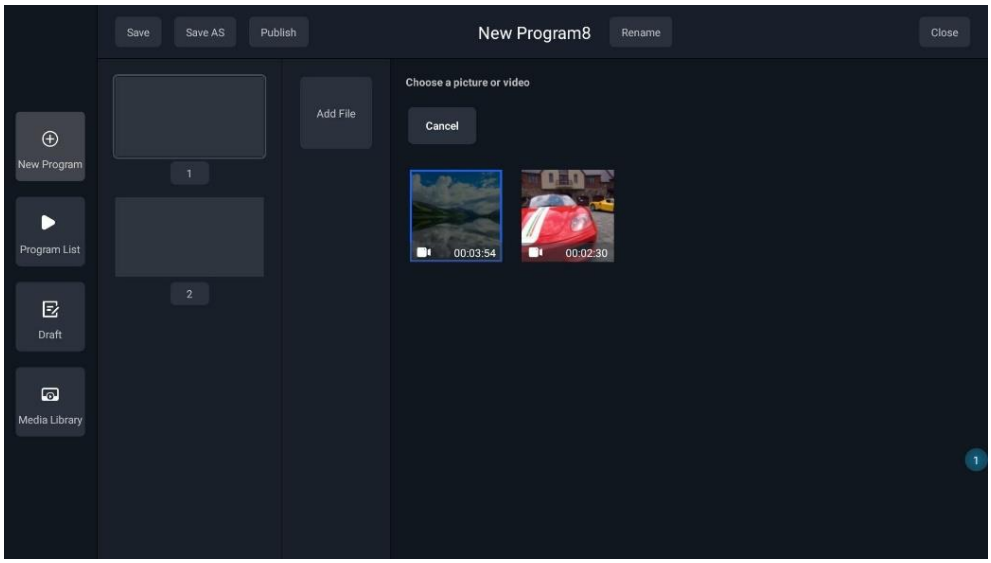
Figure 6-1 Creating a program



Step 4 Select a page, click **Add File** to open the media library and select an image or video.

The playback duration of an image is 10s by default and it cannot be changed. The image display mode can also be set. Options include **FULL SCREEN**, **HORIZONTAL STRETCH** and **VERTICAL STRETCH**.

Figure 6-2 Adding file



Step 5 After all the pages are added, you can click to adjust the page order or click to delete unnecessary pages.

Step 6 Save or publish the program as needed.

- When the program is published, it will be played on the screen immediately.
- If you click save or save as, the programs will be saved in the drafts for you to publish or edit in the future.

6.2 Play Programs

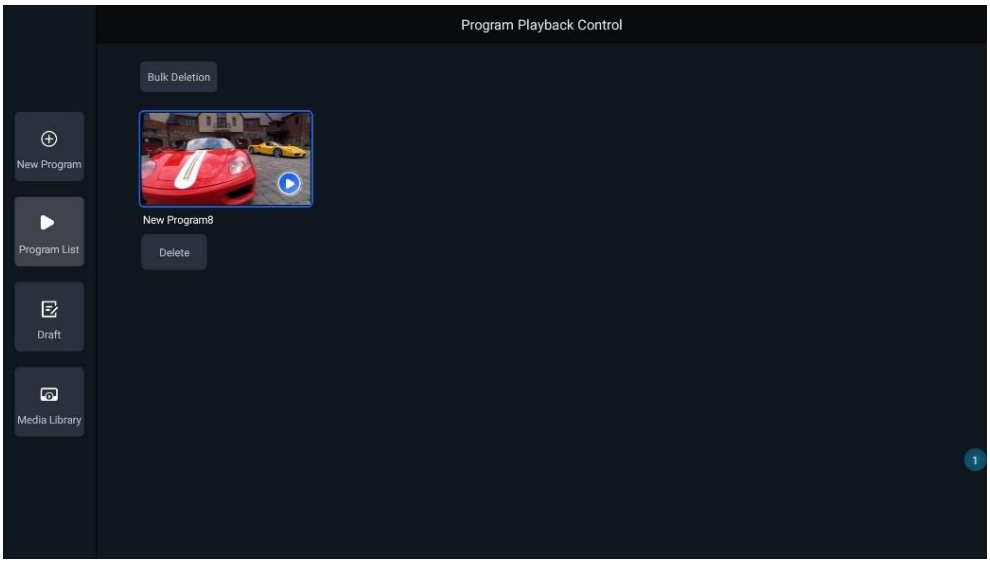
Step 1 On the home screen of the system, select **Program Playback Control** to enter the playback control page.

Step 2 From the navigation bar on the left, click **Program List**.

Step 3 Select the published program, including the programs created and published through the meeting system or VNNOX care.

Step 4 Press the **OK** button on the remote to start full-screen playback.

Figure 6-3 Program list



To delete a program, select it and click **Delete**.

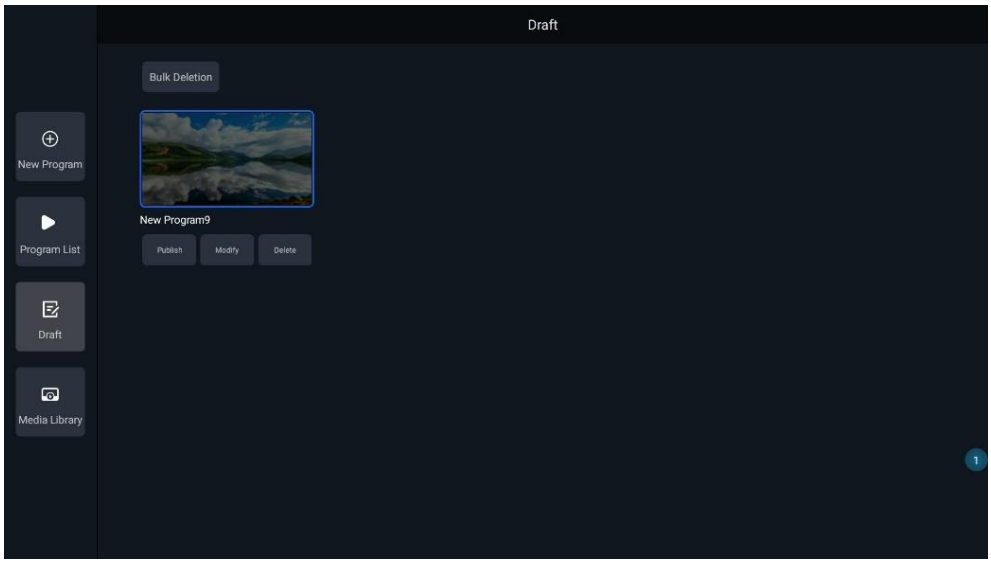
6.3 Manage Drafts

Step 1 On the home screen of the system, select **Program Playback Control** to enter the playback control page.

Step 2 From the navigation bar on the left, click **Draft**.

Step 3 Select a saved program and choose to publish, edit or delete it as needed.

Figure 6-4 Draft



6.4 Manage Media Library

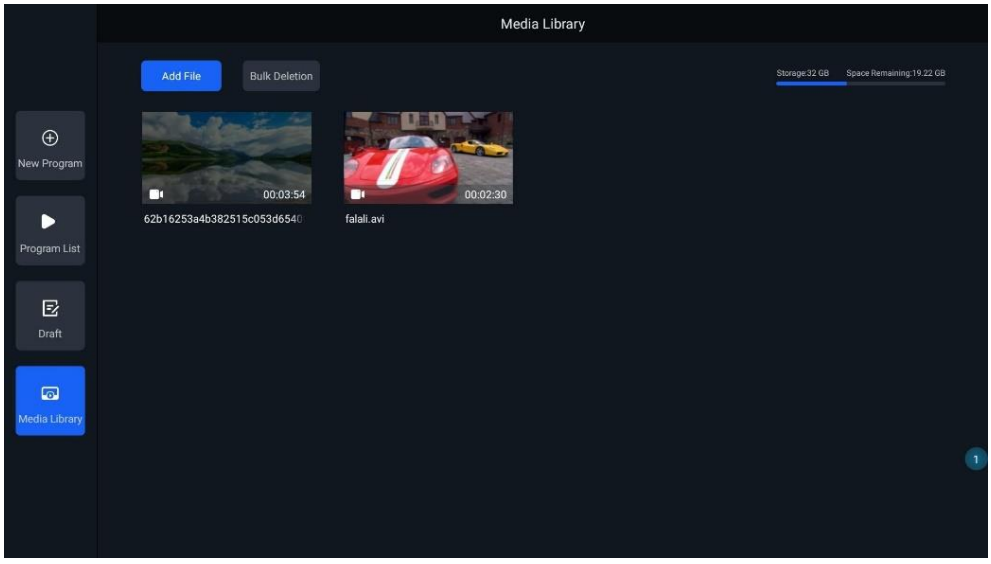
Step 1 On the home screen of the system, select **Program Playback Control** to enter the playback control page.

