

LED Controller

User Manual

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The symbols that may be found in this document are defined as follows.

Symbol	Description
	Provides additional information to emphasize or supplement important points of the main text.
	Indicates a potentially hazardous situation, which if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
	Indicates a hazard with a high level of risk, which if not avoided, will result in death or serious injury.

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Chapter 1 Introduction

1.1 Overview

The LED Tool client (hereinafter referred to as the client) is a powerful and user-friendly software. Through the client, you can easily add and manage multiple screen controlling devices (hereinafter referred to as the device, including LED controllers and video wall controllers installed with LED controller boards) and control the full-color LED display (hereinafter referred to as the display or screen). The client supports multiple functions and is suitable for meeting rooms, studios, gyms, airports, banks, advertising locations, family cinemas, and other scenarios.

Note

Only some video wall controllers support the installation of LED controller boards.

1.2 First-Time Configuration Process

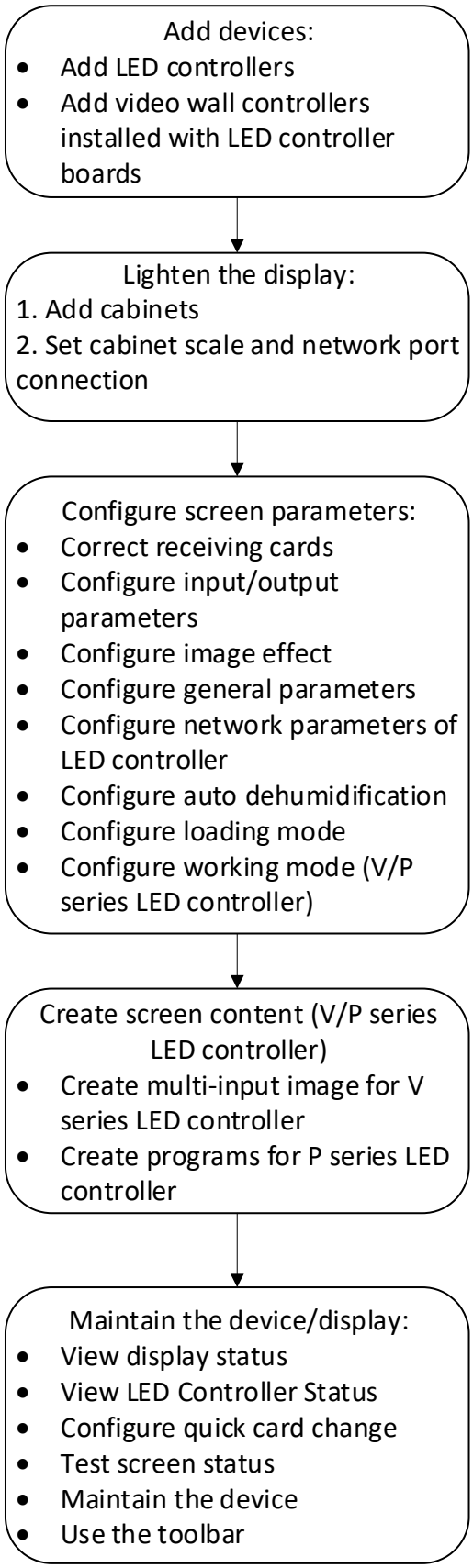

Figure 1-1 First-Time Configuration Process

1.3 Device Function Comparison

The supported functions vary by the device type.

Table 1-1 Device Functions

Functions on Client				LED Controller			Video Wall Controller
				C	V	P	
Screen Settings	Screen Lightening Settings			√			
	Input/Output management	Input Management		√			
		Output Management		√			
	Display Effect			√			
	Correction			√			
	Content Control				√	√	
	Back Up	Network Port Backup		√			
		Device Backup		√			
	Receiving Card Parameters			√			
Screen Maintenance	Screen Maintenance			√			
	Settings	System	Basic Info	√			
			Time Settings	√			
		Network	Wi-Fi			√	
			Bluetooth			√	
			Hot Spot			√	
			TCP/IP	√			
		Preference	Startup Image	√			
			No Signal Image	√			
			Font Settings		√		
		Environment and Alarm		√			
		Storage Management				√	
		Schedule		√			

Functions on Client			LED Controller			Video Wall Controller
			C	V	P	
		Working Mode		√	√	
		Loading Mode	√			
		Dehumidification	√			
	Maintenance and Security	Restart	√			
		Backup and Reset	√			
		Log	√			
		Device Debugging	√			
		Permission Management	√			

Chapter 2 Device Adding

On the client, you can add LED controllers and video wall controller installed with LED controller boards.

Before You Start

- For an LED controllers: Use Ethernet cables to connect multiple network ports of the LED controller to multiple cabinets, and then use an Ethernet cable or Wi-Fi to connect the LED controller to the computer where the LED Tool client is installed. Only some LED controllers support Wi-Fi connections.
- For a video wall controller installed with LED controller boards: Use Ethernet cables to connect multiple network ports of an LED controller board in the video wall controller to multiple cabinets, and then use an Ethernet cable to connect the video wall controller to the computer where the LED Tool client is installed. Only some video wall controllers support the installation of LED controller boards.

Steps

Step 1 Use the default project or click **Create Project** to create a new project.

Step 2 On the **Screen Settings** → **Screen Lightening Settings** page, use the default screen or click  to create a new screen.

Step 3 Click  or **Add Now** to add devices.

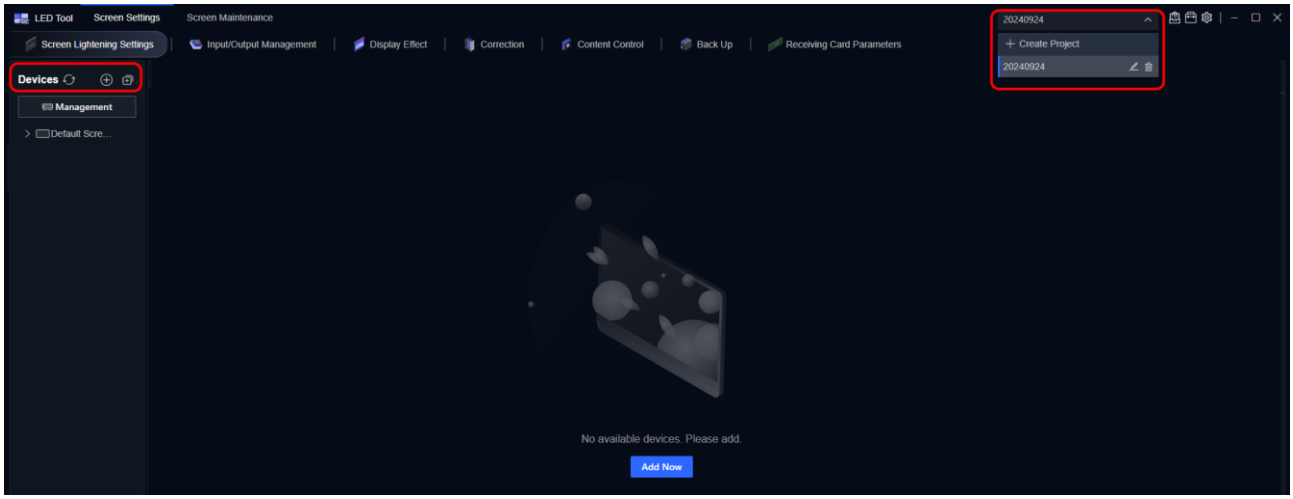

Figure 2-1 Screen Settings Page

Step 4 Use either of the following methods to add devices.

- Click **Auto Detect**. Select the devices to be added, enter the user name and password, select the group, and then click **Add**.

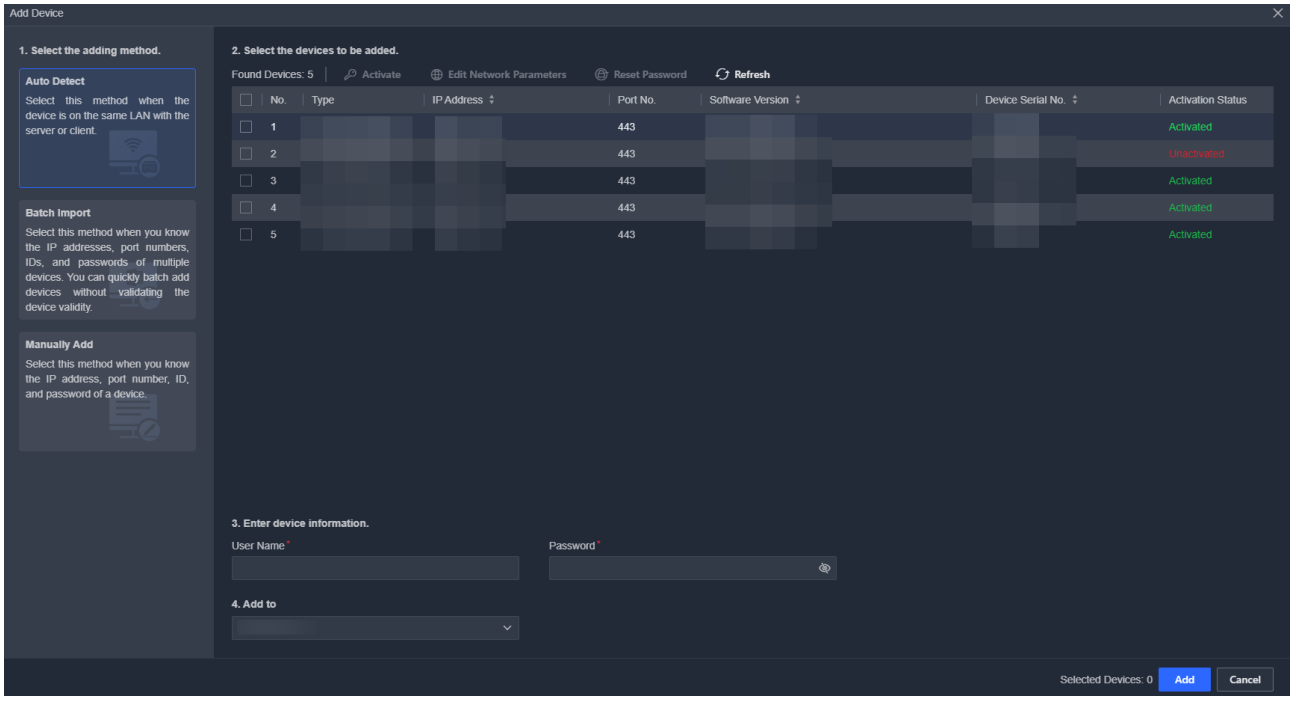

Figure 2-2 Add Online Devices

- Click **Batch Import**. Click **Download Template** and enter the device information in the template file. Click  to upload the file, select the screen, and then click **Add**.

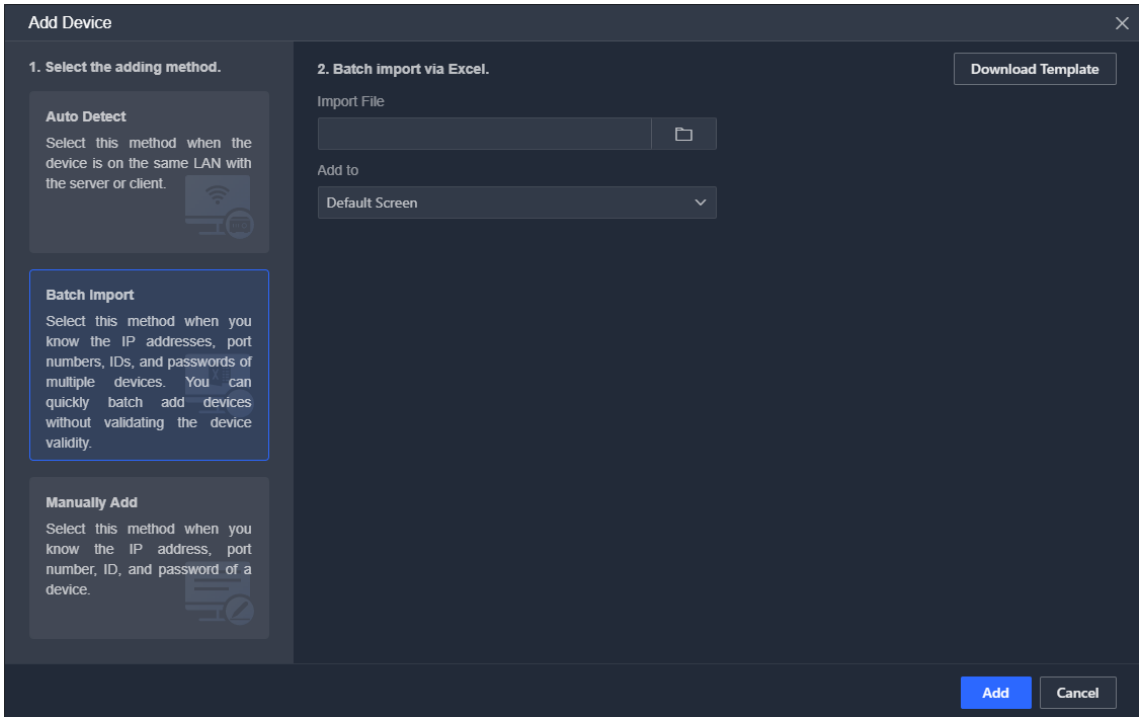

Figure 2-3 Batch Import Devices

- Click **Manually Add**, enter the device information and click **Add**.
  - Check **Sync Device Time** to synchronize the device time with the time of the computer where the client is installed.

- Enable **Add Offline** to add offline devices. When the device comes online, its status will automatically change to online.
- If you add an LED controller, you need to select the screen that the LED controller will control.
- If you add an LED controller board, the screen quantity is determined by the binding between the LED controller boards and video walls. If multiple LED controller boards are bound to the same video wall, those LED controller boards will form a single screen in the client. If multiple LED controller boards are bound to different video walls, those LED controller boards will form multiple screens in the client.

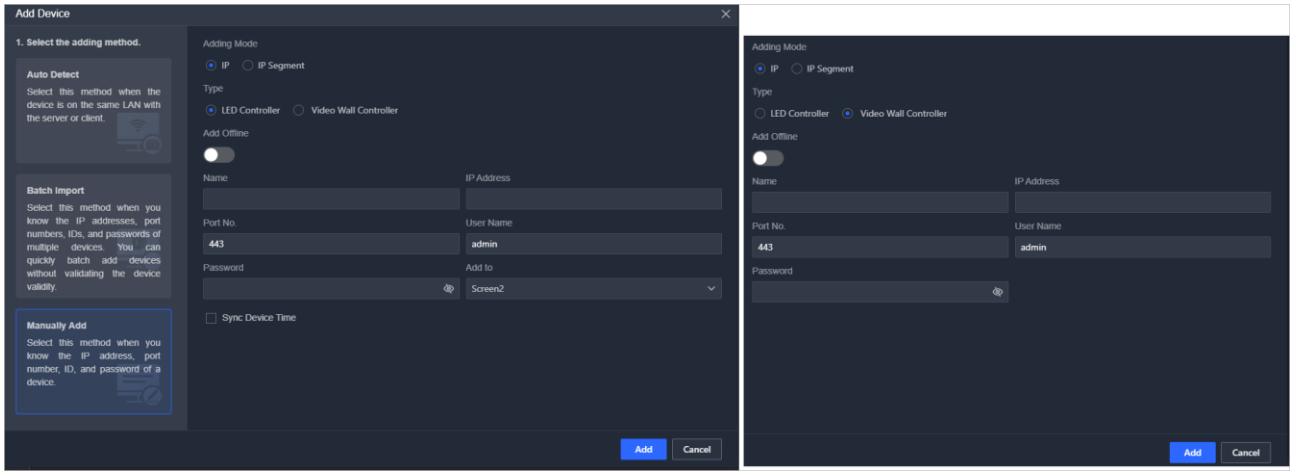

Figure 2-4 Manually Add Devices

Step 5 (Optional) You can manage the devices as required:

- On the **Auto Detect** window, select an unactivated device and click **Activate**.

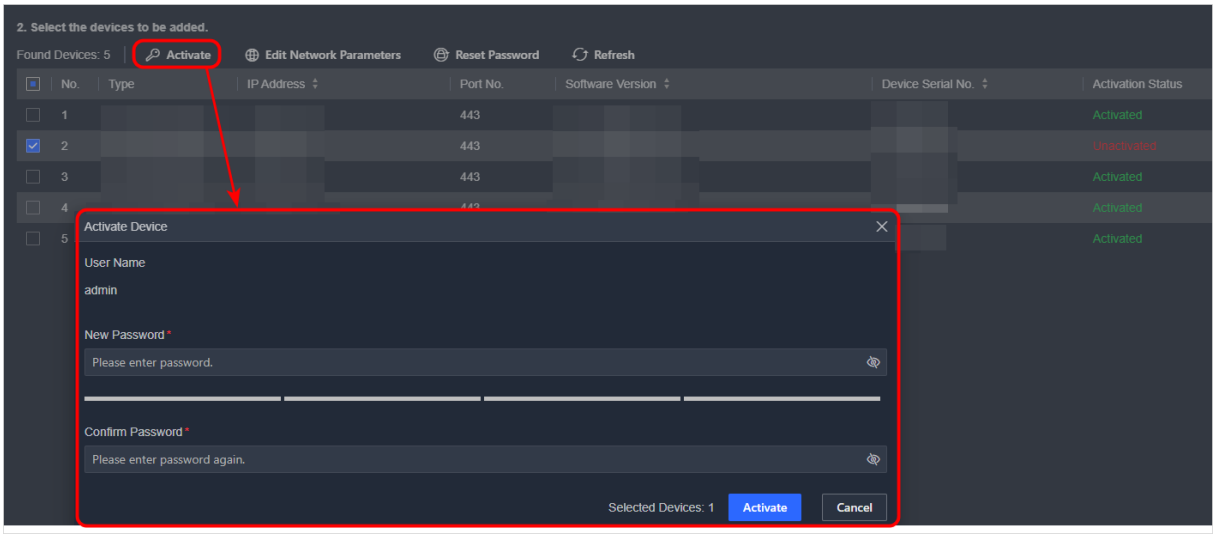

Figure 2-5 Activate Device

- On the **Auto Detect** window, select a device, click **Reset Password**, and take the following steps to reset the password of the device.

1) Click **Export** to export the password file.
2) Send the exported password file to the technical support to obtain a new password file.
3) Click **Import** to import the new password file.
4) Enter the new password and confirm password.
5) Click **OK**.

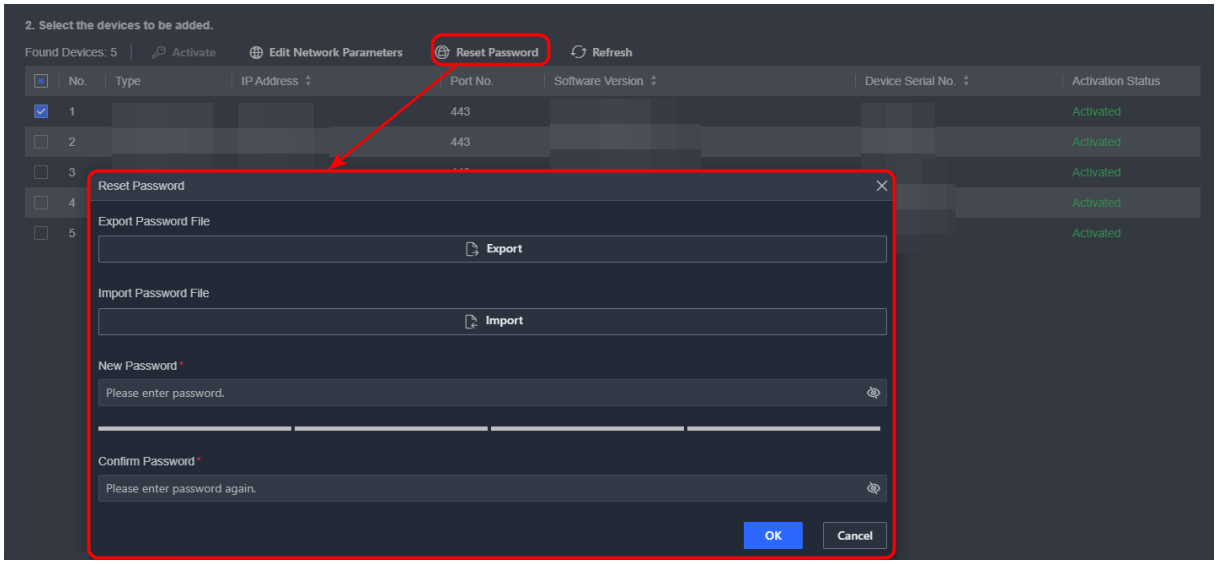

Figure 2-6 Reset Password

- On the **Auto Detect** window, select a device and click **Edit Network Parameters**.

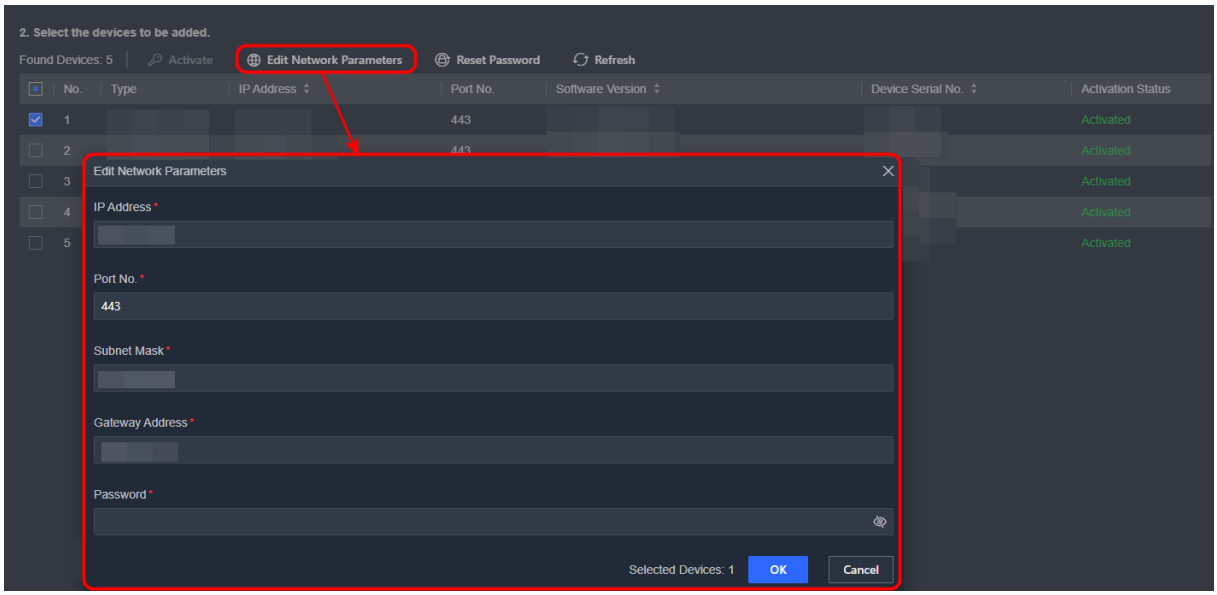

Figure 2-7 Edit Network Parameters

- On the **Auto Detect** window, click **Refresh** to refresh the searched devices.
- On the **Management** window, you can add, delete, upgrade, restart, or refresh devices, change password, or edit device parameters.

- On the **Management** window, click  of a video wall controller to show its LED controller boards. Click  of an LED controller board to upgrade the receiving cards connected to the LED controller board.

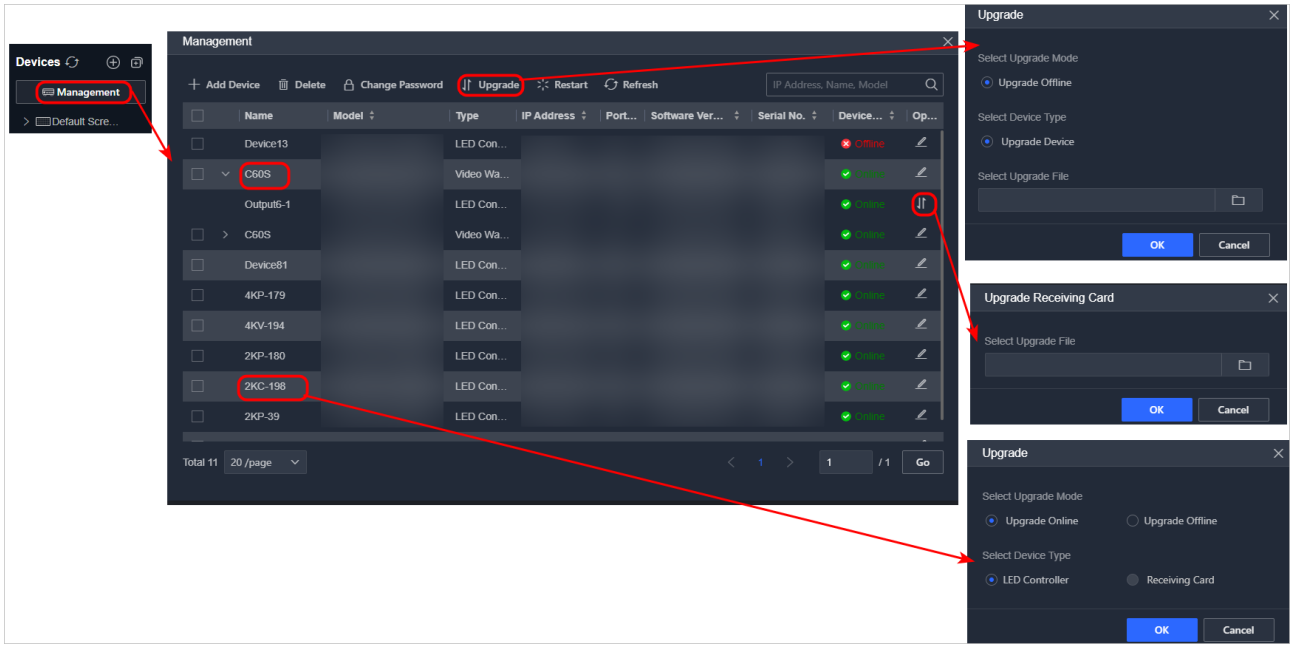

Figure 2-8 Management Window

- On the **Screen Lightening Settings** window, hover over a device, click  to add devices.

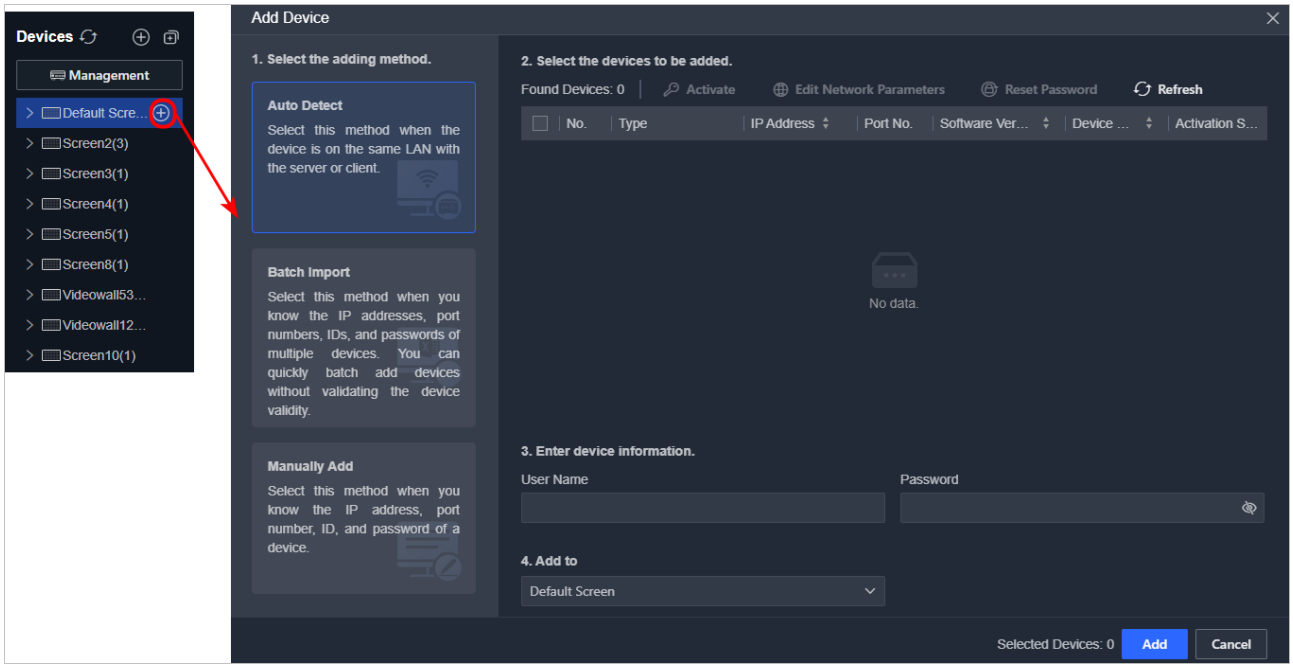

Figure 2-9 Add Devices

- On the **Screen Lightening Settings** window, click  next to **Devices** to refresh the status of the added devices.
- On the **Screen Lightening Settings** window, click a device and drag it to another screen or drag it to different order in the same screen.
- Hover over a device, right click, and then click **Delete**, **Restart**, or **Rename** in the pop-up window.

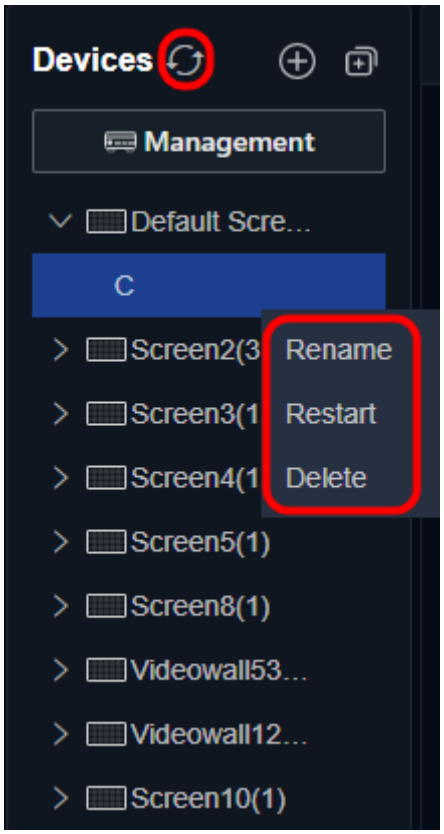

Figure 2-10 Manage Devices

Chapter 3 Display Lightening Configuration

3.1 Display Ligtening Overview

Step 1 Add LED controllers or video walls installed with LED controller boards. For details, see “Chapter 2 Device Adding”.

Step 2 Use either of the following method to add cabinets. For details, see “3.2 Add Cabinets”.

- Load the cabinet configuration files from the screen area.
- Load the cabinet configuration files from the cloud.
- Load the locally saved cabinet configuration files from the computer.
  - Search the cabinet configuration files from the cloud. For details, see “6.6.2 Search for Cloud Files”.
  - Create the cabinet configuration files and save them on the computer. For details, see “3.4 Create Cabinet Configuration File Online” and “3.5 Create Cabinet Configuration File Offline”.
  - Contact the product supplier to obtain the cabinet configuration files.

Step 3 Configure the cabinet scale and network port connection. For details, see “3.3 Configure Cabinet Scale and Network Port Connection”.

3.2 Add Cabinets

Step 1 On the **Screen Settings** → **Screen Lightening Settings** page, select a device.

The loading status of each network port and the device output resolution will be shown on the right.

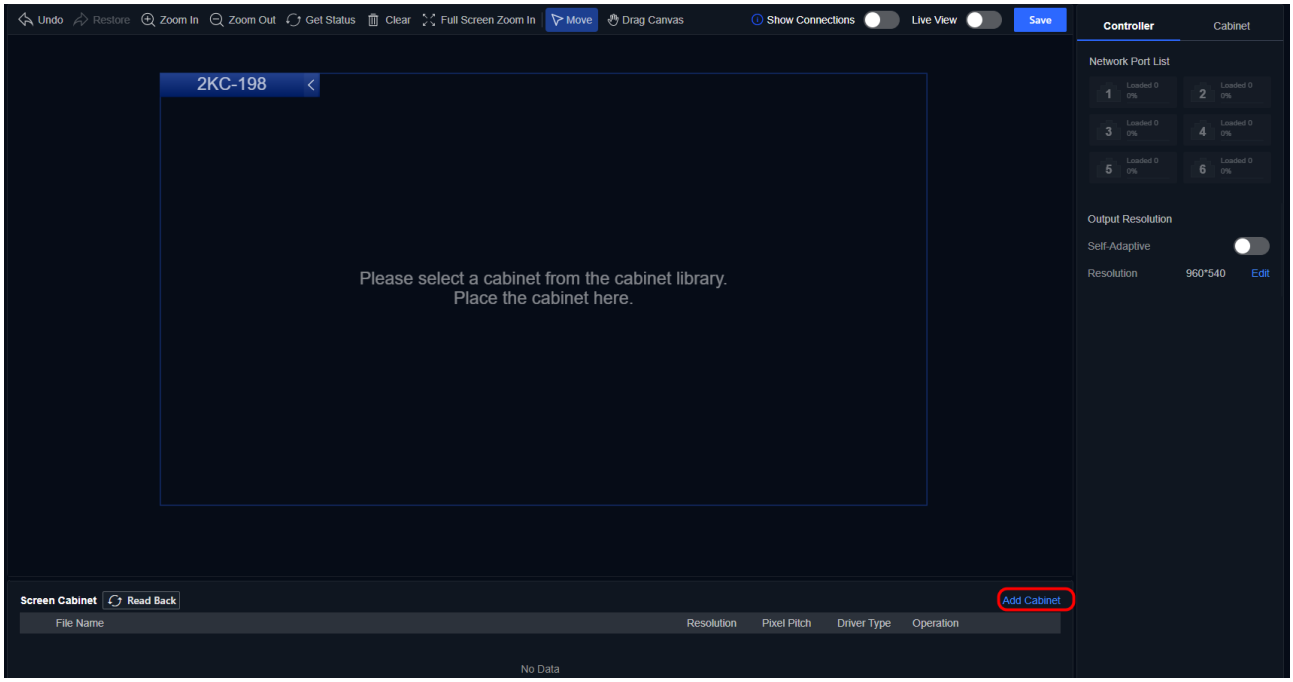

Figure 3-1 Add Cabinet

Note

On the canvas, you can click  of the device name to hide the device name. You can click  to show device name.

Step 2 Click **Add Cabinet** and use either of the following methods to add the cabinet configuration file:

- Select **Load from Screen Area**, select a screen area, and click **Add**. Only some cabinets support loading the configuration file from the screen area.
- If there is a cabinet configuration file on the computer, select **Import from Local File**, click  to select the configuration file, and click **Add**.
- If you know the lamp board serial number or order number, select **Load from Cloud**. Enter the lamp board serial number or order number, select the searched configuration files, and click **Add**.

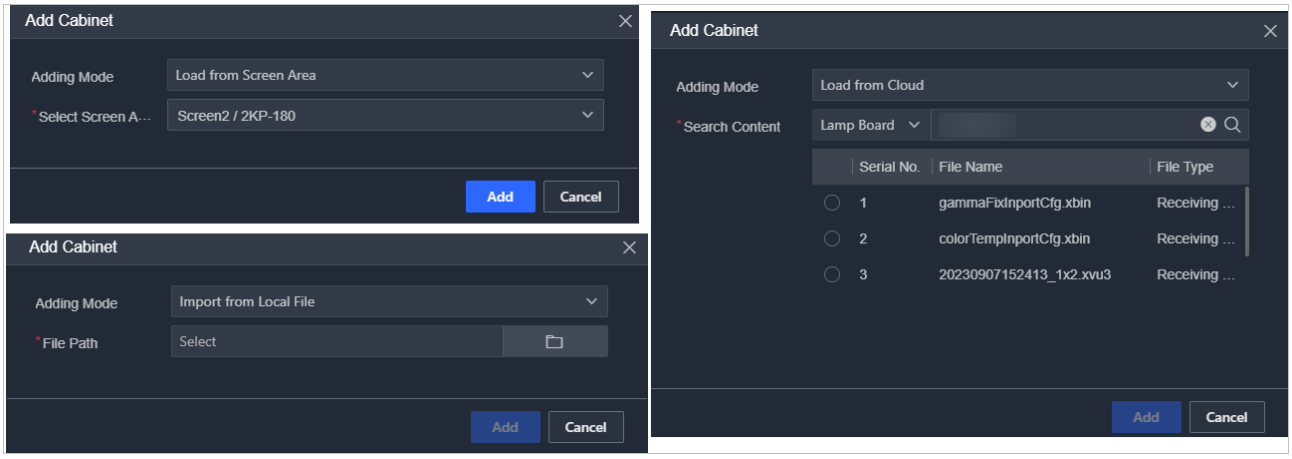

Figure 3-2 Add Cabinet Configuration File

Step 3 (Optional) You can manage the cabinet configuration file as required:

- Click  to edit the file name.
- Click  to apply the cabinet configuration file to the device.
- Click  to export the cabinet configuration file to the computer.
- Click  to delete the cabinet configuration file.
- If you find that the cabinet configuration file does not match the on-site screen, click  to edit the cabinet configuration file. After you edit the cabinet configuration file, the cabinet configuration file on the canvas will also be updated synchronously. However, the edited cabinet configuration file will not be applied to the device. To apply the edited cabinet configuration file to the device, drag the edited file to the canvas, configure the cabinet scale and network port connection, and click **Save**.

1) Based on the actual receiving card model, edit the product model.
2) Edit the following parameters as required:
   – Only some HUB receiving cards support configuring module and cascading parameters. Open the module switching and cascading window to configure. For details, see “3.4.7 Configure Module and Cascading Parameters”.

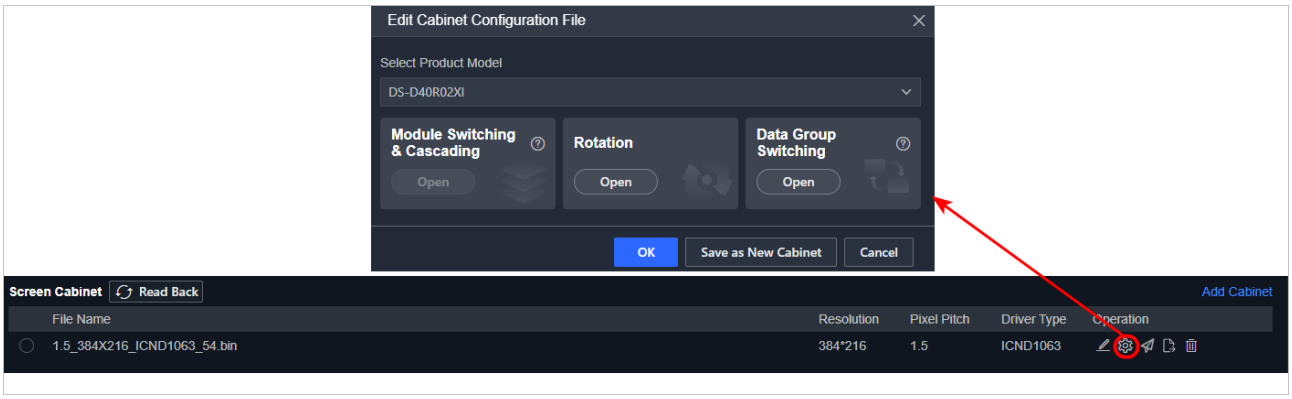

Figure 3-3 Edit Cabinet Configuration File

– Open the rotation window, select a rotation angle, and click **Apply**. To fine-tune the rotation, select a method, and click **Apply**.

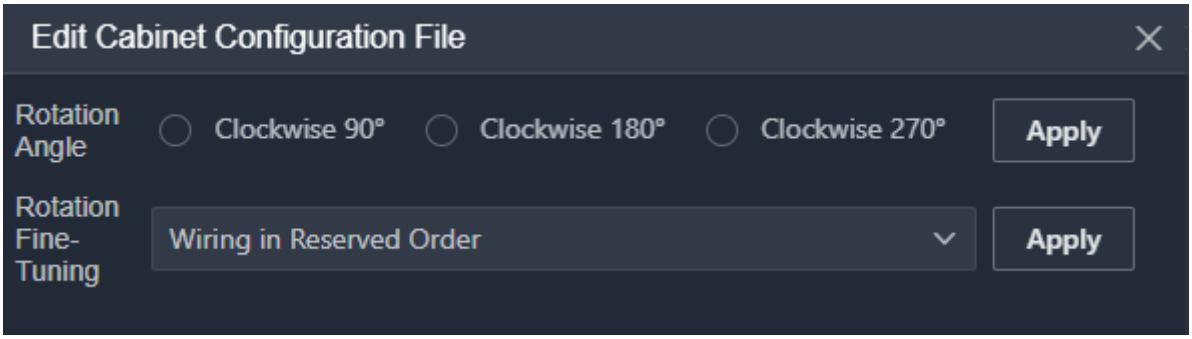

Figure 3-4 Rotate Cabinet

– Open the data group switching window to configure. For details, see “3.4.6 Configure Data Group Parameters”.

3) Click **OK** to save the edited parameters to the current cabinet configuration file.
4) (Optional) Click **Save as New Cabinet** to save the edited parameters as a new cabinet configuration file.

3.3 Configure Cabinet Scale and Network Port Connection

Step 1 On the **Screen Settings** → **Screen Lightening Settings** page, select a device.

Step 2 Enable **Self-Adaptive** or set the output resolution.

Step 3 Based on the actual cabinet scale, drag the corresponding cabinet configuration file to the canvas.

Ensure that the cabinet scale on the canvas matches the actual cabinet scale.

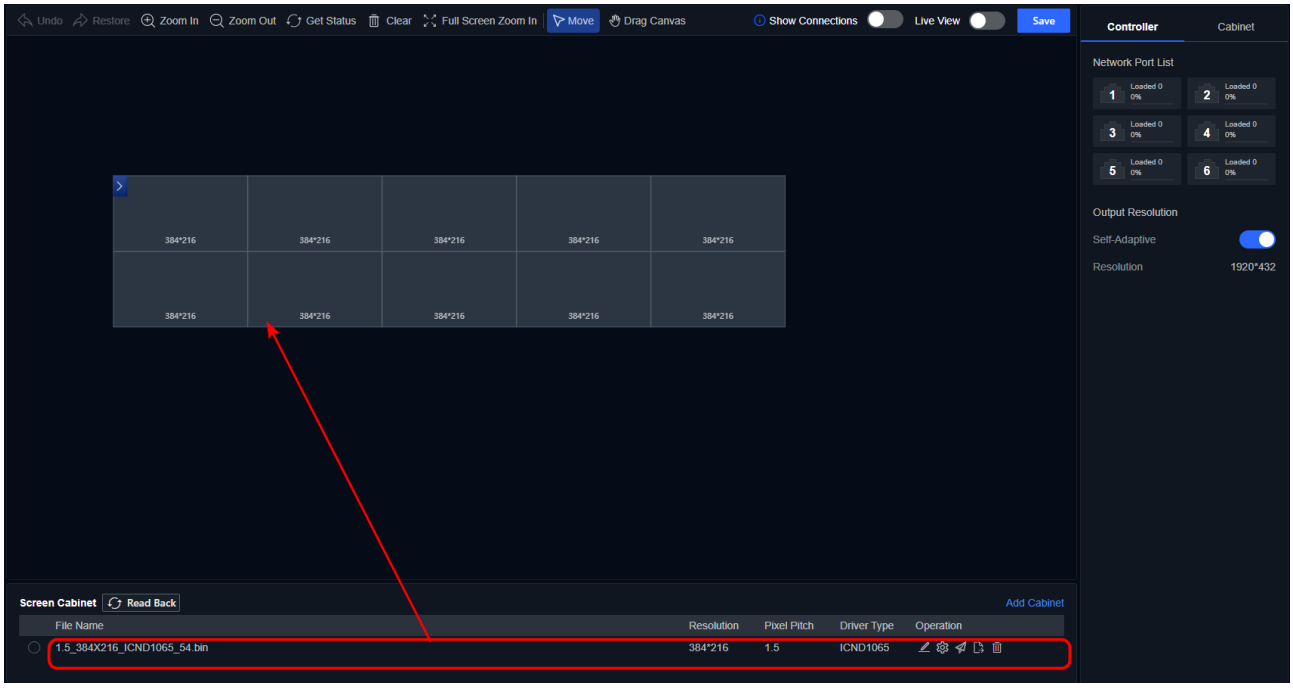

Figure 3-5 Drag Cabinet Configuration Files to Canvas

Step 4 On the **Controller** window, select the corresponding network ports and complete network port connections on the canvas according to the actual connections between the cabinets and network ports,.

- The network port connection direction is configured according to the operation sequence and the selected connection direction icon.
  - Click multiple cabinets in sequence.
  - Click one cabinet and then press and hold the left mouse button to select other required cabinets.
  - Click the first cabinet, press Shift, and click the last cabinet.
- To deselect the selected network port connection direction icon, click the icon.
- If all cabinets use the same cabinet configuration file, click  to apply the cabinet configuration file to the device and enable **Show Connections**. According to the network port number on the display, complete the network port connections on the canvas.

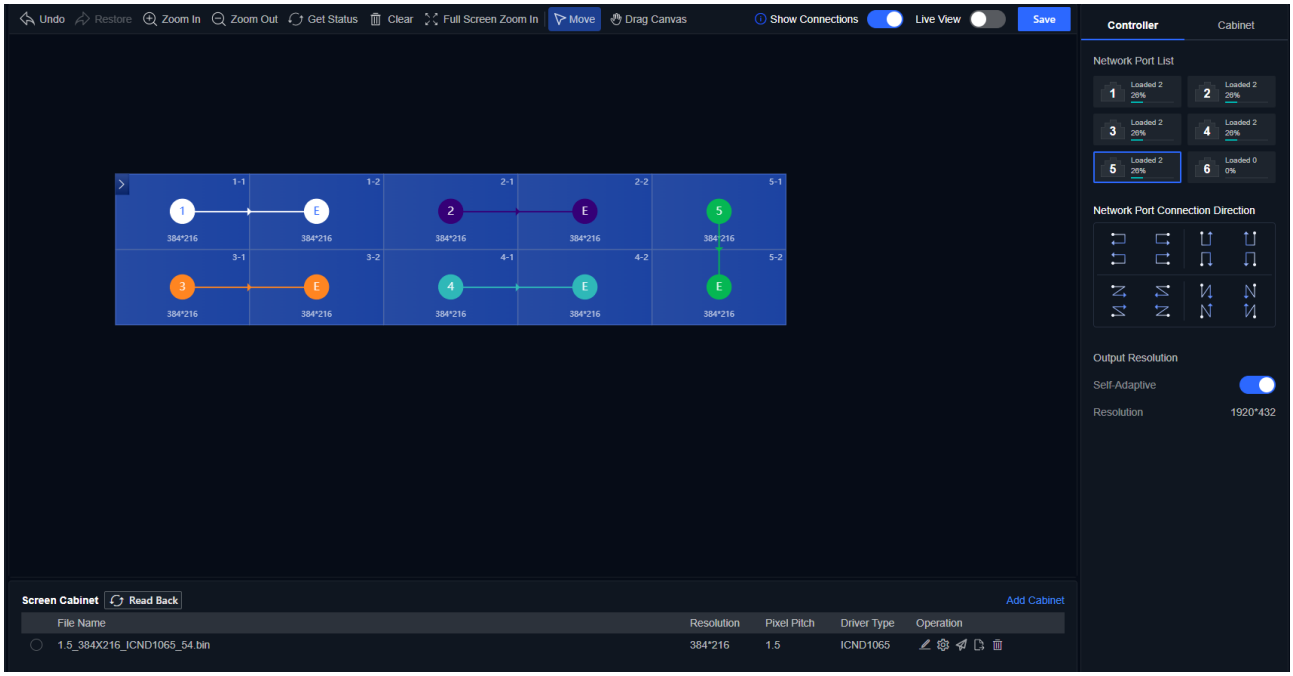

Figure 3-6 Lighten the Display

Step 5 Click **Save**.

Step 6 (Optional) You can perform the following operations as required:

- Click **Live View** to preview the screen image. Only the LED controllers support image live view and the video wall controllers do not support image live view.
- After lightening the display, if you need to view the coordinates and information of the cabinets, select cabinets and click **Cabinet** on the right side of the **Screen Lightening Settings** page.
- After lightening the display, if you need to test the receiving card status, select the cabinets, click **Cabinet** on the right side of the **Screen Lightening Settings** page, enable **Receiving Card Self-Test**, and then select the image. Only some receiving cards support receiving card self-test.

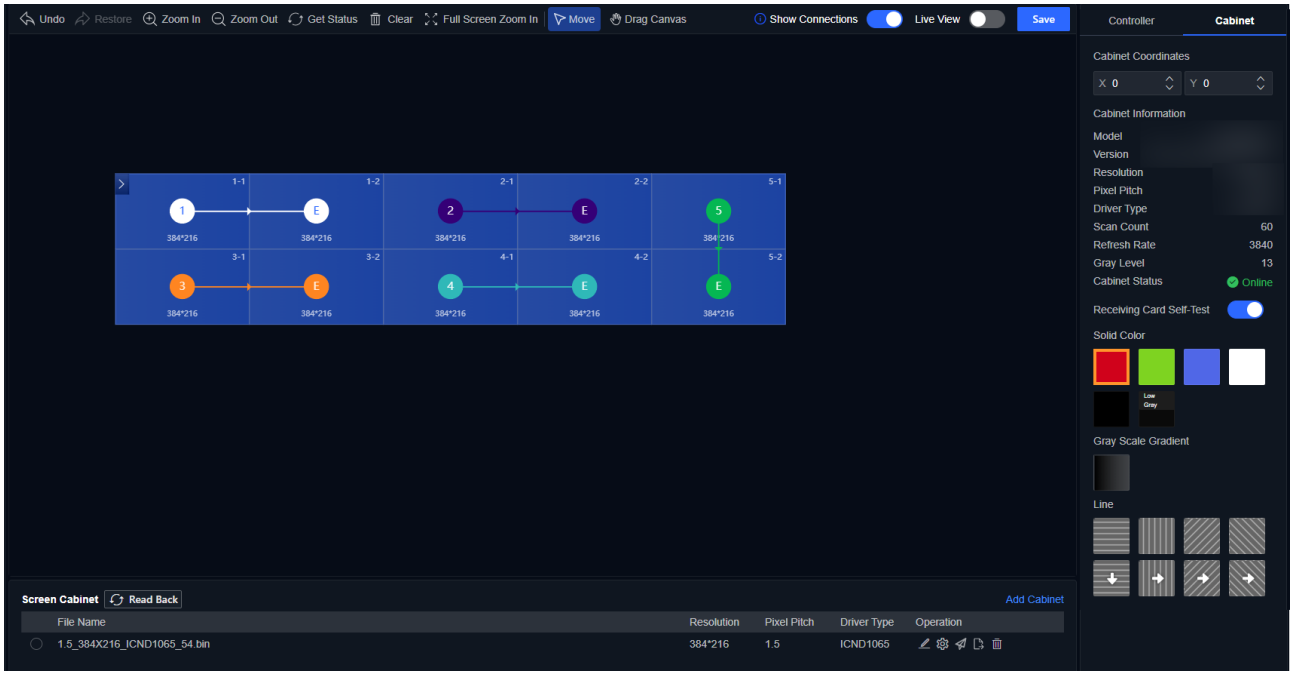

Figure 3-7 View Cabinet Information

Configure Other Cabinet Parameters

- Click **Read Back** to obtain the latest cabinet configuration.
- Manage a single cabinet:
  - To add a cabinet, click on a cabinet, right-click to select **Expand**, set the scale, and click **OK**.
  - To edit the cabinet, click on a cabinet, right-click to select **Edit Cabinet**, and then select another cabinet.
  - To delete the connection between the cabinet and network port, click on a cabinet, and then right-click to select **Delete Connection**.
  - To delete a single cabinet, click on a cabinet, and then right-click to select **Delete Cabinet**.
- Manage multiple cabinets:
  - To clear the network port connection, click **Clear**, select **Clear Network Port Connection**, select the network ports, and then click **OK**.
  - To clear all cabinets and connections, click **Clear**, and then select **Clear Canvas**.
- Click **Get Status** to obtain the latest screen scale and network port connection of the display controlled by the device.
- Click **Drag Canvas**, place the mouse on any position of the canvas, and then you can drag the canvas by moving the mouse.

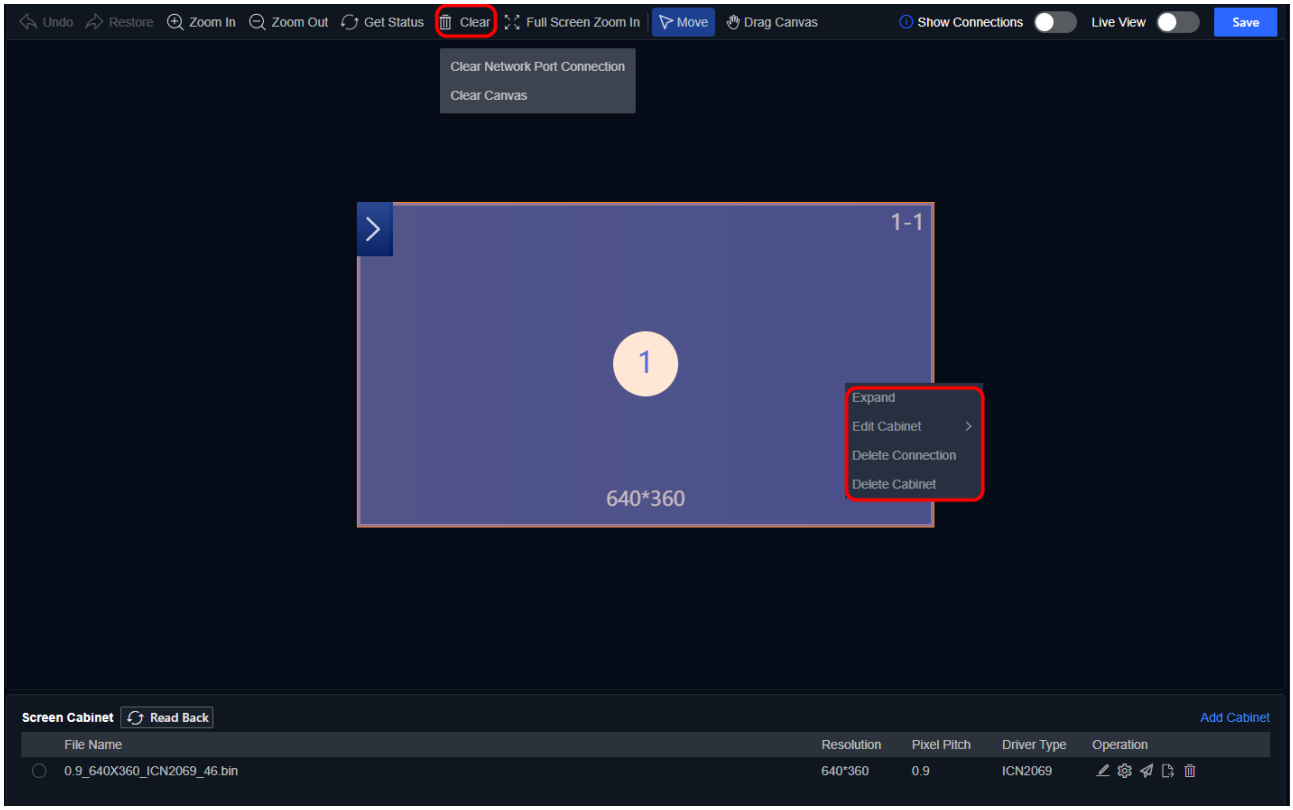

Figure 3-8 Configure Other Cabinet Parameters

- To configure the cabinets, you can click the buttons on the **Screen Lightening Settings** page or use the shortcut keys. For details about the shortcut keys, see the table below.

Table 3-1 Shortcut Keys

Function	Shortcuts
Delete cabinets and network port connections	Select the cabinets, press **Delete** on the keyboard.
Move the canvas horizontally	Press and hold **Shift** on the keyboard and then scroll the mouse up and down.
Zoom In	Press and hold **Ctrl** on the keyboard and then press **+** on the keyboard.
Zoom Out	Press and hold **Ctrl** on the keyboard and then press **–** on the keyboard.
Zoom to the selected cabinet(s)	Select a single or multiple cabinets, press and hold **Ctrl** and **D**.
Show the overall range of the current screen	Press and hold **Ctrl** and **F**.
Restore	Press and hold **Ctrl** and **Y**.
Undo	Press and hold **Ctrl** and **Z**.

Function	Shortcuts
Select all	Press and hold **Ctrl** and **A**.
Cancel network port connection	Press **ESC**.
Cancel cabinet adding	Press **ESC**.
Drag the canvas	Hold the mouse wheel and move the mouse.

3.4 Create Cabinet Configuration File Online

3.4.1 Prerequisites

Configure LED Controller and Computer

Before creating a cabinet configuration file for the LED controller online, make sure that the resolution of the signal source, the output resolution of the LED controller, and the resolution of the computer are consistent in the pixel-to-pixel mode. Different types of LED controllers provide different numbers of screen connection ports and different types and numbers of signal connection ports. The following uses DATA OUT 1 port, HDMI 1 port, LAN 1 port, and resolution of 1920 × 1080 as an example.

Step 1 Connect the LED controller, LED display, and the computer installed with the LED Tool client.

- Connect the DATA OUT 1 port of the LED controller to the LED display by using an Ethernet cable.
- Connect the HDMI cable from the HDMI 1 port of the LED controller to the computer.
- Connect the LAN 1 port of the LED controller to the computer by using an Ethernet cable.

Step 2 Add LED controller in the client. For details, see “Chapter 2 Device Adding”.

Step 3 Click the added LED controller and configure the signal source parameters:

- For an LED controller of the C series, go to **Screen Settings** → **Input/Output Management** → **Input Management**, select the HDMI1 signal source and set the resolution to 1920 × 1080.



Figure 3-9 Configure Signal Source Parameters of C Series LED Controller

- For an LED controller of the V or P series, go to **Screen Settings** → **Content Control**, create an HDMI1 signal source window, and set the window size and resolution to 1920 × 1080.

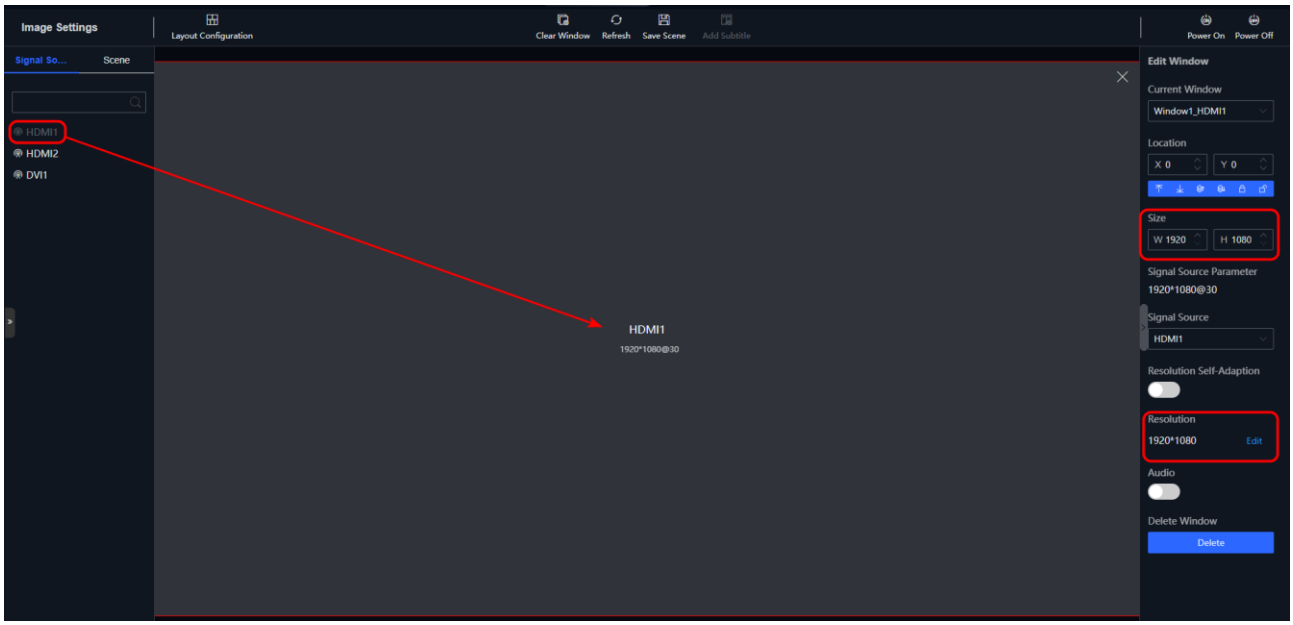

Figure 3-10 Configure Signal Source Parameters of V Series LED Controller

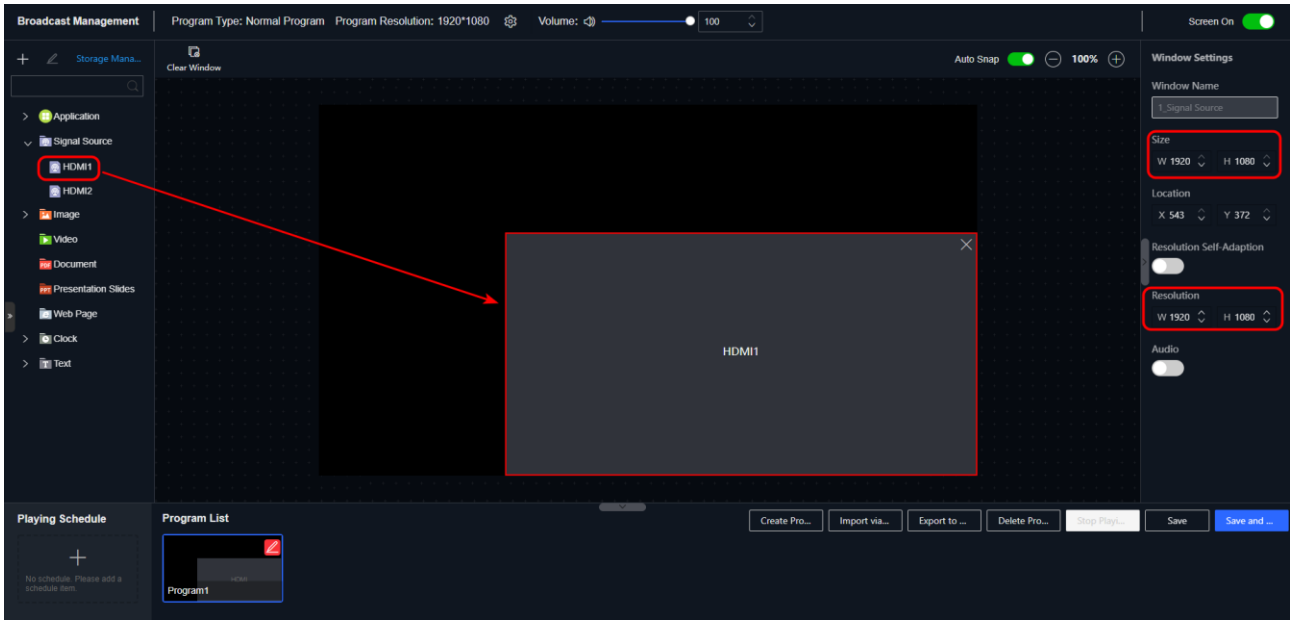

Figure 3-11 Configure Signal Source Parameters of P Series LED Controller

Step 4 Go to **Screen Settings** → **Input/Output Management** → **Output Management**, select HDMI1 as the output source, set the resolution to 1920 × 1080, and select pixel-to-pixel mode.

You do not need to select the output source and zoom mode for some LED controllers.

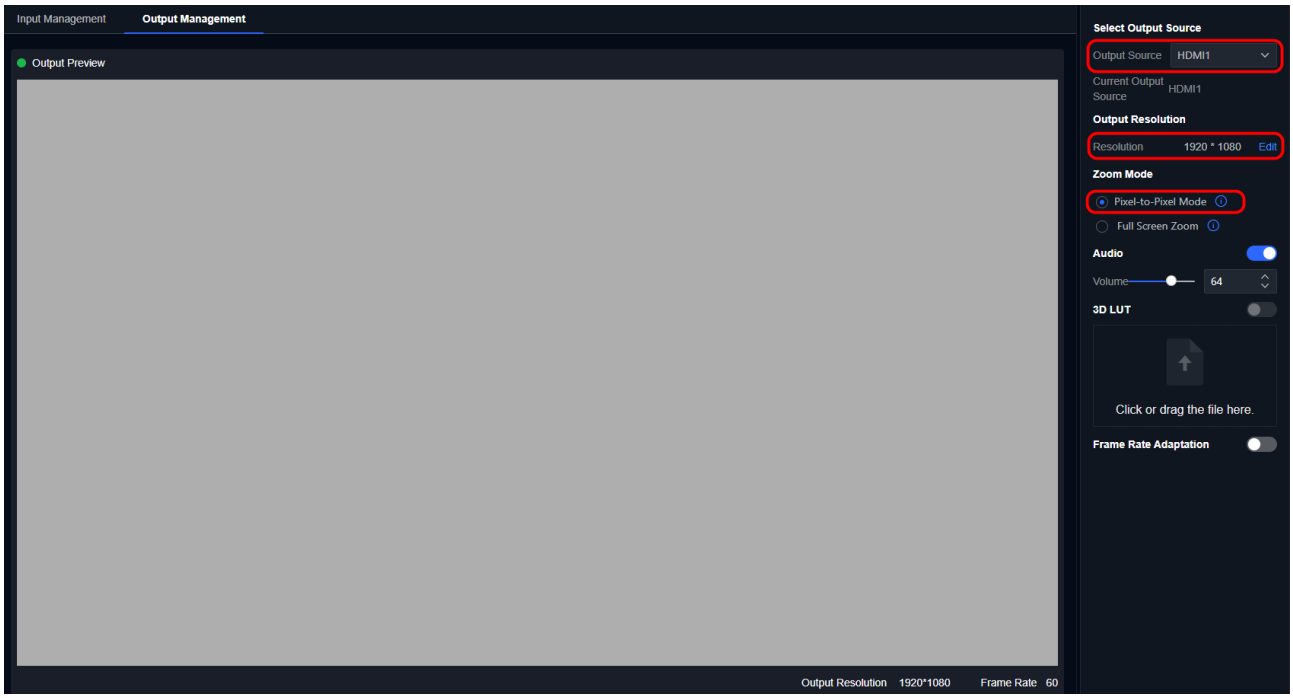

Figure 3-12 Configure Output Parameters of LED Controller

Step 5 Set the scale and layout of the computer to 100%, set the computer resolution to 1920 × 1080, and select the duplicate mode for multiple displays.

Different operating systems may have different paths to access the display settings page. The following uses Windows 10 as an example.

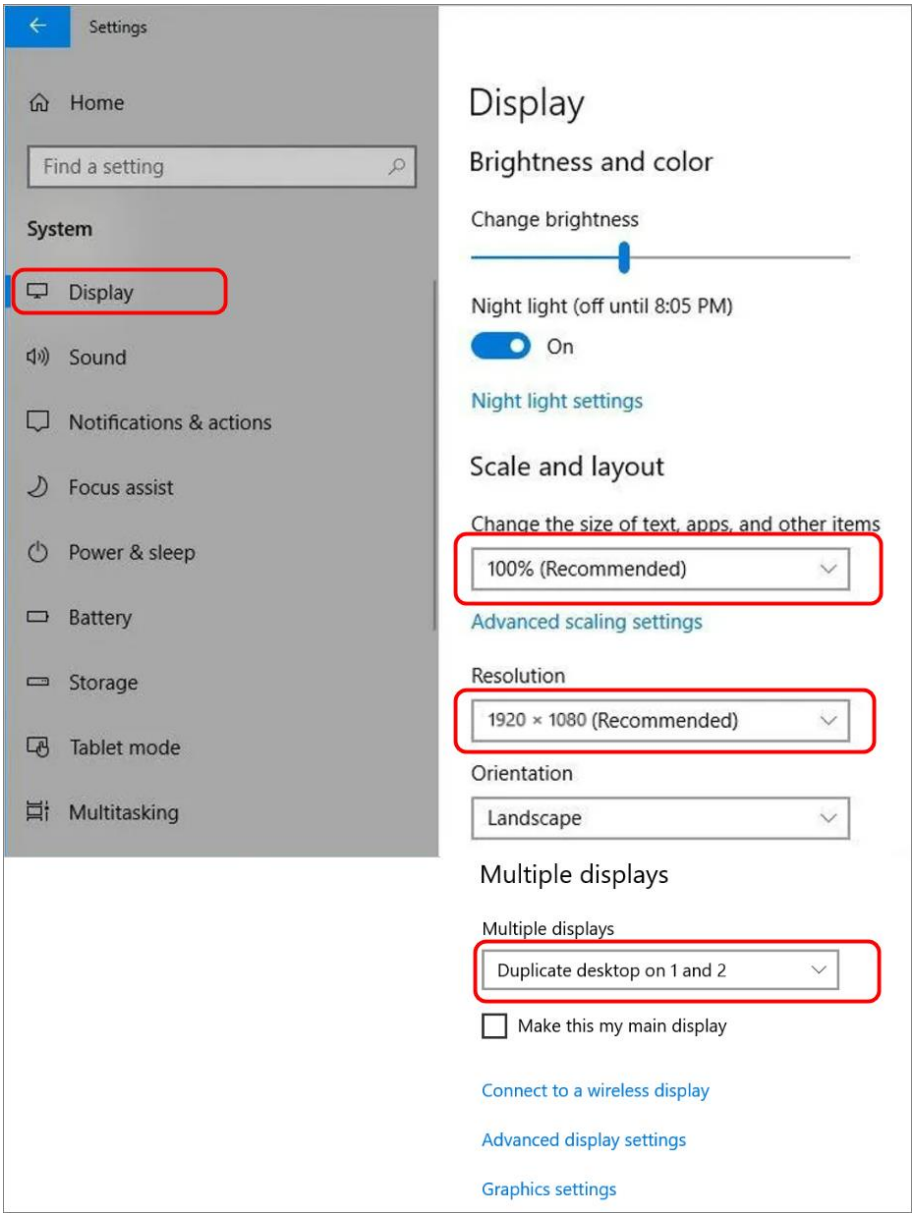

Figure 3-13 Configure Computer

Step 6 Lighten the display as follows:

1) Click the LED controller and go to **Screen Settings** → **Screen Lightening Settings**.
2) Drag the default cabinet configuration file to the canvas.
3) Connect network port 1 to the cabinet and click **Save**.

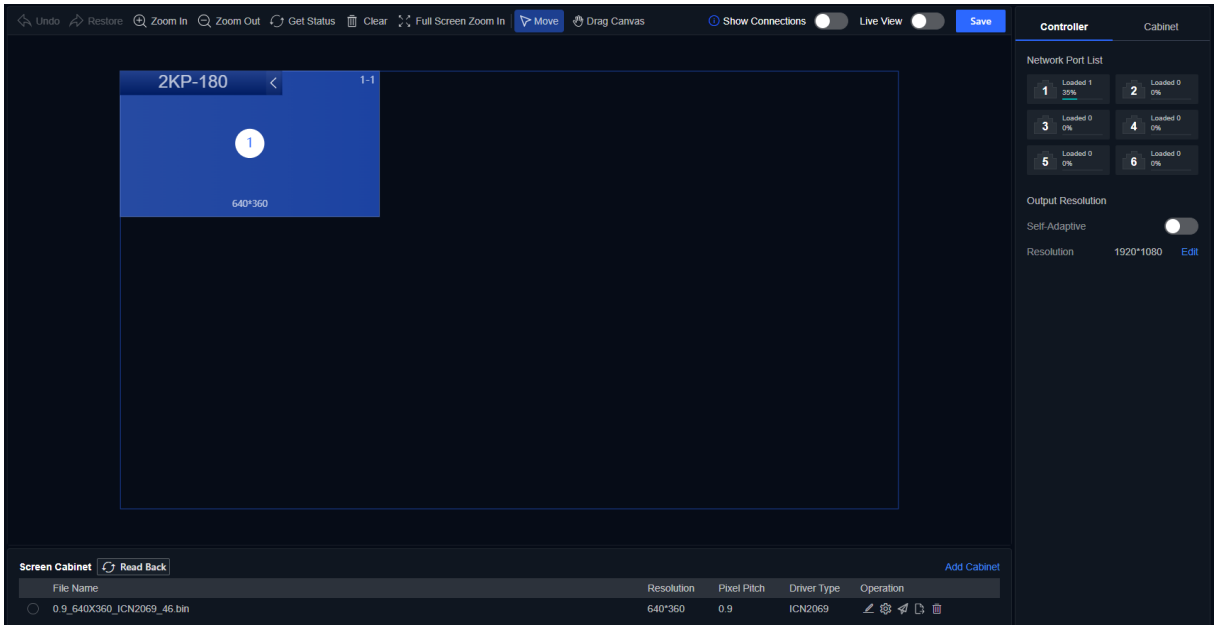

Figure 3-14 Lighten Display

Configure Video Wall Controller and Computer

Before creating a cabinet configuration file for the video wall controller online, make sure that the resolution of the signal source, the output resolution of the video wall controller, and the resolution of the computer are consistent in the pixel-to-pixel mode. Different types of video wall controllers provide different numbers of screen connection ports and different types and numbers of signal connection ports. The following uses network port 1 of an LED controller board, HDMI 1 port of an HDMI input board, LAN port of a main control board, and resolution of 1920 × 1080 as an example.

Step 1 Connect the video wall controller, LED display, and the computer installed with the LED Tool client.

- Connect the network port 1 of an LED controller board to the LED display by using an Ethernet cable.
- Connect the HDMI cable from the HDMI 1 port of an HDMI input board to the computer.
- Connect the LAN port of a main control board to the computer by using an Ethernet cable.

Step 2 Add video wall controller in the client. For details, see “Chapter 2 Device Adding”.

Step 3 Log in to the web page of the video wall controller, set the output resolution of the video wall to 1920 × 1080 on the **Wall Configuration** page.

Step 4 Go to **Screen Settings** → **Input/Output Management** → **Output Management**, set the resolution to 1920 × 1080.

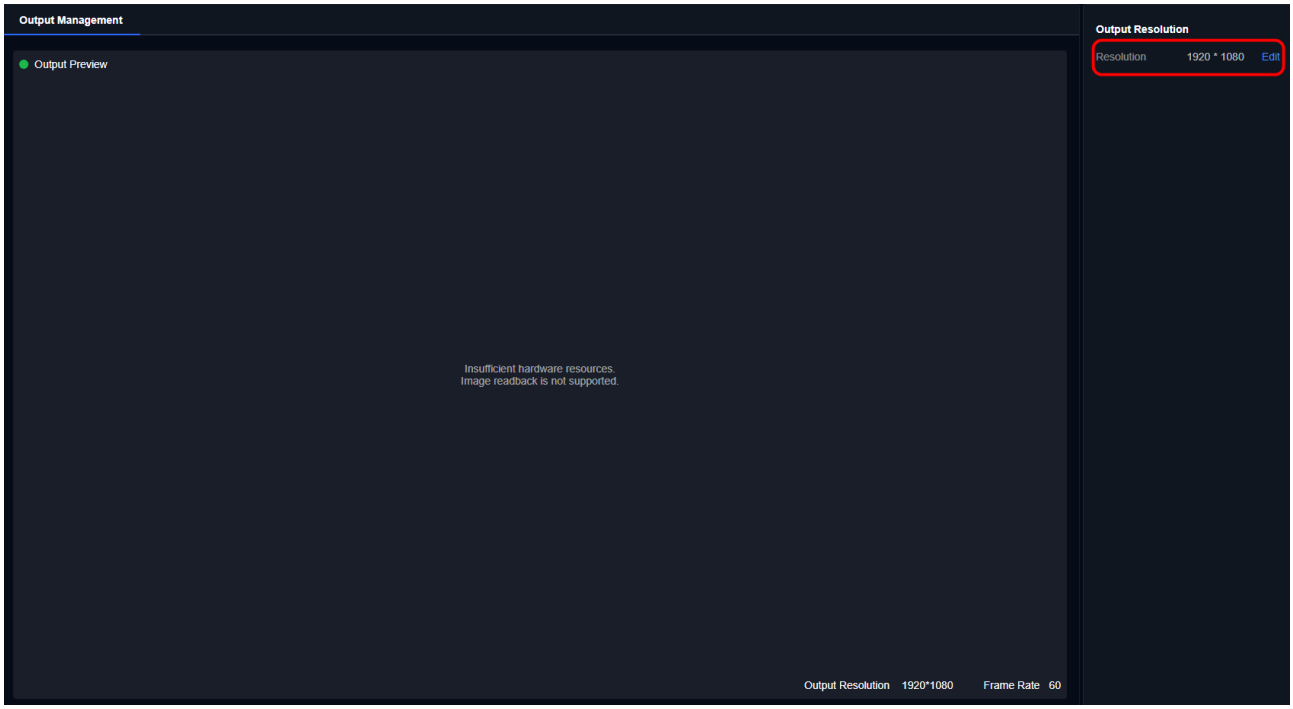

Figure 3-15 Configure Output Parameters of Video Wall Controller

Step 5 Set the scale and layout of the computer to 100%, set the computer resolution to 1920 × 1080, and select the duplicate mode for multiple displays.

Different operating systems may have different paths to access the display settings page. The following uses Windows 10 as an example.