Step 2 From the navigation bar on the left, click **Media Library**.

Step 3 Select the files in the connected USB drive and add them to the media library. The files in the media library can be used directly when you create a new program or edit a program in the future.

At the top right corner, the total and remaining storage space of the device are shown. If there are not enough storage space, you can delete a single media file or batch delete several files.

Figure 6-5



7 Settings Management

7.1 File Management

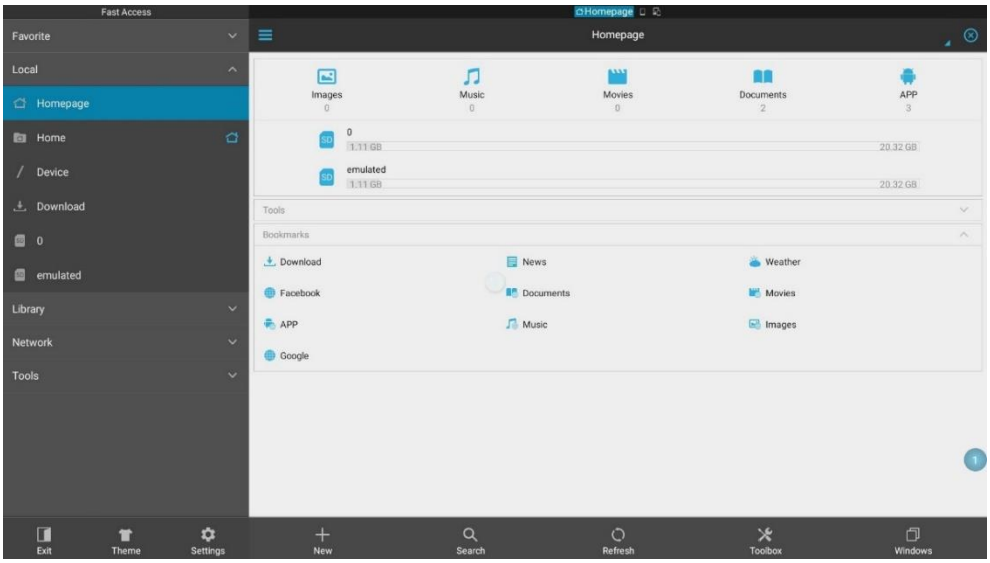
You can do the following steps to manage the files.

Step 1 On the home screen of the system, select **File Explorer** to enter the file explorer page.

Step 2 (For first-time use only) Click **Continue** at the bottom right to allow for the use permissions.

Step 3 Select the folder where the target file is located.

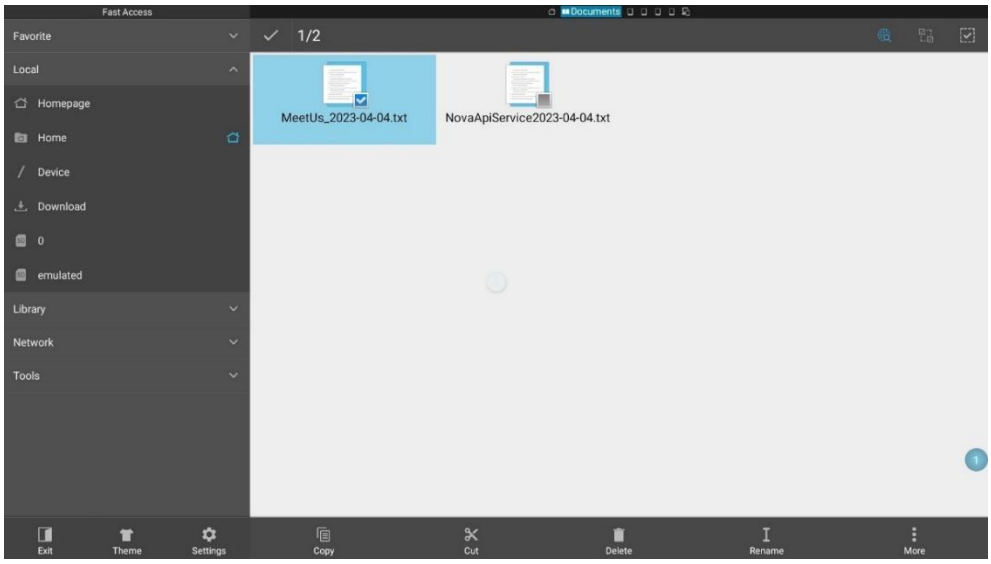
Figure 7-1 ES File Explorer



Step 4 Select the target file and press the **OK** button on the remote to open the file.

Step 5 (Optional) Hold down the **OK** button on the remote or the left mouse button on the target file to enable the file operation options at the bottom of the display, such as copy, cut, delete and rename.

Figure 7-2 ES File Explorer - Copy / Cut / Delete / Rename



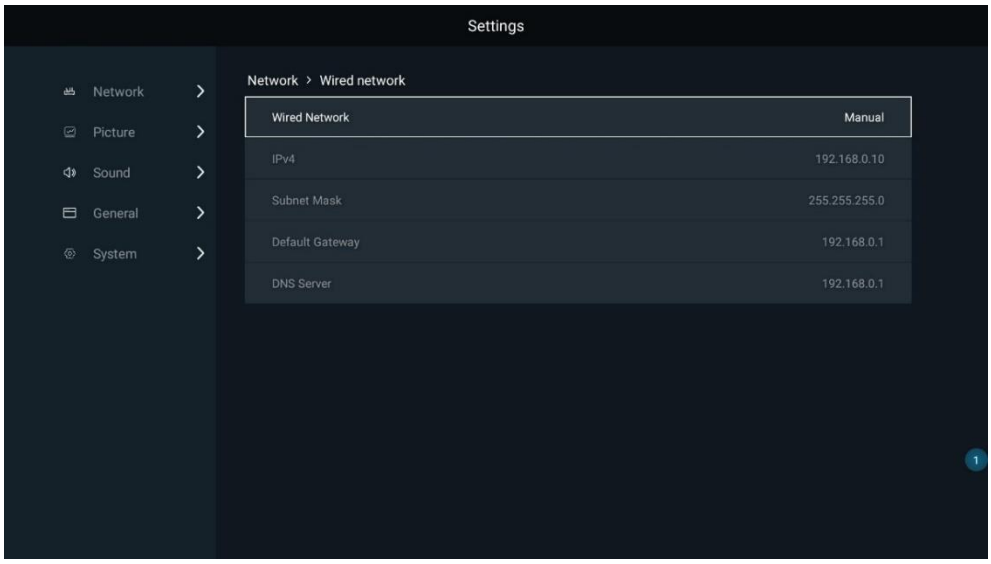
7.2 Network Settings

7.2.1 Wired Network

Step 1 On the home screen of the system, select **More Apps** to enter the app screen.

Step 2 Select **Settings** to enter the menu screen. In the menu, select **Network** > **Wired Network** to enter the wired network settings screen.

Figure 7-3 Wired network



Step 3 Set the **Wired Network** parameter to **Automatic** to automatically obtain the IP address.

Step 4 Go back to the home screen. If the icon appears at the top right corner, the network connection is successful.

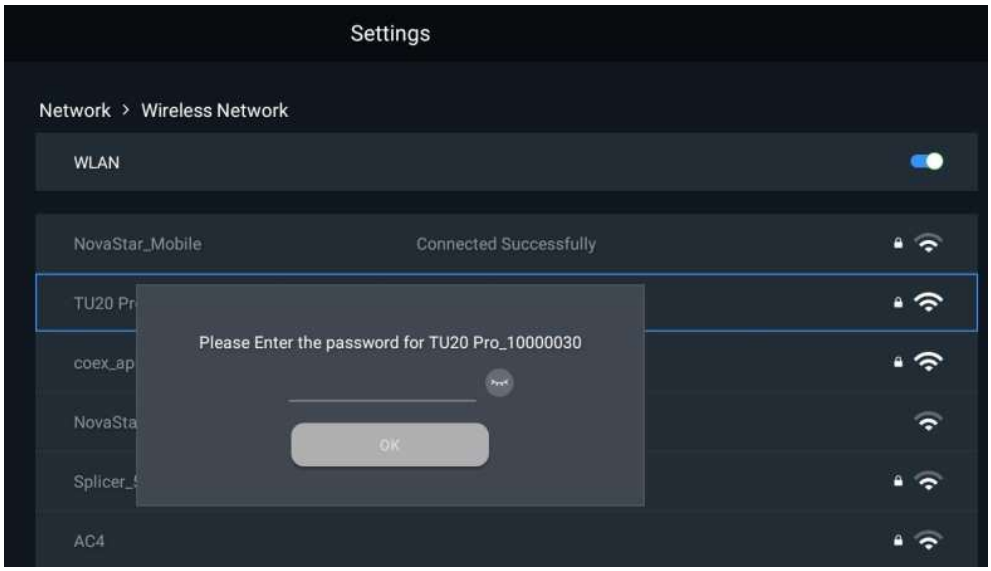
7.2.2 Wireless Network

Step 1 On the home screen of the system, select **More Apps** to enter the app screen.

Step 2 Select **Settings** to enter the menu screen. In the menu, select **Network** > **Wireless Network** to enter the wireless network settings screen.

Step 3 Select an available Wi-Fi network near you and enter the password in the displayed window.

Figure 7-4 Entering the Wi-Fi password



Step 4 Press **OK** to connect to the Wi-Fi network.

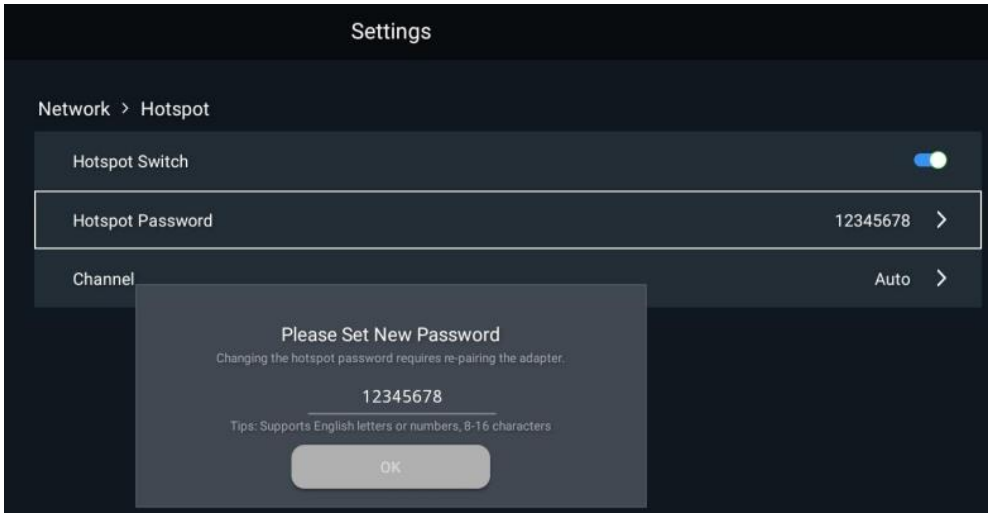
7.2.3 Hotspot

Step 1 On the home screen of the system, select **More Apps** to enter the app screen.

Step 2 Select **Settings** to enter the menu screen. In the menu, select **Network** > **Hotspot** to enter the hotspot settings screen.

Step 3 Set a password for the hotspot.

Figure 7-5 Setting a new hotspot password



Step 4 Press **OK** to enable the hotspot.

Note

After you change the hotspot name or hotspot password, you must insert the mirroring dongle into the USB port of the LED playback control processor for pairing again.

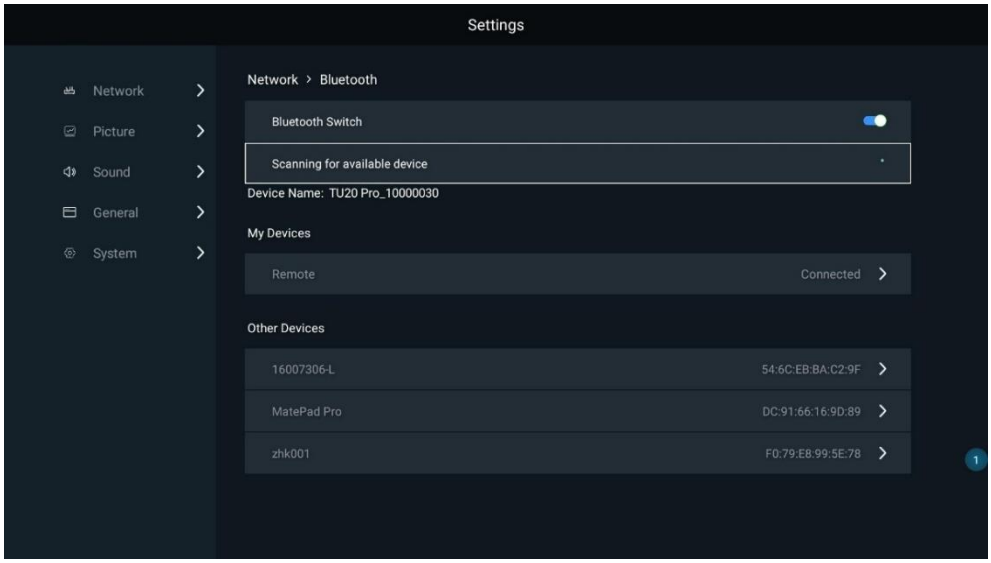
7.2.4 Bluetooth

Step 1 On the home screen of the system, select **More Apps** to enter the app screen.

Step 2 Select **Settings** to enter the menu screen. In the menu, select **Network** > **Bluetooth** to enter the Bluetooth settings screen.

Step 3 Turn on the Bluetooth switch.

Figure 7-6 Bluetooth



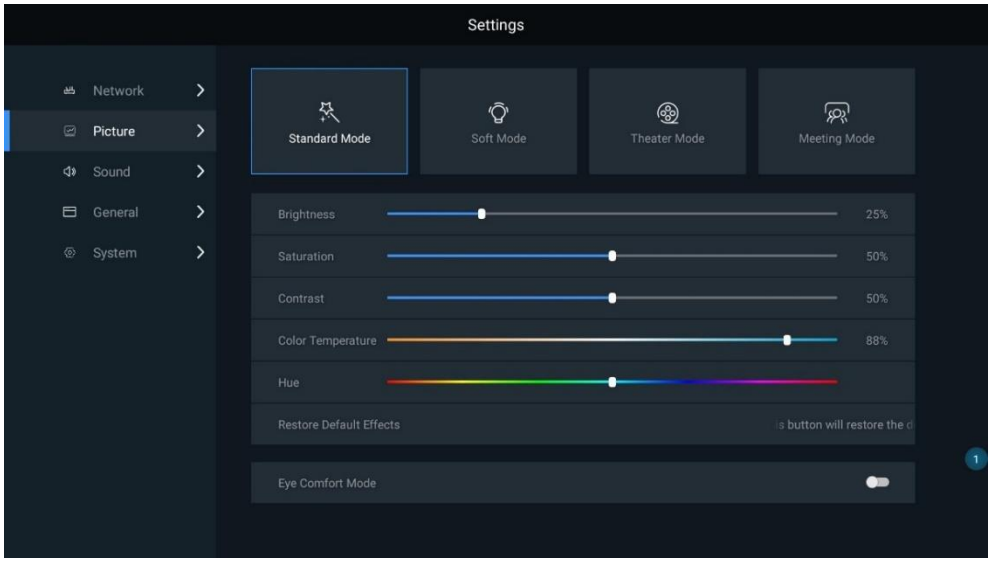
Step 4 Select the target device to pair it with the system.

7.3 Display Effect Adjustment

Step 1 On the home screen of the system, select **More Apps** to enter the app screen.

Step 2 Select **Settings** to enter the menu screen. In the menu, select **Picture** to enter the picture effect adjustment screen.