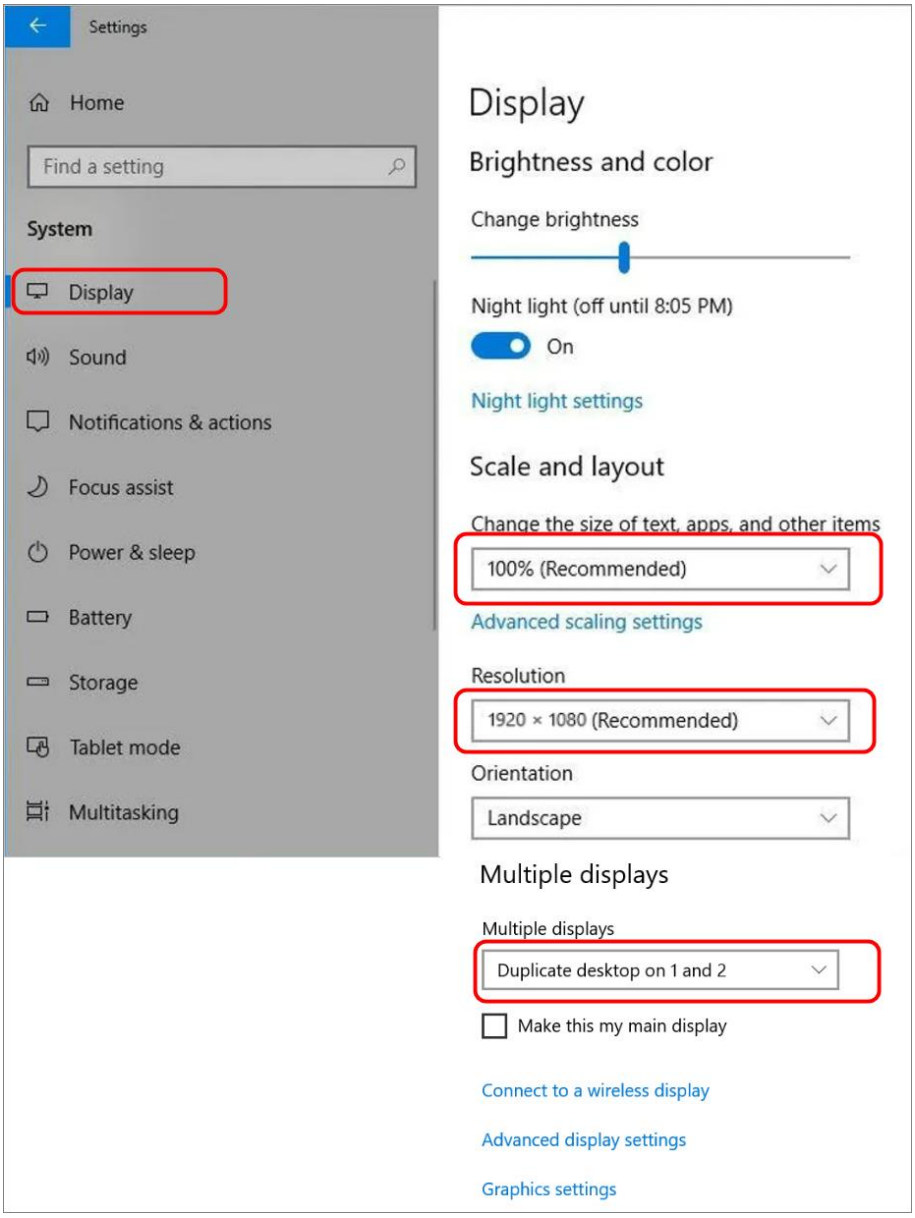

Figure 3-16 Configure Computer

Step 6 Lighten the display as follows:

1) Click the video wall controller and go to **Screen Settings** → **Screen Lightening Settings**.
2) Drag the default cabinet configuration file to the canvas.
3) Connect network port 1 to the cabinet and click **Save**.

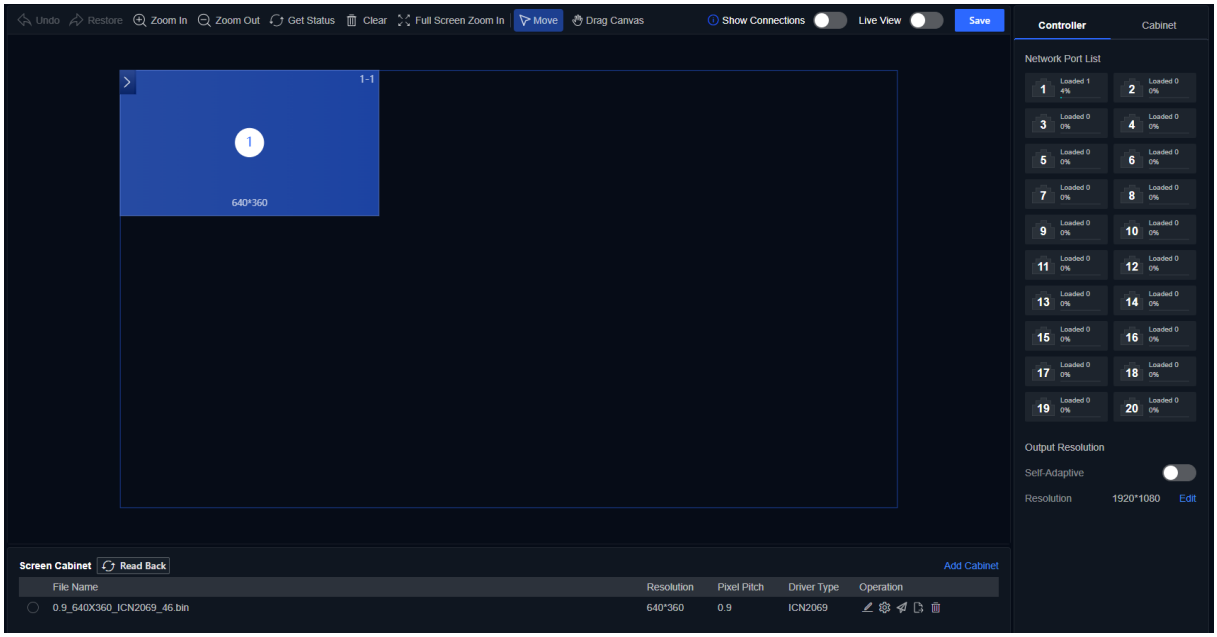

Figure 3-17 Lighten Display

3.4.2 Configuration Overview

Before You Start

Configure the device and computer. For details, see “3.4.1 Prerequisites”.

Steps

Step 1 Select a device, and go to **Screen Settings** → **Receiving Card Parameters**.

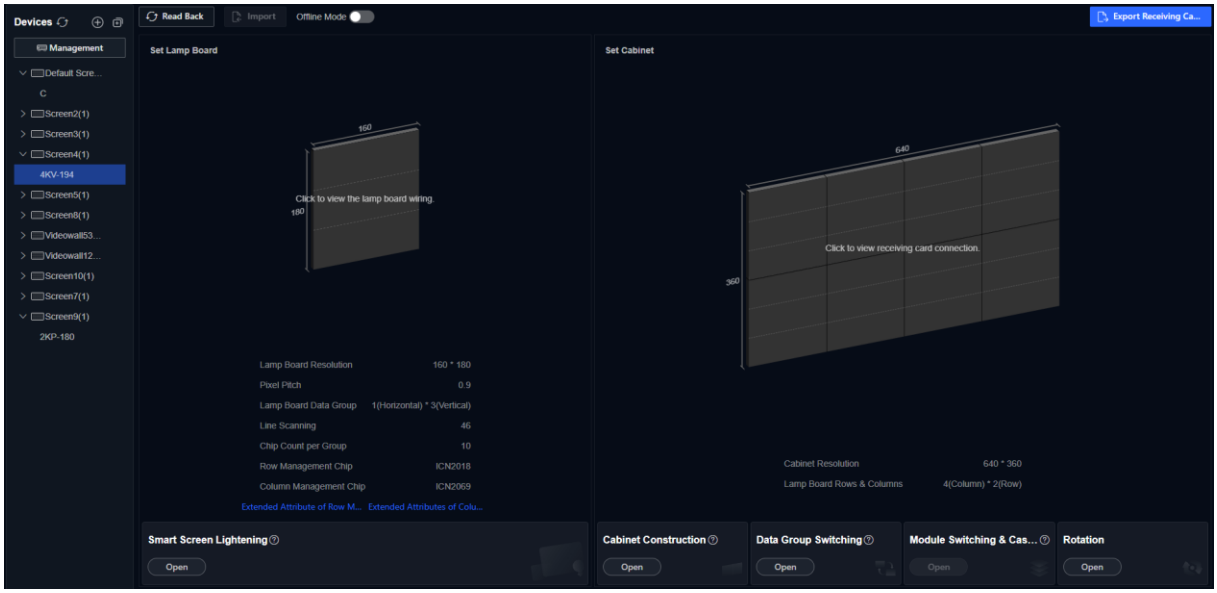

Figure 3-18 Select Device

Step 2 Open the smart screen lightening window and create the lamp board configuration file. For details, see “3.4.3 Configure Smart Screen Lightening Online”.

Step 3 Check whether the lamp board is lightened normally and take the corresponding measures:

- If the lamp board is lightened but the display effect is not satisfactory, configure the following parameters as required:
  - You can configure the extended attributes of row management chip or extended attributes of column management chip as required. For details, see “3.4.4 Configure Lamp Board Extended Attributes”.
  - If the lamp board uses a vision chip, click **Vision Chip Tools** to configure the related parameters.

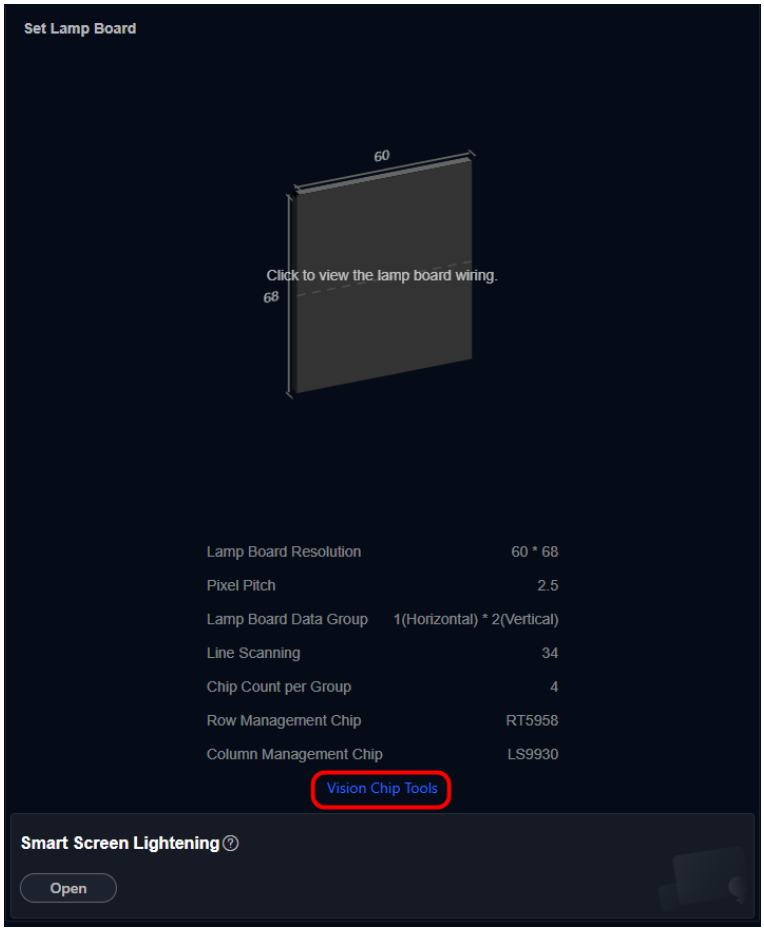

Figure 3-19 Use Vision Chip Tools

- If the lamp board cannot be lightened, open the smart screen lightening window and remake the lamp board configuration file.
- If the lamp board is lightened but the screen color does not match the color set on the computer, click to view the lamp board wiring and edit the related parameters.

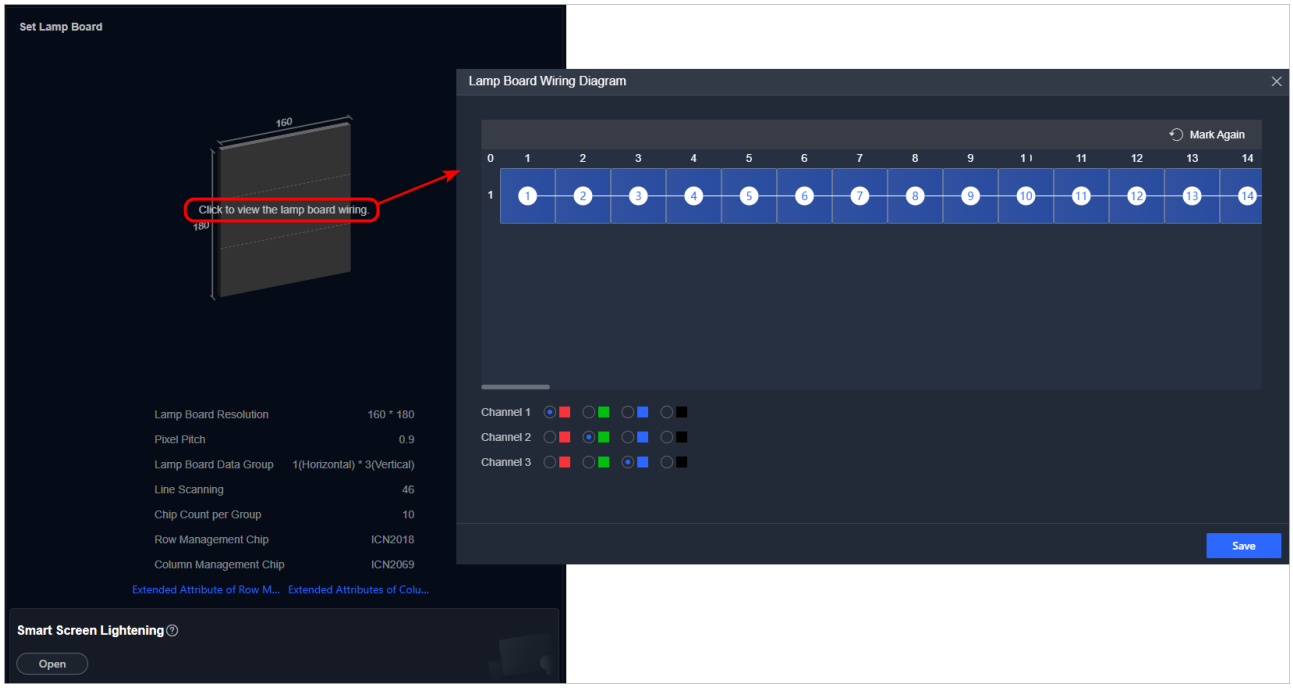

Figure 3-20 Adjust Lamp Board RGB

- If the lamp board is lightened and the display effect meets the requirements, continue to create the cabinet configuration file.

Step 4 Create the cabinet configuration file based on the type of the receiving card.

- For HUB receiving cards, configure the data groups and then configure the modules and cascading. For details, see “3.4.6 Configure Data Group Parameters” and “3.4.7 Configure Module and Cascading Parameters”.
- For AXS receiving cards, construct the cabinet and configure the data groups when the data group image on the screen is scrambled. For details, see “3.4.5 Construct Cabinet” and “3.4.6 Configure Data Group Parameters”.
- According to the actual cabinet installation method, configure the cabinet rotation. For details, see “3.4.8 Rotate Cabinets”.

Step 5 Click **Read Back** to check whether the lamp board parameters and cabinet parameters are correct.

Step 6 When the parameters are correct, click **Export Receiving Card Configuration File** to save the cabinet configuration file to the computer.

3.4.3 Configure Smart Screen Lightening Online

Step 1 On the **Screen Settings** → **Receiving Card Parameters** page, select a device.

Step 2 Open the smart screen lightening window.

Step 3 Based on actual lamp board parameters, set the parameters and then click **Next**.

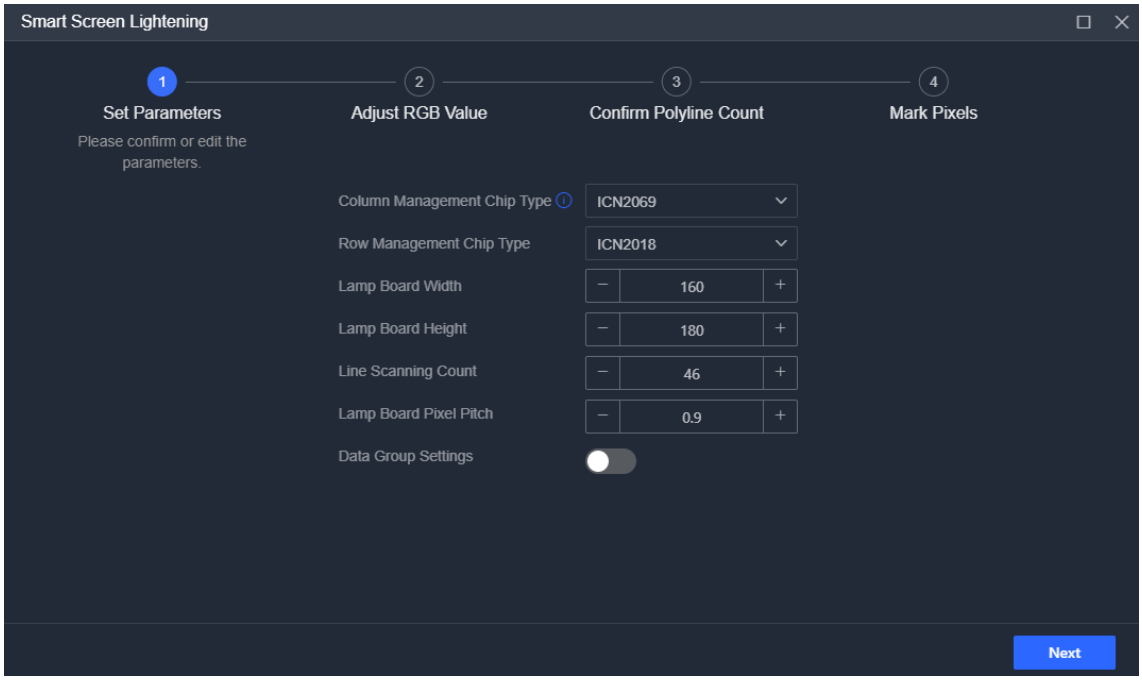

Figure 3-21 Set Parameters

Step 4 Execute the tests in sequence, select the corresponding color for each test according to the color displayed on the screen, and click **Next**.

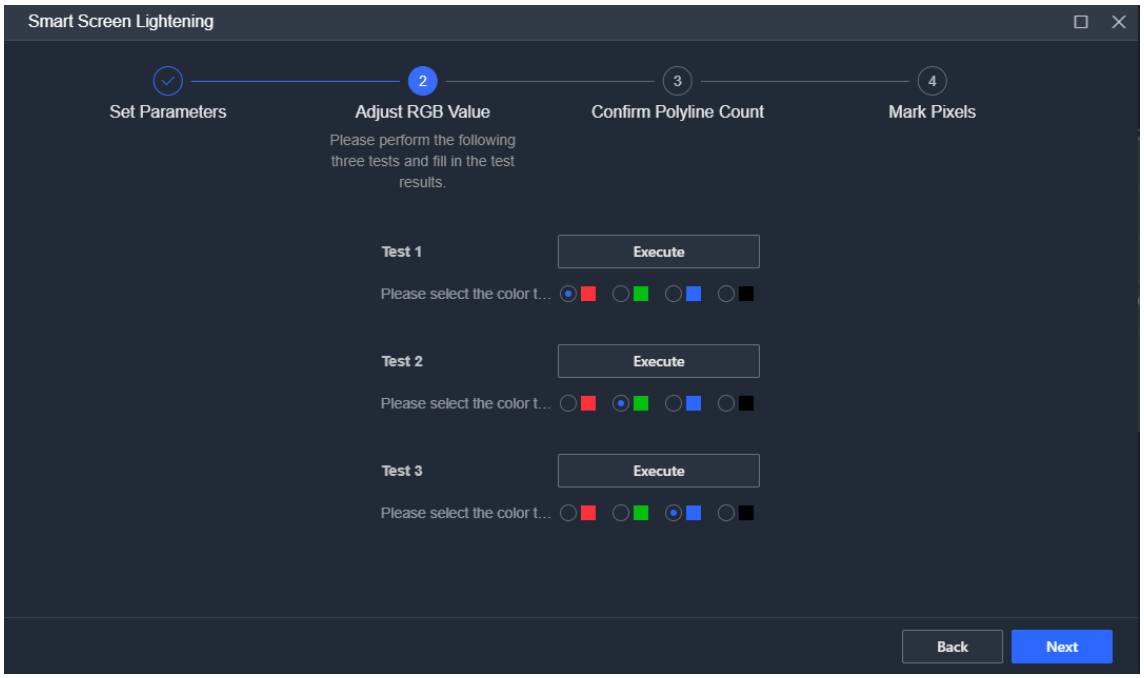

Figure 3-22 Adjust RGB

Step 5 Based on the lightening position and quantity of the lamp board, select the straight line position and set the straight line count, and then click **Next**.

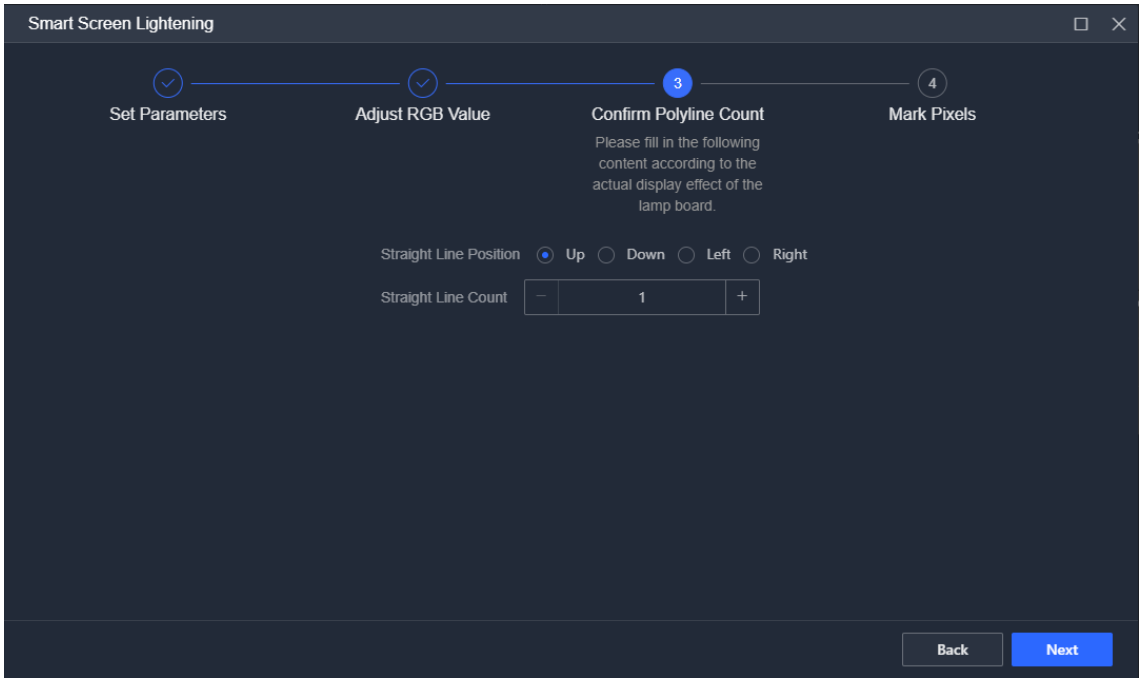

Figure 3-23 Confirm Polyline Count

Step 6 Mark the pixels based on the pixel blinking status of the lamp board:

- When the lamp board is blinking, mark both the current point and the next adjacent point as normal pixels.
- When the lamp board is not blinking, mark the current point as a normal pixel and the next adjacent point as an empty point.
- Left click the mouse to mark a point as a normal pixel and right click the mouse to mark it as an empty point.
- Press the keyboard arrow keys (up/down/left/right) to mark the points as normal pixels and press the spacebar to mark it as an empty point.
- When marking an empty point, check if any LED beads have detached. Detached LED beads may affect the smart screen lightening operation.

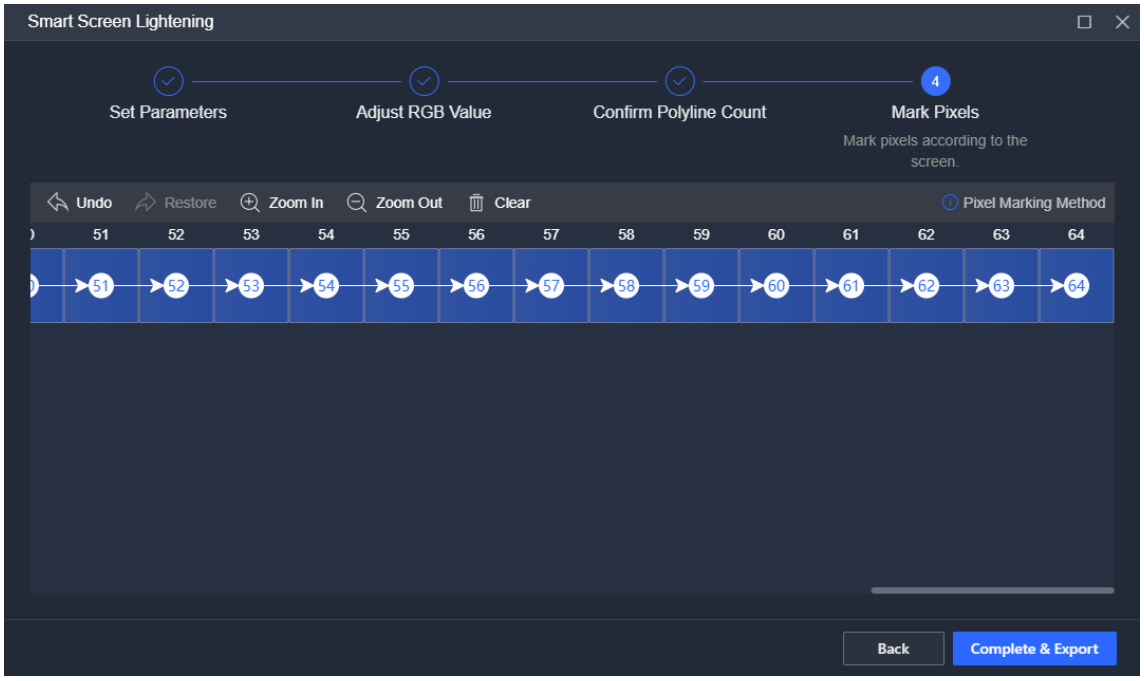

Figure 3-24 Mark Pixels

Step 7 Click **Complete & Export** to export the lamp board configuration file.

3.4.4 Configure Lamp Board Extended Attributes

On the **Screen Settings** → **Receiving Card Parameters** page, select a device. If the lamp board is lightened but the display effect is not satisfactory, configure the following parameters as required:

- Edit the extended attributes of row management chip:
  1) Click **Extended Attributes of Row Management Chip**.
  2) Click **Get** to obtain the current configuration.
  3) Enable **Shallow Enhancement** as required or change the shallow potential level.
  4) Click **Set**.
- Click **Extended Attributes of Row Management Chip** to configure the following parameters:
  - Edit the timing parameters: On the **Timing Parameters** page, click **Get** to obtain the current timing parameters, edit the timing parameters as required, and click **Save**.
  - Edit the effect parameters in normal mode: On the **Effect Parameters** page, use the default parameters or click **Get** to obtain the current effect parameters in normal mode, edit the effect parameters as required, and click **Save**.
  - Edit the effect parameters in advanced mode: On the **Effect Parameters** page, click **Advanced Mode**, click **Get Advanced Parameters**, double click a parameter to edit its value, and click **Save**.

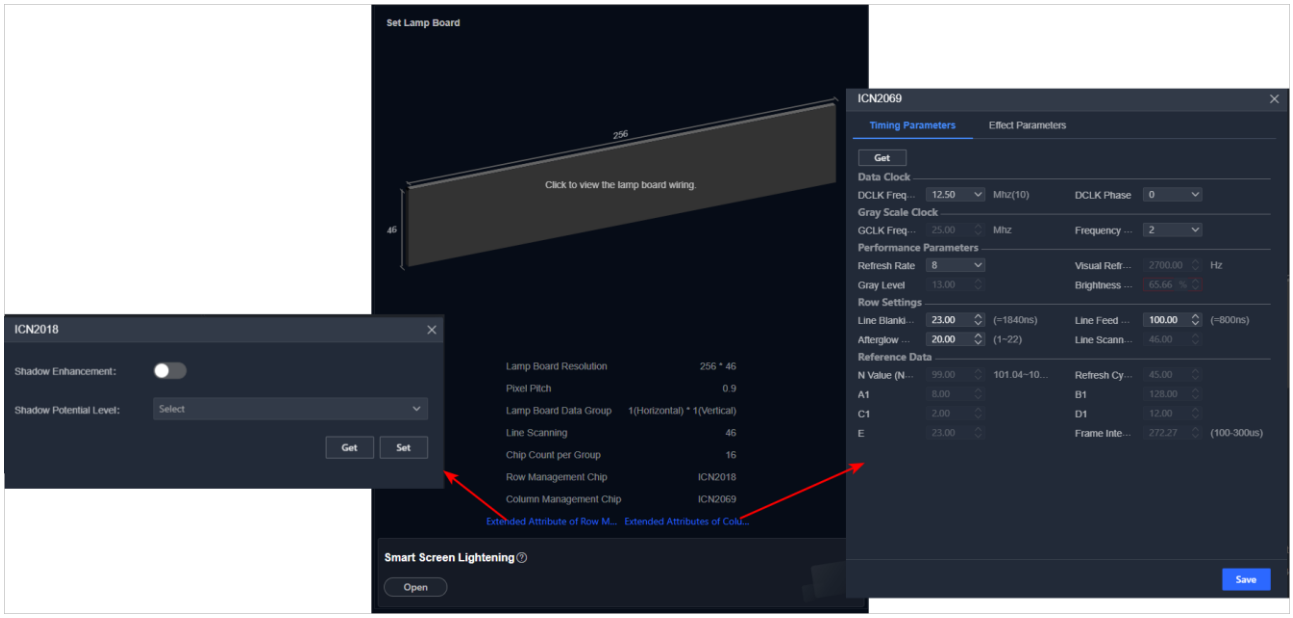

Figure 3-25 Configure Lamp Board Extended Attributes

3.4.5 Construct Cabinet

Step 1 On the **Screen Settings** → **Receiving Card Parameters** page, select a device.

Step 2 Open the **Cabinet Construction** window.

Step 3 Based on the actual lamp board quantity, edit the row number and column number of the lamp board.

Step 4 Based on the actual data group location, mark the corresponding data group location on this window.

For cascaded lamp boards, select a data group number, and then click the same number of areas as the quantity of physically cascaded lamp boards.

Step 5 Click **Save**.

Step 6 (Optional) Click **Read Back** to refresh the parameters shown on this window.

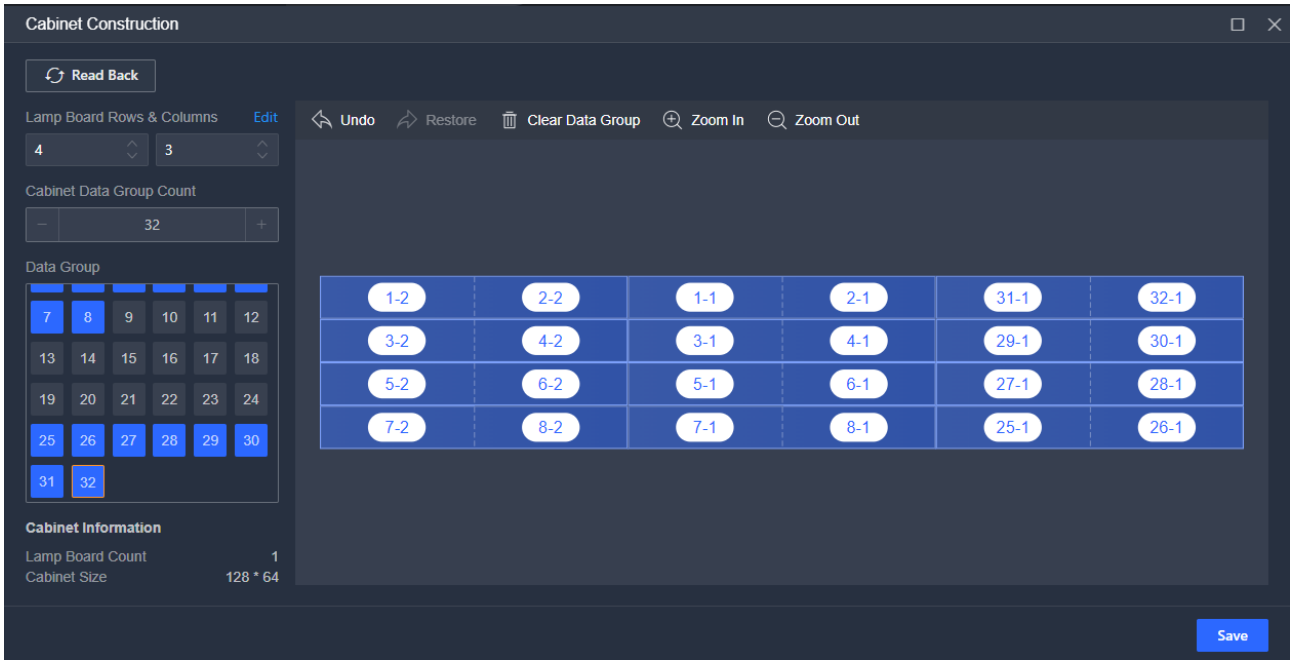

Figure 3-26 Construct Cabinet

3.4.6 Configure Data Group Parameters

Step 1 On the **Screen Settings** → **Receiving Card Parameters** page, select a device.

Step 2 Open the **Data Group Switching** window.

Step 3 According to the actual position of the blinking data group on the display, click the corresponding position on this page until the configured data group position matches the data group position shown on the display.

Step 4 Click **Save**.

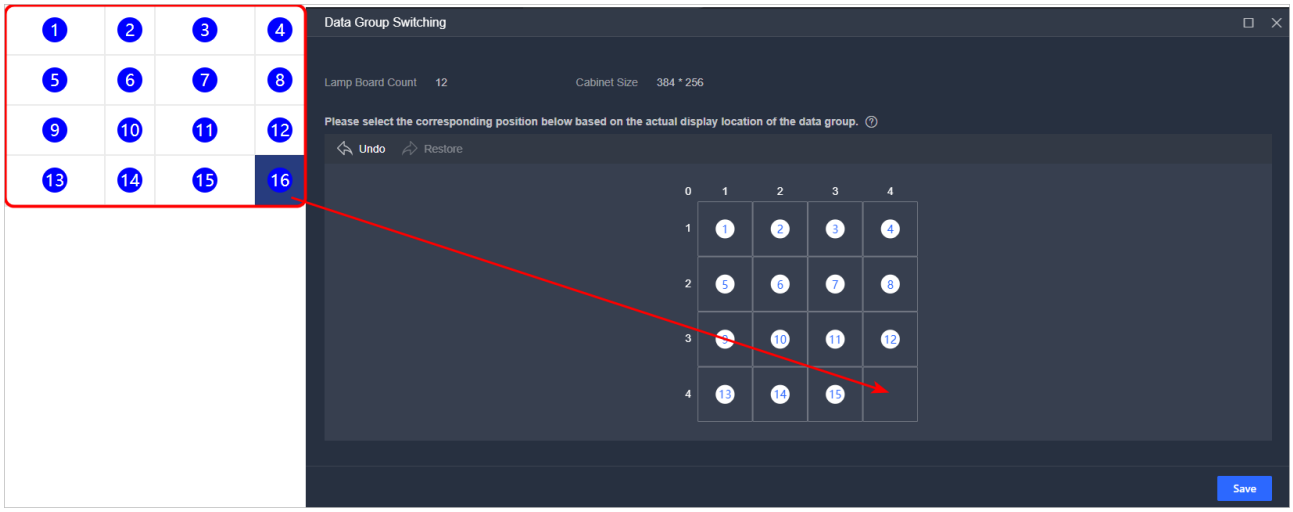

Figure 3-27 Configure Data Group Parameters

3.4.7 Configure Module and Cascading Parameters

Note

Only some HUB receiving cards support configuring module and cascading parameters.

Step 1 On the **Screen Settings** → **Receiving Card Parameters** page, select a device.

Step 2 Open the **Module Switching & Cascading** window.

Step 3 Based on the actual lamp board quantity, set the horizontal lamp board count and vertical lamp board count.

Step 4 Based on the actual signal port connection of the receiving card, connect the signal ports of the receiving card to the lamp boards on this page.

Step 5 Click **Save**.

Step 6 (Optional) You can perform the following operations as required:

- If the lamp boards are connected in cascade, enable **Cascading Configuration Mode**, select the lamp board cascading direction, click a receiving card signal port, and click multiple lamp boards on the right.
- Click **Read Back** to refresh the parameters shown on this window.

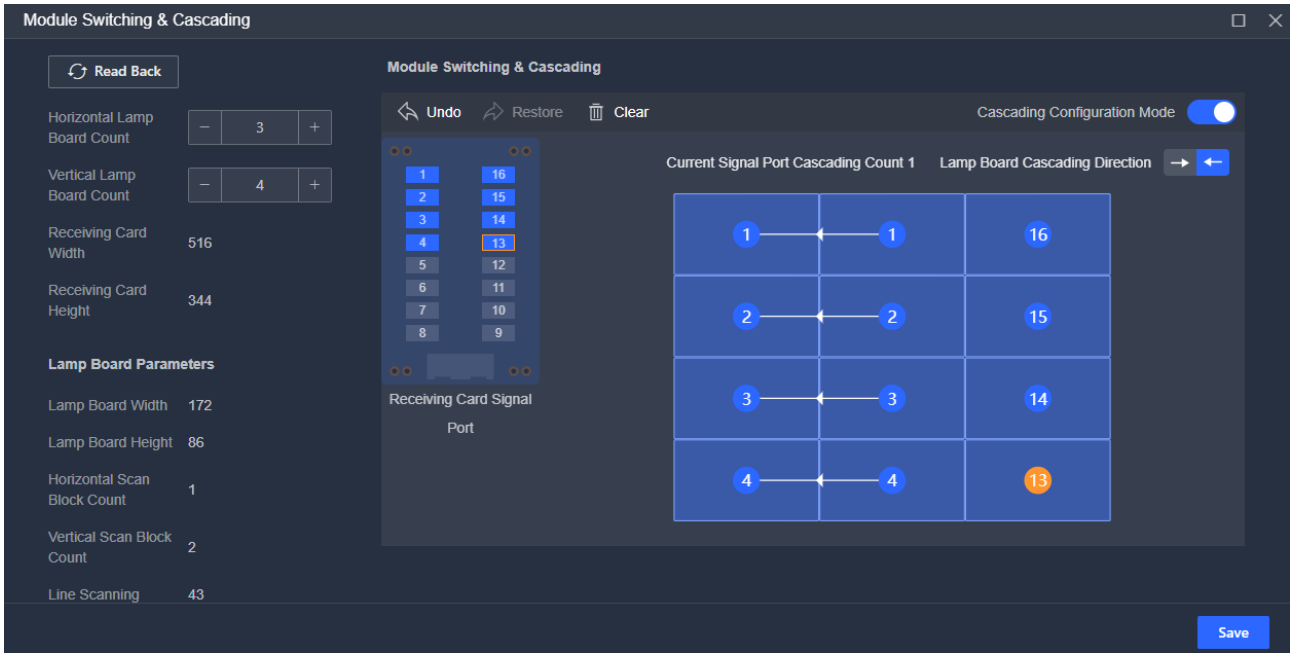

Figure 3-28 Configure Module and Cascading Parameters

3.4.8 Rotate Cabinets

Step 1 On the **Screen Settings** → **Receiving Card Parameters** page, select a device.

Step 2 According to the actual cabinet installation method, open the **Rotation** window.

Step 3 Select a rotation angle and click **Apply**.

Step 4 (Optional) Select a fine-tuning method and click **Apply**.

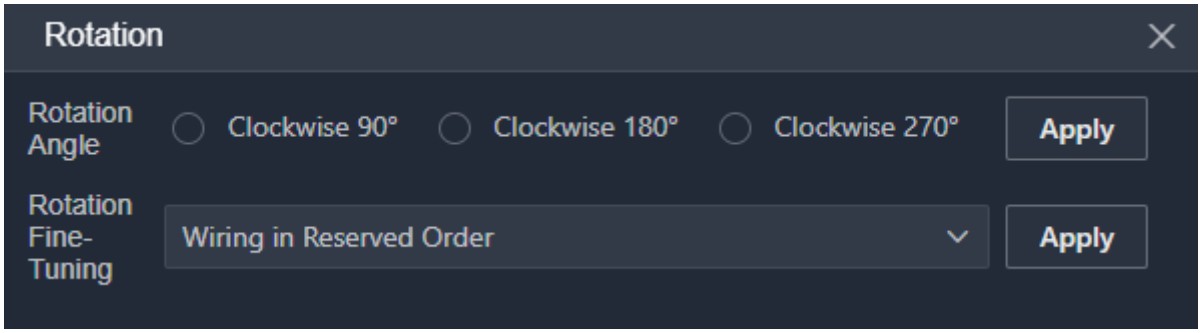

Figure 3-29 Rotate Cabinets

3.5 Create Cabinet Configuration File Offline

Step 1 Go to **Screen Settings** → **Receiving Card Parameters**.

Step 2 When no devices are added in the client, enable **Offline Mode**, select the corresponding receiving card model for the site, and click **OK**.

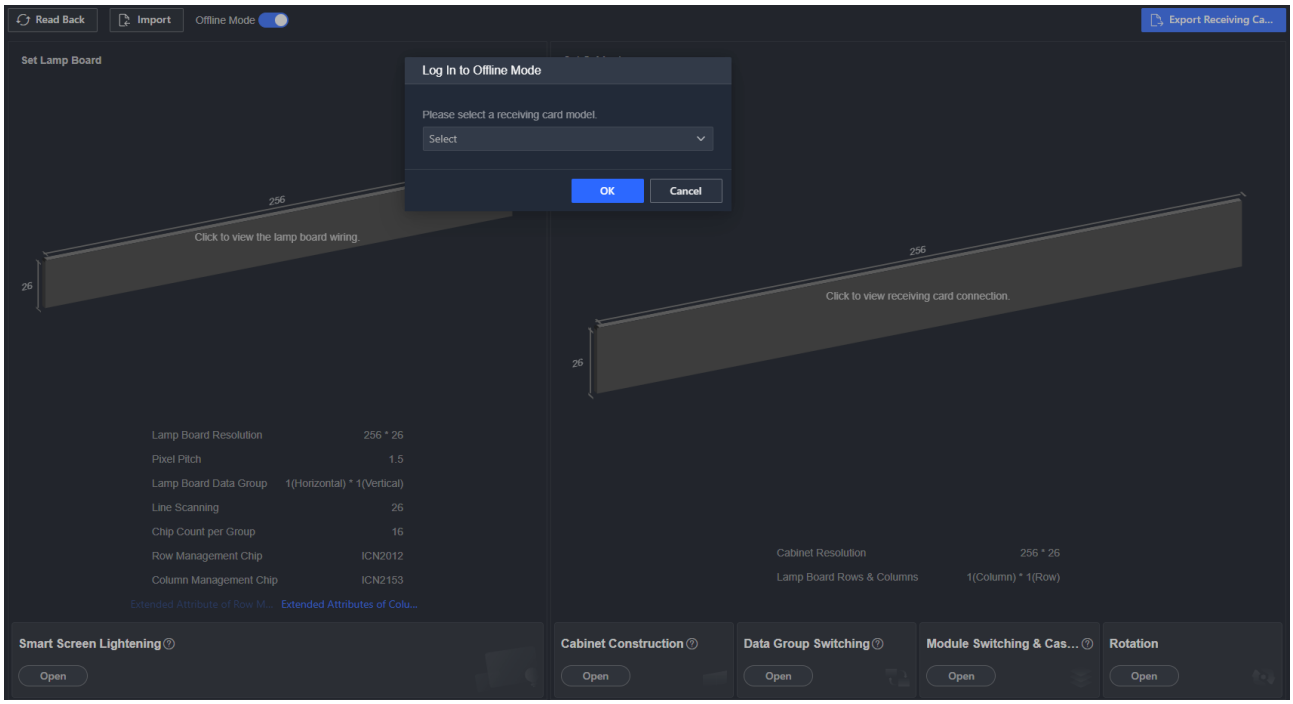

Figure 3-30 Enable Offline Mode

Step 3 Use either of the following methods to create a lamp board configuration file:

- If the computer does not have a lamp board configuration file or cabinet configuration file, take the following steps to create a lamp board configuration file:

1) Open the smart screen lightening window and based on the actual lamp board parameters to set the parameters, adjust RGB value, confirm the polyline count, and mark the pixels.

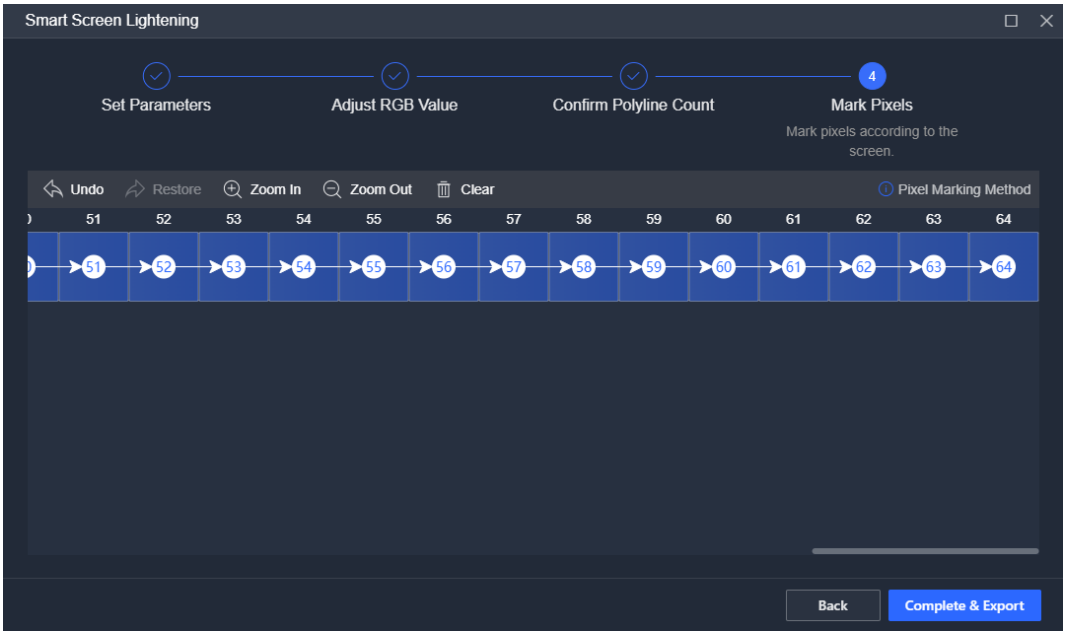

Figure 3-31 Smart Screen Lightening Window

2) Click **Complete & Export**.
3) On the **Receiving Card Parameters** page, click **Import** to import the created lamp board configuration file.

- If the computer has a lamp board configuration file or cabinet configuration file, click **Import** to import the created lamp board configuration file.

Step 4 Create the cabinet configuration file based on the type of the receiving card.

- For HUB receiving cards, configure the data groups and then configure the modules and cascading. For details, see “3.4.6 Configure Data Group Parameters” and “3.4.7 Configure Module and Cascading Parameters”.
- For AXS receiving cards, use either of the following method to create the cabinet configuration file according to the actual demand:
  - Construct the cabinet. For details, see “3.4.5 Construct Cabinet”.
  - Construct the cabinet and configure the data groups. For details, see “3.4.5 Construct Cabinet” and “3.4.6 Configure Data Group Parameters”.
- According to the actual cabinet installation method, configure the cabinet rotation. For details, see “3.4.8 Rotate Cabinets”.

Step 5 Click **Read Back** to check whether the lamp board parameters and cabinet parameters are correct.

Step 6 When the parameters are correct, click **Export Receiving Card Configuration File** to save the cabinet configuration file to the computer.

Chapter 4 Screen Parameters Configuration

4.1 Correct Receiving Cards

Step 1 Select a device or screen, and go to **Screen Settings** → **Correction**.

Step 2 (Optional) If you cannot judge whether the screen needs correction, you can test the screen. If the display effect does not meet the requirements, correct the receiving cards.

1) Click the **Test/Location** window, and enable **Screen Test**.
2) Select a pure color, gray scale, or line to check whether the screen color is normal or whether the dead pixels exist. If the existing solid color does not meet the requirements, click  to add a new color. You can edit and delete the newly added color.



Figure 4-1 Test/Locate Screen

Step 3 (Optional) If the screen needs correction but the correction area cannot be determined, you can enable **Quick Locate** in the **Test/Location** window.

Step 4 According to actual needs and lamp board capabilities, enable the corresponding correction mode. The available correction mode includes brightness/chroma correction and low gray correction. Only some lamp boards support low gray correction.

Step 5 Select the correction area:

- You can select a single or multiple receiving cards.
- You can enable **Show Lamp Board** and select a single or multiple lamp boards.

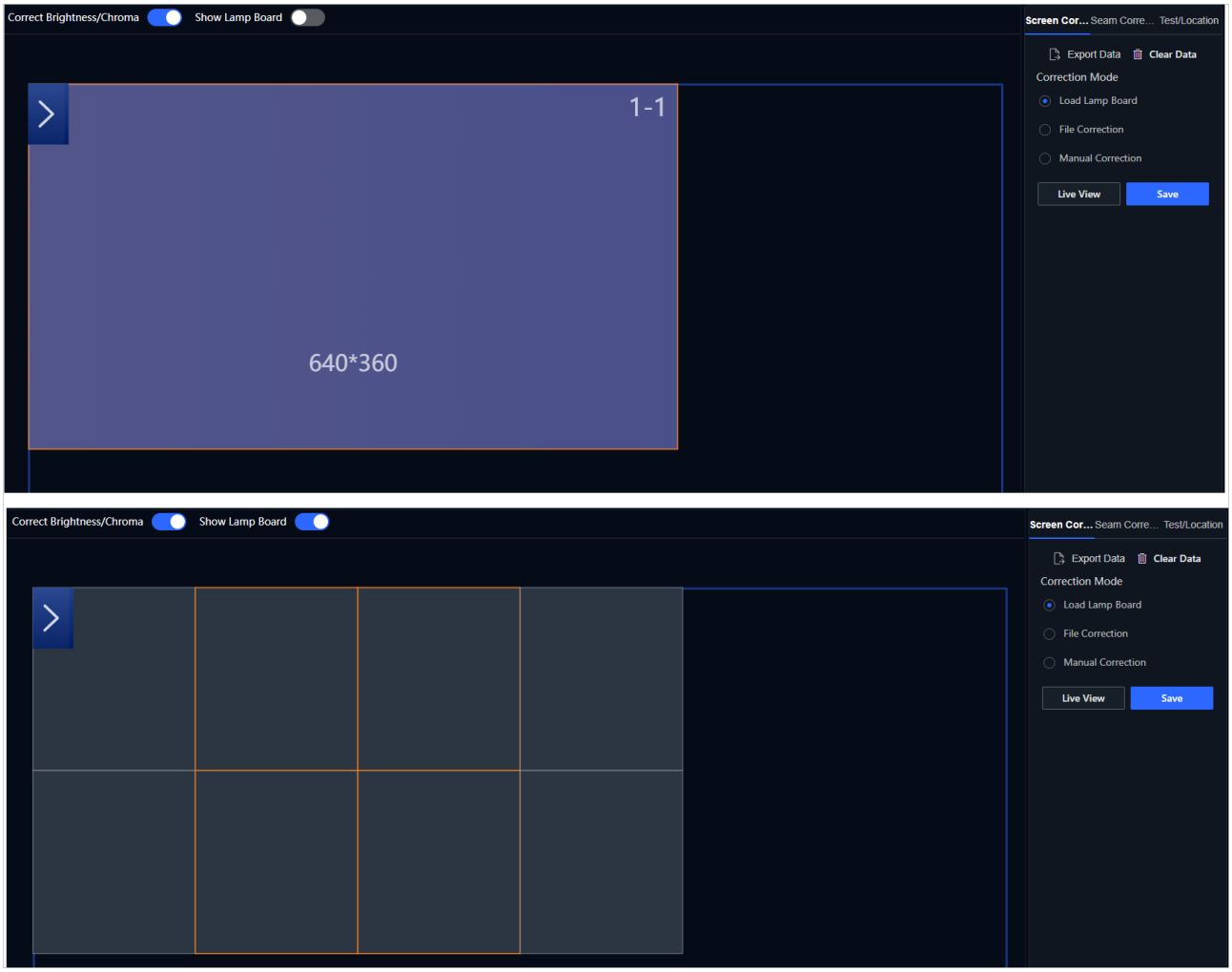

Figure 4-2 Select Correction Area

Step 6 (Optional) Load the factory correction data of the lamp board to the AXS receiving cards, and click **Live View** to preview the display effect after the factory correction data is loaded. The HUB receiving cards do not support loading the factory correction data of the lamp board or the factory correction file of the lamp board.

- When the lamp board has factory correction data, select **Load Lamp Board**.
- When the lamp board does not have the factory correction data, you can load the factory correction file of the lamp board from the cloud:

1) Enable **Show Lamp Board**.
2) Select a single or multiple lamp boards, and then click **Load Correction File from Cloud**.

- After clicking **Load Correction File from Cloud**, if you still cannot obtain the factory correction file of the lamp board, you can take the following steps:

1) Enable Show Lamp Board.
2) Select a single lamp board, click **View/Copy Lamp Board SN**.
3) Open **Cloud File Search** to obtain the factory correction file of the lamp board and save it locally.

4) Select **File Correction** and load the locally saved factory correction file of the lamp board.



Figure 4-3 Load Lamp Board Correction File

Step 7 If the display effect does not meet the requirements, perform manual correction, and then click **Live View** to view the display effect after manual correction.

- If the color difference exists, select **Manual Correction** and adjust the RGB values.
- If bright or dark seams exist, select **Seam Correction**, set the seam direction and width, and adjust the RGB values.
- To adjust RGB values synchronously, enable **Sync Adjustment**.

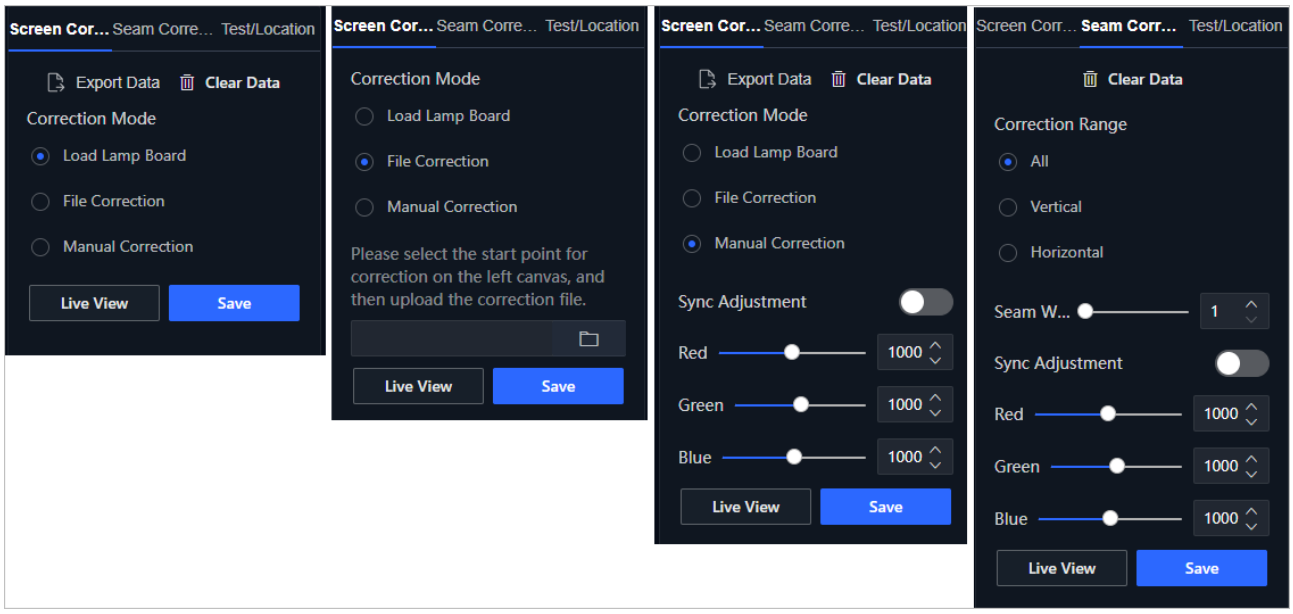

Figure 4-4 Correct AXS Receiving Card

Step 8 If the display effect still does not meet the requirements, select **File Correction** to upload a locally saved correction file. Please contact the product supplier to obtain the correction file and save the correction file locally.

Step 9 When the desired display effect is reached, click **Save**.

Step 10 (Optional) You can perform the following operations as required:

- If the correction effect does not meet the requirements, select the correction areas and click **Clear Data**.
- Select the correction areas and click **Export Data** to export the correction data of the selected areas.

4.2 Configure Input/Output Parameters

Configure Input/Output Parameters of LED Controller

Step 1 Select an LED controller, and go to **Screen Settings** → **Input/Output Managment**.

Step 2 On the **Input Management** window, select a signal source and edit the EDID parameters as required. It is recommended to set the resolution and frame rate of EDID consistent with the resolution and frame rate in the output management.

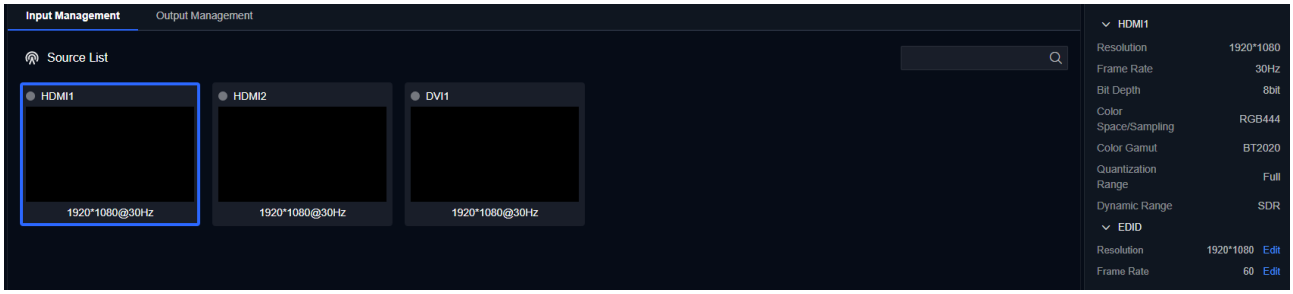

Figure 4-5 Configure Input Parameters

Note

- The source preview image cannot refresh automatically. To refresh the source preview image, exit and reenter the **Input Management** window.
- The C and B series LED controllers only show the connected signal source images while the V and P series LED controllers show all signal source images.

Step 3 Click **Output Management** and configure the following parameters as required:

- Select an output source. By default, the LED controllers of the C series support the output source selection. When the LED controllers of the V or P series uses the sync mode, they also support the output source selection.

  - When an LED controller has multiple input signal sources, it only supports outputting the selected signal source to the screen. When AUTO is selected, it can automatically output the newly connected signal source to the screen.
  - Only the 2K C LED controllers do not support the AUTO function.
- Click **Edit** to edit the output resolution.
- Select a zoom mode. By default, the LED controllers of the C series support the zoom mode selection. When the LED controllers of the V or P series uses the sync mode, they also support the zoom mode selection.
- Adjust the volume or turn off the audio as required.
- When the receiving card supports the 3D LUT function, and when you need to add filter effects to the screen, you can import the 3D LUT file into the client and then enable **3D LUT**.
- Enable **Frame Rate Adaptation**.

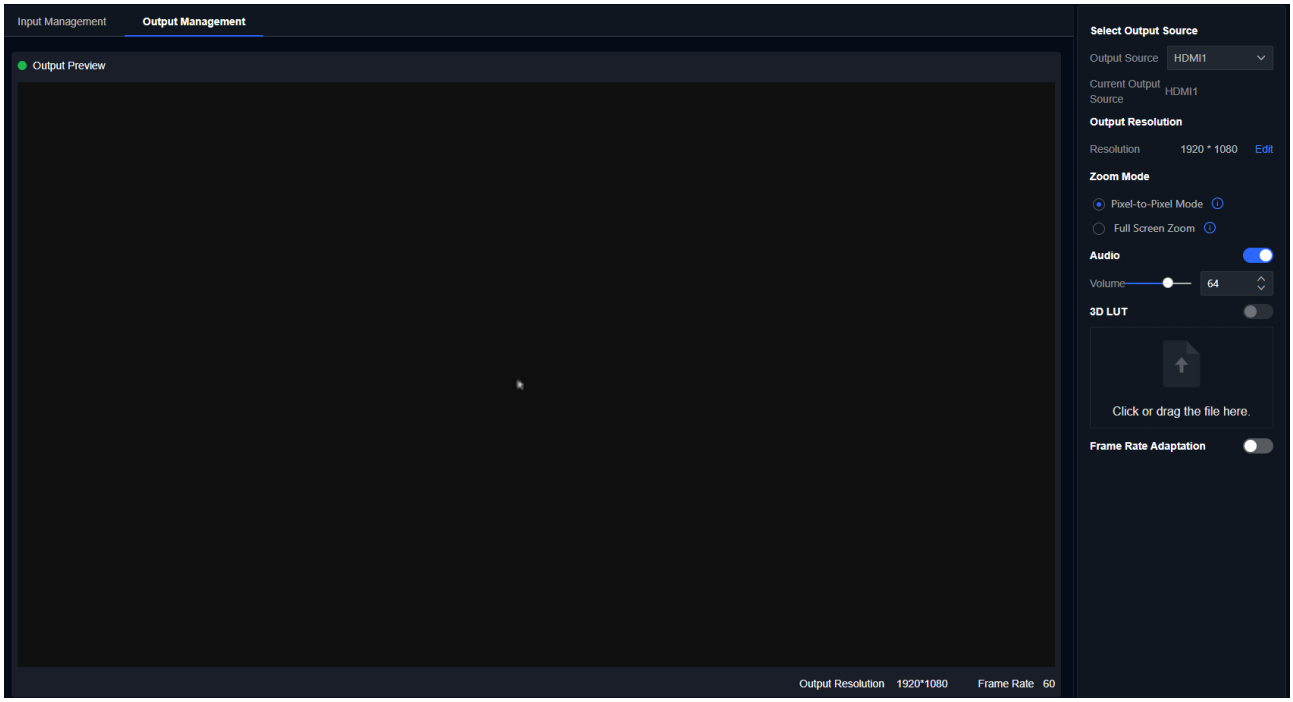

Figure 4-6 Configure Output Parameters

Note

The output preview image auto-refreshes at 5 seconds.

View Output Parameters of LED Controller

Select a video wall controller, and go to **Screen Settings** → **Input/Output Managment** → **Output Management** to view the output resolution.

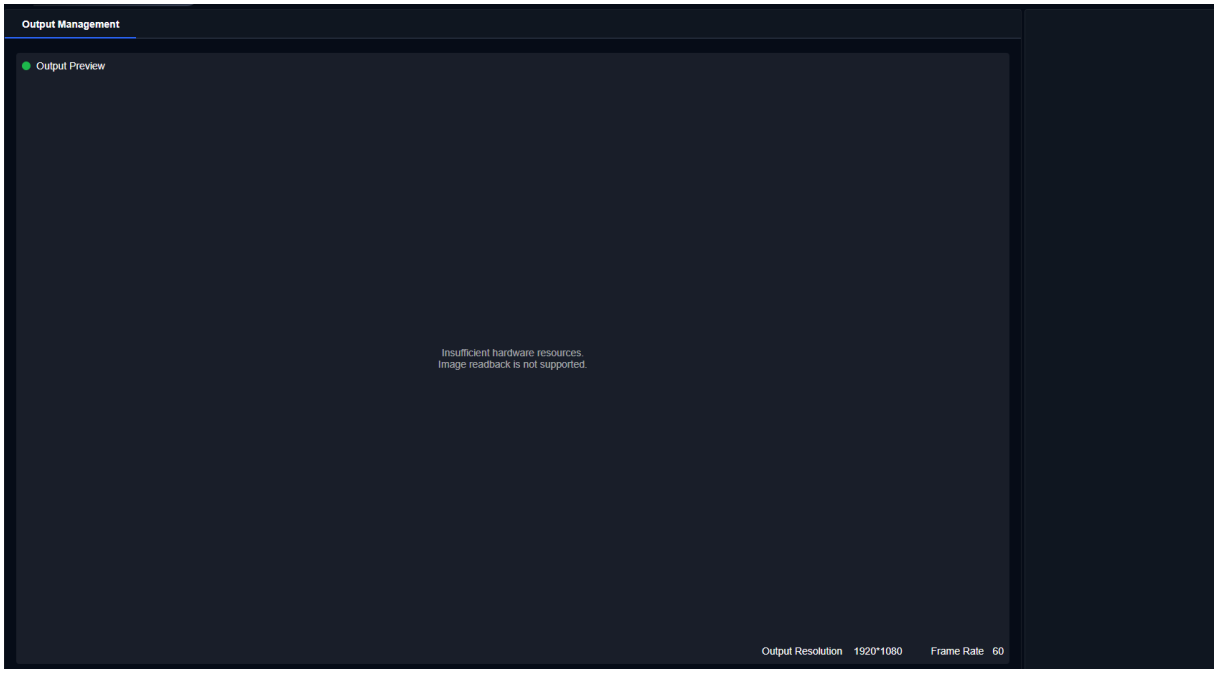

Figure 4-7 View Output Parameters of Video Wall Controller

Note

The video wall controllers do not support image previewing.

4.3 Configure Image Effect

Configure Display Effect of Screens

Step 1 Select a device or screen, and go to **Screen Settings** → **Display Effect**.

Step 2 Select a preset mode.

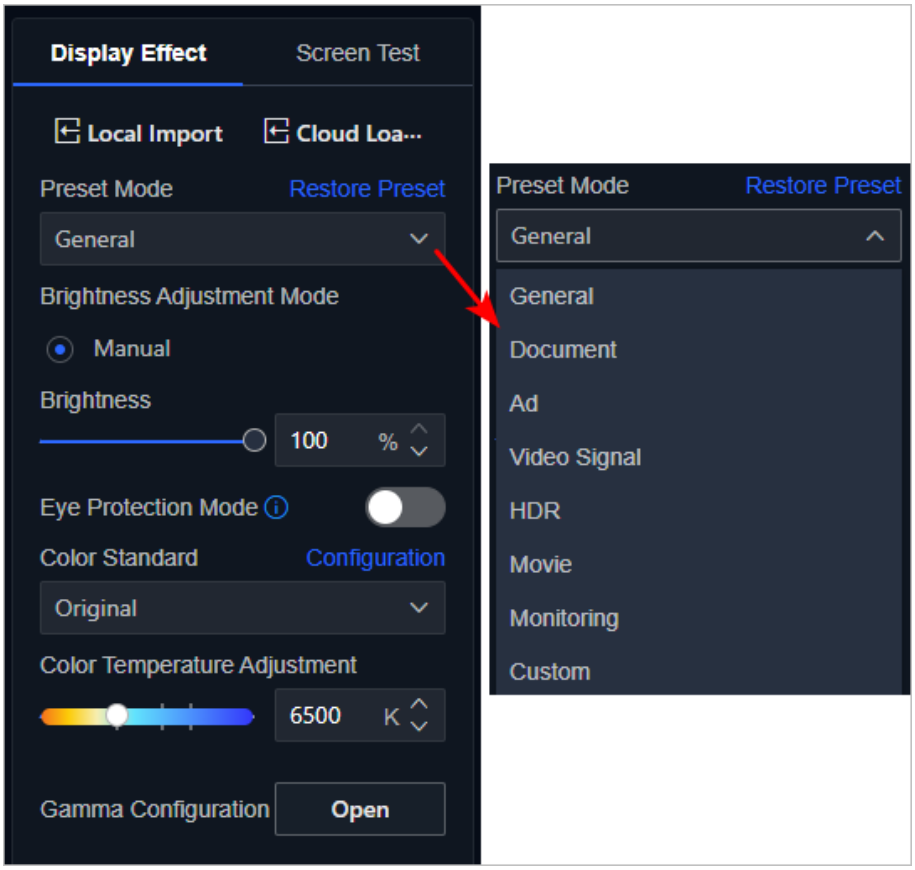

Figure 4-8 Select Preset Mode

Step 3 If the display effect does not meet the requirements, edit the following parameters as required:

- Adjust the brightness value.
- Enable **Eye Protection Mode** to reduce brightness and power consumption.
- Enable **Dynamic Energy Saving** to set the strength coefficient. Only some receiving cards support this function.
- Select a color standard. If you want to select **Custom**, click **Configuration** and set the color standard.

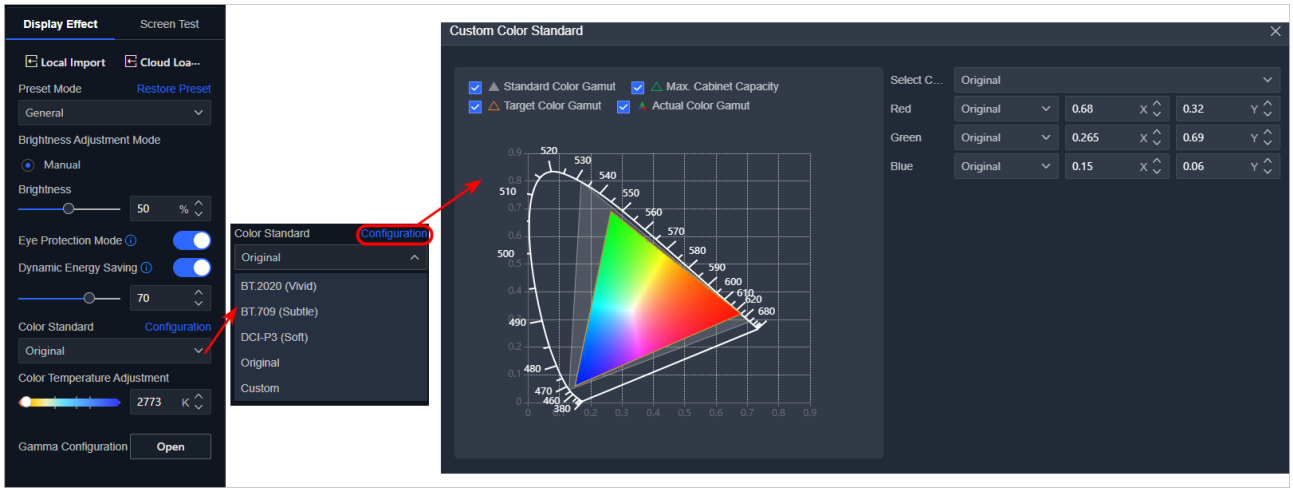

Figure 4-9 Select Color Standard

- Set the color temperature.
- Set the Gamma parameters: Open the Gamma configuration window, set the contrast, Gamma coefficient, environment brightness, initial brightness level and initial brightness, enable ultra-low gray control and gray scale optimization. Only some receiving cards support ultra-low gray control and gray scale optimization.

Step 4 When a screen is controlled by multiple devices, you can take the following steps to set the display effect parameters of different devices to be consistent:

1) Select each device individually, open the Gamma table, and check if the images of the Gamma table for different devices remain consistent.
2) If inconsistent, select the device that meets the display effect, open the Gamma table of the device, and export the color file of the device.

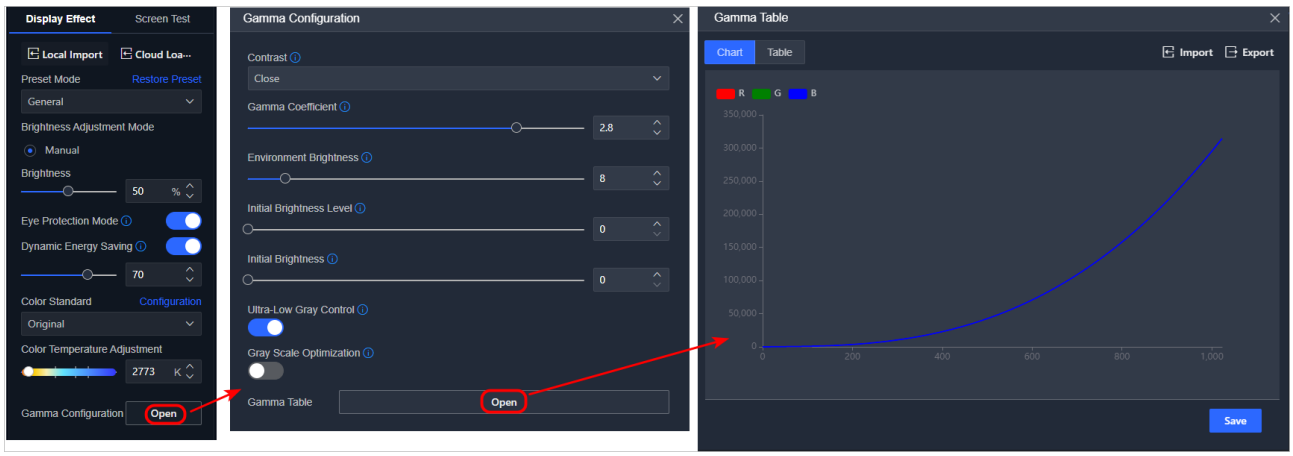

Figure 4-10 View Gamma Table

3) Select the screen, open the Gamma table, and click **Import** to import the correct color file into all devices of the screen.



Figure 4-11 Configure Display Effect of Multiple Devices

Step 5 (Optional) You can perform the following operations as required:

- Click **Restore Preset** to restore the default parameters of the selected preset mode.
- When you cannot set the color standard or enable gray scale optimization, you can add a color file:
  - Click **Local Import** to import a locally saved color file, then click **Add**.
  - Click **Cloud Loading**, set the search content. Select a color file, and click **Add**.

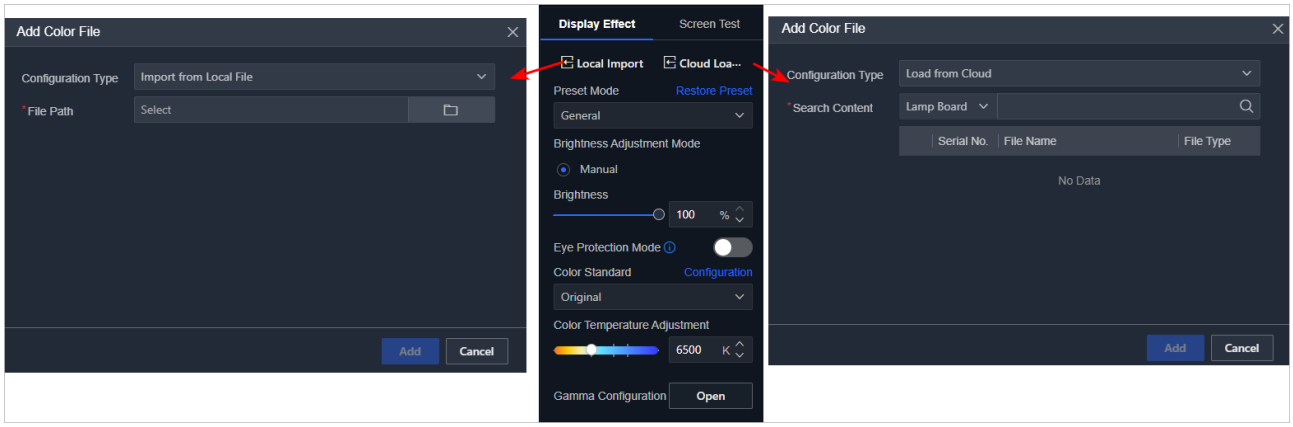

Figure 4-12 Add Color File

Configure Startup Image of LED Controller

Only the LED controllers support the startup image configuration, while the video wall controllers do not support the startup image configuration.

Step 1 Select an LED controller.

Step 2 Go to **Screen Maintenance** → **Settings** → **Preference** → **Startup Image**.

Step 3 Select an image as the startup image, and click **Save**.

- Current Image: The current image will be used as the startup image.
- Custom: You can click + to upload an image to function as the startup image.

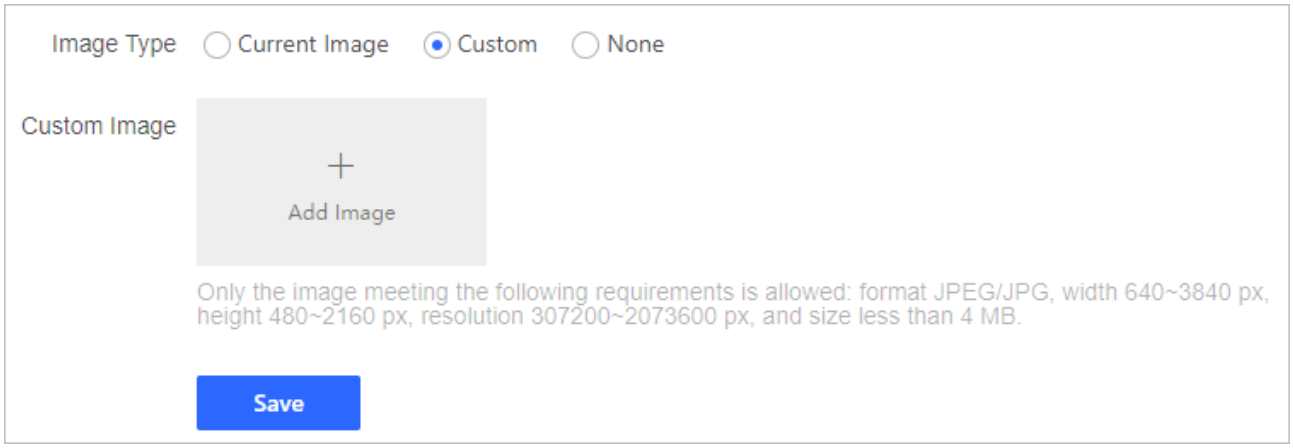

Figure 4-13 Configure Startup Image of LED Controller

Configure No Signal Images

No signal images vary with the device type. This chapter uses a C series LED controller as an example.

Step 1 Select a device.

Step 2 Go to **Screen Maintenance** → **Settings** → **Preference** → **No Signal Image**.

Step 3 Select images to display when the signal interruption occurs, and click **Save**.

- Last Frame: The last frame image will be displayed when the signal interruption occurs.
- Aging Mode: The display enters random solid color mode and flashes regularly when the signal interruption occurs.
- Custom Picture: Click + to upload an image to display when the signal interruption occurs.

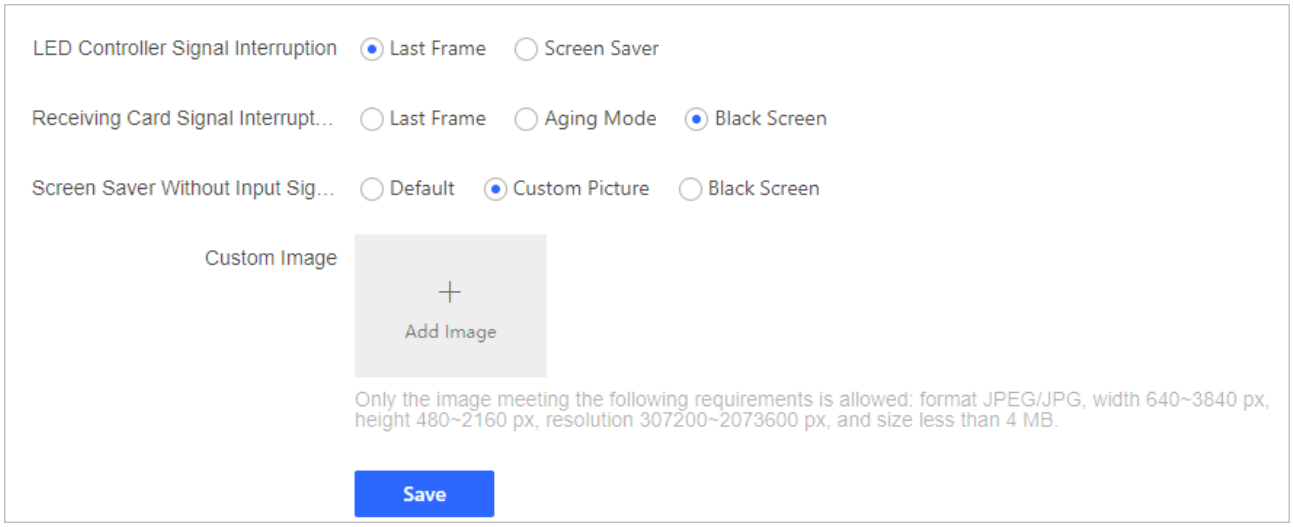

Figure 4-14 Configure No Signal Images of C Series LED Controller

4.4 Configure General Parameters

Configure Time of LED Controller

Only the LED controllers support time configuration, while the video wall controllers do not support time configuration through this client.