Figure 7-7 Display effect adjustment



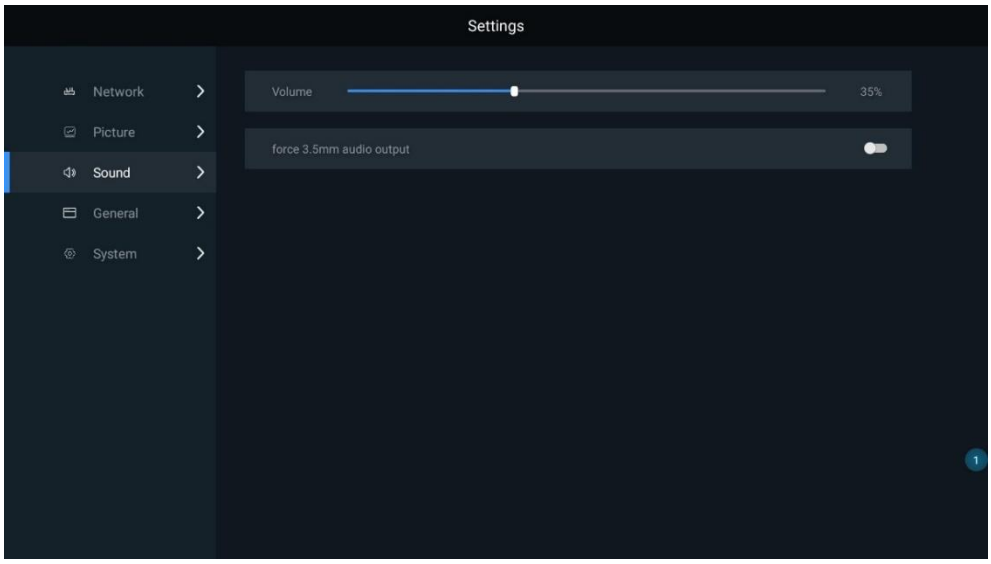
Step 3 For the detailed adjustment method, see 5 Display Effect Adjustment.

7.4 Sound Settings

Step 1 On the home screen of the system, select **More Apps** to enter the app screen.

Step 2 Select **Settings** to enter the menu screen. In the menu, select **Sound** to enter the sound settings screen.

Figure 7-8 Sound settings



Step 3 Do sound settings, including adjusting the volume and forcing 3.5mm audio output.

7.5 General Settings

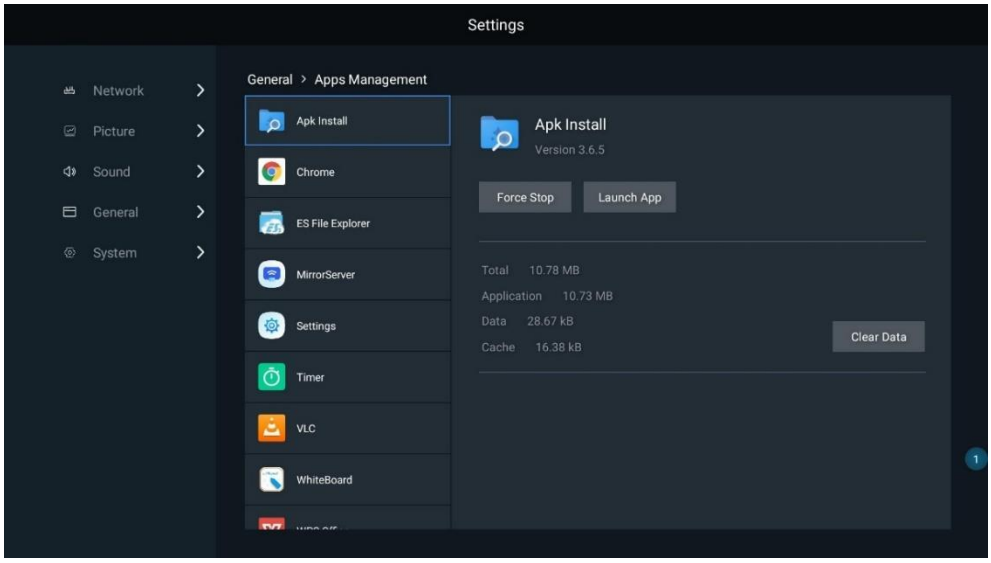
7.5.1 App Management

Step 1 Select **Settings** to enter the menu screen. In the menu, select **General** > **Apps** to enter the app management screen.

Step 2 Do the following settings for the installed apps.

- Force Stop: Force the app to stop.
- Launch App: Run the selected app.
- Uninstall: Uninstall the selected app.
- Clear Data: Clear the cached data of the selected app.

Figure 7-9 App management



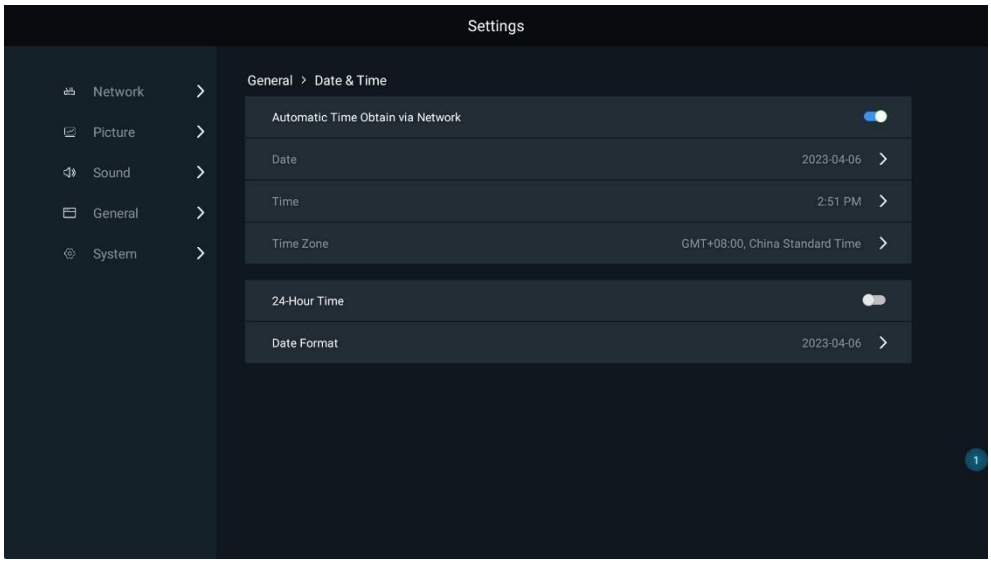
7.5.2 Date and Time

Step 1 Select **Settings** to enter the menu screen. In the menu, select **General** > **Date & Time** to enter the date and time settings screen.

Step 2 Do the following date and time settings for the system.

- Automatic Time Obtain via Network: Enable this function to synchronize the system date and time with the network time. You can also disable this function and then manually set the system date and time.
- 24-Hour Time: Turn on the switch to let the time be displayed in the 24-hour time format. If you do not turn on the switch, the time will be displayed in the 12-hour time format by default.
- Date Format: Set the date format to **Year-Month-Day** (default), **Day-Month-Year** or **Month-Day-Year.**

Figure 7-10 Date and time



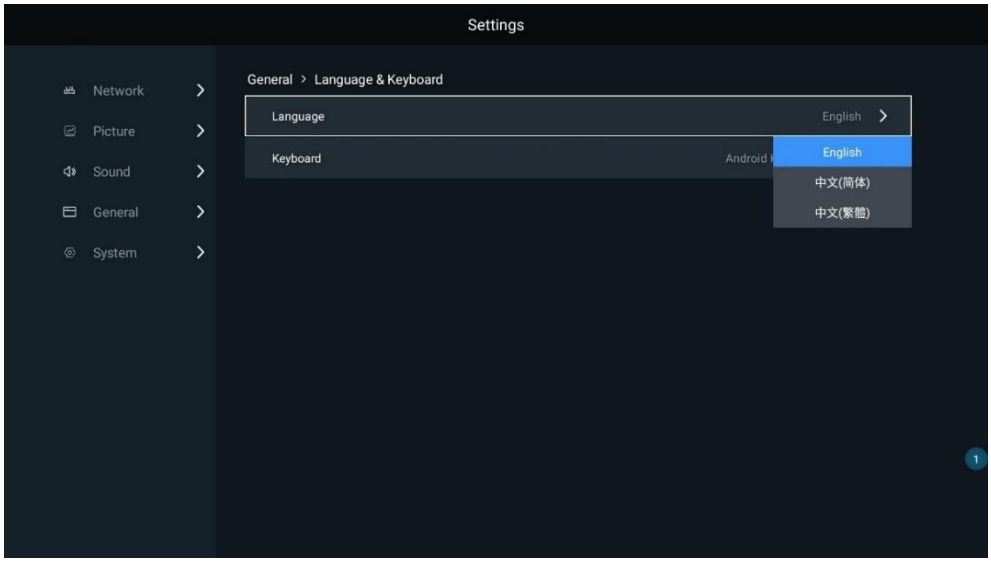
7.5.3 Language and Keyboard

Step 1 Select **Settings** to enter the menu screen. In the menu, select **General** > **Language & Keyboard** to enter the language and keyboard settings screen.

Step 2 Do the following language and keyboard input method settings for the system.

- Language: Set the system language to **English**, **中文(简体)** (default), or **中文(繁体)**.
- Keyboard: Set the keyboard input method to **Android keyboard (AOSP)**.

Figure 7-11 Language and keyboard



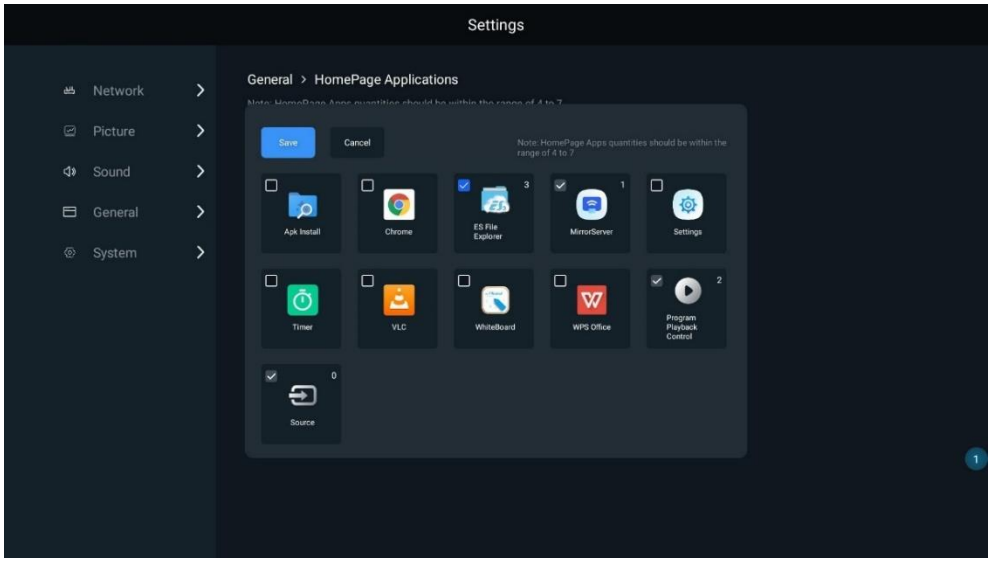
7.5.4 Home Application

Step 1 Select **Settings** to enter the menu screen. In the menu, select **General** > **Home Application** to enter the home app settings screen.

Step 2 Click **Add**. In the pop-up window, select the apps to be added to the homepage and their placement order.

You can select 4 to 7 home applications. Among them, the **MirrorServer** (wireless mirroring), **Source** and **Program Playback Control** apps cannot be deselected and their order cannot be changed.

Figure 7-12 Home applications



Step 3 After the home apps are changed, you can click **Reset** to reset the homepage settings to the factory default settings.

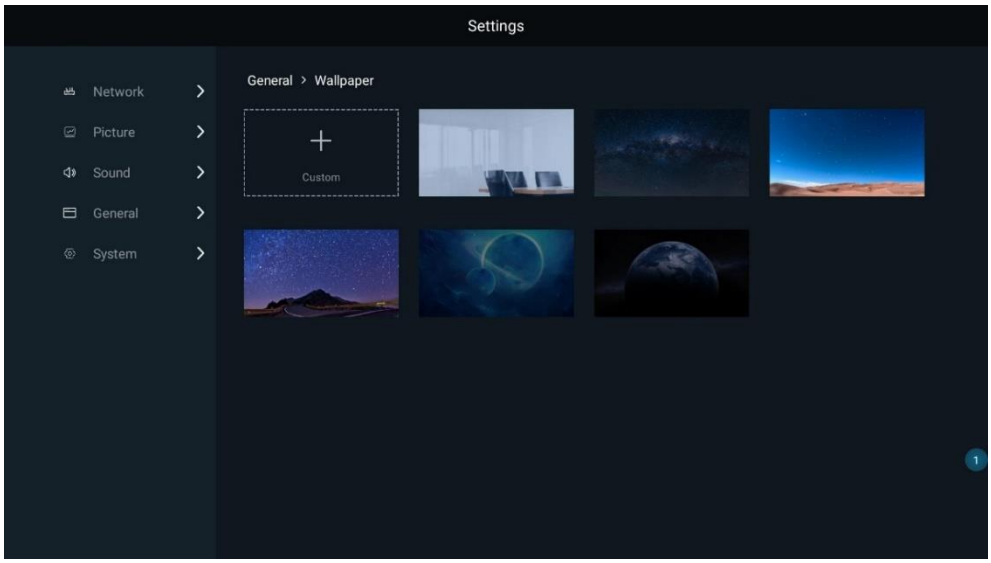
7.5.5 Wallpaper

Step 1 Select **Settings** to enter the menu screen. In the menu, select **General** > **Wallpaper** to enter the wallpaper settings screen.

Step 2 Set the system wallpaper to a built-in wallpaper in the system or a custom wallpaper.

- System wallpaper: Select a target wallpaper and press the **Set as Wallpaper** button on the selected wallpaper.
- Custom wallpaper: Press the **Custom** button to open ES File Explorer, select a local picture, and press the **OK** button on the remote.

Figure 7-13 Wallpaper



7.5.6 Image Quality Enhancement

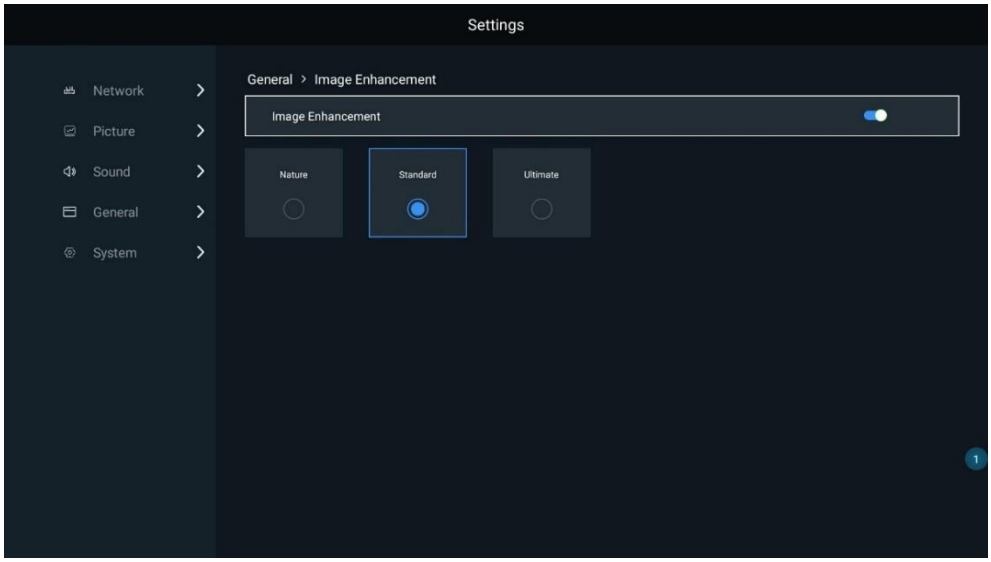
Step 1 Select **Settings** to enter the menu screen. In the menu, select **General** > **Image Enhancement** to enter its settings screen.

Step 2 Enable **Image Enhancement**.

Step 3 Select an image quality enhancement mode from **Nature**, **Standard** or **Ultimate**.

The display effect can be dramatically improved from the three dimensions of contrast, details and color. The overall sense of image gradation is richer and more delicate; the edge details are clear and sharp; the color is bright and vivid.