Step 1 Select an LED controller, and go to **Screen Maintenance** → **Settings** → **System** → **Time Settings**.

Step 2 Select a time zone.

Step 3 Set the time parameters:

- The LED controllers of C and V series only support manual time configuration. You can set the time manually or click **Sync with Computer Time** to make the device time consistent with the computer time.
- The LED controllers of P series support NTP configuration and manual time configuration.
  - If you select **Manual Time Sync**, set the time manually or click **Sync with Computer Time** to make the device time consistent with the computer time.
  - If you select **NTP Sync**, enter the server address, NTP port, and interval.

Step 4 (Optional) For the LED controllers of C and V series, enable **DST** and set the related parameters.

Step 5 Click **Save**.

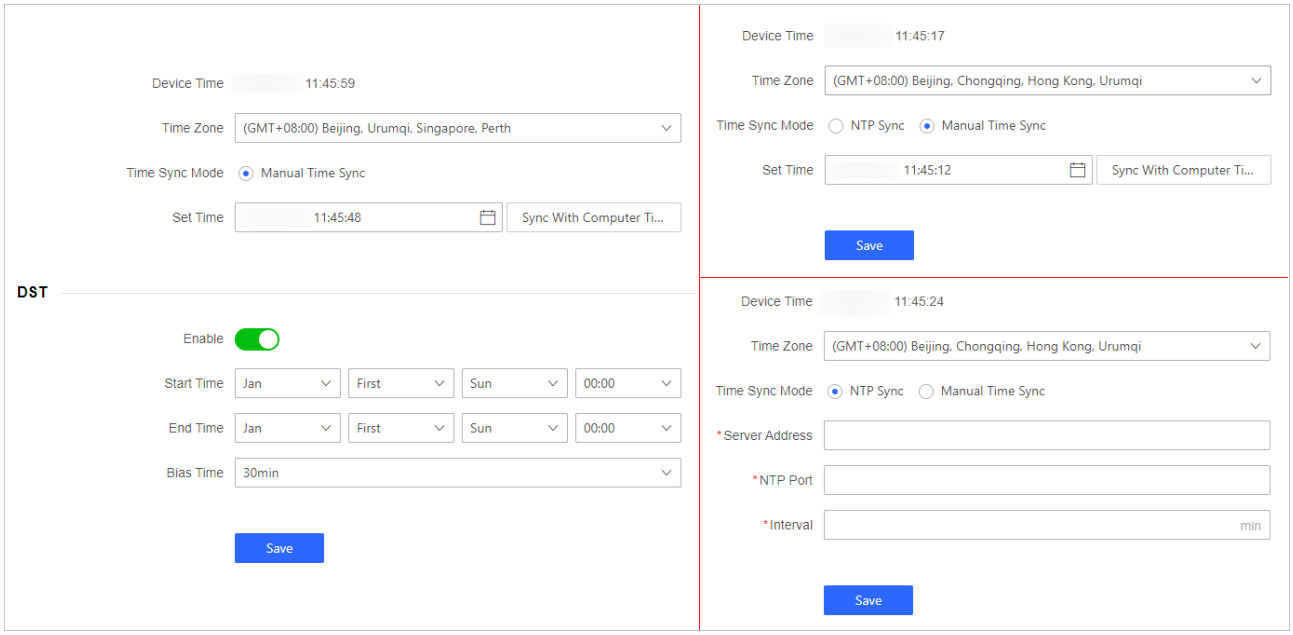

Figure 4-15 Configure Time (Left: C/V Series, Right: P Series)

Configure Font for V Series LED Controller

Step 1 Select a V device.

Step 2 Go to **Screen Maintenance** → **Settings** → **Preference** → **Font Settings**.

Step 3 Click  to select a font file and click **Upload**.



Figure 4-16 Configure Font

Configure Alarms

Select a device and go to **Screen Maintenance** → **Settings** → **Environment and Alarm** to monitor the following items as required, and set the thresholds:

- When the threshold is exceeded, the alarm information and current value of the monitored item will be displayed on the display and the device web interface.
- After connecting a temperature and humidity sensor to a receiving card or an LED controller, you can monitor the environmental temperature and humidity.

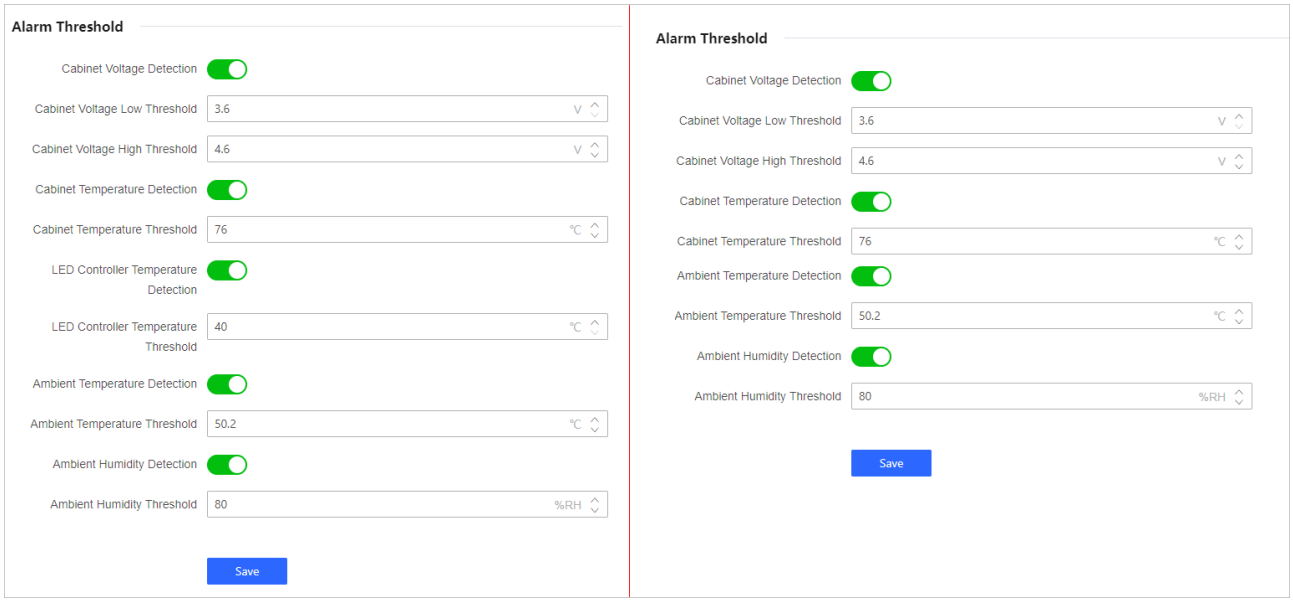

Figure 4-17 Configure Alarms (Left: LED Controller, Right: Video Wall Controller)

Configure Timed Parameters

Step 1 Select a device.

Step 2 Go to **Screen Maintenance** → **Settings** → **Schedule**.

Step 3 On the **Timed Screen On/Off** page, enable the function and set the screen on time and screen off time.

Step 4 Click **Timed Brightness Adjustment**, enable the function, and set the target brightness value and duration.

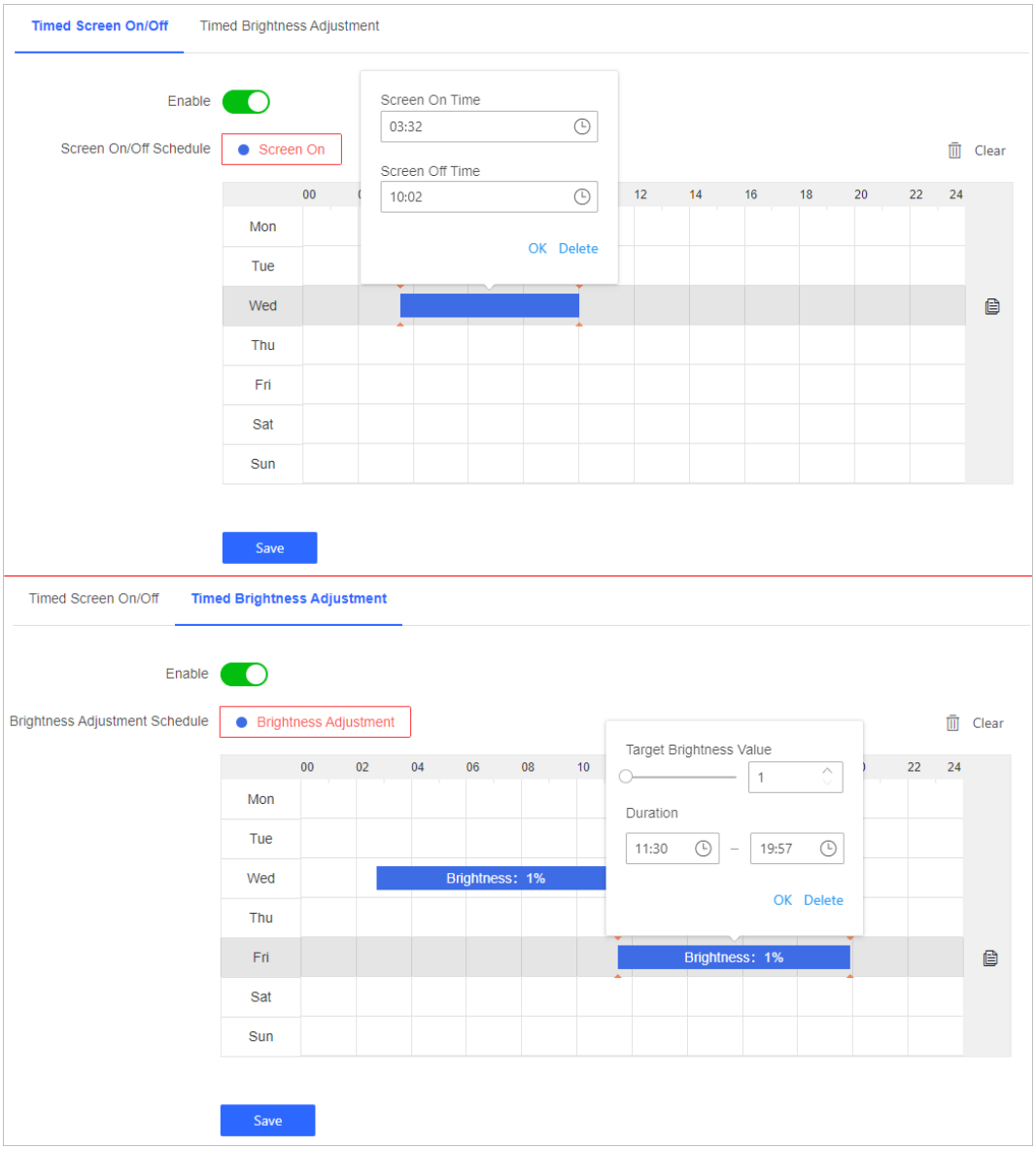

Figure 4-18 Configure Timed Parameters

Configure Network Port Backup

Step 1 Select a device.

Step 2 Go to **Screen Settings** → **Back Up** → **Network Port Backup**.

Step 3 Enable backup.

Step 4 (Optional) Select a cabinet receiving card type.

Step 5 Click **Save**.

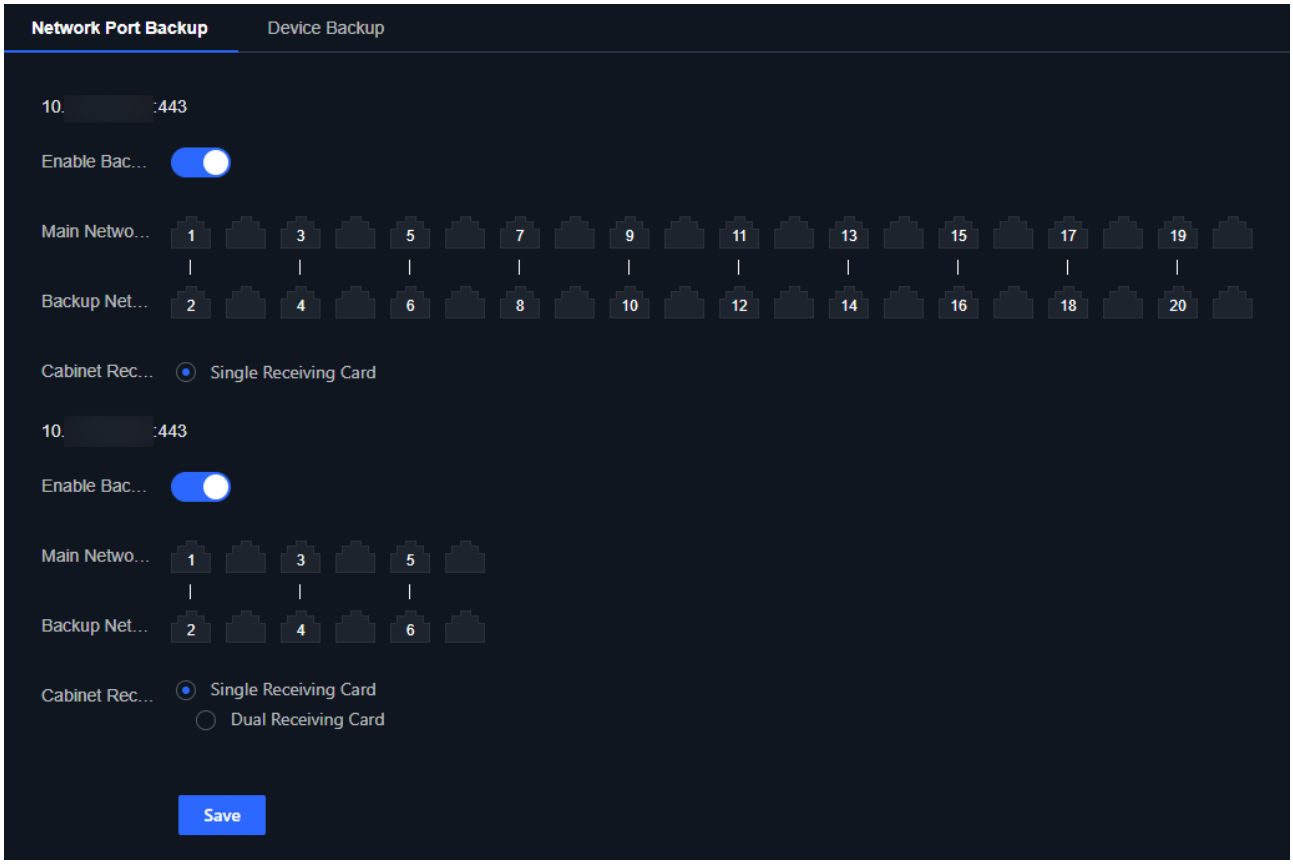

Figure 4-19 Configure Network Port Backup

Configure Device Backup of LED Controller

Step 1 Select an LED controller.

Step 2 Go to **Screen Settings** → **Back Up** → **Device Backup**.

Step 3 Select a backup device and click **Save**.

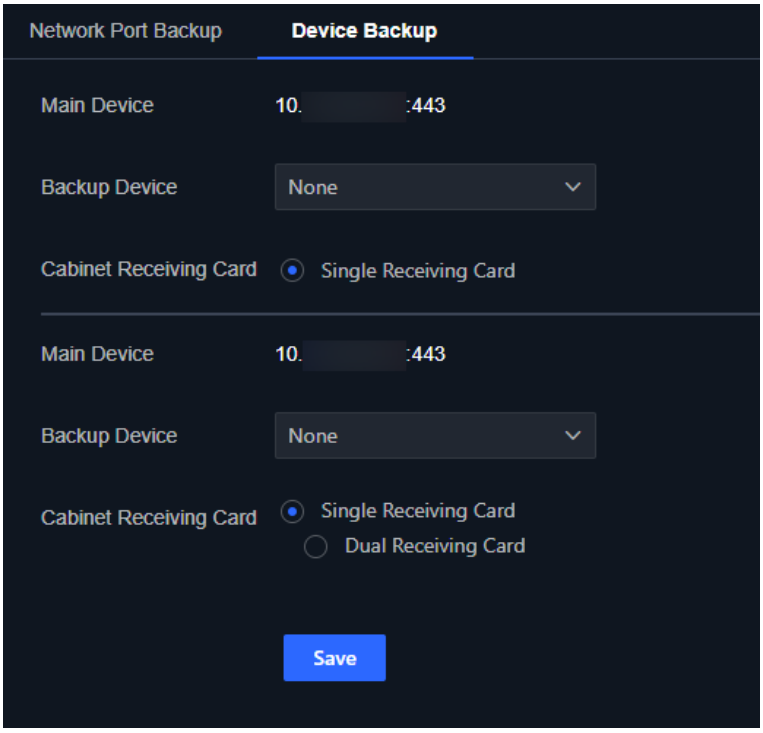

Figure 4-20 Configure Device Backup of LED Controller

4.5 Configure Network Parameters of LED Controller

Only the LED controllers support the configuration of network parameters, while the video wall controllers do not support the configuration of network parameters through this client.

Configure Wired Network Address

Step 1 Select a device.

Step 2 Go to **Screen Maintenance** → **Settings** → **Network** → **TCP/IP**.

Step 3 Enable **Static IP Address**.

Step 4 Set the static wired IP address:

- If the device is directly connected to the computer, set an unused IP address from the local network as the wired network address of the device. Ensure that the device can still connect to the local network and remain on the same subnet as the computer.
- If the device is connected to the local network via an Ethernet cable, the device will automatically obtain an IP address. You can set the automatically obtained IP address as the wired network address of the device, or set an unused IP address from the local network as the wired network address of the device. Ensure that the device and computer are on the same subnet.

Step 5 Click **Save**.

Step 6 Enter the configured wired IP address of the device in the browser of the computer to log in to the device web page.

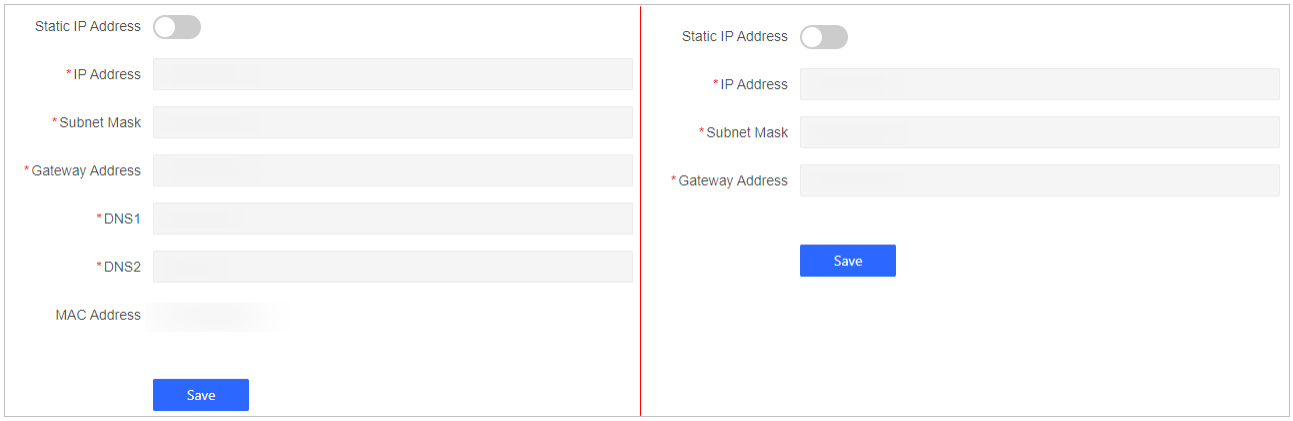

Figure 4-21 Configure Wired Network Address (Left: P Series, Right: C/V Series)

Configure Wireless Network Address of P Series LED Controller

When activating and logging in to the device for the first time, a wired connection must be used. If the device is connected to both a wired and wireless network simultaneously, it will prioritize the wired network.

Step 1 Connect a Wi-Fi antenna to the WIFI STA port of the device.

Step 2 Select a P device.

Step 3 Go to **Screen Maintenance** → **Settings** → **Network** → **Wi-Fi** and enable Wi-Fi.

Step 4 Select an available Wi-Fi network and click **Connect**.

Step 5 Click **Network Status** to view the IP address automatically obtained by the device after the device connects to the wireless network.

Step 6 Enable **Static IP Address**.

Step 7 Set the static wireless IP address:

- Set the automatically obtained IP address as the wireless network address of the device.
- Set an unused IP address from the local network as the wireless network address of the device. Ensure that the device and computer are on the same subnet.

Step 8 Click **Save**.

Step 9 When the wired network is unavailable or the Ethernet cable is removed, enter the configured wireless IP address of the device in the browser of the computer to log in to the device web page.

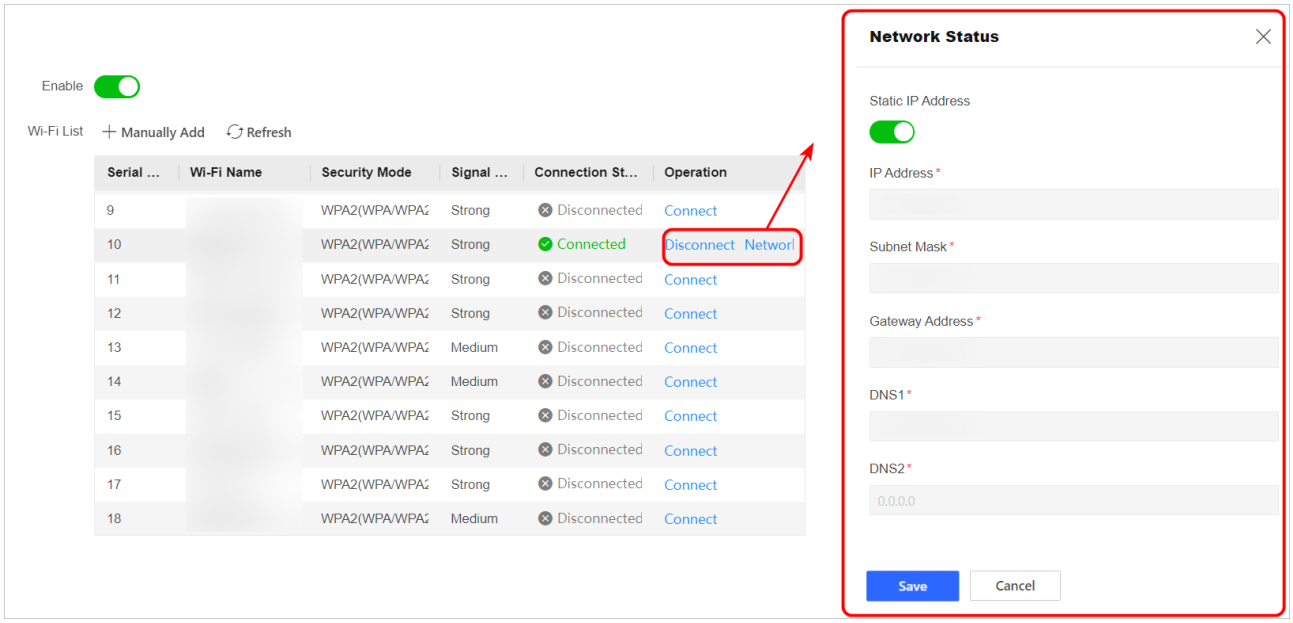

Figure 4-22 Configure Wireless Network Address

Configure Bluetooth of P Series LED Controller

Step 1 Connect a Wi-Fi antenna to the WIFI STA port of the device.

Step 2 Select a P device.

Step 3 Go to **Screen Maintenance** → **Settings** → **Network** → **Bluetooth** and enable Bluetooth.

Step 4 Use Bluetooth to connect the device to other devices:

- Select a Bluetooth device, click **Pair**. The Bluetooth device is paired after the pairing is successful.
- Select Bluetooth peripheral device, click **Pair**. The Bluetooth device is paired after the pairing is successful. Click **Connect** to connect the Bluetooth peripheral device to the device. The Bluetooth peripheral device is connected after the connection is successful.

Step 5 Click **Save**.

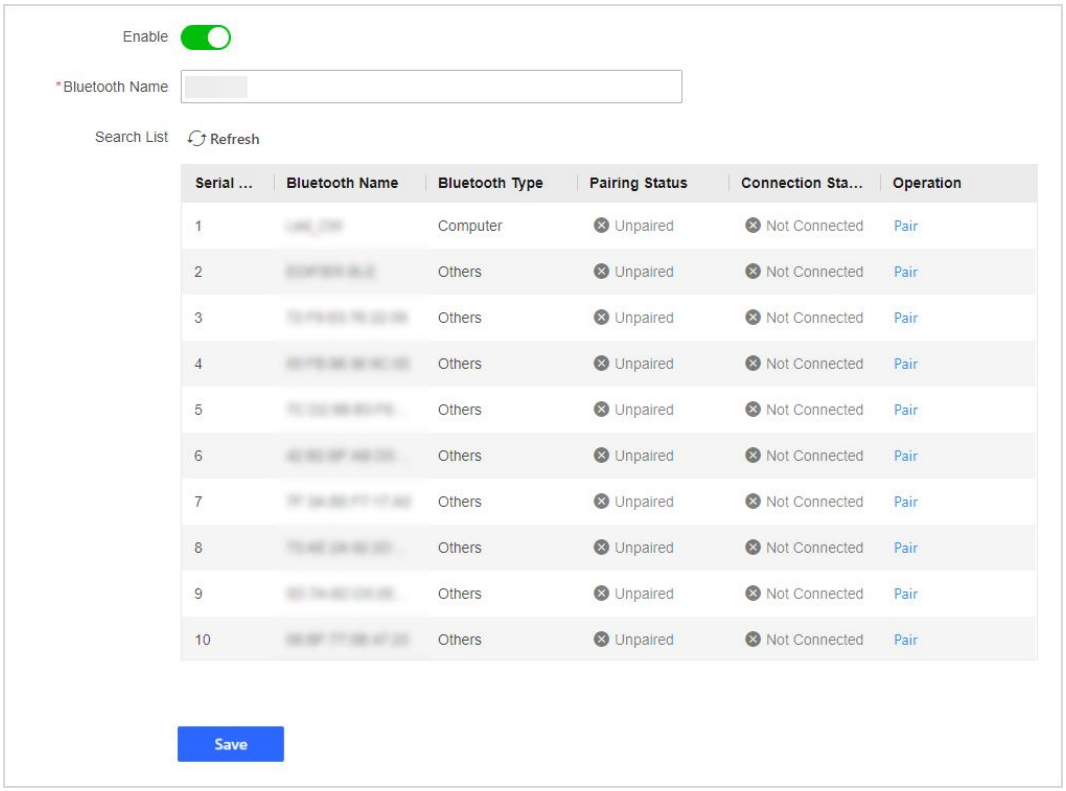

Figure 4-23 Enable Bluetooth

Enable Hot Spot of P Series LED Controller

Step 1 Connect a Wi-Fi antenna to the WIFI AP port.

Step 2 Select a P device.

Step 3 Go to **Screen Maintenance** → **Settings** → **Network** →**Hot Spot** and enable hot spot.

Step 4 (Optional) Configure hot spot parameters as required:

- After hot spot is enabled, the default name and password are used. You can edit the hot spot name and password.
- Edit the security, AP band, or AP channel.

Step 5 Click **Save**.

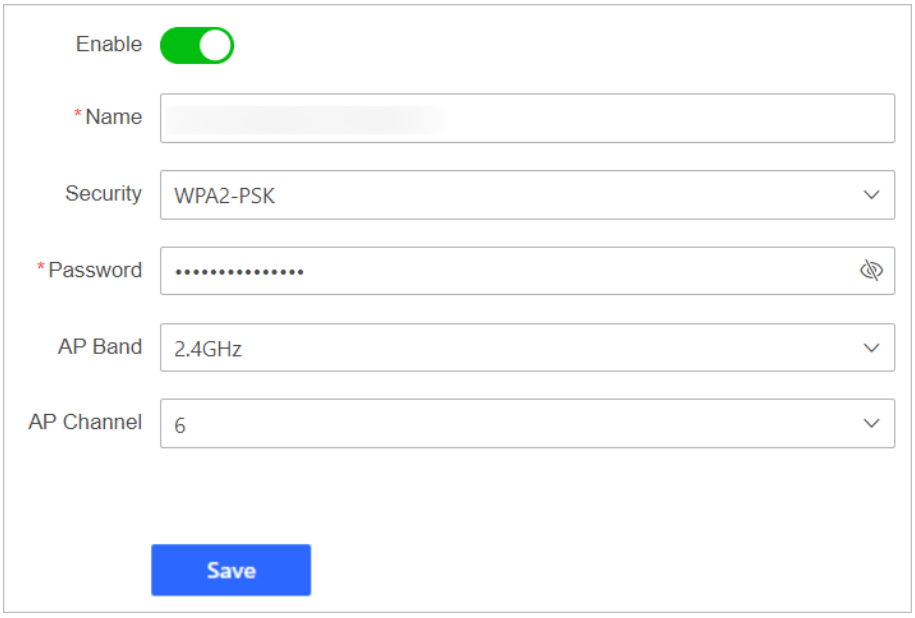

Figure 4-24 Configure Hot Spot

4.6 Configure Auto Dehumidification

Step 1 Select a device.

Step 2 Go to **Screen Maintenance** → **Settings** → **Dehumidification**.

Step 3 Enable **Auto Dehumidification** and set the dehumidification parameters.

Step 4 Select the region according to the actual humidity condition of the device location. If you select **Custom**, set the time step, brightness step and duration.

- Time Step: The time interval between two consecutive brightness adjustments by the LED controller during a single dehumidification process. If the brightness is adjusted every 5 minutes, the time step is 5 minutes.
- Brightness Step: The minimum change in brightness for each adjustment by the LED controller during a single dehumidification process. If the brightness increases by 1 each time, the brightness step is 1.
- Duration: The total time of a single dehumidification process.
- Usage Rate: The usage rate of the device.

Step 5 Click **Save** or **Save and Start**.

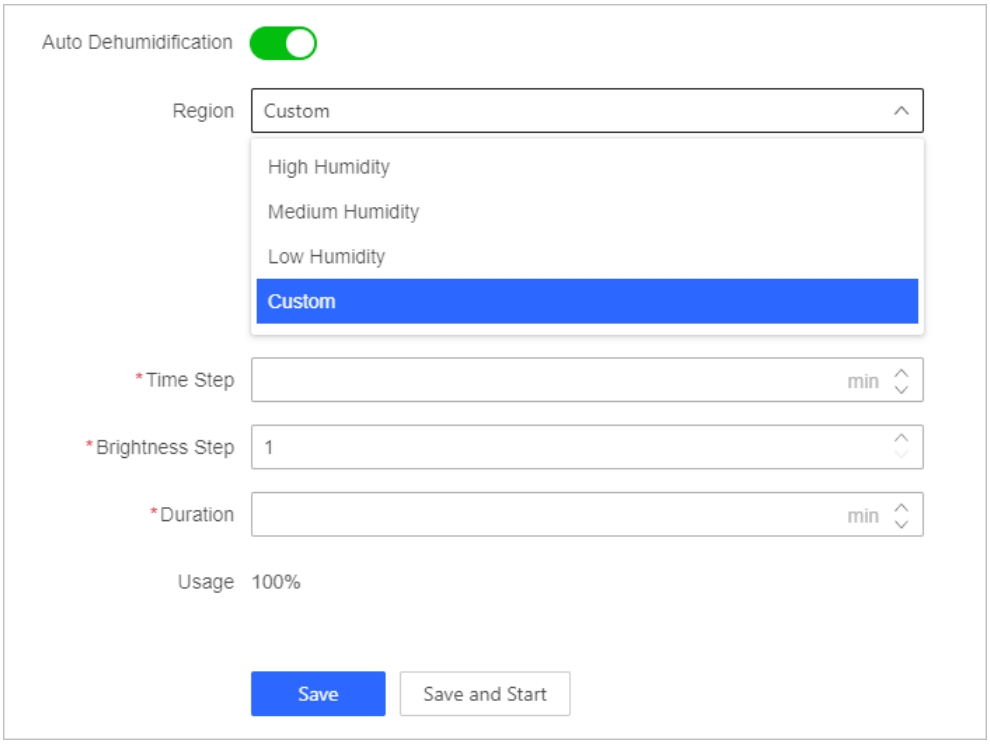

Figure 4-25 Configure Auto Dehumidification

4.7 Configure Loading Mode

Select a device and go to **Screen Maintenance** → **Settings** → **Loading Mode** to select a mode:

- Self-Adaption: If you select this mode, the device automatically switches between standard loading and mini loading based on the network port loading capacity.
- Standard Loading: Select this mode when the device's single network port load exceeds 0.65 MP but does not exceed 2.925 MP. If you select this mode, the device will compress the images.
- Mini Loading: Select this mode when the device's single network port load does not exceed 0.65 MP. If you select this mode, the device will not compress the images.



Figure 4-26 Configure Loading Mode

Table 4-1 Supported Loading Mode

Device Type	Self-Adaption Mode	Standard Loading Mode	Mini Loading Mode
2K C		√	√

Device Type	Self-Adaption Mode	Standard Loading Mode	Mini Loading Mode
		Any DATA OUT port of the device supports this mode. If you select this mode, make sure the total load of the device must be smaller than or equal to 2.925 MP.	
2K V 2K P		√ Only DATA OUT ports 1 and 2 of the device support this mode. If you select this mode, make sure the total load of the device must be smaller than or equal to 2.925 MP.	√
4K C 4K V 4K P	√	√ Any DATA OUT port of the device supports this mode. If you select this mode, make sure the total load of the device must be smaller than or equal to 13 MP.	√

Note

- Only 2K devices, 4K C devices, 4K P devices, and some 4K V devices support configuring loading mode.
- Loading mode does not support batch configuration.
- To use the standard loading mode, ensure that both the devices and the receiving cards support standard loading mode.
- Switching a 2K device to standard loading mode or mini loading mode will cause it to restart.

4.8 Configure Working Mode of V/P Series LED Controller

Select a V or P series LED controller, go to **Screen Maintenance** → **Settings** → **Working Mode**, select a working mode, and click **Save**. The device will restart to make the selected working mode effective. By default, the V and P devices use video processing mode.

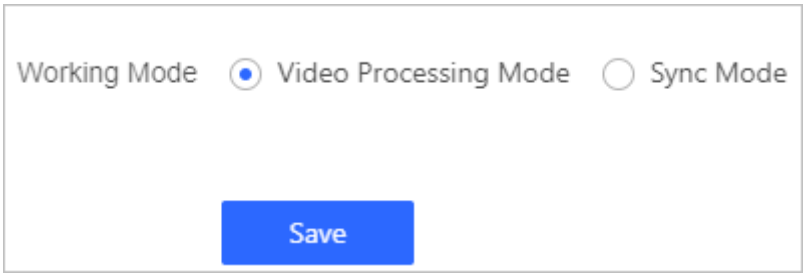

Figure 4-27 Configure Working Mode

Chapter 5 Screen Content Configuration

Only V and P series LED controllers support content control.

5.1 Create Multi-Input Image for V Series LED Controller

Note

- The subtitle area and picture/text area support only JPG and JPEG images.
- The subtitle area supports up to 5 text subtitles and 3 image subtitles.
- The picture/text area supports up to 5 text subtitles, 3 image subtitles, 1 digital clock, and 1 dial clock.

Step 1 Select a V series LED controller, and go to **Screen Settings** → **Content Control**.

Step 2 Click to collapse the device list.

Step 3 Select a template, configure the layout, and click **Save**.

- To edit the template, click **Layout Configuration**, and then click **Edit Template**.
- Set the column number and row number of the video area, select a ratio of divided width and height, set the height of the subtitle area height, and set the width of the picture/text window.

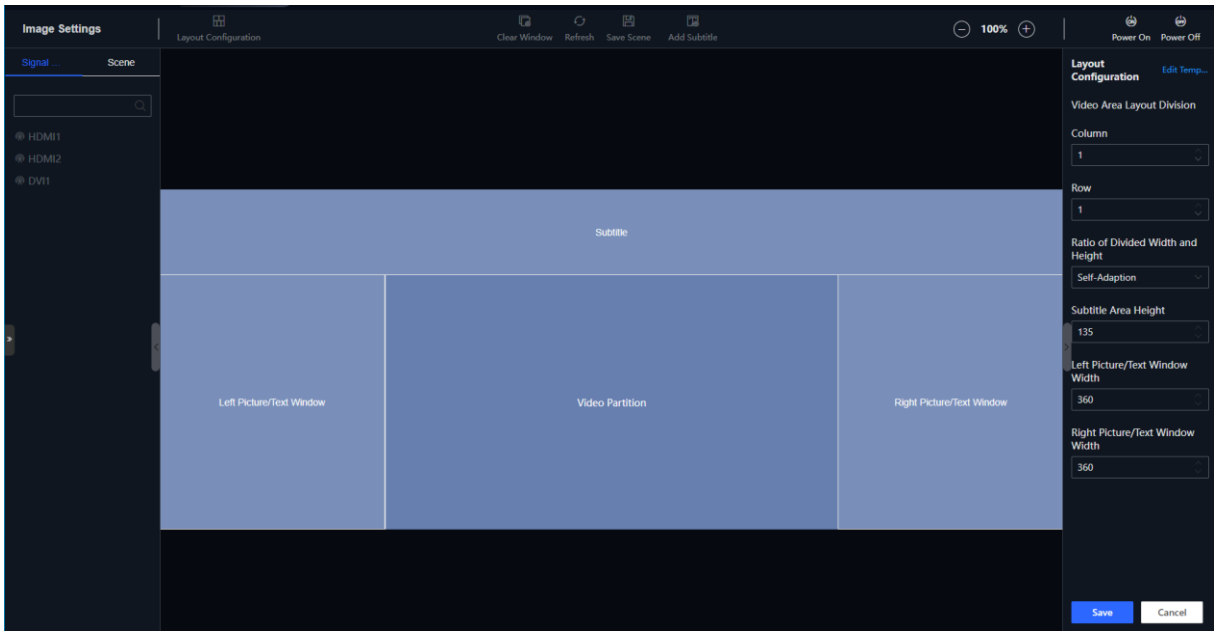

Figure 5-1 Select Template

Step 4 Configure the video area.

1) Click and hold the left mouse button to drag a signal source rightward to the video area. Repeat this operation to bind multiple signal sources with the video area.
2) Configure the signal source window.
   - Directly move the window or enter the X and Y values to adjust the window location.
   - Click the corresponding icon to stick the window on top, stick the window at bottom, move up the window, move down the window, lock the window, and unlock the window.
   - Move the mouse to the window edge to adjust the window size or enter the W and H values.
   - Select a signal source to switch the signal source.
   - Set resolution or enable **Resolution Self-Adaption**.
   - Enable **Audio Switch** of the current signal source. One video wall allows the output of only one audio. Make sure you have enabled audio output on the **Others** → **Settings** → **Signal Settings** page.
   - Click **Delete** or  to unbind the signal source from the video area.