Figure 7-14 Image quality enhancement



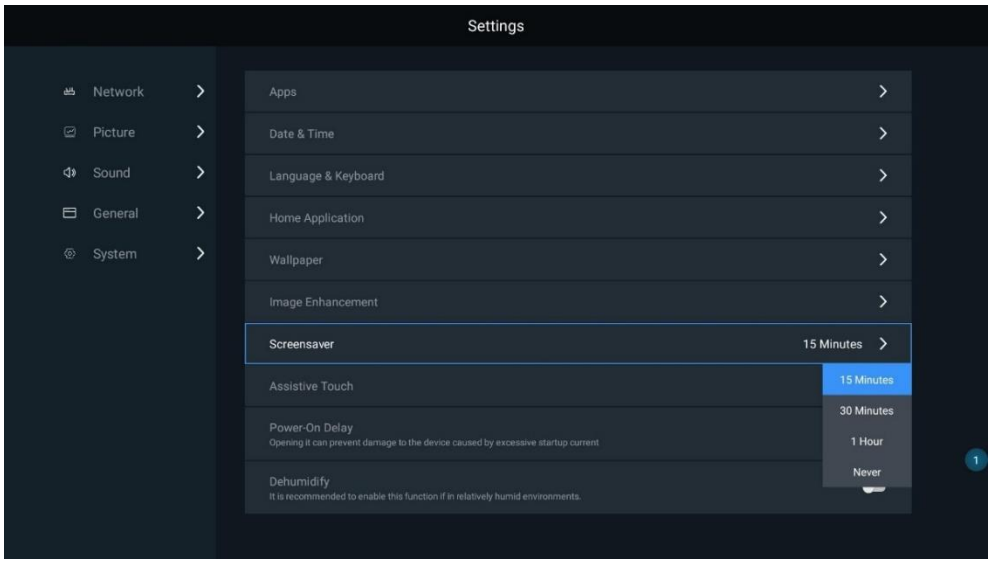
7.5.7 Screensaver

Step 1 Select **Settings** to enter the menu screen. In the menu, select **General** > **Screen Saver**.

Step 2 Select the time after which screensaver is enabled. Options are **15 Minutes**, **30 Minutes**, **1 Hour** and **Never**.

You can click any button on the remote to exit the screensaver.

Figure 7-15 Screensaver

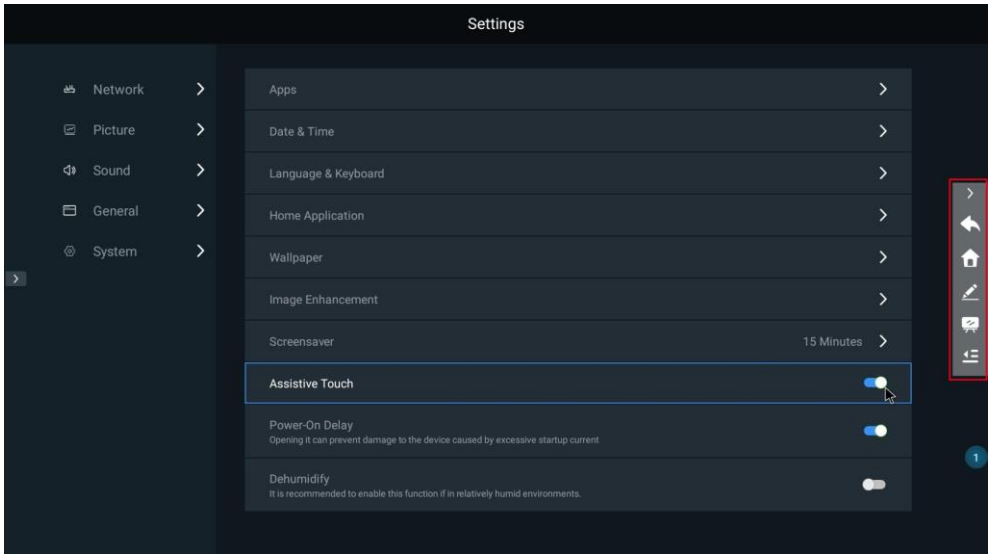


7.5.8 Assistive Touch

Step 1 Select **Settings** to enter the menu screen. In the menu, select **General** to enter its settings screen.

Step 2 Turn on the **Assistive Touch** switch and press the small triangle icons at the left and right display edges to open the sidebar.

Figure 7-16 Assistive touch



- : Back button. Click or tap to go back to the previous operation
- : Home button. Click or tap to go back to the home screen.
- : Pencil button. Click or tap to open the commenting tool.
- : Whiteboard button. Click or tap to open the whiteboard tool.
- : Menu button. Click or tap to open the menu bar.

Note

You can only use the connected mouse or touchscreen to operate on the assistive touch menu. The remote cannot work on this menu.

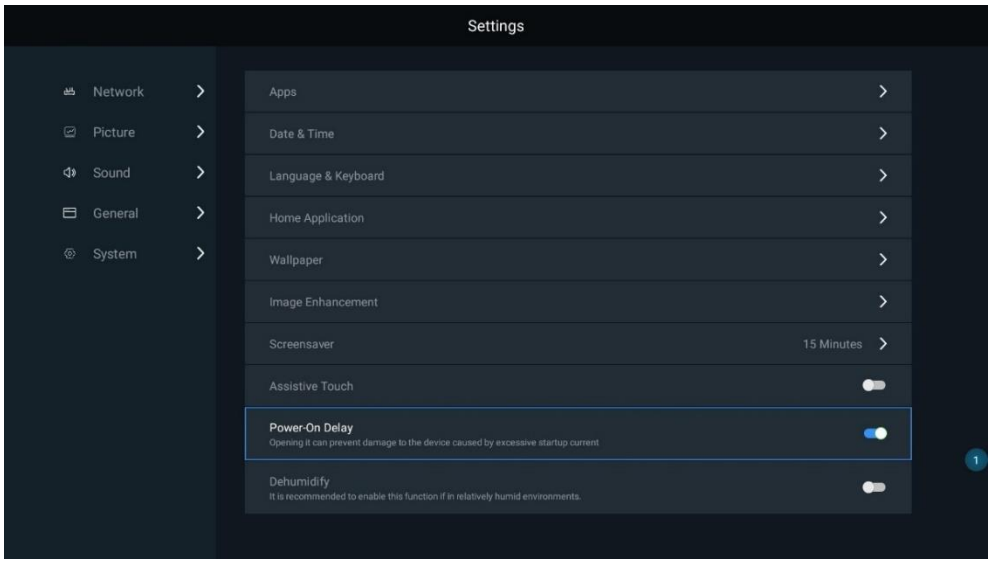
7.5.9 Power-On Delay

Step 1 Select **Settings** to enter the menu screen. In the menu, select **General** to enter its settings screen.

Step 2 Enable **Power-On Delay**.

After it is turned on, the relay can realize power-on delay. The delay interval is 250 ms, which can effectively protect the circuitry.

Figure 7-17 Power-On Delay



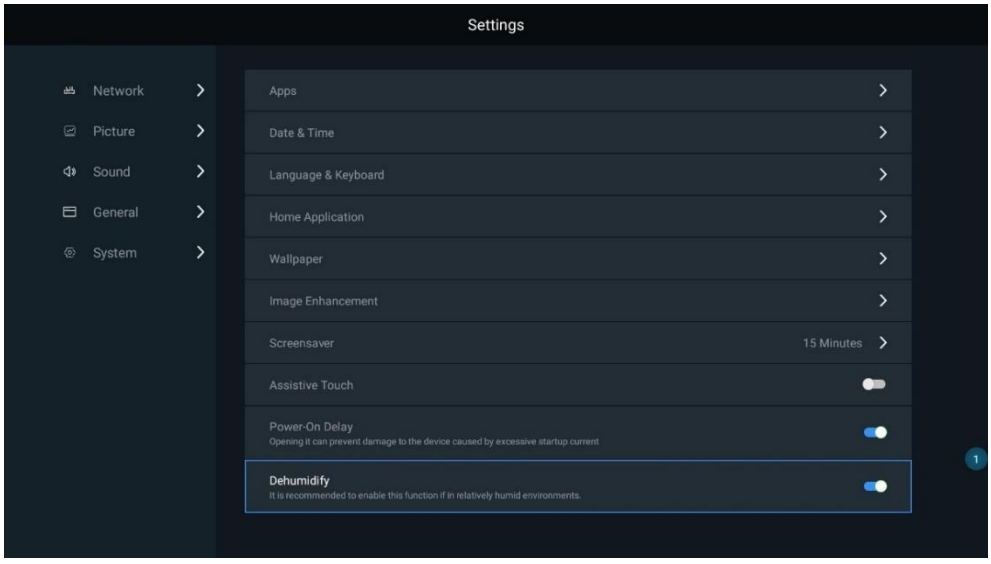
7.5.10 Dehumidification

Step 1 Select **Settings** to enter the menu screen. In the menu, select **General** to enter its settings screen.