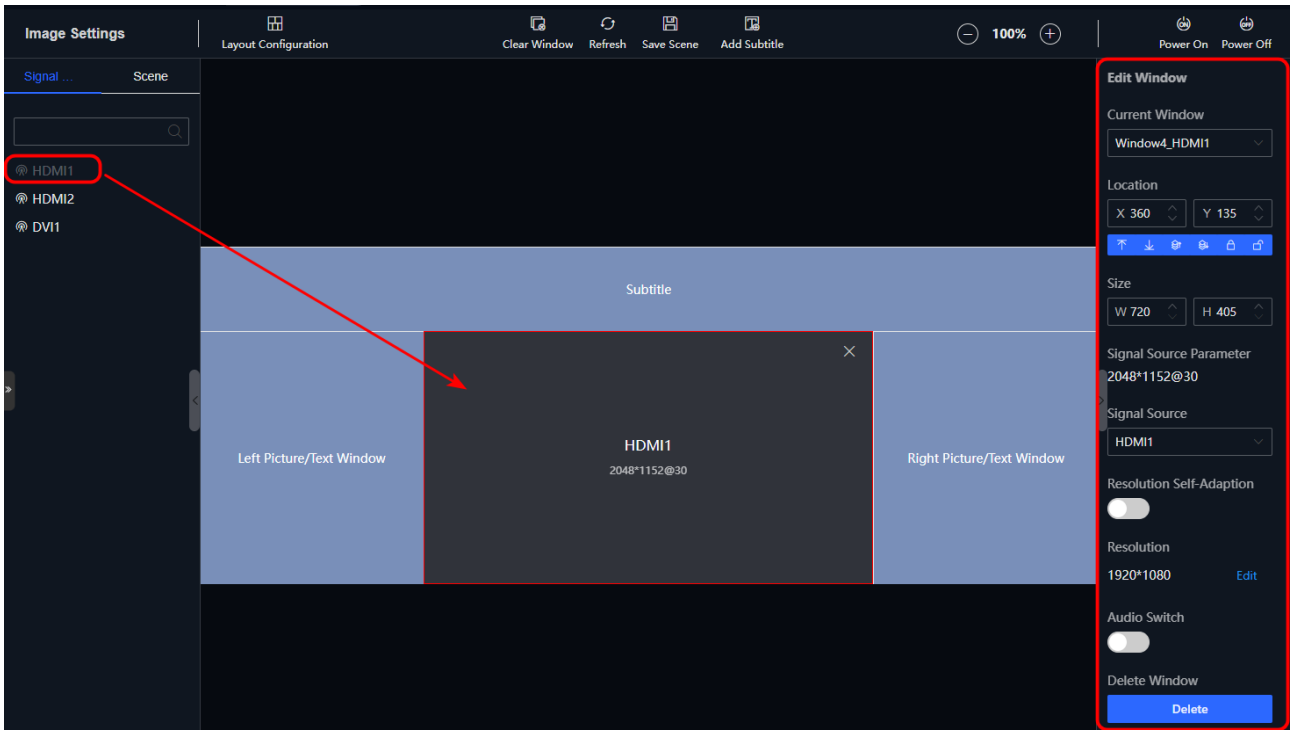

Figure 5-2 Configure Signal Source

Step 5 Configure the subtitle area.

1) Click the subtitle area to set the subtitle scrolling speed and direction.
2) Click **Add Subtitle** and select **Text** or **Image**.
3) Use either of the following methods to add the subtitle to the subtitle area:

– Click on the subtitle area where you want to add the subtitle.

– Drag the subtitle to the subtitle area and then draw the desired area.

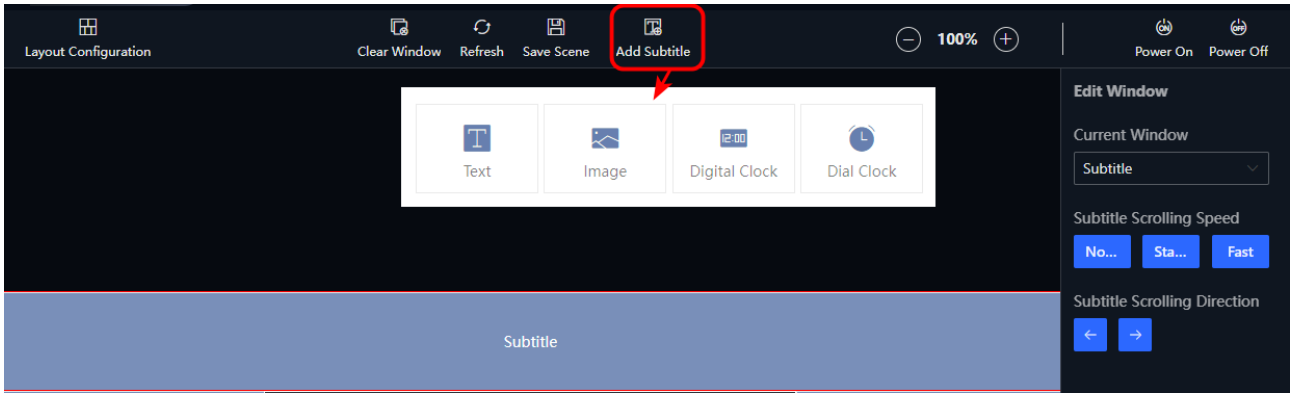

Figure 5-3 Select Subtitle Type

4) Edit the text subtitle or image subtitle.

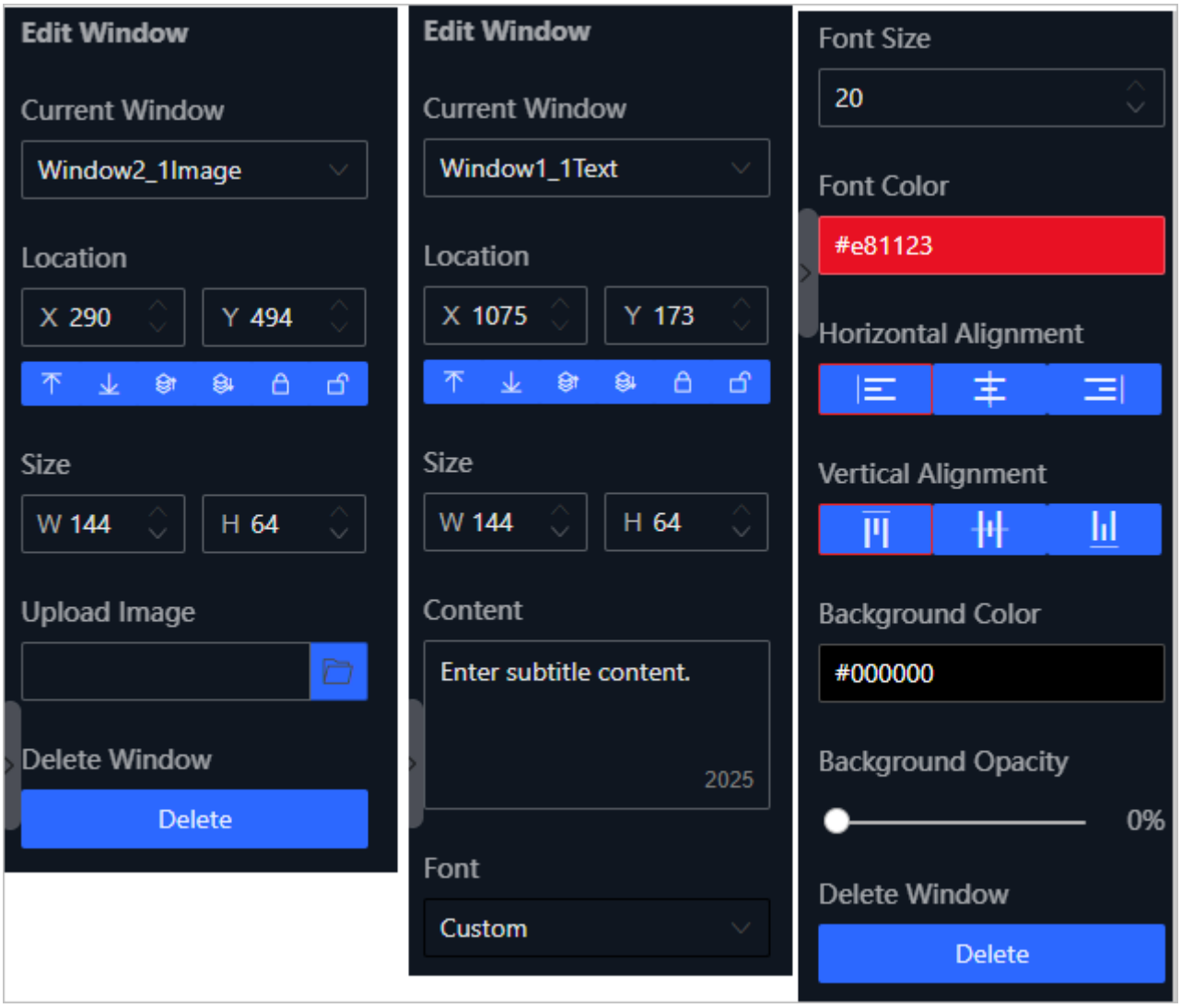

Figure 5-4 Edit Text or Image Subtitle

Step 6 Configure the picture/text area.

1) Click **Add Subtitle** and select **Text**, **Image**, **Digital Clock**, or **Dial Clock**.
2) Use either of the following methods to add the subtitle to the picture/text area:
   - Click on the picture/text area where you want to add the subtitle.
   - Drag the subtitle to the picture/text area and then draw the desired area.
3) Edit the subtitle window.

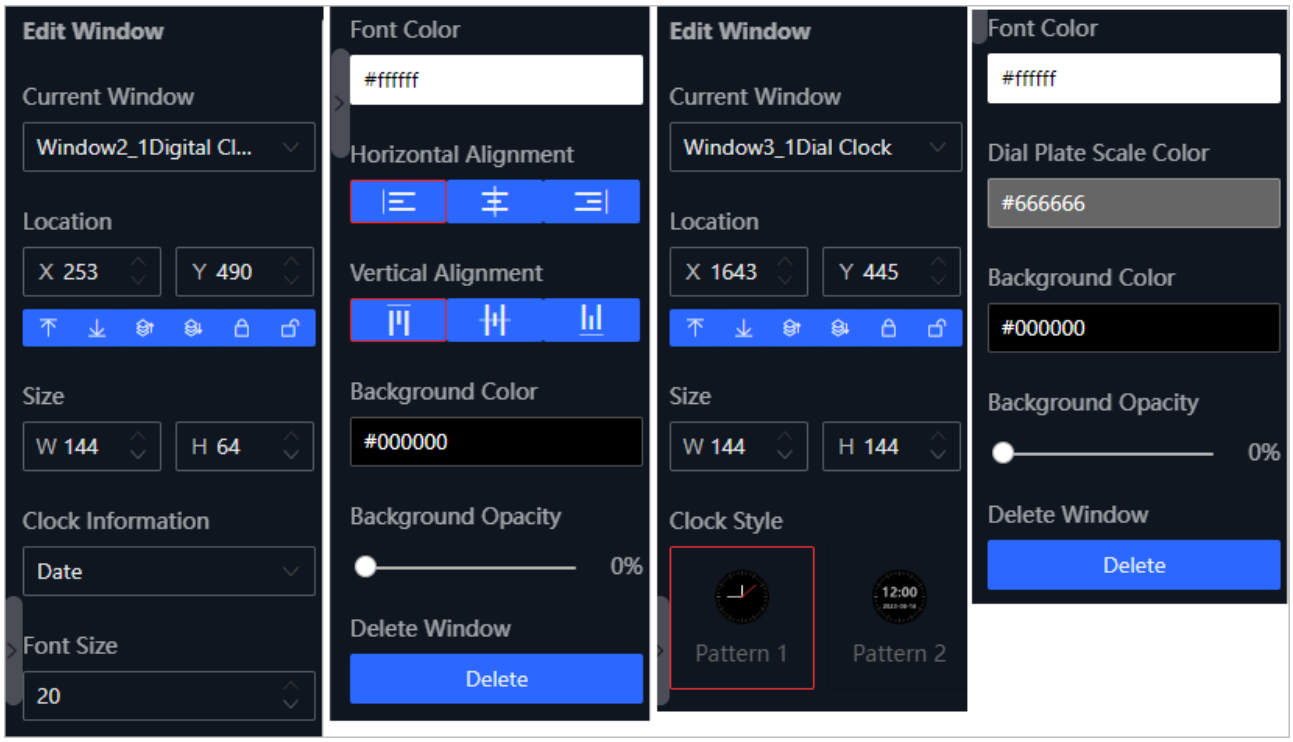

Figure 5-5 Edit Digital/Dial Clock Window

Step 7 (Optional) You can perform the following operations as required:

- Click **Power On** or **Power Off** to control the display status.
- Click **Refresh**.
- Click **Clear Window**.
- Click **Save Scene** to save the current video wall configuration as a new scene or overwrite the existing scene

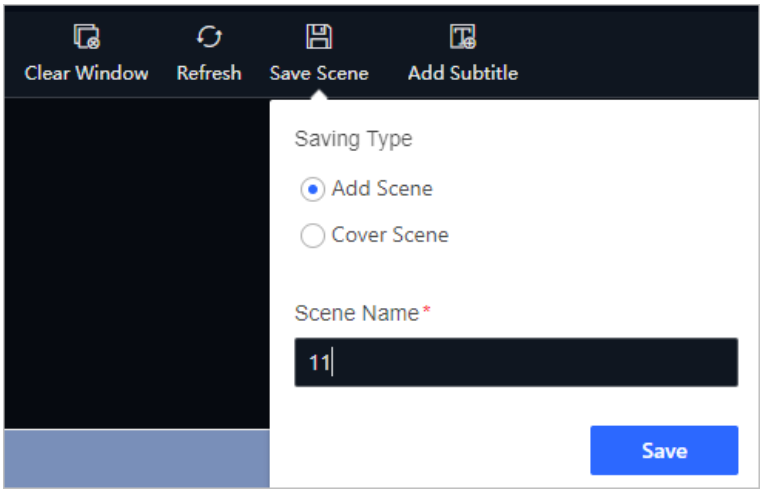

Figure 5-6 Save Scene

- Click **Scene**. Hover over a scene and click the corresponding icon to edit, call, or delete the scene.



Figure 5-7 Manage Scene

5.2 Create Programs for P Series LED Controller

You can create multiple programs to be played on the video wall. Each program can be bound to at least one material, and you can create a schedule to play the programs as planned.

5.2.1 Create and Play One Program

Create and Play One Normal Program

Step 1 Select a P series LED controller and go to **Screen Settings** → **Content Control**.

Step 2 Click « to collapse the device list.

Step 3 In the popped-up program creation window, select **Normal Program**, set the program name and program resolution, and select a template.

- After creating the program, you can click on top of the page to change the program type, program name, program resolution, or template.
- If you click **Restore to Screen Size**, the actual size of the connected screen will be used as the program resolution.
- If you want to customize the layout, select **Blank Page**.

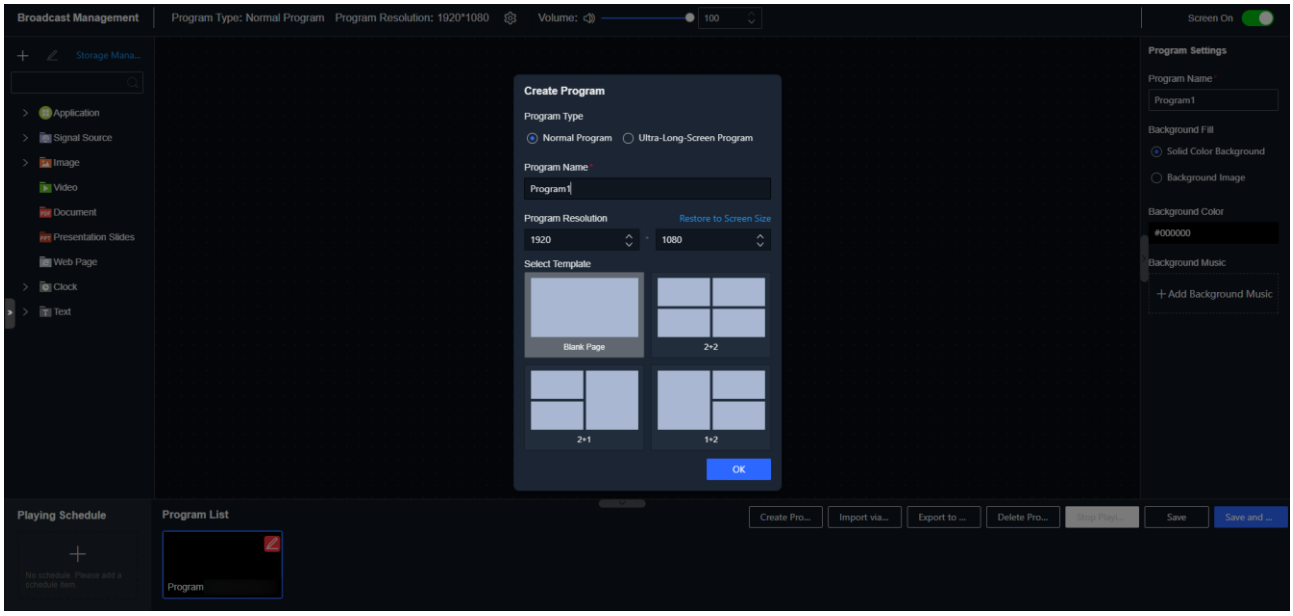

Figure 5-8 Create a Normal Program

Step 4 Click to upload the locally saved materials or to add the web material.

- Normal programs support application, signal source, image, video, document, web page, clock, and text materials. You need to click **Local Upload** to upload the locally saved images, videos, and documents and click **Web Page** to add web pages. If you batch upload materials, make sure the total size of the uploaded materials does not exceed the remaining available storage space on the system.
- Supported image formats: BMP, JPG, PNG, and GIF.
- Supported video formats: ASF, AVI, MPG, 3GP, MOV, MKV, WMV, FLV, MP4, and RM.
- Supported document formats: PDF and PPT. To support PPT file, make sure the computer is installed with the OFFICE or WPS software.
- The supported web pages must use HTTP or HTTPS as the prefix.

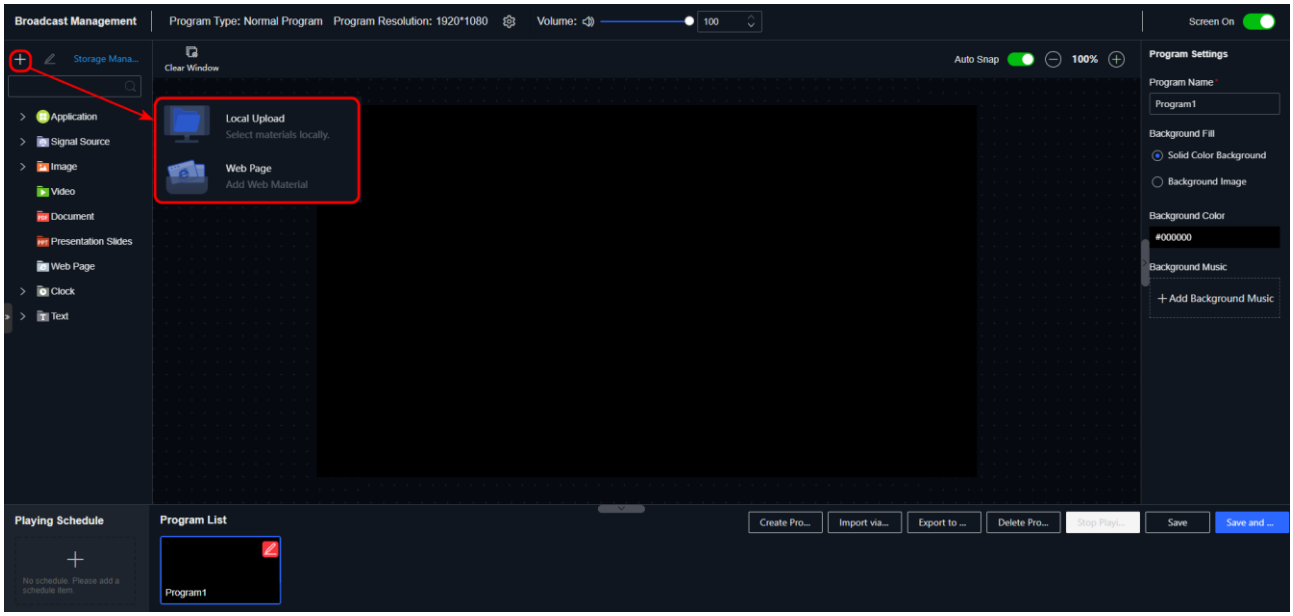

Figure 5-9 Add Materials for Normal Program

Step 5 Click and hold the left mouse button to drag a material to the program window. Repeat this operation to bind multiple materials with the program window.

- A program supports only one clock.
- Dragging a PPT file to the program window will clear all materials except the signal source and will make configuration of the background or music unavailable.
- Only P devices support signal sources and applications. Currently, only the WonderCast application is supported. Dragging the WonderCast application to the program window will clear all materials except the signal sources and will make configuration of the background or music unavailable.
- After you drag the WonderCast application to the program window and release the program, you can see the home page of the WonderCast application on the screen. Please follow the instructions on the home page of the WonderCast application to proceed.

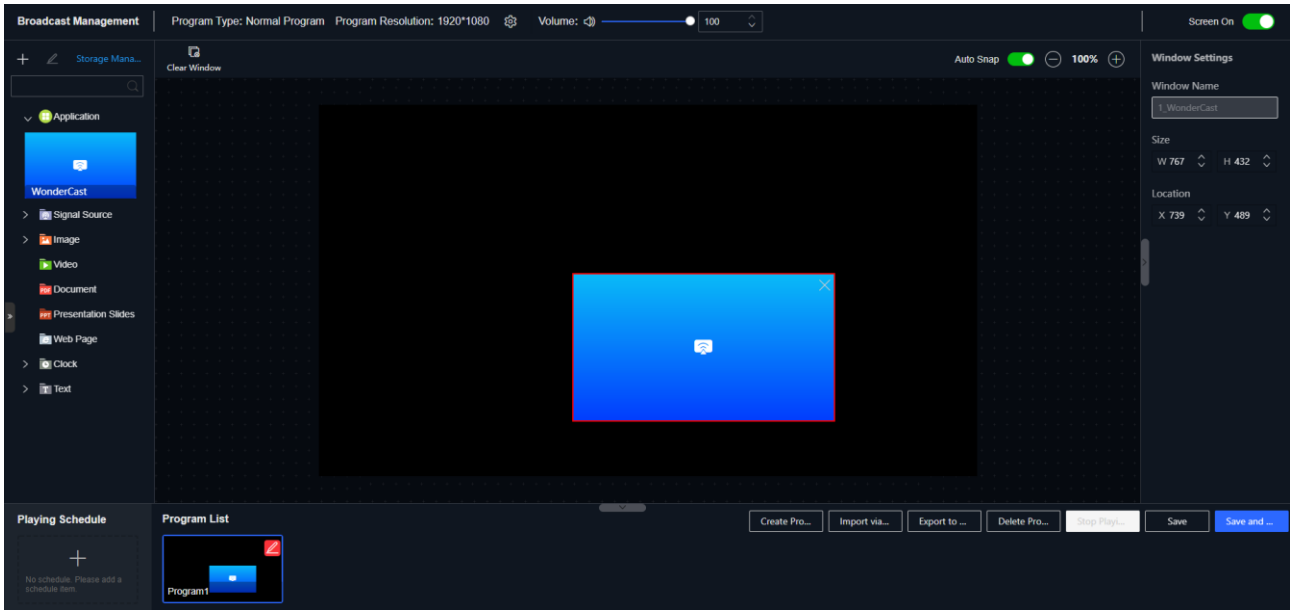

Figure 5-10 Bind Materials with Normal Program

Note

- To clear all bounded materials, click **Clear Window**.
- To edit the material name, select a material and click .
- By default, **Auto Snap** and **Screen On** are enabled. It is recommended to keep the default settings.

Step 6 Click **Save and Release**.

- : the program is playing.
- : the program is being edited.

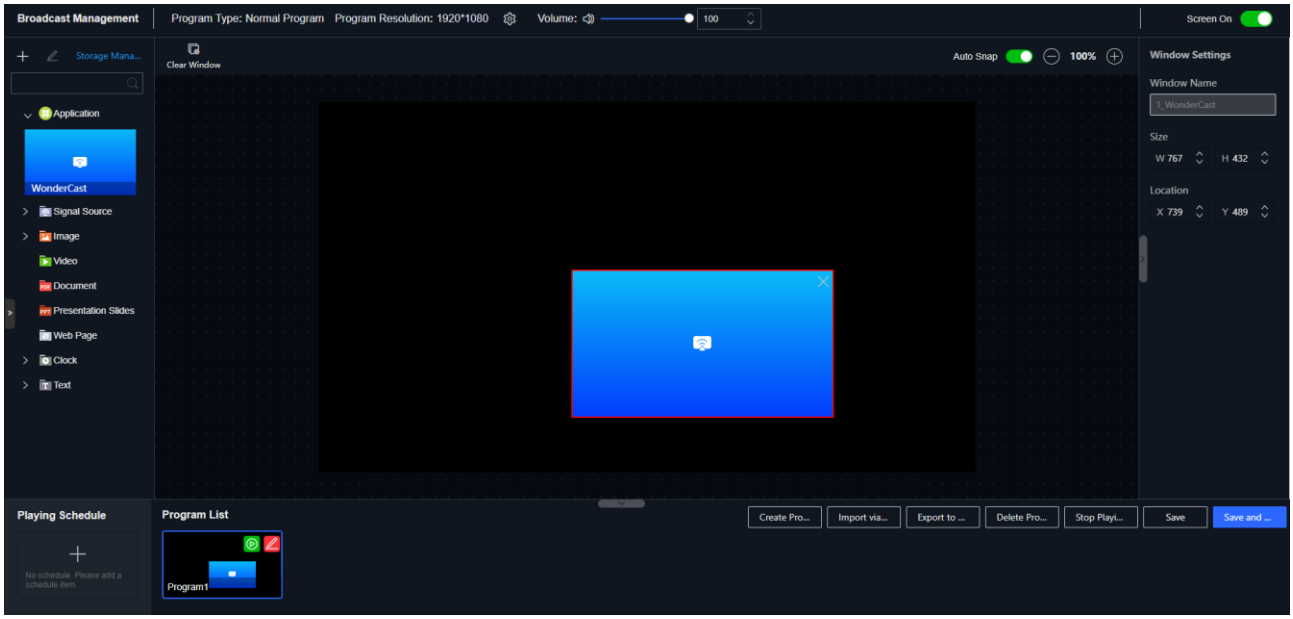

Figure 5-11 Release a Normal Program

Create and Play One Ultra-Long-Screen Program

When the width or height of an actual screen exceeds 4096 pixels, it is recommended to create an ultra-long-screen program.

Step 1 Select a P series LED controller and go to **Screen Settings** → **Content Control**.

Step 2 Click  to collapse the device list.

Step 3 In the popped-up program creation window, select **Ultra-Long-Screen Program**, and set the program resolution based on the actual screen resolution.

- The device automatically sets the number of folds based on the program resolution. The maximum number of folds cannot exceed 8.
- The total resolution loaded by a P device cannot exceed 1920 × 1200 pixels, and the length of a single fold cannot exceed 4094 pixels.

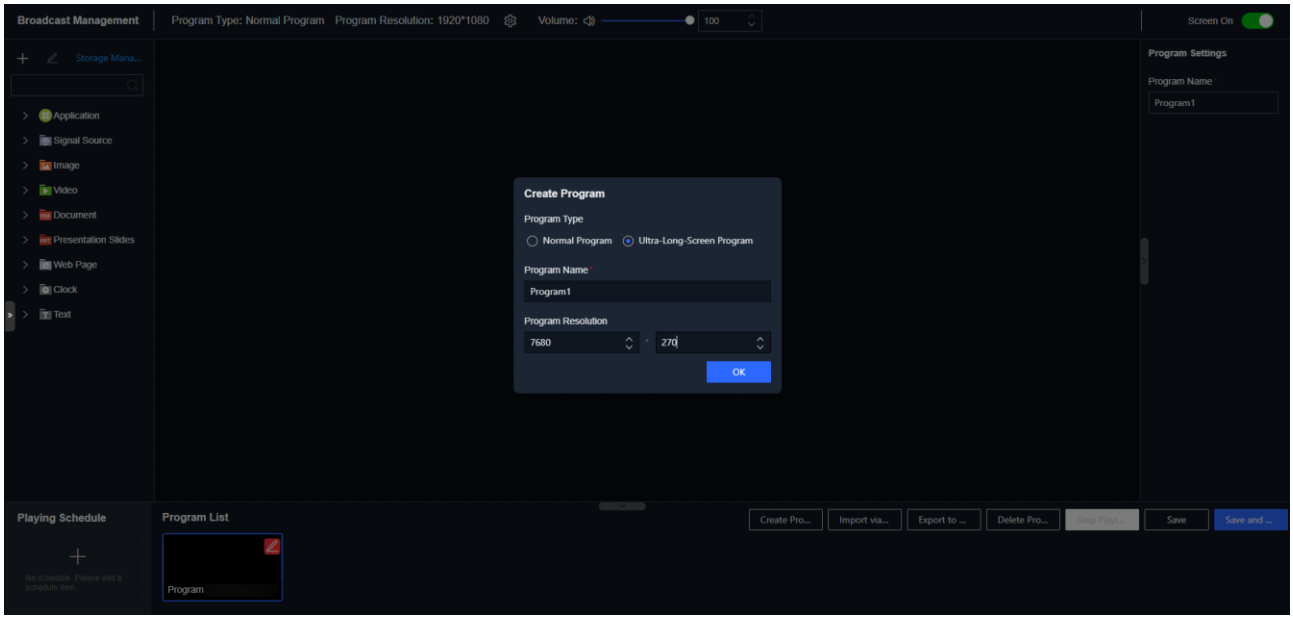

Figure 5-12 Create Ultra-Long-Screen Program

Step 4 Click + to upload the locally saved images. Supported image formats include BMP, JPG, PNG, and GIF.

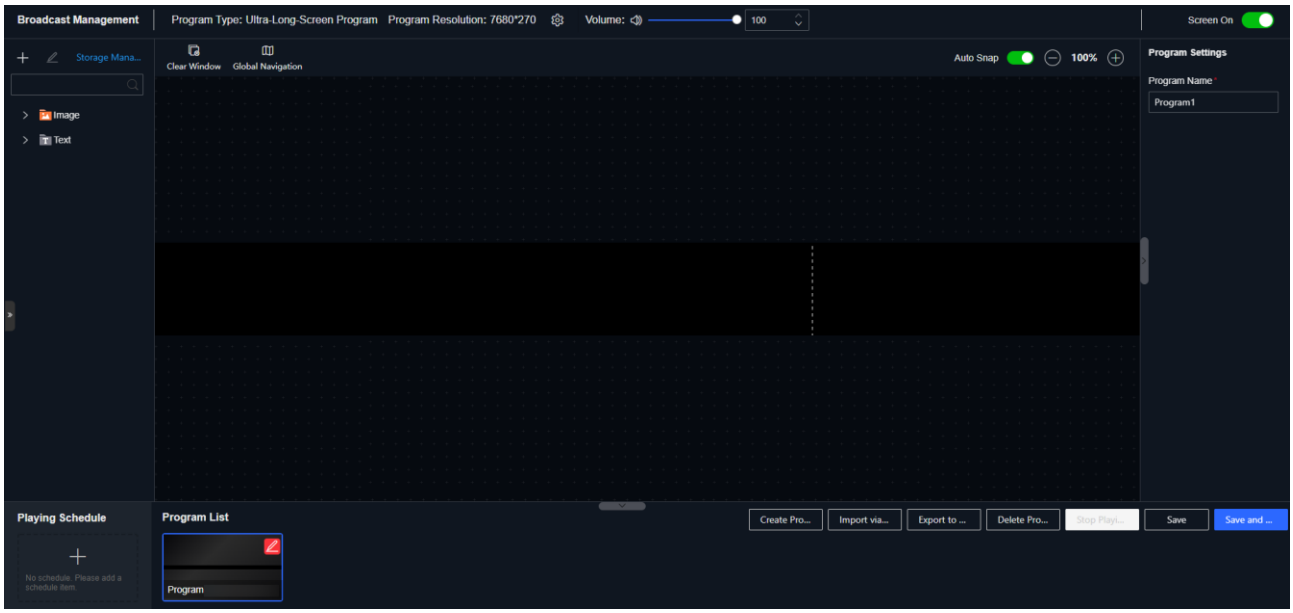

Figure 5-13 Add Materials for Ultra-Long-Screen Program

Step 5 Click and hold the left mouse button to drag a material to the program window. Repeat this operation to bind multiple materials with the program window.

- Each fold supports up to 8 materials.
- When a material crosses multiple folds, the maximum number of materials allowed in each fold decrease by 1.

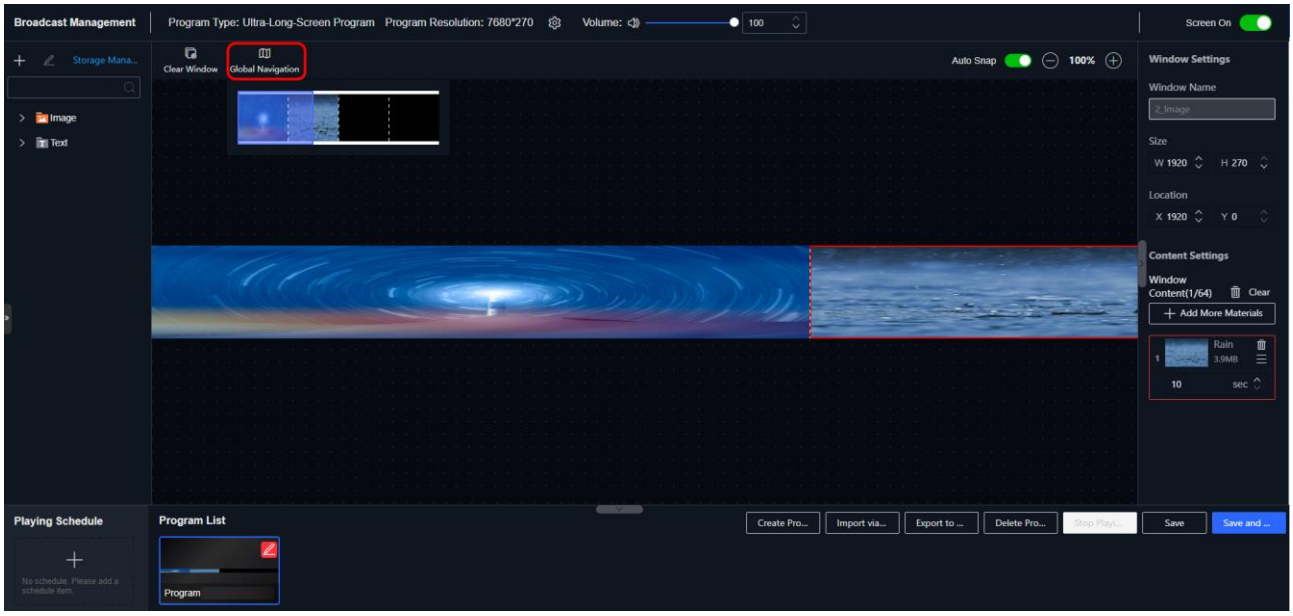

Figure 5-14 Bind Materials with Ultra-Long-Screen Program

Note

- To clear all bounded materials, click **Clear Window**.
- To edit the material name, select a material and click .
- By default, **Auto Snap** and **Screen On** are enabled. It is recommended to keep the default settings.
- For ultra-long-screen program, you can click **Global Navigation** to view the materials bound with each fold.

Step 6 Click **Save and Release**.

- : the program is playing.
- : the program is being edited.

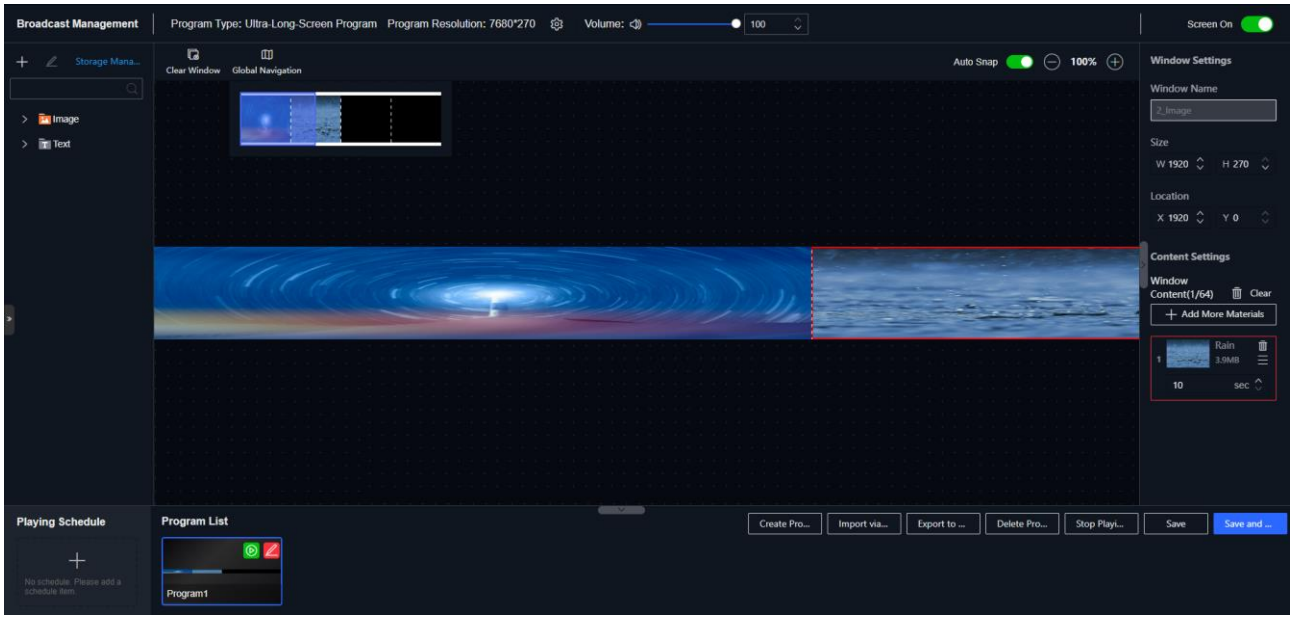

Figure 5-15 Release an Ultra-Long-Screen Program

Set Other Program Parameters

On the **Playing Control** page, you can perform the following operations as required:

- Click the program to add the background color, background image, or background music. The music must be in the MP3, WAV, or WMA format.