Step 2 Enable **Dehumidify**. The switch is off by default, and it will take effect in real time after it is enabled.

LED products are moisture-sensitive. To extend the screen service life in a relatively humid environment, dehumidify the screen before long-term use again after the screen is not used for a period of time.

Figure 7-18 Dehumidification



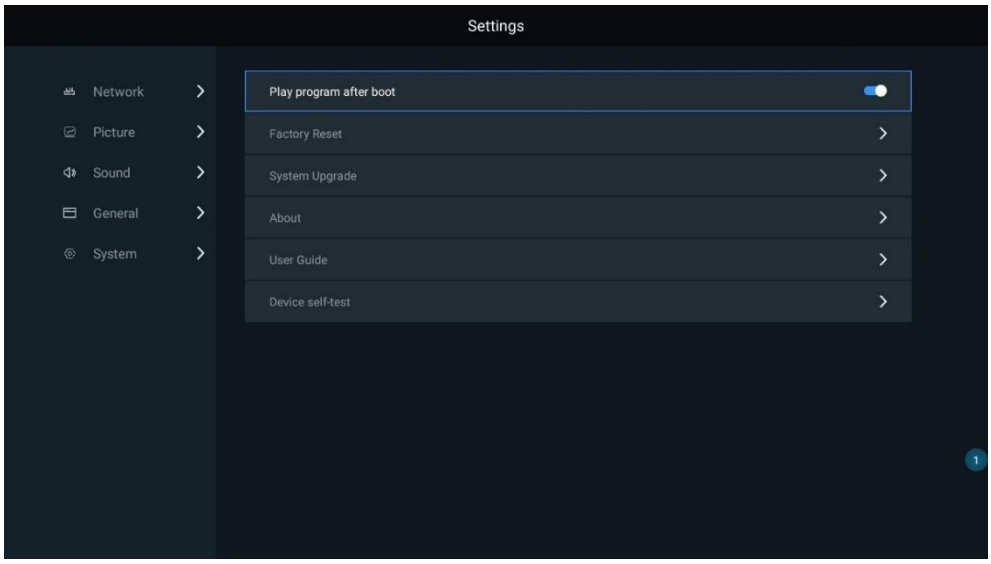
7.6 System Settings

7.6.1 Play Program After Boot

Step 1 Select **Settings** to enter the menu screen. In the menu, select **System** > **Play Program after boot** to enter its screen.

Step 2 Enable **Play Program after boot** and the program will be played automatically when the device is turned on.

Figure 7-19 Play program after boot

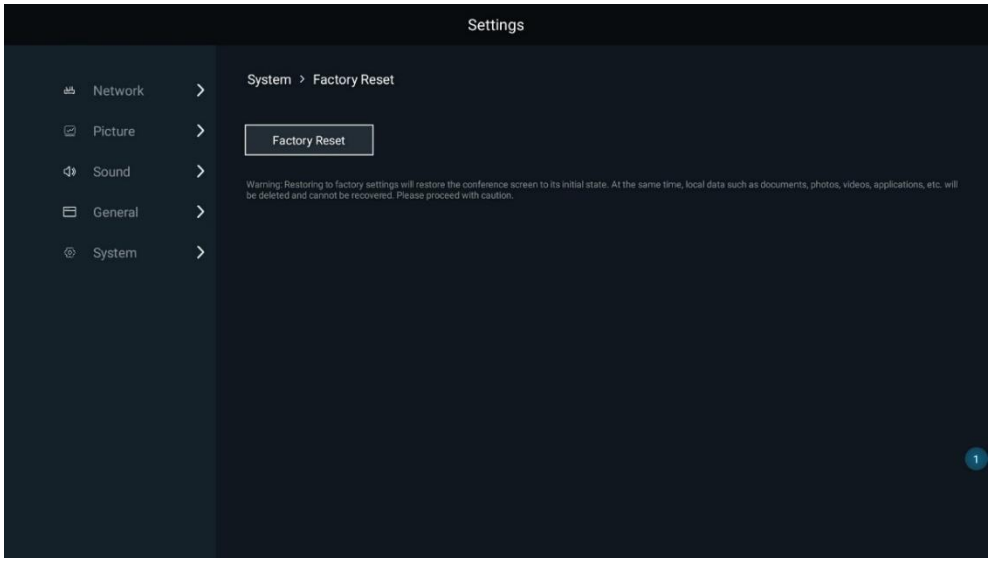


7.6.2 Factory Reset

Step 1 Select **Settings** to enter the menu screen. In the menu, select **System** > **Factory Reset** to enter the factory reset settings screen.

Step 2 Press the **Factory Reset** button to reset the LED playback control processor to its factory status.

Figure 7-20 Factory reset



Note

- Factory reset will erase all the data including local documents, images, videos, applications, etc. The data cannot be recovered.
- After you do the factory reset, you need to do commercial activation for the mirroring dongle again. For the commercial activation method, see 8 Troubleshooting.

7.6.3 System Upgrade

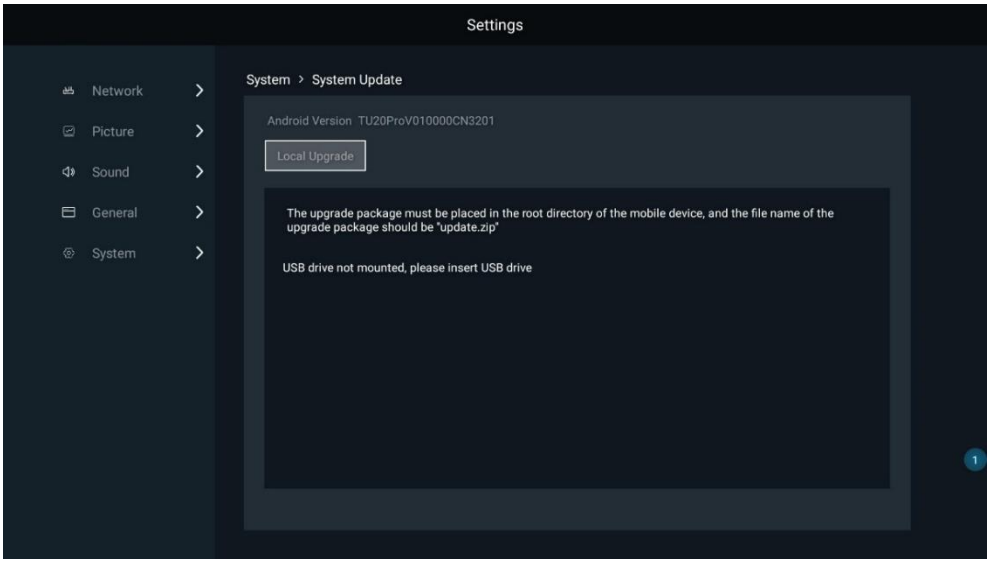
Step 1 Select **Settings** to enter the menu screen. In the menu, select **System** > **System Upgrade** to enter the Android system update screen.

Step 2 Insert the USB drive that contains the update package into the USB port on the device. (The update package file name is “update.zip” and the package must be placed in the root directory of the USB drive.)

Step 3 When the screen displays “USB drive root directory contains upgrade files, upgrade is available”, press the **Local Upgrade** button.

The update process takes about 3 to 5 minutes. During the update process, do not power off the device, and do not disconnect the USB drive. (These operations are dangerous and may damage the device.)