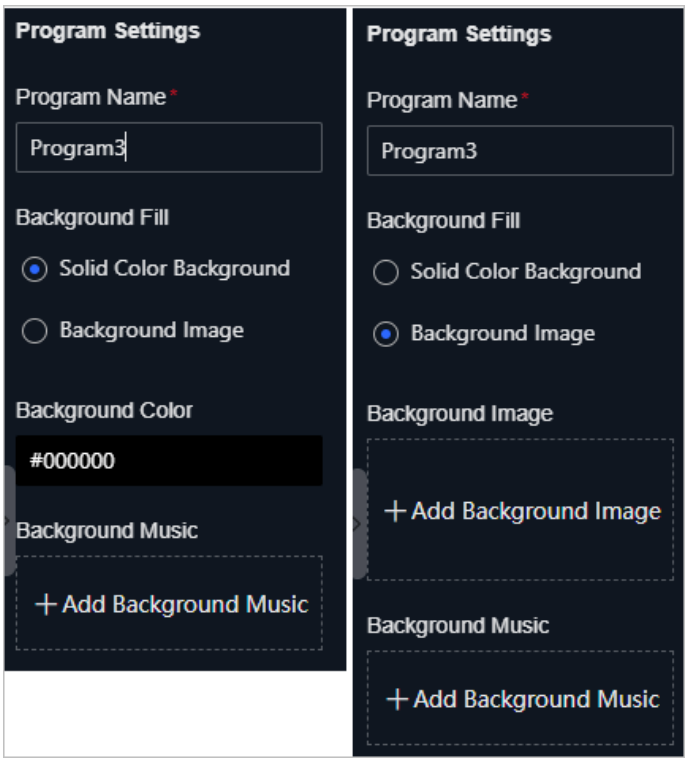

Figure 5-16 Add a Background

- Set the program status:
  - Click Stop Playing.
  - Click Delete Program.
  - Insert a USB flash drive into the device and click **Import via USB Flash Drive** to import the programs, materials and schedule in the USB flash drive to the device.
  - Insert a USB flash drive into the device and click **Export to USB Flash Drive** to export all programs, materials and schedule.
- Edit the volume.
- Edit the screen status:
  - If you enable **Screen On**, the screens exit the sleep mode.
  - If you do not enable **Screen On**, the screens enter the sleep mode.

5.2.2 Create and Play Multiple Programs

To play different programs at different times, you need to create multiple programs and create a schedule. The method for playing multiple normal programs or multiple ultra-long-screen programs is the same, and the following example uses normal programs.

Step 1 Create one program and save it. For details, see 5.2.1 Create and Play One Program.

Step 2 Click **Create Program** and set the program parameters.

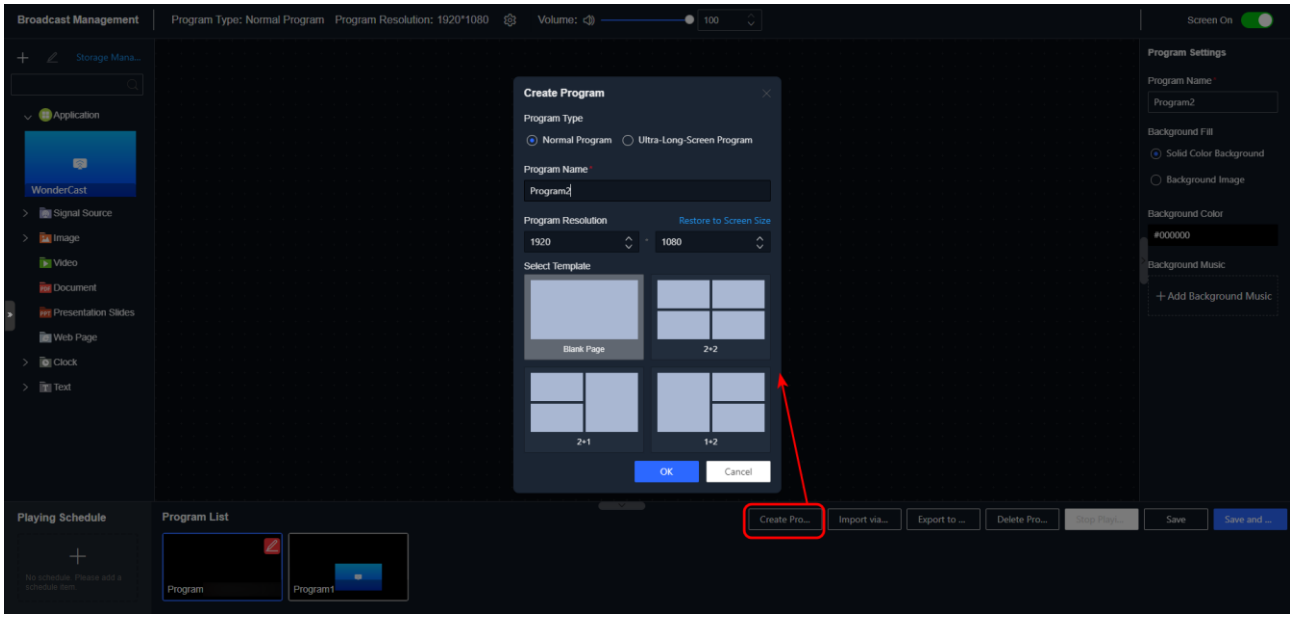

Figure 5-17 Create a New Normal Program

Step 3 Click + on the schedule area to create the schedule.

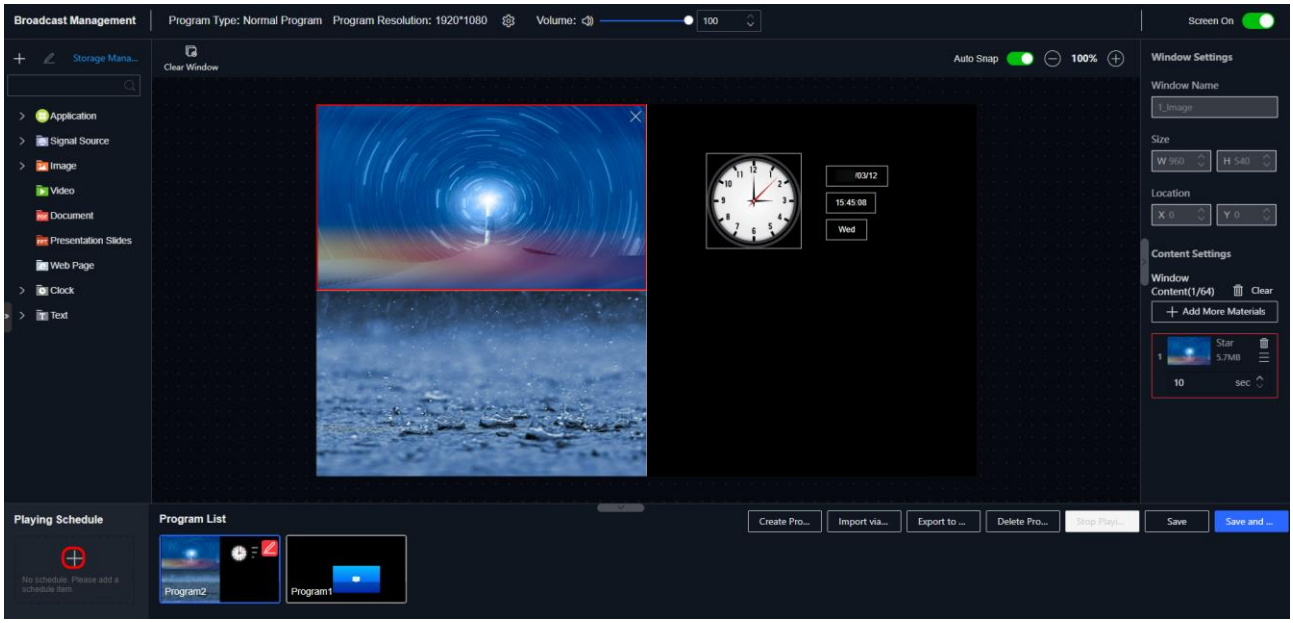

Figure 5-18 Create the Schedule

- Select **Auto-Switch**, drag programs to the playlist, and click **Save and Release**.
  - To clear all programs from the playlist, click **Clear**.
  - To save the auto-switch schedule without playing it immediately, click **Save**.

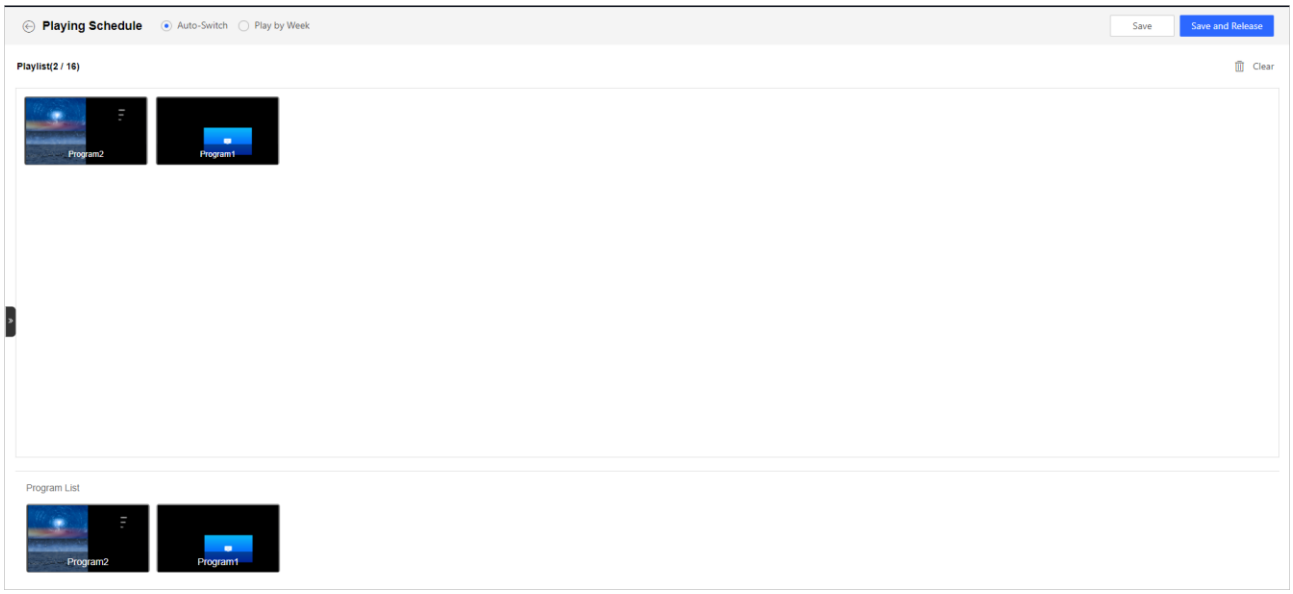

Figure 5-19 Set Auto-Switch Schedule

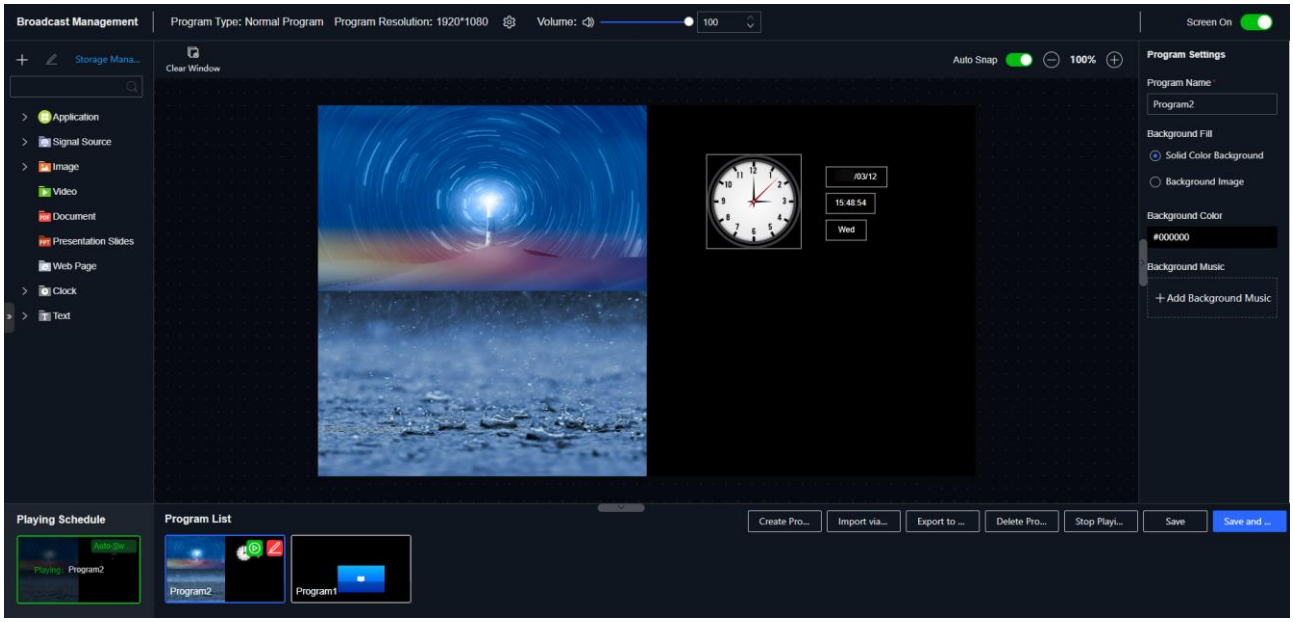

Figure 5-20 Auto Switch Normal Programs

- Select **Play by Week**, and set the programs and duration on the schedule.

1) On the schedule, left click the mouse to select the start time and hold the mouse to select the end time.
2) Select a program and click **OK**.

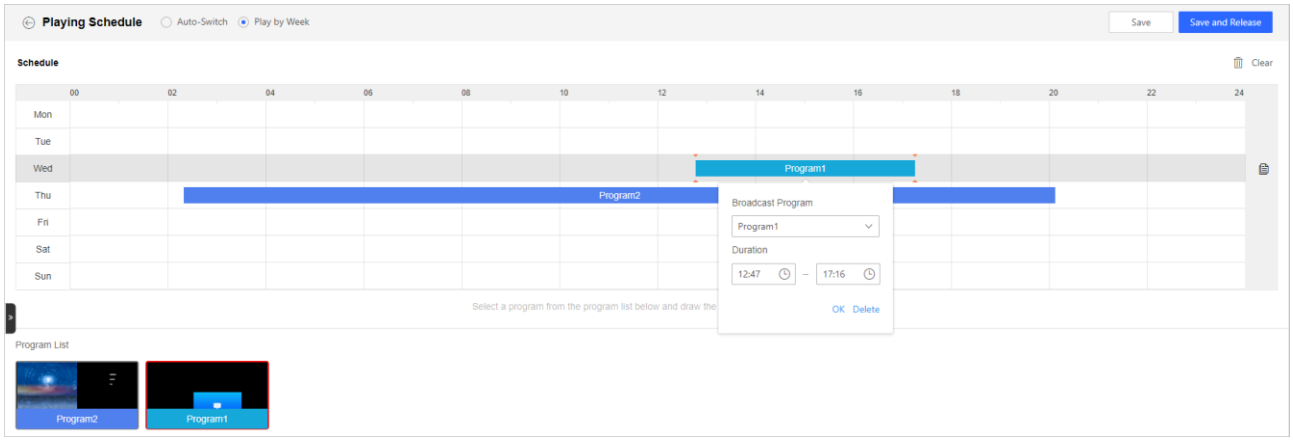

Figure 5-21 Configure the Schedule

3) Click **Save and Release**.
4) (Optional) You can perform the following operations as required:
   - Click **Delete** to delete the current schedule item.
   - Click  to copy the current schedule item settings to the selected weekdays and weekends.
   - Click **Clear** to clear all schedule items.

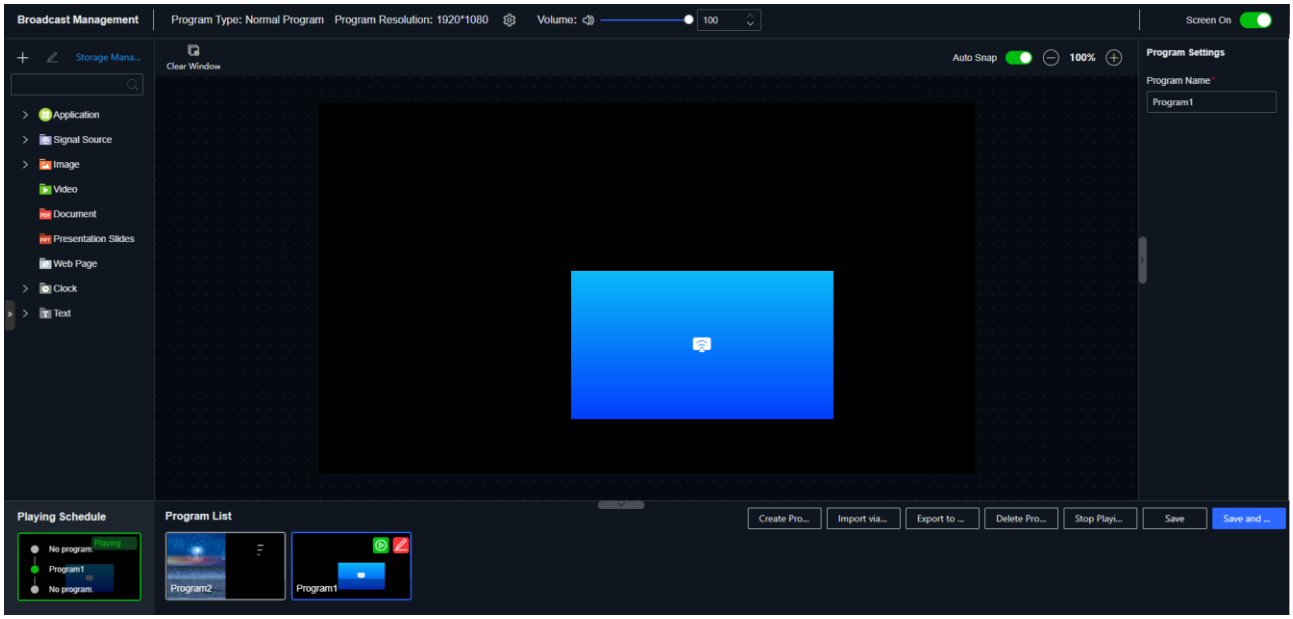

Figure 5-22 Play Normal Programs by Week

Step 4 (Optional) You can perform the following operations as required:

- Hover over the schedule and click  to edit the schedule.
- The program that is being edited is indicated by . To edit another program, hover over a program and click .
- Insert a USB flash drive into the device and click **Import via USB Flash Drive** to import the programs, materials and schedule in the USB flash drive to the device.
- Insert a USB flash drive into the device and click **Export to USB Flash Drive** to export all programs, materials and schedule.
- Insert a USB flash drive into the device, hover over a program that is not being edited, and then click  to export the program. You can enable auto program play after the insertion of USB flash drive.

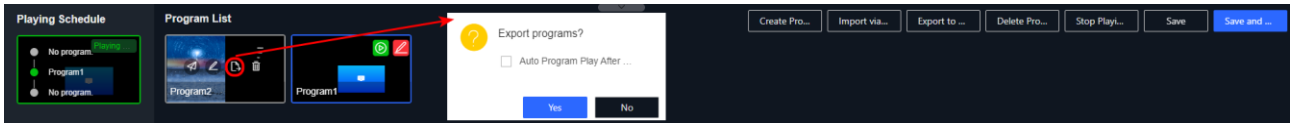

Figure 5-23 Export Single Normal Program

5.2.3 Manage Materials

Normal programs support application, signal source, image, video, document, web page, clock, and text materials, while the ultra-long-screen programs supports only image and text materials.

Configure Material Parameters

- For any type of material:

- Adjust the window position: Select the material window and then hold the left mouse button to move the window directly or enter the position values.
- Adjust the window size: Drag the material window edge or enter the width and height values to adjust the window size, or double click the material window to fully cover the program sub-window. Double click the material window again to restore the image window to its original size.

- For the signal source material:
  - Manually set the resolution or enable **Resolution Self-Adaption**.
  - Enable audio. One program allows the audio output of only one signal source.
- For the image or video material:
  - Click and hold ☰ to adjust the playing order of the image or video.
  - Click **Add More Materials** to upload the locally saved images or videos, or to select the images or videos from the material library.
  - Set an interval for each image. When multiple images are bound with the same program sub-window, the system automatically change the displayed image according to the set interval.
  - One program allows the audio tracks of only one video. The audio tracks of the first video bound with the program window is enabled by default. To use the audio tracks of another video, click a video and enable **Use Audio Tracks**.

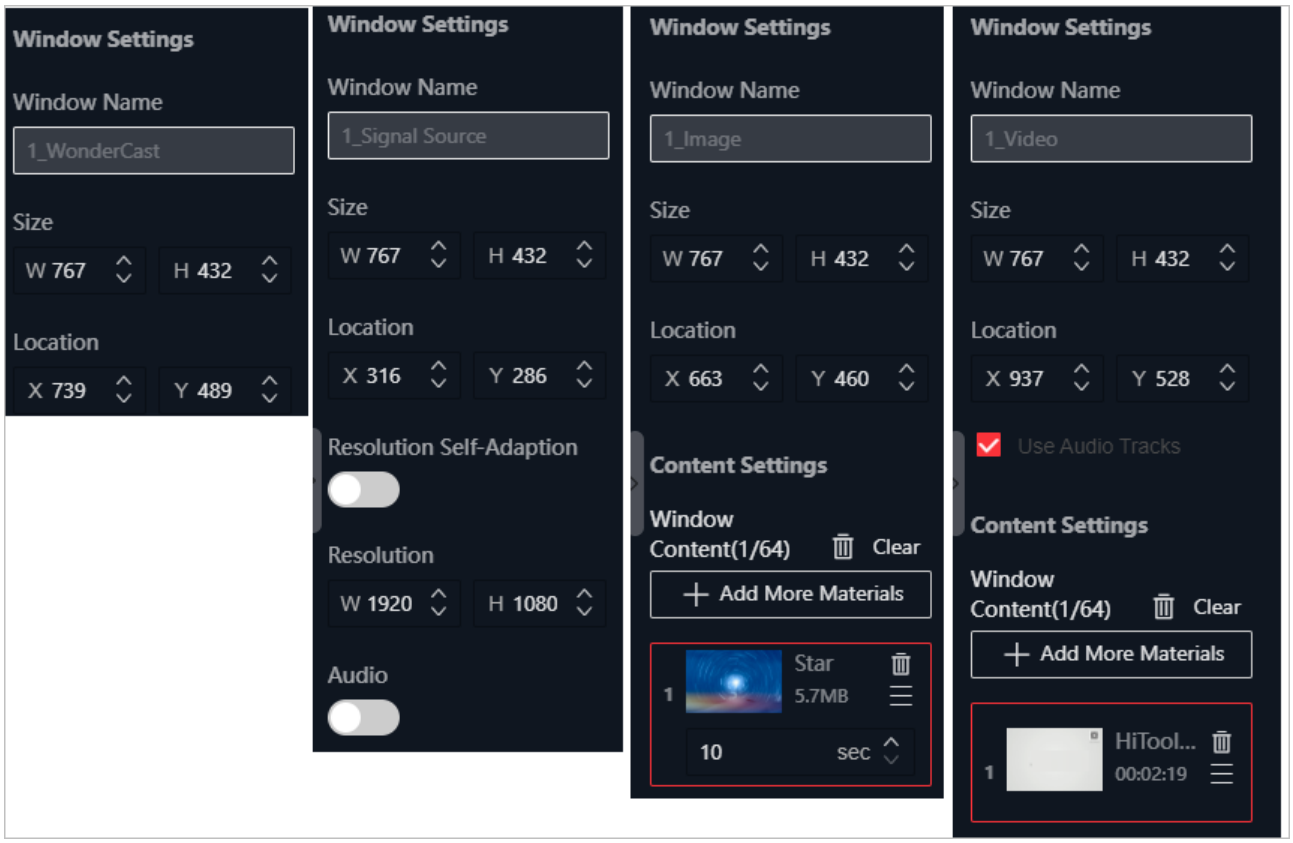

Figure 5-24 Configure Application/Signal Source/Image/Video Material

- For the document material: Set a paging time.

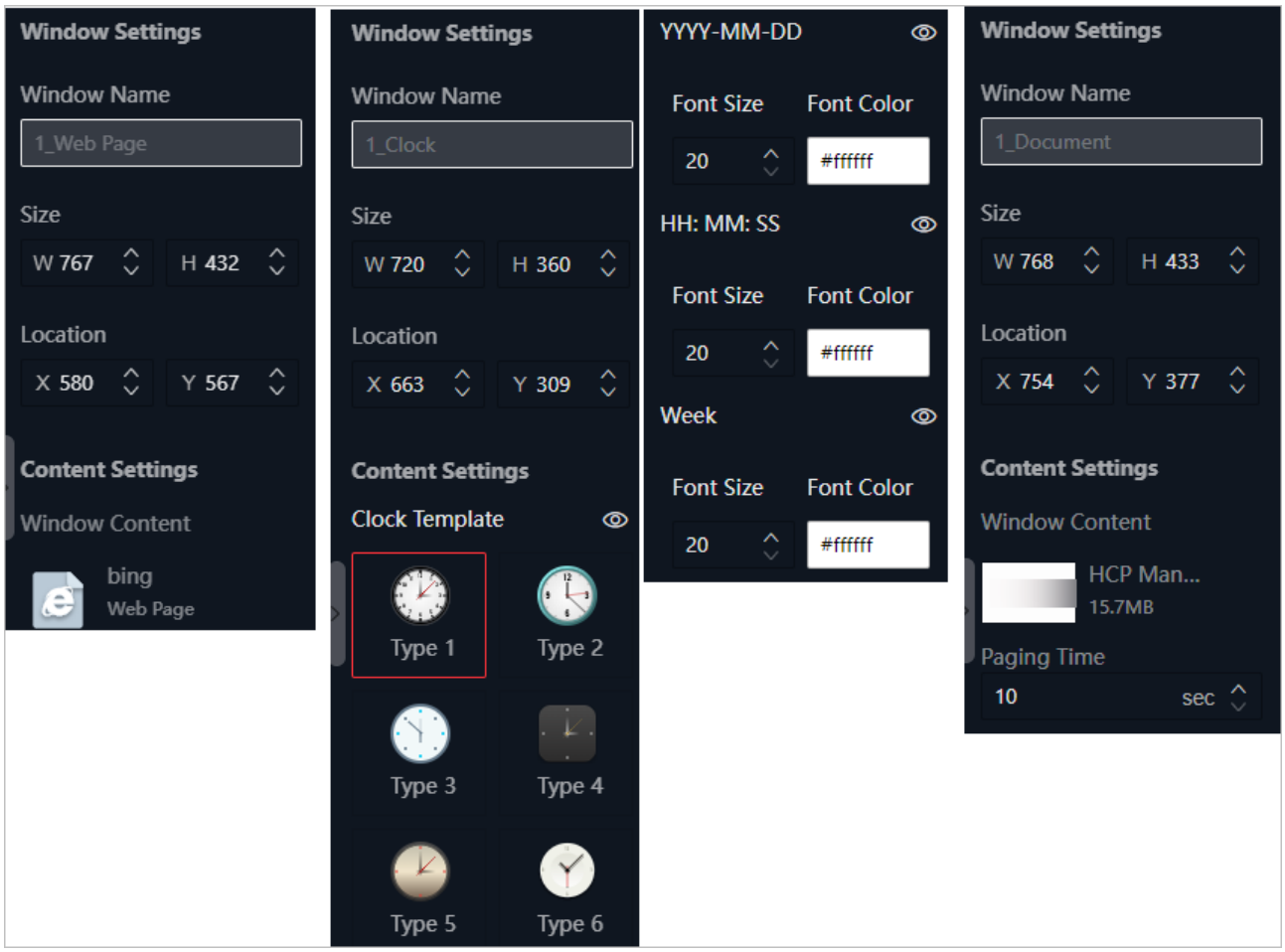

Figure 5-25 Configure Web/Clock/Document Material

- For the clock material:
  - Supports 7 types of clocks. One program allows only one clock.
  - The time are displayed by default. You can click to hide the time.
  - Edit the clock template.
  - Edit the font size and color.
- For the text material:
  - Enter the content, select an existing font or a newly uploaded font, and set the font size, font color, alignment mode, background color, and background opacity.
  - For the dynamic text material, set the scrolling direction and speed.

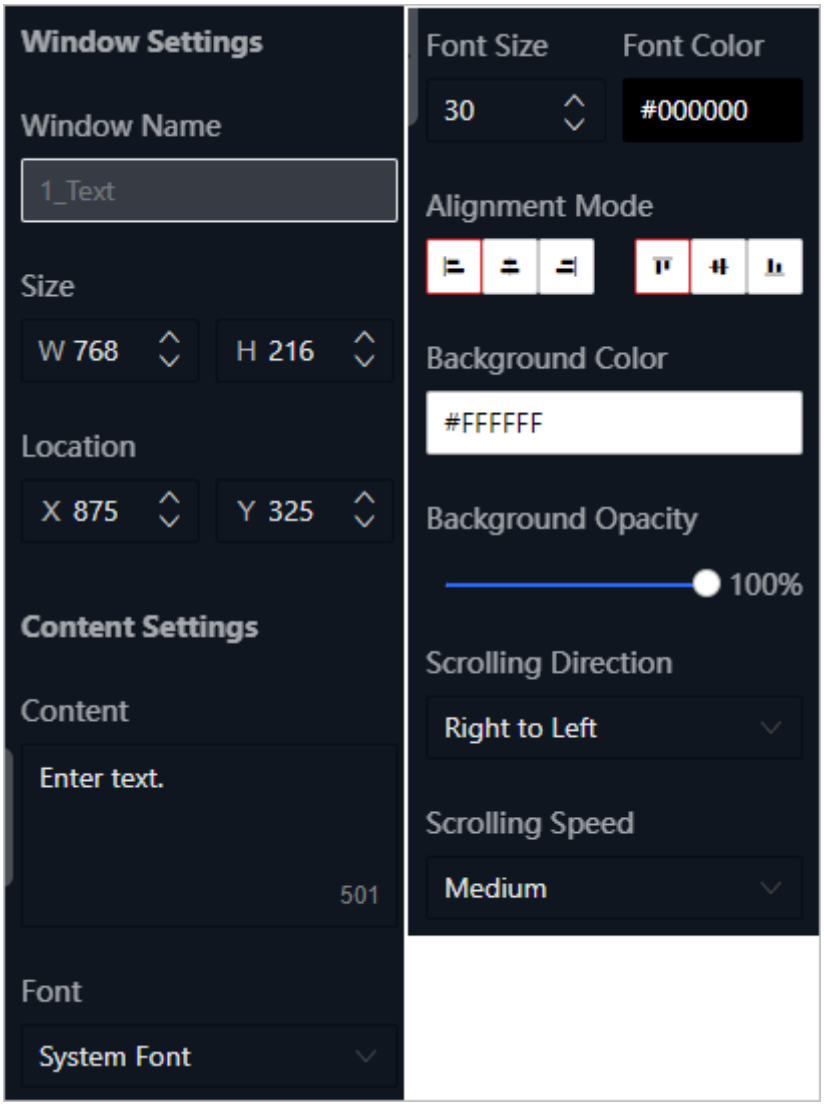

Figure 5-26 Configure Text Material

Delete Materials

Click **Storage Management** to go to the **Storage Management** page, select the unused materials and then click **Delete**.

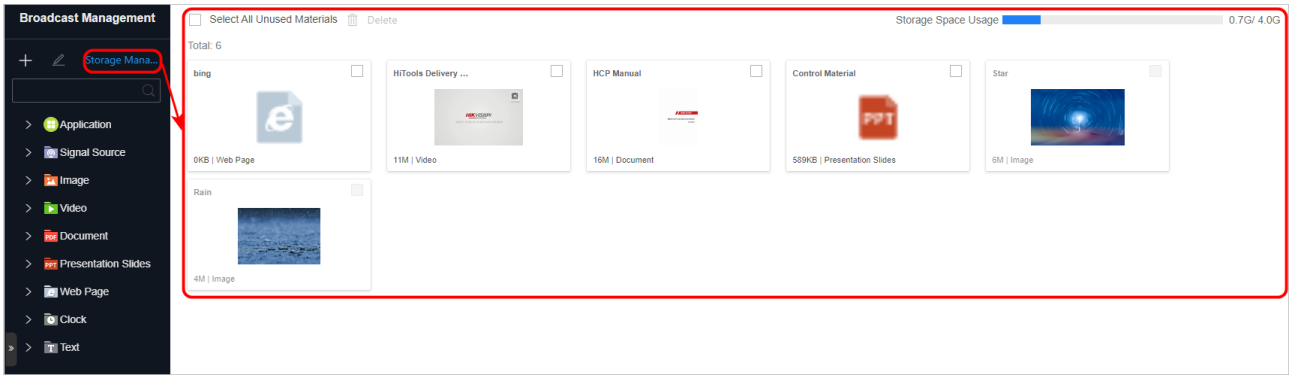

Figure 5-27 Storage Management Page

Chapter 6 Display/Device Maintenance

6.1 View Display Status

Step 1 Select a device or screen.

Step 2 Go to **Screen Maintenance** → **Screen Maintenance**.

Step 3 Check if the display status is normal:

- Enable **Live View** at the top of the page to preview the screen image.
- Enable **Show Connections** at the top of the page, and then the display will show the configured connections between the LED controller network ports and cabinets.
- Hover over a device to view the receiving card details. To view the receiving card debug information, click **Debug Info** and click **Read Back** or **Export** as required.

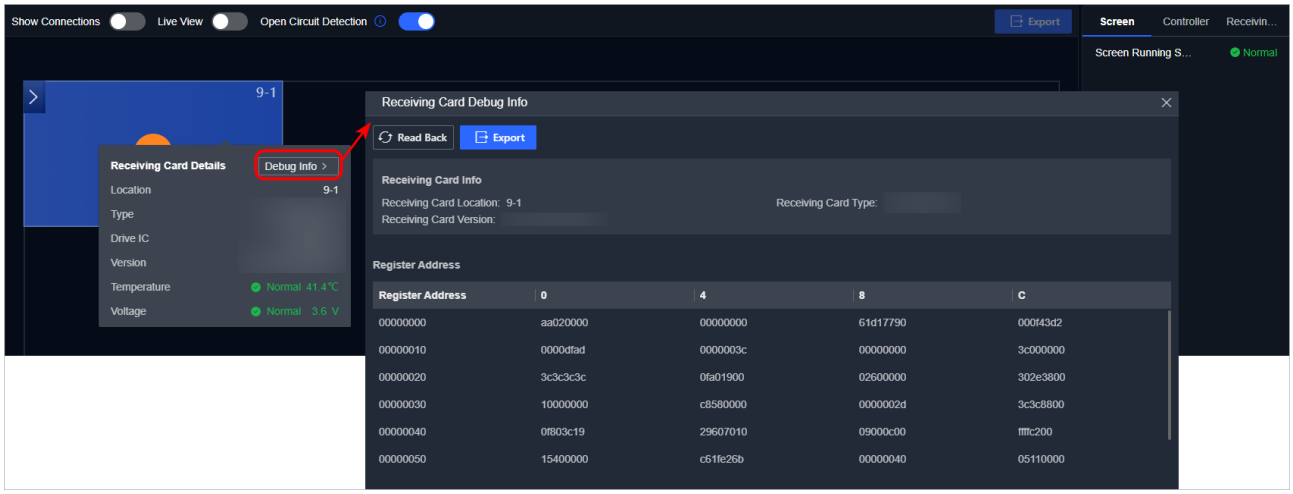

Figure 6-1 View Receiving Card Details

- Click the **Screen** window on the right side of the page to view the screen running status. If the screen runs abnormally, it will show the faulty devices and abnormal type.

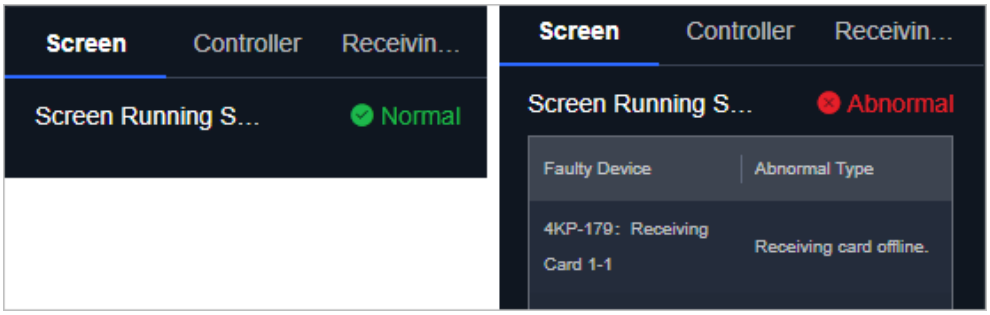

Figure 6-2 View Screen Running Status

Step 4 (Optional) You can perform the following operations as required:

- Enable **Open Circuit Detection** to repair the cross phenomenon caused by damaged lamp beads. Before repairing the damaged lamp beads, disable open circuit detection.
- Select the cabinets and click **Export** to export the receiving card program file or export the receiving card configuration file.

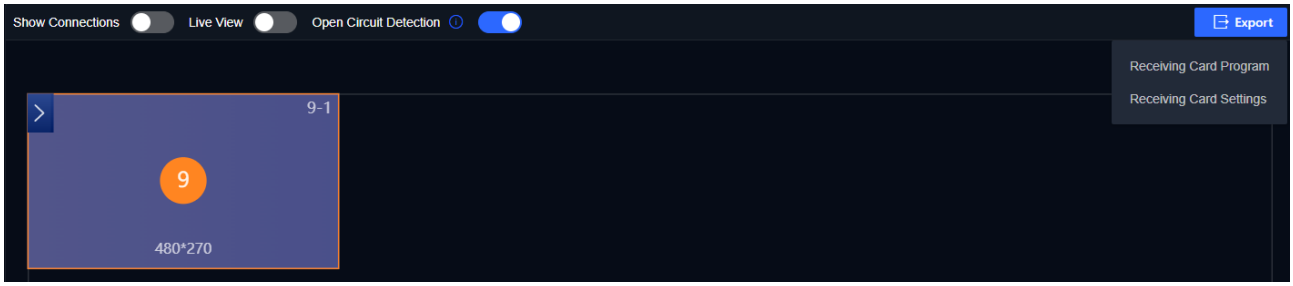

Figure 6-3 Export Receiving Card File

6.2 View LED Controller Status

- Go to **Screen Maintenance** → **Screen Maintenance**, and select an LED controller. Click the **Controller** window on the right side of the page to view the basic information of the LED controllers. To copy the parameters, you can click **Copy Parameters**.



Figure 6-4 View LED Controller Information (Screen Maintenance Page)

- Select an LED controller, and go to **Screen Maintenance** → **Settings** → **System** → **Basic Info** to view its basic information.