Figure 7-21 System update



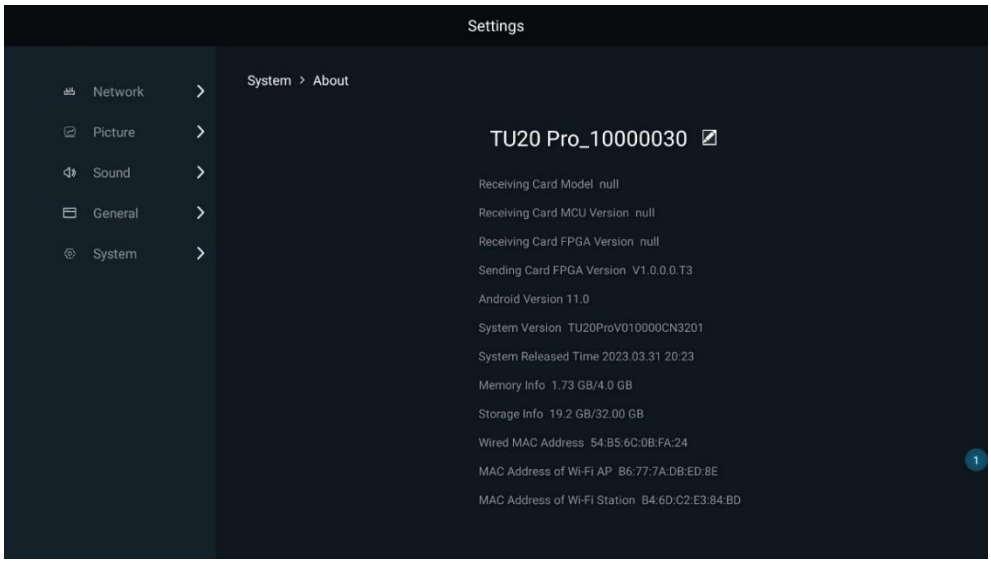
7.6.4 About

Step 1 Select **Settings** to enter the menu screen. In the menu, select **System** > **About** to enter the **About** screen.

Step 2 Check and change the device name, and check the following information.

- Receiving card model/MCU version/FPGA version
- Sending card FPGA version
- Android version
- System released time
- Memory info
- Storage info
- Wired MAC address
- MAC address of Wi-Fi AP
- MAC address of Wi-Fi Station

Figure 7-22 About



7.6.5 User Guide

Select **Settings** to enter the menu screen. In the menu, select **System** > **User Guide** and view the guide.

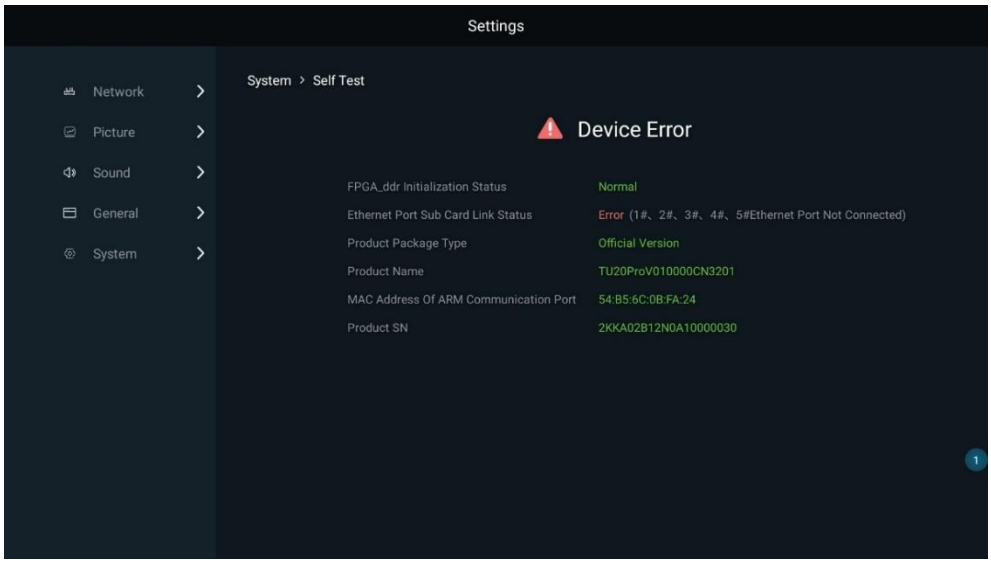
7.6.6 Device Self-Test

Step 1 Select **Settings** to enter the menu screen. In the menu, select **System** > **Device self-test** to enter its screen.

Step 2 Check the device running status and the following information.

- FPGA-ddr initialization status
- Ethernet port sub card link status
- Program package type
- Product name
- MAC address of ARM communication port
- Product SN

Figure 7-23 Self-test



8 Troubleshooting

8.1 Mirroring Failed After Dongle Inserted to PC

- Make sure the mirroring dongle and the LED playback control processor have been paired, and the hotspot has been enabled.
- Disable the anti-virus software. Then, unplug and plug the mirroring dongle again.
- Manually run the mirroring software client on the PC.
  - For Windows, go to my computer > **Client**, and run the **Client.exe** program.
  - For macOS, go to my computer > **Client** > **Client.app** > **Content** > **MacOS**, and run the **Client** program.

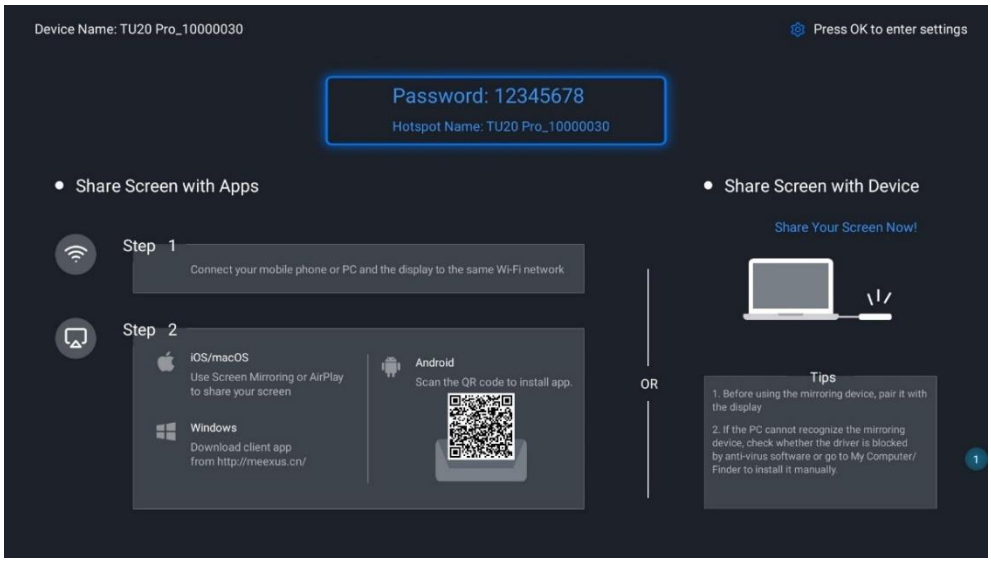
8.2 Dongle Activation Failed or Activation Code Required

If the mirroring dongle has no response after you press the round button, activation of the dongle may fail. Do the procedure below to activate the dongle.

Step 1 Before activation, make sure the network connection is normal.

Step 2 On the home screen of the system, select **Wireless Mirroring** to enter the screen shown below.

Figure 8-1 Wireless Mirroring



Step 3 Press the **OK** button on the remote or select the icon at the top right corner to open the **Mirror Setting** menu, and select **Activation Information** in the menu.

Step 4 Select **Commercial activate**. In the displayed dialog box, enter the activation code to activate the mirroring dongle.

To obtain the activation code, please contact the technical support. See the contact information on the back cover of this document.

Note

- To do wireless screen mirroring, make sure the device to be mirrored and the LED playback control processor must be on the same network segment, and the device must connect to the hotspot of the processor.
- Commercial activation for the mirroring dongle is already done at the factory before it is sold.

8.3 Wireless Mirroring Getting Stuck and Having High Latency

- Check whether the connection between the device that you are mirroring from and the network of the LED playback control processor is normal.
- Check whether the antennas are connected correctly.
- Check whether there is interference in the wireless environment and whether there is channel congestion. In the settings menu, you can switch the channel to ensure that the device is working in a good wireless environment without much interference. In this way, the screen mirroring quality can be ensured. (You can download a Wi-Fi application like Wi-Fi assistant from the app store and use the application to scan.)

8.4 Short Infrared Control Distance and Slow Response of the Remote

Troubleshoot the problems from the following two aspects.

- Make sure the infrared receiver is installed correctly and ensure a valid receiving angle. Make sure the remote is not sheltered from any metal.
- Make sure the remote has enough battery power.

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