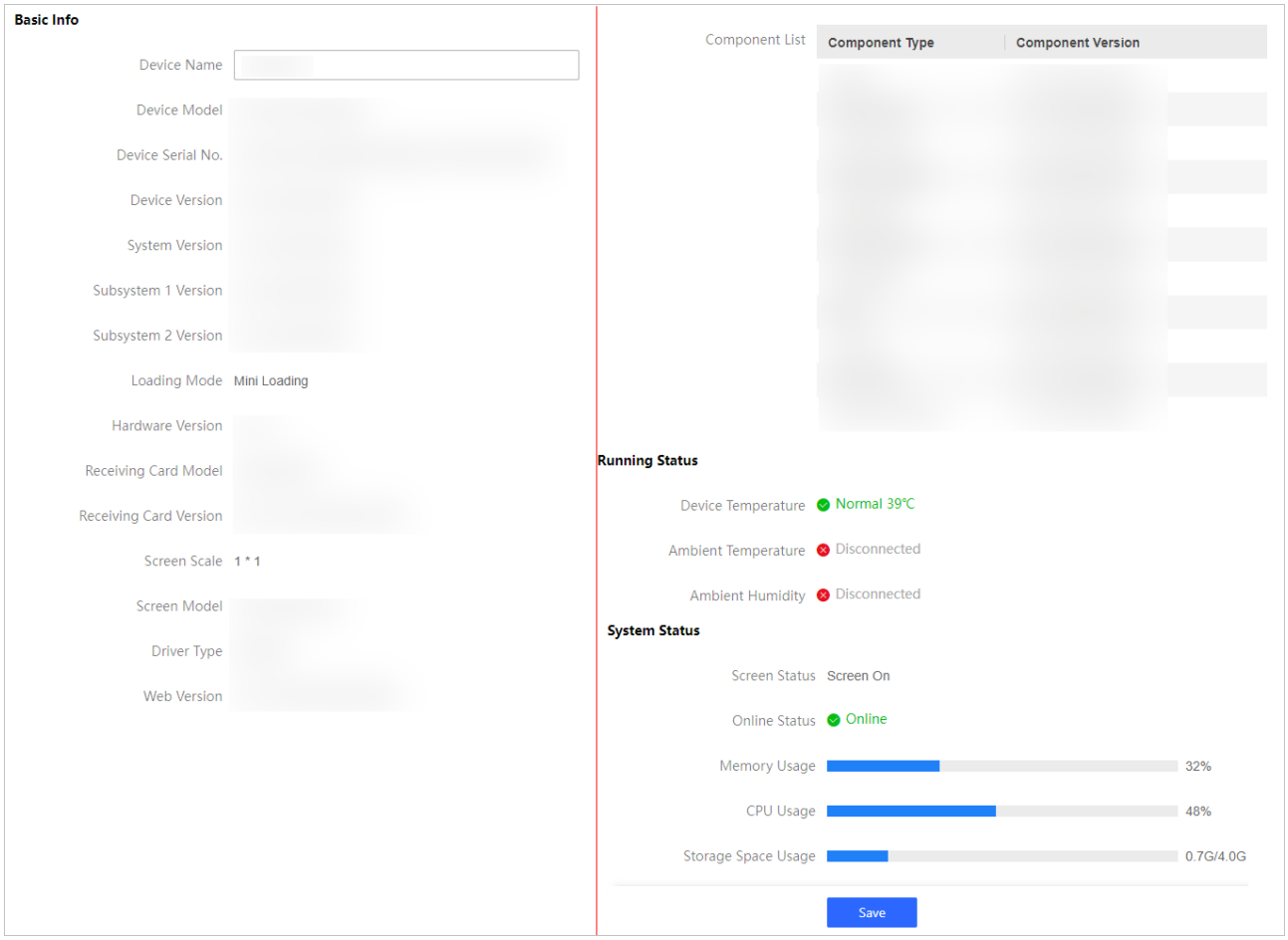

Figure 6-5 View LED Controller Information (Basic Info Page)

6.3 Configure Quick Card Change

If a receiving card is replaced after the display is lightened, you can use this function to make the program and parameters of the newly installed receiving card consistent with other receiving cards.

Before You Start

Make sure the newly installed receiving card is connected with the LED controller.

Steps

Step 1 Select a device or screen.

Step 2 Go to **Screen Maintenance** → **Screen Maintenance**.

Step 3 Click the **Receiving Card** window on the right side of the page, open **Quick Card Change**.

Step 4 Right-click on a normal receiving card and click **Copy**, and then right-click on a new receiving card and click **Paste**.

Step 5 Click **OK**.

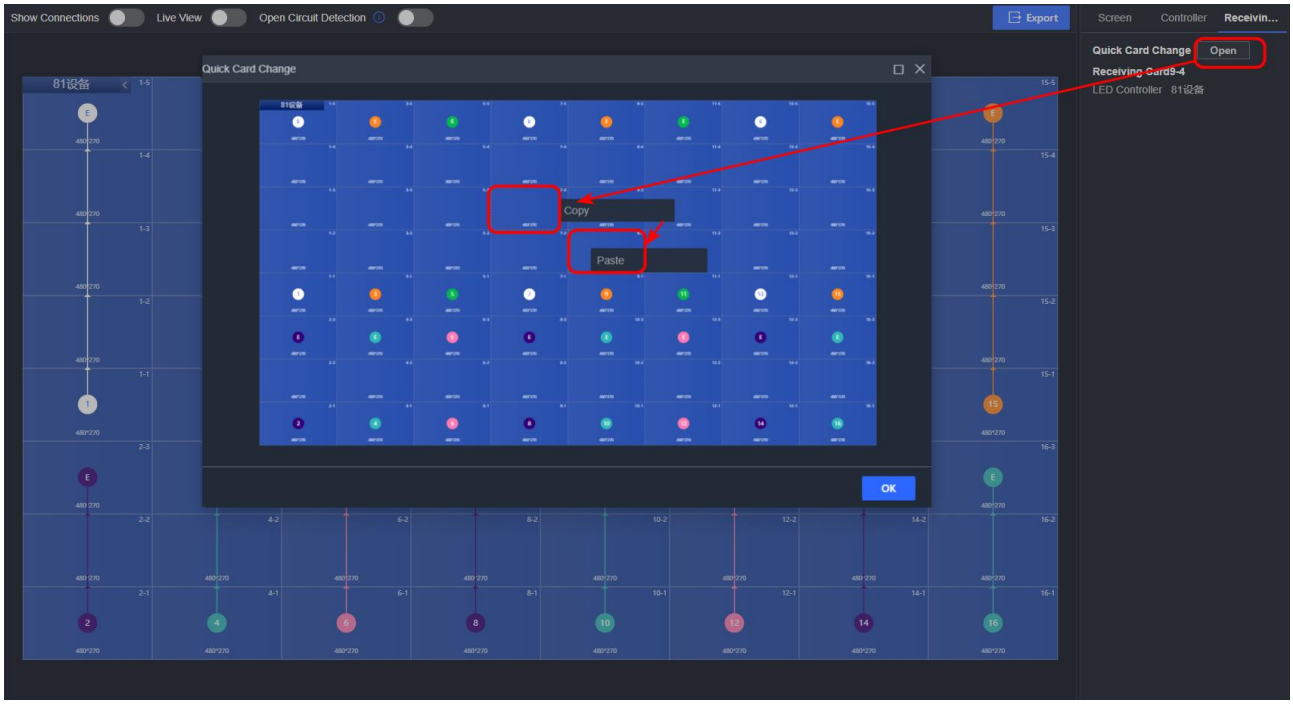

Figure 6-6 Configure Quick Card Change

6.4 Test Receiving Card Condition

Only some receiving cards support receiving card self-test.

Step 1 Select a device or screen, and go to **Screen Maintenance** → **Screen Maintenance**.

Step 2 Select a single or multiple receiving cards.

Step 3 Click the **Receiving Card** window on the right side of the page, and enable **Receiving Card Self-Test**.

Step 4 Select a pure color, gray scale, or line to check whether the screen color is normal or whether the dead pixels exist.

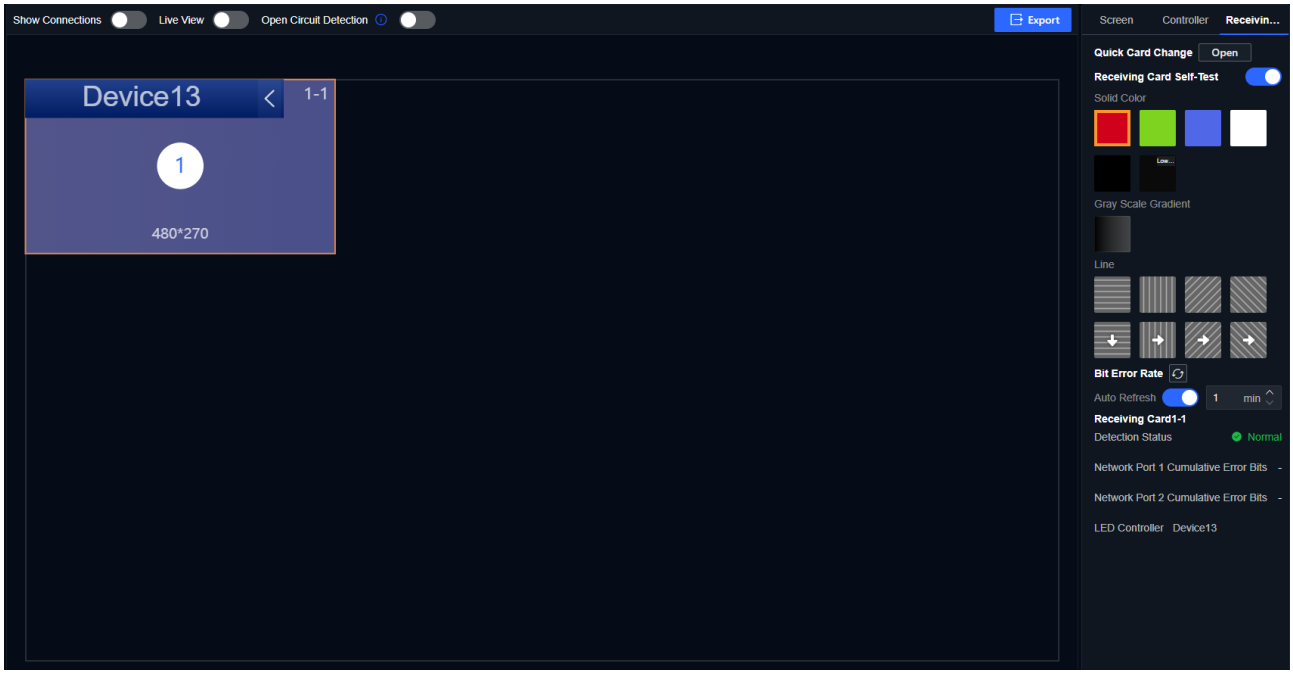

Figure 6-7 Test Receiving Card Condition

Step 5 (Optional) Adjust the auto refresh interval of bit error rate or disable auto refresh.

6.5 Maintain the Device

Select a device and go to **Screen Maintenance** → **Maintenance and Security** to perform the following operations as required:

- On the **Restart** page, you can restart the following devices:
  - An LED controller supports restarting both the LED controller itself and the connected receiving cards.
  - A video wall controller only supports restarting the receiving cards that are connected to the LED controller boards in the video wall controller.
- On the **Backup and Reset** page, export the configuration file of the LED controller or receiving card.
- On the **Backup and Reset** page, reset the device:
  - Click **Restore Default** to restore the display effect and receiving card parameters to the factory settings. Please use this function with caution.
  - Click **Restore Factory** to restore all functions and parameters to the factory settings. Please use this function with caution.
  - Click  to select a locally saved configuration file and click **Upload**.

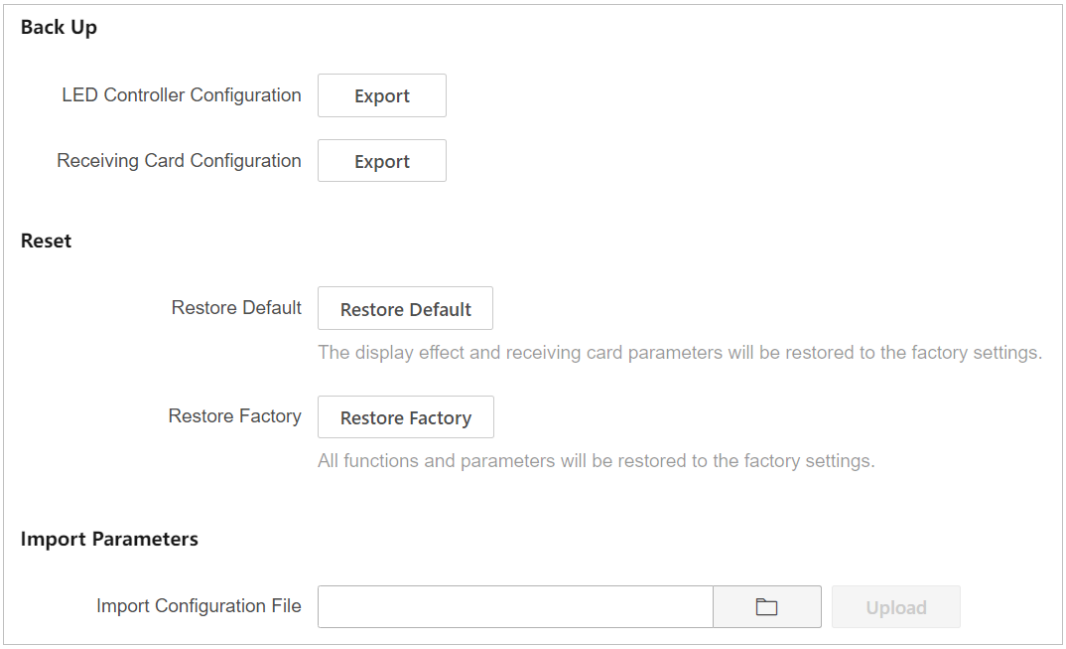

Figure 6-8 Back Up and Reset Device

- On the **Log** page, set the search condition and click **Search**. You can view the searched logs in the list below. You can click **Export** to export the logs.

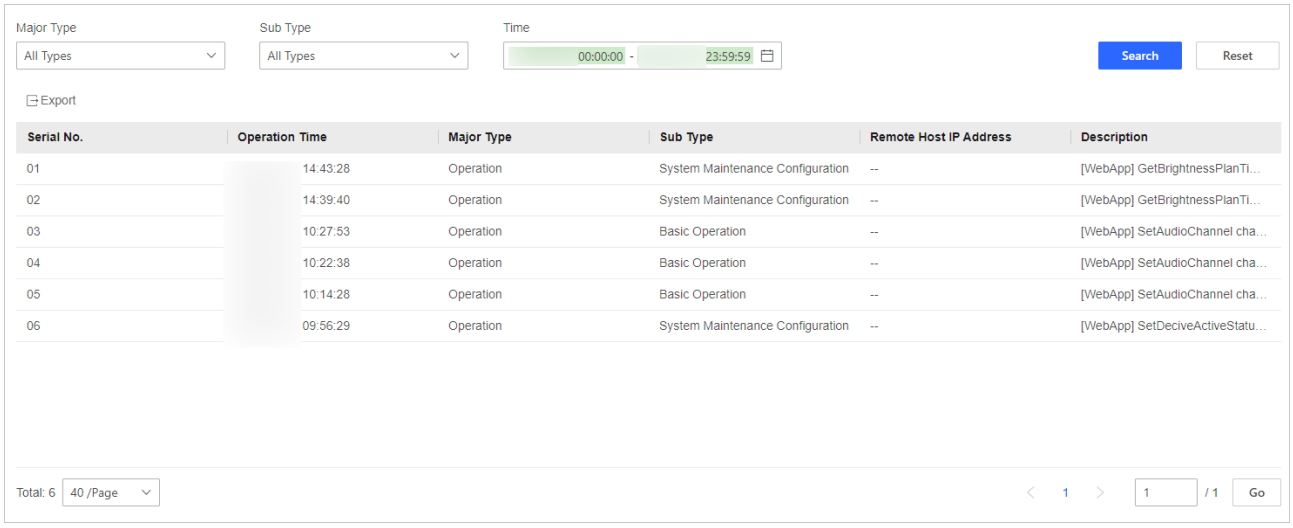

Figure 6-9 Search Logs

- On the **Device Debugging** page of a C series LED controllers, V series LED controllers, or video wall controller, enable the following functions as required:
  - Enable SSH (Secure Shell) as required. With SSH enabled, you can use a computer installed with the SSH client to access the device. If SSH is not needed, it is recommended to disable SSH to ensure network security.
  - If the device supporting dual power supply is installed with two power supplies, you can enable **Dual Power Supply**. When one power supply fails, you can view the relevant prompt on the device web page.

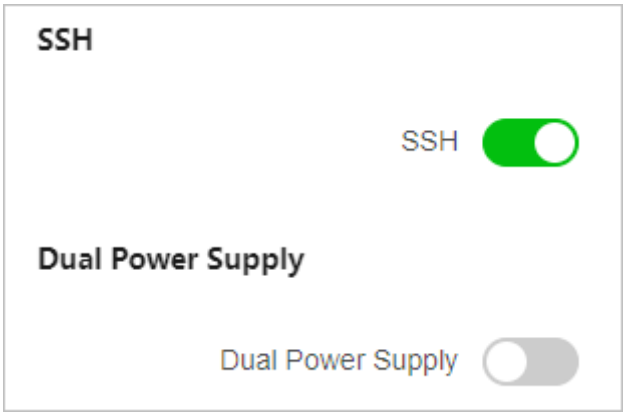

Figure 6-10 Debug C/V Series LED Controller or Video Wall Controller

- On the **Device Debugging** page of a P series LED controller, enable the following functions as required:
  - If the device supporting dual power supply is installed with two power supplies, you can enable **Dual Power Supply**. When one power supply fails, you can view the relevant prompt on the device web page.
  - Enable **Log Records** to record the maintenance logs of the Android system.
  - Click **Export** to export the ZIP file of the Android system maintenance logs.
  - Enable **ADB Debugging**, and then use the Android Debug Bridge (ADB) tool and the device activation password to maintain the device Android system.

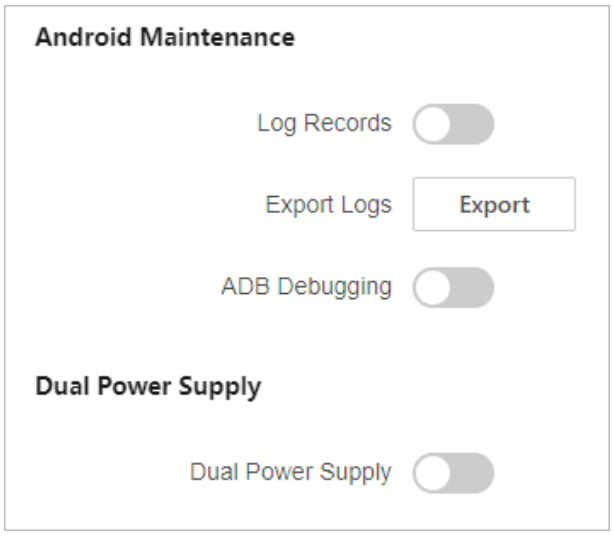

Figure 6-11 Debugging P Series LED Controller

- On the **Permission Management** page of an LED controller, turn on or off the screens controlled by the device:
  1) Enable **Screen-Off**.
  2) Select a screen-off method.
  3) Set the screen-on code. When the screens are turned off, you can go to the **Permission Management** page and enter the screen-on code to turn on the screens.

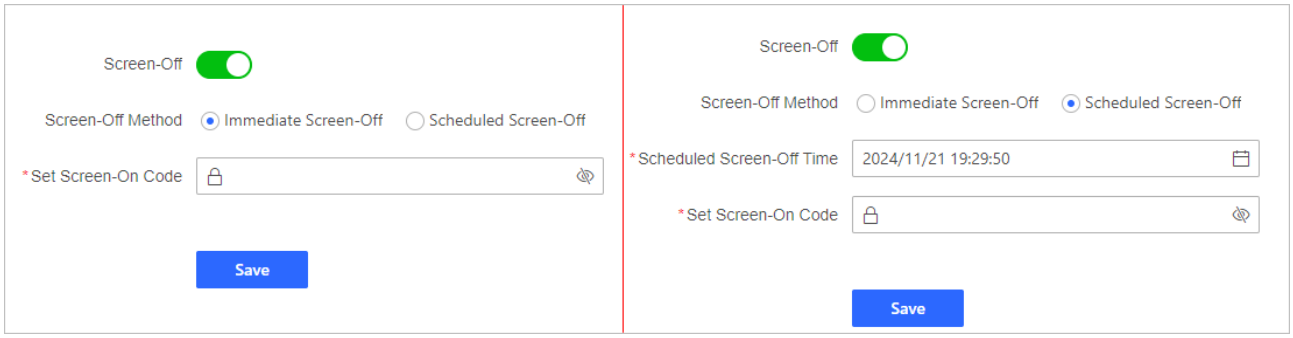

Figure 6-12 Permission Management Page

6.6 Use Toolbar

6.6.1 View Task Progress

Click  in the upper right corner of the client to open the task center to view the ongoing and completed tasks.

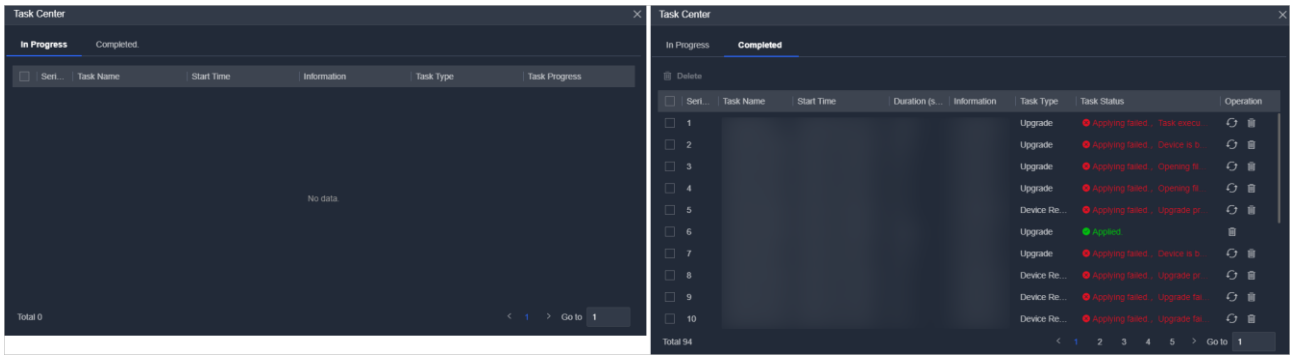

Figure 6-13 Task Center Window

6.6.2 Search for Cloud Files

The upgrade files, correction files, color files and receiving card configuration files are stored on the cloud, so you can search them from cloud and download the required files to the local computer. Thus, you can import those files to the device when the network is not available.

Step 1 Click  in the upper right corner of the client.

Step 2 Open **Cloud File Search**.

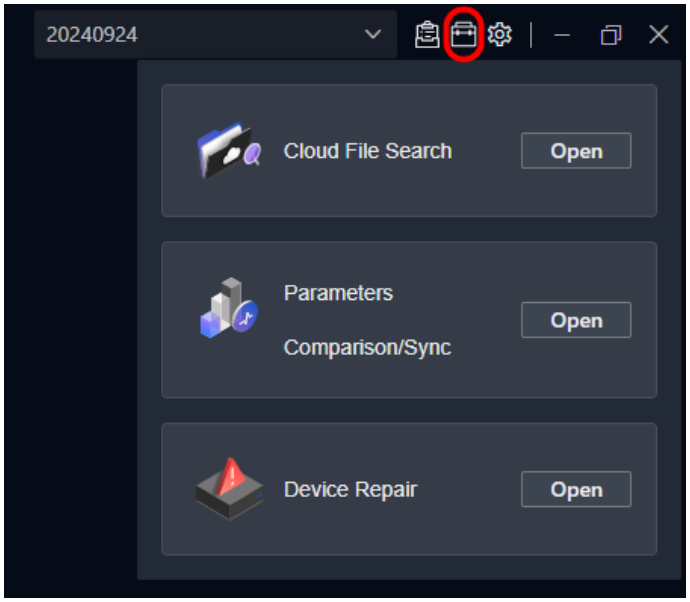

Figure 6-14 Search for Cloud Files

Step 3 Search for cloud files:

- To search for a receiving card configuration file, correction file, or color file, enter the lamp board order number, lamp board serial number, cabinet serial number, or file name on the **Configuration File** page, and then click **Search**.

Note

You can enter up to 6 space-separated keywords in the file name field. Each keyword must contain at least 3 case-sensitive characters.

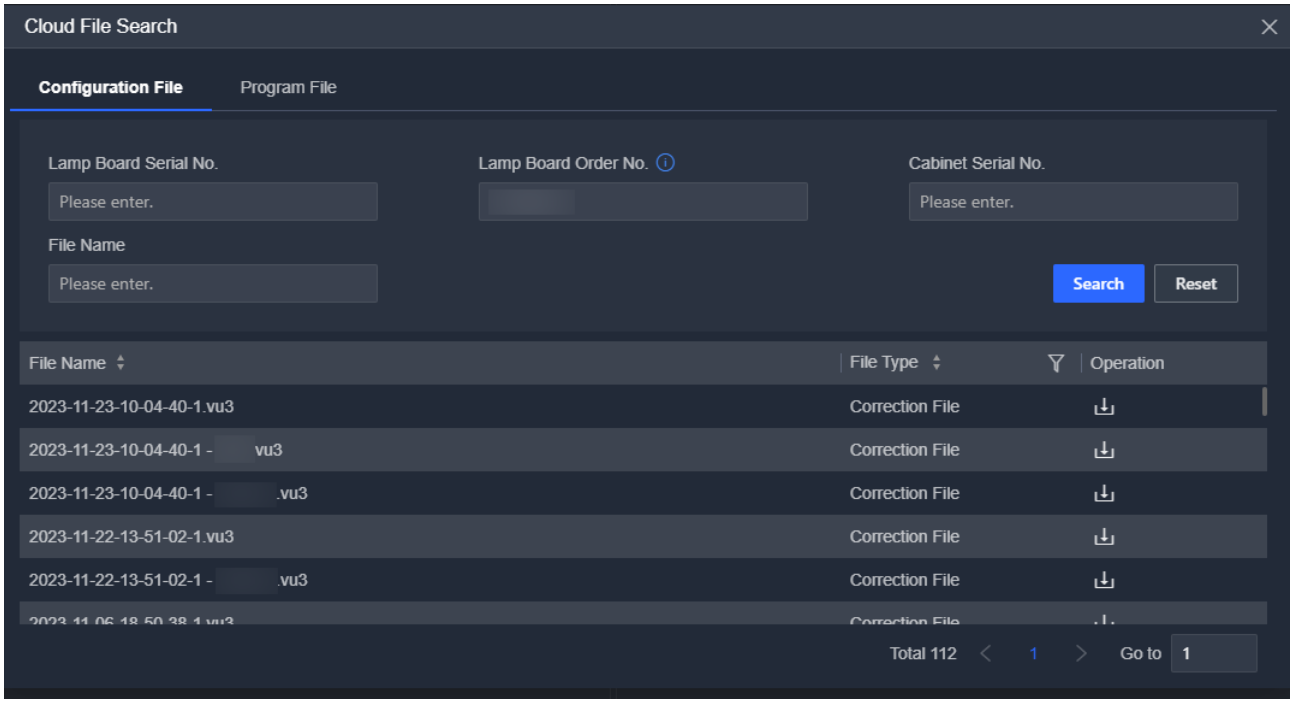

Figure 6-15 Search for Configuration Files

- To search for a receiving card program file, click **Program File**, and select a searching method:
  - If you have the configuration file saved locally and know the receiving card model, click **Program File**, select **Local Config. File Parsing**, click  to upload the local configuration file, and then click **Search**.

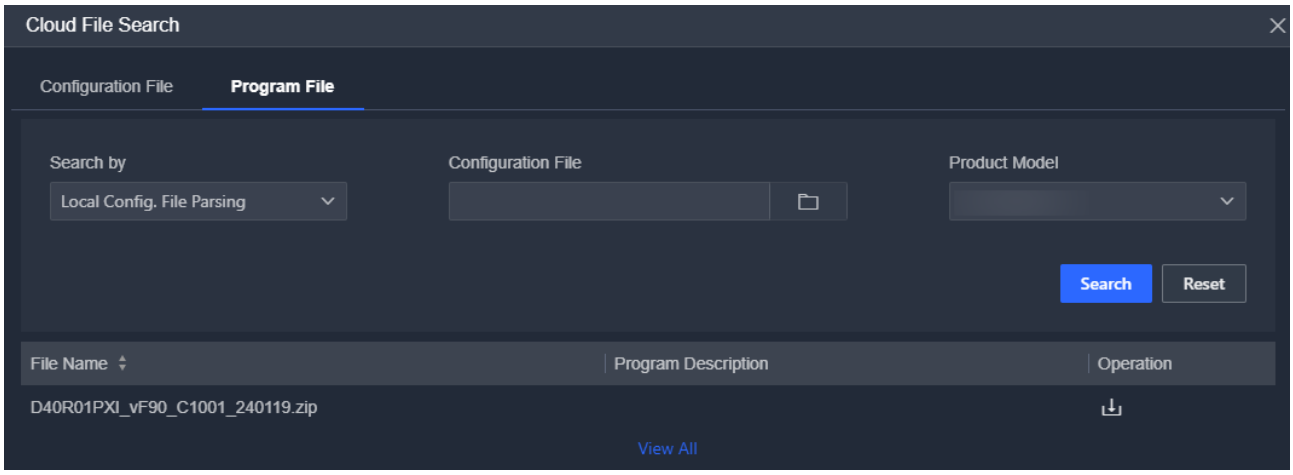

Figure 6-16 Parse Local Configuration File

  - If you know the drive model and receiving card model, click **Program File**, select **Drive IC Online Selection**, select the related search criteria, and then click **Search**.

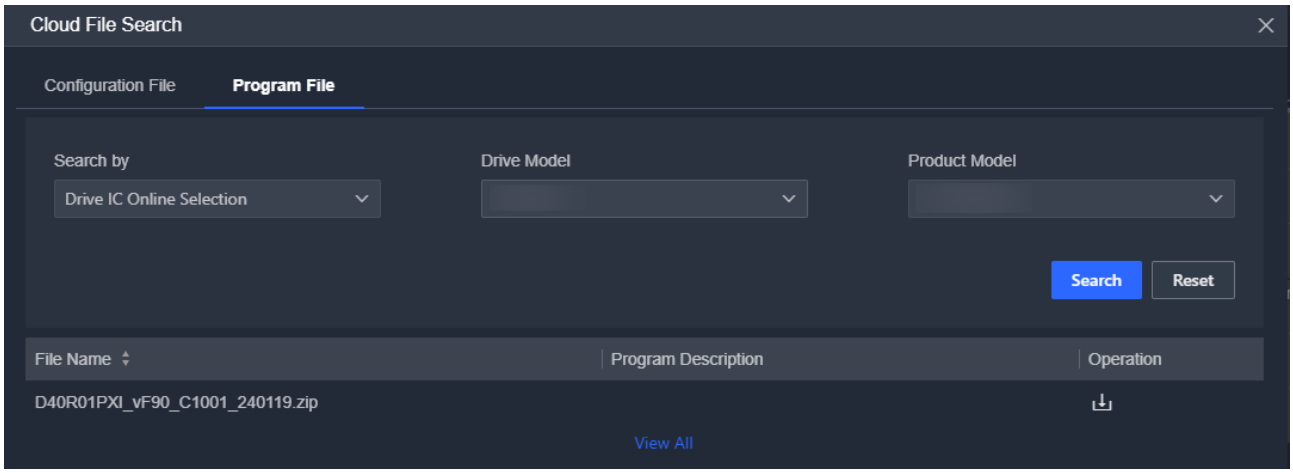

Figure 6-17 Select Drive Model

Step 4 Click  to download the required file to the computer.

6.6.3 Compare/Sync Parameters

Step 1 Click  in the upper right corner of the client.

Step 2 Open **Parameters Comparison/Sync**.

Step 3 Select multiple devices and select the comparison content.

Step 4 To synchronize the parameters of multiple devices, you can click **Sync**, select one LED controller as the standard LED controller, check the other LED controllers that need to copy the parameters, and then click **OK**.

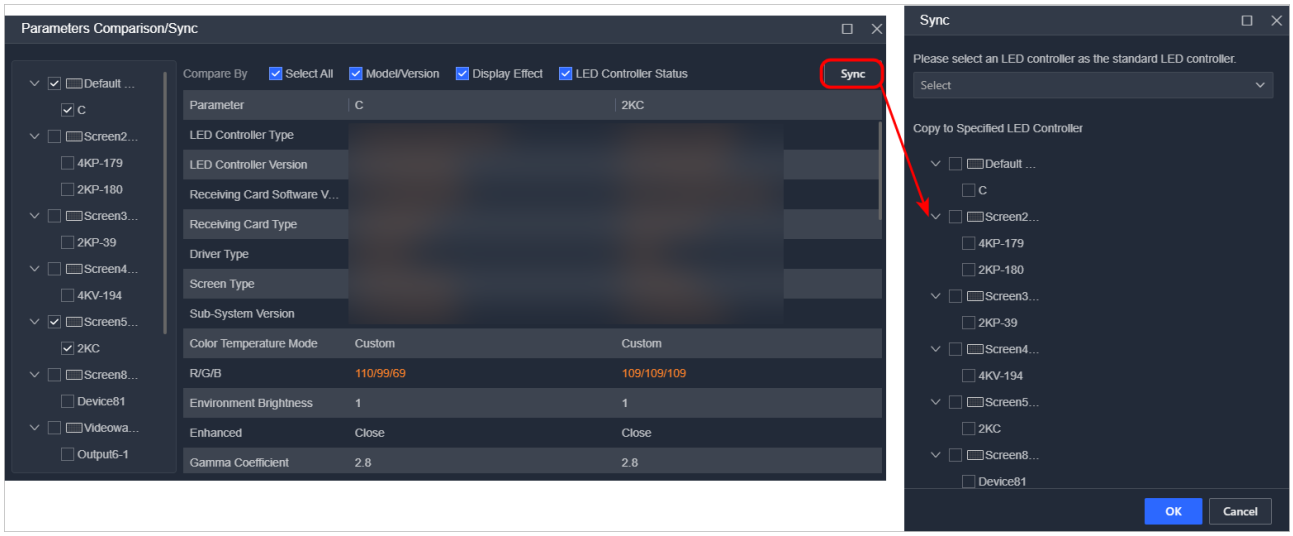

Figure 6-18 Compare/Sync Parameters

6.6.4 Repair LED Controller

If you cannot start an LED controller, contact the product supplier to obtain the upgrade file, and use the device repair function to upgrade the LED controller.

Step 1 Click  in the upper right corner of the client.

Step 2 Open **Device Repair**.

Step 3 Select a single LED controller and click **Repair by Upgrade File**.

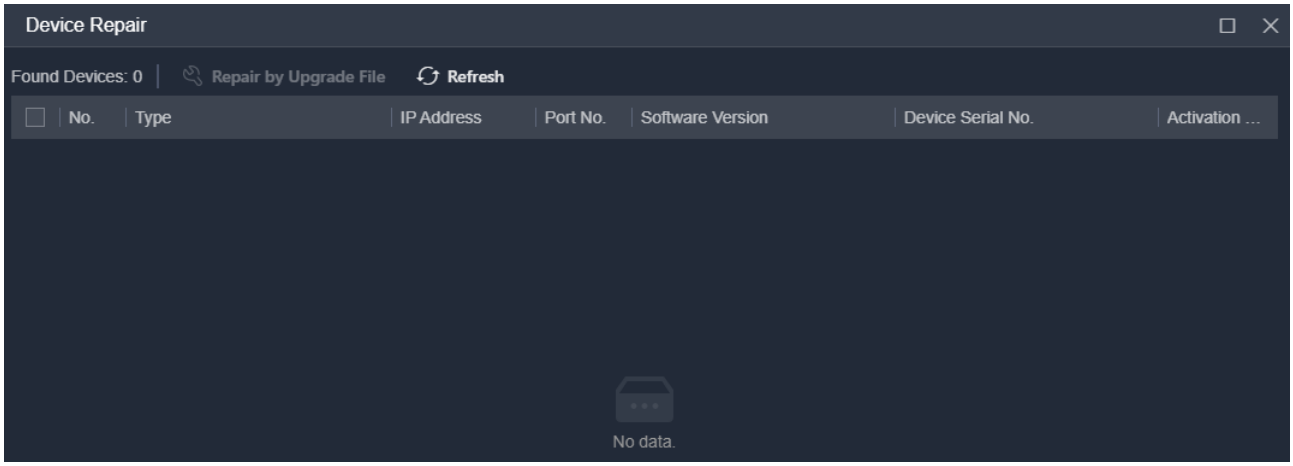

Figure 6-19 Repair LED Controller

6.6.5 Set the Client

Click  in the upper right corner of the client and configure the following parameters as required:

- Click **Settings** → **System Settings** to select a downloading path for online upgrade and system language.

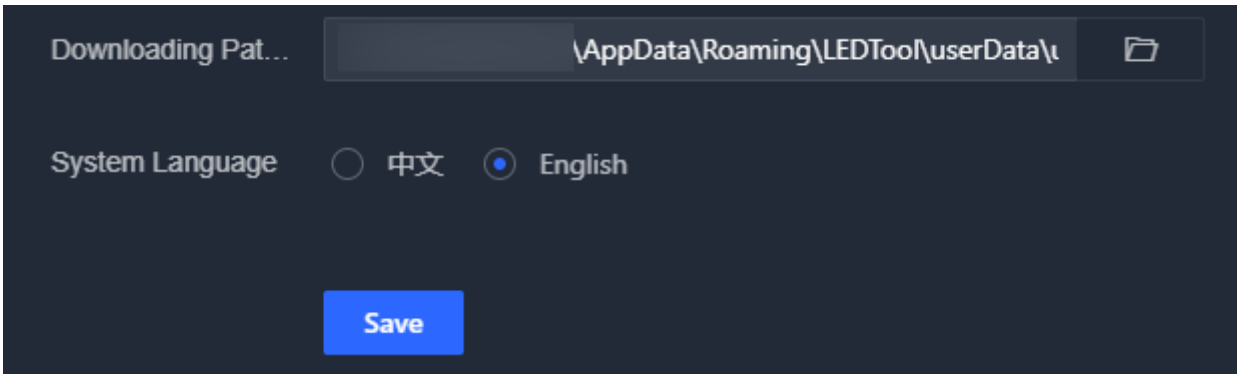

Figure 6-20 System Settings Window

- Click **Settings** → **Component Management** → **Chip Library** to view the chip library version. If you cannot find the required chip for the lamp board, you can click **Local Import** or **Online Upgrade** to upgrade the chip library. After the chip library is upgraded, the client will restart automatically.

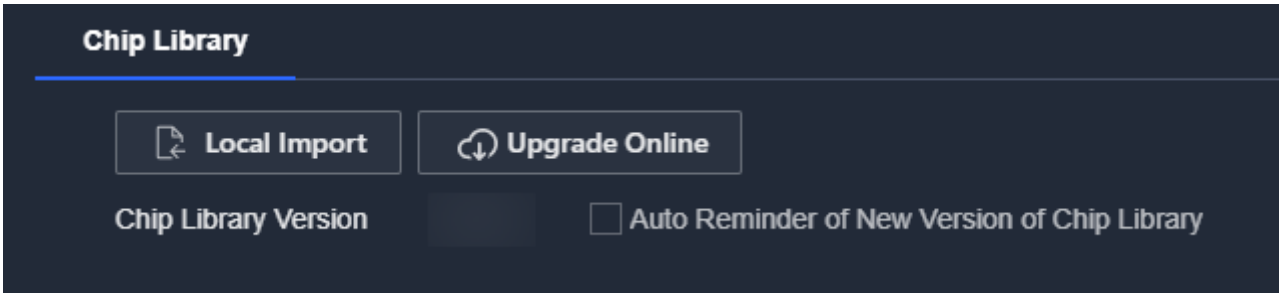

Figure 6-21 View Chip Library

- Click **Settings** → **About** to view the current software version and set the auto reminder of detected new version.

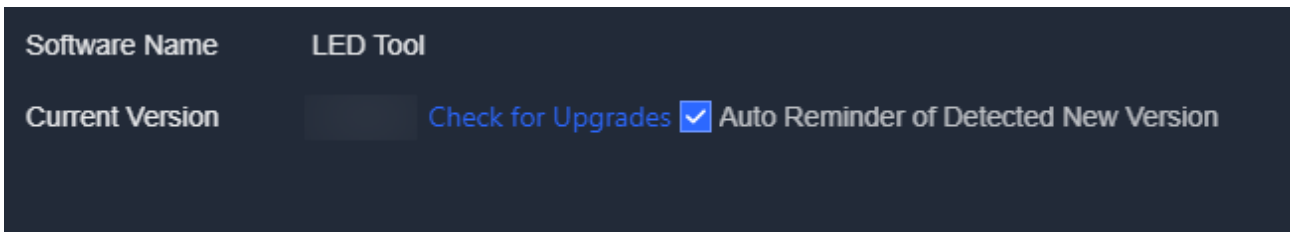

Figure 6-22 View Software Version

- Click **User Manual** to view the client user manual.



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